

# Financial Management:

## A Course for School Nutrition Directors

### 2nd Edition



## 8 hour Participant's Workbook



Institute of Child Nutrition  
The University of Mississippi  
School of Applied Sciences



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A Course for School Nutrition Directors

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## 8 hour Participant's Workbook

Time: 8 Hours

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Key Area: 3

Code: 3300 Financial Management

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The purpose of the Institute of Child Nutrition is to improve the operation of child nutrition programs through research, education and training, and information dissemination.

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The mission of the Institute of Child Nutrition is to provide information and services that promote the continuous improvement of child nutrition programs.

### **VISION**

The vision of the Institute of Child Nutrition is to be the leader in providing education, research, and resources to promote excellence in child nutrition programs.

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## Functional Area and Competencies

### Functional Area 2: Financial Management

**Competency 2.1:** Develops financial management guidelines that support school nutrition program operational goals and comply with regulations.

**Knowledge Statements:**

- Knows financial goals and objectives of the school district.
- Knows basic principles of accounting and the application of those principles.
- Knows process for budget development, justification, and implementation.
- Knows the impact of changing demographics and enrollment trends on the school nutrition program budget.
- Knows fundamentals of reporting school nutrition program budget as part of the district budget.

**Competency 2.2:** Establishes cost control goals to effectively manage the school nutrition program.

**Knowledge Statements:**

- Knows the importance of appropriate staffing and scheduling to control labor cost.
- Knows the role of the menu in controlling costs.
- Knows methods to determine staff productivity.
- Knows methods for establishing internal and external financial benchmarks.
- Knows the importance of providing cost-effective special functions, as appropriate.
- Knows costs associated with environmentally responsible practices.

**Source:** *Competencies, Knowledge, and Skills for District-Level School Nutrition Professionals in the 21st Century* available on the ICN website: [www.theicn.org](http://www.theicn.org)

## Professional Standards

### **Financial Management – 3300**

**Employee will be able to manage procedures and records for compliance with Resource Management with efficiency and accuracy in accordance with all Federal, State, and local regulations, as well as the Administrative Review.**

3310 - Meal Counting, Claiming, Managing Funds

3320 - Compliance with Regulations/Policies

3330 - Budgets

3340 - Financial Analysis

3350 - Pricing

3360 - Communicate Financial Information

**Key Area: 3**



## Lesson Objectives

At the end of each lesson, participants will be able to accomplish the following:

1. Recognize the importance of financial management to the fiscal and nutritional integrity of school nutrition programs.
2. Describe basic financial recording and reporting processes and the procedures for directing the operation of a school nutrition program.
3. Demonstrate use of financial reports consistent with federal, state, and local guidelines to achieve a financial management system that supports a cost effective program with high integrity.
4. Utilize financial management tools and standards to operate a financially and nutritionally accountable school nutrition program consistent with federal and state guidelines.
5. Interpret, analyze, and use revenue data for program evaluation and improvement.
6. Interpret, analyze, and use expenditure data for program evaluation and improvement.
7. Apply cost control measures to operate a financially sound program with nutritional integrity.
8. Explain the importance of using the budget to analyze and control revenues and expenditures.
9. Interpret the benefits of financial information as they relate to school nutrition programs.



## Pre-Assessment

1. Financial management includes the process of defining
  - a) accounts payable and receivables.
  - b) free and reduced price meals.
  - c) statement of activities.
  - d) program objectives and financial goals.
2. Revenue received from students for the sale of nonprogram food items is classified as a
  - a) local source.
  - b) miscellaneous source.
  - c) school source.
  - d) fund transfer.
3. A useful financial management information system
  - a) provides a uniform and consistent financial reporting structure.
  - b) provides only annual (useless and out of date) financial information.
  - c) supports a business school's reporting requirements.
  - d) supports a banking financial system.
4. The financial report most often used by school nutrition program directors to analyze whether the expenses of the operation are being managed within the revenues received is the
  - a) statement of net position.
  - b) statement of activities.
  - c) statement of revenue.
  - d) budget.
5. Three types of budgeting are
  - a) zero, assets, and combination.
  - b) assets, incremental, and combination.
  - c) zero, incremental, and assets.
  - d) zero, incremental, and combination.

6. The conversion of different meal services to a standard unit of measure is
  - a) meal reimbursement.
  - b) nonprogram food sales.
  - c) meal equivalency.
  - d) Meals Per Labor Hour.
  
7. Meals and other food items sold in the school nutrition programs, but are not eligible for reimbursement through federal funds are
  - a) meal equivalents.
  - b) meal reimbursements.
  - c) nonprogram foods.
  - d) competitive foods.
  
8. If a school district sets a goal of 38% for their food cost percentage, what is the base selling price for a bag of baked chips that has a raw food cost of \$0.19?
  - a) \$0.40
  - b) \$0.50
  - c) \$0.70
  - d) \$0.75
  
9. Comparing revenue earned with meal costs
  - a) helps determine where revenue needs to be increased.
  - b) allows you to analyze expenditures by cost.
  - c) identifies areas where expenses should be monitored.
  - d) tells you nothing.
  
10. If the total of all cost percentages is less than 100%, then the operating balance
  - a) Increases.
  - b) decreases.
  - c) Breaks even.
  - d) is over budget.

11. An operating ratio is a type of measurement that analyzes
- a) revenues to expenditures.
  - b) the percentages of operational cost to total revenue.
  - c) meal cost per expenditure.
  - d) the total cost to produce a meal or meal equivalent.
12. Knowing the costs of food used during a given period of time can provide vital information
- a) concerning the complexity of the menu.
  - b) in preventing waste and food theft during the monitoring period.
  - c) to determine the daily participation.
  - d) concerning extra food sales.
13. Meals Per Labor Hour can be measured by
- a) dividing the average number of meals served for a given period by the Average Daily Attendance.
  - b) dividing the average number of meals served for a given period by the average number of labor hours.
  - c) conducting a time and motion study.
  - d) dividing the average number of meals served for a given period by the number of paid labor hours.
14. Budget forecasting means
- a) surveying your customers for program improvement planning.
  - b) gathering feedback on the school nutrition program from the school wellness team.
  - c) estimating or calculating revenues and expenditures in advance by analyzing data.
  - d) developing a catering program.
15. The school nutrition director can determine the net excess/deficit per meal or meal equivalent served by
- a) analyzing the meal cost per expenditure.
  - b) analyzing the percentages of operational costs to total revenue.
  - c) comparing revenues to expenditures.
  - d) analyzing the total cost to produce a meal/meal equivalent.

16. When conducting a financial analysis of your school nutrition program, which two program areas should be reviewed first?
- a) catering and special functions
  - b) customer service and equipment
  - c) revenues and expenditures
  - d) purchasing and menus

## Lesson 1: Importance of Financial Management

**OBJECTIVE 1: Recognize the importance of financial management to the fiscal and nutritional integrity of school nutrition programs.**

### Introduction to Topic

Use of sound financial management concepts and principles in the operation of a school nutrition program are critical to ensure the program succeeds in meeting the nutritional standards, accountability requirements, and the district's identified financial program goals. The ability to interpret and analyze the financial outcomes of operational decisions is essential to effective management of school nutrition programs.

### Financial Management Questions

Can you answer the following financial management questions about the nutrition program in your school district?

1. What are the main sources of revenue for the school nutrition program in your district? (Hint – Student paid meals? Federal reimbursement? Nonprogram food sales?)
2. What percentage of total revenue is attributed to each source of revenue?
3. What different expenditure categories are used for the school nutrition program in your district? (Hint– Labor is one expenditure category; try to name at least 5 others.)
4. How much does it cost, on average, to produce a meal in your school district?
5. What percentage of total revenue is the school nutrition program spending for labor? For food?
6. What is the labor productivity (Meals Per Labor Hour) index in your school/school district?

7. What was the net gain or loss in the school nutrition program over the past 3 years?
8. Do employees in your school nutrition program understand the importance of cost controls to the success of the program?
9. What do Average Daily Participation comparisons in your school/school district for the last 3 years indicate?

## Financial Management Competencies

This lesson focuses on the effective management of financial resources to ensure the nutritional integrity and quality of meals served to students at school. The *Competencies, Knowledge, and Skill Statements for District-Level School Nutrition Professionals in the 21st Century*, published by the Institute of Child Nutrition, identified two competencies in the functional area of financial management that are important for school nutrition directors. According to this resource, a school nutrition director that is competent in financial management

- develops financial management guidelines that support school nutrition program operational goals and comply with regulations, and
- establishes cost control goals to effectively manage the school nutrition program.

## Financial Management Definition

1. Financial management includes the process of defining the program objectives and financial goals for the school district nutrition program.

Example:

- a. A program objective could focus on improving nutrition integrity and a financial goal might be to improve the quality of food or to implement more wellness activities emphasizing the importance of fresh fruits and vegetables in the diet.
- b. A long term financial goal could include replacing older equipment with new energy efficient equipment.



2. For more effective financial management, school nutrition program directors should
  - plan through the budget process,
  - apply efficient cost control measures,
  - increase productivity, and
  - identify ways to increase resources.

## **Roles of the School Nutrition Director**

Regardless of the actual job requirements, school nutrition program directors should play a role in providing leadership to fulfill the following responsibilities:

- oversee the management of the school nutrition program's financial resources,
- establish and maintain financial accountability,
- involve district administrators, school board members, school nutrition managers, and school nutrition staff to identify the desired financial goals for the school nutrition program,
- promote a team approach in practicing good financial management principles,
- assess, monitor, and evaluate effective and efficient use of program funds, and
- maintain an on-going training program.



## Activity: Class Opener

### Key Terms and Definitions

**Instructions:** You will receive a card that has either a general accounting or school nutrition financial management term or a card with a definition. Read your card; then get up and move around the room networking with other participants until you find the person with the card that links to your card, a term card linked with a definition card. Once you are linked, stand to the side with your partner. You and your partner will share the term and the definition with the class.

In order to make financial management decisions, school nutrition program directors must have knowledge of basic key terms related to accounting and financial management functions as they relate to the operation of a school nutrition program. A list of key terms that will be used in this course is provided. You may want to add to the list during the course.

## Key Terms for Financial Management

Key Term	Definition
Accountability	Responsibility to deliver what is expected and willingness to bear the consequences for failure to perform as expected.
Accounts Payable	The amount the school nutrition program owes, but has not yet paid, for goods delivered and services rendered (unpaid bills).
Accounts Receivable	The amount of funds the school nutrition program has earned, but not yet collected, for services provided. Examples include meal reimbursements due from state and federal sources, and payments due from customers for such services as catering special school events, outside sales, and contract meals.
Afterschool Care Snacks	Reimbursable snacks served in an afterschool care program operated by a school or school district that participates in the National School Lunch Program.
À la carte Sales	The overall category for food items that are priced separately and sold separately from a reimbursable meal.

Key Term	Definition
Allowable Cost	Expenses that are readily identifiable as costs applicable to the school nutrition program.
Assets	Something of value held by the school nutrition program for use in carrying out its mission. Examples include cash (including petty cash and cash in cashiers' drawers); accounts receivable (due from customers, from units of government, etc.); inventories of purchased food, USDA Foods, and supplies; equipment and other capital assets; etc.
Assigned	Funds allocated for a specific purpose and already encumbered.
Attendance Factor	The average number of students present at school expressed as a percentage.
Average Daily Attendance (ADA)	The average number of students attending school(s) on a daily basis, less students without access to an offered meal service.
Average Daily Participation (ADP)	The average number of student reimbursable meals served in the school nutrition program on a daily basis.
Bonus USDA Foods	Foods provided to schools as they are available from surplus agricultural stocks.
Break even	The point at which expenditures and total revenue are exactly equal. It can be expressed as dollars or a percent of revenue.
Budget	A business entity's financial management plan for a specified future period of time, generally a fiscal year. The budget systematically considers the entity's planned activities and objectives for that period, forecasts the costs the entity must incur in carrying out those activities, and identifies the revenues projected to cover those costs. Formulating and executing a budget enables a business entity to achieve its objectives (in the case of school nutrition programs, providing quality meals) while living within its means.

Key Term	Definition
Capital Assets* (Capital Equipment)	Equipment, technology hardware (e.g. computers or network equipment), software, vehicles, or furniture that is tangible personal property with a unit acquisition cost at or above a stated dollar amount, called the capitalization threshold, and a useful life greater than one year. The business entity sets the capitalization threshold.
Communication	The exchange of ideas, messages, and information by speech, signals, writing, or behavior.
Competitive Foods	All foods and beverages sold to students on the school campus during the school day, other than those meals reimbursable under programs authorized by the National School Lunch Program and Child Nutrition Act.
Cost Controls	The systems and procedures established by a business entity to provide reasonable assurance that: (1) assets and information are protected and used only for authorized purposes; and (2) reports submitted to management are complete, timely, and free of material misstatement. Examples may include restricted access to cash, computers, and other assets and review of invoices by someone other than the disbursing official before they are approved for payment.
Cost of Food Used	The value or cost of food used in a specific accounting period.
Deferred Income	A liability account that represents revenues collected before they become due. An example of this is revenue received as prepayment for school meals.
Encumbrances	The amount of money (fund balance) reserved for outstanding purchase orders and unpaid bills. It functions as a fund control device.
Entitlement USDA Foods	The level of donated food assistance mandated by federal laws and offered to schools based on the number of reimbursable lunches served during the previous school year.
Ethics	Principles of right or good conduct.

Key Term	Definition
Expenditures	Those allowable costs that can be identified specifically with the production and service of meals to school children.
Federal Revenue Sources	Payments received from federal funds for reimbursable meals, afterschool care snacks, suppers, grants, and cash in lieu of USDA Foods (7 CFR 240.5). The value of USDA Foods received is also considered a federal revenue source.
Financial Goals/Objectives	Framework for making deliberate financial decisions that enable the school nutrition program to better manage finances.
Financial Reporting	The means of communicating financial information to users. Examples are the Statement of Activities and the Statement of Net Position.
Financial Integrity	Maintaining a fiscally sound school nutrition program by continually monitoring and analyzing the revenue and expenditures of the program.
Financial Management Information System (FMIS)	A standard system of data collection and financial analyses that can be used as a management tool and to evaluate financial management decisions.
Forecasting	The process of analyzing current and historical data to determine future trends. An example is monitoring current revenue and expenditures of a school nutrition program and studying trends that will impact both.
Fringe Benefits	Compensation for employees that is in addition to salaries/wages, such as health insurance, retirement, or paid vacation.
Fund Balance	As reported on Statement of Net Position: Assets – Liabilities = Fund Balance. Fund balance includes unassigned funds that are available to spend as well as assigned funds designated for encumbrances.

Key Term	Definition
Indirect Costs	The school nutrition program's share of general school districts' costs that are incurred for common or joint purposes and cannot be readily identified as a direct cost. Indirect costs include the costs of the Superintendent's office, human resources, payroll, accounting, budgeting, purchasing, utilities (light, heat, etc.), building maintenance and report, auditing, etc. Such costs benefit all activities of the school district, and the portion that benefits any specific activity, such as foodservice, is generally determined through a mathematical allocation process.
Inventory	The value of food and supplies on hand, whether at the food preparation site or in a central warehouse or facility, that are being held for future use.
Liabilities	The amounts legally owed to others, generally as payment due for goods or services received. Liabilities may be short-term (due and payable in the current accounting period) or long-term (payable over a longer period of time). Liabilities incurred in school nutrition program operations are generally short-term; they may include accounts payable, accrued personnel costs (salaries, wages, and fringe benefits), unearned revenue (amounts received in advance for meals and other services), taxes owed, and funds due to other entities (such as the General Fund).
Meal Equivalent	Conversion of different meal services – snacks, breakfasts, suppers, lunches, and nonprogram food sales – to the equivalent of a reimbursable student lunch. All reimbursable lunches and suppers served to children and full paid adult lunches are considered to be one meal equivalent. In some state agencies, adult lunches may be recorded as nonprogram food sales. <b>NOTE:</b> The Food and Nutrition Service (FNS) and USDA do not prescribe one particular method in order to calculate meal equivalency.

Key Term	Definition
Meals Per Labor Hour (MPLH)	The most common measure of productivity in school nutrition, calculated by dividing the number of meal equivalents produced and served in a day by the number of <b>paid</b> labor hours.
Meal Reimbursement	A federal cash payment received from the state agency for snacks, breakfast, lunch, and supper that meet federal standards and are served to eligible children.
Noncurrent Assets	A category of fixed assets, also known as tangible assets or property, plant, and equipment, that cannot be easily converted into cash.
Nonprogram Food Sales	Foods, including beverages, that are sold in a participating school, other than a reimbursable meal, and are purchased using funds from the School Food Authority; include, but are not limited to à la carte items sold in competition with school meals, adult meals, items purchased for fundraisers, vending machines, school stores, etc. and items purchased for catering and vended meals.
Nonspendable Assets	A category of program assets not in spendable forms e.g. inventories, furniture and equipment, less depreciation.
Operational Costs	Costs directly attributable to the production and service of meals and other foods in the school nutrition programs.
Operating Ratios	An analysis of financial data in terms of relationships to measure the efficiency of the operation of the school nutrition program. Expenditures as a percentage of revenue (food cost percentage) are an example of an operating ratio.
Productivity	The rate at which goods or services are produced, especially output per unit of labor.
Rebate	Money received from a company as an incentive to use a product. If the rebate is received during the year in which the food is purchased, it is recorded as a reduction to food costs. Rebates from the prior school year are recorded as revenue.



Key Term	Definition
Reduced Price Meals	Meals served to students who are eligible to receive reduced price meal benefits under USDA eligibility guidelines.
Revenue	Money received in exchange for goods or services provided by the school nutrition program.
School Food Authority (SFA)	The local governing body that has the legal authority for the administration of USDA school nutrition programs.
Special Functions	Meals or refreshments provided to groups outside the school nutrition program. Examples are athletic banquets, faculty functions, and PTA/PTO refreshments.
Stakeholder	Individuals or groups that have a strong interest in the success of the school nutrition program's services.
State Matching Funds	State appropriated revenue that is required by USDA to be paid to school districts for use in the school nutrition program.
Statement of Activities* (Statement of Revenues and Expenditures)	The financial report of all revenues and expenditures earned and expended for a given period of time. The report tells program administrators whether the school nutrition program is operating with a gain or at a loss for the reporting period.
Statement of Net Position* (Statement of Net Assets)	A financial statement that reflects the financial position of the operation on any given day; also known as a Balance Sheet.
Unassigned* (Unreserved/Undesignated)	Funds that have not been allocated and are available for new expenditures not already encumbered.

\*Denotes updated accounting terminology. The previous term used is in parentheses.



## Lesson 2: Development of a Financial Management Information System

**OBJECTIVE 2: Describe basic financial recording and reporting processes and the procedures for directing the operation of a school nutrition program.**

### Introduction to Topic

A school nutrition director should know the basic financial recording and reporting processes that provide information for directing the operation of a school nutrition program. The basis for any financial management system is a well-defined set of reports that provide reliable and useful information.

### Using Financial Information to Manage

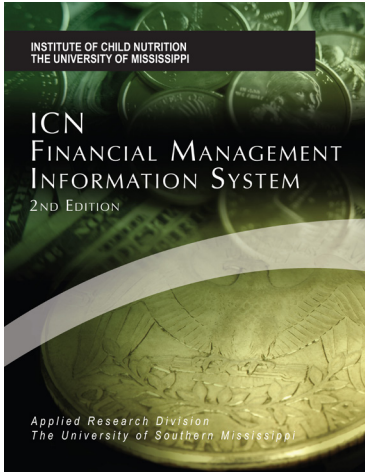
A useful financial management information system should:

- provide a uniform and consistent financial reporting structure,
- provide meaningful and timely financial management information,
- support federal, state, and local reporting requirements,
- adhere to Generally Accepted Accounting Principles (known as GAAP), and
- provide a basis for determining accountability.

### Generally Accepted Accounting Principles (GAAP)

The term “Generally Accepted Accounting Principles” represents a uniform standard of guidelines for financial accounting established by the Governmental Accounting Standards Board (GASB). The principles are used in school districts for compliance with the Federal Department of Education requirements.

## ICN Financial Management Information System



You may download extra copies of the publication, *ICN Financial Management Information System* from the document library at [www.theicn.org](http://www.theicn.org).

## Classification of Revenue

What are the classifications of revenue?

1. Local Sources
2. State Sources
3. Federal Sources
4. Miscellaneous Sources
5. Fund Transfer-In Sources

The *ICN Financial Management Information System* resource helps identify where to place revenue or expenditures so that it is the same every time and year after year. This allows financial reports to be consistent and comparable.

## Activity Worksheet: Classification of Revenue

**Instructions:** Link the revenue category described in Column A with the best source provided in Column B. Sources in Column B may be used more than one time.

Revenue Received Source	Revenue Source
_____ Money earned on bank deposits and investments	A. Local
_____ Monetary value of food donated to schools by USDA	B. State
_____ Cash rebates from food companies received by the school nutrition program after the fiscal year has closed	C. Federal
_____ Revenue received from students for the purchase of nonprogram food items	D. Miscellaneous
_____ Grant money awarded to school districts who submit successful proposals for special projects such as Team Nutrition	E. Fund Transfer
_____ Money received from the sale of surplus equipment	
_____ Revenues paid to school districts by the state for use in school nutrition programs	
_____ Cash payment received for free meals that meet federal standards and are served to eligible children	
_____ Revenue received from contract meals provided to the local YMCA	
_____ Funds transferred to the school nutrition program from the school district's general fund	

## Classification of Expenditures

- **Definition of Expenditure:** Expenditures in the school nutrition program are those allowable costs that can be identified specifically with the production and service of meals to school children.
- Refer to the *ICN Financial Management Information System* resource and highlight the categories of expenditures as we identify them. You may want to make notes in your workbook to help you remember points discussed.
- Expenditures are classified as:
  1. Labor (Salaries and wages)
  2. Employee Benefits
  3. Purchased Professional and Technical Services
  4. Purchased Property Services (Operation, Maintenance, and Energy)
  5. Food (Purchased Food and USDA Foods)
  6. Supplies (General and Food Production)
  7. Capital Assets
  8. Miscellaneous Expenditures
  9. Indirect Costs
  10. Fund Transfer-Out

**Expenditure Category Notes:** (Space for notes)

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## Expenditure Category Question

Review the expenditures on the slide and think about the answer to the question below. Work together as a team and write your team's final answer. After you finish, we will ask you to share your answers.

**Question:** If you are conducting a financial analysis of your program, which expenditure categories would you most likely look at first?

**Answer:**

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## Indirect Costs

**Indirect costs** are the school nutrition program's share of general school district costs incurred for joint purposes. A joint purpose cost refers to expenditures that are

- shared by the school nutrition program and the district, and
- are not readily assignable to the cost objective specifically benefited.

**Direct costs** can be specifically identified to the benefiting program with a particular cost objective, such as

- program activities (e.g. food, benefits, salaries, supplies)
- a grant (e.g. Farm to School), or
- contracts (e.g. providing meals to a private school).

List four examples of expenditures that could be classified as costs incurred for joint purposes.

- 1.
- 2.
- 3.
- 4.



## USDA Administrative Review Guidance

The Resource Management Section of the *USDA Administrative Review Guidance* includes a Module on Indirect Costs. The guidance notes that charges for indirect costs are based on two factors:

- The indirect cost rate established for a specific fiscal year, and the corresponding direct cost base and
- A documented methodology that accurately allocates indirect costs.

Details on how the direct cost base is determined are found in the FMIS resource and from your state agency.

More information on Indirect Costs is provided in FNS' Indirect Cost Guidance which can be found at [http://www.fns.usda.gov/sites/default/files/SP41-2011\\_os.pdf](http://www.fns.usda.gov/sites/default/files/SP41-2011_os.pdf).

## Key Points to Remember

1. Costs that are charged to the school nutrition program as Indirect Costs cannot also be charged as direct costs.
2. Districts may or may not charge the school nutrition program Indirect Costs. Districts also have the option of charging only a portion of the Indirect Costs generated by the program.
3. School nutrition directors should check with their state agencies for more information regarding examples of costs that are considered indirect and how Indirect Costs are calculated.



## Lesson 3: Financial Reporting of Revenue and Expenditure Transactions

**OBJECTIVE 3: Demonstrate use of financial reports that are consistent with federal, state, and local guidelines to achieve a financial management system that supports a cost effective program with high integrity.**

### Introduction to Topic

Financial reports must be consistent with federal, state, and local guidelines and are used to achieve a financial management system that will support a cost effective program with high integrity. It is absolutely vital that school nutrition programs produce accurate and timely financial reports that adhere to governmental guidelines.

### Three Types of Financial Reports Used in School Nutrition Programs

The three financial reports most often used by directors of school nutrition programs to measure financial performance are:

- Statement of Activities (Statement of Revenue and Expenditures)
- Statement of Net Position (Net Asset or Balance Sheet)
- Budget

### Statement of Activities (Statement of Revenue and Expenditures)

Four types of financial information on the Statement of Activities (Statement of Revenue and Expenditures) include:

- total revenue available to the program by source
- total expenditures by category
- net gain/loss to the program for the period of the statement, and
- comparison of current month with previous month's financial information and year-to-date information.

## Handout: Statement of Activities Report (Revenue and Expenditures)

School Nutrition Program Ending \_\_\_\_\_ (Month and/or Year)

**Note:** Assume 4 months data shown on this statement

Revenue Source	Current Month	Previous Month	YTD
Local Sources			
Student Meal Sales	\$ 24,978	\$ 23,025	\$ 96,150
Adult Meal Sales	2,376	2,175	9,102
Other Food Sales	11,326	10,785	44,222
Contract Meals	1,575	1,560	6,250
Interest	260	255	1,030
State Sources	18,831	0	18,831
Federal Sources (includes USDA Foods value)	186,639	182,220	737,718
Miscellaneous	0	8,010	8,010
Fund Transfer-In	0	0	0
<b>Total Revenue</b>	<b>\$ 245,985</b>	<b>\$ 228,030</b>	<b>\$ 921,313</b>
Expenditures	Current Month	Previous Month	YTD
Salaries and Wages	\$ 65,875	\$ 63,900	\$259,550
Employee Benefits	28,975	25,364	108,678
Purchased Services	375	326	1,402
Property Services	305	280	1,170
Purchased Food/ USDA Foods	96,190	90,183	372,746
Supplies	24,750	21,360	92,220
Miscellaneous	625	0	950
Capital Assets	0	55,000	70,000
Indirect Costs	5,835	5,830	23,330
Fund Transfer-Out	0	0	0
<b>Total Expenditures</b>	<b>222,930</b>	<b>262,243</b>	<b>930,046</b>
<b>Net Excess/Deficit</b>	<b>\$ 23,055</b>	<b>(\$ 34,213)</b>	<b>(\$ 8,733)</b>

### Notes:

- (1) School Nutrition Program directors should modify the Statement of Activities (Revenues and Expenditures) to meet the local and state requirements.
- (2) The dollar amounts shown in this statement are for a hypothetical school district and are illustrative only. They are not tied to any other activity in this lesson.

**Activity: Statement of Net Position (Statement of Net Assets)**

The Statement of Net Position includes information on assets, liabilities, and fund balance.

**Instructions:** Link each component of the Statement of Net Position with its definition.

Definition	Components
1. _____ Cash balance, receivables due, and value of inventories	A. Assets B. Fund Balance C. Liabilities
2. _____ Outstanding payables, deferred revenue, and sales tax owed	
3. _____ Shows how much money is reserved for encumbrances and how much is available for expenditures	

Notes:

## Handout: Statement of Net Position (Statement of Net Assets)

**Total Assets = Total Liabilities + Fund Balance**

School Nutrition Program

Ending \_\_\_\_\_ (Month or Year)

<b>Assets</b>	<b>Ending</b>	<b>Month or Year</b>
<b>Current Assets</b>		
Cash and Cash Equivalents	\$205,230	
Sales Tax Collection	0	
Investments	10,225	
Due from Federal Funds	185,365	
Due from State Funds	0	
Due from Other Funds	1,525	
Other Receivables	260	
<b>Inventories</b>		
Purchased Food and USDA Foods	8,500	
Supplies	3,055	
<b>Total Current Assets</b>	<b>414,160</b>	
<b>Noncurrent Assets</b>		
Furniture and Equipment	425,456	
Less Accumulated Depreciation	(400,124)	
<b>Total Noncurrent Assets</b>	<b>25,332</b>	
<b>Total Assets</b>		<b>\$ 439,492</b>
<b>Liabilities</b>	<b>Ending</b>	<b>Month or Year</b>
<b>Current Liabilities</b>		
Accounts Payable	\$172,695	
Accrued Salaries	70,500	
Accrued Payroll Deductions	19,050	
Due to Other Funds	975	
Deferred Revenue	2,225	
Sales Tax Owed	0	
<b>Total Current Liabilities</b>	<b>265,445</b>	
<b>Fund Balance</b>	<b>Ending</b>	<b>Month or Year</b>
<b>Nonspendable</b>		
Noncurrent Assets	25,332	
Inventory	11,555	
Assigned	24,670	
Unassigned	112,490	
<b>Total Fund Balance</b>	<b>174,047</b>	
<b>Total Liabilities and Fund Balance</b>		<b>\$ 439,492</b>

**Note:** The dollar amounts shown in this statement are for a hypothetical school district and are illustrative only. They are not tied to any other activity in this lesson.

## Fund Balance

1. Total Fund Balance  
Minus Nonspendable Noncurrent Assets  
Minus Nonspendable (Inventory)  
Minus Assigned  
= Unassigned Funds
2. The Fund Balance consists of noncurrent assets, funds assigned for specific purposes, and unassigned funds. Why is the information related to the fund balance important?
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  - 
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Additional reasons provided by other groups or the instructor during discussion.

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3. Maintenance of the Nonprofit School Nutrition Account  
Total current assets are subtracted from total liabilities and compared to total of average three month operating expenditures to determine if the program is in compliance with the net cash resources requirement.

## School Nutrition Program Budget

The budget should be a *cooperative* effort of the school nutrition department and the business office with input from site level managers. Why is this important?

1. School district business officers can provide guidance in accounting and business functions. Budgets should be based on accurate financial information that can often be provided by the business office.
2. Site level managers can provide information concerning participation trends, changes in student eating habits, equipment and labor needs, and other factors that influence the budget process.

## The Budget as a Control Document

The budget can be used by the school nutrition program as a control document in managing the operational aspects of the school nutrition program. The following are ways the budget can be used as a management tool:

- Forecasting the amount of revenue that will be available
- Identifying how the revenue will be allocated for expenditures
- Predicting how much money will be in the fund balance at the end of the closing period.



## Methods of Budgeting

1. **Incremental (baseline) budgeting** – The starting point is the previous year's budget. Adjustments are made to each line item to reflect expected changes in revenues and expenditures. Incremental budgeting is less time consuming, but less planning may go into the budgeting process.
2. **Zero-based budgeting** – The basic concept for zero-based budgeting is to start with zero and build the budget for each line item.
3. **Combination of Incremental and Zero-based budgeting** – A combination method uses zero-based budgeting for some items and incremental budgeting for other items. This method is most often used for school nutrition programs.

## Budgets are Public Documents

All school budgets are considered public documents that represent plans for the use of public funds and should reflect accountability in accordance with local, state, and federal laws. Why is this important information for a school nutrition director to remember?

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## Lesson 4: Setting a Meal Standard for Financial Management and Analysis

**OBJECTIVE 4: Utilize financial management tools and standards to operate a financially and nutritionally accountable school nutrition program consistent with federal and state guidelines.**

### Introduction to Topic

Financial management tools can be used by the director to improve accountability. The objective for this lesson is to identify how to utilize financial management tools and standards to operate a financially and nutritionally accountable school nutrition program consistent with federal and state guidelines.

### Standard Unit of Measurement

In most school districts, the production of the **reimbursable student lunch** is the unit of measurement used to gauge the effectiveness and efficiency of the nutrition program operation.

### Performance Measures

Several financial performance measures can be determined using meal equivalents such as:

- per meal cost,
- labor productivity ratios or Meals Per Labor Hour, and
- average revenue earned per meal/meal equivalent.

## Meal Equivalent Conversion Formulas

The ICN formulas used for converting breakfasts, snacks, suppers, and other food sales to a student lunch are **only recommendations**. There are other formulas used in some states and school districts. You should check with your state agency before making a decision about meal equivalent conversions.

- 1 lunch = 1 meal equivalent
- 3 breakfasts = 2 meal equivalents ( $2 \div 3 = .67$ )
- 3 afterschool snacks = 1 meal equivalent ( $1 \div 3 = .33$ )
- 1 supper = 1 meal equivalent
- Nonprogram food sales = revenue from food sales  $\div$  (current free lunch reimbursement + current USDA Foods value per lunch)

## Converting Adult Meals to Meal Equivalents

### Important Point

Although in most states adult meals are counted with student meals when determining meal equivalents, in some states adult meals are considered “other” food sales. Either consideration is acceptable for determining meal equivalents as long as the method remains consistent throughout the school year.

## Meal Equivalent Conversion Examples

### Activity: Meal Equivalent Conversions

Participation data for the current school year

Maple School District served 699,314 reimbursable student lunches, 10,110 adult lunches, 309,485 reimbursable student breakfasts, 29,873 reimbursable afterschool snacks, and 16,650 reimbursable suppers during the current year. In addition, the school district received a total of \$128,155 for the sale of nonprogram foods. Calculations for converting the participation data into meal equivalents are provided in the sample below.

Meal Categories	Total Meals/ Sales	Conversion Factor	Meal Equivalents
Student Lunch	699,314	1	699,314
Adult Lunch	10,110	1	10,110
Student Breakfast	309,485	.67	(309,485 x .67) 207,355
Snacks	29,873	.33	(29,873 x .33) 9,858
Supper	16,650	1	16,650
Nonprogram Food Sales	\$128,155	*	(\$128,155 ÷ 3.1625) 40,523
Total Meal Equivalents			983,810

\*Nonprogram food sales divided by current Free Lunch Reimbursement (\$2.93) + Entitlement USDA Foods Value per Lunch (\$0.2325). Note these are the 2013-2014 reimbursement rates.

**Instructions:** Using the formulas provided in this lesson, answer the following questions:

1. If an elementary school served 485 breakfasts one morning, how many breakfast meal equivalents were served?
2. A school nutrition program served 168 reimbursable snacks for the day in the district's afterschool care program. Convert the afterschool snacks to meal equivalents.
3. A high school nutrition program sold \$250 in nonprogram foods for the day. Convert the revenue from the nonprogram sales to meal equivalents using the formula above.



## Lesson 5: Managing Revenue in School Nutrition Programs

**OBJECTIVE 5: Interpret, analyze, and use revenue data for program evaluation and improvement.**

### Introduction to Topic

Interpreting and analyzing information about revenue generation can be used for program improvement. The management of the school nutrition program's revenue is critical to its success in meeting the nutritional needs of students in the school district.

### Revenue Management Accountability

#### Revenue Accountability

USDA mandates accountability for the management of revenue in school nutrition programs by monitoring

- all revenue received,
- how that revenue is dispersed, and
- the revenue generated is sufficient to sustain a nutrition program that serves food high in quality and nutritional value.

### Revenue Analysis

Three ways to analyze the revenue generated by the school nutrition program are listed below:

- Calculate average revenue per meal or meal equivalent.
- Establish consistent guidelines for pricing meals and other nonprogram food items for sale.
- Comparing revenue generated per meal with costs per meal.

## **Revenue Generation per Meal/Meal Equivalent**

It is important to compare revenue earned with meal cost. The comparison is useful because it:

- helps determine if and where revenue should be increased,
- allows the director to analyze revenue by source, and
- identifies areas in which revenue should be monitored for revenue loss.



## Activity: Calculating Revenue per Meal Equivalent

Calculating the projected average revenue earned per meal equivalent is important in the management of school nutrition programs.

**Instructions:** Complete the following activity to determine how much average revenue per meal equivalent is projected from each revenue source. Calculate the amount received from each revenue source four decimal places. If the 5th decimal place is 5 or higher, round UP; if 4 or less, round DOWN.

**Given:** Formula:  $\text{Revenue} \div \text{Total Meal Equivalents}$

There were 983,810 meal equivalents served

Add all of your answers in the last column to get the Total Revenue per Meal/Meal Equivalent.

Revenue Analysis		
Revenue Account	Dollar Amount Received	Average Revenue Per Meal/ Meal Equivalent
Student Meal Sales	\$ 404,300	\$0.4110
Adult Meal Sales	27,803	0.0283
Nonprogram Food Sales	113,955	
Contract Food Sales	14,200	0.0144
Federal Reimbursement	2,143,150	
USDA Foods	159,094	
State Reimbursement	18,835	0.0191
Interest	3,155	0.0032
Miscellaneous	5,800	0.0059
<b>Total Revenue</b>	<b>\$2,890,292</b>	

**Note:** For tips on how to use multiple divisors and multipliers in your calculator, see the resource section of your workbook.

## Setting Meal Prices

### Paid Lunch Price

- Healthy, Hunger-Free Kids Act of 2010 legislated rules for setting meal prices
- School districts must provide same level of support as reimbursement received for a free lunch

### Paid Lunch Equity (PLE) Analysis

- Determine the average price for all types of paid student lunches,
- Compare the average paid lunch price with the difference between the free and paid reimbursement rates, and
- Determine if a price increase is necessary.

### Paid Lunch Equity (PLE) Tool

USDA has developed a Paid Lunch Equity (PLE) Tool to help districts complete the calculations.

- Calculations must be done annually
- Tool is updated accordingly
- Tool is available at <http://www.fns.usda.gov/>

### PLE School Year Calculator

- Determines if a price increase is necessary

SY 2014-15 Weighted Average Price Requirement	
Requirement price to the nearest cent	<i>Optional</i> price requirement ROUNDED DOWN to nearest 5 cent
\$ -	\$ -
Note: Above prices are based on adjusting SY 2013-2014 price requirement by the 2% rate increase plus the Consumer Price Index (2.27%)	

SY 2013-14 Weighted Average Price Calculator				
Enter the paid prices and number of paid lunches sold at each price for October 2013.				
	Monthly # of Paid Lunches	Paid Lunch Price	Monthly Revenue	SY 2013-14 Weighted Average Price
1.			\$ -	
2.			\$ -	
3.			\$ -	
4.			\$ -	
5.			\$ -	
6.			\$ -	
7.			\$ -	
8.			\$ -	
9.			\$ -	
10.			\$ -	
TOTAL	-		\$ -	\$ -
Note: SY 2013-14 Weighted Average Price equal to or above <b>\$2.65</b> are compliant for SY 2014-15. <b>\$2.65</b> is the difference between the Free and Paid reimbursement rates for SY 2013-14.				

Source: USDA Paid Lunch Equity Tool. Available on USDA's website: <http://www.fns.usda.gov/>

## Revenue Increase Options

- increasing paid meal prices
- adding approved non-Federal revenue to the nonprofit school nutrition account
- using a combination of increasing paid meal prices and adding approved non-Federal revenue to the nonprofit nutrition account

## PLE Price Estimation Calculator

- allows you to input totals of paid lunches and suggested prices,
- automatically adjusts the weighted average paid lunch price, and
- allows you to experiment with prices at various grade levels, or in increments to make change making easy for cashiers.

### Step 3 (Optional)

Pricing Estimation Calculator				
Below is a tool allowing users to manipulate prices to achieve the required new weighted average price.				
	Monthly # of Paid Lunches	Paid Lunch Price	Monthly Revenue	Weighted Average Price
1.			\$ -	
2.			\$ -	
3.			\$ -	
4.			\$ -	
5.			\$ -	
6.			\$ -	
7.			\$ -	
8.			\$ -	
9.			\$ -	
10.			\$ -	
<b>TOTAL</b>	-		\$ -	\$ -

Source: USDA Paid Lunch Equity Tool. Available on USDA's website: <http://www.fns.usda.gov/>

This topic is very fluid so it is imperative you stay updated. In addition to guidance and information from the state agency, updated policy information is available on the USDA website, [www.fns.usda.gov](http://www.fns.usda.gov)

## Pricing Adult Meals

An adult meal must be priced to cover all the costs to produce that meal. Meals served to adults cannot be subsidized by Federal reimbursements, student payments or other nondesignated nonprofit foodservice revenues. Prices must be reviewed annually.

### Adult Meal Price Formula

$$\begin{aligned} &\text{Federal reimbursement for a free student lunch} \\ &+ \text{Per meal value of USDA Foods} \\ &= \text{Minimum Adult Meal Price} \end{aligned}$$

If you are receiving the additional 6 cents reimbursement in your district, check with your state agency for guidance as to whether it should be considered when setting adult lunch prices.

### Second Meals to Students

- Not eligible for reimbursement
- Follow same pricing formula as for adults

Refer to your FMIS resource for a discussion about a second approach to pricing adult meals and second meals to students.

## Pricing Nonprogram Food Items

### Definition of Nonprogram Foods

- Foods and beverages sold in a participating school, other than reimbursable meals, and purchased using funds from the nonprofit foodservice account.
- These foods cannot be claimed for reimbursement.
- The *USDA School Lunch and Breakfast Cost Study* found that the average school nutrition program in the study used revenues from reimbursable meals to offset the cost of producing nonprogram food items.

### Requirements of Nonprogram Food Revenue

$$\frac{\text{Total Nonprogram Food Revenue}}{\text{Total Program Revenue}} \geq \frac{\text{Total Nonprogram Food Cost}}{\text{Total Food Costs}}$$

### Types of Nonprogram Food Items

There are four types of nonprogram foods that may be sold in school nutrition programs during the school day.

- Adult meals
- Sale of a second meal to a student
- Individual components of the reimbursable meal (i.e. milk)
- Other food items not on the menu (à la carte)

### Desired Food Cost Percent Mark-up Method

- Determine the raw food cost of the item offered for sale.
- Identify the desired food-cost percentage for the school nutrition program operation.
- To establish a base selling price, divide the item's food cost by the desired food cost percentage mark-up.

## Activity: Pricing Nonprogram Food Items

Pricing Method: Desired Food Cost Percent Markup Method

The formula for determining a base price using the desired food cost percent markup method is:

**Raw Food Cost ÷ Desired Food Cost Percent Markup**

**Reminder: Convert percent to decimal (i.e., 38% ÷ 100 = .38).**

**Instructions:** Using the formula, determine the base selling price for each of the following nonprogram food items offered for sale if the desirable food cost percentage for a school nutrition program is 38% for the school year.

**Calculation Example:** If raw food cost is \$0.20 and desired food cost percentage is 38%:  
 $\$0.20 \div .38 = 0.5263$  or 0.53 base selling price.

Recommend a final selling price and summarize how you arrived at the price.

Food	Raw Food Cost	Base Selling Price	Recommended Selling Price	Justification for Recommended Selling Price
Bottled Water	\$0.13			
Pizza Slice	\$0.45			
Fresh Apple	\$0.22			
Ice Cream Cup	\$0.19			
Baked Corn Chips	\$0.16			
Hamburger	\$0.76			
Milk 1/2 pint	\$0.21			
Banquet Meal per Plate	\$3.69			
Catered Meal per Plate	\$3.21			

**Question:** A school district might charge less for an extra food or à la carte item under certain conditions. What are they?

**Answer:** Many school districts are encouraging students to consume more fresh fruits and vegetables as part of the wellness policy. In this case, a school district could price extra food items such as the apple or other fresh fruits lower than the approved mark-up because they want to encourage students to consume the food. However, it is important to remember that the loss would need to be covered by selling a popular item at a price higher than the base selling price in order to cover the loss.

**Reminder:** For more information on methods of pricing nonprogram food items, refer to the *ICN Financial Management Information System (FMIS)* resource.

### **Nonprogram Foods Sold Away from Campus or Outside School Day**

Nonprogram food sales that generally occur either outside the school day or away from the campus include:

- Catered food or meals to outside groups or groups within the school district
- Contract meals served on a regular basis
- Special school function meals such as an athletic banquet

**Question:** Why is it important for school districts to set prices on nonreimbursable, nonprogram food items so there is NO LOSS to the school nutrition program?

**Answer:** Federal regulations do not allow the school nutrition program to supplement other food sales outside the reimbursable student meal. Special functions must be priced high enough to cover the entire cost of the food function.



## Implementing Requirements of Section 206 of HHFKA

Total revenue from the sale of nonprogram foods must generate at least the same proportion as they contribute to total food costs. USDA's Nonprogram Food Revenue Tool is used to perform the calculations. The Tool can be found at this web site <http://www.fns.usda.gov/cnd/Governance/Policy-Memos/2011/SP39-2011ar.xls>

### Information for USDA Nonprogram Revenue Tool

- food costs of reimbursable meals
- food costs of nonprogram foods
- revenue from nonprogram foods
- total revenue of the program

### Calculating Compliance

Nonprogram Revenue Calculator		
Enter the cost for reimbursable meal, cost of nonprogram food and total revenue		
<a href="#">Cost for Reimbursable Meal Food</a>		
<a href="#">Cost of Nonprogram Food</a>		
<a href="#">Total Food Costs</a>	\$ -	
<a href="#">Total Nonprogram Food Revenue</a>		
<a href="#">Total Revenue</a>		
Minimum portion of revenue from nonprogram funds	0%	
Minimum Revenue Required from the Sale of Nonprogram Foods	\$ -	
Additional Revenue Needed to Comply	\$ -	

Source: USDA 's Nonprogram Food Reveue. Tool is available on USDA's website: <http://www.fns.usda.gov/cnd/governance/Policy-Memos/2011/SP39-2011ar.xls>

## Revenue Requirement Calculation

### Example:

Total Food Costs	\$ 500,000
Nonprogram Food	50,000
Program Food	450,000
Total Revenue	\$1,000,000

$\frac{\$50,000 \text{ Nonprogram Food}}{\$500,000 \text{ Total food Costs}} = 10\% \text{ Minimum of Revenue Required}$

$10\% \times \$1,000,000 = \$100,000 \text{ Revenue Required}$

## Lesson 6: Managing Expenditures in the School Nutrition Program

**OBJECTIVE 6: Interpret, analyze, and use expenditure data for program evaluation and improvement.**

### Introduction to Topic

Interpreting and analyzing expenditure data helps in the management of school nutrition programs. Properly managing funds allocated to cover the costs of operating the school nutrition program is critical to maintain quality standards and ensure nutritious meals are served.

### Analysis of Financial Reports

Analyzing financial reports can provide important information.

- Patterns or trends might suggest an avenue for improvement.
- Significant changes in specific cost categories are a red flag to monitor spending in that area.
- Deviations from financial goals, for example higher food cost percentages alert the school nutrition director to evaluate purchases.
- Possible abuse or theft within expenditure categories such as food or supplies may be easier to spot
- Transaction or accounting errors will likely stand out in financial analysis.

There are several types of analysis for evaluating how effective the school nutrition program is in managing expenditures. Four types of analysis used in school nutrition programs are:

- total cost to produce a meal,
- meal cost per expenditure category,
- percentages of operational costs (expenditures) to total revenue (operating ratios), and
- cost to produce a meal compared with the average revenue generated per meal.

## **Evaluating Meal Costs**

School nutrition program directors need to determine how much money is spent per meal on a regular basis, preferably monthly. This allows the district to take the necessary action to correct the situation in a timely manner.

### **Meal Costs Deviation**

The costs of producing a meal or meal equivalent may deviate from the normal average at various times during the year. Below are three examples:

- higher food costs at the beginning of the school year due to larger than normal food purchases
- a one-time purchase of a large ticket item
- unplanned large repair bills

## Calculating the Cost to Produce a Meal/Meal Equivalent

### Activity: Calculating the Cost to Produce a Meal/Meal Equivalent

**Instructions:** Calculate the cost per meal equivalent for each expenditure category listed. Include the total cost of a meal equivalent. **Remember:** To calculate the costs to produce a meal equivalent, divide expenditures in each category by the total number of meal equivalents.

**Given:** Meal Equivalents served for the year totaled 983,810

Expenditure Analysis		
Expenditure Category	Dollar Amount	Cost Per Meal Equivalent
Salaries and Wages	\$ 885,170	\$ 0.8997
Employee Benefits	357,150	
Purchased Food	1,055,135	
USDA Food Value	159,094	0.1617
Supplies	260,902	0.2652
Capital Assets	102,150	0.1038
Indirect Cost	85,125	0.0865
Overhead*	93,518	0.0951
<b>Total Expenditures</b>	<b>\$2,998,244</b>	

\* Overhead combines several smaller categories of expenditures for purposes of analysis.

**Question:** What category of expenditure had the highest cost?

**Question:** What is important to remember from this activity?

**Answer:**

1. Managing expenditures within the revenues received is critical to responsible use of the school nutrition program's resources and in maintaining customer satisfaction.
2. Every program, regardless of size or method of service, must evaluate expenditures on a regular basis to control costs.
3. When the costs to produce a meal equivalent exceed the average revenue generated per meal, a corrective action plan should be implemented immediately.

## **Percentages of Operational Costs to Total Revenue**

An important measurement of program efficiency is the analysis of operational cost percentages (expenditures) to total revenue, sometimes called operating ratios. The percentage of costs to total revenue can be calculated by dividing the costs for a given period by total revenue.

**Formula:**

$$\text{Cost Percentage to Total Revenue} = \frac{\text{Category Costs for a Given Period}}{\text{Total Revenue}}$$

For example, if the cost of purchased food totaled \$16,500 for one month and revenue totaled \$30,000, then 55% of the revenue was used to purchase food. In dollar terms, this tells us \$0.55 out of every \$1.00 generated in revenue was spent for food during the month. If the school district has a goal that no more than \$0.45 per \$1.00 will be spent on food, then the school nutrition director should take steps to adjust food costs immediately.

## Calculating Percentages of Costs to Total Revenue

### Activity: Calculating Percentages of Costs to Total Revenue

**Instructions:** Calculate the cost percentages to total revenue for each **expenditure** category. Write your answers in the last column of the table. **Remember:** Calculate the percentages of operational costs to total revenue by dividing the amount in each expenditure category by total revenue and multiplying by 100 to get the percent. The first one has been calculated for you.

**Given:** Total revenue for the year totaled \$2,890,292.

Expenditure Analysis		
Expenditure Category	Dollar Amount	% of Total Revenue
Salaries and Wages	\$885,170	(.3062 x 100) 31%
Employee Benefits	357,150	(.1235 x 100) 12%
Purchased Food	1,055,135	
USDA Food Value	159,094	(.0550 x 100) 6%
Supplies	260,902	
Capital Assets	102,150	(.0353 x 100) 4%
Indirect Cost	85,125	(.0294 x 100) 3%
Overhead*	93,518	
<b>Total Expenditures</b>	<b>\$2,998,244</b>	

\*Overhead combines several smaller categories of expenditures for purposes of analysis.

#### Question:

What do cost percentages tell us?

- Less than 100% - operating balance increases (more revenue than expenditures)
- Equal to 100% - operation breaks even (revenue and expenditures are equal)
- More than 100% - operating balance decreases (more expenditures than revenues)

## **Comparing Revenue Generated with Program Expenditures**

By comparing revenue and expenditure financial reports, the school nutrition director can determine the

- total net gain/loss to the school nutrition program expressed in dollars,
- percent of gain/loss expressed in percentage of revenue, and
- net gain/loss per meal or meal equivalent served.



## Comparing Revenues to Expenditures

### Activity: Comparing Revenues to Expenditures

**Instructions:** Fill in the empty cells in the table at the *bottom of the page* by calculating the total gain/loss in income for the school year and the gain/loss per meal equivalent. Then answer the questions on the next page.

**Given:** Revenue and Expenditure information from previous activities

Meal Equivalents for the year: 983,810

### Revenue and Expenditure Analysis

Revenue Analysis			Expenditure Analysis		
Revenues	Dollar Amount	Per Meal Equivalent	Expenditures	Dollar Amount	Per Meal Equivalent
Student Sales	\$404,300	\$0.4110	Salaries/Wages	\$ 885,170	\$0.8997
Adult Sales	27,803	0.0283	Benefits	357,150	0.3630
Nonprogram Food Sales	113,955	0.1158	Purchased Food	1,055,135	1.0725
Contract Food Sales	14,200	0.0144			
Federal	2,143,150	2.1784	USDA Foods	159,094	0.1617
USDA Foods	159,094	0.1617	Supplies	260,902	0.2652
State	18,835	0.0191	Capital Assets	102,150	0.1038
Bank Interest	3,155	0.0032	Indirect Cost	85,125	0.0865
Miscellaneous	5,800	0.0059	Overhead*	93,518	0.0951
<b>Total</b>	<b>\$2,890,292</b>	<b>\$2.9378</b>	<b>Total</b>	<b>2,998,244</b>	<b>\$3.0475</b>

\* Overhead combines several smaller categories of expenditures for purposes of analysis.

### Comparing Revenue with Expenditures

	Total	Per Meal Equivalent
Revenue	\$2,890,292	2.9378
Expenditures	2,998,244	3.0475
<b>Net Gain/Loss</b>		

### Activity Questions

1. Was there a gain or loss for the year?
2. What percentage of total revenue was this?
3. What was the loss per meal/meal equivalent?

## Lesson 7: Controlling Food and Labor Costs in School Nutrition Programs

**OBJECTIVE 7: Apply cost control measures to operate a financially sound program with nutritional integrity.**

### Introduction to Topic

It is important to know how to apply cost control measures to operate a financially sound program with nutritional integrity.

### Controlling Food and Labor Costs

Important factors that guide us in developing strategies to control food and labor costs in school nutrition programs are:

- Factor #1** While there are no research-based industry standards, generally accepted guidelines suggest that no more than 80-85 percent of the school nutrition program revenue should be spent on food and labor. This may vary from district to district. However, it is a good benchmark when beginning an analysis of your program.
- Factor #2** The school nutrition program director should work together with the business office and school site managers to set goals for food and labor costs as part of the budget planning process.
- Factor #3** The school district's success in keeping food and labor costs within the established guidelines depends on the financial management skills of the entire school nutrition program department, including the school nutrition program director, the site level managers, and the school nutrition staff.

## Determining Labor Costs

Most nutrition programs use Meals Per Labor Hour as a productivity index to monitor the efficiency of an operation and as a guide to determine staffing.

$$\text{Meals Per Labor Hour} = \frac{\text{Number of Meals/Meal Equivalents}}{\text{Paid Productive Labor Hours}}$$

## Calculating Meals Per Labor Hour

### Activity: Calculating Meals Per Labor Hour

Maple School District has determined that an elementary school in the district needs to improve productivity. The school nutrition director and school manager performed the following steps to analyze the existing productivity index. Follow the steps and make the necessary calculations to complete the worksheet.

**Step # 1:** Calculate the current total hours of labor paid daily in the school nutrition program.

Employee hours paid daily including manager		
Number of Employees	Number of Daily Hours	Total Numbers of Hours
1	7	7
3	6	18
3	5	15
3	3	9
<b>Total Paid Labor Hours Assigned Daily</b>		

**Step # 2:** Calculate the average number of meal equivalents served daily.

Meal Categories	Meal Equivalents
Lunch (student and adults)	440
Suppers	93
Breakfast (182 x .67)	122
Snacks (75 x .33)	25
Nonprogram Sales \$200 ÷ \$3.1625	63
<b>Total Meal Equivalents</b>	

**Step # 3:** Using the information, calculate the Meals Per Labor Hour

$$\text{Meals Per Labor Hour} = \frac{\text{Number of Meal Equivalents}}{\text{Paid Productive Labor Hours}}$$

## Determining Staffing Needs

What are at least 4 criteria that may be used to assign labor at a school site?

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## Using Meals Per Labor Hour to Determine Staffing Needs

### Activity: Using Meals Per Labor Hour to Determine Staffing Needs

After an evaluation of the productivity level is completed, the school nutrition director can make a decision regarding staffing using the following three steps:

**Step 1:** Set a goal for the desired number of Meals Per Labor Hour.

**Step 2:** Divide the total meal equivalents by desired number of Meals Per Labor Hour to determine the total labor hours needed per day.

**Step 3:** Determine difference between current total paid labor hours and desired paid labor.

### Example

**Step 1:** Desired number of Meals Per Labor Hour = 17

**Step 2:** Divide the total meal equivalents from the previous worksheet (743) by the desired number of Meals Per Labor Hour (17).

Answer: \_\_\_\_\_

**Step 3:** Determine the difference between the current total paid labor hours on the previous worksheet (49) and the desired number of labor hours in Step 2.

\_\_\_\_\_

**Question 1:** Will the school nutrition director need to add or reduce hours to achieve the goal of 17 Meals Per Labor Hour?

**Question 2:** What are the choices the director will need to consider to achieve the new goal?

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## Using Daily Participation as a Financial Management Tool

Why is the Average Daily Participation useful as a forecasting tool?

- Prevents waste in excess labor hours and overproduction of food.
- Reduces customer dissatisfaction because of inadequate staff and too little food prepared for the number served.
- Identifies potential customers who are not participating.
- Helps set revenue goals.

The Average Daily Participation (ADP) for the School Breakfast Program (SBP) and the National School Lunch Program (NSLP) is based on attendance rather than enrollment. Calculating ADP in this manner is considered fairer to schools as it does not include students who are absent or do not eat lunch or breakfast in the calculation (e.g., part-day kindergarten students).

The *ICN Financial Management Information System (FMIS)* resource includes the steps to follow for calculating Average Daily Participation based on attendance and access to meal service. Calculating Average Daily Participation for each individual site is an important financial management tool as well as calculating ADP district wide.



## Analyzing Participation

Use the year end summary report to answer important questions about participation in this school district nutrition program.

**NOTE:** You **DO NOT** need to make any calculations for this exercise. Read and answer the questions based on information in the report. When you finish, analyze the meaning of the data by answering five questions.

### Activity: Participation Year End Summary Report

Days Served – 180

Average Daily Attendance	Eligibility	Students Eligible by Category	% Eligibility by Category	Total Meals	Average Number of Meals Served Daily	% Daily Participation to Average Daily Attendance	% Average Daily Participation by Eligibility Category
Lunch	Free	14,348	0.49	1,887,502	10,486	35.98	73.08
29,148	Reduced	2,626	0.09	313,030	1,739	5.97	66.22
	Paid	12,174	0.42	715,708	3,976	13.64	32.66
	<b>Totals</b>	<b>29,148</b>	<b>100.00</b>	<b>2,916,240</b>	<b>16,201</b>	<b>55.59</b>	
Breakfast	Free	14,348	0.49	1,053,906	5,855	20.09	40.81
29,148	Reduced	2,626	0.09	143,608	798	2.74	5.56
	Paid	12,174	0.42	168,413	936	3.21	6.52
	<b>Totals</b>	<b>29,148</b>	<b>100.00</b>	<b>1,365,927</b>	<b>7,589</b>	<b>26.04</b>	

Using the information from the participation report provided above, answer the questions on the next page with the information requested in each statement. Sources for the formulas used to calculate participation rates are provided in your FMIS resource.

**Remember:** You do not need to calculate any of the information asked for in the **Activity Questions**. Read the report and answer the questions based on information provided in the report.

**Activity Questions:**

1. What percentage of all average daily attending students in the school district participated in the lunch program? \_\_\_\_\_  
Breakfast program? \_\_\_\_\_
2. What percentage of the average daily attending students qualified for free meals?
3. The report shows that 55.59% of average daily attending students participated in the lunch program. What percentage of the average daily attending students who participated received free lunches?
4. What percentage of the average daily attending students eligible for a free lunch actually participate in the program on an average day? \_\_\_\_\_ What percentage of the students classified in the "paid" category participate?
5. If you were the school nutrition program director in the district looking at this report, what goal or goals might you set for the next school year regarding student lunch and breakfast participation?

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**Note:** The participation and enrollment figures shown in this statement are for a hypothetical school district and are illustrative only. They are not tied to any other activity in this course. Sources for the formulas used to calculate participation rates are provided in the FMIS resource.

## Determining Food Cost Factors

School nutrition program directors need to know the costs of food used during a given period of time.

This information is vital in order to

- determine whether costs are within guidelines,
- ascertain if there are sufficient funds to pay expenditures,
- establish the cost for each meal served, and
- prevent waste and food theft through monitoring food use.

## Calculating the Cost of Food Used

Beginning Food Inventory (Food and USDA Foods)  
+ Food Purchases (Food and USDA Foods)  
= Total Food Available  
- Ending Food Inventory (Food and USDA Foods)  
= Cost of Food Used

## Activity: Calculating Cost of Food Used

The Cost of Food Used in a school nutrition program should be calculated a minimum of monthly. Follow the bolded instructions on the worksheet and complete the activity.

<b>Determine the beginning inventory for the month of February*</b>		<b>\$8,496</b>
Month	End of Month Inventory Value	Value of Food Purchases
January	\$ 8,496	\$ 24,021
February	\$ 7,144	\$ 18,677
March	\$ 9,297	\$ 21,583
<b>Add the food purchases for the month of February</b>		\$
Equals food available in February		\$
<b>Less ending February inventory</b>		\$
Cost of food used in February		\$

**\*Hint:** The beginning inventory of the month is the ending inventory of the previous month. For example, the beginning inventory for March is \$7,144.

## **Streamlined USDA Foods Inventory**

USDA no longer requires a separate inventory for USDA Foods. You need to be aware of the policies in your state and district and comply with these policies.

## **Food Cost Containment**

One of the most pressing issues faced by school nutrition program directors is the rising cost of food. Adding to that concern is the challenge of purchasing food products that meet nutrition standards associated with meal pattern requirements and wellness policy implementation. It is important for directors to determine those factors that influence food costs.

### **Activity: Food Cost Containment**

Review the **Handout: Ways to Lower Food Costs in School Nutrition Programs**.

When you return to your districts, see if you can implement any of the ideas and determine if you can identify any additional ways to lower your food costs.

## **Handout: Ways to Lower Food Costs in School Nutrition Programs**

1. Set a goal for managing food costs. Allocate a percentage, for example, 40% of revenue for food costs.
2. Monitor meal costs. Calculate the average food cost per meal on a regular basis.
3. Use standardized recipes. This will ensure more consistent products and shorten training times.
4. Pre-cost and post-cost menus to ensure food items are within predetermined costs levels.
5. Use cycle menus.
6. Reduce plate waste by analyzing reasons for discarded foods. Are menu items unpopular, portions too large, or poor quality?
7. Use portion control tools to ensure accurate serving sizes of menu items.
8. Avoid overproduction of food by careful forecasting. Consider the weather, school activities, and short-day schedules for students.
9. Calculate kitchen waste and account for why it happened. Track cooking mistakes and mis-orders.
10. Manage the purchase of food items through bids and keeping specialized purchases to a minimum.
11. Maintain inventory control.
12. Prohibit the removal of food items from the premises. Do not allow "leftovers" to be taken home.
13. Follow receiving and storage procedures to minimize shortages.
14. Decrease food costs through use of USDA Foods.
15. Implement security measures. Product theft can cause major increase in food costs.
16. \_\_\_\_\_.
17. \_\_\_\_\_.
18. \_\_\_\_\_.
19. \_\_\_\_\_.
20. \_\_\_\_\_.

## Lesson 8: Developing and Analyzing a School Nutrition Program Budget

**OBJECTIVE 8: Explain the importance of using the budget to analyze and control revenues and expenditures.**

### Introduction to Topic

The link between financial management and budget preparation gives the budget document a unique role in school nutrition programs. The process of developing and using the budget provides school nutrition directors the necessary tools to fulfill the financial goals of the school district.

### Steps to Building a Budget

- Forecast all sources of program revenue
- Forecast expenditures in all program categories
- Analyze the first budget draft and make changes as necessary

### Budget Building: A Case Study

The next activity is a case study that is designed to help you understand the process of budget planning and serves as a review activity. As you work through the case study, you will be required to use financial management tools introduced earlier in the course. The case study contains Annual Revenue and Expenditure Reports for the current year for use as a reference. When building a budget for the next school year it is important to start by collecting summary revenue and expenditure data for the current year.

## Maple School District Case Study

### Maple School District Annual Revenue Report (Current Year)

#### Meals Revenue

Breakfast	Number	Price Charged	Reimbursement	Total \$
Full Price Elementary	13,527	\$ 1.00		\$ 13,527
Full Price Secondary	6,764	1.50		10,146
Reduced Price Elementary	11,623	0.30		3,487
Reduced Price Secondary	5,812	0.30		1,744
Adult Breakfast	0	1.75		0
Full Price Fed. Reimb.	20,291		\$ 0.27	5,479
Reduced Price Fed. Reimb.	17,435		1.25	21,794
Free Student Fed. Reimb.	271,759		1.55	421,226
<b>Sub Total Revenue/Breakfast</b>				<b>\$ 477,403</b>
Lunch	Number	Price Charged	Reimbursement	Total \$
Full Price Elementary	91,209	\$ 2.50		\$ 228,023
Full Price Middle	30,555	2.75		84,026
Full Price High	15,050	2.75		41,388
Reduced Price Elementary	36,597	0.40		14,639
Reduced Price Secondary	18,299	0.40		7,320
Adult Lunch	10,110	2.75		27,803
Full Price Fed. Reimb.	136,814		\$ 0.27	36,940
Reduced Price Fed. Reimb.	54,896		2.46	135,044
Free Student Fed. Reimb.	507,604		2.86	1,451,747
<b>Sub Total Revenue/Lunch</b>				<b>\$ 2,026,930</b>
<b>Other Reimbursable Meals</b>				
Afterschool Snacks (Free Site)	29,873		\$ 0.78	23,301
Suppers (Free Site)	16,650		2.86	47,619
<b>Sub Total Revenue/ Other Reimbursable Meals</b>				<b>\$ 70,920</b>
<b>Total Meals Revenue</b>				<b>\$ 2,575,253</b>



### Other Revenue (Current Year)

Other Revenue Categories	Notes	Revenue
Nonprogram Food Sales	Extra foods, à la carte, special school events	\$ 113,955
Contract Food Sales	Local organization (private school)	14,200
Interest		3,155
State Reimbursement	District receives one annual payment	18,835
Miscellaneous	Rebates on food, previous year purchases	5,800
<b>Subtotal Other Revenue</b>		<b>\$ 155,945</b>
<b>USDA Foods Value</b>	Based on reimbursable lunches previous year	<b>\$ 159,094</b>
<b>Total All Revenue</b>	Breakfast, Lunch/Other Meals, Other Revenue, USDA Foods Value	<b>\$2,890,292</b>

### Maple School District Annual Expenditure Report (Current Year)

Expenditure Category	Expenditure Amounts
Salaries and Wages	\$ 885,170
Employee Benefits	357,150
Purchased Food	1,055,135
USDA Foods Value	159,094
Supplies	260,902
Capital Assets	102,150
Indirect Costs	85,125
Overhead*	93,518
<b>Total Annual Expenditures</b>	<b>\$ 2,998,244</b>

\* Overhead combines several smaller categories of expenditures for purposes of analysis.

## Budget Building: A Case Study

### Revenue Projection Assumptions for Meals and Federal Reimbursements (next school year)

- The school district will continue to serve meals 180 days
- The number of meals served in each category will stay the same
- To meet the PLE requirements, prices are being raised
- Federal reimbursement rates have been increased

### Projected Meal Prices (next school year)

Breakfast	Price	Lunch	Price
Full Price Elementary Student	\$ 1.25	Full Price Elementary Student	\$ 2.50
Full Price Secondary Student	\$ 1.50	Full Price Middle/Jr. Student	\$ 2.75
Reduced Price Student	\$ 0.30	Full Price High Student	\$ 3.00
Adult	\$ 2.00	Reduced Price Student	\$ 0.40
		Adult	\$ 3.25

### New Federal Reimbursement Rates (next school year)

Breakfast	Price	Lunch	Price
Full Price Student	\$ 0.28	Full Price Student	\$ 0.28
Reduced Price Student	\$ 1.28	Reduced Price Student	\$ 2.53
Free Student	\$ 1.58	Free Student	\$ 2.93
		Afterschool Snacks (Free Sites)	\$ 0.80
		Supper Program (Free Sites)	\$ 2.93

## Maple School District Projections for Next School Year

**Instructions:** Using the data from the projected meal prices for the next school year, calculate the blank cells using Maple School District Data.

### Revenue Budget Projection Worksheet (next school year)

<b>Breakfast</b>	<b>Number</b>	<b>Price Charged</b>	<b>Reimbursement</b>	<b>Total \$</b>
Full Price Elementary	13,527	\$ 1.25		\$
Full Price Secondary	6,764	1.50		10,146
Reduced Price Elementary	11,623	0.30		3,487
Reduced Price Secondary	5,812	0.30		1,744
Adult Breakfast	0	2.00		0
Full Price Fed. Reimb.	20,291		\$ 0.28	5,681
Reduced Price Fed. Reimb.	17,435		1.28	
Free Student Fed. Reimb.	271,759		1.58	429,379
<b>Sub Total Revenue/Breakfast</b>				<b>\$ 489,663</b>
<b>Lunch</b>	<b>Number</b>	<b>Price Charged</b>	<b>Reimbursement</b>	<b>Total \$</b>
Full Price Elementary	91,209	\$ 2.50		\$
Full Price Middle	30,555	2.75		84,026
Full Price High	15,050	3.00		45,150
Reduced Price Elementary	36,597	0.40		14,639
Reduced Price Secondary	18,299	0.40		7,320
Adult Lunch	10,110	3.25		
Full Price Fed. Reimb.	136,814		\$ 0.28	38,308
Reduced Price Fed. Reimb.	54,896		2.53	138,887
Free Student Fed. Reimb.	507,604		2.93	
<b>Sub Total Revenue/Lunch</b>				<b>\$ 2,076,491</b>
<b>Other Reimbursable Meals</b>				
Afterschool Snacks (Free Site)	29,873		\$ 0.80	23,898
Suppers (Free Site)	16,650		2.93	48,785
<b>Sub Total Revenue/ Other Reimbursable Meals</b>				<b>\$ 72,683</b>
<b>Total Meals Revenue</b>				

## Revenue Projection Assumptions for Other Revenue

- Nonprogram food sales will increase by 3% due to increased prices.
- Contract meal sales will increase by 3% due to a meal price increase.
- Interest on bank deposit will increase in July by 1%.
- State reimbursement will increase by 2%.
- It is estimated that the district will receive \$5,800 in miscellaneous funds as a result of late disbursement of current year rebates.
- The USDA Foods value increased to \$0.2325 cents per lunch. The amount received will be based on the number of lunches served in the current school year.

**Instructions:** Using the information above, calculate the blank cells for the next school year.

### Other Revenue (next school year)

Other Revenue Categories	Note: Current Year Revenue	100% plus % Increase	Budget Revenue
Nonprogram Food Sales	\$ 113,955	3% (Multiply x 103 and then hit the Percent sign instead of the equal sign)	\$ 117,374
Contract Meal Sales	\$ 14,200	3%	
Interest	\$ 3,155	1%	3,187
State Reimbursement	\$ 18,835	2%	19,212
Miscellaneous	\$ 5,800	Based on historical data	
<b>Sub Total Other Revenue</b>			<b>\$ 160,199</b>
USDA Foods Value	\$ 159,094	*699,314 x 0.2325	
<b>Total All Revenue</b>		Breakfast, Lunch/Other Meals, Other Revenue, USDA Foods Value	<b>\$ 2,961,627</b>

\*Lunches served the previous year x the current USDA Foods Value

**Note:** Check with your state agency for the best method to project revenue from state funds. If state funds are issued on reimbursable meals served, and are received on a monthly basis, add sections under meal and breakfast categories for state revenue.

## Budget Building: A Case Study

### Expenditure Projection Assumptions

- There will be a 2% raise in salaries and a 1.5% increase in benefits.
- Food costs are expected to increase by 4.5% based on market trends.
- Supply costs are expected to go up by 1.5% due to expanded Grab & Go meal options
- The program plans to add two new pieces of equipment for a total cost of \$50,000.
- The indirect cost charged by the district will remain the same.
- Overhead is expected to increase 1%.

**Instructions:** Using the information above, calculate the blank cells for the next school year.

### Expenditure Budget Projection Worksheet (next school year)

Expenditure Category	Current Year Expenditure Totals	Projected % Increase	New Budget Expenditures
Salaries and Wages	\$ 885,170	2% (Multiply x 102 then hit percent sign instead of equal sign)	\$
Benefits	\$ 357,150	1.5% (Multiply x 101.5 then hit percent sign instead of equal sign)	\$ 362,507
Purchased Food	\$ 1,055,135	4.5%	\$
USDA Foods Value	\$ 159,094	699,314 x 0.2325 (should match revenue)	\$ 162,591
Supplies	\$ 260,902	1.5%	\$ 264,816
Capital Assets	\$ 102,150	Based on need	\$
Indirect Costs	\$ 85,125	No Change	\$ 85,125
Overhead	\$ 93,518	1%	\$ 94,453
<b>Total Expenditures</b>	<b>\$ 2,998,244</b>		\$

## Analyzing the Budget

A budget is a tool for financial management. It helps the school nutrition director decide if there is a need for revenue increases, expenditure reductions, or a combination of both.

Analyze the budget projections you have just completed for the Maple School District by answering the following questions.

1. What is the projected bottom line net (excess or deficit) in the budget? Compare the Revenue Budget worksheet with the Expenditure Budget worksheet.
2. Based on the budget worksheets, will there be an improvement in the financial status of the Maple School District school nutrition program in the next school year? If so, how much?
3. What contributed to the improvement?

4. What are the percentages of projected expenditures to total budgeted revenue in the following expenditure categories (operating ratios)? (Total projected revenue in new budget = \$2,961,627). Calculate to the nearest half percent.

Calculate the current year's expenditures to total revenue percentage to determine if this is an improvement?

Category	Budgeted Amount (From the Budget Expenditure Worksheet)	% of Revenue
Salaries and Wages	\$ 902,873	30.5%
Employee Benefits	\$ 362,507	%
Purchased Food	\$ 1,102,616	37%
USDA Foods Value	\$ 162,591	5.5%
Supplies	\$ 264,816	%
Capitol Assets	\$ 50,000	%
Indirect Costs	\$ 85,125	3%
Overhead	\$ 94,453	3%
<b>Total Expenditures</b>	<b>\$ 3,024,981</b>	<b>%</b>

5. How many total meal equivalents are projected in the new budget? Complete the cells and make the necessary calculations.

Meal Category	Meals/Sales	Conversion Factor	Meal Equivalents
Student Lunch	699,314	1	699,314
Adult Lunch	10,110	1	10,110
Student Suppers	16,650	1	16,650
Student Breakfast	309,485	x .67	
Student Snacks	29,873	x .33	9,858
Nonprogram Food Sales/ Contract Meal Sales	\$ 132,000	Total sales ÷ (current Free Lunch Reimbursement + current USDA Foods Value*)	
<b>Total Meal Equivalents</b>			

\*For purposes of this training the Free lunch rate is \$2.93 + 0.2325 USDA Foods Value = \$3.16

6. What is the projected revenue per meal equivalent in the new budget?

Total Projected Revenue ÷ Projected Meal Equivalents

7. What is the projected cost to produce a meal?

Projected Expenditures ÷ Projected Meal Equivalents



## Activity: Budget Revision Worksheet

**Instructions:** Using financial management concepts covered in the training, determine a plan to erase the deficit and submit a balanced budget.

### Budget Revision Tips:

- Strive for a combination of increased revenues and decreased expenditures.
- Review the original budget assumptions of the case study.
- Review options to increase revenue. If a participation increase is an option, show how the projected increase can be sustained over the school year.
- Review the expenditure categories. Analyze the expenditure categories shown as a percentage of revenue and compare to industry guidelines.

Note your Budget Revision Strategies and Rationale below:

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## Lesson 9: Review, Action Plan, Post-Assessment, and Training Evaluation

**OBJECTIVE 9: Interpret the benefits of financial information as they relate to school nutrition programs.**

### Financial Management Concepts Review

At the beginning of this course, you were asked whether you could answer several basic financial questions about your school district's school nutrition program. As a result of learning about financial management in this training seminar, you should be able to find answers to those questions in the district's financial statements or reports. Increase your knowledge by looking for answers to these questions when you return to your district.

1. What are the main sources of revenue for the school nutrition program in your district? (Hint: Student paid meals? Federal reimbursement? Nonprogram food sales?) (Lesson 2)
2. What percentage of total revenue is attributed to each source of revenue? (Lesson 5)
3. What different expenditure categories are used for the school nutrition program in your district? (Hint: Labor is one expenditure category; try to name at least 5 others) (Lesson 2)
4. How much does it cost, on an average, to produce a meal in your school district? (Lesson 6)
5. What percentage of total revenue is the school nutrition program spending for labor? For food? (Lesson 6)
6. What is the labor productivity (Meals Per Labor Hour) index in your school/school district? (Lesson 7)

7. What was the net gain or loss in the school nutrition program last year?  
(Lesson 8)
8. Do employees in your school nutrition program understand the importance of cost controls to the success of the program? (Lesson 7)
9. What do Average Daily Participation comparisons in your school/school district for the last 3 years indicate? (Lesson 7 )

Remember, the key to financial integrity and program excellence can be found in the answers to these questions.

## **Financial Management Action Plan**

### **Activity: Financial Management Action Plan**

**Instructions:** Think back over the financial management concepts covered in this training. Based on what you have learned today, determine the financial management goal you think is the most important to implement when you return to your school nutrition program. Then answer the questions for your financial management goal.

1. What financial management goal do I want to achieve?
2. List the steps required to achieve this financial management goal.
3. Who do I need to involve to help achieve this financial management goal?



## ICN Financial Management Resources

**Available at [www.theicn.org](http://www.theicn.org)**

### **Financial Management: A Course for School Food Service Directors – Webinars**

- Webinar # 1 - Originally aired January 7, 2010, this first webinar established a foundation for the upcoming webinars that will provide school nutrition directors with the necessary tools to use when analyzing and evaluating
- Webinar # 2 - Originally aired January 21, 2010, the objective of this webinar was to learn to use and interpret financial information for program analysis and evaluation.
- Webinar # 3 - Original air date: February 4, 2010, this webinar provided instructions on how to use financial information as a tool to improve program operations and accountability.

### **Financial Management: A Course for School Nutrition Managers**

Financial Management: A Course for School Nutrition Managers is designed specifically for school nutrition managers. The resource covers a variety of financial management topics including forecasting menu item usage, ways to control food and labor costs, and calculating the cost of menu items. Published 2013.

### **Insight No. 44 -- Research-Based Competencies Identified as Important to Being a Successful School Nutrition Director**

Report on research to identify the current competencies, knowledge, and skills needed by district-level school nutrition professionals and determine the importance of these competencies. Published 2011.

### **Inventory Management and Tracking**

The Inventory Management and Tracking Reference Guide presents information about inventory management and tracking that may be new to school nutrition operators and updates information about traditional inventory management in light of new traceability expectations. Published 2012.

### **ICN Financial Management Information System**

This report describes a standard method of data collection and financial analyses developed to assist school nutrition directors evaluate financial management decisions. This standard method includes procedures for consistently recording financial data, recommendations for generating standard financial reports, and guidelines for interpreting the outcome of financial decisions. Published 2014.

### **ICN Financial Management Seminar**

Instructor Manual for Financial Management Course that identifies sound financial principles as the primary foundation for School Nutrition Programs. Published 2014.

### **ICN Financial Management Seminar Workbook**

Participant workbook for the Financial Management Course. Published 2014.

### **School Nutrition Program Utilization of the ICN FUNDamentals Financial Management Software**

The purpose of this study was to evaluate both the use of FUNDamentals and user perception of its effectiveness in improving the operation of the school nutrition program. Report on research to identify the current competencies, knowledge, and skills needed by district-level school nutrition professionals and determine the importance of these competencies. Published 2010.

## **Government Resources**

### **Financial Accounting for Local and State School Systems**

This Institute of Education Sciences, National Center for Education Statistics handbook represents a national set of standards and guidance for school system accounting including school nutrition programs. The publication focuses on defining account classifications that provide meaningful financial management information and complying with generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB). 6/23/2009 Edition. Available online from the U.S. Department of Education, National Center for Education Statistics at [http://nces.ed.gov/pubs2009/fin\\_acct](http://nces.ed.gov/pubs2009/fin_acct)

### **Healthy, Hunger-Free Kids Act of 2010; Public Law 111-296**

This reauthorization of Child Nutrition Programs legislated significant changes to school nutrition program requirements. [www.gpo.gov/fdsys/pkg/PLAW-111publ296/pdf/PLAW-111publ296.pdf](http://www.gpo.gov/fdsys/pkg/PLAW-111publ296/pdf/PLAW-111publ296.pdf)

### **Texas Department of Agriculture: NSLP Handbook Administrators Reference Manual, Section 15: Adult Meal Pricing; December 2009;**

[www.squaremeals.org/Portals/8/files/ARM/ARM\\_Compressed\\_All\\_Sections\\_13\\_12\\_09.pdf](http://www.squaremeals.org/Portals/8/files/ARM/ARM_Compressed_All_Sections_13_12_09.pdf)



**USDA Administrative Review Guidance Manual; Section IV: Resource Management**  
[www.fns.usda.gov/sites/default/files/ARManual.pdf](http://www.fns.usda.gov/sites/default/files/ARManual.pdf)

**USDA Policy Memo SP 39-2011 – Revised: Child Nutrition Reauthorization 2010:  
Guidance on Paid Lunch Equity and Revenue from Nonprogram Foods**  
[www.fns.usda.gov/cnd/governance/Policy-Memos/2011/SP39-2011osr.pdf](http://www.fns.usda.gov/cnd/governance/Policy-Memos/2011/SP39-2011osr.pdf)

**USDA Policy Memo SP41-2011: Indirect Costs, Guidance for State Agencies and School Food Authorities**

The Healthy, Hunger-Free Kids Act of 2010, Public Law 111-296 required Food and Nutrition Service (FNS) to provide guidance on program rules pertaining to indirect costs. The memorandum provides guidance describing the Federal requirements state agencies (SA) and school food authorities (SFA) must comply with in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) with respect to indirect costs. Included in the memorandum is OMB guidance 2 CFR Part 225 with Attachments A, B, and E. 2 CFR Part 225 was previously referenced as OMB circular A-87. [www.fns.usda.gov/sites/default/files/SP41-2011\\_os.pdf](http://www.fns.usda.gov/sites/default/files/SP41-2011_os.pdf)

**USDA Policy Memo SP 34-2013: Paid Lunch Equity: Guidance for SY 2013-14**  
[www.fns.usda.gov/cnd/governance/Policy-Memos/2013/SP34-2013os.pdf](http://www.fns.usda.gov/cnd/governance/Policy-Memos/2013/SP34-2013os.pdf)

## **Non-Government Resources**

### **Governmental Accounting Standards Board (GASB)**

GASB is an independent organization that establishes and improves standards of accounting and financial reporting for US state and local governments. These standards make it easier for users to understand and use the financial records of both state and local governments. GASB is recognized by governments, the accounting industry, and the capital markets as the official source of generally accepted accounting practices (GAAP) for state and local governments. [www.gasb.org/](http://www.gasb.org/); Statement 34, 6/2009, retrieved 6/12/13; Statement 59, 2/2009, retrieved 4/21/13.

### **School Nutrition Association**

2012 Back to School Trends Report,  
School Nutrition Operations Report 2011  
2013 Big Little Fact Book,  
Doing the Right Thing, School Nutrition magazine, February 2011  
Stretching That Dollar, Susan Davis Gryder, November 2009  
[www.schoolnutrition.org](http://www.schoolnutrition.org)

## Supplemental Websites

Competencies, Knowledge, and Skills for District-Level School Nutrition Professionals in the 21st Century: [www.theicn.org](http://www.theicn.org)

FNS Indirect Cost Guidance (SP 41-2011 with attachments):  
[www.fns.usda.gov/sites/default/files/SP41-2011\\_os.pdf](http://www.fns.usda.gov/sites/default/files/SP41-2011_os.pdf)

ICN Financial Management Information System: [www.theicn.org](http://www.theicn.org)

Institute of Child Nutrition: [www.theicn.org](http://www.theicn.org)

National School Lunch Program and Child Nutrition Act; competitive foods:  
[www.fns.usda.gov/cnd/governance/legislation/allfoods\\_flyer.pdf](http://www.fns.usda.gov/cnd/governance/legislation/allfoods_flyer.pdf)

School Nutrition Association: <http://www.schoolnutrition.org>

USDA Child Nutrition Data Tables:  
<http://www.fns.usda.gov/school-meals/about-child-nutrition-programs>

USDA Paid Lunch Equity Information Updates: <http://www.fns.usda.gov/sites/default/files/SP1-2014os.pdf>

USDA Paid Lunch Equity Tool: <http://www.fns.usda.gov/attachment-sp15-2014-paid-lunch-equity-school-year-2014-2015-calculations-and-tool>

USDA Nonprogram Food Revenue Tool:  
<http://www.fns.usda.gov/cnd/Governance/Policy-Memos/2011/SP39-2011ar.xls>

USDA Food and Nutrition Service: [www.fns.usda.gov/cnd](http://www.fns.usda.gov/cnd)

## References

- Davis Gryder, S. (2009, November). Stretching that dollar. *School Nutrition*, 63-11.
- Governmental Accounting Standards Board. *Statement (59)* (2/2009). Retrieved from GASB April 21, 2013. *Statement (34)* (6/2009). Retrieved from GASB June 12, 2013. from <http://www.gasb.org>
- Healthy, Hunger-Free Kids Act of 2010, (Public Law 111-296). 111th United States Congress.
- Institute of Child Nutrition. (2009). *Competencies, knowledge, and skill statements for district school nutrition directors/supervisors*. University, MS: Author.
- Institute of Child Nutrition. (2005). *ICN financial management information system*. University, MS: Author.
- Martin, J., & Oakley, C. (2008). *Managing child nutrition programs: Leadership for excellence* (2nd ed.). Jones and Bartlett Publishers: Sudbury, MA.
- McLaren, P. (2011, February). Doing the RIGHT thing. *School Nutrition*, 65-2.
- McLaren, P. (2011, May). Be strong, not wrong. *School Nutrition*, 65-5.
- Pannell-Martin, D. (2007, December). The kindest cut. *School Nutrition*, 28-33.
- Texas Department of Agriculture (12/2009): *NSLP Handbook Administrators Reference Manual, Section 15: Adult Meal Pricing*. Retrieved August 21, 2013 from <http://www.squaremeals.org/Publications/Handbooks.aspx>
- U.S. Department of Agriculture, Food and Nutrition Service. (2008, April). *School lunch and breakfast cost study – II*. Retrieved July 10, 2013 from <http://www.fns.usda.gov/oane/MENU/Published/CNP/FILES/MealCostStudy.pdf>

- U. S. Department of Agriculture, Food and Nutrition Service (2011), National School Lunch Program Regulations, SP41-2011, *Indirect Costs, Guidance for State Agencies and School Food Authorities*. Alexandria, VA: Author
- U.S. Department of Agriculture, Food and Nutrition Service (2011), National School Lunch Program Regulations, SP39-2011-Revised, *Child Nutrition Reauthorization 2010: Guidance on Paid Lunch Equity and Revenue from Nonprogram Foods*. Alexandria, VA: Author.
- U.S. Department of Agriculture, Food and Nutrition Service. (2012). *Food and Nutrition Program Data: Child Nutrition Tables*. Retrieved October 28, 2013 from [www.fns.usda.gov/pd/cnpmain.htm](http://www.fns.usda.gov/pd/cnpmain.htm)
- U.S. Department of Agriculture, Food and Nutrition Service (2013), National School Lunch Program Regulations, SP42-2013, *Administrative Review Guidance Manual, Section IV: Resource Management*, (OMB Guidance 2 CFR Part 225 with Attachments A, B and E), Alexandria, VA: Author.
- U.S. Department of Agriculture, Food and Nutrition Service (2013), National School Lunch Program Regulations, SP34-2013, *Paid Lunch Equity: Guidance for SY 2013-14*, Alexandria, VA: Author.
- U. S. Department of Education, The Institute of Education Sciences. National Center for Education Statistics (2009) *Financial Accounting for Local and State School Systems*. NCES-6/23/2009. Washington, DC: Author

## Calculator Tip Sheet

Time saving tip when using a repetitive multiplier or a repetitive divisor when using a calculator (repetitive multipliers or divisors are retained in memory automatically by default).

### **Repetitive Multiplier**

- Enter your multiplier first
- Followed by the "X" sign
- Followed by the number you want to multiply
- Hit "=" sign for answer
- Enter the second number you want to multiply
- Hit "=" sign for answer

Etc.

Example with repetitive multiplier "5"

$$5 \times 9 = 45$$

$$6 = \{30\}$$

$$8 = \{40\}$$

### **Repetitive Divisor**

- Enter the number you want to divide
- Followed by the division sign,  $\div$  or  $/$
- Followed by your divisor
- Hit "=" sign for answer
- Enter the second number you want to divide
- Hit "=" sign for answer

Etc.

Example with repetitive divisor "200"

$$20 \div 200 = .10$$

$$40 = \{.20\}$$

$$100 = \{.50\}$$



## Activity Worksheet: Classification of Revenue Answer Key

**Instructions:** Link the revenue category described in Column A with the best source provided in Column B. Sources in Column B may be used more than one time.

Revenue Received Source	Revenue Source
<u>    A    </u> Money earned on bank deposits and investments	A. Local
<u>    C    </u> Monetary value of food donated to schools by USDA	B. State
<u>    D    </u> Cash rebates from food companies received by the school nutrition program after the fiscal year has closed	C. Federal
<u>    A    </u> Revenue received from students for the purchase of nonprogram food items	D. Miscellaneous
<u>  A, B, or C  </u> Grant money awarded to school districts who submit successful proposals for special projects	E. Fund Transfer
<u>    D    </u> Money received from the sale of surplus equipment	
<u>    B    </u> Revenues paid to school districts by the state for use in school nutrition programs	
<u>    C    </u> Cash payment received for free meals that meet federal standards and are served to eligible children	
<u>    A    </u> Revenue received from contract meals provided to the local YMCA	
<u>    E    </u> Funds transferred to the school nutrition program from the school district's general fund	

## Activity: Meal Equivalent Conversions

### Answer Key

Maple School District served 699,314 reimbursable student lunches, 10,110 adult lunches, 309,485 reimbursable student breakfasts, 29,873 reimbursable afterschool snacks, and 16,650 reimbursable suppers during the past year. In addition, the school district received a total of \$128,155 for the sale of nonprogram foods. Calculations for converting the participation data into meal equivalents are provided in the sample below.

Meal Categories	Total Meals/ Sales	Conversion Factor	Meal Equivalents
Student Lunch	699,314	1	699,314
Adult Lunch	10,110	1	10,110
Student Breakfast	309,485	.67	(309,485 x .67) 207,355
Snacks	29,873	.33	(29,873 x .33) 9,858
Supper	16,650	1	16,650
Nonprogram Food Sales	\$128,155	*	(\$128,155 ÷ 3.1625) 40,523
Total Meal Equivalents			983,810

\*Nonprogram food sales divided by current Free Lunch Reimbursement (\$2.93) + Entitlement USDA Foods Value per Lunch (\$0.2325). Note these are the 2013-2014 reimbursement rates.

**Instructions:** Using the formulas provided in this lesson, answer the following questions:

1. If an elementary school served 485 breakfasts one morning, how many breakfast meal equivalents were served?

$$485 \times .67 = 325 \text{ meal equivalents}$$

2. A school nutrition program served 168 reimbursable snacks for the day in the district's afterschool care program. Convert the afterschool snacks to meal equivalents.

$$168 \times .33 = 55 \text{ meal equivalents}$$

3. A high school nutrition program sold \$250 in nonprogram foods for the day. Convert the revenue from the nonprogram sales to meal equivalents using the formula above.

$$\$250 \div 3.1625 (2.93 + 0.2325) = 79 \text{ meal equivalents}$$



## Activity: Calculating Revenue per Meal/Meal Equivalent Answer Key

Calculating the projected average revenue earned per meal equivalent is important in the management of school nutrition programs.

**Instructions:** Complete the following activity to determine how much average revenue per meal equivalent is projected from each revenue source. Calculate the amount received from each revenue source four decimal places. If the 5th decimal place is 5 or higher, round UP; if 4 or less, round DOWN.

**Given:** Formula:  $\text{Revenue} \div \text{Total Meal Equivalents}$

There were 983,810 meal equivalents served

Add all of your answers in the last column to get the Total Revenue per Meal/Meal Equivalent.

Revenue Analysis		
Revenue Account	Dollar Amount Received	Average Revenue Per Meal/ Meal Equivalent
Student Meal Sales	\$ 404,300	\$0.4110
Adult Meal Sales	27,803	0.0283
Nonprogram Food Sales	113,955	0.1158
Contract Food Sales	14,200	0.0144
Federal Reimbursement	2,143,150	2.1784
USDA Foods	159,094	0.1617
State Reimbursement	18,835	0.0191
Interest	3,155	0.0032
Miscellaneous	5,800	0.0059
<b>Total Revenue</b>	<b>\$2,890,292</b>	<b>2.9378</b>

## Activity: Pricing Nonprogram Foods

### Answer Key

Pricing Method: Desired Food Cost Percent Markup Method

The formula for determining a base price using the desired food cost percent markup method is:

**Raw Food Cost ÷ Desired Food Cost Percent Markup**

**Reminder: Convert percent to decimal (i.e., 38% ÷ 100 = .38).**

**Instructions:** Using the formula, determine the base selling price for each of the following nonprogram food items offered for sale if the desirable food cost percentage for a school nutrition program is 38% for the school year.

**Calculation Example:** If raw food cost is \$0.20 and desired food cost percentage is 38%:  
 $\$0.20 \div .38 = 0.5263$  or 0.53 base selling price.

Recommend a final selling price and summarize how you arrived at the price.

Food	Raw Food Cost	Base Selling Price	Recommended Selling Price	Justification for Recommended Selling Price
Bottled Water	\$0.13	\$0.3421		
Pizza Slice	\$0.45	\$1.1842		
Fresh Apple	\$0.22	\$0.5789		
Ice Cream Cup	\$0.19	\$0.50		
Baked Corn Chips	\$0.16	\$0.4211		
Hamburger	\$0.76	\$2.00		
Milk 1/2 pint	\$0.21	\$0.55		
Banquet Meal per Plate	\$3.69	\$9.71		
Catered Meal per Plate	\$3.21	\$8.45		

## Activity: Calculating the Cost to Produce a Meal/Meal Equivalent Answer Key

**Instructions:** Calculate the cost per meal equivalent for each expenditure category listed. Include the total cost of a meal equivalent. **Remember:** To calculate the costs to produce a meal equivalent, divide expenditures in each category by the total number of meal equivalents. A Calculator Tip Sheet can be found at the end of the workbook.

**Given:** Meal Equivalents served for the year totaled 983,810

Expenditure Analysis		
Expenditure Category	Dollar Amount	Cost Per Meal Equivalent
Salaries and Wages	\$ 885,170	\$ 0.8997
Employee Benefits	357,150	0.3630
Purchased Food	1,055,135	1.0725
USDA Food Value	159,094	0.1617
Supplies	260,902	0.2652
Capital Assets	102,150	0.1038
Indirect Cost	85,125	0.0865
Overhead*	93,518	0.0951
<b>Total Expenditures</b>	<b>\$2,998,244</b>	<b>3.0475</b>

\* Overhead combines several smaller categories of expenditures for purposes of analysis.

## Activity: Calculating Percentages of Costs to Total Revenue

### Answer Key

**Instructions:** Calculate the cost percentages to total revenue for each **expenditure** category. Write your answers in the last column of the table. **Remember:** Calculate the percentages of operational costs to total revenue by dividing the amount in each expenditure category by total revenue and multiplying by 100 to get the percent. The first one has been calculated for you.

**Given:** Total revenue for the year totaled \$2,890,292.

Expenditure Analysis			
Expenditure Category	Dollar Amount	% of Total Revenue	
Salaries and Wages	\$885,170	$(.3062 \times 100)$	31%
Employee Benefits	357,150	$(.1235 \times 100)$	12%
Purchased Food	1,055,135	$(.3650 \times 100)$	37%
USDA Food Value	159,094	$(.0550 \times 100)$	6%
Supplies	260,902	$(.0902 \times 100)$	9%
Capital Assets	102,150	$(.0353 \times 100)$	4%
Indirect Cost	85,125	$(.0294 \times 100)$	3%
Overhead*	93,518	$(.0323 \times 100)$	3%
<b>Total Expenditures</b>	<b>\$2,998,244</b>	<b><math>(1.0373 \times 100)</math></b>	<b>105%</b>

\*Overhead combines several smaller categories of expenditures for purposes of analysis.

## Activity: Comparing Revenues to Expenditures

### Answer Key

Fill in the empty cells in the table at the *bottom of the page* by calculating the total gain/loss in income for the school year and the gain/loss per meal equivalent.

### Revenue and Expenditure Analysis

**Given:** Revenue and Expenditure information from previous activities

Meal Equivalents for the year: 983,810

Revenue Analysis			Expenditure Analysis		
Revenues	Dollar Amount	Per Meal Equivalent	Expenditures	Dollar Amount	Per Meal Equivalent
Student Sales	\$404,300	\$0.4110	Salaries/Wages	\$ 885,170	\$0.8997
Adult Sales	27,803	0.0283	Benefits	357,150	0.3630
Nonprogram Food Sales	113,955	0.1158	Purchased Food	1,055,135	1.0725
Contract Food Sales	14,200	0.0144			
Federal	2,143,150	2.1784	USDA Foods	159,094	0.1617
USDA Foods	159,094	0.1617	Supplies	260,902	0.2652
State	18,835	0.0191	Capital Assets	102,150	0.1038
Bank Interest	3,155	0.0032	Indirect Cost	85,125	0.0865
Miscellaneous	5,800	0.0059	Overhead*	93,518	0.0951
<b>Total</b>	<b>\$2,890,292</b>	<b>\$2.9378</b>	<b>Total</b>	<b>2,998,244</b>	<b>\$3.0475</b>

\* Overhead combines several smaller categories of expenditures for purposes of analysis.

### Comparing Revenue with Expenditures

	Total	Per Meal Equivalent
Revenue	\$2,890,292	2.9378
Expenditures	2,998,244	3.0475
<b>Net Gain/Loss</b>	<b>(107,952)</b>	<b>(0.1097)</b>

### Activity Questions Answer Key

1. Was there a gain or loss for the year? **Loss** If so, how much? **\$107,952**
2. What percentage of total revenue was this? The loss of \$107,952 divided by the total revenue of \$2,890,292 multiplied by 100 gives us a loss of **3.7%**. The loss percentage can also be calculated by dividing the loss per meal equivalent (\$0.1097) by the revenue earned per meal/meal equivalent (\$2.9379) and then entering the % key.
3. What was the loss per meal/meal equivalent? **\$0.1097 or a loss of 11 cents per meal equivalent (rounded).**

**Hint:** If expenditures are more than revenues, the program experienced a loss.

## Activity: Calculating Meals Per Labor Hour

### Answer Key

Maple School District has determined that an elementary school in the district needs to improve productivity. The school nutrition director and school manager performed the following steps to analyze the existing productivity index. Follow the steps and make the necessary calculations to complete the worksheet.

**Step # 1:** Calculate the current total hours of labor paid daily in the school nutrition program.

Employee hours paid daily including manager		
Number of Employees	Number of Daily Hours	Total Numbers of Hours
1	7	7
3	6	18
3	5	15
3	3	9
<b>Total Paid Labor Hours Assigned Daily</b>		<b>49</b>

**Step # 2:** Calculate the average number of meal equivalents served daily.

Number of Daily Employees	Total Numbers of Hours
Lunch (student and adults)	440
Suppers	93
Breakfast (182 x .67)	122
Snacks (75 x .33)	25
Nonprogram Sales \$200 ÷ \$3.1625	63
<b>Total Meal Equivalents</b>	<b>743</b>

**Step # 3:** Using the information, calculate the Meals Per Labor Hour

Number of Meal Equivalents ÷ Number of Paid Productive Daily Labor Hours
$743 \div 49 = 15.16 \text{ MPLH}$

## **Activity: Using Meals Per Labor Hour to Determine Staffing Needs**

### **Answer Key**

After an evaluation of the productivity level is completed, the school nutrition director can make a decision regarding staffing using the following three steps:

**Step 1:** Set a goal for the desired number of Meals Per Labor Hour.

**Step 2:** Divide the total meal equivalents by desired number of Meals Per Labor Hour to determine the total labor hours needed per day.

**Step 3:** Determine difference between current total paid labor hours and desired paid labor.

### **Example**

**Step 1:** Desired number of Meals Per Labor Hour = **17**

**Step 2:** Divide the total meal equivalents from the previous worksheet (743) by the desired number of Meals Per Labor Hour (17).  **$743 \div 17 = 44$**

**Step 3:** Determine the difference between the current total paid labor hours on the previous worksheet (49) and the desired number of labor hours in Step 2.  
 **$49 - 44 = 5$  labor hours**

**Question 1:** Will the school nutrition director need to add or reduce hours to achieve the goal of 17 Meals Per Labor Hour? **Reduce hours**

**Question 2:** What are the choices the director will need to consider to achieve the new goal?

**Reduce hours of employees**

**Eliminate positions**

**Consider ways to share employees in part time positions**



## Activity: Participation Year End Summary Report

Days Served – 180

Average Daily Attendance	Eligibility	Students Eligible by Category	% Eligibility by Category	Total Meals	Average Number of Meals Served Daily	% Daily Participation to Average Daily Attendance	% Average Daily Participation by Eligibility Category
Lunch	Free	14,348	0.49	1,887,502	10,486	35.98	73.08
29,148	Reduced	2,626	0.09	313,030	1,739	5.97	66.22
	Paid	12,174	0.42	715,708	3,976	13.64	32.66
	<b>Totals</b>	<b>29,148</b>	<b>100.00</b>	<b>2,916,240</b>	<b>16,201</b>	<b>55.59</b>	
Breakfast	Free	14,348	0.49	1,053,906	5,855	20.09	40.81
29,148	Reduced	2,626	0.09	143,608	798	2.74	5.56
	Paid	12,174	0.42	168,413	936	3.21	6.52
	<b>Totals</b>	<b>29,148</b>	<b>100.00</b>	<b>1,365,927</b>	<b>7,589</b>	<b>26.04</b>	

Using the information from the participation report provided above, answer the questions below with the information requested in each statement. Sources for the formulas used to calculate participation rates are provided in your FMIS resource.

**Remember:** You do not need to calculate any of the information asked for in the **Activity Questions**. Read the report and answer the questions based on information provided in the report.

### Activity Questions:

1. What percentage of all average daily attending students in the school district participated in the lunch program? **55.59** Breakfast program? **26.04**
2. What percentage of the average daily attending students qualified for free meals? **49**
3. The report shows that 55.59% of average daily attending students participated in the lunch program. What percentage of average daily attending students who participated received free lunches? **35.98**
4. What percentage of the average daily attending students eligible for a free lunch actually participate in the program on an average day? **73.08** What percentage of students classified in the "paid" category participate? **32.66**
5. If you were the school nutrition program director in the district looking at this report, what goal or goals might you set for the next school year regarding student lunch and breakfast participation?

**Note:** The participation and enrollment figures shown in this statement are for a hypothetical school district and are illustrative only. They are not tied to any other activity in this course. Sources for the formulas used to calculate participation rates are provided in the FMIS resource.

## Activity: Calculating Cost of Food Used

### Answer Key

The Cost of Food Used in a school nutrition program should be calculated a minimum of monthly. Follow the bolded instructions on the worksheet and complete the activity.

<b>Determine the beginning inventory for the month of February*</b>		<b>\$8,496</b>
Month	End of Month Inventory Value	Value of Food Purchases
January	\$ 8,496	\$ 24,021
February	\$ 7,144	\$ 18,677
March	\$ 9,297	\$ 21,583
<b>Add the food purchases for the month of February</b>		<b>\$ 18,677</b>
Equals food available in February		<b>\$ 27,173</b>
<b>Less ending February inventory</b>		<b>\$ 7,144</b>
Cost of food used in February		<b>\$ 20,029</b>

\***Hint:** The beginning inventory of the month is the ending inventory of the previous month. For example, the beginning inventory for March is \$7,144.



## A Case Study Answer Key

### Revenue Budget Projection Worksheet

<b>Breakfast</b>	<b>Number</b>	<b>Price Charged</b>	<b>Reimbursement</b>	<b>Total \$</b>
Full Price Elementary	13,527	\$ 1.25		\$ 16,909
Full Price Secondary	6,764	1.50		10,146
Reduced Price Elementary	11,623	0.30		3,487
Reduced Price Secondary	5,812	0.30		1,744
Adult Breakfast	0	2.00		0
Full Price Fed. Reimb.	20,291		\$ 0.28	5,681
Reduced Price Fed. Reimb.	17,435		1.28	22,317
Free Student Fed. Reimb.	271,759		1.58	429,379
<b>Sub Total Revenue/Breakfast</b>				<b>\$ 489,663</b>
<b>Lunch</b>	<b>Number</b>	<b>Price Charged</b>	<b>Reimbursement</b>	<b>Total \$</b>
Full Price Elementary	91,209	\$ 2.50		\$ 228,023
Full Price Middle	30,555	2.75		84,026
Full Price High	15,050	3.00		45,150
Reduced Price Elementary	36,597	0.40		14,639
Reduced Price Secondary	18,299	0.40		7,320
Adult Lunch	10,110	3.25		32,858
Full Price Fed. Reimb.	136,814		\$ 0.28	38,308
Reduced Price Fed. Reimb.	54,896		2.53	138,887
Free Student Fed. Reimb.	507,604		2.93	1,487,280
<b>Sub Total Revenue/Lunch</b>				<b>\$ 2,076,491</b>
<b>Other Reimbursable Meals</b>				
Afterschool Snacks (Free Site)	29,873		\$ 0.80	23,898
Suppers (Free Site)	16,650		2.93	48,785
<b>Sub Total Revenue/ Other Reimbursable Meals</b>				<b>\$ 72,683</b>
<b>Total Meals Revenue</b>				<b>\$ 2,638,837</b>

## Other Revenue

Other Revenue Categories	Note: Current Year Revenue	100% plus % Increase	Budget Revenue
Nonprogram Food Sales	\$ 113,955	3% (Multiply x 103 and then hit the Percent sign instead of the equal sign)	\$ 117,374
Contract Meal Sales	\$ 14,200	3%	14,626
Interest	\$ 3,155	1%	3,187
State Reimbursement	\$ 18,835	2%	19,212
Miscellaneous	\$ 5,800	Based on historical data	5,800
Sub Total Other Revenue			\$ 160,199
USDA Foods Value	\$ 159,094	*699,314 x 0.2325	\$ 162,591
Total All Revenue		Breakfast, Lunch/Other Meals, Other Revenue, USDA Foods Value	\$ 2,961,627

**Note:** Check with your state agency for the best method to project revenue from state funds. If state funds are issued on reimbursable meals served, and are received on a monthly basis, add sections under meal and breakfast categories for state revenue.

## A Case Study

### Answer Key

#### Expenditure Budget Projection Worksheet

Expenditure Category	Current Year Expenditure Totals	Projected % Increase	New Budget Expenditures
Salaries and Wages	\$ 885,170	2% (Multiply x 102 then hit percent sign instead of equal sign)	\$ 902,873
Benefits	\$ 357,150	1.5% (Multiply x 101.5 then hit percent sign instead of equal sign)	\$ 362,507
Purchased Food	\$ 1,055,135	4.5%	\$ 1,102,616
USDA Foods Value	\$ 159,094	699,314* x 0.2325 (should match revenue)	\$ 162,591
Supplies	\$ 260,902	1.5%	\$ 264,816
Capital Assets	\$ 102,150	Based on need	\$ 50,000
Indirect Costs	\$ 85,125	No Change	\$ 85,125
Overhead	\$ 93,518	1%	\$ 94,453
<b>Total Expenditures</b>	<b>\$ 2,998,244</b>		<b>\$ 3,024,981</b>

\* Lunches served the previous year x the current USDA Foods value

### Analyzing the Budget: Answer Key

A budget is a tool for financial management. It helps the school nutrition director decide if there is a need for revenue increases, expenditure reductions, or a combination of both. Analyze the budget projections you have just completed for the Maple School District by answering the following questions.

1. What is the projected bottom line net (gain/loss) in the budget? Compare the Revenue Budget worksheet with the Expenditure Budget worksheet.

**Total revenue (\$2,961,627) – Total expenditures (\$3,024,981) = Loss  
- \$63,354**

2. Based on the budget worksheets, will there be an improvement in the financial status of the Maple School District school nutrition program in the next school year? If so, how much?

**Yes. The current year loss is \$107,952; budget projected loss is \$63,354; a loss reduction of \$ 44,598.**

3. What contributed to the improvement?

**Feedback: Meal price increases; nonprogram food price increases; less money budgeted for equipment.**

4. What are the percentages of projected expenditures to total budgeted revenue in the expenditure categories (operating ratios)? (Total projected revenue in new budget = \$2,961,627). Calculate to the nearest half percent.

Is this an improvement?

**Feedback: Yes, current year's total expenditures percentage is 105%.**

Category	Budgeted Amount (From the Budget Expenditure Worksheet)	% of Revenue
Salaries and Wages	\$ 902,873	30.5%
Employee Benefits	\$ 362,507	12%
Purchased Food	\$ 1,102,616	37%
USDA Foods Value	\$ 162,591	5.5%
Supplies	\$ 264,816	9%
Capitol Assets	\$ 50,000	2%
Indirect Costs	\$ 85,125	3%
Overhead	\$ 94,453	3%
<b>Total Expenditures</b>	<b>\$ 3,024,981</b>	<b>102%</b>



5. How many total meal equivalents are projected in the new budget? Complete the cells and make the necessary calculations.

Meal Category	Meals/Sales	Conversion Factor	Meal Equivalents
Student Lunch	699,314	1	699,314
Adult Lunch	10,110	1	10,110
Student Suppers	16,650	1	16,650
Student Breakfast	309,485	x .67	207,355
Student Snacks	29,873	x .33	9,858
Nonprogram Food Sales/ Contract Meal Sales	\$ 132,000	(Total sales ÷ current Free Lunch Reimbursement) + current USDA Foods Value*	41,772
<b>Total Meal Equivalents</b>			<b>985,059</b>

\*For purposes of this training the Free lunch rate is \$2.93 + 0.2325 USDA Foods Value = \$3.16

6. What is the projected revenue per meal equivalent in the new budget?

**Total Projected Revenue ÷ Projected Meal Equivalents**

$$\text{\$ 2,961,627} \div \text{985,059} = \text{\$3.01}$$

7. What is the projected cost to produce a meal?

**Projected Expenditures ÷ Projected Meal Equivalents**

$$\text{\$ 3,024,981} \div \text{985,059} = \text{\$3.07}$$



## Post-Assessment

1. Financial management includes the process of defining
  - a) accounts payable and receivables.
  - b) free and reduced price meals.
  - c) statement of activities.
  - d) program objectives and financial goals.
2. Revenue received from students for the sale of nonprogram food items is classified as a
  - a) local source.
  - b) miscellaneous source.
  - c) school source.
  - d) fund transfer.
3. A useful financial management information system
  - a) provides a uniform and consistent financial reporting structure.
  - b) provides only annual (useless and out of date) financial information.
  - c) supports a business school's reporting requirements.
  - d) supports a banking financial system.
4. The financial report most often used by school nutrition program directors to analyze whether the expenses of the operation are being managed within the revenues received is the
  - a) statement of net position.
  - b) statement of activities.
  - c) statement of revenue.
  - d) budget.
5. Three types of budgeting are
  - a) zero, assets, and combination.
  - b) assets, incremental, and combination.
  - c) zero, incremental, and assets.
  - d) zero, incremental, and combination.

6. The conversion of different meal services to a standard unit of measure is
  - a) meal reimbursement.
  - b) nonprogram food sales.
  - c) meal equivalency.
  - d) Meals Per Labor Hour.
  
7. Meals and other food items sold in the school nutrition programs, but are not eligible for reimbursement through federal funds are
  - a) meal equivalents.
  - b) meal reimbursements.
  - c) nonprogram foods.
  - d) competitive foods.
  
8. If a school district sets a goal of 38% for their food cost percentage, what is the base selling price for a bag of baked chips that has a raw food cost of \$0.19?
  - a) \$0.40
  - b) \$0.50
  - c) \$0.70
  - d) \$0.75
  
9. Comparing revenue earned with meal costs
  - a) helps determine where revenue needs to be increased.
  - b) allows you to analyze expenditures by cost.
  - c) identifies areas where expenses should be monitored.
  - d) tells you nothing.
  
10. If the total of all cost percentages is less than 100%, then the operating balance
  - a) Increases.
  - b) decreases.
  - c) Breaks even.
  - d) is over budget.

11. An operating ratio is a type of measurement that analyzes
  - a) revenues to expenditures.
  - b) the percentages of operational cost to total revenue.
  - c) meal cost per expenditure.
  - d) the total cost to produce a meal or meal equivalent.
12. Knowing the costs of food used during a given period of time can provide vital information
  - a) concerning the complexity of the menu.
  - b) in preventing waste and food theft during the monitoring period.
  - c) to determine the daily participation.
  - d) concerning extra food sales.
13. Meals Per Labor Hour can be measured by
  - a) dividing the average number of meals served for a given period by the Average Daily Attendance.
  - b) dividing the average number of meals served for a given period by the average number of labor hours.
  - c) conducting a time and motion study.
  - d) dividing the average number of meals served for a given period by the number of paid labor hours.
14. Budget forecasting means
  - a) surveying your customers for program improvement planning.
  - b) gathering feedback on the school nutrition program from the school wellness team.
  - c) estimating or calculating revenues and expenditures in advance by analyzing data.
  - d) developing a catering program.
15. The school nutrition director can determine the net excess/deficit per meal or meal equivalent served by
  - a) analyzing the meal cost per expenditure.
  - b) analyzing the percentages of operational costs to total revenue.
  - c) comparing revenues to expenditures.
  - d) analyzing the total cost to produce a meal/meal equivalent.

16. When conducting a financial analysis of your school nutrition program, which two program areas should be reviewed first?
- a) catering and special functions
  - b) customer service and equipment
  - c) revenues and expenditures
  - d) purchasing and menus

## Pre/Post-Assessment

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