

Financial Management Issues and Practices in School Nutrition Programs An Annotated Bibliography

In recent years, school foodservice administrators have faced increasing demands to operate the school nutrition programs as self-supporting departments while maintaining quality food and nutritional integrity. The ability of the school foodservice administrator to manage financial resources is critical to success in meeting customer needs, improving program quality, and maintaining a financially sound program. In an effort to assist school districts, the National Food Service Management Institute (NFSMI) compiled a list of resources for school administrators involved in school nutrition programs. Resources chosen provide information on the financial aspects of operating a school nutrition program and are in a variety of information formats such as articles, books, and full text materials on the World Wide Web.

The categories are:

- A. Books and Manuals
- B. Research Articles and Reports
- C. Magazine Articles

A. Books and Manuals

Associated Milk Producers, Inc. (1996). *Meeting the challenge: Financial strategies for child nutrition programs*. Arlington, TX: Author.

Meeting the Challenge is a workbook designed to provide a simple step-by-step approach to analyzing a child nutrition operation. Analysis tools include worksheets to analyze current meal pricing, calculate daily and annual revenue, convert annual expenses to average daily costs, and calculate the operation's break-even point. A section is included to help school foodservice administrators determine the feasibility of serving a particular reimbursable breakfast menu. Worksheets provide basic steps that can be used to determine the number of breakfasts that must be served to break even for any given menu.

Martin, J., & Conklin, M. T. (1999). *Managing child nutrition programs: Leadership for excellence*. Gaithersburg, MD: Aspen Publications.

This book provides an excellent resource for child nutrition programs. Chapters are authored by individuals, who are experts in their field. Topics for chapters include an overview of the history of child nutrition programs, nutrition integrity, financial management, contemporary approaches to nutrition education, procurement practices, human resource management, customer service, food safety, and marketing. The final chapter provides a perspective on the future of child nutrition programs and the role of school food and nutrition professionals.

Pannell-Martin, D. (1998). *Controlling costs in the food service industry*. Alexandria, VA: inTEAM Associates, Incorporated.

In this resource and reference book, the author discusses the importance of controlling costs in the foodservice industry. Controlling costs is a basic function of management in a foodservice operation. The author provides information on controlling labor costs, food costs, identifying trends that affect costs, increasing revenue, and using technology to control costs. A chapter is

devoted to using the break-even point as a tool that enables management to performance analyses on an existing operation, a potential operation, or a portion of an operation.

U. S. Department of Education, Institute of Education Sciences. (2003). *Financial accounting for local and state school system: 2003 edition*. Washington, DC: National Center for Education Statistics. Retrieved December 18, 2003, from <http://nces.ed.gov/pubsearch>

To be accountable for public funds and assist educational decision-makers, all school financial reports need to contain the same types of financial statements for the same categories and types of funds and account groups. This handbook represents a national set of standards and guidance for school system accounting, incorporating guidance from Governmental Accounting Standards Board (GASB) statements. Illustrative financial statements provide examples of the basic financial statements for a hypothetical independent school district. Its purpose is to ensure that education fiscal data are reported comprehensively and uniformly. Enterprise funds such as the school foodservice program are included in the handbook.

B. Research Articles and Reports

Cater, J. B., Mann, N., & Conklin, M. (1999). *Financial management: A growing concern for child nutrition program administrators*. *School Business Affairs*, 65(5), 45-49.

This article discussed findings from case study research to determine commonalities found in financially successful school nutrition programs. Four school districts representing the Southwest, Southeast, Northwest, and Midwest were selected for the study. The school districts were self-operated and identified by their state agencies as having quality programs that utilized effective financial management methods. Researchers conducted on-site visits to interview program administrators and determine types of financial reports and tools used in making financial management decisions. All program administrators participating in the study considered financial reports as management tools critical to the financial success of the school's nutrition program. Program administrators indicated the financial reports they considered most crucial to financial management decisions were budgets, revenue and expenditure reports, and operating ratios.

Conklin, M. T., & Nettles, M. F. (1996). *Costs associated with providing school meals for children with special food and nutrition needs*. *School Food Service Research Review*, 20(2), 56-62.

The purpose of this case study research was to determine the labor and food costs associated with providing school meals for children with special food and nutrition needs. The researchers collected data in eight school districts from three states in the Southeast and Southwest USDA regions. Employees from 15 schools recorded data for five days on the labor time used to prepare special meals. Researchers then calculated the average time for special meal preparation and average food cost for special meals compared with regular meals for the data collection period. Results showed that the median time to prepare special meals ranged from four to six minutes for pureed meals and five to eight minutes for other types of special meals, such as for food allergies or diabetes. Researchers found very little - if any - difference in the food cost between regular and special meals except for a higher food cost associated with serving canned nutritional supplements. The researchers recommend clarifying the school district's policy on

purchasing nutritional supplements because this expenditure will dramatically affect the cost of meals served to children with special needs.

Duerr, M. W., Briggs, M., & Branstrom, B. (1997). A cost comparison of two alternative menu planning systems. *School Food Service Research Review*, 21 (1), 28-37.

In light of increasing interest in the nutritional integrity of child nutrition program meals, the Surgeon General's Healthy People 2000 calls for 90% compliance of child nutrition programs with the Dietary Guidelines for Americans (DGA). Two strategies used to improve the nutritional content of school lunches are the Nutrient Standard Menu Planning (NSMP) and Revised-Meal Pattern (RMP) system. The NSMP uses computer-aided nutrient analysis to aid the menu planning process and the RMP system adds food items to bring school meals into compliance with the DGA. The primary goal of this study was to determine the change in total foodservice costs associated with making lunch menu changes required by the NSMP or RMP system. Researchers collected cost data over a two-year period from 17 California school districts using the two strategies. The total cost of the revised menu was compared to baseline menus meeting the traditional USDA food pattern. Results demonstrated that as a group, schools implementing NSMP experienced no significant increase in foodservice costs, while schools implementing the RMP strategy led to average cost increases of 3.6%.

Gilbert, L.E., & Shanklin, C. W. (2001). Costs and nutritional contributions of entrées in school lunch menus. *The Journal of Child Nutrition & Management*, 25(2), 82-88.

This article discusses research conducted to explore differences in the costs and nutrient content of entrées in menus planned and served in the school lunch program in two elementary schools in two Midwest school districts. A four-week cycle menu was planned for two time periods, Period 1 and Period 2, and followed guidelines for nutrient standard menu planning. The study evaluated the nutrient content of the meal, nutrient contribution of the entrée component, and cost of the entrées for planned and served menus during two time periods. No significant differences were in nutrient content of the planned menus and served menus between periods. Total costs per meal were not significantly different. Entrée costs ranged from \$0.26 to \$0.37 per serving and contributed between 25% and 50% of the total cost of the meal as served. The nutrient contributions of entrée categories varied based on entrée type.

Gregoire, M. B., & Strohbehn, C. (2002). Benefits and obstacles to purchasing food from local growers and producers. *The Journal of Child Nutrition & Management*. Retrieved January 5, 2004, from <http://asfsa.org/childnutrition/jcnm/02spring/gregoire>

Purchasing food for the school nutrition program is a major use of financial resources. A food-buying option that is receiving increased emphasis is the purchase of food items from local growers and producers. This article presents findings from a study designed to identify benefits and obstacles to purchasing food from local growers and producers. Primary benefits cited were good public relations, aiding the local economy, ability to purchase smaller quantities and fresher food, knowing product sources, and food safety. Obstacles included lack of availability of foods year-round and the lack of adequate food supply and quantity.

March, L. D., & Gould, R. A. (2001). Compliance with the School Meals Initiative: Effect on meal programs' financial success. *Journal of The American Dietetic Association, 101*, 1199-1201.

Minimizing costs is a crucial part of the financial success of a school meals program and an integral part of its ability to provide for the nutrition needs of schoolchildren. There is concern that changes in nutrient requirements may increase food and total operational costs. The purpose of this study was to compare school meal programs' ability to comply with federal nutrition guidelines with factors predicting financial self-sufficiency. No single nutrient variable was found to be a significant predictor of food cost per average daily participation. According to the authors of this article, exclusively tying excessive food costs to the School Meals Initiative does not appear to be warranted.

March, L. D., & Gould, R. A. (2001). Indicators of financial self-sufficiency in Kansas school meal programs. *The Journal of Child Nutrition & Management, 25*, 30-35.

This research examined the impact of participation, revenue, and expenditures on the financial self-sufficiency of meal programs in Kansas public school districts. Researchers evaluated a cross-sectional survey of audited, state-program, data-report forms capturing the independent variables concerning revenue, expenditures, and participation. A sample of 150 Kansas public school districts participating in federal school meal programs was selected for the study. Results suggested that the development and increase of revenue sources appear crucial to program success and that control of labor costs may be important to achieving financial self-sufficiency. Schools in the study that had enrollments of less than 400 were unable to break even or make a profit.

Sanchez, N., Gould, R., & Sanchez, A. (2000). What financial tools do school foodservice directors use? *The Journal of Child Nutrition & Management, 24*(1), 40-42.

This study investigated the financial tools used by school foodservice directors on a national level. Researchers used a questionnaire to determine the level of familiarity, frequency of use, and importance of 27 financial tools commonly used in school meal operations. The questionnaire was mailed to a random sample of 500 directors nationwide. Thirty-seven percent responded with usable data. Directors identified the profit/loss statement as the most beneficial tool, followed by food cost and labor cost per meal. The tools used on a weekly basis were food cost and menu forecast. The tools that 40 percent or more of the respondents knew but did not use included contribution margin, cost-benefit analysis, and variance analysis.

U.S. General Accounting Office. (May 2003). *School Meal Programs: Revenue and expense information from selected states* (Publication No. GAO-03-569). Retrieved on November 13, 2003, from <http://www.gao.gov/cgi-bin/getrpt?GAO-03-569>

The US General Accounting Office (GAO) was asked to study the school foodservice revenues and expenses and how they have changed since the more stringent requirements for the nutritional content of school meals went into effect. This report includes information on the sources of revenues available for providing meals, the expenses of producing meals, the revenues compared to expenses, and the approaches that local school food authorities have adopted to manage their school foodservice finances. It used data from six selected states for the years 1996-97 through 2000-01. The six states' School Food Authority revenues did not keep pace with expenses over the 5-year period covered in the study. Their total expenditures increased by

about 22 percent, while their total revenues increased by about 20 percent. When investigating labor and food purchases in the six states, GAO found that labor expenses for school foodservice employees grew from about 43 percent of total expenses to 44 percent; while food, which included commodity value, decreased from about 42 to 41 percent of total expenses during the period. The report concluded that many factors can contribute to the revenue and cost difference found and further research is needed.

U. S. General Accounting Office. (September 2002). *School meal programs: Estimated costs for three administrative processes at selected locations* (Publications No. GAO-02-944).

Retrieved November 13, 2003, from <http://www.gao.gov/cgi-bin/getrpt?GAO-02-944> .

This report describes a study by the U. S. General Accounting Office (GAO) to obtain data related to the costs of administering The National School Lunch and the School Breakfast Programs. GAO developed estimates for costs associated with processing applications for free and reduced-price meals, verifying eligibility for free and reduced-price meals, counting all reimbursable meals and snacks, and claiming federal reimbursements. The study included cost estimates at the federal, state, and local levels. Five state agencies, 10 school food authorities in public school districts, and two schools at each district were selected for the study. Cost for applications, verification, and meal counting and reimbursement processes were incurred mainly at the local level. Estimated federal and state costs during the school year 2000-01 were generally less than 1 cent per program dollar administered. The largest costs at the local level were for counting meals and submitting claims for reimbursement.

Wie, S., Shanklin, C. W., & Kyung-Eun, L. (2003). A decision tree for selecting the most cost-effective waste disposal strategy in foodservice operations. *Journal of The American Dietetic Association, 103*, 475-482.

The purposes of this study were to determine costs of disposal strategies for wastes generated in foodservice operations and to develop a decision tree to determine the most cost-effective disposal strategy for foodservice operations. The study used a case study methodology to analyze disposal of waste in a central food processing center in a school district, a retirement center, a university dining center, and a commercial restaurant. The study findings indicated that one disposal method did not provide the same results in all cases analyzed. All strategies that included a recycling program cost less than those without a recycling program for each of the four cases. The authors developed a decision tree to illustrate the decision-making process that occurs when conducting cost analysis and subsequent decisions.

Wilson, K. S., & Alkire, P. (1995). Significant factors contributing to the financial success of food service programs in selected Ohio school districts. *School Food Service Research Review, 19*, 14-19.

The purpose of this study was to ascertain the extent to which selected variables differentiated between school foodservice operations that had a financial gain and those that had a financial loss. The researcher developed a questionnaire that consisted of 24 items designed to provide information about the school's foodservice program and demographic information. Evaluation of data included chi-square analysis between the dependent variable, cost-to revenue percentage, and 17 independent variables determined by a panel of experts as concerns of school foodservice directors. The independent variables included menu variety, student input, conducive facilities, time allotted for lunch, incentives, scheduling, public relations, open vs. closed campus, a la

carte items, use of disposable products, preparation of homemade items, choices of food components, offer vs. serve, catering, satellite distribution, breakfast program, and use of government commodities. The availability of choices of food components was the only variable found to have a significant (and negative) association with financial success. Results of the study did not support the other 16 of the 17 variables in the study as being significant indicators of financial success for the school districts.

C. Magazine Articles

Boehrer, J. M. (1993, November). Managing to meet the bottom line. *School Business Affairs*, 3-8.

In this article, the author discusses the importance of utilizing financial management tools in the operation of a school nutrition program. For the purpose of effective financial management, school foodservice must be understood and addressed as a business. The school foodservice operation must adhere to sound principles of financial management that include utilizing the modified accrual basis of accounting, producing profit/loss statements routinely, and monitoring cost percentages on a regular basis. The importance of implementing cost controls and managing for productivity are important to establishing school foodservice as a business system. Other factors important to the viability of the school foodservice operation include focusing on revenues as well as expenses, balancing near-term gains with long-term changes, and reinvestment in the program through advances in training, food preparation, and facilities.

Carr, D. H. (2000). Equipping the school kitchen. *American School Board Journal*. 187(2), 46-48.

This article outlines the process for selecting and purchasing foodservice equipment for a new or renovated school. The author emphasizes the importance of careful planning to prevent costly mistakes that can lead to major problems in scheduling, preparing, and serving meals. The equipment purchased for the foodservice facility represents a sizable investment and often is expected to last 30 years or more. The key to smart buying is to work with schools and foodservice experts to identify short- and long-term needs, then plan the best way to meet those needs. Planning and procuring equipment should include the following steps: 1) assembling a team that includes appropriate representation of the school community, 2) assessing school needs to meet both short- and long-term expectations, 3) looking carefully at all features of foodservice equipment currently available, 4) working with the district's attorney to develop an appropriate bid process to procure equipment, and 5) insuring proper installation and user training.

Cater, J. B. (2002). Quality financial decision making. *NFSMI Insight*, No. 19. University, MS: National Food Service Management Institute. Retrieved December 8, 2003, from <http://www.nfsmi.org/Information/Newsletters/insight19.pdf>

This publication discusses the NFSMI's financial management information system model and the software application developed to implement the model. The author provides an overview of the importance of having a standard method for collecting financial information in a consistent format, defining performance measures, and identifying benchmarks for best practices. The model, developed by NFSMI and a 25-member national task force, provides a standard method of data collection and analysis that school districts can use to evaluate the effectiveness of financial management in school nutrition programs. School foodservice administrators can use

the model to compare financial information from school to school within the district or from one district to similar districts.

The second phase of developing a financial management information system for school nutrition programs was to design a computer software application that administrators can use to implement the financial model. The author discusses the features of the software, *NFSMI FUNDamentals*, and how it can be obtained for school nutrition programs.

Cornyn, J. (2001). Financial statement gymnastics-Part I. *Food Management*, 36(6), 16.

In this brief article, the author discussed the importance of the noncommercial foodservice industry adopting a uniform system of accounts for accurate comparative benchmarking. According to the author, no standard definitions presently exist for most types of expenses in those foodservice operations where a fund accounting method is used. The result is an inability for noncommercial foodservice establishments to make accurate comparisons. Methods presently used for comparative benchmarking provide the potential for significant misinterpretation.

Cross, E., Cater, J., & Conklin, M. (2000). Dollars and sense. *School Foodservice & Nutrition*, 54(4), 28-32.

For school foodservice administrators, a top priority is managing ever-increasing expenditures while seeking ways to generate new sources of revenue. This article focused on the need for school foodservice administrators to know how to determine their financial status, how to analyze and interpret the numbers generated in their programs, and how to make operational changes to improve the bottom line. Without full knowledge of the operation's financial status, it is difficult for directors to implement timely, effective improvement strategies. These authors included five critical indicators of financial status that are considered important when analyzing program performance. The indicators are profitability, operating ratios, meal cost, participation rates, and productivity.

Fitzgerald, P. L. (1998). School foodservice: The next millennium. *School Business Affairs*, 64(12), 32-34.

This article examines the future trends of school foodservice and suggests ways school business officials can partner with school foodservice professionals to face financial challenges resulting from those trends. Forecasts of changes in economics, technology, demographics, and foodservice competition will affect how school foodservice operators manage their program finances. School business officials and school foodservice administrators can work together to improve the school meals operation. For example, school foodservice administrators need the business official's support in developing procedures to serve students in alternate areas such as wide hallways or outside common areas. School business officials can work with school foodservice professionals in offering cross-department job opportunities to alleviate labor shortages. As school nutrition programs face more competition for meal dollars, business officials who are willing to think "out of the box" can provide opportunities and support in the development of new and exciting school meal programs.

Lawn, J. (2002, December). Managing the enterprise. *Food Management*, 16-20.

This article describes how Food Service Director Cheryl Sturgeon centralized foodservice production, distribution, and marketing in Jefferson County Schools, Louisville, Kentucky. Jefferson County Schools make up the 23rd largest school district in the country. Sturgeon developed and executed a plan to construct a central commissary, migrating all food production in the district to a cook-chill/finishing kitchen model. This approach achieved the economies of scale the district needed while allowing individual sites to customize and finish off product. According to the article, there have been major cost savings from labor and purchasing without compromising the district's commitment to improving nutrition management and food safety.

McLaren, P. (2004). Reducing the pounds of paper. *School Foodservice & Nutrition*, 58(1), 18-24.

This article describes the benefits and challenges of using scanning technology to reduce paperwork and costs related to processing free and reduced-price meal applications. Benefits include savings of both time and money. Nadine Mann, director of operations for the child nutrition programs at East Baton Rouge Parish School System in Louisiana, reported that since the district began scanning meal benefit applications, the number of employees assigned to processing the 26,000 applications dropped from a high of 12 to 2 in the current year. Challenges include selecting the right technology and the need to pull applications that are incomplete or unreadable.

Pannell, D. V. (1995). The break-even point. *School Foodservice & Nutrition*, 49(6), 26-30.

Using the break-even formula is an easy and distinct way to highlight the effects of reducing fixed and variable costs that enables management to make better financial management decisions. The author of this article provides a formula along with a step-by-step method for determining the financial break-even point in the school foodservice operation. Using the break-even point as a management tool provides the school foodservice director with information to identify problems and take corrective action.

Ponce, H., & Sneed, J. (1993). Financial management for nutritionally responsible programs. *School Food Service Journal*, 47(7), 50-52.

These authors discuss eight strategies that will help school nutrition program administrators manage financially sound child nutrition programs. The strategies include writing a statement of the vision, developing values and a mission for the department, determining financial goals based on program values, identifying revenue sources, accounting for expenditures, requiring high level of performance by staff, and planning menus that balance low-cost with high-cost items.

Rowe, M. (2003, April). Making the most of long-term renovation dollars. *Food Management*, 26-32.

The author outlines the challenges typical of a big-city school system when upgrade of its foodservice facilities becomes necessary. The focus of the article is the Cleveland Municipal School District in Ohio. The goal of 100 percent nutrition - every pupil eating breakfast and lunch each day - is the driving force behind the child nutrition services' efforts to improve facilities. The school system adopted a universal meals program in 1999 and currently serves 28,300 breakfasts and 53,300 lunches each day. To modernize kitchen and serving facilities, the

district has developed a long-range master plan that allows for creativity and operational flexibility while maximizing the use of funding.

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