Practical Solutions *for* Financial Management Success

Participant's Workbook

INSTITUTE OF child nutrition
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Time: 4 hours

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Key Area 3: Administration
Professional Standards Code: 3300 Financial Management

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Institute of Child Nutrition

The University of Mississippi

The Institute of Child Nutrition was authorized by Congress in 1989 and established in 1990 at the University of Mississippi in Oxford and is operated in collaboration with The University of Southern Mississippi in Hattiesburg. The Institute operates under a grant agreement with the United States Department of Agriculture, Food and Nutrition Service.

PURPOSE

Improve the operation of child nutrition programs through research, education and training, and information dissemination.

VISION

Lead the nation in providing research, education, and resources to promote excellence in child nutrition programs.

MISSION

Provide relevant research-based information and services that advance the continuous improvement of child nutrition programs.

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Introduction

The following information provides a condensed overview of the methods used to create the financial management materials taught in *Financial Management: A Course for School Nutrition Directors*.

The costs of serving school meals are outpacing the generation of revenue for many school districts. Many directors must make difficult decisions about long-term goals to ensure the sustainability of their programs. At the same time, demands are increasing for improved financial and nutritional accountability. School districts need financial management information systems that provide data for both evaluation and financial decision making.

The ability to interpret the financial outcomes of operational decisions is essential to effective management of school nutrition programs. With changing Federal regulations, increasing program cost, and improvements to the quality and nutrition content of school meals, it is imperative that school nutrition program directors understand financial management as it relates to the school nutrition program. Directors must:

- understand how to read and interpret financial statements and related reports,
- effectively analyze data, and
- take action when expenditures consistently run higher than revenue generation.

Understanding program costs allows for greater control and more informed decision making. Upon completion of this course, directors should be able to demonstrate more effective management of resources to ensure the nutritional integrity and quality of meals served to students at school. While this course cannot teach participants everything they need to know about financial management, it will improve understanding of the relationship between financial management and school nutrition program quality.

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

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: Administration

Training Objectives

At the end of this training, participants will be able to accomplish the following:

1. Describe basic financial recording and reporting processes and the procedures for directing the operation of a school nutrition program.
2. 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.
3. Utilize financial management tools and standards to operate a financially and nutritionally accountable school nutrition program consistent with Federal and State guidelines.
4. Interpret, analyze, and use revenue data for program evaluation and improvement.
5. Interpret, analyze, and use expenditure data for program evaluation and improvement.
6. Apply cost control measures to operate a financially sound program with nutritional integrity.
7. Develop an action plan.

Ground Rules

- **Show up on time and come prepared.** Be prompt in arriving and in returning from breaks. Come with a positive attitude.
- **Stay mentally and physically present.** Be present and stay on task. Listen attentively to others and avoid disruptive side conversations.
- **Let everyone participate.** Be patient when listening to others speak. Treat all participants with the same respect that you would want from them.
- **Listen with an open mind.** Stay open to new ways of doing things, and listen for understanding. You can respect another person's point of view without agreeing with them.
- **Think before speaking.** Seek first to understand, then to be understood. Avoid using idioms, three letter acronyms, and phrases that can be misunderstood.
- **Attack the problem not the person.** Respectfully challenge the idea, not the person. Honest and constructive discussions are necessary to get the best results.

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.
After School Snacks	A federally assisted snack program operating in public and nonprofit private schools and residential child care institutions.
À la carte Sales	Food items available for cash sale independent of the reimbursable meal.
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 who participate in either the National School Lunch Program or the School Breakfast Program daily, based on school attendance (not enrollment).
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.

Key Term	Definition
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.
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. In the case of school nutrition program, forecasting involves predicting and estimating the goods, works, and services needed in specified areas for the coming year, and/or assessing needs by reviewing current procurement activities. Forecasting allows for procurement plans to evolve each fiscal year.
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.
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.

Key Term	Definition
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. Some State agencies may record adult lunches as nonprogram food sales. **NOTE:** The Food and Nutrition Service (FNS) and USDA do not prescribe one particular method in order to calculate meal equivalency.
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 paid 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.

Key Term	Definition
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.
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 governing body that is responsible for the administration of one or more schools, and has the legal authority to operate the program therein or be otherwise approved by Food and Nutrition Service to operate the program.
Special Functions	Meals or refreshments provided to groups outside the school nutrition program. Examples are athletic banquets, faculty functions, and PTA/PTO refreshments.
Stakeholder	People or organizations with an interest in your program, including student, teachers, administrators, parents, and others in the community who are also interested in the well-being of children.
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.

Key Term	Definition
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.

Effective Communication

- Communication is the exchange of ideas, messages, and information by speech, signals, writing, and behavior.
- Effective communication occurs only when the receiver understands the information or idea that the sender intended to transmit.

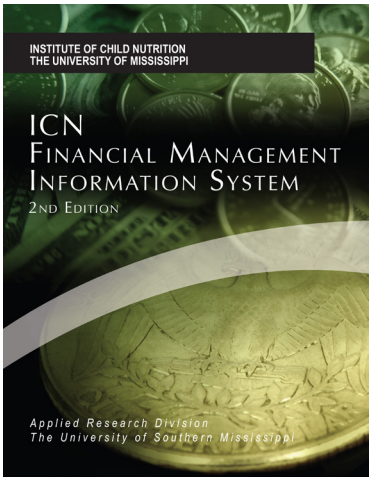
Importance of Financial Management

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

Importance of Financial Management

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.

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

A useful financial management information system:

- provides a uniform and consistent financial reporting structure,
- provides meaningful and timely financial management information,
- supports Federal, State, and local reporting requirements,
- adheres to Generally Accepted Accounting Principles (known as GAAP), and
- provides a basis for determining accountability in your program.

Classification of Revenue

What are the classifications of revenue?

1. Local Sources
2. State Sources
3. Federal Sources
4. Miscellaneous Sources
5. Funds 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.

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.

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. Funds Transfer-Out

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, etc.)
- grant (e.g. Farm to School etc.), or
- contract (e.g. providing meals to a private school, etc.).

Financial Reports

Objective: *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.*

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 Assets 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.

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
Total Revenue	$245,985	$228,030	$921,313
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
Total Expenditures	222,930	262,243	930,046
Net Excess/Deficit	$23,055	($34,213)	($8,733)

Notes:

(1) School Nutrition Program directors should modify the Statement of Activities (Revenues and Expenditures) to meet 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.

Statement of Net Position (Statement of Net Assets)

Total Assets = Total Liabilities + Fund Balance
School Nutrition Program
Ending _____ (Month or Year)

Assets	Ending	Month or Year
Current Assets		
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	
Inventories		
Purchased Food and USDA Foods	8,500	
Supplies	3,055	
Total Current Assets	**414,160**	
Noncurrent Assets		
Furniture and Equipment	425,456	
Less Accumulated Depreciation	(400,124)	
Total Noncurrent Assets	**25,332**	
Total Assets		**$439,492**
Liabilities	**Ending**	**Month or Year**
Current Liabilities		
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	
Total Current Liabilities	**265,445**	
Fund Balance	**Ending**	**Month or Year**
Nonspendable		
Noncurrent Assets	25,332	
Inventory	11,555	
Assigned	24,670	
Unassigned	112,490	
Total Fund Balance	**174,047**	
Total Liabilities and Fund Balance		**$439,492**

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 officials can provide guidance in accounting and business functions. That is their specialty. Budgets should be based on accurate financial information that can often be provided by the business office such as school openings and closings, changes in enrollment, etc.
2. Site level managers can provide information concerning participation trends, changes in student eating habits, equipment and labor needs, and other factors that will 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. It requires that the operation take a fresh look at each revenue and expenditure. It is especially helpful when budgeting for new programs. The disadvantages to zero-based budgeting are that it is time consuming and some budget categories are best estimated based on the previous budget.
3. Combination of Incremental and Zero-Based Budgeting – A combination that uses zero-based budgeting for some items and incremental for other items. This method is most often used in 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?

Financial Management Tools

Objective: *Utilize financial management tools and standards to operate a financially and nutritionally accountable school nutrition program consistent with Federal and State guidelines.*

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 / 3 = .67)
- 3 afterschool snacks = 1 meal equivalent (1 / 3 = .33)
- 1 supper = 1 meal equivalent
- Nonprogram food sales = revenue from food sales / (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 and calculated as nonprogram food sales. Either consideration is acceptable for determining meal equivalents as long as the method remains consistent throughout the school year.

Meal Equivalent Conversions

Participation data for the current school year

Maple School District served 699,304 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	699,304	1		699,304
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	*	($128,155/3.57)	35,898
Total Meal Equivalents				979,175

*Nonprogram food sales divided by current Free Lunch Reimbursement ($3.33) + Entitlement USDA Foods value per Lunch ($0.235). Note these are the 2018-2019 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.

Managing Revenues

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

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.

Calculating Revenue per Meal/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: Revenue / Total Meal Equivalents
There were 979,175 meal equivalents served.
Put 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	$0.4129
Adult Meal Sales	27,803	0.0284
Nonprogram Food Sales	113,955	
Contract Food Sales	14,200	0.0145
Federal Reimbursement	2,143,150	
USDA Foods	159,094	
State Reimbursement	18,835	0.0192
Interest	3,155	0.0032
Miscellaneous	5,800	0.0059
Total Revenue	$2,890,292	$2.9517

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

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 non-designated nonprofit foodservice revenues. Prices must be reviewed annually.

Adult Meal Price Formula

Federal reimbursement for a free student lunch
+ Per meal value of USDA Foods
Minimum Adult Meal Price

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

Pricing Nonprogram Food Items

- 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

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

SAY: Section 206 of the Healthy, Hunger-Free Kids Act of 2010 requires that the proportion of total revenue from nonprogram foods to the total revenue of the school foodservice account must be equal to or greater than the proportion of total food costs associated with obtaining nonprogram foods to the total food costs of the program.

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.

Pricing Nonprogram Foods

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 / .38 = .5263 or .53 base selling price.

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

Food	Raw Food Cost	Base Selling Price	Recomended Selling Price	Justification for Recommended Selling Price
Bottled Water	$0.13			
Pizza Slice	$0.45			
Fresh Apple	$0.22			
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.

Managing Expenditures

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

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 standout 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 Cost Deviations

The costs of producing a meal or meal equivalent may deviate from the normal average at various times during the year. The following 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

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 979,175

Expenditure Analysis		
Expenditure Category	**Dollar Amount**	**Cost Per Meal Equivalent**
Salaries and Wages	$885,170	$0.9040
Employee Benefits	357,150	
Purchased Food	1,055,135	
USDA Food Value	159,094	0.1625
Supplies	260,902	0.2665
Capital Assets	102,150	
Indirect Cost	85,125	0.0869
Overhead*	93,518	0.0955
Total Expenditures	$2,998,244	$3.0620

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

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

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.

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		
Total Expenditures	$2,998,244		105%

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

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 equivalent served.

Comparing Revenues to Expenditures

Fill in the empty cells in the table, Comparing Revenue with Expenditures, 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.

Revenue and Expenditure Analysis

Given: Revenue and Expenditure information from previous activities Meal Equivalents for the year: 979,175.

Revenue Analysis			Expenditure Analysis		
Revenues	**Dollar Amount**	**Per Meal Equivalent**	**Expenditures**	**Dollar Amount**	**Per Meal Equivalent**
Student Sales	$404,300	$0.4129	Salaries/Wages	$885,170	$0.9040
Adult Sales	27,803	0.0284	Benefits	357,150	0.3647
Nonprogram Food Sales	113,955	0.1164	Purchased Food	1,055,135	1.0776
Contract Food Sales	14,200	0.0145			
Federal	2,143,150	2.1887	USDA Foods	159,094	0.1625
USDA Foods	159,094	0.1625	Supplies	260,902	0.2665
State	18,835	0.0192	Capital Assets	102,150	0.1043
Bank Interest	3,155	0.0032	Indirect Cost	85,125	0.0869
Miscellaneous	5,800	0.0059	Overhead*	93,518	0.0955
Total	$2,890,292	$2.9517	Total	$2,998,244	$3.0620

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

Comparing Revenue with Expenditures

	Total	**Per Meal Equivalent**
Revenue	$2,890,292	$2.9517
Expenditures	$2,998,244	$3.0620
Net Gain/Loss		

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?

Controlling Food and Labor Costs

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

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 Cost

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.

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

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
Total Paid Labor Hours Assigned Daily		

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

Meal Categories	**Meal Equivalents**
Lunch (students and adults)	440
Suppers	93
Breakfast (182 x .67)	122
Snacks (75 x .33)	25
Nonprogram Sales $200 / $3.57	56
Total Meal Equivalents	

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

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

Using Meals Per Labor Hour to Determine Staffing Needs

Instructions: 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 the 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 (736) 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 some choices the director will need to consider to achieve the new goal?

_____

_____

_____

_____

_____

Using Average 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, and
- 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.

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/meal equivalent served, and
- prevent waste and food theft through monitoring food use.

Calculating the Cost of Food Used

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

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.

Financial Management Action Plan

Objective: *Develop an action plan.*

Financial Management for Success Action Plan

Instructions: Reflect 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. With that thought in mind, fill in the chart to help you reach your financial management goal. When you have completed the activity, discuss at your table what you want to accomplish.

Financial Management Goal (measurable and specific):

Plan (What will you do to achieve the expected outcome)	**Person Responsible**	**Measure of Success**	**Target Date**	**Date Completed**

Resources

Answer Keys

Meal Equivalent Conversions Answer Key

Participation data for the current school year

Maple School District served 699,304 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	699,304	1		699,304
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	*	($128,155/3.57)	35,898
Total Meal Equivalents				979,175

*Nonprogram food sales divided by current Free Lunch Reimbursement ($3.33) + Entitlement USDA Foods Value per Lunch ($0.235). Note these are the 2018-2019 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 x .67 = 325 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 x .33 = 55.44 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 / 3.57 (3.33 + 0.235) = 70.02 or 70 meal equivalents

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: Revenue / Total Meal Equivalents
There were 979,175 meal equivalents served.
Put 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	$0.4129
Adult Meal Sales	27,803	0.0284
Nonprogram Food Sales	113,955	**0.1164**
Contract Food Sales	14,200	0.0145
Federal Reimbursement	2,143,150	**2.1887**
USDA Foods	159,094	**0.1625**
State Reimbursement	18,835	0.0192
Interest	3,155	0.0032
Miscellaneous	5,800	0.0059
Total Revenue	$2,890,292	$2.9517

Pricing Nonprogram Foods Answer Key

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 / .38 = .5263 or .53 base selling price.

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

Food	Raw Food Cost	Base Selling Price	Recomended 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**		
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**		

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.

Given: Meal Equivalents served for the year totaled 979,175

Expenditure Analysis		
Expenditure Category	**Dollar Amount**	**Cost Per Meal Equivalent**
Salaries and Wages	$885,170	$0.9040
Employee Benefits	357,150	**0.3647**
Purchased Food	1,055,135	**1.0776**
USDA Food Value	159,094	0.1625
Supplies	260,902	0.2665
Capital Assets	102,150	**0.1043**
Indirect Cost	85,125	0.0869
Overhead*	93,518	0.0955
Total Expenditures	$2,998,244	$3.0620

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

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.

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	(.3650 x 100)	**37%**
USDA Food Value	159,094	(.0550 x 100)	6%
Supplies	260,902	(.0902 x 100)	**9%**
Capital Assets	102,150	(.0353 x 100)	4%
Indirect Cost	85,125	(.0294 x 100)	3%
Overhead*	93,518	(.0323 x 100)	**3%**
Total Expenditures	$2,998,244		105%

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

Comparing Revenues to Expenditures

Fill in the empty cells in the table, Comparing Revenue with Expenditures, 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: 979,175.

Revenue Analysis			Expenditure Analysis		
Revenues	**Dollar Amount**	**Per Meal Equivalent**	**Expenditures**	**Dollar Amount**	**Per Meal Equivalent**
Student Sales	$404,300	$0.4129	Salaries/Wages	$885,170	$0.9040
Adult Sales	27,803	0.0284	Benefits	357,150	0.3647
Nonprogram Food Sales	113,955	0.1164	Purchased Food	1,055,135	1.0776
Contract Food Sales	14,200	0.0145			
Federal	2,143,150	2.1887	USDA Foods	159,094	0.1625
USDA Foods	159,094	0.1625	Supplies	260,902	0.2665
State	18,835	0.0192	Capital Assets	102,150	0.1043
Bank Interest	3,155	0.0032	Indirect Cost	85,125	0.0869
Miscellaneous	5,800	0.0059	Overhead*	93,518	0.0955
Total	$2,890,292	$2.9517	Total	$2,998,244	$3.0620

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

Comparing Revenue with Expenditures

	Total	**Per Meal Equivalent**
Revenue	$2,890,292	$2.9517
Expenditures	$2,998,244	$3.0620
Net Gain/Loss	**$(107,952)**	**$(0.11)**

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 ($0.11) by the revenue earned per meal/meal equivalent ($2.9517) and then entering the % key.
3. What was the loss per meal/meal equivalent? **A loss of 11 cents per meal equivalent**

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
Total Paid Labor Hours Assigned Daily		**49**

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

Meal Categories	**Meal Equivalents**
Lunch (students and adults)	440
Suppers	93
Breakfast (182 x .67)	122
Snacks (75 x .33)	25
Nonprogram Sales $200 / $3.57	56
Total Meal Equivalents	**736**

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

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

736 / 49 = 15.02 MPLH

Using Meals Per Labor Hour to Determine Staffing Needs
Answer Key

Instructions: 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 the 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 (736) by the desired number of Meals Per Labor Hour (17). **736 / 17 = 43.3 or 43**

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 – 43 = 6 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 some 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

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