

# FINANCIAL CONSIDERATIONS FOR CENTRALIZED FOODSERVICE SYSTEMS

The impetus for centralizing food production is often financial. It may be that a district is growing so rapidly that it is more cost effective to produce food in a central kitchen than to build fully-equipped kitchens in all of the new schools. Or, it might be that centralizing food production is a way to take advantage of the economies of scale to be able to reduce labor and food costs.

Building new central kitchens or renovating existing space for a central kitchen can be very expensive. Operating the central kitchen also can result in new costs for the district school foodservice program. This chapter will discuss the following issues related to finances:

- Financial feasibility of centralized foodservice systems
- Funding the project
- New costs to school foodservices

## Financial Feasibility of Centralized Foodservice Systems

Building a new central kitchen or renovating existing space to establish a central kitchen can be very expensive. In fact, school foodservice directors who have gone through the process of building/renovating a central kitchen warn of the potential sticker shock! When considering costs, in addition to building costs, there are costs for equipment and furnishings for the new/renovated facility.

The following examples will provide a sense of the costs that might be incurred:

**Chandler, Arizona Schools.** The central kitchen for Chandler schools opened in August 1993. The 24,910 square foot facility, which has an estimated capacity of 40,000 meals per day, cost \$2.1 million to build. The school district already owned the land; thus, no land cost was incurred. The equipment cost an additional \$1.4 million. The project was funded through a 1990 bond issue in the district.

**Olathe, Kansas Schools.** The central kitchen for the Olathe school district opened in August 1990. The 42,903 square foot facility cost \$2.674 million to build. They spent

\$1.117 million for equipment and \$58,000 for furnishings. The estimated capacity for the facility is 20,000 meals per 8-hour shift.

**Jefferson County, Kentucky Public Schools.** The Nutrition Service Center opened in January 2000. The Center has 68,000 square feet and has a capacity of 60,000 meals per day. The building costs were \$12 million and the equipment costs were \$4 million. The building costs were funded by a bond issue and the equipment was purchased with funds of the Department of School and Community Nutrition.

## **Methods of Financial/Economic Evaluation**

In the public sector, systematic processes are needed to ensure that public resources are spent wisely. Thibadoux (1988) defined economic analysis as “a systematic approach to the problem of choosing and employing scarce capital resources in the most effective and efficient manner” (p. 3-90). He suggests an analysis process that includes 1) defining objectives, 2) generating alternatives, 3) quantifying costs and benefits, 4) screening for acceptable projects, and 5) ranking and selecting projects. In schools, the foodservice program is in competition with other areas for capital monies. Thus, a good proposal or feasibility study will be needed to address the first three areas listed above.

Thibadoux (1988) emphasized the need to do cost/benefit analysis for projects. In this process, decision makers would consider both direct and indirect costs and tangible and intangible benefits. Ross, Westerfield, and Jordan (2000) defined the capital budgeting decision as answering the following question: What fixed assets should be purchased? The following basic questions can be asked related to a school district decision to make a capital investment in a central kitchen: What will the foodservice program be like if we implement a central kitchen? What will the foodservice program be like if we do not implement a central kitchen? Certainly there are costs involved, both in terms of cost outlay and cost savings. There may be tangible benefits of the system such as improved food quality, increased choice for students, and improved consistency of product. Will the benefits outweigh the costs? Are these benefits to the school district more important than another capital investment that the district might make?

In making capital budgeting decisions, a proposed investment of capital will be examined to determine if it is worth more than it costs. There are three screening models that may be used to assist in making the economic/financial decision: payback, net present value, and internal rate of return. The results of the calculations derived from these models are used in the ranking process of projects when there is competition for funds.

**Payback Period.** The payback period is the length of time that it will take cost savings to offset the investment made in building or renovating a central kitchen facility. It is the time that it will take to “pay” back the investment. For example, if a central kitchen costs \$4 million initial investment, and the school district is able to save \$450,000 a year, the payback period is 8.9 years.

This method of evaluating a financial decision is limited in that it does not take into account the time value of money, the salvage values of the assets, or the cash flow beyond the payback period. Thus, this should not be the only evaluation method used in making a substantial capital investment.

**Net Present Value (NPV).** The net present value represents the difference between the market value of an investment and its cost. NPV is an evaluation method that uses the time value of money concept in analyzing cash flows. It evaluates the present value of cash outflows (costs) in relation to the present value of cash inflows (revenue). The net present value is calculated using the following variables: present value of the cash outflows (including initial costs), cash inflow, life of the project, salvage rate, and discount rate (usually the current market rate). If the resulting NPV were positive, the investment would be a good one. If it were negative, it would not be a good investment.

**Internal Rate of Return (IRR).** The internal rate of return is the “rate of return that will make the future stream of cash inflows equal to the outflows” (Sneed & Kresse, 1989). The IRR is an alternative to NPV. In the IRR model, the equation will yield the cost of capital. The present value of cash outflows, cash inflow each period, time period, and life of the project all are part of the formula for calculation. For example, for an investment of \$100,000 there is a return of \$115,000 for an IRR of 15%. The higher the IRR percentage, the higher the ranking or the better the investment. Results of NPV and IRR calculations would lead to the same decision.

The district’s school business official (or an accountant) typically would calculate models that they use for making capital expenditure decisions. Rankings for the selected models would be used in making the decision about which investment should be made. The school foodservice director needs to know that these calculations may be used for decision-making and should consider financial implications when proposing projects.

## **Other Financial Considerations**

**Historical and Projected Costs.** Consideration of the historical and projected costs should be made within the context of the goals and objectives of the project. For example, in a district that is growing rapidly the projected costs might make the project financially feasible. The feasibility study would use current costs as a baseline and make projections for costs using the new system. This would provide a good comparison for making a decision about the system’s feasibility in the long run. A consultant often is used to develop pro forma statements (see Chapter 4) that would be used in the decision-making process.

**Dealing with “Sticker Shock”.** The total cost for building and equipping a central kitchen is in the millions of dollars. Earlier examples provide some idea about the costs that would be incurred. For many school foodservice directors that number can be daunting. Because the expense is high, the initial feasibility study and thorough

development of pro forma financial statements is critical to have appropriate numbers to make the financial decision on whether or not to build the central kitchen.

**Equipment Maintenance/Replacement.** Equipment maintenance would begin immediately, and long-term plans are needed for equipment replacement. These costs will have to be supported within the budget of the school foodservice operation.

**Computer Upgrade.** Computer systems will be critical for the efficient operation of the centralized foodservice operation. Functions such as inventory control, production planning, recipe adjustments, food orders from the schools (satellites), and financial record keeping depend on computerized systems. An integrated system should be purchased and supported to increase the efficiency of operation and provide the control necessary for a large facility.

**Learning Curve.** There will be a steep learning curve for any new centralized foodservice system for both managers and employees. It may take some time to use the system to capacity. Thus, the operation may not be as financially successful in the first year as it will be in subsequent years. Efficiencies in inventory, production, and other areas will occur as the system is used and employees gain experience.

#### **Case in Point**

Jefferson County, Kentucky Public Schools began using their cook/chill system for producing a few items. Each month they add new items. This allows time for employee learning and product and process testing.

## **Funding the Project**

Federal and State rules and regulations provide guidance for determining funding options for centralized foodservice projects. The Federal regulation, 7 CFR Part 210.14 Resource Management, specifies that “school food authorities shall maintain a nonprofit school foodservice. Revenues received by the nonprofit school foodservice are to be used only for the operation or improvement of such foodservice, except that such revenues shall not be used to purchase land or buildings, unless otherwise approved by FNS, or to construct buildings.” Thus, the cost for building the facility usually is covered by bond issues. Often, equipment is purchased using school foodservice funds.

In addition, there are State rules and regulations that vary from State to State. When planning a new facility, the school foodservice director should contact the State agency and confer with State agency staff regarding funding options. Under some

circumstances, a school foodservice director can petition the State agency for approval for use of funds. The State agency often will forward a request to the USDA regional office to obtain approval for spending funds on building or equipping a new facility. If there are ever questions about allowable expenditures, the State agency should be contacted.

## **New Costs to School Foodservice**

When a school foodservice director decides to centralize food production in the district, often a new central kitchen is built or renovated in a location that is separate from schools and other school district operations. This means that some new costs will become the responsibility of the school foodservice department. Prior to centralization, foodservice might pay an overhead fee that would include many of these costs. After centralization, the department may be responsible for paying all of the expenses of operating their own building. The following items will be included in the “other direct costs” of the operating budget:

**Utilities.** Electricity, gas, and water expenses will be direct expenses of the school foodservice operation. Controls may need to be established for each of the utilities to maintain the lowest costs possible.

**Insurance.** Insurance will be needed to cover the building in case of a catastrophe such as fire, flooding, hurricane/tornado, and other damage. Liability insurance for the building will be needed to protect against falls or other personal injury.

**Building Repairs.** There will need to be building repairs and maintenance to keep the building in good operating condition.

**Transportation Costs.** There are many transportation costs including the costs of drivers, trucks, insurance, tires, lube, gasoline/diesel, inspections, etc. In addition, carts and other transportation containers will be needed.

**Packaging Materials.** Whether the food is transported in bulk or pre-plated, additional containers and wrapping materials will be needed and will add to the cost of the operation.

**Pest Control.** An integrated pest management program will be needed. The school foodservice director would contract for the services of a licensed, certified, and reputable pest control operator to implement pest control procedures. This service would be an ongoing cost of the operation.

**Security System.** A security system may be needed for a free-standing central kitchen, and the related costs for maintaining the system would be included in the operating budget.

**Snow Removal.** In climates that have snow, a plan for snow removal must be in place. Often, the school foodservice department will have a contract with an independent company to handle snow removal.

**Landscaping.** Free-standing central kitchens need landscaping and lawn care. These services may be contracted to an outside company.

**Cash Handling.** Cash handling procedures will need to be determined. Cash receipts may be sent to the central kitchen administrative staff for processing. Some large school districts even have an armored car pick up cash deposits.

**Refuse Collection.** There are costs involved in removing waste from the facility. This cost has increased due to the limited landfill space. Plans should be in place for source reduction and recycling of waste as measures to decrease refuse collection costs.

**Uniforms.** Uniforms likely will be used in central kitchens, and the cost will be part of the foodservice budget.

## References

Ross, S.A., Westerfield, R.W., & Jordan, B.D. (2000). *Fundamentals of corporate finance*. Boston: Irwin McGraw-Hill.

Sneed, J., & Kresse, K.H. (1989). *Understanding foodservice financial management*. Rockville, MD: Aspen Publishers, Inc.

Thibadoux, G.M. (1988). Capital budgeting. In Apostolou, N.G., & Crumbley, D.L. (Eds.), *Handbook of governmental accounting and finance* (pp. 3.71–3.99). New York: John Wiley & Sons.

