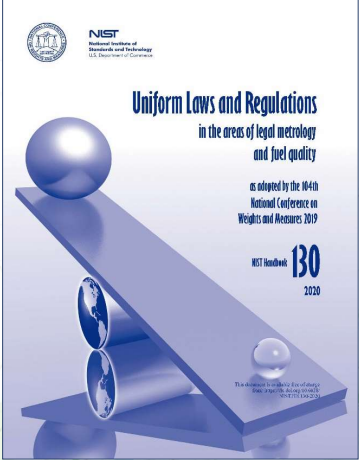



# NIST Handbook 130

## Examination Procedure For Price Verification




\*\*\* Certain commercial equipment, instruments, or materials are identified in this paper in order to specify the experimental procedure adequately. Such identification is not intended to imply recommendation or endorsement by the National Institute of Standards and Technology, nor is it intended to imply that the materials or equipment identified are necessarily the best available for the purpose.

Price Verification Webinar final 5/26/2020




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Physical Measurement Laboratory  
Office of Weights and Measures  
Laws and Metric Program

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## Learning Objectives

Students will be able to explain the test procedure, sampling plans, randomized sample selection and evaluation of inspection results.

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## Table of Contents

1. Scope
2. Definitions
3. Test Notes
4. Equipment
5. Pre-Inspection Tasks
6. Inspection
7. Test Procedures
8. Documentation of Findings
9. Evaluation of Inspection Results
10. Accuracy Requirements
11. Enforcement Procedures
12. Post-Inspection Tasks
13. Supervisory Activities
14. Forms

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## What is the EPPV?

The EPPV is an inspection procedure. It is not a law or regulation.

It provides regulatory officials with the test procedures and recommended enforcement practices to monitor and evaluate the pricing practices of any store.

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## PURPOSE

- 100 % accuracy is the law.
- Overcharges and undercharges misrepresent the price of an item.
- Ensures equity in the marketplace.

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## Uniform Weights and Measures Law

### Section 16. Misrepresentation of Pricing

No person shall misrepresent the price of any commodity or service sold, offered, exposed, or advertised for sale on the basis of weight, measure, or count, nor represent the price in any manner calculated or tending to mislead or in any way deceive a person.

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# Uniform Weights and Measures Law

## Section 12 - Powers and Duties of the Director

The Director shall:

- (q) Verify advertised prices, price representations, and point-of-sale systems, as deemed necessary, to determine:
  - 1) the accuracy of prices and computations and the correct use of the equipment, and
  - 2) if such system utilizes scanning or coding means in lieu of manual entry, the accuracy of prices printed or recalled from a database.

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## Section 12 (q) – Powers and Duties of the Director

In carrying out the provisions of this section, the Director shall–

- i. Employ recognized procedures designated in NIST Handbook 130, "Examination Procedures for Price Verification,"
- ii. Issue rules and regulations regarding the accuracy of advertised prices and automated systems for retail price charging ("point-of-sale systems") for the enforcement of this section, such rules shall have the force and effect of law; and
- iii. Conduct investigations to ensure compliance.

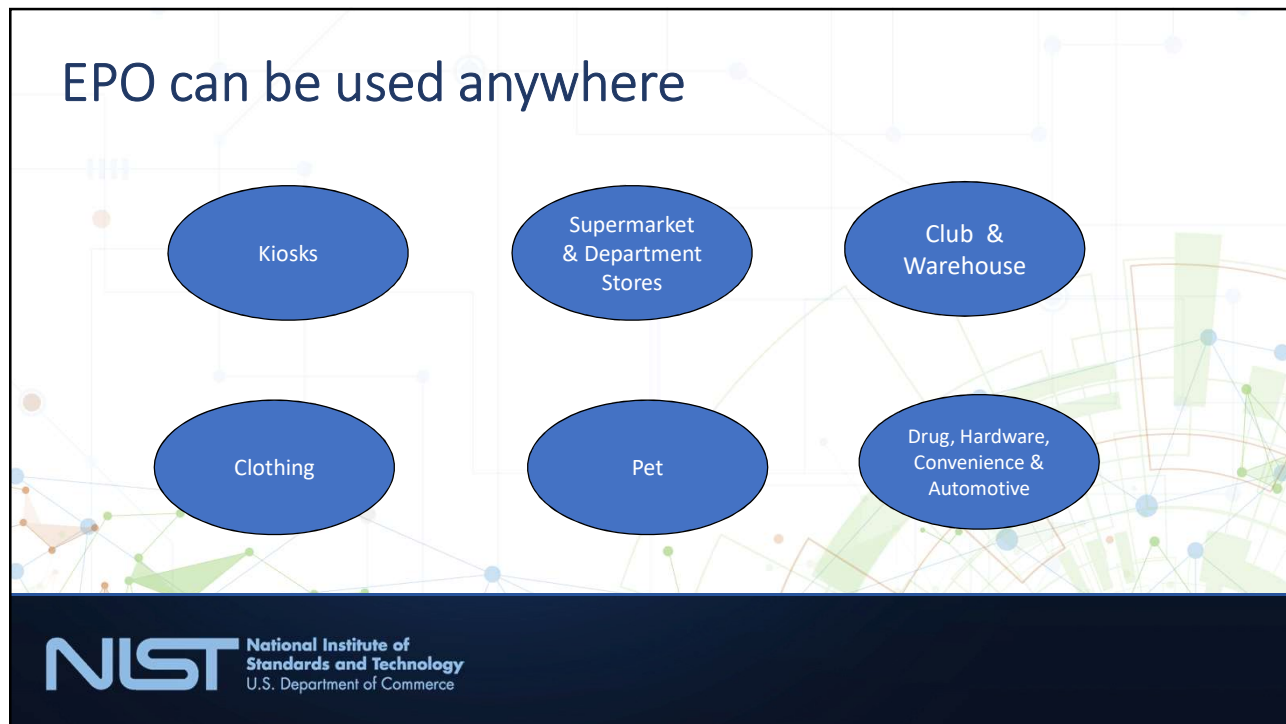
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## Notes

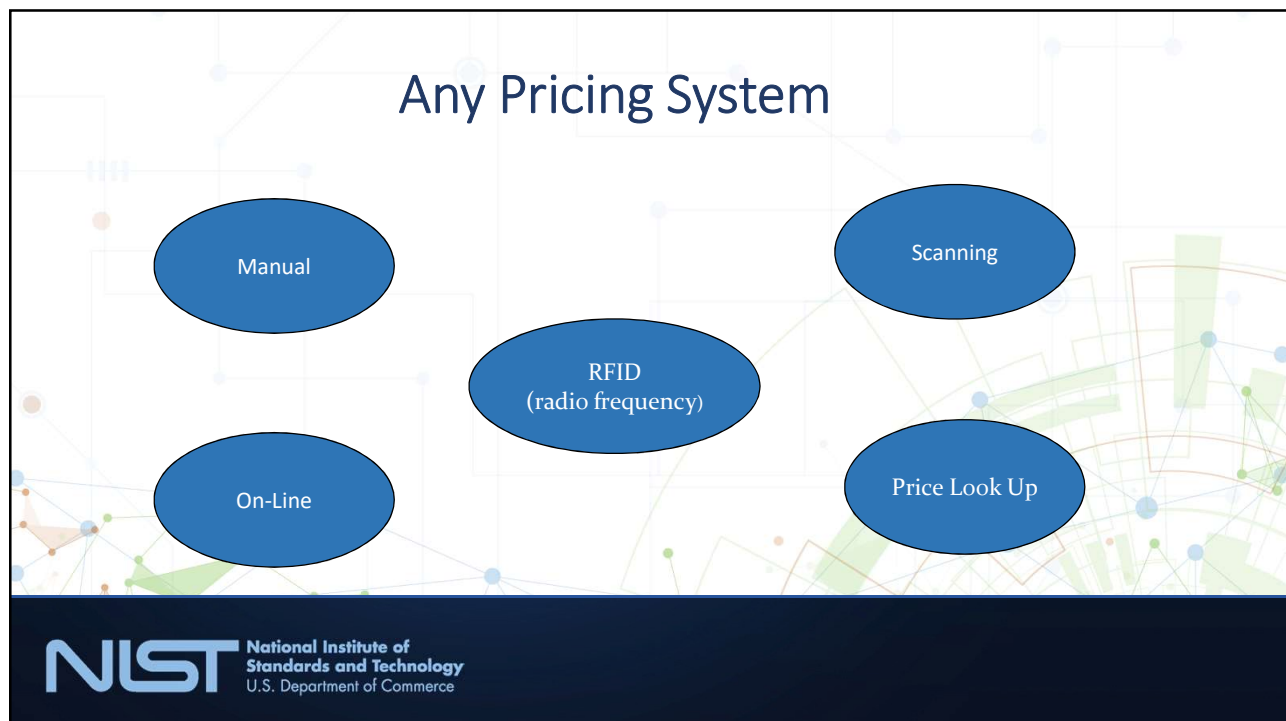
- The sampling procedures do not provide statistical data to allow you to state the percent of errors of all prices in the store.
- The retail industry assisted in the development of the procedures and many stores use them as part of their price integrity programs.
- By using this procedure you will obtain inspection results that support enforcement actions.

## Scope

Nothing in the EPO or this training should be construed to redefine any state or local law, or limit the enforcement of any law, regulation, procedure or other requirement regarding the accuracy of an advertisement or price.



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## SECTION 2 – DEFINITIONS (23 definitions in total)

### 2.1. Area

- Used to divide store for testing.
- Is defined by the Inspector.

### 2.4. Displays

- Tie-ins, ends, floor, etc...

### 2.10. Merchandise Groups

- Direct Store Delivery (DSD), advertised items, men's department, managers specials.

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## 2.7. Inspection Types

### Automated

Conducted using hand-held scanners.

### Manual Inspection

- Taking item to check out to verify price.
- or
- Record manually.
  - Product identity, UPC #, shelf price.

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## Section 2. Definitions

### 2.8. Inspection Frequency

- Normal
- Increased\*
- Special inspection (e.g., complaint)

\* A store placed on increased inspection frequency shall remain at that frequency until there are two consecutive inspections with an accuracy of 98 % or higher.

## Section 2. Definitions

### • 2.9. Inspection Lot

- Products available for verification from area(s).

### • 2.17. Sample

- Number of items tested.



## Section 2 – Definitions: 2.14. Prices

- **Misrepresented Price**
  - When the price charged is different than the price of the item is offered, exposed, or advertised for sale.
- **Overcharges/Undercharges**
- **Intentional Undercharge**
  - Stores do this to lower price in the database, then subsequently lower the price on the shelf sign or tag.
  - When a discounted price is rounded to a lower value according to a pricing strategy.
  - Are not counted as errors.

## Section 2 - Definitions

- 2.11. Not-On-File Item (NOF)
- 2.13. Price Look Up Code (PLU)
- 2.19. Stock Keeping Unit (SKU)
- 2.23. Universal Product Code (UPC)

## Section 3: Test Notes

- **Safety and Health**

- Practice safe work habits.
- Handle perishables properly to avoid damage.



- **Confidentiality of Findings**

- Discuss only with authorized personnel.
- Release in accordance with applicable public record laws (e.g., freedom of information requests).

## Section 4 - Materials & Equipment

- Inspection Reports
- State or Local Law on Misrepresentation of Pricing
- Sales Brochure
- Hand-held Scanning Device - Linked to POS
  - Encouraged but not required.
  - Typically available upon request.

## Section 5 – Pre-inspection Tasks

- Be prepared to provide information on the law and the inspection procedure.
- Invite store personnel to observe and participate in the inspection.
- It is OK for store personnel to assist by operating the handheld scanner.
- If a manual inspection – arrange to have a check out register available for use.
- Conduct inspections in a manner that is not disruptive to normal business activities.
- Offer to return items to shelves upon completion of inspection.

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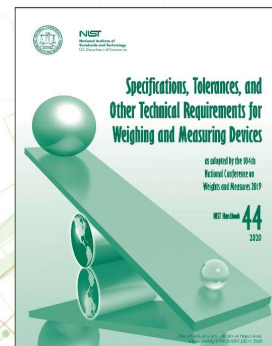
## Section 6 - Inspection

### 6.1. Position of Equipment

- If attached to a scale apply NIST HB 44 requirements.

### 6.2. Other

- Verify the accuracy and legibility of register receipts.
- Apply local requirements related to price marking, shelf labels or unit pricing.



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Before we get into the actual test procedure...

What questions do you have?

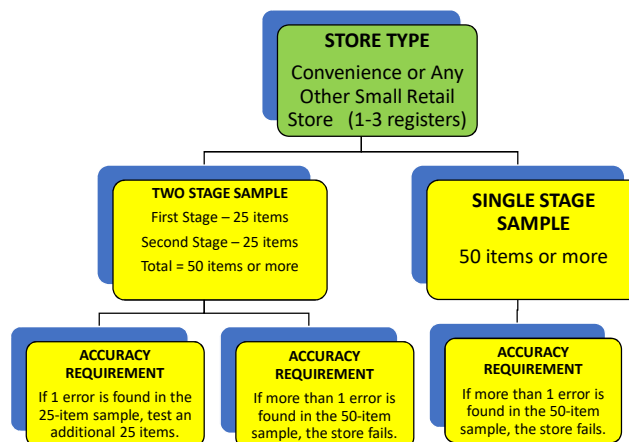
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**NIST**

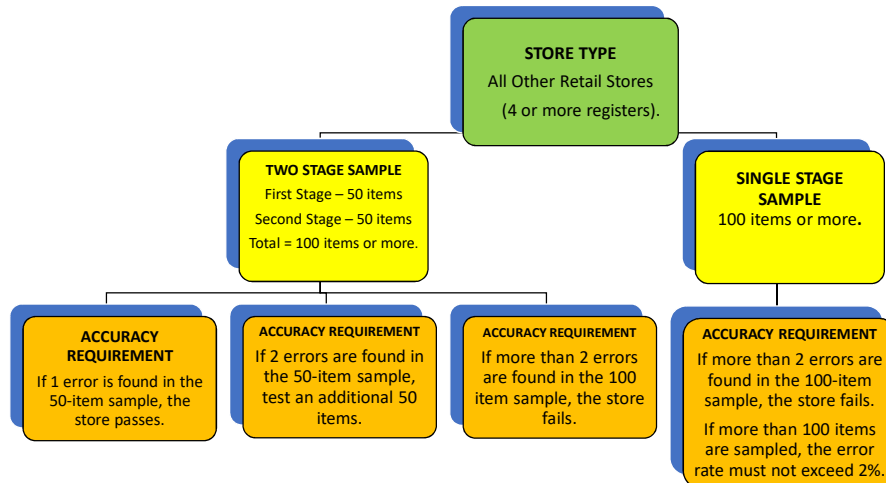
## Section 7: Test Procedures

### How to Sample and Accuracy Requirements



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## SECTION 7: TEST PROCEDURES How to Sample and Accuracy Requirements



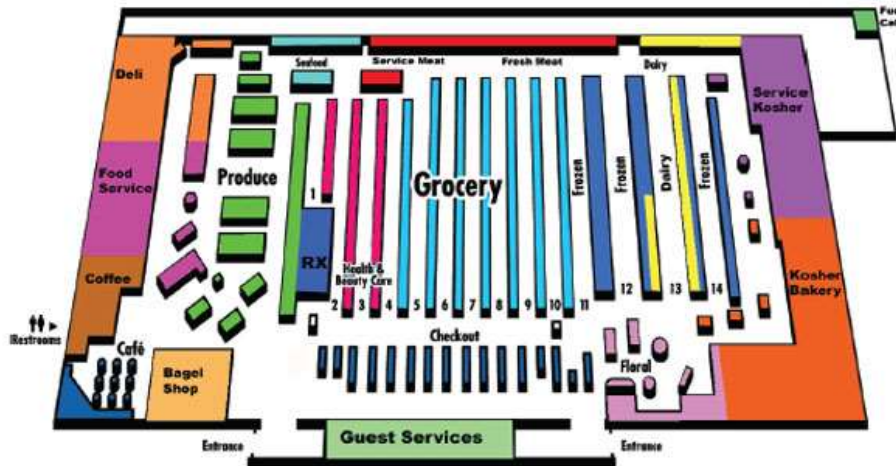
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### Section 7.3.1. Randomized Sampling

- **Step 1** – Divide the store into areas.
- **Step 2** – Determine the sample size.
- **Step 3** – Determine the number of samples per area.
- **Step 4** – Select sample using count in variable steps of 5, 10, or 15 items....etc.

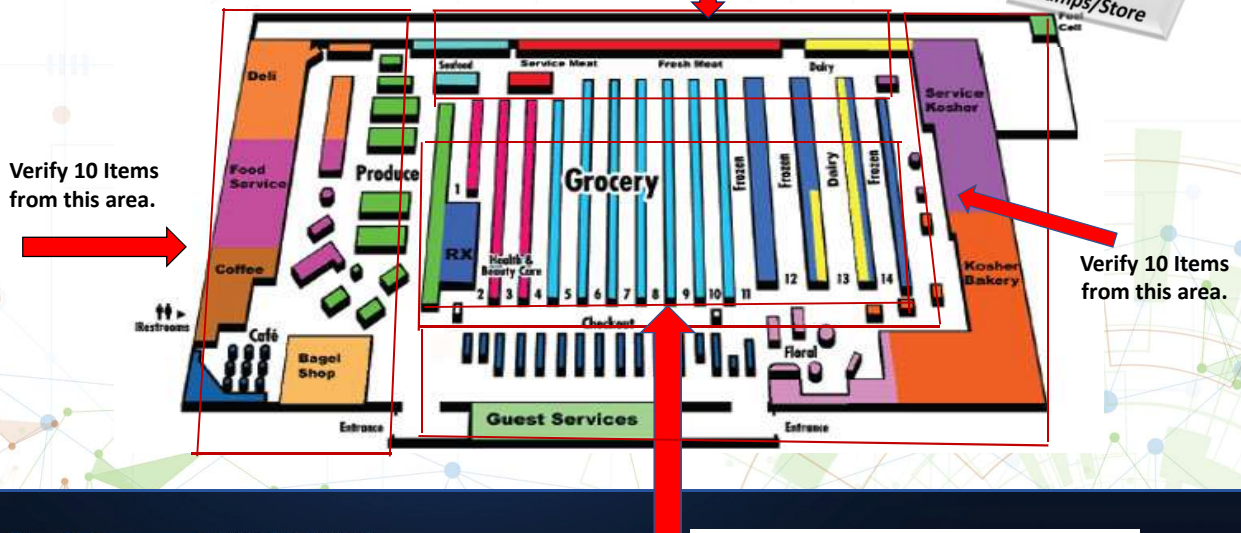
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### Randomized Sampling – Areas (divide the store into 4 areas)



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### RANDOMIZED SAMPLING – AREAS (store is divided into 4 areas)



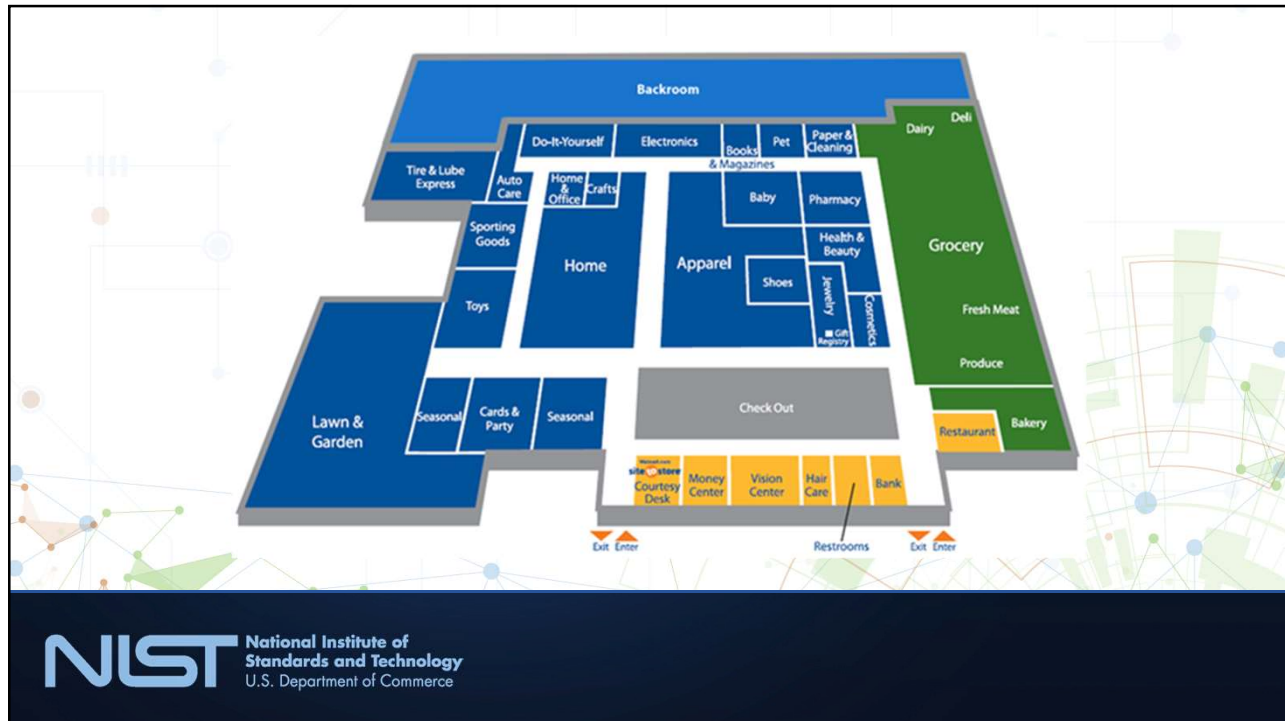
Verify 10 Items from this area.

Verify 10 Items from this area.

Verify 10 Items from this area.

Verify 70 Items. e.g., take 5 items from each side of every other aisle.

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## Section 7.3.1. Randomized Sampling

- You can change the number of items you count off (e.g., 5, 10, or 15) as often as necessary.
- Increase randomness by starting on different shelves and/or different parts of the aisle.
- When a discrepancy is found, record:
  - The product name.
  - Price advertised.
  - Price scanned.
  - Location of product.

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Starting Point

In this example, 5 items are counted and the 5<sup>th</sup> item is selected.

5 Samples were tested in this area.

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Starting point.

May need to adjust your count for smaller items.

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Are you checking these areas?

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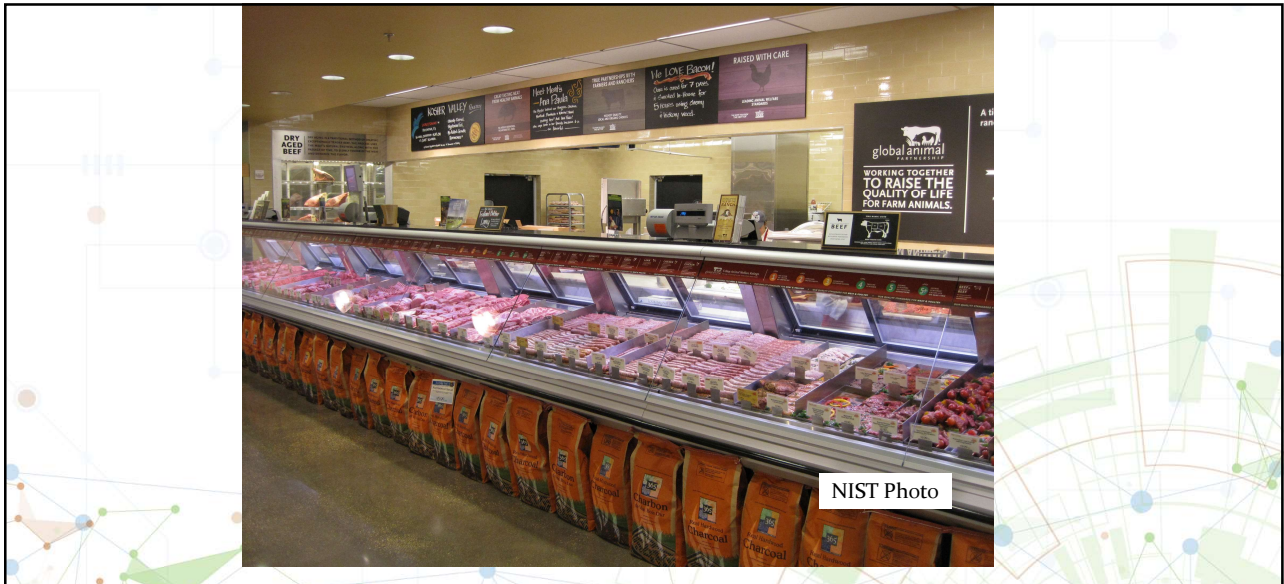


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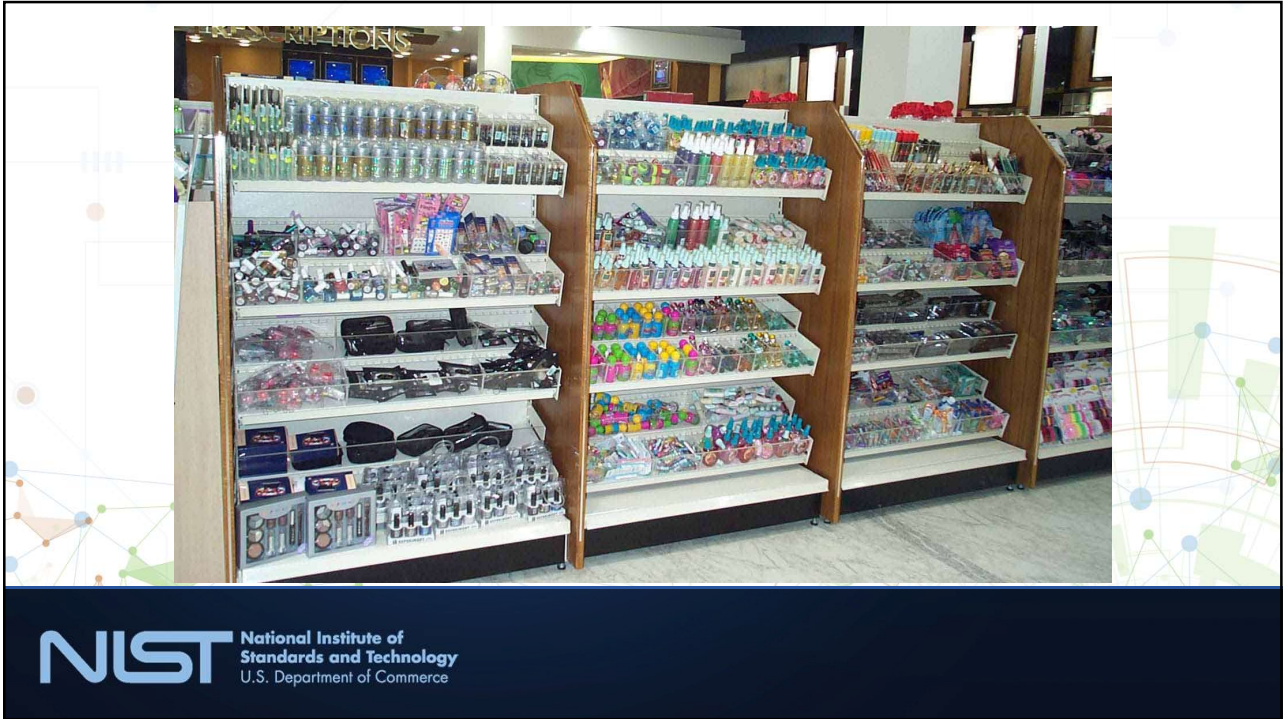
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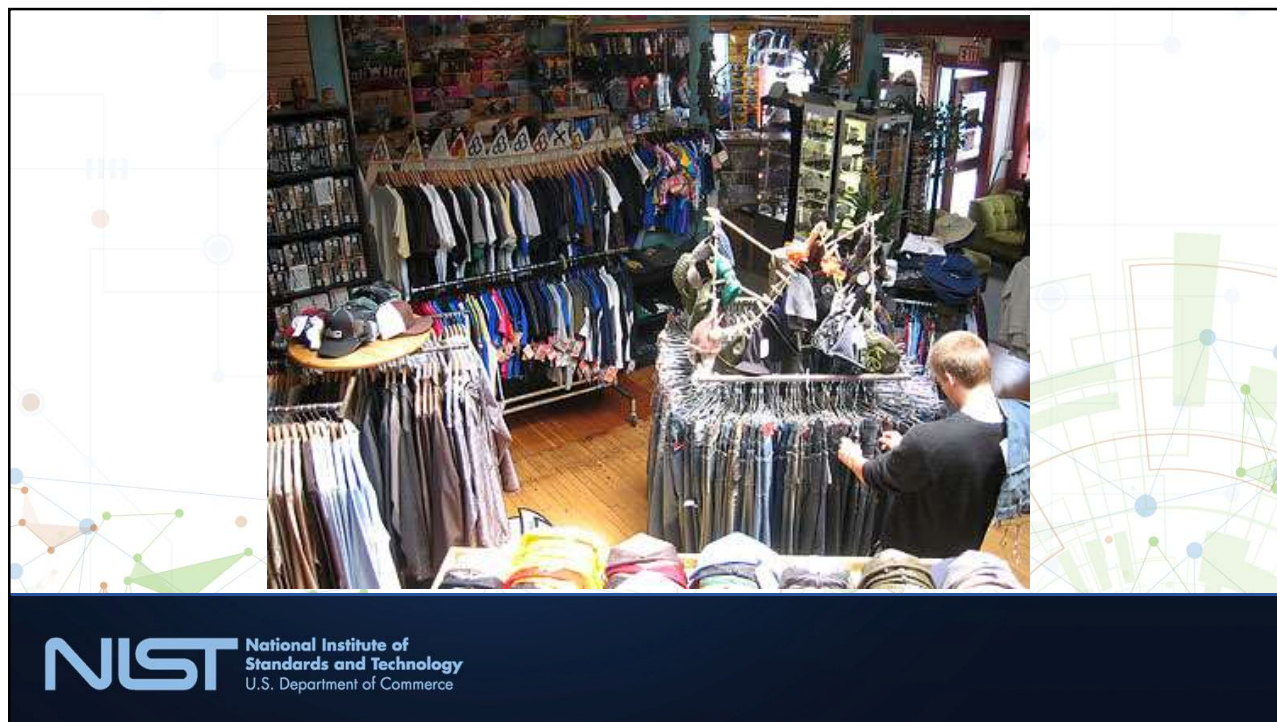
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## Section 7.3.2. Stratified Sample Collection

- Stratified sample collection – the selection of samples from specific merchandising groups (e.g., sale items, specials, seasonal, end displays, discontinued items, or specific departments).
- Can be from a single group or a combination of groups.
- Typically used if a store has failed a randomized sample collection (e.g., after analysis of data shows all errors are sale items) procedure or consumer complaints.
- Focuses on specific merchandising groups that appear to have more errors than others (risk adverse).

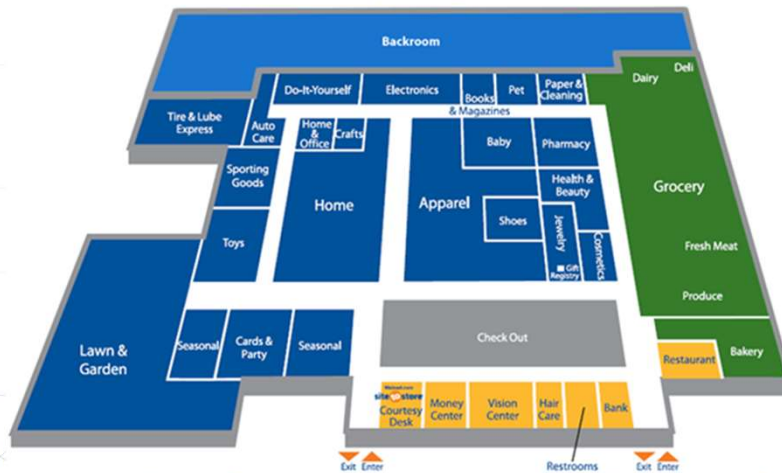
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## Section 7.3.2. Stratified Sample Collection

- Step 1** – Determine merchandise groups from which items will be selected.
- Step 2** – Determine the sample size.
- Step 3** – Determine number of items to be selected from each group based on the number of groups and sample size.
- Step 4** – Select sample using randomized sampling.

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## Stratified Sampling Collection



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What questions do you have?

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## Section 7.4 – Test Procedures

This procedure is used:

- ✓ To investigate consumer complaints.
- ✓ To determine if a store corrected previous errors from prior inspections.
- ✓ To determine if manually keyed in prices or PLU codes are accurate.

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## Section 7.4.1. Procedure for Test Purchases

- **Do not alert the clerk.**
- **Use the randomized sampling procedure.**
  - Collect 10-50 items of targeted stratified sample.
  - Record the identity and shelf price.
- **Check out and pay for purchase.**
  - Obtain the original sales receipt.
  - Record the time of day, lane number, and cashier's name.
  - Determine if there are any errors.
  - Identify yourself and notify store management.
  - Record information on a test report.

## Section 7.4.1. Procedure for Consumer Complaints

### Consumer Complaints

- You can check a group of items or only the item or items subject to the complaint.
- If the complaint is valid you can limit your inspection to just the product subject to the complaint, or do a complete inspection.

# QUESTION?

Enforcement action cannot be taken on “Test Purchases”.  
This is only considered an audit.

AGREE

DISAGREE

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## Section 8 - Documentation of Findings

- Record findings (e.g., use sample report form).
- Only record errors, not all items.
- Record any employee explanations of errors.
- Record if a stop sale was issued or if problems were corrected before leaving.
- Retain cash register receipts, printed advertisements and other media used, and attach to inspection report as evidence.

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Price Verification Report I (completed sample)					
Page ___ of ___					
Inspection: <input checked="" type="checkbox"/> 1 <sup>st</sup> <input type="checkbox"/> 2 <sup>nd</sup> <input type="checkbox"/> 3 <sup>rd</sup> Frequency: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Increased    Type: <input checked="" type="checkbox"/> Stratified <input type="checkbox"/> Automated <input type="checkbox"/> Randomized    Complaint: <input type="checkbox"/>					
Location of Test (Store Name, Address, County, ZIP Code) Barkers Food Store Belle, New Jersey 31756			Date: 3/5/2020	Telephone: 641-555-6416	
			Manager: Chris Barker	Type of Store: Grocery	
Identity, Brand Name, Item or Style Number	Number of Items, Size, Location in Store, or UPC Code	Offered Price	Price Charged	Error (±)	
1. Smith Cake Mix	32 oz. 313461346177	3.19	4.19	+ 1.00	
<input type="checkbox"/> Stop Sale Issued <input checked="" type="checkbox"/> Corrected Comments: Sale sign not removed					
2. Natural Fruit Juice	1 Liter 617369345619	2.25	2.75	+ .50	
<input type="checkbox"/> Stop Sale Issued <input checked="" type="checkbox"/> Corrected Comments:					
3. Carks Soap	8oz. 936125376558	1.19	1.00	- 0.19	
<input type="checkbox"/> Stop Sale Issued <input checked="" type="checkbox"/> Corrected Comments:					
Inspection Results: ___100 (Sample Count) - ___0 (# Not on File) = ___100 (Adjusted Sample Count [ASC]) ___3 (# Errors) ÷ ___100 (ASC) = ___3 (Error Percentage) (Accuracy Percentage) = 97 %    Overcharges/Undercharges Ratio = 2:1					
Inspector Name: T. Price			Report Acknowledgement: Chris Barker		
Time In: 8:15      Time Out: 9:30					
Comments/Remarks: _____			Comments/Remarks: _____		

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Price Verification Report II (completed sample)							
Page <u>1</u> of <u>1</u>							
Inspection: <input checked="" type="checkbox"/> 1 <sup>st</sup> <input type="checkbox"/> 2 <sup>nd</sup> <input type="checkbox"/> 3 <sup>rd</sup> Frequency: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Increased    Complaint: <input type="checkbox"/>							
Location of Test (Store Name, Address, County, ZIP Code) Mark Downtown Department Store 11650 Main St. Alice, MN 61619				Date: 3/5/2020	Telephone: (614) 555-6146		
				Manager: Jim Chester	Type of Store: Department Store		
Item/Size or Style Number	Offered Price	Price Charged	Price Error (±)	Item/Brand/Description/Code/Size	Offered Price	Price Charged	Price Error (±)
1. Identity: Sony Color TV UPC/PLU: 38569 Comments: Model 6136X	189.00	199.00	+ 10.00	11. Identity: UPC/PLU: Comments:			
2. Identity: Moore Lawn Mower UPC/PLU: 31619 Comments: Shp with bagger	96.00	91.00	- 5.00	12. Identity: UPC/PLU: Comments:			
3. Identity: Taft Rake UPC/PLU: 39916 Comments: Not on file	8.99			13. Identity: UPC/PLU: Comments:			
4. Identity: Calendar UPC/PLU: 615191 Comments:	5.50	7.10	+ 1.60	14. Identity: UPC/PLU: Comments:			
Inspection Results: ___50 (Sample Count) - ___1 (# Not on File) = ___49 (Adjusted Sample Count [ASC])    Stop-Sale Order Issued? <input type="checkbox"/> ___3 (# Errors) ÷ ___49 (ASC) = ___6 (Error Percentage) (Accuracy Percentage) = 94 %    Overcharges/Undercharges Ratio = 2:1							
Inspector Name: Tim Marlowe				Report Acknowledgement: Jim Chester			
Time In: 10:25 AM      Time Out: 4:45 PM				Name/Title: Jim Chester, Manager			
Comments/Remarks: _____				Comments/Remarks: _____			

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## Section 9. - Evaluation of Inspection Results

- Verify errors according to the definitions.
- Compute the sampling error (% error).
- Compute the ratio of overcharges to undercharges.

## Section 9.1. Errors not considered a violation

These following errors are not considered violations for enforcement purposes:

- Intentional undercharge (information must be provided at the time of inspection).
- Advertising error (correct price must be posted on shelf).
- Obviously missing or relocated signs.
- Missing shelf label.
- Misplaced products.
- "Not-on-File."

## Section 10 - Accuracy Requirements

- 100 % accuracy is the law.
- Sample must be 98% or higher to “pass”.
- Overcharges and undercharges misrepresent the price of an item.

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## Section 10. Criteria for Evaluating Price Integrity

- Percentage of errors found in the sample.
- Ratio of overcharges to undercharges.
- History of store compliance.

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## Section 11 - Enforcement Procedures

- Compliance is based on the sample.
- Errors should be corrected immediately.
- Consideration should be given to the magnitude of the violation.
- If store “fails”, place on increased frequency inspection.
  - Inspect every 30 days taking appropriate enforcement action until price accuracy improves to an acceptable level (two consecutive inspections reveal an accuracy of 98% or higher).

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## Section 11. Enforcement Levels

**Lower level** - (consider overcharges and undercharges):

- Increase frequency of inspection
- Stop sale or correction order
- Warning letter

**Higher Level** (based only on overcharges):

- Issue a citation
- Administrative hearing
- Civil penalty
- Criminal prosecution

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## Example Enforcement Action (Based on a 100-item Sample)

- Three overcharges and two undercharges found. Error rate is 5 %, but overcharges are 3 %. Higher level of enforcement action should be taken.
- Two overcharges and three undercharges found. Error rate is 5 %, but overcharges are only 2% of sample. Lower level of enforcement action should be taken.

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## Section 12- Post Inspection Tasks

- Summarize findings and recommendations.
- Review findings with store representative.
- Advise the store of corrective actions that need to be taken and any you intend to take.
- Provide a copy of the report to the store.

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## Section 13 - Supervisory Activities

- ✓ Conduct baseline surveys.
  - Risk analysis.
  - Cost/benefit analysis.
- ✓ Schedule follow up inspections.
- ✓ Keep a database of stores and results.
  - Analyze data collected.

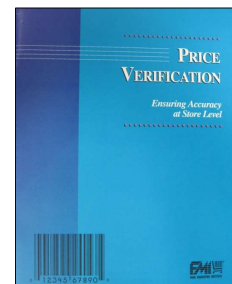
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## Retailer Resources

### Price Verification “Ensuring Accuracy at Store Level”

- Organization structure, commitment, focus and training.
- Store level procedures, policies, and audits.
- Host level procedures, checks and balances.
- Responsibilities of price coordinators.

Food Industry Association (FMI)  
(202) 452-8444 [www.fmi.org](http://www.fmi.org)



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## RETAILER RESOURCES

“Effective Practices for Pricing Accuracy”

- Organizational issues, polices, procedures and training.
- Operational practices.
- What to expect from audits by Weights and Measures.
- Conducting self audits.

**NRF** RETAIL

National Retail Federation – [www.nrf.com](http://www.nrf.com)  
202-783-7971 or 1-800-673-4692

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## SUMMARY

A Price Verification program helps to restore and maintain consumer confidence in retail pricing practices and technologies.

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# EVALUATIONS

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## Contact Information

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[www.nist.gov/pml/wmd](http://www.nist.gov/pml/wmd)

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