Participation in the National School Lunch Program (NSLP) has steadily declined over the years, particularly at the high school level. This trend not only negatively impacts the bottom line, it also shows that the program is not achieving its goal of providing nutritionally balanced meals for all of the nation’s school-aged children. It is important for school nutrition (SN) directors and other SN professionals to understand the factors that drive this declining participation trend. Using this information to help in developing strategies to encourage students to eat at least one meal from the nutritional services that are readily accessible to them.

Research conducted by the National Food Service Management Institute, Applied Research Division (NFMI-ARD) showed through a series of focus groups with high school students that students who eat school lunch frequently (three or more times per week) have different concerns from students who eat less frequently (two or less times per week). It was evident that different measurement tools were needed to address these concerns. Two high school lunchtime surveys were developed as a result: The School Lunch Experience Survey and The Non-Participation Survey. An Expert panel of SN directors assisted in pilot testing the surveys and in later developing the High School Student Articulation and Non-Participation Survey Guide. The guide was developed to provide step-by-step instructions for using the surveys and developing action plans framed around the Continuous Improvement Process.

OVERVIEW

The objectives of these studies were to:

- Increase participation by developing and validating The School Lunch Experience Survey to assess the reasons why high school students choose not to eat in the school lunch program at their high school;
- Improve student satisfaction by developing The School Lunch Experience Survey to assess the perceptions of high school students regarding their dining experience and provide SN directors a tool to use for internal benchmarking;
- Develop a step-by-step guide for administering the survey, interpreting results, and creating continuous quality improvement action plans to address student concerns; and
- Provide the surveys and guide to SN directors and other SN professionals in an accessible, downloadable format on the NFSMI Web site.

METHODOLOGY

The research for this study spanned three phases: Focus Groups, Survey Development, and Survey Guide Development. In Phase I, focus groups were conducted with high school students and SN professionals to explore perceptions of school meals and barriers to participation. In Phase II, two survey instruments were developed using qualitative data from Phase I: a survey for high school students who eat school lunch frequently (three or more times per week), and a survey for students who eat two or less times per week. In Phase III, an expert panel of SN directors assisted in developing the survey guide.
Focus Groups
- Eight focus groups of six to 11 participants were completed in four school districts located in different geographic regions as defined by the United States Department of Agriculture (USDA).
- Each school district hosted a pair of focus group sessions, one group composed of high-school students and one composed of SN professionals.
- High-school student focus groups focused on why students chose to eat at or not eat school meals, their definitions of quality, value, healthy meals, and choice, characteristics that they liked or did not like about school lunches, and other expectations and/or concerns they had about school lunches.
- Questions for SN professionals focused on their role in providing a satisfactory lunch experience for the students, perceived reasons for non-participation, and other expectations and/or definitions of quality, value, healthy meals, and other expectations and/or concerns they had about school lunches.
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Survey Development
- Qualitative data from focus groups were transcribed, summarized, and classified into common themes that were the basis for the development of (1) The Non-Participation Survey; (2) The School Lunch Experience Survey; and (3) The School Lunch Experience Survey; The Non-Participation Survey.
- The Non-Participation Survey was designed to identify factors that influence participation and non-participation. The survey includes questions about reasons for non-participation, factors that might influence participation, and demographic information. The survey was pilot-tested with a sample of high-school students and SN professionals.
- The School Lunch Experience Survey was designed to assess the overall experience of school lunch. The survey includes questions about the overall satisfaction with the lunch experience, factors that influence satisfaction, and demographic information. The survey was pilot-tested with a sample of high-school students and SN professionals.
- The School Lunch Experience Survey was designed to assess the overall experience of school lunch. The survey includes questions about the overall satisfaction with the lunch experience, factors that influence satisfaction, and demographic information. The survey was pilot-tested with a sample of high-school students and SN professionals.

Survey Guide Development
- Results from survey development and research-based measures on customer service and continuous quality improvement were used to draft an accompanying resource guide for SN professionals, which referred to research results and interpreted results from the School Lunch Experience Survey and the Non-Participation Survey.
- Seven SN directors participated in a facilitated expert panel meeting to evaluate the draft survey guide for content, readability, and organization. Two high school nutrition directors from each of the four school districts that participated in the original focus groups contributed to the development of the survey guide.

Phase II: Survey Development
- The Non-Participation Survey
- The School Lunch Experience Survey
- Phase III: Survey Guide Development
- Expert Panel of SN Directors

Results
- The focus group discussions with high-school students revealed that SN programs have two distinct types of high-school students: those who eat school meals frequently (at least three times a week) and those who eat school meals infrequently (less than three times a week or about three times or less per month). It is evident that these two groups have different perceptions and concerns about participation in the NLPC.
- Reasons provided by students for non-participation were categorized into eight themes: (1) lack of choice, variety, and options; (2) taste, appearance, and freshness; (3) customer service and attitude toward work, because these contribute to the dining experience and satisfaction of students who eat lunch three or more times per week.
- Two sets of pilot tests were conducted to refine and validate the surveys.

Phase I: Focus Groups
- High School Students
- SN Professionals

Survey Guide Development
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Focus Groups
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Validated Surveys
- High schools that participated in the survey pilot tests were chosen for their variation in demographics in relation to enrollment, average daily participation in the NSLP, free and reduced price percentages (high or low), location (rural, suburban, urban), and LEA region (Missouri, Mountain Plains, Midwest, Northeast, Mid-Atlantic, Southeast, and Southwest).

The Non-Participation Survey
- Factor analysis showed that low participation can be attributed to six key issues. Operationally controllable issues included food quality, staff, and access to food. Issues external to the SN program included seating capacity of facilities, food brought from home, and schoolwork.
- The foremost factor influencing participation is "Food Quality," which addressed the tangible characteristics of the food (e.g., appearance, taste, aroma), food choices, and overall quality.
- The next most important factor affecting participation was "Food Access," which referred to the appropriateness of serving portions and the availability of food throughout the serving period.
- "Dining Area Capacity" or the available dining space and seating also affected the students' decision to eat school lunch.
- "Food from Home" showed that some students prefer not to eat school lunches because they prefer to eat at home and bring their own lunches.
- "Staff," included the interaction and behavior of the staff toward students. Interestingly, students attribute the cleanliness of the dining area to staff rather than considering it a general characteristic of the dining space.
- "Schoolwork," although not a strong predictor, indicated that academic responsibilities for some students took precedence over choosing to eat lunch in the cafeteria.
- Students stated that they would be more likely to participate if they saw improvements in the following attributes: overall quality of the food, variety of menu items, and proper doneness of menu items. In addition, results indicated that students' evaluation of their overall dining experience of high school students factor toward the students. Interestingly, students attribute the cleanliness of the dining area to staff rather than considering it a general characteristic of the dining space.
- Results indicated that the top five reasons for eating school lunch frequently (at least three times a week) and those who ate school lunches two or less times per week were the basis for the development of (1) convenience, (2) hunger, (3) good value, (4) food quality, (5) food preference, (6) socialization, and (7) having no other choice.

Table: Program Demographic of Participating High Schools

<table>
<thead>
<tr>
<th>Program Demographic of Participating High Schools</th>
<th>The Non-Participation Survey</th>
<th>The School Lunch Experience Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of high schools surveyed</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td>Number of surveys completed</td>
<td>940</td>
<td>281</td>
</tr>
<tr>
<td>Number of usable surveys</td>
<td>854</td>
<td>1,221</td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min.</td>
<td>Max.</td>
<td>Min.</td>
</tr>
<tr>
<td>Enrollment</td>
<td>371</td>
<td>2,224</td>
</tr>
<tr>
<td>Average Daily Attendance</td>
<td>83%</td>
<td>97%</td>
</tr>
<tr>
<td>Average Daily Participation (ADP)</td>
<td>6%</td>
<td>94%</td>
</tr>
<tr>
<td>Percentage of student eligible</td>
<td>0%</td>
<td>66%</td>
</tr>
<tr>
<td>Food</td>
<td>4%</td>
<td>20%</td>
</tr>
<tr>
<td>ACF (per school category)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free</td>
<td>50%</td>
<td>90%</td>
</tr>
<tr>
<td>Reduced (p)</td>
<td>4%</td>
<td>60%</td>
</tr>
<tr>
<td>Paid</td>
<td>-3%</td>
<td>70%</td>
</tr>
<tr>
<td>Lunch price</td>
<td>Free</td>
<td>$2.25</td>
</tr>
</tbody>
</table>
The foremost factor influencing participation is whether or not a student eats school lunches frequently. Section II provides SN professionals a quick snapshot of key factors that may influence the student’s decision to start eating school lunches more frequently. Students are asked to use the phrase “I would be more likely to eat school lunches if…” before each of 13 statements, rating their level of agreement by using the scale 5 (strongly agree) to 1 (strongly disagree). Section III includes demographic information to further understand trends within subgroups of students.

of 27 statements about SN program attributes and indicate their level of agreement with each statement by using a 5-point scale, ranging from 5 (strongly agree) to 1 (strongly disagree). Section II provides SN professionals a quick snapshot of key factors that may influence the student’s decision to start eating school lunches more frequently. Students are asked to use the phrase “I would be more likely to eat school lunches if…” before each of 13 statements, rating their level of agreement by using the scale 5 (strongly agree) to 1 (strongly disagree). Section III includes demographic information to further understand trends within subgroups of students.

• Program reliability reflects student expectations on the delivery of food and services in a consistent, timely, and reliable manner.
• Staff responsiveness and empathy include student concerns regarding staff attitudes toward work, service efficiency, and staff behavior toward students. Results suggest that SN directors and managers should also focus on staff friendliness and attitude toward work, because these have the greatest effects on the students’ evaluation of the overall-service-quality.
• The top five reasons for not eating school lunch were: “I am hungry,” “I didn’t bring anything to eat,” “It’s inconvenient,” “I have no choice,” and “My friends eat school lunches.”

The validated questionnaire is composed of three parts. Section I provides student perceptions of specific program characteristics that contribute to the dining experience of high school students. Students are instructed to use the phrase “When I eat school lunches…” before each of 24 statements about SN program characteristics and indicate their level of agreement with each statement by using a 5-point scale, ranging from 5 (strongly agree) to 1 (strongly disagree). The last three statements provide an overall evaluation of food quality, service, and student dining experience. Section II asks students to choose the top five (out of 16) statements that influence the decision to eat school lunches frequently. Section III includes questions on grade level, frequency of eating school lunches, and gender.
Survey Guide Development
Based on expert panel discussions and evaluations, guidelines for planning and administering the surveys were developed. The Web-based module, High School Student Satisfaction and Non-Participation Survey Guide: Internal Benchmarking for School Nutrition Programs, contains seven sections that are designed to guide the SN director and/or manager through the survey process.

**PRACTICAL USE OF THIS INFORMATION**

Use of the Web-based resource and implementation of the survey will aid SN professionals in establishing performance benchmarks and improving their programs based on customer feedback. Planning and administering the survey may take considerable time, effort, and coordination. However, the resources provide a launching point for creating improvement plans that will focus on key factors that may influence student participation in the NSLP and their perceptions of and satisfaction with their school lunch experiences.

- **The Non-Participation Survey** is appropriate for programs that have very low rates of participation or have low participation among free and reduced-price eligible students. It is important that strategies be developed to promote the program and benefit the eligible students. SN directors must prioritize which factors to address based on student feedback and the SN team’s ability to change these at the local level.
- **The School Lunch Experience Survey** is appropriate for programs that already have high rates of participation in the high school level and would like to retain students by increasing customer satisfaction. The survey is also suitable for programs that have low potential for growth (e.g., the cafeteria is not equipped to support a large increase in participation; but would like to keep students who already participate). In addition, the survey would be useful for programs that have large percentages of paying students at the high school level.
- **SN professionals can use information gathered from The School Lunch Experience Survey to focus marketing efforts on promotional messages that will support the reasons why high school students choose to eat school lunches. A few examples of doing this are illustrated below:**
  - **Highlight that although high school students may not have the choice to leave campus, the SN program currently provides them a wide variety of lunch options when they participate in the NSLP.**
  - **For students whose main reason for participating is that their friends eat school lunches, promote the school lunch as an opportunity to engage in a social dining experience. In addition, design and/or decorate the dining area to support socialization among students.**
  - **Focus on marketing the convenience and variety that the SN program offers versus trying to market the “balanced meal.”**

**Introduction** provides a brief overview of the resource and the benefits of conducting the customer service surveys.

**Planning for Survey Administration** provides the SN director and/or manager guidance for choosing members of the survey team, timing of surveys, and frequency of survey administration.

**Survey Options** describes The School Lunch Experience Survey and The Non-Participation Survey, and provides guidance for deciding which survey to utilize and how to select participants.

**Administering the Survey** contains instructions for the SN director and/or survey team to refer to as they go through the survey process from planning to the day after the survey is completed.

**Tabulating and Interpreting Results** provides step-by-step instructions for using the Microsoft Excel templates.

**Developing a Customer Service Action Plan** Using the Continuous Quality Improvement Process provides instructions for utilizing survey results to develop improvement plans.

**Appendix** includes copies of the surveys, parental consent templates, student asset statements, and names to principals and/or teachers for surveys.

**Authors**

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The National Food Service Management Institute, Applied Research Division, located at The University of Southern Mississippi with headquarters at University, MS: National Food Service Management Institute.

The guide was developed to provide step-by-step instructions for using the surveys and developing action plans framed as an opportunity to engage in a social dining experience. In addition, design and/or decorate the dining area to support socialization among students. Focus on marketing the convenience and variety that the SN program offers versus trying to market the “balanced meal.”

- **Increase participation by developing and validating surveys with students.**
- **Provide the surveys and guide to SN directors and Satisfaction and Non-Participation Survey Guide.**
- **The guide was developed to provide step-by-step instructions for using the surveys and developing action plans framed as an opportunity to engage in a social dining experience. In addition, design and/or decorate the dining area to support socialization among students. Focus on marketing the convenience and variety that the SN program offers versus trying to market the “balanced meal.”**

- **High school student satisfaction and non-participation survey guide: Internal benchmarking for school nutrition programs**

**Information about this and other topics may be obtained by contacting the NATIONAL FOOD SERVICE MANAGEMENT INSTITUTE**

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