

# **IDENTIFYING THE ACTUAL COSTS OF A MEAL**

## **PART 2: UNDERSTANDING AND CALCULATING MEAL COSTS**

**PRESENTED BY**

**AUDREY C. MCCOOL, EDD, RD, LD**

### **OBJECTIVES**

**AFTER PARTICIPATING IN THIS PROGRAM, PARTICIPANTS SHOULD BE ABLE TO:**

- ✓ **DIFFERENTIATE BETWEEN FOOD COSTS AND MEAL COSTS**
- ✓ **IDENTIFY AT LEAST 4 MEAL COST COMPONENTS WITHIN THEIR PROGRAMS**
- ✓ **CALCULATE ACTUAL FOOD COSTS FOR THEIR PROGRAMS**
- ✓ **IDENTIFY FACTORS THAT CAN ESCALATE FOOD COSTS THROUGH UNPLANNED LOSS**
- ✓ **EXPLAIN HOW TO CALCULATE VARIABLE COMPONENTS OF MEAL COSTS, SUCH AS LABOR OR SUPPLIES**
- ✓ **LIST AT LEAST 4 FIXED COST COMPONENTS OF THE TOTAL MEAL COST WITHIN THEIR PROGRAMS**
- ✓ **EXPLAIN AT LEAST 2 ALTERNATIVES FOR ALLOCATING FIXED COSTS AMONG THEIR PROGRAMS, INCLUDING THE MEAL PROGRAMS**

## WHY KNOWING MEAL COSTS IS IMPORTANT

- **CONTINUED DECLINE IN BUDGETS COMBINED WITH CONTINUED INCREASED DEMAND**
- **INCREASING COMPETITION FROM ALTERNATIVE MEAL SERVICE PROVIDERS**
- **NEED TO MANAGE COSTS TO BE ABLE TO STAY IN BUSINESS SO THAT YOU CAN PROVIDE SERVICES TO YOUR CONSUMERS**
- **POTENTIAL FOR PROGRAM TO BECOME A CONTRACTOR THAT PROVIDES MEALS TO OTHER VENUES**
- **NEED TO BE ABLE TO EVALUATE BIDS RECEIVED FROM POTENTIAL CONTRACTORS**



3

**FOOD COSTS ARE NOT THE  
SAME AS TOTAL MEAL COSTS**

## CALCULATION OF ACTUAL (TOTAL) MEAL COSTS

ACTUAL MEAL COSTS INCLUDE MULTIPLE COSTS IN ADDITION TO FOOD COSTS



**COST PER MEAL = TOTAL ACTUAL MEAL COSTS FOR THE PERIOD DIVIDED BY TOTAL NUMBER OF MEALS SERVED DURING THAT SAME PERIOD.**

5

## EFFECTIVE COST MANAGEMENT

- **MANAGING COSTS EFFECTIVELY MEANS OPTIMIZING COSTS RELATIVE TO THE REVENUE ANTICIPATED FOR YOUR PROGRAM.**
- **IT DOES NOT MEAN YOUR COSTS ARE REDUCED TO THE MINIMUM POSSIBLE.**
- **IT DOES MEAN YOU NEED TO CONSIDER YOUR COSTS RELATIVE TO THE REVENUE GENERATED AS YOU INCUR YOUR MEAL COSTS**



6

## EFFECTIVE COST MANAGEMENT



- **EFFECTIVE COST MANAGEMENT DOES NOT MEAN SACRIFICING QUALITY**
- **TRYING TO REDUCE COSTS TO THE MINIMUM OFTEN MEANS YOU ARE GOING TO BE LOSING MEAL QUALITY, WITH RESULTING DECLINE IN PARTICIPATION RATE AND REVENUE**



7

## EFFECTIVE AND EFFICIENT ARE NOT THE SAME

- **WHILE IT IS IMPORTANT FOR YOUR PROGRAMS TO OPERATE EFFICIENTLY, IT IS EVEN MORE IMPORTANT FOR YOUR PROGRAM TO USE YOUR AVAILABLE RESOURCES AS EFFECTIVELY AS POSSIBLE.**
- **TO BE EFFICIENT IS TO FUNCTION IN THE BEST POSSIBLE AND LEAST WASTEFUL MANNER;**
- **TO BE EFFECTIVE IS TO PRODUCE THE INTENDED OR EXPECTED RESULT.**

8

## MEAL COST COMPONENTS

- **DIFFERENT TYPES OF COSTS HAVE DIFFERENT IMPACT ON TOTAL MEAL COSTS**
- **VARIABLE (DIRECT) COSTS ARE COSTS THAT CHANGE PROPORTIONATELY WITH THE VOLUME OF BUSINESS.**
- **FIXED (OVERHEAD) COSTS ARE COSTS THAT REMAIN CONSTANT IN THE SHORT RUN EVEN THOUGH REVENUE VOLUME MAY VARY.**

## FOOD COST CALCULATIONS

- **FOOD COSTS ARE NOT EQUAL TO THE SUM OF THE MONIES PAID TO FOOD VENDORS FOR A STATED PERIOD.**
- **FOOD COSTS REFLECT ONLY THE FOOD ACTUALLY USED OR THROWN AWAY.**
- **FOOD ON HAND IN INVENTORY IS NOT PART OF INCURRED FOOD COSTS**
- **FOOD USED FOR PURPOSES OTHER THAN PROGRAM MEALS IS NOT PART OF FOOD COSTS INCORPORATED INTO TOTAL MEAL COSTS**



## FOOD COST CALCULATIONS

**FOOD COSTS FOR AN ACCOUNTING PERIOD (I.E., A MONTH) ARE CALCULATED AS:**

- BEGINNING INVENTORY (VALUE OF FOOD ON HAND)**
- + TOTAL FOOD PURCHASES FOR THE PERIOD**
- = VALUE OF FOOD AVAILABLE DURING THE PERIOD**
- ENDING INVENTORY (VALUE OF FOOD REMAINING ON HAND)**
- = COST OF FOOD USED DURING THE PERIOD**
- FOOD USED FOR OTHER PURPOSES\***
- = TOTAL FOOD COST FOR THE PERIOD (TO BE INCORPORATED INTO TOTAL MEAL COST CALCULATIONS)**

**\* OTHER PURPOSES MIGHT INCLUDE FOOD FOR MEALS PROVIDED TO VOLUNTEERS; FOOD USED FOR BOARD OF DIRECTORS MEETING; ETC. THESE FOOD COSTS NEED TO BE CHARGED TO OTHER COSTS, SUCH AS VOLUNTEER BENEFITS, PROGRAM ADMINISTRATION, ETC.**

11

## CALCULATION OF MONTHLY FOOD COSTS

**EXAMPLE: CALCULATION OF MONTHLY FOOD COSTS**

**THE FOOD COST FOR THE MONTH IS CALCULATED AS:**

- \$ 5,435 (OPENING INVENTORY)**
- + \$11,780 (DRY STORES PURCHASES)**
- + \$ 9,225 (PERISHABLE FOOD PURCHASES)**
- \$ 4,650 (CLOSING INVENTORY)**
- = \$21,790 (COST OF FOOD CONSUMED)**
- \$ 1,800 (VALUE OF MEALS SERVED TO VOLUNTEERS - CHARGED TO VOLUNTEER BENEFITS)**
- \$ 425 (VALUE OF FOOD SERVED AT BOARD MEETING - CHARGED TO COST OF ADMINISTRATION)**
- = \$19,565 - THE ACTUAL FOOD COST FOR THE MONTH**



12

## INVENTORY MANAGEMENT

**CAREFUL MANAGEMENT OF INVENTORY INVESTMENT AND MONITORING THE FLOW OF PRODUCTS PLACED IN INVENTORY IS REQUIRED TO CALCULATE ACTUAL FOOD COSTS AND EFFECTIVELY MANAGE COSTS.**

13

## INVENTORY MANAGEMENT



- **CAREFUL INVENTORY RECORDS NEED TO BE MAINTAINED IN ORDER TO CONTROL INVENTORY USAGE.**
- **ACQUISITIONS SHOULD BE RECORDED FROM INVOICES; ISSUES SHOULD BE RECORDED FROM REQUISITION FORMS.**
- **PERPETUAL INVENTORY RECORDS CAN BE MAINTAINED ON COMPUTERS.**
- **PHYSICAL INVENTORY COUNTS NEED TO BE TAKEN MONTHLY.**
- **PERPETUAL AND PHYSICAL INVENTORY VALUATIONS NEED TO BE RECONCILED MONTHLY.**
- **SIGNIFICANT VARIATIONS IN INVENTORY VALUES NEED TO BE INVESTIGATED AND ACCOUNTED FOR.**

14

## PRODUCT "SHRINKAGE" INCREASES FOOD COSTS

- **PRODUCT "SHRINKAGE" MUST BE AVOIDED TO OPTIMIZE PRODUCT COSTS.**
- **"SHRINKAGE" CAN RESULT FROM:**
  - ✓ **THEFT - INTENTIONAL OR UNINTENTIONAL**
  - ✓ **EXCESSIVE USE OF PRODUCT**
  - ✓ **WASTE IN PRODUCT PREPARATION/HANDLING**
  - ✓ **SPOILAGE**



15

## PRODUCT PRESERVATION

**TAKING APPROPRIATE ACTIONS TO PREVENT PRODUCT "SHRINKAGE" THROUGH PRODUCT LOSS, OVER-USAGE, AND SPOILAGE IS A CRITICAL STEP IN EFFECTIVELY MANAGING FOOD COST – AND THUS MANAGING MEAL COST.**

16





## FOOD PRODUCTION

**EXCESSIVE COSTS OFTEN OCCUR DURING THE FOOD PRODUCTION PROCESS:**

- ✓ **PRODUCT WASTE**
- ✓ **INCONSISTENCY IN PREPARED PRODUCTS**
- ✓ **UNACCEPTABLE PRODUCTS**
- ✓ **INCORRECT AMOUNTS ISSUED**
- ✓ **LACK OF STANDARDIZED PORTIONS**



17

## STANDARDIZED RECIPES

**STANDARDIZED RECIPES ARE ESSENTIAL TO ACHIEVE EFFECTIVE COST CONTROL.**

**STANDARDIZED RECIPES:**

- ✓ **ENHANCE MENU ITEM QUALITY AND CONSISTENCY**
- ✓ **CONTROL INGREDIENT USE**
- ✓ **LEAD TO CONSISTENT RECIPE YIELDS**
- ✓ **CONTROL PORTION COSTS**
- ✓ **HELP REDUCE CLIENT COMPLAINTS**



18

## STANDARDIZED PROCEDURES

- **STANDARD PRODUCTION PROCEDURES ARE AS IMPORTANT AS STANDARD INGREDIENTS**
- **FAILURE TO FOLLOW STANDARD PROCEDURES CAN LEAD TO:**
  - ✓ **REDUCTION IN MENU ITEM QUALITY**
  - ✓ **RECIPE YIELD SHRINKAGE**
- **STANDARDIZED PROCEDURES MUST BE FOLLOWED FOR CONVENIENCE ITEMS, AS WELL AS FOR ITEMS PREPARED "FROM SCRATCH."**



19

## STANDARDIZED RECIPES AND PRODUCTION PROCEDURES

**EFFECTIVE MANAGEMENT OF COSTS IS NOT POSSIBLE WITHOUT THE DEVELOPMENT AND INCORPORATION OF STANDARDIZED RECIPES AND STANDARD PREPARATION PROCEDURES INTO YOUR FOODSERVICE OPERATION.**

20

## PORTION CONTROL

**PROGRAMS OFTEN LOSE CONTROL OF THEIR COSTS WHEN THEY FAIL TO ESTABLISH PORTION CONTROL AND SERVE CONSISTENT SIZE PRE-COSTED PORTIONS**

### STANDARD PORTIONS:

- ✓ **MEAN THE EXPECTED NUMBER OF PORTIONS WILL CONSISTENTLY BE OBTAINED FROM A STANDARDIZED RECIPE'S YIELD**
- ✓ **HELP PREVENT MENU SHORTAGES OR "RUNNING OUT" OF A MENU ITEM**
- ✓ **MAINTAIN MEAL PORTION CONSISTENCY FOR CLIENTS**
- ✓ **HELP MAINTAIN DESIRED MEAL COSTS**



## PORTION CONTROL

- **ALL PERSONNEL MUST KNOW PORTION SIZES AND BE TRAINED IN PROPER PORTIONING PROCEDURES**
- **PORTION CONTROL CANNOT BE ACHIEVED UNLESS PERSONNEL HAVE THE NECESSARY TOOLS & EQUIPMENT**
- **MEAL ITEM PACKAGING SHOULD BE PLANNED TO SUPPORT STANDARDIZED PORTIONS**



22

## PORTION CONTROL



**WHILE STANDARDIZED RECIPES AND STANDARDIZED PRODUCTION PROCEDURES ARE ESSENTIAL FOR EFFECTIVE COST CONTROL, THAT CONTROL WILL BE LOST UNLESS STANDARD PORTIONS ARE SERVED FROM THE ITEMS PREPARED FROM THE STANDARD RECIPES AND THOSE PORTIONS ARE PACKAGED SUCH THAT FOOD QUALITY AND FOOD TEMPERATURES ARE MAINTAINED.**

23

## CALCULATING SUPPLIES COSTS

- **SUPPLIES COSTS ARE CALCULATED IN THE SAME WAY THAT FOOD COSTS ARE CALCULATED**
- **GENERALLY, FOOD COSTS AND SUPPLIES COSTS WOULD BE CALCULATED AT THE SAME TIME SINCE BOTH REQUIRE VALUATION OF INVENTORIES ON HAND AS WELL AS SUMMATION OF EXPENDITURES PAID TO SUPPLIERS DURING THE ACCOUNTING PERIOD.**
- **SO, SUPPLIES COSTS ARE CALCULATED AS:**
  - BEGINNING INVENTORY (VALUE OF SUPPLIES ON HAND AT BEGINNING OF THE PERIOD)**
  - + SUPPLIES PURCHASES FOR THE PERIOD**
  - ENDING INVENTORY (VALUE OF SUPPLIES ON HAND AT END OF THE PERIOD)**
  - COST OF SUPPLIES USED FOR OTHER PURPOSES**
  - = TOTAL COST OF SUPPLIES FOR THE PERIOD (TO BE USED IN TOTAL MEAL COST CALCULATIONS)**



24

## CALCULATION OF MONTHLY SUPPLIES COSTS

### EXAMPLE: CALCULATION OF MONTHLY SUPPLIES COSTS

THE SUPPLIES COST FOR THE MONTH IS CALCULATED AS:

\$ 1,500	(OPENING INVENTORY)
+ \$ 2,354	(CHEMICALS AND CLEANING SUPPLIES PURCHASES)
+ \$ 6,225	(PACKAGING MATERIALS PURCHASES)
+ \$ 385	(NEW SERVING UTENSILS AND PANS)
+ \$ 458	(MISCELLANEOUS)
- \$ 1,850	(CLOSING INVENTORY)
= \$ 9,072	(COST OF SUPPLIES USED)
- \$ 225	(VALUE OF SUPPLIES USED FOR MEALS SERVED TO VOLUNTEERS - CHARGED TO VOLUNTEER BENEFITS)
= <b>\$ 8,874</b>	<b>- THE ACTUAL SUPPLIES COST FOR THE MONTH</b>



25

## CALCULATING LABOR COSTS

**LABOR COSTS FOR MEAL PROGRAM PERSONNEL\* ARE CALCULATED AS FOLLOWS:**

WAGES PAID TO PROGRAM EMPLOYEES DURING THE ACCOUNTING PERIOD (E.G., A MONTH)
+ SALARIES PAID TO PROGRAM EMPLOYEES DURING THE ACCOUNTING PERIOD
+ COST OF BENEFITS FOR EMPLOYEES DURING THE ACCOUNTING PERIOD (BOTH FOR HOURLY AND SALARIED EMPLOYEES)
+ TAX MATCH PAID FOR PERSONNEL (E.G. SOCIAL SECURITY MATCH)
+ VALUE OF VOLUNTEER HOURS DURING THE ACCOUNTING PERIOD
= TOTAL COST OF LABOR FOR THE ACCOUNTING PERIOD

\*THESE LABOR COST CALCULATIONS SHOULD INCLUDE ONLY THE COSTS FOR PERSONS WORKING DIRECTLY WITH THE MEAL PROGRAM. IF SOMEONE WORKS BOTH DIRECTLY WITH THE MEAL PROGRAM AND DIRECTLY WITH ANOTHER PROGRAM, AS WELL, THEN THAT PERSON'S LABOR COSTS SHOULD BE DIVIDED PROPORTIONATELY AMONG THE PROGRAMS. ALL OTHER LABOR COSTS (LABOR NOT WORKING DIRECTLY WITH THE MEAL PROGRAM) WILL BE ACCOUNTED FOR LATER.

26



## CALCULATING LABOR COSTS

- **MOST PROGRAMS CAN DETERMINE THE COST OF WAGES AND SALARIES FOR THE PERIOD FROM THE PAYROLL RECORDS FOR THE ACCOUNTING PERIOD.**
- **IN SUMMING THESE COSTS, THE RECORDS OF ONLY THE EMPLOYEES WORKING DIRECTLY WITH THE MEAL PROGRAMS SHOULD BE INCLUDED.**
- **SMALL PROGRAMS WHICH ONLY PROVIDE MEAL SERVICES AND HAVE A LIMITED NUMBER OF EMPLOYEES MAY WANT TO KEEP INDIVIDUAL EMPLOYEE RECORDS FOR THESE LABOR COST ITEMS AND KEEP A RUNNING DAILY OR WEEKLY TOTAL OF THESE COSTS.**

27

## CALCULATING LABOR COSTS

FOR EXAMPLE – MONTHLY LABOR CALCULATION FOR **PAID EMPLOYEES** MIGHT BE CALCULATED AS:  
PERSON A IS FULL TIME ON SALARY AND HAS ONE DEPENDENT ON HER HEALTH INSURANCE  
PERSON B IS A FULL-TIME HOURLY EMPLOYEE ELIGIBLE FOR BENEFITS AND HAS NO DEPENDENTS ON HER HEALTH INSURANCE  
PERSON C IS A PART-TIME HOURLY EMPLOYEE NOT ELIGIBLE FOR BENEFITS

Employee	Wage Rate	Hours Worked	Total Salary or Wages	Tax Match (SSI & Medicare)	Benefit Contribution	Total Monthly Labor Cost
Person A	N/A	N/A	\$1,200.00	\$91.80	\$350.00	\$1641.80
Person B	\$12.00	40	\$480.00	\$36.72	\$200.00	\$716.72
Person C	\$8.00	18	<u>\$144.00</u>	<u>\$11.02</u>	N/A	<u>\$155.02</u>
Total	N/A	N/A	\$1,824.00	\$139.54	\$550.00	<b>\$2,513.54</b>

28

## CALCULATING LABOR COSTS

**THE VALUE OF VOLUNTEER LABOR MUST BE INCLUDED IN THE CALCULATION OF LABOR COSTS**

### WHY??

TO DETERMINE THE VALUE OF VOLUNTEER HOURS TO INCLUDE IN LABOR COST CALCULATIONS, IT IS NECESSARY TO KEEP ACCURATE RECORDS ABOUT EACH VOLUNTEER AND HIS/HER WORK



**THEN TO CALCULATE THE VALUE OF VOLUNTEER LABOR:**

**MULTIPLY EACH VOLUNTEER'S HOURLY EQUIVALENT WAGE,  
INCLUDING THE FRINGE BENEFIT COSTS  
X NUMBER OF HOURS WORKED  
= THE VALUE (COST) OF THAT VOLUNTEER'S WORK FOR THE  
PROGRAM**

29

## CALCULATING LABOR COSTS

SAMPLE **VOLUNTEER IN-KIND** LABOR COST CALCULATION FOR A MONTH:

**VOLUNTEER A WORKS IN THE KITCHEN AND HELPS PORTION FOOD AND PACK MEALS FOR DELIVERY**

**VOLUNTEER B PICKS UP AND DELIVERS MEALS TO HOMEBOUND CLIENTS**

**VOLUNTEER C WORKS IN THE OFFICE HELPING MAKE PHONE CALLS, FILE RECORDS, AND DOING OTHER SUCH CLERICAL TASKS**

**PROGRAM'S FRINGE BENEFIT RATE FOR HOURLY EMPLOYEES ELIGIBLE FOR BENEFITS IS 7%  
THE FEDERAL MILEAGE RATE OF \$0.14 PER MILE DRIVEN IN SERVICE OF CHARITABLE ORGANIZATIONS IS USED AS THE MILEAGE RATE**

Volunteer's Name	Job Title or Job Description	Prevailing Hourly Wage	Wage Plus Fringe Benefit	Total Hours Volunteer Worked	Value of Hours	Allowable Mileage	Value of Mileage
Volunteer A	Kitchen Helper	\$7.00	\$7.49	36	\$269.64	0	0
Volunteer B	Delivery Driver	\$12.00	\$12.84	50	\$642.00	120	\$16.80
Volunteer C	Clerk	\$8.00	\$8.56	32	\$273.92	0	0
Total	N/A	N/A	N/A	118	\$1,185.56	120	\$16.80

## CALCULATING LABOR COSTS

FROM THE PREVIOUS EXAMPLES, THEN THE TOTAL LABOR COST FOR THE MONTH (DIRECT LABOR – LABOR THAT IS WORKING ONLY WITH THE MEAL PROGRAM):

TOTAL PAID EMPLOYEE COST	\$2,513.54
VALUE OF VOLUNTEER HOURS	1,185.76
VALUE OF MILEAGE DRIVEN	<u>16.80</u>



**TOTAL LABOR COST FOR THE MONTH = \$3,716.10**

31

## CALCULATING TRANSPORTATION COSTS

- **PROGRAMS INCUR TRANSPORTATION COSTS THROUGH THE DELIVERY OF MEALS TO CLIENTS' HOMES AND/OR THROUGH THE DELIVERY OF FOOD TO VARIOUS PROGRAM SITES.**
- **TRANSPORTATION COSTS INCORPORATE MULTIPLE ITEMS, PARTICULARLY IF TRANSPORTATION VEHICLES ARE OWNED BY THE PROGRAM.**
- **EVEN IF THE PROGRAM DOES NOT OWN ANY TRANSPORTATION VEHICLES AND ALL MEAL DELIVERY IS DONE BY VOLUNTEERS USING THEIR OWN VEHICLES, THE VOLUNTEERS' FUEL COST NEEDS TO BE CONSIDERED WHEN CALCULATING THE TOTAL MEAL COST.**

32

## CALCULATING TRANSPORTATION COSTS

- **CALCULATION OF FUEL COSTS CAN BE DONE BY:**
  - ✓ **SUMMATION OF THE COST ON RECEIPTS FOR FUEL PURCHASES**
  - ✓ **APPLICATION OF STATE OR FEDERAL MILEAGE REIMBURSEMENT RATES TO THE MILEAGE DRIVEN**
- **COSTS OF REPAIRS AND MAINTENANCE, LICENSE FEES, TAXES, AND INSURANCE FOR PROGRAM OWNED VEHICLES WOULD BE TAKEN FROM BILLINGS RECEIVED/PAID.**
- **DEPRECIATION COSTS FOR PROGRAM OWNED VEHICLES WOULD BE CALCULATED IN ACCORD WITH THE IRS ACCEPTED METHODOLOGY ADOPTED BY THE PROGRAM FOR THEIR VEHICLES.**

33

## EQUIPMENT COSTS

- **LARGE EQUIPMENT COSTS ARE GENERALLY CONSIDERED TO BE INCLUDED IN THE COST OF CAPITAL EQUIPMENT**
- **SMALL EQUIPMENT THAT DOES NOT MEET THE PROGRAM'S STANDARDS FOR CAPITAL EQUIPMENT WOULD BE CONSIDERED A "SUPPLY" AND INCLUDED IN SUPPLY COSTS FOR THE ACCOUNTING PERIOD IN WHICH THE ITEM(S) WAS (WERE) PURCHASED**
- **COSTS OF EQUIPMENT, SUCH AS FOOD PRODUCTION EQUIPMENT, REFRIGERATORS, OR FREEZERS WHICH ARE USED EXCLUSIVELY FOR THE MEAL PROGRAM WOULD ALL BE INCLUDED IN THE TOTAL MEAL COST.**

34



## EQUIPMENT COSTS

**CAPITAL (LARGE) EQUIPMENT COSTS ARE NOT INCLUDED IN TOTAL MEAL COSTS AT THE TIME OF PURCHASE.**

- ✓ **THESE COSTS ARE SPREAD OVER THE LIFE OF THE EQUIPMENT THROUGH DEPRECIATION.**
- ✓ **THE CALCULATED DEPRECIATION FOR THE ACCOUNTING PERIOD IS INCLUDED IN THE TOTAL MEAL COST**

**EQUIPMENT REPAIRS AND MAINTENANCE ARE ALSO INCLUDED IN THE TOTAL MEAL COST IN THE ACCOUNTING PERIOD IN WHICH THE WORK IS COMPLETED.**

35

## FIXED COSTS (OVERHEAD) CALCULATION

- **AS FIXED COSTS ARE COSTS THAT REMAIN CONSTANT IN THE SHORT RUN EVEN THOUGH REVENUE VOLUME MAY VARY, MANY EXPENSE ITEMS ARE INCORPORATED INTO FIXED COSTS.**
- **FIXED COSTS (OVERHEAD COSTS), INCLUDING UTILITIES, ARE AVAILABLE FROM DOCUMENTS SUCH AS BILLINGS AND CONTRACTS.**
- **IT IS NECESSARY FOR MULTI-SERVICE AGENCIES AND CENTERS TO IDENTIFY ALL COSTS NOT DIRECTLY ASSOCIATED WITH A PROGRAM AND SUM THOSE COSTS TO DETERMINE THEIR TOTAL FIXED COSTS.**



36



## FIXED COSTS (OVERHEAD) CALCULATION

- **FIXED COSTS MUST BE ALLOCATED AMONG PROGRAMS ON SOME BASIS, APPROPRIATE TO THE SPECIFIC PROGRAMS HOUSED IN A MULTI-SERVICE AGENCY OR CENTER.**
- **UTILITIES MAY NEED SPECIAL CONSIDERATION IN COST ALLOCATION AS FOOD PRODUCTION AREAS MAY USE A DISPROPORTIONATE SHARE OF ELECTRICITY, GAS, AND WATER FOR PRODUCTION EQUIPMENT, REFRIGERATORS, AND FREEZERS AND MAY ALSO ACCOUNT FOR ALMOST ALL OF THE TRASH DISPOSAL REQUIREMENTS.**

37

## CALCULATION OF ACTUAL (TOTAL) MEAL COSTS

### REMEMBER:

- ✓ **THE ACTUAL (OR TOTAL) MEAL COST FOR EITHER THE CONGREGATE OR THE HOME DELIVERED MEAL PROGRAM MUST INCLUDE THE COSTS DIRECTLY ASSOCIATED WITH THE PROGRAM (E.G., FOOD, LABOR, PACKAGING, TRANSPORTATION, ETC.) AND THE ALLOCATED PROPORTION OF THE MANAGEMENT AND OVERHEAD COSTS OF THE MULTI-SERVICE AGENCY OR CENTER.**

**TO CALCULATE THE ACTUAL (OR TOTAL) COST PER MEAL ONCE ALL THE COSTS OF THE MEAL COST COMPONENTS HAVE BEEN CALCULATED:**

- ✓ **THE ACTUAL (OR TOTAL) COST PER MEAL = TOTAL ACTUAL MEAL COSTS FOR THE PERIOD DIVIDED BY TOTAL NUMBER OF MEALS SERVED DURING THAT SAME PERIOD.**



38

## CALCULATION OF ACTUAL (TOTAL) MEAL COSTS

FOR EXAMPLE, IF CALCULATED COSTS FOR THE ACCOUNTING PERIOD ARE:

FOOD	\$50,000
SUPPLIES	5,000
LABOR (DIRECT)	60,000
TRANSPORTATION	10,000
EQUIPMENT	3,000
FIXED (OVERHEAD) COSTS	<u>12,000</u>
TOTAL COSTS	\$140,000



NUMBER OF MEALS SERVED FOR THE PERIOD: 21,540 MEALS

**ACTUAL MEAL (TOTAL) COST FOR THE PERIOD = \$140,000/21,540 = \$6.50/MEAL**

**(COMPARED TO FOOD COST PER MEAL FOR THE PERIOD = \$50,000/21,540 = \$2.32)**

39

## INCREMENTAL COST

**THE INCREMENTAL COST OF AN ITEM IS THE COST TO PRODUCE ONE MORE OF THAT ITEM, UNDER A GIVEN SET OF CONDITIONS.**

IN THE PREVIOUS EXAMPLE, WHERE THE TOTAL MEAL COST WAS \$6.50 AND THE FOOD COST PER MEAL WAS \$2.32, ASSUMING NO ADDITIONAL LABOR OR RESOURCES WERE REQUIRED, OTHER THAN THE FOOD FOR THE MEAL, THEN THE INCREMENTAL COST OF PRODUCING AN ADDITIONAL MEAL WOULD BE ONLY THE FOOD COST, OR \$2.32.

ONE ADDITIONAL MEAL WOULD HAVE NO EFFECT ON THE OVERALL TOTAL MEAL COST, BUT IF A NUMBER OF ADDITIONAL MEALS COULD BE PRODUCED WITHOUT ADDING ADDITIONAL COSTS, OTHER THAN FOOD, THEN ADDING THESE MEALS WOULD EFFECTIVELY REDUCE THE OVERALL TOTAL MEAL COST AS THE OTHER COSTS (ESPECIALLY THE FIXED COSTS) REQUIRED TO PREPARE THE 21,540 MEALS WOULD BE SPREAD OVER MORE MEALS.

40

## INCREMENTAL COST

FOR EXAMPLE, ASSUME YOU COULD CONTRACT WITH YOUR LOCAL SALVATION ARMY SHELTER TO PROVIDE THEM WITH 50 MEALS/DAY, MONDAY THROUGH FRIDAY, AND THEY WERE PLEASED TO HAVE YOU PROVIDE THE SAME MEAL YOU ARE SERVING AT YOUR CONGREGATE MEAL SITE. THE SHELTER HAS A VAN THAT THEY WILL USE TO COME TO YOUR KITCHEN AND PICK UP THE MEALS. YOU WILL NEED TO PURCHASE NEW EQUIPMENT, THOUGH, TO PACK THE MEALS INTO FOR TRANSPORT, AND IN ADDITION TO FOOD, YOU WILL HAVE TO USE MORE OF YOUR DISPOSABLE CONTAINERS FOR HOLDING THE INDIVIDUAL MEALS. NO ADDITIONAL LABOR IS REQUIRED AS YOU HAVE EXCESS LABOR TIME THAT CAN BE USED PRODUCTIVELY TO PREPARE AND PACKAGE THESE MEALS.

### INCREMENTAL COSTS FOR THESE MEALS:

FOOD	$\$50,000/21,540 = \$2.32$
SUPPLIES	$\$ 5,000/21,540 = \underline{0.23}$
<b>TOTAL INCREMENTAL COST/MEAL</b>	<b>= \$2.55</b>



41

## INCREMENTAL COST

### IMPACT OF PREPARING/SERVING THESE ADDITIONAL MEALS ON TOTAL MEAL COST:

- ASSUMING 4 WEEKS/MONTH, TOTAL NUMBER OF ADDITIONAL MEALS =  
4 WEEKS X 5 DAYS PER WEEK X 50 MEALS/DAY = 1000 MEALS
- ADDITIONAL FOOD COSTS = 1000 X \$2.32 = \$2,320 FOR A TOTAL FOOD COST FOR THE PERIOD OF \$50,000 + \$2,320 = \$52,320
- ADDITIONAL SUPPLY COSTS = 1000 X \$0.23 = \$230 FOR A TOTAL SUPPLY COST FOR THE PERIOD OF \$5,000 + \$230 = \$5,230
- NEW TOTAL MEAL COSTS = \$140,000 + \$2,320 + \$230 = \$142,550

**NEW TOTAL MEAL COSTS/NEW MEAL TOTAL = NEW TOTAL MEAL COST**  
 $\$142,550/22,540$  (21,540 + 1000 NEW MEALS) = \$6.32

THUS, YOU REALIZE A TOTAL MEAL COST SAVINGS OF \$0.18/MEAL ON ALL 22,540 MEALS FROM THIS OPPORTUNITY AS YOU ARE USING YOUR ALREADY INVESTED COSTS MORE EFFECTIVELY.



42

## INCREMENTAL COST



- **LOOKING AT THE SALVATION ARMY SHELTER MEAL CONTRACT OPPORTUNITY ANOTHER WAY:**
- **ASSUME THAT THE SALVATION ARMY HAS AGREED TO PAY YOU \$8.00/MEAL FOR THESE MEALS.**
- **YOUR NEW REVENUE PER MONTH IS  $\$8.00 \times 1000 \text{ MEALS} = \$8,000$**
- **YOUR ADDITIONAL COST TO PRODUCE THAT REVENUE IS THE TOTAL INCREMENTAL COST INCURRED X THE NUMBER OF MEALS SERVED =  $\$2.55 \times 1000 = \$2,550$**
- **YOUR PROFIT, OR NEW REVENUE GAINED TO HELP COVER PROGRAM COSTS =**
- **$\$8,000 - \$2,550 = \$5,450$**
- **IF YOU HAD A CLIENT WAITING LIST, WITH THAT NEW REVENUE, YOU COULD SERVE ABOUT AN ADDITIONAL 40 CLIENTS PER MONTH**  
(ASSUMING 5 MEALS/WEEK, OVER A 4 WEEK PERIOD AND A TOTAL MEAL COST RANGING FROM \$6.32 - \$6.50/MEAL)

43

## INCREMENTAL COST

- **HOWEVER, STILL CONSIDERING THE SAME SALVATION ARMY SHELTER SCENARIO, ASSUME THAT THE SALVATION ARMY IS UNWILLING TO PAY \$8.00 PER MEAL, BUT IS ONLY WILLING TO PAY \$4.50 PER MEAL – POINTING OUT THAT AMOUNT IS TWICE YOUR FOOD COSTS.**
- **\$4.50 PER MEAL IS LESS THAN YOUR TOTAL MEAL COST OF \$6.32, WHICH IS WHAT IT WOULD ACTUALLY COST YOU TO PREPARE THE MEALS FOR THE SALVATION ARMY CENTER.**
- **THUS, YOU WOULD LOSE \$1.82 PER MEAL OR \$1,820 PER MONTH SHOULD YOU CONTRACT WITH THE SALVATION ARMY TO PROVIDE THOSE MEALS.**
- **YOUR “PROFIT” FROM TAKING THIS CONTRACT, STILL CONSIDERING YOUR INCREMENTAL COSTS (\$2,550) TO PROVIDE THESE MEALS, NOW BECOMES:**  
 $\$4,500 - \$2,550 - \$1,820 = \$130.00$

**WOULD YOU WANT TO CONTRACT FOR THESE MEALS?????**

**WHAT IF YOU NEEDED A DELIVERY VEHICLE? MORE LABOR?**

44





## SUMMARY

- **IT IS ESSENTIAL FOR PROGRAMS TO KNOW THEIR TOTAL MEAL COST AND THE COSTS OF EACH OF THE MEAL COST COMPONENTS IF THEY ARE TO STAY IN BUSINESS AND BE COMPETITIVE IN TODAY'S ENVIRONMENT**
- **FOOD COSTS ARE NOT THE SAME AS TOTAL MEAL COSTS AS FOOD COSTS ARE JUST ONE COMPONENT OF TOTAL MEAL COSTS**
- **A PROGRAM'S GOAL SHOULD BE EFFECTIVE COST MANAGEMENT – NOT MANAGEMENT TO MINIMIZE COSTS WITH A RESULTING LOSS IN PROGRAM AND MEAL QUALITY**
- **FOOD AND DIRECT LABOR COSTS ARE GENERALLY THE LARGEST COMPONENTS OF THE TOTAL MEAL COST, AND EFFECTIVE CONTROL OF BOTH IS OFTEN EASILY LOST. YET, FOOD AND DIRECT LABOR COSTS ARE VARIABLE COSTS WHICH CAN BE CONTROLLED BY PROGRAM MANAGEMENT IN THE SHORT RUN**

45

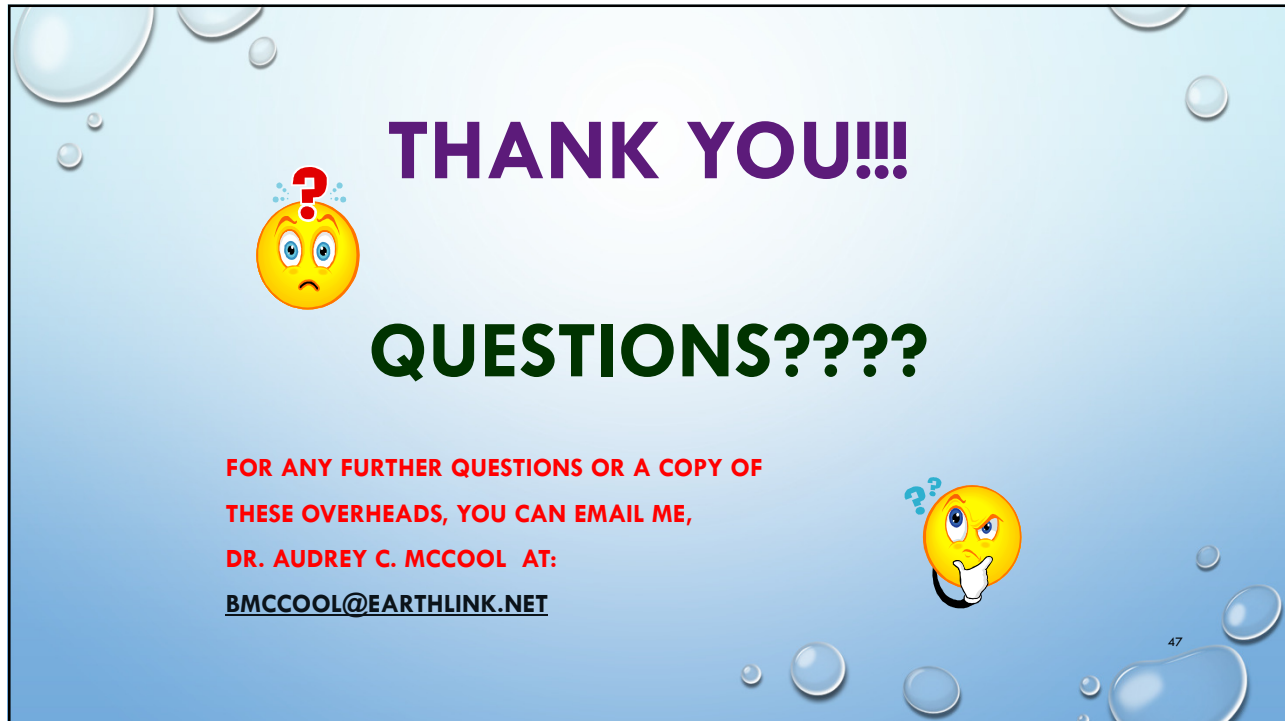
## SUMMARY

- **IN-KIND CONTRIBUTIONS, SUCH AS VOLUNTEER LABOR AND VOLUNTEERS' USE OF THEIR OWN VEHICLES AND FUEL FOR MEAL DELIVERY MUST BE INCORPORATED INTO THE TOTAL MEAL COST.**
- **FIXED (OVERHEAD) COSTS MUST BE ALLOCATED AMONG PROGRAMS, UNLESS THE SITE HAS ONLY A MEAL PROGRAM. SUCH ALLOCATION SHOULD BE MADE ON SOME RATIONAL BASIS SUCH AS PROPORTION OF REVENUE GENERATED OR SQUARE FOOTAGE USED.**
- **KNOWLEDGE OF INCREMENTAL COSTS IS ESSENTIAL IF A PROGRAM IS TO COMPETE SUCCESSFULLY FOR ADDITIONAL BUSINESS WHICH WOULD BRING ADDITIONAL REVENUE INTO THE PROGRAM – REVENUE WHICH WOULD BE PROFITABLE FOR THE PROGRAM.**




46






**THANK YOU!!!**



**QUESTIONS????**

FOR ANY FURTHER QUESTIONS OR A COPY OF  
THESE OVERHEADS, YOU CAN EMAIL ME,  
DR. AUDREY C. MCCOOL AT:  
[BMCCOOL@EARTHLINK.NET](mailto:BMCCOOL@EARTHLINK.NET)



47