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Food Distribution Program

Foundations: Forecasting

Texas Department of Agriculture
USDA Division

TEXAS DEPARTMENT OF AGRICULTURE
COMMISSIONER SID MILLER

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You understand and acknowledge that:

- ❑ The training you are about to take does not cover the entire scope of the program; and that
- ❑ You are responsible for knowing and understanding all handbooks, manuals, alerts, notices, and guidance, as well as any other forms of communication that provide further guidance, clarification, or instruction on operating the program.

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Course Introduction

Course Outline and Objectives



**Foundations:
Forecasting
Course Outline**

- 01 **Forecasting Overview**
Understanding forecasting purpose, benefits, and steps
- 02 **Pre-Planning**
Analyzing cycle menus and observing trends
- 03 **Food Production Records**
Analyze historical data and trends
- 04 **Inventory Reports**
Analyze inventory to forecast quantities and costs
- 05 **Maximizing Entitlement**
Tools and strategies
- 06 **Request USDA Foods**
Putting it all together

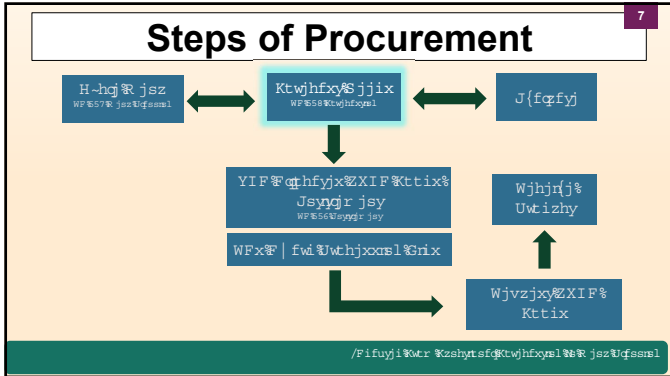
Course Objectives and Outcomes

By the end of this course, participants will be able to:

- Identify and understand the steps in forecasting and procurement timeline
- Understand how to conduct needs analysis and calculate inventory of USDA Foods
- Understand how to use Food Production Records to assist in forecasting
- Identify tools and strategies that help maximize USDA entitlement dollars



**Forecasting
Overview**





Forecasting Is...



Planning.
The process of evaluating resources, projecting expenses, and determining needs. Involves estimating goods, works, and services needed.

What does that look like?

- Analyzing current and historical data in Food Production Records to determine future trends.
- Making predictions/estimates based on report analysis for coming year.
- Assessing needs for procurement.

From Forecasting The Procurement of Foods by the Institute of Child Nutrition

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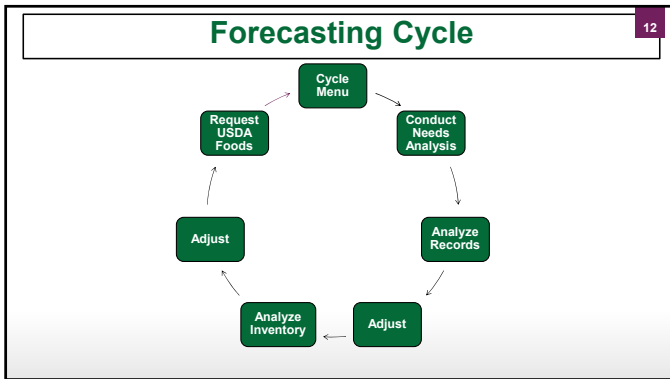
What are the benefits of the forecasting process?

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Purpose and Benefits:

- Advanced, detailed planning will assist with...
- More cost-effective pricing
- Full utilization of entitlement
- Fewer menu shortages, purchasing and delivery errors, problems to manage

**From Forecasting The Procurement of Foods by the Institute of Child Nutrition*




Forecasting Steps 13

STEP	WHAT I NEED TO KNOW	HOW I DETERMINE IT	ADJUSTMENTS
1	What food to order?	Create Cycle Menu	
2	What will students eat?	Conduct Needs Analysis	Adjust Food List/Menu
3	How much did they eat?	Analyze Food Production Records	Adjust Menu Frequency
4	How much have I used & how much do I have left?	Analyze Inventory Reports	Adjust Quantities
5	How much does it cost?	Maximize Entitlement	Adjust Menu/Quantities
6	Request USDA FOODS!	WBSCM & FFAVORS	





Creating Cycle Menus 16



- Dissect Menu**
 - Variety, Equipment, Labor, Student Interest, Available Commodities
- Observe Trends**
 - Review Food Production Records
 - Review Point of Sales Counts
- Control Costs**
 - Available Revenue
 - USDA Reimbursement
 - Non-Food Costs
- Budget**

*From Meal Appeal Toolkit and Functional Forecasting

1 Create Cycle Menu



**Pre-Planning
Step 2:
Needs Analysis**

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Needs Analysis Steps 

- a) Past Activity
- b) Current Activity
- c) Future Planning



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Step 2a. Analyze Past Menu Surveys 19

Menu Surveys

- Gather student feedback:
 - Student Surveys
 - Taste Tests
 - Comment Cards
 - Focus Groups
- Use feedback numbers to adjust items ordered and quantity ordered.

*From NSLP Procurement Basics and Meal Appeal Toolkit

2

Conduct Needs Analysis

Step 2a. Analyze Past Records 20

Food Production Records

- Use to track:
 - Total daily participation
 - Specific food items sold
 - Number of reimbursable meals and a la carte sales each day
- Guides number of servings should be prepared next time same menu from cycle is served

*From NSLP Procurement Basics

2

Conduct Needs Analysis

Step 2a. Analyze Past Pricing/Availability 21

Product Pricing and Availability

- Analyze which items were:
 - More cost effective
 - Less cost effective
 - Unavailable
- Adjust order quantities, make substitutions based on analysis

*From NSLP Procurement Basics

2

Conduct Needs Analysis

Step 2b. Analyze Current Year Activity 22

Construction Impacts	Student Enrollment	Special Provisions	Active Vendor Contract
<p>Will construction impact the quantity of materials ordered due to impacts on:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Storage Capabilities <input type="checkbox"/> Equipment Access <input type="checkbox"/> Food Preparation 	<p>Use historical records to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Forecast amount of material needed. <input type="checkbox"/> Has enrollment increased or decreased? <input type="checkbox"/> Adjust order quantity based on current student enrollment. 	<p>Analyze Special Provisions</p> <ul style="list-style-type: none"> <input type="checkbox"/> Will any schools implement special provisions? <input type="checkbox"/> How will provisions impact quantities? (may increase) 	<p>Consider Active Vendor Contracts</p> <ul style="list-style-type: none"> <input type="checkbox"/> How will active vendor contracts impact materials ordered?

*From NSLP Procurement Basics

2 Conduct Needs Analysis

Step 2c. Future Planning 23

Planned Renovations	Campus Closures and Consolidation	Entitlement Funding Changes
<p>Analyze how future construction will impact the quantity of materials ordered due to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Storage Capabilities <input type="checkbox"/> Equipment Access <input type="checkbox"/> Food Preparation 	<p>Consider how closures and consolidations will impact procurement</p> <ul style="list-style-type: none"> <input type="checkbox"/> How will enrollment impact ordering quantities and/or materials? 	<p>Analyze Changes in Entitlement Dollars</p> <ul style="list-style-type: none"> <input type="checkbox"/> Has entitlement increased or decreased? <input type="checkbox"/> How will changes impact materials ordered or method of procurement?

*From NSLP Procurement Basics


2 Conduct Needs Analysis

Step 3: Analyze Food Production Records 24

Cycle Menu → **Conduct Needs Analysis** → **Analyze Records** → **Analyze Inventory** → **Maximize** → **Request USDA Foods**

Food Production Records 25

- Required daily document demonstrating meals served and claimed
- Keep complete and accurate Food Production Records including:
 - Menus
 - Food Substitutions
 - Meal Pattern Contribution Documentation
- Must include required elements on TDA Food Production Record Template




3 Analyze Food Production Records

*From Using Food Production Records to Reduce Waste

Analyzing Food Production Records 26

Food production records should be used as a management tool to:


- Determine future trends
- Adjust preparation amounts
- Adjust amount of material ordered in the future based on historical usage



3 Analyze Food Production Records

*From Using Food Production Records to Reduce Waste

Using Food Production Records 27



3 Analyze Food Production Records

*From Using Food Production Records to Reduce Waste

Food Production Record: Portion Sizes

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Review Portion Size and Number of Portions Columns for Appropriate Grade Group

3 Analyze Food Production Records

*From Food Production Records in the National School Lunch and School Breakfast Programs

Food Production Record: Amount Prepared

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Review Total Amount Prepared Column

3 Analyze Food Production Records

*From Food Production Records in the National School Lunch and School Breakfast Programs

Food Production Record: OVS

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Review OVS Offer vs. Serve Service

3 Analyze Food Production Records

*From Food Production Records in the National School Lunch and School Breakfast Programs

Offer
vs.
Serve



Offer vs. Serve: What Kids Want

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- Allows students to decline some foods offered and select foods they prefer eating.
- Applies to menu planning and reimbursable meals
- Reduces potential for waste
- Lowers overall food cost

*From OVS at Lunch NSLP

3 Analyze Food Production Records

Analyzing Offer vs. Serve to Forecast

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Analyze servings at each meal to estimate future servings needed.

Example:

- You won't serve 100 servings of every item offered.
- You might serve 100 servings of hamburgers; 60 servings of corn, 50 apples etc.

Use these numbers to guide future orders.

*From OVS at Lunch NSLP

3 Analyze Food Production Records

**Step 4:
Analyze Inventory Reports**

Cycle Menu → Conduct Needs Analysis → Analyze Records → **Analyze Inventory** → Maximize → Request USDA Foods

Tracking USDA Foods

Weekly:

- Set a reminder to track inventory and entitlement balances to assess future needs and buying power.
- Check FFAVORS (Fresh Fruit and Vegetable Order Receipt System) to review DoD and Local Grown (Farm to School) inventory.

*From USDA Foods Inventory Management

**Tracking USDA Foods:
Processing Inventory Management**

Monthly:

- Review USDA Food Pounds that are with processor by:
- Viewing current inventory balance through K12 or ProLink tracking systems
- In-house tracking systems
- Distributor Tracking Systems


*From USDA Foods Inventory Management

Actual Monthly Food Counts to Forecast 37

Analyze Counts Of:

- Beginning inventory of purchased and USDA Foods
- Food purchased during month and USDA foods value received
- End of month inventory of purchased and USDA Foods

Adjust future order quantities based on inventory counts



*From Making Sense of Food Cost Basics

4 Analyze Inventory


Step 5: Maximizing Entitlement



*From Making Sense of Food Cost Basics

5 Maximize Entitlement

Actual Monthly Food Cost to Forecast 39



\$ Beginning inventory of purchased and USDA Foods

+

Food purchased during month and USDA foods value received

-

End of month inventory of purchased and USDA Foods

=

Food Costs for Month

*From Making Sense of Food Cost Basics

5 Maximize Entitlement

Determine Cost-Effectiveness

- Gather items needed to complete the Cost Analysis Worksheet
- Follow Cost Analysis Checklist
- Consider following Best Practice Guidance in comments

Maximize Enablement

USDA Cost Analysis Worksheet

JsyjwXIFktix
TzylktjhpjyHtxyx

*Note: WBSM refers to this as Direct Delivery

Maximize Enablement

USDA Cost Analysis Worksheet

ZXIFktix
TzylktjhpjyHtxyx

JsyjwHtr jwrf
HtxyktwvziEgys
Htr jwrfJw izyx

Maximize Enablement

USDA Cost Analysis Worksheet 43

Regular/Brown Box

Commercial Equivalent

Settings

ZZIF&ttix%
Tzyt&Uthpjy%
Htxox

Htr r jwhrfq
Jvznfajsy%
Htxox

Tzyt&k%
Uthpjy%
Xf(rs)lx

mhm&dx%
hmj eu)jd

Maximize Entitlement

Utilize Bonus Opportunities 44

- ❑ WFx& f~&vjvzjxy&f&x& fs~>szx%
ktix&x&y&hfs&zxj% nmtzy% fxyj
- ❑ YIF&sty&nx&j&g&l&g&j&WFX% mjs%
gtszx&ttix&j&htr j&f{f&f&g&j
- ❑ Sty&mf&w&j&i&f&l&fs&xy&fs&WFX&kti%
j&sy&g&r j&sy&f&r t&zy

Maximize Entitlement

What is the most important forecasting step?

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Step 6: Request USDA Foods!

Cycle Menu → Conduct Needs Analysis → Analyze Records → Analyze Inventory → Maximize → Request USDA Foods

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Putting It All Together: Prepare for Requisitions

- Cycle Menu of...
- Most Cost Effective...
- Foods Students Will Eat...
- Frequency They Will Eat It...
- Count of Inventory On Hand.

Thursday

Chicken Chalupa

Mexicali Corn

Milk: 1%, Fat Free, Fat Free Chocolate

6 Request USDA Foods

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Putting It All Together: Prep for Requisitions

Calculate Recipe Quantity Needed

1 Chicken, Diced (based on previous production records/sales data)
 $3 \text{ oz per serving} \times 1,525 \text{ planned servings} = 4,575 \text{ oz} = \mathbf{286 \text{ pounds}}$

Thursday

Chicken Chalupa

Mexicali Corn

Milk: 1%, Fat Free, Fat Free Chocolate

6 Request USDA Foods

*From Rachel Sanchez, Education Service Center Region 20

Putting It All Together: Prep for Requisitions 49

Calculate Yearly Quantity Needed

- 1 Chicken, Diced (based on previous production records/sales data)
3 oz per serving x 1,525 planned servings = 4,575 oz = **286 pounds**
- 2 Chalupas are offered **8** times a year.
286 pounds x **8** = **2,288** pounds diced chicken

Thursday

Chicken Chalupa

Mexicali Corn

Milk: 1%, Fat Free, Fat Free Chocolate

6 Request USDA Foods

*From Rachel Sanchez, Education Service Center Region 20

Putting It All Together: Prep for Requisitions 50

Calculate Yearly Cases Needed

- 1 Chicken, Diced (based on previous production records/sales data)
3 oz per serving x 1,525 planned servings = 4,575 oz = 286 pounds
- 2 Chalupas are offered **8** times a year.
286 pounds x **8** = **2,288** pounds diced chicken
- 3 Each case of Chicken, Diced (#100101) is 40 pounds
2,288 pounds ÷ 40 pounds per case = **58 cases needed per year**

Thursday

Chicken Chalupa

Mexicali Corn

Milk: 1%, Fat Free, Fat Free Chocolate

6 Request USDA Foods

*From Rachel Sanchez, Education Service Center Region 20

Putting It All Together: Prep for Requisitions 51

Count Quantity On Hand

- 1 Chicken, Diced (based on previous production records/sales data)
3 oz per serving x 1,525 planned servings = 4,575 oz = 286 pounds
- 2 Chalupas are offered 8 times a year.
286 pounds x 8 = 2,288 pounds diced chicken
- 3 Each case of Chicken, Diced (#100101) is 40 pounds
2,288 pounds ÷ 40 pounds per case = **58 cases needed per year**
- 4 Check for Chicken, Diced (#100101) already in inventory
13 cases in inventory

Thursday

Chicken Chalupa

Mexicali Corn

Milk: 1%, Fat Free, Fat Free Chocolate

6 Request USDA Foods

*From Rachel Sanchez, Education Service Center Region 20

Putting It All Together: Prep for Requisitions

Calculate Cases to Order

- 1 Chicken, Diced (based on previous production records/sales data)
3 oz per serving x 1,525 planned servings = 4,575 oz = 286 pounds
- 2 Chalupas are offered 8 times a year.
286 pounds x 8 = 2,288 pounds diced chicken
- 3 Each case of Chicken, Diced (#100101) is 40 pounds
2,288 pounds ÷ 40 pounds per case = 58 cases needed per year
- 4 Check for Chicken, Diced (#100101) already in inventory
13 cases in inventory
- 5 Subtract from requisition counts (request only what is needed)
58 cases needed - 13 cases in inventory = 45 cases to request

Thursday

Chicken Chalupa

Mexicali Corn

Milk: 1%, Fat Free, Fat Free Chocolate

Request USDA Foods

*From Rachel Sanchez, Education Service Center Region 20

Putting It All Together: Prepare for Requisitions

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Chicken Chalupa

Mexicali Corn

Milk: 1%, Fat Free, Fat Free Chocolate

Request USDA Foods

*From Rachel Sanchez, Education Service Center Region 20

Putting It All Together: Enter Order Requisition

USDA United States Department of Agriculture
Web-Based Supply Chain Management

Operations > Order Processing > Order Management > Domestic Order Entry

My Transactions Catalog | Transaction in Process

Product Details

Product Number: 100101
Name: CHICKEN DICED-12/15 OZ
Full Truck Load Quantity: 3200.000 CS

Delivery Date	Order By Date	Quantity
10/15/2022	09/30/2022	45
10/31/2022	10/15/2022	

Move to Cart

Thursday

Chicken Chalupa

Mexicali Corn

Milk: 1%, Fat Free, Fat Free Chocolate

Request USDA Foods

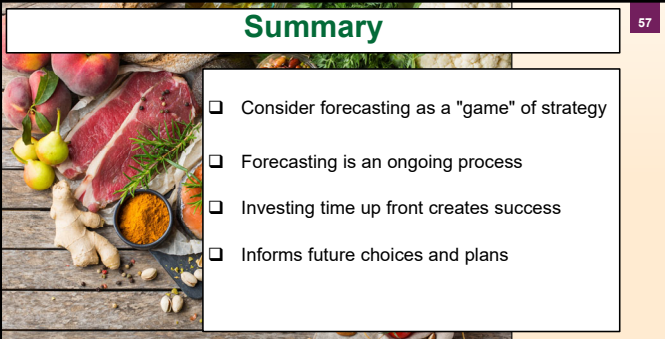
*From Rachel Sanchez, Education Service Center Region 20

Summary



Forecasting Steps			
STEP	WHAT I NEED TO KNOW	HOW I DETERMINE IT	ADJUSTMENTS
1	What food to order?	Create Cycle Menu	
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Summary




- Consider forecasting as a "game" of strategy
- Forecasting is an ongoing process
- Investing time up front creates success
- Informs future choices and plans

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WBSCM Transition Page QR Code:

Scan QR Code to visit the Food Distribution Program WBSCM Transition website




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