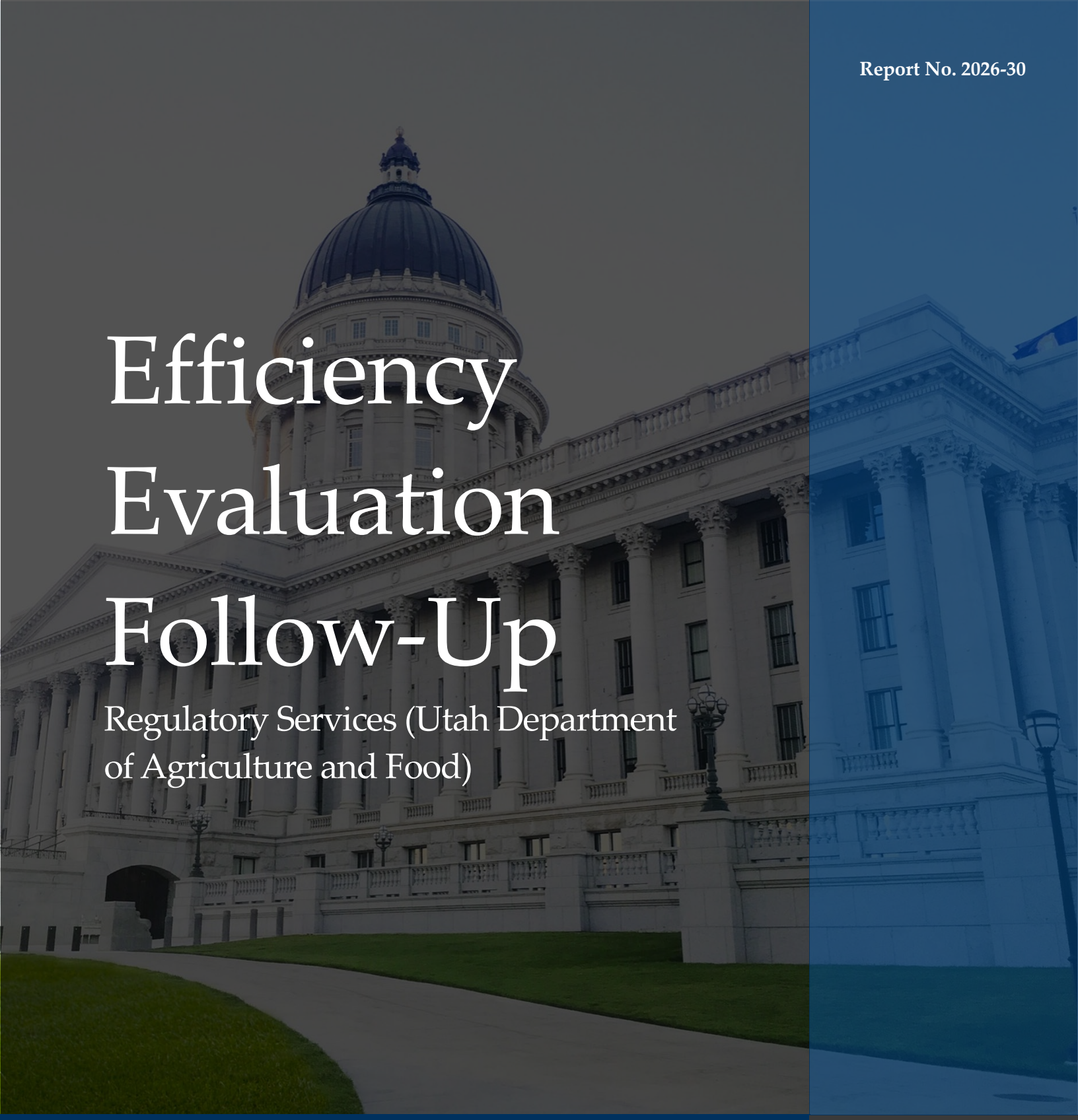
Report No. 2026-30



Efficiency Evaluation Follow-Up

Regulatory Services (Utah Department of Agriculture and Food)

Office of the Legislative Auditor General

Report to the **UTAH LEGISLATURE**

LEGISLATIVE AUDITOR GENERAL



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Audit Staff

Kade R. Minchey, Auditor General, CIA, CFE

Brian Dean, Manager, CIA, CFE

Skylar Scott, Snr. Methodologist



Office of the Legislative Auditor General

Kade R. Minchey, Legislative Auditor General

W315 House Building State Capitol Complex | Salt Lake City, UT 84114 | Phone: 801.538.1033

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OCTOBER, 20, 2026

TO: THE UTAH STATE LEGISLATURE

Transmitted herewith is our report:

"Efficiency Evaluation Follow-Up: Regulatory Services" [Report #2026-30].

A follow-up summary is found at the front of the report. The scope and objectives of the follow-up are included in the follow-up summary.

Utah Code 36-12-15(6)(c) and 63J-1-904(5) establish the statutory framework for the Office of the Legislative Auditor General (OLAG) in the efficiency evaluation process. We value our role in this process, providing feedback and an independent assessment of the progress of efficiency evaluations.

We will be happy to meet with appropriate legislative committees, individual legislators, and other state officials to discuss any item contained in the report in order to facilitate the implementation of the recommendations.

Sincerely,

Kade Minchey

Kade R. Minchey, CIA, CFE

Auditor General

kminchey@le.utah.gov



LEGISLATIVE AUDITOR GENERAL

EFFICIENCY EVALUATION FOLLOW-UP

REPORT 2026-30 | OCTOBER 2026

Office of the Legislative Auditor General | Kade R. Minchey, Auditor General

PERFORMANCE AUDIT

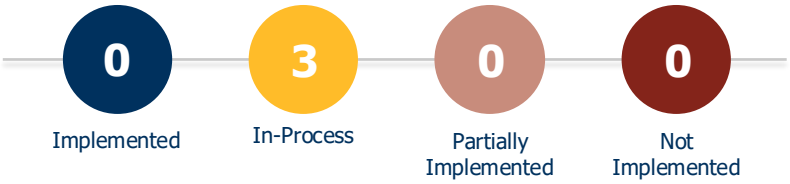
EFFICIENCY EVALUATION FOLLOW-UP: REGULATORY SERVICES

BACKGROUND

In January 2025, the Office of the Legislative Fiscal Analyst (LFA) and the Governor's Office of Planning and Budget (GOPB) released their report, Regulatory Services Efficiency Evaluation. The evaluation "identifies ways to improve the efficiency and cost-effectiveness of the Utah Division of Agriculture and Food's (UDAF) inspections to better serve businesses and customers across the state."

The evaluation made three recommendations centered around the inspection process and education of those subject to inspection and regulation. Our office followed up on these recommendations in August 2026 and found they are in process. UDAF now allows for overnight rural travel, uses cost calculators, and continues to create educational material to assist those they serve. We will continue to follow up with UDAF until all recommendations are fully implemented.

Status of Evaluation Recommendations



RECOMMENDATIONS FROM THE EFFICIENCY EVALUATION

- Strategically Prioritize Inspections.
- Standardize Agency Policies and Administrative Rules.
- Create Materials to Educate Firms on Inspections.



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Efficiency Evaluation Follow-Up: Regulatory Services

In January 2025, the Office of the Legislative Fiscal Analyst (LFA) and the Governor's Office of Planning and Budget (GOPB) released their report *Regulatory Services Efficiency Evaluation* (included in the Appendix of this report). This evaluation focused on the Division of Regulatory Services within the Utah Division of Agriculture and Food (UDAF or division). Within UDAF, the Division of Regulatory Services inspects and monitors food, weights and measures, dairy, bedding, upholstered furniture, and quilted clothing. They play an essential role in protecting public health and promoting fair and equitable trade.

The evaluation made three recommendations to the division, centered on both improving inspections internally and creating external education. The three recommendations from the evaluation are the following: (1) strategically prioritize inspections, (2) standardize agency policies and administrative rules, and (3) create materials to educate firms on inspections. These recommendations support UDAF's strategic goals of both education and customer service.

Since the original evaluation, UDAF has made progress on all three recommendations. Each recommendation is in process. For instance, UDAF uses internal calculators to support decision of rural overnight stay. Inspector rosters (or routes) now map out efficient inspection schedules by area (Recommendation 1). UDAF has published policy allowing for extended workdays and overnight lodging (Recommendation 2) and external material to assist applicants and those UDAF is inspecting (Recommendation 3). UDAF will continue working with GOPB and LFA to fully implement each recommendation.



Recommendation 1: Strategically prioritize inspections. *In Process*

Recommendation 2: Standardize agency policies and administrative rule. *In Process*

Recommendation 3: Create materials to educate firms on inspections. *In Process*

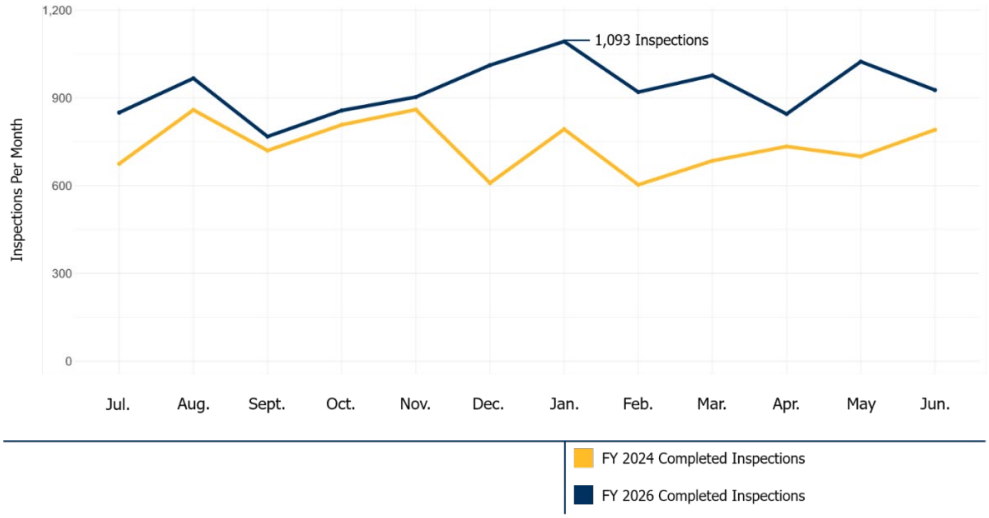
Recommendation 1 Update: Cost Calculators, Overnight Stays, and Schedule Flexibility Allow More Rural Inspections

Inspectors use clustering and cost calculators to estimate the expense of overnight lodging and overtime to gauge potential savings and inspection efficiency. Regulatory services inspect a range of industries in Utah, such as manufacturing of food to bedding, furniture, and weights. Using a town or zip code, inspectors group their roster and select inspections within the same area. Using a cost calculator, inspectors compare the cost of an overnight stay to the time and travel to a rural area. From the examples we reviewed,[1] potential savings from utilizing these methods range from $70.58 to $5,788.01, with an average of $839.43. One inspector said of the cost calculator, "It shows a clear cost and benefit, so I know when it makes sense to stay overnight. It's been helpful." Rural overnight travel is not only cost efficient but also allows inspectors more time to complete inspections. Prior to this evaluation, formalized policies for rural inspections had not been established.

The cost calculator "shows a clear cost and benefit, so I know when it makes sense to stay overnight…"

As seen in Figure 1, UDAF completed an average of 929 inspections per month in fiscal year 2026, which is higher than the years observed in the original evaluation.

Figure 1 Total Inspections in Fiscal Year 2026 Increased From Fiscal Years Analyzed in the Original Evaluation. Average monthly inspections have increased 26.1% from fiscal year 2024 to fiscal year 2026.

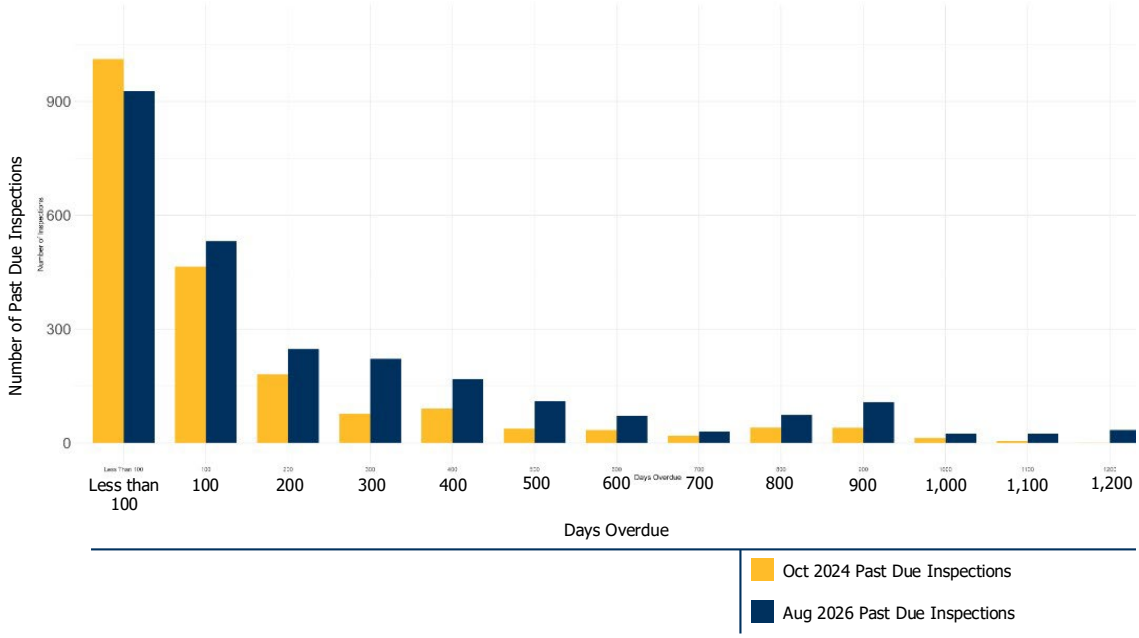


Source: Auditor generated from data in Food Safety Management System data and prior evaluation.

[1] We reviewed a limited sample of 15 examples, 13 of which showed potential savings and 3 showed potential cost. We generated these estimates using a calculator that LFA developed and that UDAF provided.

Inspections have increased, while overdue inspections, as duplicated from the original evaluation, remain at about 2,000.[2] As seen in Figure 2, most of the inspections are overdue by less than eight months. However, overdue inspections over eight months are increasing as compared to fiscal year 2024.

Figure 2 Like the Original Evaluation, UDAF Has Approximately 2,000 Overdue Inspections. By comparison to the original evaluation, past-due inspections over 8 months past due have increased.



Source: Auditor generated from all past-due inspections on August 3, 2026, and October 24, 2024. LFA provided the October 2024 inspection counts.

The current snapshot of the past-due inspection data shows the following:

1. Of the August 2026 inspections, 61.8% are overdue by under eight months, as compared to about 75% at the time of the evaluation that LFA and GOPB completed.
2. Of the August 2026 inspections 38.2% are overdue over eight months, as compared to about 25% at the time of the evaluation that LFA and GOPB completed. This represents an increase of 13.2%.
3. Outliers of data, like in the original evaluation, are still present.

Leadership felt that multiple factors may have caused the shift in more overdue inspections greater than eight monhts. These factors include interstate dairy hauler and tanker inspections and recent staff vacancies. Staff vacancies leave

[2] 1,965 distinct cases on August 3, 2026.

areas without an inspector and can further delay past-due inspections . To reduce past-due inspections, UDAF uses an individual past-due report. The past-due report gives inspectors a snapshot of how many inspections are past due and helps them set goals to reduce that number. Supervisors use this tool to review progress and performance. Our office will continue to report on past-due inspections on later follow-ups. In addition to changing how UDAF performs inspections, UDAF has assigned four risk levels to each inspection, ranging from very low to high. These risk levels also inform prioritization of inspections. We will report on the progress of high-risk inspections in our subsequent follow-up.[3]

The past-due report gives inspectors a snapshot of how many inspections are past due and helps them set goals to reduce that number.

UDAF has completed more inspections and is making progress toward implementing the recommendations. It will continue to refine clustering to determine the order inspections should be completed to avoid backtracking, to standardize prioritization of inspections, and to refine the cost calculator. As they pursue standardization and fill vacant positions, leadership expects the number of overdue inspections to decrease.

Recommendation 2 Update: UDAF Formalizes Flexible Workdays, Overnight Lodging, and Follow-Up Inspection Fees to Increase Efficiency

UDAF has formalized policy that allows inspectors overnight stays and flexible work schedules when performing inspections in rural areas. These adjustments have reduced costs and increased inspections. Overnight stay is available when travel distance is greater than 150 miles or is approximately 2.5 hours of travel. Overtime needs supervisor approval.

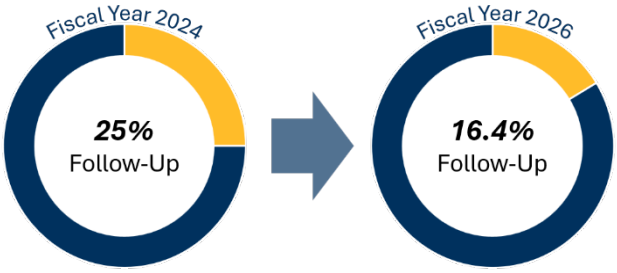
The original evaluation also considered inspection efficiency by reducing the amount of follow-up inspections. In the original evaluation, about 25% of inspections required follow-ups. UDAF has formalized policy to disincentive follow-ups with a $300 fee for a second failed follow-up inspection. These fees increase as the party responsible continues to fail inspection.

UDAF has formalized policy to disincentive follow-ups with a $300 fee for a second failed follow-up inspection.

[3] From our snapshot during this follow-up, 32.3% of past-due inspections were high risk.

As seen in Figure 3, 16.4% of inspections are follow-up inspections. This percentage decreased from 25% in fiscal year 2024.

Figure 3 The Percentage of Follow-Up Inspections Has Decreased Since the Initial Evaluation. This decrease may be due to increased inspections or a result of the second failed follow-up fee.



Source: Auditor generated from FSMS past due report and compared to LFA and GOPB's 2024.

During our field work, UDAF drafted a virtual inspection policy and anticipates making modifications to the travel calculator. As UDAF continues to develop policy, it aims to implement other recommendations from LFA and GOPB's evaluation, like batching.

Recommendation 3 Update: Educational Material Provides Targeted Information of UDAF Policy and Processes

UDAF has established new program guides for common applicants like cottage foods, food labeling and marketing at farmers markets. UDAF has also simplified materials by providing new "one-pagers" with bulleted information of processes and requirements for farmers markets. UDAF uses design elements like color coding and bullet points for ease of reading. Along with educational material, the department added information about what to expect on applications to inform normal processes and wait times. These materials, combined with future education material can help customers identify issues prior to inspection.



UDAF will continue to build on current educational material to clients, including those recommended in the evaluation like common pitfalls and the self-evaluation checklists.

Follow-Up Will Occur Until All Recommendations Are Implemented

As a part of the evaluation process, GOPB and LFA will continue to work with UDAF to help fully implement the three recommendations. UDAF has made significant progress with the recommendations. Our office will continue to follow up until all recommendations are implemented. We will review the following:

- Recommendation 1: Strategically prioritize inspections
- Recommendation 2: Standardize agency policies and administrative rules
- Recommendation 3: Create materials to educate firms on inspections



Complete List of Audit Recommendations



Complete List of Recommendations

The original efficiency evaluation made the following three recommendations.

Recommendation 1

Strategically prioritize inspections.

Recommendation 2

Standardize agency policies and administrative rules.

Recommendation 3

Create materials to educate firms on inspections.





Appendix



A. Regulatory Services Efficiency Evaluation





Governor's Office of Planning & Budget and
Office of the Legislative Fiscal Analyst

Regulatory Services Efficiency Evaluation

A Report for the Utah Department of Agriculture and Food

January 2025

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Executive Summary

The Governor's Office of Planning and Budget (GOPB) and the Office of the Legislative Fiscal Analyst (LFA) collaborated with the Utah Department of Agriculture and Food (UDAF) to conduct an efficiency evaluation of the Regulatory Services process and inspections. This efficiency evaluation specifically identifies ways to improve the efficiency and cost-effectiveness of UDAF's inspections to better serve businesses and customers across the state.

The evaluation concluded with three primary enhancement areas:

- **Tools:** UDAF's inspection teams would benefit from additional tools (detailed within this report) that enable them to see the whole picture of pending inspections. This would help supervisors and inspectors strategically optimize their travel routes when going to or from inspection locations. The team could provide more timely services, particularly in more rural regions, and easily prioritize waiting inspections. This would lead to more efficient and effective use of everyone's time, with a higher likelihood of success for all stakeholders.
- **Policies:** UDAF should review agency policies to allow their inspectors more flexibility based on situational needs, and to incentivize businesses to pass inspections.
- **Education:** UDAF and its customers would mutually benefit from developing more accessible, plain-language, educational materials that would better prepare facilities to pass inspections on the first attempt. This would limit the amount of rework and time UDAF staff spends on follow-up visits, in addition to minimizing customers' frustration throughout this process. This would limit the amount of rework and the amount of time UDAF staff spend on follow-up visits, in addition to minimizing their customers' frustration while continuing to provide needed checks and balances in the public's interest.

Recommendations

1 Strategically Prioritize Inspections

2 Standardize Agency Policies and Administrative Rules

3 Create Materials to Educate Firms on Inspections

Introduction

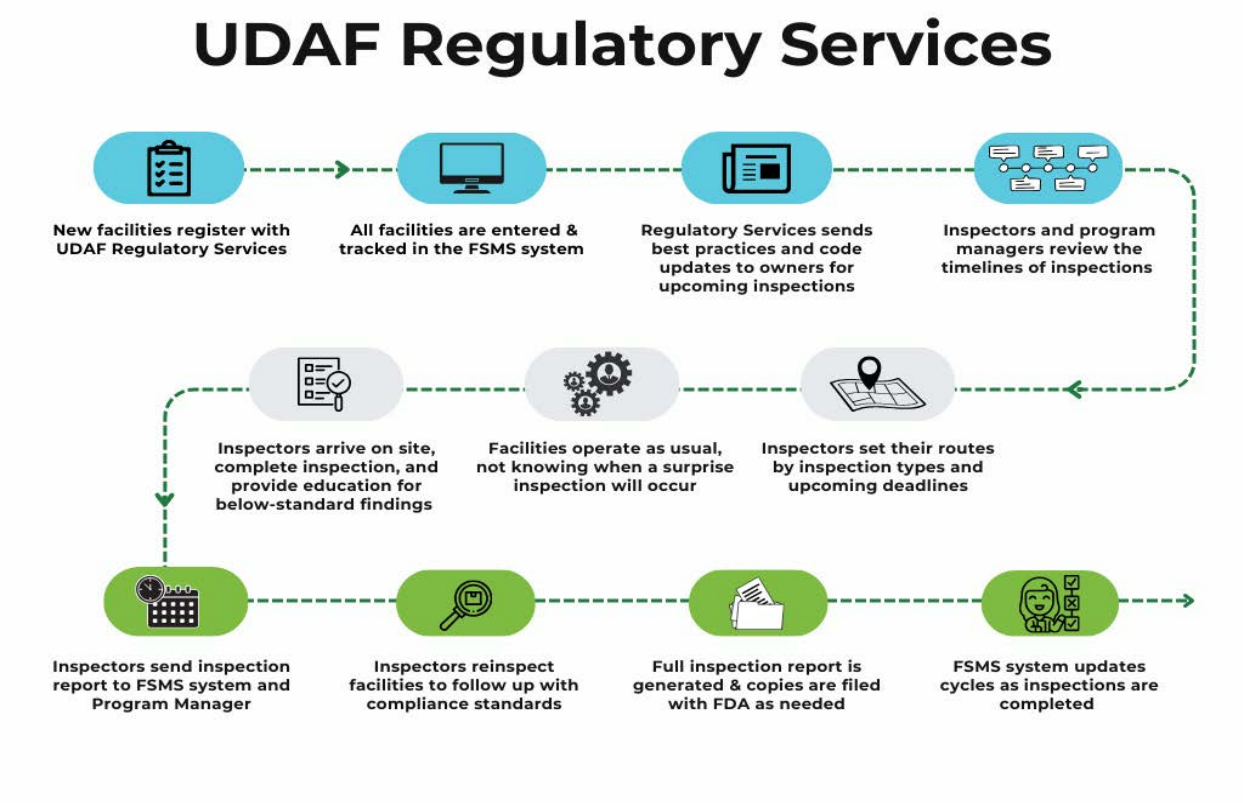
The Division of Regulatory Services, within the Utah Department of Agriculture and Food (UDAF), regulates products made in Utah's 29 counties. Regulatory Services inspects and monitors “areas of food, weights and measures, dairy and bedding, upholstered furniture and quilted clothing.”[1] Commercial establishments register with UDAF in order to comply with statutory and regulatory policies. UDAF then sends Regulatory Services inspectors to verify compliance with all product manufacturing safety and quality procedures. Regulatory Services also provides contractual inspections of programs that fall under the federal Food and Drug Administration (FDA) jurisdiction.

Serving establishments across the entire state with finite resources requires a variety of strategic logistical considerations. For the purposes of this efficiency evaluation, the Legislative Fiscal Analyst (LFA) Office and Governor's Office of Planning and Budget (GOPB) primarily analyzed UDAF's inspection routes, educational materials, and procedures of the food and dairy programs. The scope did not include weights and measures or furniture and upholstery programs, though those programs might likewise benefit from the recommendations and should be included as interested parties in the implementation phase to see what practices can be applied in those areas.

[1] *https://ag.utah.gov/businesses/regulatory-services/*

Recommendations

Figure 1: UDAF Regulatory Services Inspection Process Map.



Recommendation 1

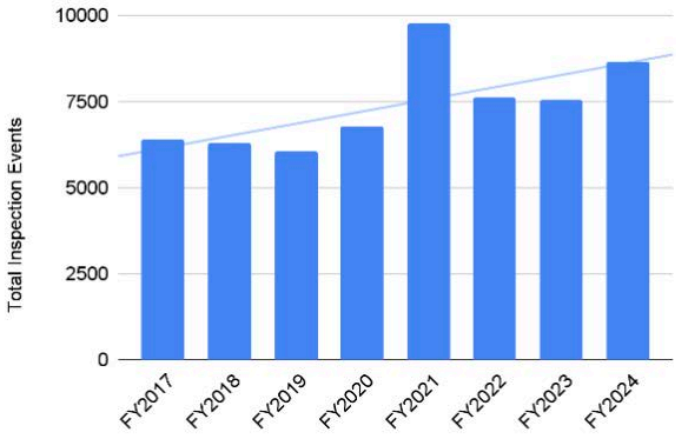
Strategically Prioritize Inspections

Desired Outcome: *Identify ways to improve the efficiency and cost-effectiveness of Utah Department of Agriculture and Food (UDAF) inspections in order to better serve businesses and customers across the state.*

The Regulatory Services team completes thousands of inspection events across the state annually, with increasing volume over the last eight fiscal years (see Figure 1). This work is crucial to support food safety and fair business practices throughout Utah. However, some of the division's inspection scheduling and assignment processes could be improved to reduce long travel times for inspectors in rural areas and reduce a backlog of past-due inspections.

This section first addresses the current state that is yielding lengthy travel times and inspection backlogs, then poses opportunities to improve these outcomes through more efficient scheduling and assignments.

Figure 2: Annual Inspection Event Volume by Fiscal Year, FY FY 2017-2024.



Current Challenges: Long "Windshield Times" and Backlogged Inspections

For inspectors whose assignments cover a large area, the long “windshield” (travel) times limit the number of inspections that can be performed within any given work day or in the course of any trip. The need to travel long distances also results in higher costs to the division for mileage, fuel, hotel stays, and other travel expenses. Figure 3 shows the drive times and distance traveled for Inspector A, with more than 97% percent of their inspections in Salt Lake County (yellow fill). In contrast, the chart shows two inspectors (B & C) with assignments distributed across multiple rural counties have significantly higher drive times and distances traveled from their home cities.

As this figure shows, Inspector A can complete a round trip to their farthest inspection area within an hour. On the other hand, Inspector B would spend four to five hours on a round trip driving to Gunnison and Monticello. Drive times to these inspections can significantly reduce the proportion of work time available to conduct inspections in a typical eight-hour work day.

The impacts of long travel times can be exacerbated by inefficient route planning. From our fieldwork, it appears there are few tools or standard practices in place to help inspectors plan efficient, optimized routes and schedules. UDAF tracks the facilities and inspection results around the state in the Food Safety Management System (FSMS).

When the inspectors access the FSMS system to view their upcoming inspection assignments, they can see a sortable list of establishments. The inspectors would benefit from pairing this list with a mapping tool or recommended prioritization of inspections (see Figure 4). Possible solutions will be discussed below in Efficiency Opportunity #2.



Figure 5 illustrates actual routes traveled by an inspector in October 2024 (taken from FSMS).[2] Each color represents a unique work day. It reveals, in part, that the inspector 1) visited the same remote ZIP code multiple times during the same month; and 2) traveled long distances, bypassing locations with upcoming inspections, only to return to those locations on a different date. While the route displayed is for demonstration purposes, inspection routes across all regions were found to contain inefficiencies. By adding tools that enable inspectors to visualize the existing workload, they could better plan their routes and strategically prioritize their work.

[2]The displayed route shows stops at unique locations for October 2024. Each color displayed represents a specific day. For example, all orange markers represent unique locations visited on the same day. Most notably, the most inefficient stops are displayed as green marker “2,” red marker “3,” and black marker “4.” Another likely inefficient stop is shown by the yellow marker within the group of orange markers. These markers show the inspector had to travel a long distance to revisit an area where inspections were previously completed. Please note, this image is not representative of the number of inspections that were completed on a given day or within the month of October in Washington County. Instead, it is a representation of unique locations that were visited, and multiple inspections may have been conducted at a single location (e.g., different departments of a grocery store).

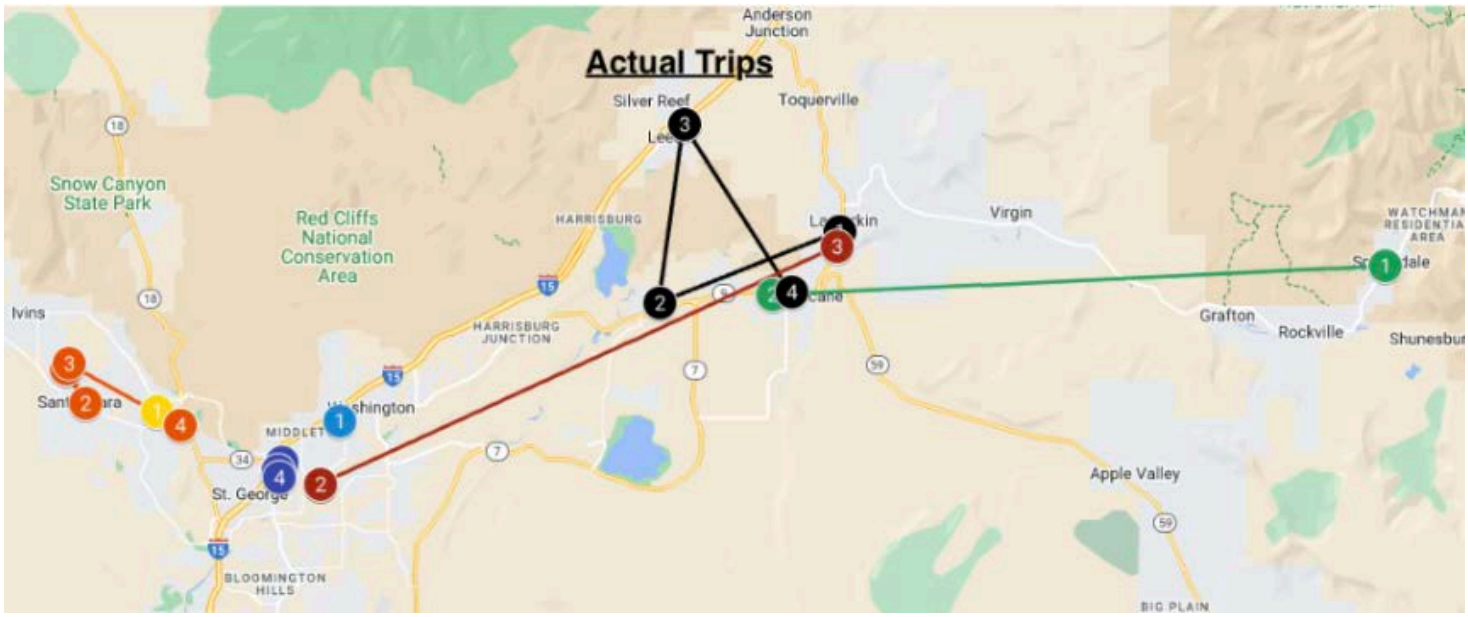
Figure 3: Drive Times and Distance Traveled for Inspector A

	Inspector A Taylorsville, UT			Inspector B Price, UT			Inspector C Henefer, UT		
Direction	City (County)	Distance Miles	Time Minutes	City (County)	Distance Miles	Time Minutes	City (County)	Distance Miles	Time Minutes
North	Rose Park (Salt Lake)	10	12	Gunnison (Sanpete)	119	120	Morgan (Morgan)	14	15
East	Cottonwood Heights (Salt Lake)	9	15	Moab (Grand)	116	109	Vernal (Uintah)	170	174
South	Bluffdale (Salt Lake)	18	20	Monticello (San Juan)	169	164	Heber City (Wasatch)	42	47
West	Magna (Salt Lake)	13	23	Richfield (Sevier)	121	116	Salt Lake (Salt Lake)	52	54

Figure 4: FSMS Inspector View of Upcoming Inspection Assignments

Establishment Name	Location Address	City, State Zip	County	Customer	Facility Type	Last Inspection	Inspection Due
SALT CITY TREATS-Candy	16294 BRINGHURST BLVD # 500	BLUFFDALE, UT 84065	Salt Lake	12246576	Candy	08/27/2024	08/16/2025
SERENDIPITY TRADING LLC-Prepackaged Only - Small Amount	14663 S 855 W	BLUFFDALE, UT 84065	Salt Lake	12243821	Prepackaged Only - Small Amount	02/25/2024	**09/27/2024**
THEBRIGHTON STORE-Convenience(Grocery)	8019 S BRIGHTON LOOP RD	BRIGHTON, UT 84121	Salt Lake	12241942	Convenience(Grocery)	03/27/2023	**03/21/2024**
DESERET BOOK-Prepackaged Only - Small Amount	6972 S PARK CTR DR	COTTONWOOD HEIGHTS, UT 84121	Salt Lake	116900	Prepackaged Only - Small Amount	12/30/2024	12/25/2025
DOLLAR TREE #5822-Convenience(Grocery)	2332 E FORT UNION BLVD STE A	COTTONWOOD HEIGHTS, UT 84121	Salt Lake	108960	Convenience(Grocery)	12/30/2024	12/25/2025
WALGREENS #10731-Convenience(Grocery)	2330 E FORT UNION BLVD	COTTONWOOD HEIGHTS, UT 84121	Salt Lake	85479	Convenience(Grocery)	12/30/2024	12/25/2025

Figure 5: An Inspector's Routine Inspection Routes in October 2024

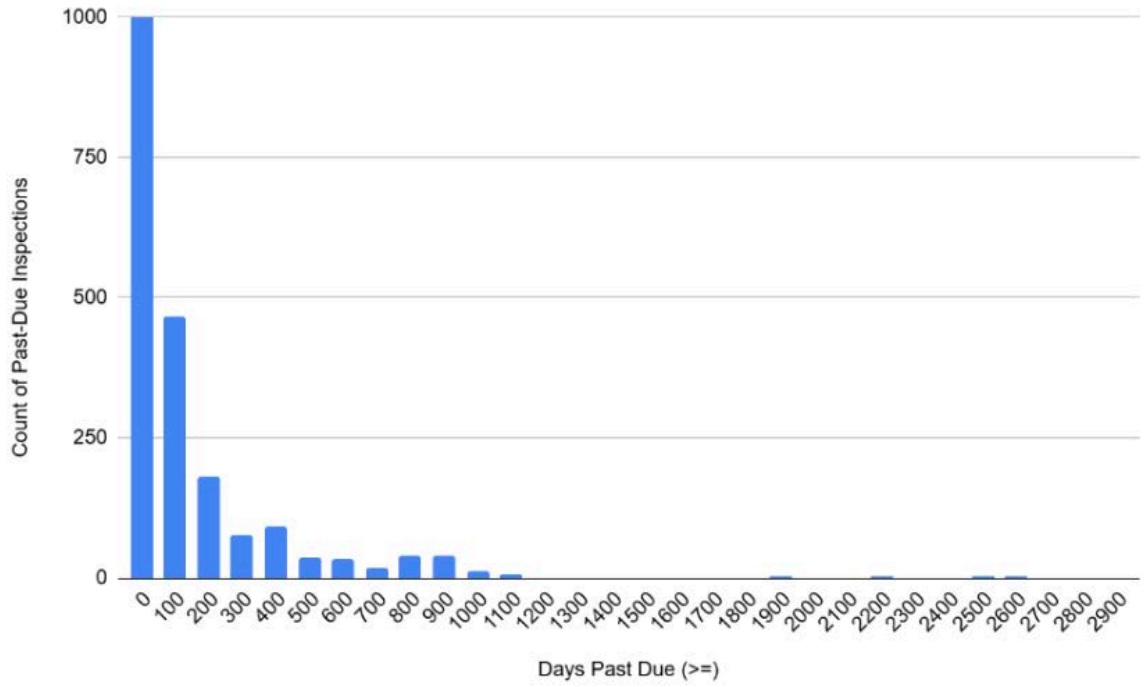


The division also strives to reduce its backlog of past-due inspections, since staying current on the inspection process is a primary way to keep consumers safe. Inspections may become past due for a variety of reasons, such as staffing turnover, the increasing volume of food and dairy establishments in the state, or the difficulty of conducting unannounced inspections at establishments with seasonal or unpredictable operating schedules. FSMS data as of October 24, 2024 showed about 2,000 outstanding past-due inspections.[3]

Conversations with division staff indicated a sense that this backlog has been growing, perhaps due to a combination of factors such as staff turnover and an increasing number of establishments in the state. However, our team was unable to confirm this using FSMS data because the current user interface only provides current snapshots of past-due events rather than historical trendlines.

[3] *The actual number is likely lower due to some data cleaning needs and special circumstances such as shared milk tank truck inspections with Idaho that have not been marked as completed in FSMS.*

Figure 6: Past Due Inspections as of 10/14/2024, By Increments of 100 Days



Regardless, it is important to clear the most severely past-due inspections and reduce the total backlog moving forward.

The current snapshot (see Figure 6) of past-due inspections shows:

1. About 75% are fewer than eight months overdue,
2. About 25% are more than eight months overdue,
3. Some outliers are several years overdue.

Efficiency Opportunity 1: Scheduling and Work Planning Practices

Even with fully optimized protocols, scheduling inspections is a complex planning task. What might seem like a straight-forward task on paper is complicated by factors such as geography, weather, variations in the volume of follow-up inspections, and disruptions due to emergencies such as food-borne illness outbreaks. Additionally, while inspectors have a primary assignment and report directly to a specific program manager, many work across multiple inspection programs (e.g., completing both dairy and retail food inspections).

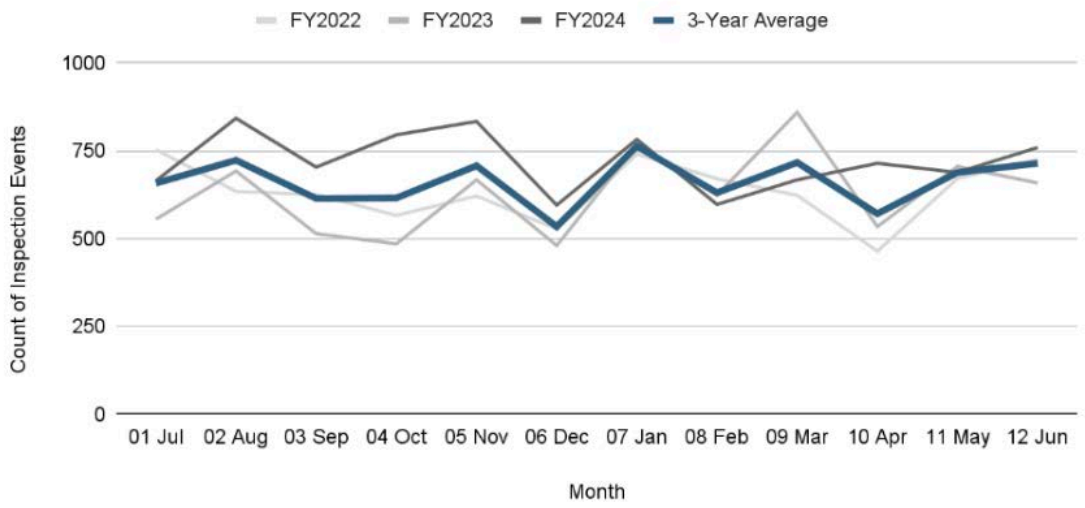
Inspectors currently have broad latitude to set up their own inspection schedules, which can be positive for those who know a given area and its establishments well. By systematizing scheduling practices across all inspectors, the division should see improved efficiency outcomes. As program managers gain transparency around their inspectors' schedules, they will also be empowered to proactively direct the work and enable the teams to meet program goals. After job shadowing and speaking with inspectors and program managers, our team learned that there is not a standard review process for inspection schedules. Most of that work is done retrospectively during employee performance evaluations, rather than prospectively before work begins.

The more structured scheduling guidelines around dairy inspections indicate that a systematic approach to planning across inspectors is effective in reducing past-due inspections. Due to FDA requirements for dairy facility inspections, inspectors are instructed to prioritize these events when scheduling. FSMS data show dairy inspections have a lower rate of past-due inspections compared to retail establishments[4], and the past-due rate may in fact be lower if bulk milk haulers and milk tank trucks are excluded.[5]

[4] *Proportionate to the count of active establishments, retail establishments are overrepresented by 8.5% among all past-due inspections, compared to dairy establishments, which are overrepresented by 3.3%.*

[5] *Utah and Idaho have a cooperative agreement in which inspections of milk tank trucks and bulk milk haulers are shared between the two states for vehicles that cross the state line. UDAF staff informed our team that some information on these shared inspections is not up to date in FSMS and thus shows many of these inspections as past due, affecting data on past due rates and days past due.*

Figure 7: Monthly Inspection Volume, FY 2022-2024



Additionally, the monthly volume of inspections has varied widely during the last three fiscal years, which in some instances may be a function of seasonal operations, travel conditions, or holidays (see Figure 7). However, it is likely that more systematic planning guidelines across programs could help make this monthly volume more consistent across the year and identify additional capacity that could be used to address inspection backlogs.

Recommended Actions

We recommend that the division establish standardized guidelines for program managers and individual inspectors to follow as they decide how to prioritize and schedule upcoming inspections. These guidelines should be clearly linked to measurable division or program objectives (e.g., reducing travel, completing past-due inspections, or increasing monthly inspection volume) and should make use of the data available via FSMS or other analysis tools (discussed further under Efficiency Opportunity #3).

These guidelines could be presented in a variety of formats, depending on the needs and preferences of the division:

- Example 1: Provide a checklist of questions for evaluating a draft schedule. Inspectors could be guided through a list of conditions to check for before finalizing a schedule. This checklist could include questions such as:
    - "If traveling to a reinspection, have you checked your roster for routine inspections coming due within the next (week/month/quarter) in the same area?
    - "Where possible, have inspection types that take longer (e.g., manufacturing) been scheduled for earlier in the day/week to provide buffer time in case of delays?"
    - "Where possible, have older past-due inspections been scheduled earlier in the day/week to provide buffer time in case a higher volume of violations needs to be addressed?"
- Example 2: Indicate a priority level for upcoming inspection events on inspectors' FSMS rosters, auto-calculated based on a combination of criteria such as days past due, risk level, or event type. For example:
    - Level 1 Priority: Reinspection events that address serious violations AND are at high-risk facilities,
    - Level 2 Priority: Events that are past X # of days past due AND are at high-risk facilities,
    - Level 3 Priority: Routine inspections at high-risk facilities,

Regardless of the format used, any guidelines should also be based on a clear set of criteria, which may be weighted or ordered as the division determines to be appropriate. The following table shows an example of potential criteria and the prioritization approach:

Examples of Prioritization Criteria	
Criteria	**Prioritization Approach**
Risk Level	Prioritize inspections at high-risk facilities that are more likely to result in harm to consumers if violations occur.
Days Past Due	Prioritize past-due inspections in descending order of the number of days past due (similar to first-in, first-out).
Location	Prioritize routine inspections that are in close proximity to reinspection events.
Inspection Type	Prioritize reinspections over routine inspections.
Ease of Scheduling	Prioritize inspections with less flexible scheduling (e.g. manufacturing establishments with seasonal or intermittent operations) over those that are more flexible (e.g. 24/7 convenience stores or similar retail stores).

If program managers also take a more proactive role in guiding and adjusting individual inspectors' work plans, the team will also be better aligned to work toward collective program goals. The division director and program managers may use the data resources described in Efficiency Opportunity #3 to identify and prioritize the work that will contribute most to meeting division goals (e.g. by geography, program, establishment type, risk level, or time past due) and coordinate with individual inspectors to adjust schedules as needed. This new planning pattern may involve designating a supervisor to help centralize decision-making about inspectors assignments across the various inspection programs they serve, as well as finding ways to have increased transparency into inspectors' upcoming planned inspections so managers can make proactive adjustments as necessary. This may be a shift from the current practice in which inspectors plan their work schedules with a great degree of flexibility, but it should result in better use of inspectors' time and travel.

Implementation Notes

Improved planning is likely to have the most benefit in the food and dairy inspection program since this category has higher rates of past-due inspections and more immediate impact on consumers' health and safety. However, we encourage the division to implement similar proactive and standardized planning methods across all inspection programs as needed, such as in the weights & measures program. The nature of the division's work will still often require flexibility in terms of work planning and this new systematic approach should not become overly rigid. For example, the division often needs to adjust its use of resources to address consumer complaints, fluctuations in reinspection volume, weather conditions, or emergency situations such as food-borne illness outbreaks.

Efficiency Opportunity 2: Optimized Geographic Assignments

Utah's geography makes it difficult to efficiently assign inspectors in a way that balances the smaller but densely populated Wasatch Front with the larger but more rural areas of the state. Some inspection types require nuanced and specialized training that not all inspectors have, making it necessary for multiple inspectors to travel to the same rural areas. Additionally, some inspectors must cover large areas since the low density and fewer establishments in rural counties often does not constitute a full workload for a single inspector. Having noted those complexities, our team identified opportunities for efficiencies in current assignments and travel patterns that could reduce long travel times and duplicated trips.

Those inspectors frequently on the road, commuting from one area of the state to another, accrue a significant amount of travel time relative to inspections

completed.[6,7] Finding ways to optimize these longer rural trips is a key objective of this evaluation.

Optimization Method 1: Reassign Urban County Inspections from Rural- to Urban-Based Inspectors

Our team found some instances in which inspectors who are based out of rural counties, or who cover multiple rural counties, are still being assigned inspections in urban counties. For example, Figure 8 shows the geographic distribution of a single inspector's active assignments during November and December 2024. This inspector, who is based in Summit County and is one of the few individuals covering multiple rural counties in northeast Utah and the Uintah basin, was additionally assigned 25 inspections in Salt Lake County. It would be more efficient to reassign as many of those Salt Lake County inspections as possible to the 13 other inspectors already covering Salt Lake County. This would allow the Summit County-based inspector to focus on those establishments in close proximity.

Optimization Method 2: Route Planning Tools and Geographic Batching

Another solution to reduce inefficient travel is to use a combination of batching and route planning tools to optimize the grouping and order of inspection events. In this example, an online route planning tool (available from MapQuest) was used to create an optimized version of actual trips taken and stops made by an investigator to complete routine inspections in the St. George area during October 2024. Then, based on the newly optimized order of stops around this route, the inspection events were re-grouped to trim seven unique trips down to five. Figure 9 shows a map of the optimized version of this inspection schedule.[8]

[6] *FY 2024 Inspections by Inspector and County*

[7] *Of the 18 inspectors who completed 50 or more inspections in FY 2024, five inspectors completed 97 percent of their work in a single county (four in Salt Lake and one in Utah) and another nine inspectors conducted more than half of their inspections in a single county – Cache (2), Davis (1), Utah (2), Washington (1), and Weber (2). For the remaining 4 inspectors, however, no single county accounted for half of their inspections. As an example, one of these inspector's highest concentration of work (29 percent) was located in Emery County, followed by 24 percent in San Juan, and 24 percent in Carbon. This group of four inspectors must travel far more extensively to conduct their inspections.*

[8] *Stop "1" in the black route is hidden behind stop "2" as the two locations are very close in proximity. This is also the case for stops in the purple and yellow trip data.*

Figure 8: Distribution of Assignments for a Rural County-Based Inspector, Nov. - Dec. 2024

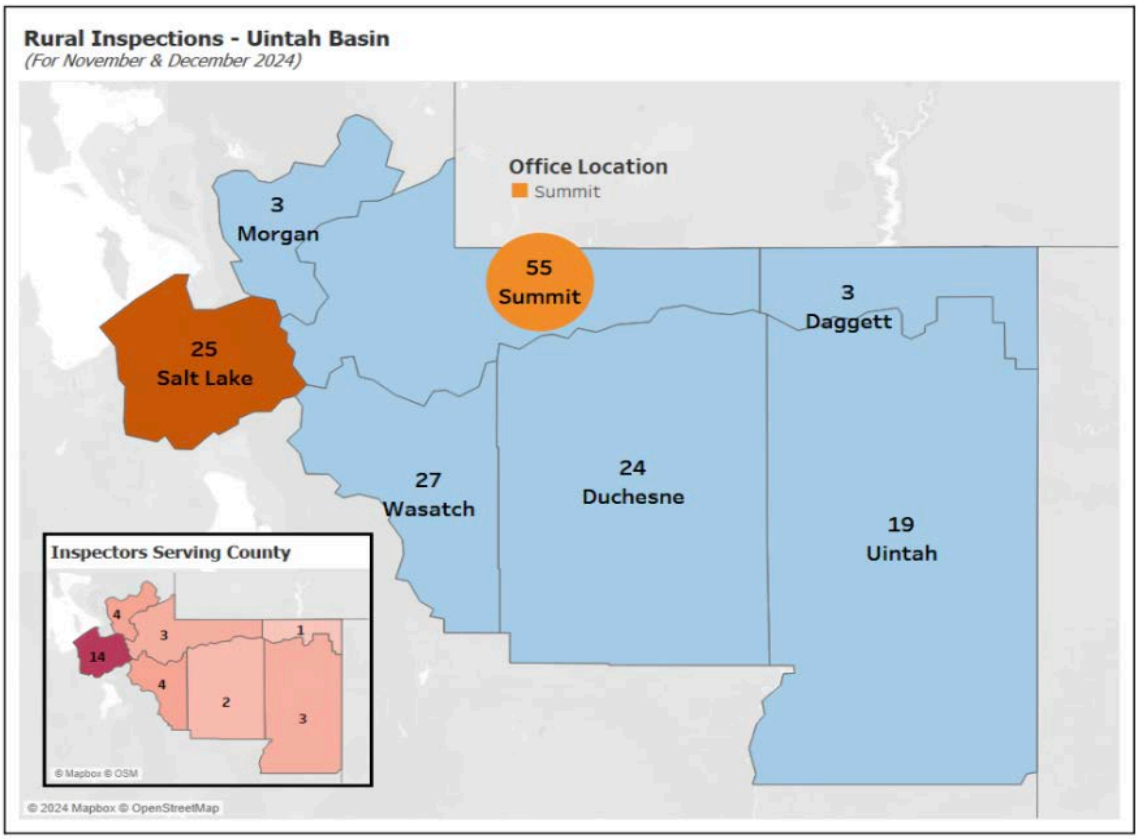


Figure 9: Actual and Optimized Trips



Figure 10: Time and Mileage Saved Through Route Optimization

Actual Trips					Batched Trips				
	Optimized for Time		Optimized for Distance			Optimized for Time		Optimized for Distance	
Trip	Time *Minutes*	Distance *Miles*	Time *Minutes*	Distance *Miles*	**Trip**	Time *Minutes*	Distance *Miles*	Time *Minutes*	Distance *Miles*
Trip 1 *yellow*	12	5.9	12	5.9	Trip 1 *yellow*	29	13.9	29	13.9
Trip 2 *blue*	13	7.9	15	7.6	Trip 2 *blue*	13	7.9	15	7.6
Trip 3 *green*	96	80.3	105	80.1	Trip 3 *green*	96	80.4	106	80.3
Trip 4 *black*	78	61.8	87	61.6	Trip 4 *black*	58	45.6	68	45.3
Trip 5 *orange*	33	17.6	34	17.4	Trip 5 *purple*	58	45.6	68	45.3
Trip 6 *purple*	14	4.7	16	4.8	Trip 6	After batching and optimizing trips, this trip is no longer needed			
Trip 7 *red*	57	43.6	65	43.3	Trip 7	After batching and optimizing trips, this trip is no longer needed			
Total	303	221.8	334	220.7	**Total**	221 ↓	159.4 ↓	247 ↓	158.8 ↓
Notes	*Original Trips 1 (yellow) and 2 (orange) were combined. Black marker "4" was added to the green trip. Red marker 3 was added to the black trip. Red marker 2 was added to the purple trip.*								

Figure 10 illustrates[9] the potential time and mileage saved by not only optimizing routes, but also batching inspection events by location. The "Actual Trips" table shows the actual routes the inspector took during October 2024 inspections, with each trip displayed representing a unique day during the month.

Before batching:

- If optimizing for time, the total travel is 5 hours 3 minutes and 221.8 miles,
- If optimizing for distance, the total travel is 5 hours 34 minutes and 220.7 miles.

After batching, this schedule becomes much more efficient. Two unique trips are eliminated, saving duplicate travel to and from the inspector's home city each day.

After batching:

- If optimizing for time, the travel could be reduced by 27% to 3 hours 41 minutes,
- If optimizing for distance, the travel could be reduced by 28% to 158.8 miles.

This introduces opportunities for inspectors and managers to reallocate saved travel time toward other objectives, such as the backlog of past-due inspections.

Implementation Notes

While efficient routes and reduced travel time are important objectives, other factors may take priority over electing for the most efficient route. For example, an inspector may need to take an inefficient' route in order to complete a reinspection before a deadline. The ordering of stops may also need to change to accommodate establishments' operating hours or the expected length of time an inspection will take (e.g., an inspection that will take several hours should generally not be planned for the end of the work day even if it would make travel time more efficient). Batching trips may also result in slightly longer work days for inspectors, but we encourage the use of flex time in these instances. For further discussion of this issue, please see Recommendation 2.

Efficiency Opportunity 3: Improved Resources for Data Visualization and Analysis

UDAF uses FSMS to log inspection activity, make inspector assignments, and maintain a database of establishments subject to inspections within the food and dairy programs.[10] The current FSMS web interface has limited functionality for data visualization and analysis, making it difficult for managers and inspectors to analyze workloads and activity, understand geographic patterns, or make projections based on current trends. This lack of data tools prevents both program managers and individual inspectors from seeing the "full picture" of the division's activities. This hinders their ability to make efficient plans and contributes to long windshield time and backlogs of work.

FSMS also lacks mapping tools that could help inspectors easily identify and plan inspections that are located close to one another to assist with the geographic optimization discussed in Efficiency Opportunity 2. FSMS also lacks a way to visualize or flag inspector assignments that are inefficient or contain potential errors (e.g. an assignment that is closer to another inspector's area or that is outside of an inspector's typical region). These features could be used to optimize assignments, as described in the section above. Inspectors also cannot sort their assigned inspections by risk level or filter by zip code, both of which would streamline the process of planning efficient routes and prioritizing inspections as discussed in Efficiency Opportunities 1 and 2.

FSMS offers some helpful features, but it needs to either be 1) updated to include more analysis and visualization tools, or 2) supplemented by analysis using external software programs or separate tools. Updated tools could help program managers direct inspectors' efforts toward inspection types and geographic areas that need additional resources, understand and predict trends, identify "hot spots" of safety issues, and make data-driven decisions in all aspects of planning.

To assist the division in this effort, our team has provided a kit of analytical tools created while conducting data analysis for this review. This kit includes tools created in Google Sheets for visualizing and identifying trends in FSMS data on inspection

[9] Round trip data figures were calculated using St. George as the beginning and ending location for each trip. Round trip data was compiled using https://www.mapquest.com/routeplanner/narrative.

[10] The weights and measures regulatory program uses a separate program, WinWam, to track similar data.

activity and past due inspections, as well as mapping tools that use Tableau to visualize inspector activity and assignments. The division can begin using these tools immediately to conduct analysis as they continue to explore long-term options for adding features to FSMS or procuring other data analysis tools.

Recommendation 2

Standardize Agency Policies and Administrative Rules

Desired Outcome: *Standardize agency practices and processes that enable managers and inspectors to coordinate efficient inspection routes and plans. Additionally, adopt policies and procedures that enhance compliance with initial inspections (reduce reinspections).*

Standardizing agency policies and administrative rules governing UDAF's various programs would enable regulatory services to simplify their processes, increase efficiency, reduce costs, improve employee training, and foster a more consistent customer experience.

Scheduling Tools

Managers overseeing food safety inspectors have various tools at their disposal to help efficiently schedule inspections. Inspectors have said they have significant autonomy to set their schedules. Still, there are certain areas where added flexibility, with some parameters, can promote more efficient inspection routes:

- **Flexible Work Day Lengths:** Inspectors could better customize their schedules if given added flexibility to work extended hours, particularly when traveling for training or to remote parts of their regions. In many cases, this flexibility to stay longer and complete tasks can negate the need for additional journeys to remote areas on future work days.

- **Overnight Lodging:** While this may seem like an added expense, allowing employees to stay overnight in more remote areas can actually reduce overall costs. Limiting the number of trips to areas requiring significant drive time, and allowing time for additional inspections on working days, can more than offset the lodging and meal per diem costs.

- **Batching around Time-Sensitive Inspections:** This point does not require a policy change only refining common practice. Certain inspection types are more time-sensitive than others. Since establishments are only required to give UDAF seven days notice before operating and serving customers, pre-operational inspections require quick turnaround times. If inspectors pair those less time-sensitive inspections that happen to be located in the same area as these pre-operational inspections, it could prevent needless return trips.

- **Virtual Inspections:** In some cases, inspectors can conduct virtual inspections, depending on the scope and risk at hand. For example, inspections of cottage food establishments are primarily conducted by a single inspector, who works with establishments throughout the state via virtual inspections. This can save significant windshield time, but it will require a clarification to Administrative Rule (discussed later).

The following case study demonstrates just how much these tools and opportunities can help realize scheduling efficiencies. The example shows an inspector's trips to Uintah County during the last half of 2023. Shown earlier in Figure 10, trips to Vernal in Uintah County for this inspector constitute nearly 3 hours (174 minutes) and 170 miles each way. As the white and yellow call-outs at the top point out, batching routine and follow-up inspections appear to have been applied effectively for a few multi-day trips. However, other routine, follow-up, pre-operational, and recall inspections present an opportunity, as they occur intermittently between these larger trips to Uintah County. The red and purple callouts at the bottom highlight these opportunities, discussed in more detail below.

This case study of Uintah Basin inspections shows that there has been considerable effort to batch routine inspections in the region for three time periods. On each of these multi-day trips (shown in white) to Uintah County, the inspector completed more than 15 routine inspections. In September, an additional trip (shown in yellow) included 4 follow-up inspections from a multi-day trip in August. These

appear to be examples where batching inspections could reduce the windshield time for this inspector driving to Uintah County.

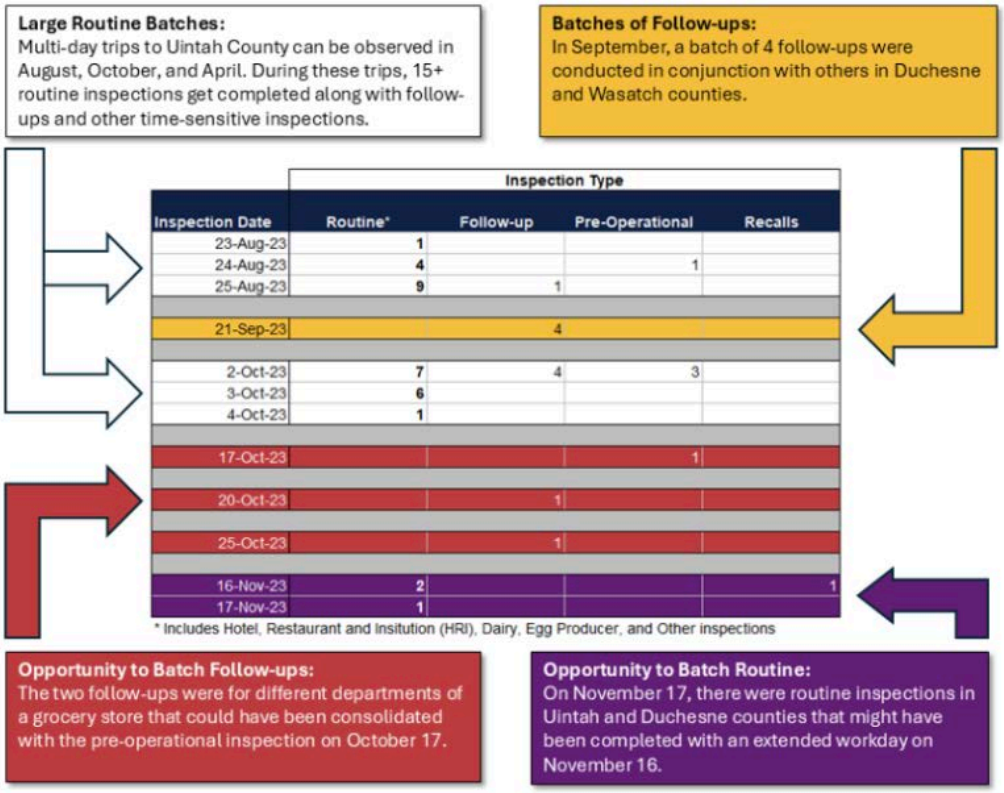
Perfectly batching inspections is not always realistic due to time-sensitive inspections that naturally will emerge – like pre-operational inspections for new businesses, recalls, and scheduling conflicts. Nevertheless, there appears to be opportunity to reduce the number of trips to Uintah or other counties, as outlined below:

- **Batch Follow-up Inspections with a Pre-Operational (Red):** The red rows show that three trips to Uintah County took place in just over a week between October 17 and October 25. The trip on October 17 was a solo stop for a time-sensitive inspection so a new business could start operations. Rather than completing the two follow-ups on October 20 and 25 with that trip, they were added on to a trip to Heber City and Duchesne, adding additional 4-hour and 2-hour drive times to complete these inspections.
- **Extended Day Could Help Reduce Days in Uintah County (Purple):** With 6 convenience and grocery store inspections on November 16 in Duchesne and Uintah Counties, the potential might be there for an extended day that could have covered a game processing establishment and another convenience store on November 17. Ensuring that inspectors have adequate time and flexibility could have negated an overnight stay or subsequent drive to these counties on back-to-back days.

The above examples show how food inspection managers within the Regulatory Services Division can standardize their protocols to help identify when to batch inspections, suggest an extended work day, or utilize virtual inspections to reduce windshield time that that inspectors spend driving to locations.

While it requires less formal change, the agency should also consider encouraging inspectors to schedule batches around time-sensitive inspections. Pre-operational inspections or recalls are less predictable than routine inspections and their subsequent follow-ups, but they could be leveraged to create a "pull" system that initiates an entire batch of inspections (including routine or follow-up inspections) rather than a "one-off" approach that only addresses the more urgent item. The ideal amount of inspections can be determined by UDAF staff based on the anticipated frequency and demand for inspections within the respective region.

Figure 11: Case Study of Inspector Visits in Uintah County





Out of the 4,148 inspections ~25% required follow-ups

Incentives and Disincentives

By adding an incentive structure for those facilities that consistently meet or exceed inspections - and conversely a disincentive structure for those that consistently fail or require more use of resources - Regulatory Services should see reduced rates of reinspections and help companies stay in compliance with acceptable standards.

Focusing on retail and manufactured foods in fiscal year 2024, there were 4,148 routine inspections. Of these, 1,062 inspections—roughly 25%—required follow-ups.

These reinspections can pull inspectors away from their more routine annual inspections and cause a backlog.

Our team identified a few possible considerations, but we encourage UDAF to lean on their understanding of the culture and needs of the industry to generate an incentive program that works for Utah customers.

- **Letter-grades or posting scores for industries.** In this system, UDAF would assign a grade to be posted at the facility, driven by any violations. Alternatively, the grade could be published by UDAF in a public setting such as a website. This system incentivizes organizations to keep their company in compliance (or disincentivizes non-compliance). After publishing inspection scores on specific violations in Salt Lake County, the local government saw violations decline.[11] [12]

- **Setting inspection dates based on their current compliance.** This method incentivizes companies to perform well on their first inspection in order to mitigate future inspections. Currently, there can be a range from 1-3 years for inspections on high-priority inspections. If there are no violations, the inspector can come back during the latter portion of that range (year two or three), whereas those facilities with violations could expect to see the inspector visit earlier. Notably, these inspection timelines vary depending on risk factors and facility type.

- **Fees for reinspections.** Currently, manufactured food inspectors do not charge for the first reinspection, but subsequent inspections incur a fee of $200 per occurrence.[13] Similarly, when conducting farm inspections, R70-320-4 (b) of the Utah Office of Administrative Rules[14] states: “The producer shall be charged for the time and mileage used by the department for any subsequent visits required.” The current dairy inspection rate is $30 per hour, with overtime billed at $40 an hour.[15] The Department could consider requiring the fee for first-time reinspections. Such a policy change would help cover travel costs of those new trips while disincentivizing issues that trigger reinspections. This can be particularly costly for trips to rural parts of eastern and southeastern Utah, which are shown in Figure 12 for fiscal year 2024.

- **Review protocols & policies for cease and desist.** UDAF has current protocols and policies for cease and desist orders, but their application can vary. We encourage the agency to review those policies and evaluate their effectiveness for helping facilities stay in compliance.

[11] *https://pubmed.ncbi.nlm.nih.gov/23858661/*

[12] *https://www.saltlakecounty.gov/health/inspection/*

[13] *https://ag.utah.gov/manufactured-food-regulatory-program/*

[14] *https://adminrules.utah.gov/public/rule/R70-320/Current%20Rules?searchText=Agriculture%20and%20Food*

[15] *https://ag.utah.gov/udaf-fee-schedule*

Figure 12: Count of Reinspections by County in Eastern and Southeastern Utah, FY 2024

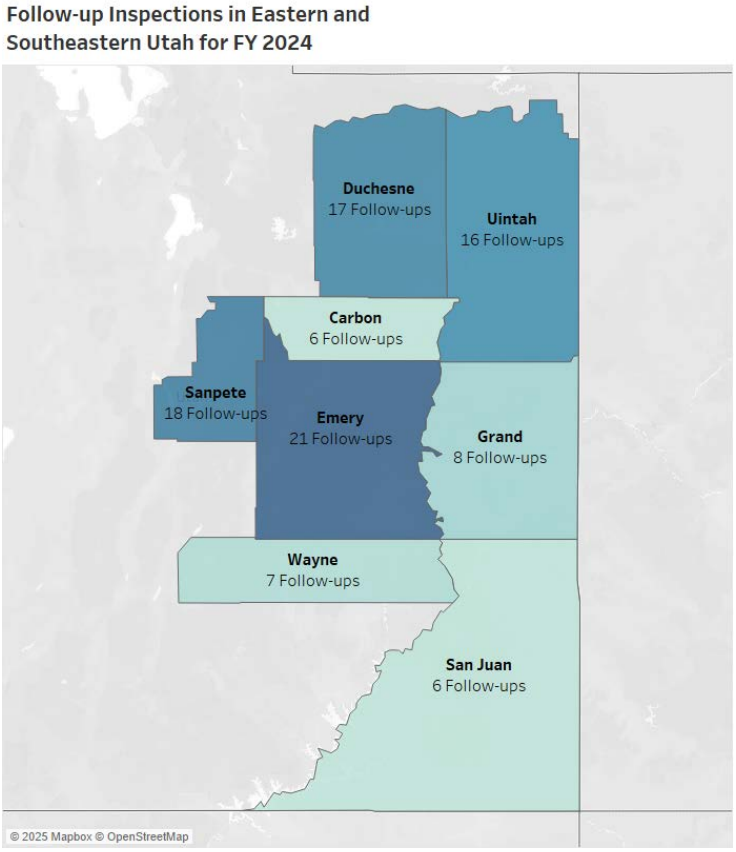
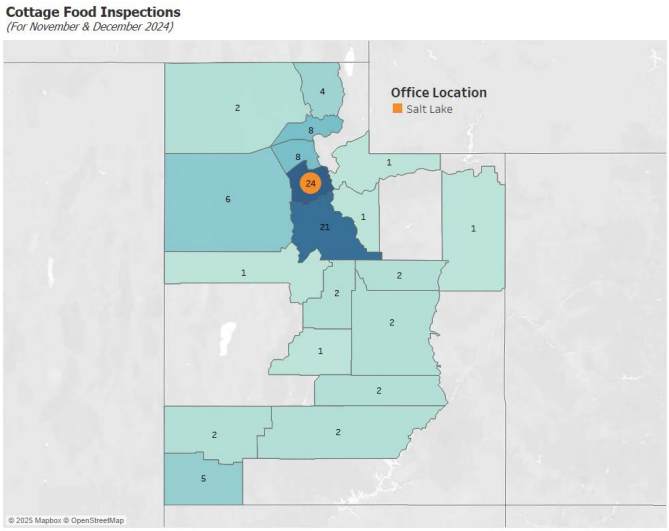


Figure 13: Cottage Food Inspections Completed in November & December 2024



Assess Virtual Inspections

Appropriate use of tele-inspections can help reduce overall drive time. Tele-inspections are being implemented throughout the state in some of UDAF's functions, such as cottage food inspections. This has the potential to further prevent unnecessary travel time and costs. For example, Figure 13 shows one cottage food inspector's facility locations for the month of November and December of 2024.

UDAF could change some reinspections to tele-inspections, depending on the specific need. For example, in certain cases a documented email or video showing the company has testing strips or a meat probe could satisfy certain requirements without adding an in-person visit. This could significantly benefit employees, such as inspector B or C from Figure 2, who serve counties that are more than two hours away from their home cities. Creating clear policies around tele-inspection, and which areas can be served remotely, would free up inspectors' time to reduce backlogs.

This recommendation would require UDAF to look at Administrative Rule R70-540 (Food Establishment Registration)[16] that defines an "Inspection" as "an on-site review of a food establishment conducted by the Utah Department of Agriculture and Food to ensure compliance with all applicable laws and rules." The agency may need to clarify the term "on-site" or change the wording to read "on-site or remote."

Assess Announced Inspections

Living inspectors and facilities flexibility for announced or planned inspections could help with scheduling and facilitate proper preparation when surprise visits are not needed. Some areas already conduct announced inspections (e.g., pre-operational, dairy farmers, dairy pasteurization inspections, food producers renting or using space and equipment from the owner of an existing approved food establishment, or if the inspector has made two attempts to inspect but the facility was not reachable). While there are certain benefits and appropriate circumstances for unannounced inspections, we suggest reviewing policies and creating a guideline for when it's appropriate to conduct announced inspections in order to make the best use of resources and inspectors'schedules.

[16] Utah Office of Administrative Rules, effective December 14, 2007 https://adminrules.utah.gov/public/rule/R70-540/Current%20Rules?searchText=Agriculture%20and%20Food

Recommendation 3

Create Materials to Educate Firms on Inspections

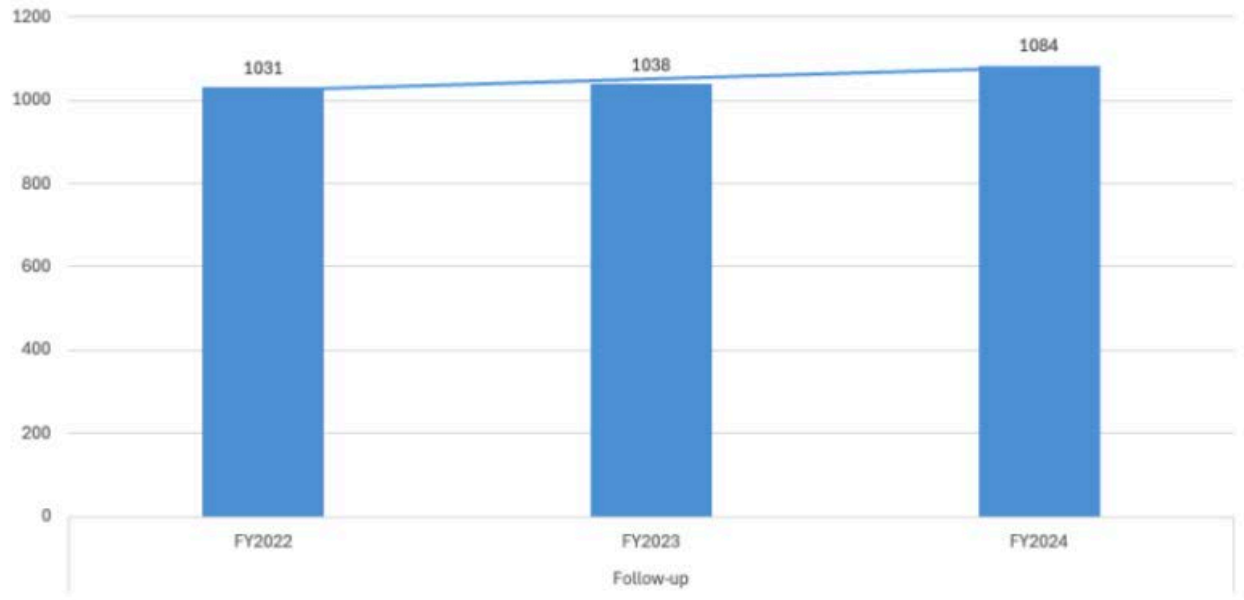
Desired Outcome: *Minimize reinspections by providing food safety education materials to establishments prior to their inspection, including guidance on conducting self-assessments in advance that may resolve deficiencies proactively.*

A primary driver of inspectors' time constraints is the large volume of reinspections that are needed to verify corrective actions have been taken after deficiencies were identified during initial routine inspections. In fiscal year 2024 alone, there were 1084 follow-up inspections necessitated by these deficiencies, while less severe issues did not require subsequent visits.[17]

While job shadowing UDAF food safety inspectors, our team noted a variety of improvements that could help both inspectors and establishments through greater education and communication prior to the visit. Deficiencies due to lack of knowledge, like missing probe thermometers, were significant enough to require a return inspection. While this afforded an opportunity for the inspector to provide real-time education, the issue may have been avoided entirely if the establishment had education materials and a limited self-evaluation checklist beforehand. Frontloading these remediation activities should help both parties avoid costly reinspections by UDAF food safety inspectors. Ultimately, the goal of this regulatory program is not to hand out citations or issue adverse findings – it's to promote compliance with food safety standards and other regulatory guidelines. Therefore, if UDAF can enhance its efforts to help establishments achieve compliance through education and preparation before inspections occur, verify that compliance through inspections, and reduce the volume of reinspections, this would result in a "virtuous cycle" of a more efficient inspection program and ultimately increased safety for Utah consumers. (See the appendix for additional explanation of the "virtuous cycle" framework.)

[17] *Analysis based on inspection data retrieved from FSMS in October of 2024.*

Figure 13: Follow-up Inspection Totals for FY2022-2024



Suggested Educational Materials

We commend UDAF's proactive educational efforts already underway. As UDAF expands their educational materials to make available to establishments, we've provided resources below for consideration:

- **Inspection Preparation Guide:** Partnering with business licensing entities would provide an opportunity to increase awareness of food service inspection requirements. This guide should educate establishments on preparing for inspections, including tips for documentation needs and requirements, and could contain information on the fee schedule for inspections and reinspections.

- **Self-Evaluation Checklist:** Distributed prior to inspections, this checklist would help establishments ensure compliance with critical requirements by providing an easy, plain-language reference explaining the major items that will be inspected during a visit.

- **Common Deficiencies Newsletter:** As UDAF collects data on deficiencies, it could help raise awareness to common issues that put public health at risk of foodborne illness, as well as highlighting some strategies to address them. It could also serve as a platform to communicate new or changing rules and regulations.

- **Quick Reference Guide:** This guide could be used to provide establishments with easily accessible resources for common questions and compliance needs. It could include:
    - Links to key regulations
    - Best practices
    - Commonly overlooked items
    - Contact information
    - Frequently asked questions (FAQs)

Providing these resources in a "full kit" informs operators of their obligations to comply with food safety requirements, which reduces rework and helps establishments better prepare for inspections. Additionally, the Department could supply a readiness kit to detail items establishments should have on hand, fee schedules, and an outline of what exactly is covered in reinspections. These tools would further equip establishments to meet expectations and avoid repeat visits.

Self-evaluation checklists empower establishments with a framework to periodically assess compliance internally. For example, the Occupational Safety and Health Administration (OSHA) provides a general self-evaluation tool that is applicable to many industries.[18] A similar tool could be adopted by UDAF to send to establishments prior to their inspection, allowing management to review their food operations and address deficiencies. Timely remediation of deficiencies enhances public safety by mitigating foodborne illness risk. Additionally, the need for reinspections may decrease as establishments maintain more consistent compliance with requirements, alleviating inspector caseloads as the number of establishments requiring inspection increases.

In summary, addressing the backlog of food safety inspections and the increasing demand for follow-ups requires a proactive approach centered on education and self-assessments. By equipping establishments with the resources noted above, UDAF can empower operators to take greater responsibility for meeting food safety standards. Combining these efforts with policy adjustments, such as applying fees for first-time reinspections, can further encourage compliance while offsetting operational costs. These measures not only support public health by reducing the risk of foodborne illness but also streamline inspection processes, allowing UDAF to focus its resources on high-priority cases as Utah's food service industry continues to grow.

[18] *Analysis based on inspection data retrieved from FSMS in October of 2024.*

Conclusion

In its work to meet regulatory needs across the state, UDAF's Division of Regulatory Services has faced challenges resulting from Utah's large geographic areas and the growing number of facilities to inspect each year. This evaluation has been conducted to identify ways in which the Division can more efficiently utilize its inspection teams' resources to meet these demands and protect Utah consumers.

GOPB and LFA recommend implementing a more

standardized approach to prioritizing inspectors' schedules that leans on enhanced data analysis tools to optimize inspection routes and schedules. Standardizing policies, procedures, and administrative rules within the division will also simplify coordination efforts between program managers and increase clarity for inspectors, thereby saving time and resources amongst the various programs.

Additionally, distributing improved educational materials to newly registered and currently operating facilities will prepare owners to more consistently pass inspections. This is expected to better protect Utah consumers by reducing the number of reinspection visits and freeing up inspectors to focus on high-risk inspections and the inspection backlog. Lastly, incentivizing facilities that consistently meet or exceed standards could help elevate industry standards across the state.

Collectively, these recommendations should enable UDAF to more efficiently carry out its mission to "serve as a steward of Utah's natural resources, safeguarding public health, protecting consumers, and ensuring a quality food supply."[19]

Measuring Success

Implementation and Follow-up Note: GOPB and LFA recommend that upon receiving this report, the Division of Regulatory Services should identify 2-3 key efficiency metrics to be followed up on after implementation of these recommendations. These metrics should be based on data sources that are available to the Division at the time of publication of this report and should be related to this report's focus areas of inspector travel time and past-due inspections (and any other areas as deemed useful by Division administration). Examples of metrics include the current number of past-due inspections, the number of past-due inspections as a percentage of all active facilities, the number of inspector travel minutes per inspection event, or the cost of inspector travel per inspection event. After identifying these metrics, a baseline measurement for each should be recorded for context and comparison to future results, particularly during the follow-up review to be conducted by the Office of the Legislative Auditor General.

[19] *UDAF Mission Statement, https://ag.utah.gov/about/*

Building in Continual Improvements

The Vicious and Virtuous Cycle Tool aids in identification of the root cause driving the vicious cycle. Taking action at this step and changing the underlying condition can lead to a virtuous cycle, effectively reducing or eliminating the negative impacts of the vicious cycle and establishing an ongoing improvement framework.

The current state of operations in food safety leans on a “vicious cycle,” requiring surprise inspections, identifying deficiencies, on-site education, and reinspection. While this can still achieve the intended outcome, it often requires multiple interactions, failures, and rework. By frontloading education activities before inspections, UDAF can help set up establishments for greater success and compliance. With common understanding and education, establishments may achieve greater compliance, realize fewer deficiencies, and the process will tend to yield fewer follow-up inspections. This virtuous cycle empowers establishments to understand requirements and correct deficiencies independently, reducing follow-up inspection demand and increasing operational efficiency. Whether a deficiency is resolved prior to an inspection or after via a follow-up inspection, the result is compliance and better operations for the customers – achieved at a lower cost without the follow-up inspection.

Creating and implementing a process improvement structure for inspections based on virtuous (as opposed to vicious) cycles can significantly reduce inefficiencies, improve compliance, and alleviate caseload pressures. The first step is to clearly define objectives, such as minimizing inspection rates, enhancing compliance readiness, or protecting public safety. To ensure sustainability, successful improvements must be standardized through documented procedures and ongoing training for inspectors and businesses. Monitoring performance through metrics, such as reinspection rates, enables iterative process improvements. This process creates a feedback loop where continuous evaluation leads to further improvements, enhancing efficiency and compliance outcomes over time. Two tools that will assist in creating successful inspection cycles are discussed below.

- Root Cause Analysis (RCA) is an essential inspection tool that can help organizations address compliance challenges more effectively by identifying and resolving underlying issues rather than repeatedly addressing surface-level problems. The “Five Whys” method is well-suited for this purpose. It involves asking “Why?” five times (more if needed) to drill down to the root cause of a non-compliance finding. By integrating this technique into the inspection process, inspectors can document and analyze the causes of non-compliance during their visits. Doing so will allow organizations to move beyond merely correcting symptoms and should result in more





more sustainable corrective actions. When properly used, the Five Whys method may uncover gaps in training, unclear regulations, or inadequate resources. By implementing RCA, businesses can align their operations with regulatory expectations and requirements more effectively.

- **Batching** inspections geographically introduces another layer of efficiency, optimizing both scheduling and resource allocation. Through this method, inspectors can group inspections within specific regions, minimizing travel time and allowing for targeted education efforts. To optimize inspections across various locations and reduce travel time, a tool should integrate data management, geographic information, and route optimization. By clustering locations geographically (e.g. by county or zip code) and leveraging algorithms, routes can be dynamically optimized based on factors such as priority and inspector availability. Visual tools like maps or dashboards can sequence stops numerically and provide inspectors with clear, actionable schedules. Automation can streamline data integration, route assignment, and notification workflows.

RCA can also improve the batching process by identifying obstacles, such as inconsistent data or scheduling conflicts, that hinder efficient grouping. Together, RCA and batching strategies form a virtuous cycle where inspection processes continuously evolve to become more streamlined and impactful.

By integrating root cause analysis and batching strategies into a virtuous cycle of continuous improvement, inspection processes can become more efficient, effective, and sustainable. As these practices are refined and standardized, the inspection process not only adapts to growing demands but also safeguards the public and fosters a culture of accountability and collaboration amongst stakeholders.

Guidance for Developing Data Analysis Tools

The food safety programs with the Regulatory Services Division utilize the Food Safety Management System (FSMS) to manage inspection data and generate reports. To assess the efficiency of food safety program inspections, two types of reports were utilized: 1) Inspection rosters that show upcoming and past due inspections, and 2) activity reports that show completed inspections.

While these reports allow inspectors and their managers to filter and sort data, they are limited in their ability to aggregate, summarize, and visualize data in different ways. As part of this evaluation, division leadership and program staff were given the following data analysis tools that will allow them to replicate some of the analysis shown in this report:

- **Exporting Data as CSV Files.** The ease of exporting data from FSMS varies from report to report, as some have export features while others do not. For example, the "Finalized Report" for completed inspections has an "Export as CSV" button that developers provided, which effortlessly exports data. However, the "Roster" report does not have this feature, leading to time consuming manual extraction of data sets without a connection to the underlying FSMS database and querying experience. As food safety managers identify the data most frequently used for analysis, developers should develop this functionality for identified reports.

- **Aggregating Data for Comparison.** Comparing inspection trends among inspectors, inspection types, and over time was essential for this evaluation. The ability to filter data and aggregate results according to different characteristics or time periods in Google Sheets was a valuable tool that staff can use. For example, the county concentration analysis in Recommendation #1 was based on summarizing an inspector's current and historical inspections by certain counties. Summarizing the percentage of inspections an inspector performs in various counties can quickly identify outliers. These inspections could be considered for reassignment to another inspector with a greater concentration of inspections in that county. To assist food safety program staff with conducting similar analysis, some of the most relevant data structures and summary tables were provided. This should empower staff to do similar analysis and speed up the time for implementation, eliminating barriers and promoting data-analysis skill enhancement among program staff.

- **Visualizing Data among Multiple Dimensions.** Visualizing process performance can be a helpful aid, especially when working with geographic factors. As this efficiency evaluation focused on promoting efficiency in rural regions of the state, the ability to see the geographic range covered by some inspectors and map out their routes was key. Using Tableau, the ability to assess multiple factors, like the geographic range and inspection frequency to individual counties within that range, could be viewed side by side. The ability to conduct similar analysis within the Google suite of applications was explored to help facilitate timely adoption of similar analyses when analyzing historical and current inspection routes and schedules. Additionally, to assess the distance traveled and time required for specific routes, we used Python-based mapping software. This enabled a comprehensive analysis of current routes and facilitated the exploration of more efficient alternatives, as outlined in Recommendation #1. Specifically, Google Maps and MapQuest were identified as more efficient and user-friendly software options that provided the same level of analysis. For this reason, the team wants to help staff in food safety programs access these visualization tools.

We recognize that creating tools or buying software can be time consuming and costly. For this reason, we encourage UDAF to work with DTS to identify free tools that are safe and compliant that can be used until a long-term solution can be identified and acquired. When choosing a tool to assist in batching locations and optimizing routes, it is important to:

- Clearly define the goals and purpose of the tool (e.g. batch according to zip code, route efficiency, reduced travel times, ensure locations

are inspected within deadlines);
- Clearly identify the inputs (e.g. inspector names, location addresses, inspection schedules, priorities);
- Clearly understand outputs and what the tool should generate (e.g. optimal routes, inspection schedules, or status dashboards).

Methodology

The following operations management principles were used to arrive at recommendations:

Recommendation #1

Improve the efficiency and cost-effectiveness of Utah Department of Agriculture and Food (UDAF) inspections.

1. Batching: Involves grouping similar tasks, processes, or activities together to improve efficiency and reduce wasted time or resources. By addressing tasks collectively, batching minimizes transitions, optimizes resource allocation, and enhances productivity.[20]

2. Standardization: Refers to creating uniform procedures, guidelines, or processes to ensure consistency, reliability, and efficiency across operations.

3. Root Cause Analysis (RCA): Focuses on identifying and addressing the underlying causes of a problem rather than merely treating their symptoms.

Recommendation #2

Standardize agency practices that allow managers to coordinate efficient inspection routes and plans with their inspectors.

1. Standardization: Refers to creating uniform procedures, guidelines, or processes to ensure consistency, reliability, and efficiency across operations.

2. Batching: Involves grouping similar tasks, processes, or activities together to improve efficiency and reduce wasted time or resources. By addressing tasks collectively, batching minimizes transitions, optimizes resource allocation, and enhances productivity.[20]

3. Pull System (Lean Management) or Drum-Buffer-Rope (Theory of Constraints). Pull refers to producing goods as customers need them. Drum-Buffer-Rope addresses three parts of a process: cadence of operation (the drum); buffer, which builds in additional time upstream from a bottleneck; and a signal to release work into the system at the right time (rope).[21]

Recommendation #3

Provide food safety education materials to inspected establishments prior to their inspection.

1. Full-Kit: The concept of “full kit” or “complete kit” refers to ensuring that all necessary information is available before implementation to enable optimal decision-making. This approach minimizes time spent correcting errors caused by incomplete documentation or misunderstanding of requirements.

2. Checklists: Involves providing a structured tool that outlines essential tasks, requirements, or steps to ensure consistency and completeness. Checklists help prevent oversights, standardize processes, and serve as a reliable reference for individuals to follow which helps reduce errors and improves efficiency in task execution.[22]

3. Front Loading: Involves proactively addressing tasks, requirements, or issues at the beginning of a process to reduce delays, errors, or inefficiencies later on.

[20] https://gettingresults.com/consolidate-and-batch/

[21] VSkills, Theory of Constraints: Drum, Buffer, Rope https://www.vskills.in/certification/tutorial/drum-buffer-rope/

[22] https://www.aceproject.com/blog/the-importance-and-advantages-of-checklists-9387815/

Agency Response

State of Utah

SPENCER J. COX
Governor

DIEDRE M. HENDERSON
Lieutenant Governor

Department of Agriculture and Food

CRAIG W. BUTTARS
Commissioner

KELLY PEHRSON
Deputy Commissioner

February 24,2024

Aubrey Hanks
Performance Analyst
Governor's Office of Planning and Budget

Re: Regulatory Services Efficiency Evaluation

Ms. Aubrey Hanks and the Efficiency Evaluation Team:

Thank you for the opportunity to respond to the recommendations provided by the joint GOPB and LFA Team regarding the Regulatory Services Efficiency Evaluation and their suggestions to enhance the overall efficiency and cost-effectiveness of the inspections carried out by the Utah Department of Agriculture and Food (UDAF).
We greatly appreciate having the evaluation team assess our operations from a fresh perspective—this input is both invaluable and deeply appreciated.
The implementation of these recommendations aligns with UDAF's goals to better serve rural communities and will greatly improve operational efficiency, ensure cost-effectiveness, and elevate the overall quality of service provided. These strategies will streamline tasks, create a more predictable and reliable inspection framework, and enable the department to proactively address inefficiencies, leading to timelier and more resource-conscious inspections. This approach will not only benefit UDAF but also enhance the experience for stakeholders who rely on its services.
Attached is a response to the individual recommendations.

Respectfully,

Craig W Buttars

Craig Buttars, Commissioner
Utah Department of Agriculture and Food

Agency Response

Efficiency Evaluation Response

Recommendation #1
Improve the efficiency and cost-effectiveness of Utah Department of Agriculture and Food (UDAF) inspections.

Division Response:
The Division concurs with this recommendation. We will strategically prioritize inspections by utilizing advanced mapping tools and enhancing our electronic reporting and inspection systems. Additionally, we will develop and implement policies and procedures designed to boost both efficiency and cost-effectiveness. The Division will also proactively identify and address situations that may contribute to inefficiencies (e.g., consumer complaints, inspections for new establishments, etc.). We plan to conduct a thorough evaluation of these situations to better predict the needs of our constituents and create targeted solutions.

Recommendation #2
Standardize agency practices to allow managers to better coordinate efficient inspection routes and plans with their inspectors.

Division Response:
The Division agrees with this recommendation. We will develop, enhance, and deploy scheduling tools to optimize inspection routes and provide better visual representations of inspection demands. Moreover, we will implement policies and procedures aimed at improving compliance, particularly through positive reinforcement during initial inspections. Efforts will also be made to reduce the need for reinspections and maximize travel efficiency. This includes creating incentives for producers, such as "Letter Grades" for inspections, promoting flexible work hours for employees to maximize travel efficiency, and, where appropriate, implementing virtual inspection options (e.g., via Facetime, Zoom, etc.).

Recommendation #3
Provide food safety education materials to inspected establishments prior to their inspection.

Division Response:
The Division agrees with this recommendation. We will create and distribute educational materials designed to improve inspection outcomes and reduce the number of reinspections. The Division will assess common violations identified during inspections and collaborate with USU Extension and the UDAF Marketing Division to develop easy-to-digest, one-page food safety infographics that producers can download from the UDAF website or receive directly. Additionally, we will explore other opportunities, such as hosting virtual town hall meetings with producers and offering in-person food handler training sessions.

Authors

This report was written as part of a joint collaboration between the Utah Governor's Office of Planning Budget and the Office of the Legislative Fiscal Analyst.

Governor's Office of Planning & Budget

Steve Gehrke	Director of Operational Efficiencies
Chris Labrum	Operations Analyst
Aubrey Hanks	Performance Analyst
Anna Ott	GOPB Fellow

Office of the Legislative Fiscal Analyst

Kimberly DeGroff Madsen, PhD	Operational Excellence Manager
Tim Bereece	Senior Operations Analyst
Laurie Haupt	Operations Analyst



Agency Response Plan



State of Utah

SPENCER J. COX
Governor

DEIDRE M. HENDERSON
Lieutenant Governor

Department of Agriculture and Food

KELLY PEHRSON
Commissioner

AMBER BROWN
Deputy Commissioner

TROY FORREST
Deputy Commissioner

September 30, 2026

Kade R. Minchey, CIA, CFE
Auditor General
Kminchey@utah.gov

Dear Mr. Minchey,

Thank you for the efforts of the Office of the Legislative Auditor General in reviewing the status of the recommendations included in your Efficiency Evaluation of the Division of Regulatory Services and for following up with our team. Please see our attached response to your report. Let me know if you have any questions or any additional information is needed. I look forward to continuing to work together.

Sincerely,

Kelly Pehrson

Kelly Pehrson
Commissioner
Utah Department of Agriculture and Food

Efficiency Evaluation Follow-Up Response

The Division appreciates the recommendations identified through the efficiency evaluation follow-up and agrees with the overall objective of improving inspection efficiency, cost-effectiveness, consistency, and stakeholder service. The Division takes the position that the evaluation recommendations have been implemented based on the progress made to date. It is worth noting however, that the Division has approached these recommendations as ongoing operational improvements rather than "one-and-done" initiatives. The initiatives were selected based on feasibility, cost, and achievability, and are aligned with the Department's Strategic Plan. Where appropriate, these initiatives have also been incorporated into performance measures to facilitate continued monitoring and accountability.

Recommendation #1: Improve the Efficiency and Cost-Effectiveness of UDAF Inspections

Division Response: Implemented

The Division agrees with this recommendation and has implemented several strategies to better prioritize inspections and use resources efficiently.

Strategically Prioritize Inspections

Rural Inspections

The Division has implemented policies and procedures for rural inspections and developed a travel calculator to evaluate and track travel-related efficiencies and cost savings. The Division continues to monitor results and refine the process as needed. To date, the initiative has demonstrated improved efficiency in the allocation and use of inspection resources.

Documented Savings:

- **FY26:** $12,042.32
- **FY27:** $11,720.36
- **Total:** $23,762.68

Past Due Inspections

The Division established a performance measure and supporting policy and procedures to monitor past-due inspections. A Past Due Inspection Calculator and enhancements to the Food Safety Management System (FSMS) have also been developed to improve the Division's ability to identify, filter, and manage past-due inspections.

Reducing the number of past-due inspections has presented challenges; however, the process has also identified system and workflow issues that were previously difficult to detect. For example, inspections entered under the "Other" inspection type were remaining on the past-due list even after completion. Similarly, use of the "Pre-Opening" inspection type was causing inspections to be automatically identified as past due. The Division has identified these issues and is making corresponding changes to both its processes and systems.

Follow-Up Inspections

The Division has implemented a policy and fee structure for follow-up inspections. Based on the follow-up evaluation, the implementation of follow-up fees appears to be contributing to a reduction in follow-up inspections, with an observed **8.6 percent reduction**. The Division will continue to monitor this measure to determine whether the improvement is sustained.

The Division will also continue to evaluate other opportunities to improve efficiency, including the use of mapping and scheduling tools, electronic reporting enhancements, and targeted policies and procedures. Situations that can contribute to inefficiencies—such as consumer complaints, new establishment inspections, and other non-routine inspection demands—will continue to be evaluated so that resources can be better anticipated and allocated.

Recommendation #2: Standardize Agency Practices to Improve Inspection Coordination and Routing

Division Response: Implemented

The Division agrees with this recommendation and has taken steps to standardize practices, improve scheduling, and provide managers with better tools for coordinating inspection activities.

The Division is developing and enhancing scheduling and workload-management tools to improve the coordination of inspection routes and provide a clearer visual representation of inspection demand. Standardized policies and procedures are also being developed and implemented to promote consistency and compliance.

For example, the Division has developed a policy and implemented tools within the inspection system that sort inspections by ZIP code and prioritize them at the top of inspectors' "to-do" lists. These enhancements help improve route coordination, ensure inspections are addressed in an organized manner, and provide greater consistency in scheduling practices.

The Division has also made an effort to streamline rules and reduce administrative complexity through the UDAF Clear the Rules Initiative which was completed earlier this year.

Clear the Rules Initiative

As part of this initiative:

- **25 administrative rules have been reviewed.**
- **12 rules have been revised or repealed.**
- Redundant information that was already addressed in statute has been removed.
- Adopted federal regulations have been consolidated where appropriate.

These changes reduce unnecessary duplication and help establish clearer, more consistent regulatory expectations for both agency personnel and regulated stakeholders.

The Division will continue evaluating additional opportunities to improve inspection routing and administrative efficiency. These efforts may include flexible work schedules when appropriate to reduce unnecessary travel, increased use of technology, and virtual inspection options when they are appropriate for the type of inspection and regulatory requirements involved.

The Division will also continue exploring positive reinforcement strategies to encourage compliance during initial inspections, with the goal of reducing unnecessary reinspection's while improving relationships between inspectors and regulated establishments.

Recommendation #3: Provide Food Safety Education Materials Prior to Inspection

Division Response: Implemented

The Division agrees with this recommendation and has made substantial progress in providing regulated establishments with clearer, more accessible educational resources.

The Division has created and updated educational materials intended to help producers understand inspection requirements, address common compliance issues, and reduce avoidable violations and reinspection's. Examples include:

- Basic Labeling Guidelines for commercial, cottage, and homemade food operations.
- A one-page Cottage Food resource.
- A one-page guide for Marketing Local Produce at Farmers Markets.
- A one-page Regulatory Guidelines for Farmers Markets.
- Updated website content using plain language and reducing unnecessary navigation and "rabbit holes."
- Expanded Raw Milk website information to better inform both producers and consumers.

- Reduced establishment plan-review applications by approximately half for manufactured, retail, and cottage food operations.

The Division is also working on Sampling Permit Guidelines and continues to develop additional educational materials based on common inspection findings.

Education and outreach efforts extend beyond written materials. The Division is holding in-person meetings and presentations with Cottage Food and Homemade Food stakeholders, including stakeholders in rural areas such as the Uinta Basin, southeastern Utah, and central Utah. The Division will continue to evaluate opportunities for virtual town halls, webinars, and in-person food-handler training.

These efforts are intended not only to improve inspection outcomes, but also to reinforce the Division's role as a resource and partner to regulated businesses and producers.

Additional Efficiency Accomplishments

The Division has also identified opportunities to eliminate activities that do not provide a corresponding regulatory or public-health benefit. One example is the decision to discontinue applying Grade A standards to dairy manufacturers where those standards were not required. This change has reduced the time and resources associated with inspections, pasteurizer testing, sampling, and related activities while allowing the Division to focus resources where they provide greater value.

Ongoing Performance and Continuous Improvement

The Division recognizes that efficiency improvements require continued monitoring and adjustment. Accordingly, these initiatives are not intended to be temporary projects that are considered complete after initial implementation. They are ongoing operational improvements that will be evaluated through performance measures, system enhancements, stakeholder feedback, and periodic review of policies and procedures.

The Division will continue to:

- Use data and mapping tools to strategically prioritize inspections.
- Monitor travel time and inspection-related costs.
- Reduce past-due and unnecessary follow-up inspections.
- Identify and correct system and process deficiencies.
- Standardize policies, procedures, and administrative rules.
- Improve scheduling and route coordination.
- Expand accessible, plain-language educational resources.
- Engage producers and regulated establishments before and during the inspection process.
- Identify opportunities to use technology and alternative inspection methods when appropriate.
- Incorporate efficiency initiatives into ongoing performance measurement.

Collectively, these efforts demonstrate the Division's commitment to improving the efficiency and cost-effectiveness of its inspection program while maintaining regulatory compliance, protecting public health, and providing better service and resources to Utah's agricultural producers and regulated establishments.



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