Foodservice and Meal Management
CASE STUDY #1: Menus and Purchasing (50 points)

Work on this case study with the assigned partner(s). Research the questions following the scenario. You may use textbooks, the library, reputable internet sources, research articles, etc. Submit the answers in a typed format in class on the due date (check the syllabus for the due date). You are expected to do your own original work and reference all resources used. Copying other student’s answers is considered cheating and will not be tolerated. Any students suspected of cheating will be treated following the VT Honor Code guidelines.

Lisa Martino was hired as the new director of Nutrition and Food Services for the Pleasant Valley School System, a suburban school district in Anywhere, USA. Lisa is of Italian background and, having been raised in a family of restaurateurs, appreciates good food and its social aspects. She is a registered dietitian with ten years of experience in school food programs, and is committed to improving the health and well-being of school children.

The Pleasant Valley School District is comprised of ten schools, made up of 5,200 students with the following distribution:

<table>
<thead>
<tr>
<th>Type of School (number)</th>
<th>Number per school</th>
<th>Total students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary K-5 (7)</td>
<td>About 340</td>
<td>2,400</td>
</tr>
<tr>
<td>Middle School 6-8 (2)</td>
<td>600</td>
<td>1,200</td>
</tr>
<tr>
<td>High School 9-12 (1)</td>
<td>1,600</td>
<td>1,600</td>
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Pleasant Valley is an affluent community with over twenty different ethnic groups. The largest ethnic groups include Asian, African American, and Jewish. The community is well educated with 70 percent of the population holding a minimum of a bachelor’s degree, and the majority working in professional positions in industry. Free and reduced meals constitute approximately 15 percent of the population. Parents are very involved in their children’s lives, and this involvement spills over into the schools as well, where parents demand high standards from the schools, participate actively as volunteers, and attend all school-related activities.

Lisa reports directly to the business manager, Joe Johnson. Joe supports the school food program, but is most interested in number-crunching and the bottom line. When he hired Lisa, it was with the understanding that increasing participation in the school food program (historically at 30 percent) was to be her first priority. The school food program (SFP) employs forty-seven people. Each of the schools has a cook/manager who reports directly to Lisa. The distribution of employees is as follows:

- Elementary (3 employees per school plus manager) 28
- Middle School (4 employees per school plus manager) 10
- High School (7 employees plus manager) 8

All production and service personnel, including the managers, are member of Local XYZ Union that bargains collectively for wages and benefits. Food is prepared on-site in each of the schools with the
high school also serving as a central receiving area. In addition, the SFP’s central office staff consists of one administrative assistant who works thirty hours per week.

Lisa is excited about the new National School Lunch Program (NSLP) guidelines stemming from the Healthy, Hunger-Free Kids Act of 2010. She believes these guidelines will help her better meet the demands made by parents but worries about implementing the many changes. Lisa wonders if all the kids in the school district would accept the new menu choices. This is of grave concern to her since Joe had also made it very clear to Lisa that increasing participation in their school lunch program is his primary focus. The last director, in the hopes of increasing participation, implemented a pre-paid meal POS system.

Another concern for Lisa is how commodities can be maximized in her menus if she cannot continue to divert some of the commodity products into convenience items. Each year Lisa received a list of the types of commodity foods that will be available for the next year by the USDA. She accesses this list at http://www.fns.usda.gov/fdd/. Financially, the more commodity products Lisa can use in the menu, the less costly the menu. Common products Lisa would choose in the past included chicken patties, hamburger patties and wheat for pizza dough and buns. Lisa starts to speculate whether she needs to choose different commodity products.

As Lisa plans the menus for the next month, she begins to wonder where to start and how she can possibly satisfy everyone. Additionally, Lisa needs to begin planning her purchasing for next year. The previous director, Jane Sampson, left behind past purchasing records used for preparing Requests for Bid last year. Lisa now needs to determine how much of each product group she will need for the next year. She needs to predict how many students she will be serving to help her determine how much food to order. This is no easy task for Lisa as her long-range goal is to increase participation to 80 percent in the schools, well above the historical rate of 30 percent. In fact, increasing participation was one of the stipulations under which the business manager, Joe Johnson, hired her; he is quite pleased to see that participation has increased to 45 percent at the elementary schools and middle schools over the first two months of the school year. But the high school still has a long way to go at 30 to 35 percent participation. Joe Johnson’s focus is all about the bottom line, so making good purchasing decisions is essential for Lisa.

Before Lisa can estimate the products she needs to purchase from the distributors, she needs to have a firm idea of what her menu will look like. Additionally, she needs to investigate what commodity food items will be available. Lisa is trying to maximize her commodities in ways other than just by diverting products into convenience items. She is wondering if it might be possible to get fresh fruits and vegetables, in addition to the canned ones, through the commodity program as well because one of her goals is to increase fruit and vegetable selections. Just last week at the state School Nutrition Association meeting, Lisa heard a presentation from another director who has a purchasing arrangement with a local farmer. She is wondering if locally grown produce might be more appealing to the students, especially at the middle school. With offer vs. serve the small amount of fruits and vegetables selected by the middle school students is of concern to Lisa.

Jane Sampson had developed specifications for dairy, bread, frozen items, meat, some fruits and vegetables, and paper supplies. However, Lisa needs to develop new specifications for fruits and vegetables as she expands the menu choices offered. In addition, she must develop a specification for the new menu item, fresh chicken strips, as this menu item is replacing chicken nuggets on the menu due to new NSLP nutrition standards.
As she is working through developing the Requests for Bid, Lisa received a phone call from Jennifer Hargrove, the foodservice director in a nearby school district. Jennifer and Lisa know each other well after working together on several committees for the state School Nutrition Association. Jennifer was very excited about an idea she had. “I have been thinking about the problem with food costs. Commodity foods are uncertain at best, and sometimes we don’t get what we ordered. This means we have to go into the market to get food products, which raises food costs. I don’t know how you are doing, but I am having real difficulty coming in under budget, especially since labor and fuel costs are increasing. I wondered if we could get a better price if we bought food and supplies together. I believe the distributors would reduce the cost per unit if we were buying in more volume. I am buying for fourteen schools with a total enrollment of about 7,000 students. You have how many?”

Lisa responded, “I have ten schools about 5,200 students.”

Jennifer said, “Great! Now how much more important would we be to the vendors with 12,000 students per day compared with going into the market separately?”

Lisa thought, “While you’ve been talking I just thought we could involve several more school districts, not just our two. This could really be big! I can see some great opportunities, but there also could be some problems. And I’m also wondering if you’ve given any thought to that presentation we heard last week on working with the local farmers – we might be able to combine together on that as well.”

Answer the below questions and submit in a typed format. In addition to paragraphs, you may use bullets, tables and a numbering system to answer these questions. Be sure to reference any resources you use to answer these questions.

Questions:

1. Describe how the National School Lunch Program (NSLP) operates in the US? (2 points)

School districts and independent schools chose to participate in the National School Lunch Program. When they are enrolled in the NSLP, they get cash subsidies and foods from the U.S. Department of Agriculture for each meal they serve. The schools that participate have to serve lunches that meet Federal requirements and they must offer free or reduced lunches to children who are eligible (“National school lunch,” 2012).

2. What is a free and reduced price lunch? How does an individual student qualify for the free and reduced price lunch for the 2012-2013 school year? (2 points)

Free and reduced price lunch is federally reimbursable meals provided for children from low-income families. Any child at a participating school can benefit from this program. Children who come from families that have incomes below 130 percent of the poverty line are qualified for free meals. For those with income levels between 130 percent and 185 percent of the poverty line are eligible for meals or snacks at reduced prices, with a maximum charge of 40 cents. During the period of July 1, 2012 to June 30, 2013, 130 percent of the poverty level is $29,965 for a family that has four members; 185 percent is $42,643 (“National school lunch,” 2012).

3. What are the changes in the new nutrition guidelines for elementary, middle and high school NSLPs for the 2012-2013 school year? (6 points)

References:

“National school lunch,” 2012. (Published online by the USDA. Accessed on July 1, 2012.)
There are many changes in the new nutrition guidelines for the 2012-2013 school year. Fruits and vegetables are no longer combined as $\frac{1}{2} - \frac{3}{4}$ cups of fruit and vegetables per day. Now, $\frac{3}{4} - 1$ cup of vegetables is required plus $\frac{1}{2} - 1$ cup of fruit per day. No more than half of the fruit offered may be juice and the juice offered must be 100% juice. Vegetables are now divided into five subgroups: dark green, red/orange, beans/peas, starchy, and other. Vegetables must be served daily and each subgroup must be served each week. The meat/meat alternate requirement has gone from 1.5 -2 oz daily minimum to being different for elementary, middle, and high school. The daily minimum for K-5 is 1 oz, the daily minimum for grades 6-8 is 1 oz, and the daily minimum for grades 9-12 is 2 oz. There is a large change in the grains requirement. The weekly grain quantities required at lunch have been reduced. At least half of grains offered during the week must be whole grains. The NSLP is defining a whole grain as having at least 8 grams of whole grain per serving, the product must include FDA’s whole grain health claim on the package, and whole grain must be the first ingredient on the product’s ingredient list. The grains serving has gone from 8 servings per week to 8-9 oz weekly for K-5, 8-10 oz weekly for grades 6-8, and 10-12 oz weekly for grades 9-12. Previously, 1 cup of milk was required daily but a variety of fat content was allowed and flavor was not restricted. Now, 1 cup of milk is still required daily but it must be fat free (flavored or unflavored) or 1% low fat (unflavored). Minimum and maximum calorie levels are now specified, when previously only the minimum was specified. There is now a restriction in which no trans fat can be in any of the foods offered. Sodium reduction is also going to be implemented over time.

All of the following changes were found in the presentation of the final rule PowerPoint on the USDA website: http://www.fns.usda.gov/cnd/governance/legislation/FinalRulePresentation2-2012.pdf (“Final rule to,” 2012).

4. **Describe three purchasing/production challenges for school districts with the new nutrition guidelines? (3 points)**

   a. One challenge is purchasing whole grains. One of the new requirements is making $\frac{1}{2}$ of the grains offered to students whole. Since this was not a requirement before, the grain products previously purchased were probably not whole grain products. It will be a challenge to find whole grain food products that fit the budget and that the students will accept and eat so that the percentage of students who participate in the school food program will increase.

   b. A second challenge is that the school has to use 100% juice, and any juice that the school stores that is not 100% has to go waste, or at least cannot substitute fresh fruit. Also at least half of the fruit must come from fresh fruits, so the school has to find a way to balance its budgets to invest more money on fresh fruits since they tend to be more expensive than those that are not fresh.

   c. The third challenge it that, because of the reduction in sodium intake, the school has to find procurement source that offer foods that contain sodium within the allowance. This change may also affect the methods of cooking those meals.

5. **How could the new NSLP nutrition standards impact student participation in the school lunch program?** Describe two strategies Lisa could use to manage this impact. (3 points)

Students are typically very set in their ways and are likely to not like the new requirements and changes in the school menu. However, if Lisa was able to market the new changes in the food offered and make it appealing to the students, the adjustment could go smoothly and the percentage
of students participating in the program could increase. One strategy Lisa could use is to making the school cafeterias and school food program fun for students. She could implement salad bars in the high school and middle school cafeterias so that students could prepare their own salad and be part of the food preparation experience. The salad bar could offer the five subgroups of vegetables as well as fruit. For elementary school cafeterias, fruits and vegetables could be made fun by offering ways for the students to make their own food. For example, when going through the food line, they could get their fruit with a toothpick and container of yogurt and they could make their own fruit kabob and dip it in yogurt. Thinking of creative ideas to make the student’s food experience fun and interactive will help the students adjust to the changes and will help increase the number of students participating in the school food program. Another strategy Lisa could use is market healthy eating throughout the school and the cafeteria. She could do this by placing colorful MyPlate posters throughout the school as well as posters of famous athletes and celebrities making healthy choices and pictures of healthy foods. In the cafeteria, televisions could be placed and PowerPoint slide shows could be shown with interesting, fun facts about healthy foods, ways to make them enjoyable to eat, and how they benefit the human body. Advertising and making students aware of the benefits of healthy eating is likely to make them more willing to participate and chose to eat the healthier foods they are being offered. In both of these strategies, Lisa should use division of labor and give all of the school foods program employees different tasks for making foods fun and marketing the program to students.

6. What is a pre-paid meal POS system? (1 point)

In a pre-paid meal POS system, the student will be given a Personal Identification Number so that the student and the parent can have an access to the account. The amount of money for meals will be pre-paid by the parent in the form of a deposit into the student’s account (Heimstra, 2012).

7. Describe the entitlement/commodity foods program, how influential it could be in a school foodservice program, and two positives and two negatives it could offer to Lisa’s school district. (4 points)

It is a program initiated by USDA that aims to help American agricultural producers by providing cash reimbursements for the surplus of food products. The food is used to serve meals in schools participating in National School Lunch Program, Child and Adult Care Food Program, and the Summer Food Service Program. Nationwide, 15-20 percent of the school lunches are coming from the entitlement/commodity foods program. Therefore, it is influential in terms of budget saving for a school district (“Schools/CN Commodity Programs”, 2012).

Two Positives:

- This program saves a great amount of the school’s budget on food.
- The entitlement/commodity foods program reimburses the agricultural producers for their surplus that would otherwise go to waste, causing the producers to waste money.

Two Negatives:

- Some bonus foods such as walnuts and blueberries are offered periodically and are dependent on the availability of the agricultural surplus. This poses a problem that certain ingredients that are coming from those bonus foods cannot be guaranteed all year round. Therefore, the schools have to find some substitute for those ingredients or make adequate adjustments to their menus.
Despite the fact that this program offers a list of commodity foods for the schools to choose from, the options are restricted by the availability of the agricultural surplus. Moreover, the foods offered by USDA tend to be canned and frozen foods that can travel long distance and have longer shelf life. The schools will still have to buy many other foods from distributors. All these factors may limit the creativity of the meals.

8. Compute the cash and entitlement food reimbursement changes from the historical school lunch participation rates, to the current participation rates and if there was an increase in the school district participation to 60% for the entire school district. What are other financial implications of this participation increase? (6 points)

a. For these calculations assume:

i. All possible participants for free and reduced meals participated before Lisa started and all continue to participate after the changes in menus.

ii. Of the free and reduced participation, 50% is free and 50% is reduced.

iii. The historical participation rates were 30% in all schools, current rates are the rates that have been recorded for the more recent 2 months.

Assume that an academic year is 180 days for this district, and that the district has complied with new meal requirements.

There is an additional six cents per meal for complying with the updated requirement.

Entitlement and Commodity benefit per meal: 22.75 cents.

Total number of students= 2400+1600+1200=5200

a. Historically:

• Total participation= 5200x30%=1560
• Free lunches participation= 5200x7.5%= 390
• Reduced lunches participation= 390
• Paid lunches participation= 780

Reimbursement for

• Free lunches= ($2.86+$0.06+$0.2275)x390x180(D)=$220954.5
• Reduced-price lunches=($2.46+$0.06+$0.2275)x390x180(D)=$192874.5
• Paid lunches=($0.27+$0.06+$0.2275)x780x180(D)=$78273

Total income= $220954.5+$192874.5+$78273=$492102

b. Currently:

Current participation rate = (2400+1200)/5200x45%+ 1600/5200x{(30%+35%)/2}=41.16%

Total participation = 41.16% x 5200=2140
Since all possible participants for free and reduced meals participated before Lisa started and all continue to participate after the changes in menus, the change in percentage/participation is contributed only by those who pay their lunches at a full price.

The change in participation = 2140 - 1560 = 580

Change/increase in income (only paid lunches) = ($0.27 + $0.06 + $0.2275) x 580 x 180(D) = $58203

Total income = $492102 + $58203 = $550305

c. 60% participation:

Change in participation from the 30%, historically, to the projected 60% participation =

60% x 5200 - 30% x 5200 = 1560

Change/increase in income (only paid) = ($0.27 + $0.06 + $0.2275) x 1560 x 180(D) = $156546

Total income = $492102 + $156546 = $648648

c. With this huge increase in income solely contributed by students paying their meals at full prices, the district now has a larger budget to make renovations to their establishments. From a food-service standpoint, with this increase in budget, the schools can lower the prices of meals for those who have to pay partially or fully for their lunches and invest a larger variety of ingredients, which will attract more students to participate. In addition to that, the schools can buy more locally grown products with the increased budget that will also help improve the local economy.

Information used in this question was found at:


9. Using the new NSLP nutrition guidelines, plan a one-week October menu for the high school. Use the table following these questions for the menu and include appropriate portion sizes next to each item. (8 points)

10. Create a specification for a fresh fruit or vegetable available locally. (1 point)

Specification for Apples:

- Item: Red delicious apples
- Form: Medium, fresh, 100 apples per case
- Quantity: 200 cases (for 12,000 students + other districts hopefully getting involved)
- Quality: U.S. No. 1
- Pricing Unit: $25 per case
- Miscellaneous: Little to no bruising on apple

11. What are Lisa and Jennifer talking about creating? Describe the first four steps they would need to take/consider for this plan. (4 points)
Lisa and Jennifer are talking about creating a purchasing cooperative. A purchasing cooperative is a group of buyers who join together for the purpose of negotiating better purchasing contracts with vendors (Hudson, 2006). The first step they would have to take is contacting the other schools in the district that they wish to get involved with their purchasing cooperative. The second step they would need to take is to collectively view and modify their menus and budgets. Their menus would all need to include the same products and all of the menus need to be up to par with the new regulations. Their budgets would need to be reviewed so that the schools involved in the cooperative could map out how much of the different products they will be buying for each school and make sure that the foods they are purchasing fall into each of the school’s budgets. The third step they would need to take is contacting the distributors and the local farmers they wish to work with and trying to negotiate an agreement in which the distributors and local farmers would reduce the cost of product since they were selling it in a larger volume. The fourth step would be modifying what products are being ordered from the distributors based on what products the local farmers can provide. For example, if the local farmers only grow apples and green beans, the schools would need to make sure they are getting a larger variety of fruits and vegetables from their main distributors and if not they would have to find an additional distributor.

12. Explain two opportunities and two problems that might result from the purchasing plan Lisa and Jennifer are discussing. (4 points)

Two Problems:

- Creating a large purchasing cooperative means that each school will need to modify their menus so that they are all ordering the same foods from their distributors. This could be tricky because each school district operates differently and the school districts vary largely in size. This elaborate modification will be very time consuming and might ultimately end up not working out.
- If the purchasing cooperative ends up working with local farmers, it will likely be difficult for the farmers to provide adequate amounts of food to all of the school districts involved. The cooperative will have to make some sort of back-up plan in which they will be able to receive the same foods that the farmer would normally be providing from another distributor.

Two Opportunities:

- Lisa and Jennifer might be able to purchase products from several large distributors rather than relying only on commodity foods. This way, it is more likely that the schools involved in the purchasing cooperative will get the foods they are asking for because ordering a larger volume of products from large distributors usually leads to improved services and more reliability.
- Since they are purchasing a large volume of products, they are likely to be able to negotiate the prices and increase the variety of foods they are receiving while staying in their budget.

13. How viable do you think a farm-to-school program might be? How does buying local foods for 5,200 differ from buying for 12,000 students? Describe three strategies that could make a farm-to-school program work successfully for Lisa’s school district. (4 points)

To be honest, the farm-to-school program does not seem very viable. Although it is a great idea to have local and fresh foods served in the schools, buying local foods for such a large number of
students would be very difficult. With 5,200 students and only two school districts, it would be easier for the school districts to collaborate on how much for the local foods would go to each school and it would be easy for the farmer(s) to ensure that they have enough products to consistently provide for the two districts. With 12,000 students and more than two school districts, it will be increasingly more difficult to collaborate menus and plan which schools will receive which products and how much product each will receive. It will also be increasingly more difficult for the farmers to ensure that they can provide sufficient products to all of the students consistently.

Three strategies that could make a farm-to-school program work successfully for Lisa's school district:

a. Since the number of students is up to 12,000 and Lisa and Jennifer hope to add more, it is important that they find farmers that produce large quantities of product and have large farms. If several farmers with large farms and large volume of products could be found and agree to work with the schools, the farm-to-school program is likely to be more successful.

b. Working with a farmer cooperative instead of various individual farmers could lead to a more successful farm-to-school program. A farmer cooperative is when farmers join together and pool their resources to develop a group distribution strategy (Kalb & Borron, 2012). If Lisa and the others involved could find a farmer cooperative to work with, they are likely to decrease the price of the product they are buying, receive a wider variety of product since multiple farmers are joined together to provide products, and the consistency of product being delivered is likely to be more consistent in this cooperative setting.

c. A final strategy for having a successful farm-to-school program is to find a distributor that buys from local farms. In this case, the distributor could be one that they are already working with that also can provide local foods. The schools would be able to maintain their existing relationship with the distributor and be able to purchase local food products without the hassle of finding specific farmers to buy from (Kalb & Borron, 2012). The only problem is that, sometimes, distributors that provide this option are hard to find. However, if the schools were able to find a distributor such as this, they could definitely maintain a successful farm-to-school program.

14. Based on your above answers, how should Lisa and Jennifer move forward from here? Justify your answer. (2 points)

From here, Lisa and Jennifer should work on getting the other districts involved in their purchasing cooperative. Once they receive an answer other districts, they should start planning their menus, budgets, and what distributors and farmers they are going to be working with. They need to make sure that the menus they are planning meet all of the new regulations and they should take steps to make the menus appealing to students so that the number of students participating in the school foods program will increase. They need to plan out what products they are going to receive from which distributors and farmers and how much of the various products they are going to be ordering. While planning this aspect out, they need to make sure that they will be consistently receiving adequate amounts of products to be able to feed all of the students what is offered on the menu. They will have to decide how many distributors they are going to buy from and how many farmers they are going to buy from. They will need to determine how they are going to partner with farmers. After all of these initial steps have been complete, the percentage of students who are participating in the school foods program should be monitored throughout the year. If the percentage is not
increasing enough in order to meet the goal of 80%, changes will need to be made. Lisa and Jennifer might have to change which distributors and farmers they are working with, what products they are ordering, what commodities they are ordering, and how they are marketing and advertising the school foods program to students. Hopefully, with all of this extensive planning and hard work, Lisa, Jennifer, and the other school districts will be able to see an increase in the number of students participating in the school foods program!