# Rx for a Healthy School Nutrition Program 

By Julie Boettger, RD, Ph.D.

By any measure, school nutrition programs are big business, spending more than $\$ 18$ billion in fiscal year 2008, according to the National Center for Education Statistics (Zhou 2009). Even small districts typically have school nutrition program budgets in excess of $\$ 1$ million.

With today's intense public scrutiny of school nutrition programs, it is imperative that school administrators have a clear vision of what a successful school nutrition program looks like and the means to measure their program against this standard. With the right metrics and a leader willing to make the necessary adjustments to put a failing program back on the right path, program stakeholders can be confident that school nutrition funds will be well spent.

School nutrition directors face challenges on many fronts, from changing nutrition standards to addressing community interest in sustainability and local food sourcing. Programs are constantly changing to meet these new demands. How do you, as a school business administrator, know which changes will affect your school nutrition program positively? The answer may lie in a new approach to decision making.

Data-driven decision making is a familiar catchphrase in education these days, but it is less familiar in the realm of school nutrition. Data-driven decision making is aptly defined as using operational data, such as program participation rates, cost ratios, or productivity standards, to inform decisions about planning and implementing change. Operational data that track the most


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important aspects of your operation are also known as key performance indicators (KPIs).

School nutrition programs typically are data rich thanks to point-of-sale systems and myriad regulations that require data collection. Considerable time and money are spent collecting data but less are spent analyzing data to make good decisions. We have become data rich and information poor.

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Instead of relying strictly on experience and instinct for predicting and measuring the effect of decisions, school business officials can use KPIs to benchmark and measure results. Calculating KPIs for groups such as students, schools, or items allows administrators to determine which schools, groups of students, or menus are problematic so they can apply remedies in the right areas.

## Assessing Program Health

What are the key performance indicators for school nutrition programs? Although many metrics could be considered, seven KPIs will give you a clear picture of your program's health.

1. Participation rate is an indication of meal acceptability. Decisions such as changing menus to accommodate new nutritional standards can be made by determining the effect on participation rates. Looking at participation by meal status can provide additional information.

For example, if few students who pay full price for meals are participating in your program, are meal prices too high for the perceived value or are more desirable á la carte offerings siphoning away students? Often this type of rich information is buried in summary data.

What is an acceptable rate of participation? Many factors influence participation rates, including menu selections, attractiveness of dining areas, open campuses, competitive food sales, and free-reduced percentage. How do you compare with other districts of similar demographics?
The School Nutrition Association polls its members each year and publishes participation rates in its annual School Nutrition Operations Report (SNA 2009). For 2009, the association reports that the top $25 \%$ of districts with the highest participation serve $69 \%$ of elementary students who pay full price for
meals, whereas $86 \%$ of students who qualify for free or reduced-price meals participate. Participation drops off in secondary schools where $53 \%$ of paying students and $72 \%$ of free-reduced price students participate in the lunch program.
2. Labor cost is affected by wage rates and staffing. Total labor cost ratios provide administrators with a picture of how much of total program revenue is devoted to compensating staff, but they do not tell you if you are staffed appropriately. Keeping food and labor between $80 \%$ and $85 \%$ of revenue allows school nutrition programs to keep facilities up-todate and engaged in such activities as marketing and nutrition education that encourage students to participate in the program at higher levels.
3. Food cost is affected by many factors, including menu selections, competitive purchasing practices, buying power (e.g., district size or participation in a purchasing cooperative), accurate forecasting, and control of waste. Because the cost of food is variable, it is important to control cost before increasing participation or the program will lose money on each additional meal sold. Food cost, including the fair market value of commodities, should be kept at $40 \%$ or lower, especially when labor cost is high.
4. Productivity measurements are a better indication of whether schools are overstaffed. Typically, in areas where labor rates are high or generous benefit packages have been provided to employees, productivity targets need to increase in order to keep labor costs at $45 \%$ or lower. Optimum productivity levels depend on the number of meals produced, the number of menu selections, and the type of production. Most programs should maintain a minimum target of 18 meals per labor-hour.
5. Inventory on hand is another factor affecting food cost. Low inventories reduce theft and spoilage and increase cash balances as money remains in the bank earning interest instead of sitting unproductively on storeroom shelves. Optimal inventory targets are affected by frequency of food and supply deliveries. For sites that receive weekly food and supply deliveries, schools should maintain no more than seven days of food and supplies on hand.
6. Cost-to-revenue is the most popular metric. School nutrition programs are expected to break even, which, in practical terms, never really occurs. Planning to make a modest profit is a more realistic goal. A $97 \%-98 \%$ cost-to-revenue ratio should be maintained in order to keep a fund balance of three months' operating expenses.
7. Revenue per student is another interesting metric that can indicate the program's financial healthespecially when compared with cost per student. Revenue per student is a good metric to compare
schools of the same type or level within the district (e.g., high schools, to determine if they are bringing in a comparable level of revenue).

## Improving Program Management

Many school nutrition directors across the country are already using KPIs to improve their program's management. In 2007, Mary Swift, director of food services for Albuquerque (New Mexico) Public Schools took over a program with a cost-to-revenue ratio of $119.5 \%$. An assessment to recognize and benchmark KPIs for her program identified high food ( $48.9 \%$ ) and labor ( $58.4 \%$ ) costs, as well as low productivity in the high schools (12 meals per labor-hour).

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To rectify the problems, Swift focused on establishing a three-week cycle (repeating) menu with several choices that included items popular with students. Using a cycle menu improved the ability of managers to forecast accurately, reduced inventory levels, and streamlined procurement processes. After reducing food cost, Swift was able to work on labor costs by increasing participation and eliminating positions through attrition. Fiscal year 2009 ended with a fund balance of $\$ 6.8$ million.

Osceola County's (Florida) Campus Grille agreed to participate in two school nutrition initiatives in 2004: Healthier Options for Public Schools and Alliance for a Healthier Generation. In addition, the district implemented a new wellness policy that significantly affected types of á la carte offerings sold in the district. After the pilots ended, nutrition changes were incorporated in menus for all 50 schools in the district, and a oncehealthy fund balance began to erode.

Jean Palmore, director of Campus Grille, sought help to identify sources of the financial problem and to validate some cost-cutting measures being implemented. An assessment of the program found that both food costs ( $45.4 \%$ ) and labor costs ( $54.7 \%$ ) were excessive. In addition to the menu changes, district enrollment had been declining over the previous few years; however, labor had not been adjusted, resulting in reduced productivity.

Palmore and her staff implemented "offer versus serve," allowing students to decline up to two of the five food items offered. This step greatly reduced waste and
consequently lowered food cost. The menus were also reviewed to improve student acceptance. The district implemented new staffing formulas to improve productivity. Food costs for 2008-2009 were reduced to $36.5 \%$ and labor costs dropped to $47.8 \%$.

Lora Gilbert, director of food services for Orange County (Florida) Schools took charge of a program in the midst of change. In 2002, the program was without a director and was facing a $\$ 5.6$ million deficit. An assessment identified low program participation ( $44 \%$ ) and high food costs ( $57 \%$ ) and labor costs ( $45 \%$ ) mainly due to site-based management that allowed all 160 schools to plan their own menus and purchase their own food supplies.

When Gilbert joined the program in 2003, planning operations such as menus and purchasing had been centralized and she was able to regain control of food costs $(43 \%)$. Using benchmarks established during the assessment process, she has been able to work toward an award-winning program that was healthy both nutritionally and financially at the end of 2009.

Gilbert and her staff became "hooked on data," using KPIs to gauge the success of everything from menu changes to revenue-sharing food carts with student groups. Site managers now get timely reports with cost ratios, participation rates, and number of days of inventory on hand, giving them a direct hand in lowering food ( $41 \%$ ) and labor ( $41 \%$ ) costs.

## Forging a Path

A successful school nutrition program may look different from district to district. Some communities may want a program that supports sustainability; others may simply want to feed every child a healthy school meal. The same KPIs may be used to assess programs everywhere even though KPI targets may differ from district to district, depending on the demographics and operating style of the district.

To invert an old adage-if you know where you want to go, you can get there.

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