



Insight

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Quality Financial Decision Making

Over **E**valuate **W**hether School foodservice administrators across the nation face growing pressures to operate school nutrition programs with increased efficiency. Administrators must analyze program costs on a regular basis to manage changing federal regulations, increasing expenditures, and decreasing financial support from local districts. In today's climate of increased accountability and tighter school budgets, local school boards are unwilling to cover deficits in the school nutrition fund resulting from poor financial management decisions. School foodservice administrators are expected not only to operate quality programs with high nutrition standards but also to operate financially sound programs. Furthermore, administrators must continually measure their financial performance against customer expectations such as increased nutritional value, more variety in food choices, higher food quality, and improved service. To provide quality programs and evaluate financial performance, school foodservice administrators must be able to assess the attributes of an effectively managed school nutrition program. The ability to interpret financial outcomes of operational decisions is a critical element in establishing a quality improvement program. Without this ability, it is difficult to implement effective improvement strategies to strengthen both the financial status of the operation and overall program quality.

A standard method of data collection and analysis is necessary before school foodservice administrators can evaluate effective financial management. This standard method includes procedures for recording financial data, the capability of generating financial reports on a regular basis, and a method for analyzing financial data that uses a generally accepted national format. The consistency achieved by using a standard model allows a user to track

performance over time and ensures that all parties interpret financial information in the same way. Industry-wide measures begin to emerge as administrators in many districts use and report financial data in the same format. When industry-wide measures are available on a regular basis, administrators can compare the operational outcomes in their district with other similar districts around the country. Industry-wide measures can also be useful to evaluate program effectiveness among schools within the district. These comparisons can be a powerful tool for identifying financial internal targets that provide a guide to measure quality in school nutrition programs. The ability to compare "apples to apples instead of apples to pineapples" will provide credible information.

Currently, there is no accepted national model or set of standards designed to measure and analyze financial information in school nutrition programs. In fact, very little consistency exists in how school foodservice administrators capture and analyze financial information. Some operations compile a great deal of information unique to the needs of the school district and perform detailed analysis to determine the financial status of the school nutrition program. Other operations collect only minimum financial information with little or no analysis performed. The manner in which revenue and expenses are reported is inconsistent from one accounting system to another. There are no commonly accepted guidelines for defining expenditure types. Accurate comparisons are often complicated because of inconsistencies in formulas and calculations. Analyzing program operations is often difficult or even impossible. Development of a nationwide model for financial analysis is an important first step to enable school foodservice administrators to improve financial management decision making at the school and district levels.

Background

The need for regularly collecting and analyzing financial data using a standard method was identified as a priority by participants of the National Food Service Management Institute's (NFSMI) 1995 National Research Agenda Task Force. Participants recognized that by regularly collecting financial information in a consistent format, standard performance measures could be defined

that would allow both appropriate comparison with other operations and identification of benchmarks for best practices.

Setting any type of standard is time consuming and requires a clearly defined goal. NFSMI decided to accept the challenge and initiated a project to develop a financial management information system (FMIS) that could be used by school foodservice administrators nationwide. The goal

was to provide consistent, organized information for financial decision making and benchmarking. The types of analyses selected for evaluating and measuring the financial standing of a school nutrition program must be ones that school foodservice administrators can interpret and utilize. To begin the process, the Applied Research Division of NFSMI used a case study methodology to determine various factors that characterized financial success in four selected school nutrition programs. Schools participating in the case study represented a wide range of criteria, including geographic location, enrollment size, and ratio of meal benefits. All programs were identified by their state agencies as quality programs that were financially successful. During site visits, researchers reviewed and analyzed the practices used in these school nutrition programs. The resulting case studies highlighted the different revenue generation and cost controlling activities used by the school foodservice administrators of these operations. When results from the case studies were finalized and feedback processed, the researchers found a lack of consistency among districts and state agencies in reporting and analyzing operational data. It was difficult to compare financial data from district to district and from state to state. There were no consistent methods for calculating common measures such as meal equivalents, plate cost, or meals per labor hour being used by these school foodservice administrators. Clearly, the need for a standard financial reporting model was evident.

The next step in model development was to survey state directors of school nutrition programs to determine state level interest in the development of a uniform system for recording and analyzing financial data. State directors were also asked to share some of the common financial measures and calculations used internally in their respective states. Twenty-nine (57%) of the 50 state agencies returned the survey. Respondents to the survey indicated broad interest for the development of a national financial model but stressed that a useful model must take into account the wide variety of school foodservice operations that would be using it. When the results of the survey were compiled, researchers found little consistency in financial performance measures used in the state agencies.

Development of a Model

The process of developing a financial model specifically adapted to school nutrition programs began with NFSMI's assembling a 25-member task force with nationwide representation. Task force members included local school foodservice directors, state agency personnel, school business officials, and representatives from the American School Food Service Association and the U.S. Department of

Agriculture (USDA). A computer software company representative and NFSMI staff rounded out the task force. Various district sizes and regions of the country were represented among the participants.

As task force members worked together to outline the content, format, and scope of the FMIS model, they agreed that it should be user-friendly, designed with a national focus, and able to use data already available. The group recommended all aspects of reporting be standardized. The group also explored the best way to determine categories of revenue and expenditures and identify critical financial performance measures essential to effectively evaluating school nutrition program operations. Discussion centered on the number and types of performance measures to include in the model. The group reached consensus on five performance measures that they identified as essential when evaluating school nutrition program operations:

- ✓ A measure of profitability (income statement, profit-and-loss, change in net cash resources)
- ✓ Operating ratios (percentage of category cost to revenue)
- ✓ Meal and meal equivalent cost (food or labor cost per meal, commodity cost per meal, total cost per meal)
- ✓ Participation rate (by program, meal eligibility category, school sites)
- ✓ Measure of productivity (meals per labor hour, revenue to variable costs)

The task force agreed also on a format for reporting financial data. Revenue and expenditure categories were selected based on the handbook, *Financial Accounting for Local and State School Systems, 1990* published by the National Center for Education Statistics, U. S. Department of Education (Figure 1). Under each broad category, task force members added pertinent sub-categories to reflect a more up-to-date model to meet present needs of school foodservice reporting.

After two task force meetings, NFSMI researchers developed a draft of the NFSMI FMIS model based on input from the task force members. Members reviewed the draft and made suggestions to improve definitions and clarify terms. Feedback from the task force was incorporated into the model, and the revised version was sent to a 70-member national review panel. In addition to state and local school nutrition professionals, school business officials, and USDA representatives, the panel included university foodservice management faculty. Forty-nine panel members representing 36 states responded. Based on their comments, the model was further refined and revised.

Figure 1 - Revenue and Expenditure Categories

REVENUE CATEGORIES

State Sources	Contract Meal Sales
Federal Sources	Other Food Sales
Other Local Sources	Miscellaneous
Student Meal Sales	Interest
Adult Meal Sales	Fund Transfer

EXPENDITURE CATEGORIES

Salaries and Wages	Purchased Services
Employee Benefits	Property Services
Purchased Food	Miscellaneous
Donated Commodities	Capital Equipment
General Supplies	Indirect Costs
Fund Transfer	

The Model

The NFSMI FMIS model consists of five sections. The first section is an introduction discussing the importance of a standard financial model and types of operational data. The section addresses such questions as:

- ✓ What is the FMIS?
- ✓ What is the purpose of the FMIS?
- ✓ Why was FMIS developed?
- ✓ Can anyone use FMIS?
- ✓ What if I already complete financial records for my school foodservice program?
- ✓ When I use the FMIS, do I have to follow the schedule categories and formulas?
- ✓ How does FMIS relate to the budget?
- ✓ Why should I use FMIS?

In the second section of the model, two basic financial statements, balance sheet and statement of revenues and expenditures, are discussed and illustrated. The balance sheet is a financial statement prepared at the end of each accounting period to reflect the financial position of the school nutrition program. The statement of revenue and expenditures presented in this section applies to programs that are operated under the National School Lunch Program, School Breakfast Program, and other school nutrition programs. The statement of revenue and expenditures provides three major elements of financial information. They are:

- ✓ the total revenue available to the program by source
- ✓ a list of total expenditures by category
- ✓ net excess/deficit to the program for the period of the statement

Section three of the NFSMI FMIS includes supplemental schedules with categories and subcategories

defined. Figure 2 is an example of the revenue supplemental schedule for the category Other Food Sales. All supplemental schedules are designed to remind school foodservice administrators of all potential sources of revenue and expenses for use in financial decision making. Administrators should tailor the schedules by adding or deleting line items to match the situation in their school districts.

Section four of the NFSMI FMIS model focuses on analysis and evaluation of the school nutrition program. Using the methods of analysis presented in this section can help the school foodservice administrator determine if operations are proceeding according to plan or if actual results differ from those that were projected. Examples and possible interpretations are provided that can assist school foodservice administrators in choosing the best alternative among solutions available for a particular corrective action. Several types of analyses are suggested for generating performance measures that can be used to evaluate important elements of the school nutrition program. Performance measures found in the NFSMI FMIS model are shown in Figure 3. The measures may be stated in dollar figures, percentages, or ratios to facilitate the process.

Since performance measures are meaningful only when compared to other useful criteria, the NFSMI FMIS provides an outline for recording and reporting financial data to allow comparisons to:

- ✓ corresponding data from a prior period
- ✓ other school nutrition programs with similar characteristics
- ✓ planned goals such as the budget, participation, and meals per labor hour

One type of analysis useful to school foodservice administrators is ratio analysis or the comparison of related data. Ratio analysis can relate expenses to revenues and are useful in comparing actual results against projected

Figure 2 - Example of a Supplemental Schedule for Other Food Sales

Revenue	
Other Food Sales - Schedule R-7	
For the period of _____	
Other Food Sales	Revenue
A la carte	
Extra Meal Components	\$
Extra Student Meals	\$
Other A La Carte	\$
Snacks (non-reimbursable such as kindergarten)	\$
Special School Functions	\$
Catering	\$
Vending Machines	\$
Concessions	\$
Total Other Food Sales	\$ _____

Figure 3 - Analysis and Evaluation of Program Operations

<u>PERFORMANCE MEASURES</u>
Cost of Purchased Food Used
Value of Commodities Used
Total Per Meal Cost
Meal Cost Per Expenditure Category
Food Cost Percentage
Labor Cost Percentage
Revenue to Variable Cost Ratio
Meals Per Labor Hours
Average Daily Participation

Figure 4 - Food Cost Percentage

The food cost percentage can be calculated using the following formula:

$$\text{Food Cost Percentage} = \frac{\text{Cost of Purchased Food}}{\text{Total Revenue}}$$

Example: A school foodservice program has a total revenue of \$30,000 for the prior month and a food cost of \$15,500 for the same month. Using the formula above, we can see that this operation had a 55% food cost in relation to total revenue for the month. This tells the school foodservice administrator that \$.55 of every dollar was spent on food the previous month.

$$\begin{aligned} \text{Food Cost Percentage} &= \frac{\$15,500}{\$30,000} \\ &= .55 \times 100 \text{ or } 55\% \end{aligned}$$

The school foodservice administrator planned to maintain a food cost percentage of 40-45% through the year. A 55% food cost signals that the goal is not being met and the reason for the higher cost must be investigated. Tracking the food cost to a revenue ratio on a weekly or monthly basis can identify trends and pinpoint potential problems.

results. For example, school foodservice administrators often rely on food cost percentage ratios to determine whether expenditures for purchased food are reasonable and in line with previously established guidelines. Because most of the revenue in school nutrition programs comes from the sale of food, the food cost percentage is calculated using cost of food to total revenue. The results then are compared to established or budgeted goals. Figure 4 provides one example of how ratios are used in the NFSMI FMIS model.

The final section of the NFSMI FMIS model gives a general overview of the budget process. Budgeting is a regular part of any management process, and many administrators are already familiar with local budget requirements. The data compiled by using the NFSMI FMIS model can be used to monitor and evaluate the budget, thus providing a plan to assist in managing the school nutrition program.

Practical Use of this Information

A uniform reporting and analysis system such as the NFSMI FMIS model allows school foodservice administrators to compare financial position and operational performance of a

particular school district to other similar types of districts. It provides information that helps school foodservice administrators answer questions about how the district is doing when compared to other school districts. A national comparison system allows administrators to collect valid benchmarks from other school districts that are comparable in type, size, location, meal service delivery, number of meals served, and other variables. Benchmarks provided by using the uniform financial information in this model can help the school foodservice administrator:

- ✓ Better establish long-term goals
- ✓ Develop a better budget plan
- ✓ Better project revenue
- ✓ Estimate expenditures with more accuracy
- ✓ Do a better job of monitoring and evaluating
- ✓ Identify needed changes in a timely manner
- ✓ Assess the impact of long term financial planning and decision making

While the use of the NFSMI FMIS is voluntary, school foodservice administrators are strongly encouraged to use the model as school nutrition programs move toward national standardization.

Development of a Software Application

The second phase of developing a financial management information system for school nutrition programs was to design a computer software application that administrators could use to implement the financial model. NFSMI began the process by convening a national meeting of state directors for the purpose of discussing the necessary criteria for a computer application and to determine interest among state agencies. Representatives attending the meeting agreed that a software application should produce financial data that would allow a school foodservice administrator the ability to:

- ✓ Track financial trends and cycles
- ✓ Provide information to support financial requests to school boards
- ✓ Make external comparisons with other school districts
- ✓ Make internal comparisons from various reporting periods
- ✓ Prepare informed forecasting and projection reports

Representatives at the national meeting of state directors also identified reports that would be helpful to school foodservice administrators. Participants especially noted the advantage of pie and bar charts when presenting financial data to superintendents, business officials, and school boards. They felt the financial information presented to school officials must be in a form that lends credibility to the school nutrition program so that requests for funding or changes that impact operations would be given adequate

consideration. A five-member software development advisory committee was selected from meeting participants. The committee met with the NFSMI staff in July 1999 to finalize criteria for a computer software application and to prepare guidelines for selecting a vendor for software development. The contract was awarded to Visual Solutions in October 1999 for development of a computerized tool that incorporated the FMIS model. The result is an analysis software package, *NFSMI FUNDamentals*, with the following features:

- ✓ A uniform system for gathering, recording, and interpreting financial information
- ✓ Summary or detail reports that can be used by school foodservice administrators to make better financial management decisions
- ✓ Financial information provided in a graphic format that can be useful when discussing financial management issues with school business officials and school boards of education

The release of *NFSMI FUNDamentals* with an auto-tutorial training component will complete the second phase of the financial management research thread. In the third phase of research, NFSMI will establish a national database on the NFSMI Web site for collecting school district financial data. The financial data will be used for future research and identification of benchmarks for best practices. In the coming months school foodservice professionals will hear more about how districts can submit their financial data and use the database for benchmarking. NFSMI is committed to keeping financial data received from school districts anonymous.

How do I obtain the *NFSMI FUNDamentals* software?

NFSMI FUNDamentals can be downloaded from the NFSMI Web site or ordered from the National Food Service Management Institute in a CD-ROM version. The Web download is currently 60MB in size. A T1 connection will allow users to download the software in less than 10 minutes. We do not recommend a download by dial-up modem. A step-by-step Users Guide is available for download from the NFSMI Web site or available on the distributed CD-ROM.

To obtain a CD from NFSMI, call the NFSMI Sales Department at 1-800-321-3054. If you elect to order and install the software from a CD-ROM, there will be an \$8.00 cost for production of the CD plus shipping.

For more information about the *NFSMI FUNDamentals*, visit the NFSMI Web site at www.nfsmi.org.

The Applied Research Division welcomes and encourages your comments, suggestions, or other feedback about the software. Please feel free to call us at 601-266-5773 or e-mail your comments to Jerry.Cater@usm.edu.

For More Information

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