



HIGH SCHOOL FOODSERVICE SURVEY: A CONTINUOUS IMPROVEMENT TOOL

A PUBLICATION FOR CHILD NUTRITION PROFESSIONALS FROM THE NATIONAL FOOD SERVICE MANAGEMENT INSTITUTE

OVERVIEW

Child Nutrition Programs (CNP's) today are competing with fast foods, vending machines and competitive food sales for school lunch participation. To be successful, school foodservice and nutrition programs must maintain a sound customer base and financial stability. In today's changing market, the wants and needs of the customers must be met. To do this, a continuous improvement cycle is frequently used. A continuous improvement cycle often called Continuous Quality Improvement (CQI) or Quality Improvement involves: identifying wants and needs by asking the customer, setting priorities for improvement, implementing plans for program enhancement and verifying that enhancements meet the wants and needs of the customer by asking the customer.

Surveys are frequently used tools for asking a large number of customers their opinions. Many businesses today, large and small, use surveys to gather customer opinions as part of their continuous improvement programs. However, a valid and reliable survey is time consuming to develop. As a result, the National Food Service Management Institute (NFSMI), Division of Applied Research initiated a multi year project to develop school foodservice surveys to measure student satisfaction. The first phase was the development of a high school survey.

Another time-consuming task in the survey process is compiling the survey results. There are many different methods of analysis for sorting survey data. Many school foodservice (SFS) directors/supervisors or school districts may not have the time or expertise to do the analysis. The Division of Applied Research realized the need for a service to help with this function. Foodservice Analysis & Benchmarking Service (FABS) was begun to help SFS director/supervisors with the task of analyzing and interpreting survey results.

RESEARCH

CNP's today are much different from those of 1946 when the school lunch program was first federally funded. The primary customer has shifted from parents and administrators to students. Students today are more sophisticated and are exposed at an earlier age to a variety of types of food. They grew up in an environment of fast food restaurants and food courts. Choices have become the norm rather than the exception. To keep pace with the changing market, school foodservices must continuously adjust to the wants and needs of the customer. This involves continuously asking the students such questions as "How happy are you with the school foodservice and nutrition program?", "What one thing do you like best about your school foodservice and nutrition program that you would never change?" and "If you could change one thing about your school foodservice and nutrition program, what would it be?"

SFS director/supervisors wear many hats in the work environment of today. The development of continuous improvement tools is very time consuming. The development of a valid and reliable student foodservice survey is a multi step process. Many SFS directors/supervisors do not have time in their busy schedules to develop such an instrument. As a result, the National Food Service Management Institute (NFSMI), Division of Applied Research has begun a multi phase project to develop student foodservice surveys. The first to be developed was the high school survey.

OBJECTIVES

- To determine whether the same survey could be used for high and middle/junior high school students.
- To determine if student satisfaction is related to participation in high school foodservices.

METHOD

It is important in applied research and continuous improvement to focus on the customer. To ensure a student focused survey was developed, the Division of Applied Research began by asking a group of high school students to discuss "What characteristics contributed to an 'ideal' school cafeteria." Students ranked fresh clean food as the most important; second as a clean cafeteria, and tied for third were: nice staff, no long lines and good variety. The student identified characteristics were the basis for the development of survey questions. The first pilot survey was composed of ninety questions. This survey was tested with 150 high school students from selected districts in Wisconsin, Mississippi, and Massachusetts and 150 middle/junior high students from selected districts in California, Wisconsin, Massachusetts, and Mississippi. Statistical analysis showed a significant difference in the characteristics important to middle/junior high students and those important to high school students.

One unique difference in middle/junior high students was the direct relationship between satisfaction and sitting with their friends. This relationship is probably because in many middle/junior high schools students frequently sit with a scheduled class rather than having open seating that allows them to sit with their friends. As a result, it was decided there was enough difference between middle/junior high and high school students to develop a separate middle/junior high school survey. The middle/junior high survey is in the development stage.

HIGH SCHOOL SURVEY

The survey was revised and shortened based on statistical analysis of the first test. The second pilot survey was composed of fifty-one questions. The survey was conducted in selected districts in Texas, California, Kansas, Delaware, and Alabama. A statistically valid sample was gathered from each school, totaling 1217 students. Based on data, the survey was again revised and shortened. A final computer scan survey composed of thirty eight questions and a comment sheet with two open ended questions is available through the NFSMI Sales and Distribution Office.

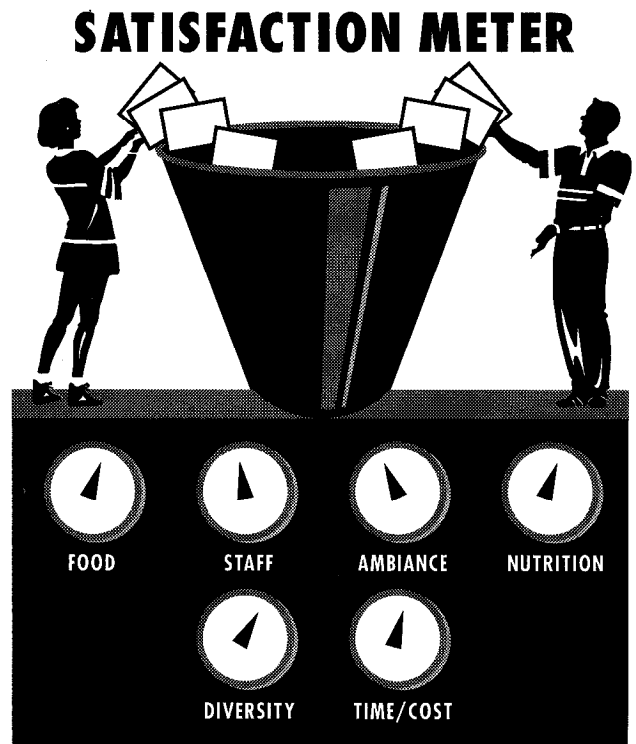
WHAT STUDENTS WANT IN A SCHOOL FOODSERVICE AND NUTRITION PROGRAM?

Six broad categories called factors were identified by students as being important in a school foodservice and nutrition program. The six factors are: food quality, staff, nutrition, diversity, time/cost and dining ambiance.

WHAT MOST HIGHLY INFLUENCED SATISFACTION?

Another statistical analysis was used to determine which questions most highly influenced the students' level of satisfaction. These questions were:

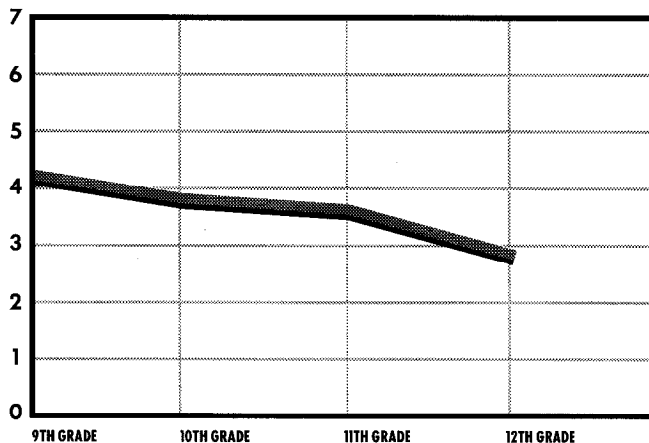
- How happy are you with the variety of food offered
- The flavor of the food is
- Foods on the serving line are attractively presented
- School foodservice prices are reasonable for what I get
- The choices of food allow me to meet my ethnic and cultural preferences
- The quality of the ingredients used is
- The appearance of the foodservice staff is



This means that if students were more highly satisfied with these seven questions, they were more highly satisfied overall with the school foodservice and nutrition program. Four of the seven questions are from the factor food quality. This shows that students are concerned with food quality, however, this is not the only variable influencing satisfaction. Students today are also concerned with the appearance of the staff and food as well as being able to meet their cultural and ethnic food preferences.

FIGURE 1

OVERALL SATISFACTION BY GRADE



WHICH AGE GROUP IS MOST SATISFIED WITH THE FOODSERVICE AND NUTRITION PROGRAMS?

Analysis showed that as students moved from the 9th grade to the 12th grade their satisfaction decreased (*Figure 1*). To 9th graders the foodservice of the high school is new and something different from middle school. As students move up in grades, they frequently tire of the menu and atmosphere of the high school foodservice. By the time students become seniors, they are anxious to experience the freedom of adulthood.

DO STUDENTS WHO FEEL THEY HAVE A CHOICE AND EAT FREQUENTLY (3-5 TIMES PER WEEK) EVALUATE THE FOODSERVICE THE SAME AS THOSE WHO NEVER EAT?

Students who never eat and eat frequently evaluated the foodservice much differently. A significant difference was found in how they rated dining ambiance, food quality and staff.

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FIGURE 2

FACTOR
SCORE
COMPARISON

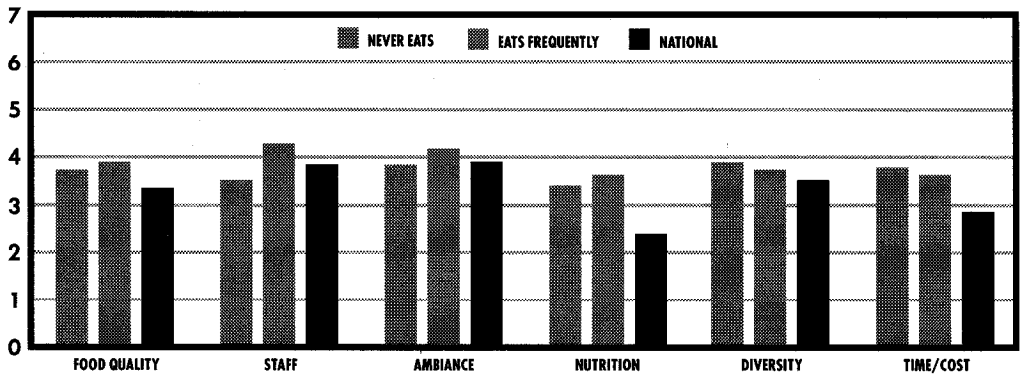


FIGURE 3

FACTOR
SCORE
COMPARISON
1997
SCHOOL
VS.
NATIONAL

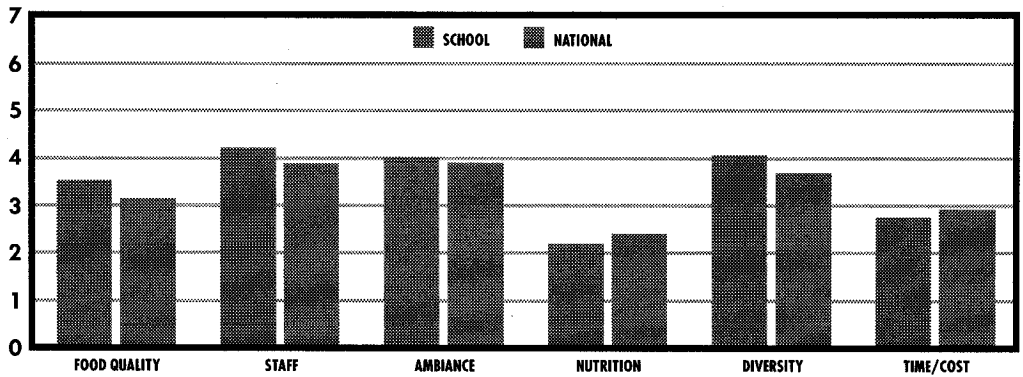


FIGURE 4

DISTRICT
COMPARISON

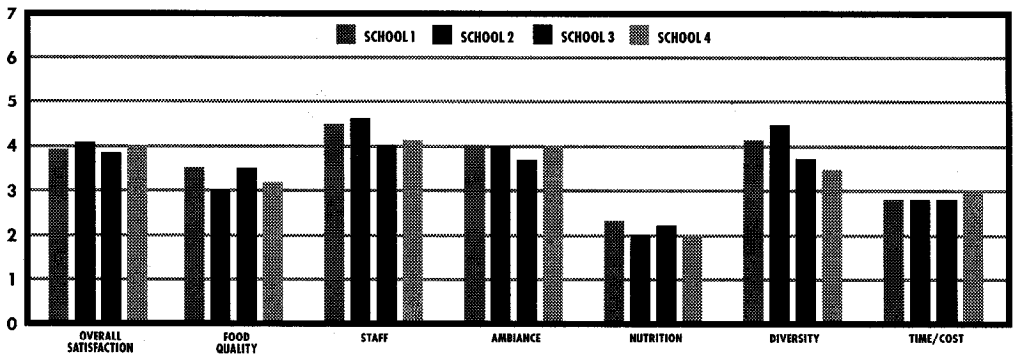
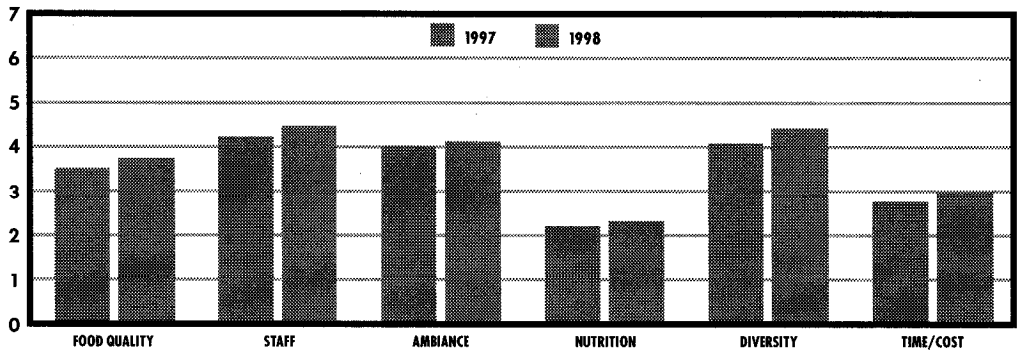


FIGURE 5

FACTOR
SCORE
COMPARISON

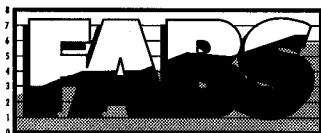


IS SATISFACTION RELATED TO PURCHASE BEHAVIOR?

Students who eat frequently rated the foodservice higher than students who never eat in the foodservice. These data are consistent with other studies in the foodservice industry that showed satisfaction leads to purchase behavior (Cronin & Taylor, 1972).

DO STUDENTS WHO 'HAVE A CHOICE OF EATING IN THE FOODSERVICE' EVALUATE IT DIFFERENTLY FROM THOSE WHO FEEL THEY 'HAVE NO CHOICE'?

A large difference was found between students whose 'parents made them' or 'they had no choice' based on the question "The number one reason I eat food served by school foodservice is?" Students who felt they 'had no other choice' answered the survey differently than those that felt 'they had a choice'. Results showed that if they could not choose to eat, they were less satisfied with the school foodservice and nutrition program. The large difference was felt to be due to the physiological effect of not having a choice. ■



**FOODSERVICE
ANALYSIS &
BENCHMARKING
SERVICE**

A Service Provided by the Division of Applied Research
National Food Service Management Institute

Sifting through the data from a survey can be a monumental task. Many SFS director/supervisors may not have the time or feel qualified to complete this task. School districts may not have the equipment to electronically scan computer surveys or data processing departments to assist with analysis of foodservice surveys. Realizing these limitations, the Division of Applied

BENCHMARKING PROVIDES AN OPPORTUNITY FOR SFS DIRECTOR/SUPERVISORS TO COMPARE THEIR SCORES WITH SIMILAR SCHOOLS IN A REGION OR NATIONALLY.

Research instituted the Foodservice Analysis & Benchmarking Service (FABS). This is the only service of its kind designed especially for school foodservice. This service is priced on a cost recovery basis, to allow even small schools to be able to afford the service.

FABS WILL PROVIDE:

- Average score for each survey question
- Average factor scores derived through statistical analysis (Figure 2)
- Comparisons with similar schools in a geographical area or national averages (Figure 3)
- Identification of factors most important to your students
- Statistical analysis identifying questions correlating most highly with student satisfaction
- A customized letter identifying areas of focus for program enhancement

DISTRICTS SUBSCRIBING FOR MULTIPLE SCHOOLS WILL RECEIVE

- A graph showing school comparisons (Figure 4)

SCHOOLS OR DISTRICTS SUBSCRIBING FOR MULTIPLE YEARS WILL RECEIVE

- A histogram graph comparing data results (Figure 5)

The most exciting part of the service is benchmarking. Benchmarking provides an opportunity for SFS director/supervisors to compare their scores with similar schools in a region or nationally. Average question scores and factor scores may not be very meaningful by themselves. By benchmarking, question and factor scores become more meaningful.

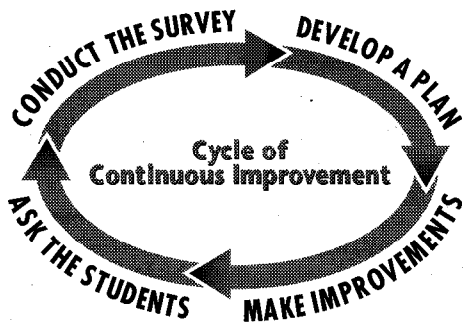
For example, School XYZ in Hometown USA had an average score for food quality of 3.5 on a scale of 1= very unhappy to 7= very happy. The SFS director/supervisor, manager and staff would probably feel they were not doing a good job in satisfying the wants and needs of the students for food quality. But when they knew that national or regional average for schools the same size was 3.8, then they would feel good about what they were doing in comparison to other schools, although there always is room for improvement.

PRACTICAL USE OF THIS INFORMATION

CONTINUOUS IMPROVEMENT

Continuous improvement is a cycle of events without a start or stop. Many successful businesses today are using this idea to make improvements based on customer wants and needs. The first step is to ask customers their opinions about products and services. The high school survey is a tool to ask students their opinions. By asking customers for their opinions you are taking a proactive approach, rather than waiting for customers to tell you. By waiting for customers to tell you, you may only receive the negative comments or none at all. Research has shown that customers may never complain, they just stop eating in your foodservice, thus effecting participation. This is born

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HIGH SCHOOL FOODSERVICE SURVEY: ONE SFS DIRECTOR'S VIEW

When volunteers were solicited to participate in the second pilot test of the NFSMI high school survey, I eagerly volunteered. As a SFS director for a large district in California, it was important for me to hear what my customers wanted. The average daily attendance in the high school I chose to survey was 2,100 students. Because of the relationship I had with teachers of the Consumer Home Sciences and Health Education, I had easy access to a large pool of students in all grade levels. A total of three hundred surveys were completed in six classes. As a return for allowing me to conduct the survey during class time, I agreed to teach a nutrition lesson following the survey in each of the six classes. After the survey and nutrition lesson, the students were encouraged to voice their comments and concerns. I was armed and ready. They were honest and asked good questions about the nutritional quality of the food. They even requested more of the food items they liked.

At first glance, the survey results seemed mediocre and disappointing. But this was largely because, it was the first survey of its kind, I didn't have a comparison. To my delight when I compared my school to the average of all schools participating (national average), my school scored most questions much above the national average. What makes the FABS program truly great is their ability to analyze your data and compare it to similar schools and the national average. One thing the survey showed was that students who eat frequently (3-5 times per week) had a better opinion of the foodservice than those who never eat. The message? Students' expectations and anticipations are for school food to be bad and the cafeteria experience a horror. In actuality, if the students ate there frequently, they had a very favorable impression of their experience.

The experience of conducting the survey in a classroom was a wonderful opportunity to build relationships with the students and showcase the department's responsive attitude toward the customer. Because the survey was conducted in a classroom, students did not revert to behavior typically seen in a less structured environment. It made for a meaningful exchange.

Since the survey, we have focused our energy on two main areas: adding menu items students requested and enhancing the image of the foodservice staff. I have encouraged my managers to spend more time with the students. I feel how we communicate with students has a great influence on how the students perceive the foodservice. My goal is to instill in all four hundred staff a "can do" customer focused spirit.

Using the NFSMI survey and analysis helped us get the maximum from the process. We did not have to spend valuable time developing a survey. The analytical capabilities of the university and availability of the national data base made the service extremely valuable. I am very excited about the survey and FABS. The district has budgeted to do the survey again next year to see if the enhancements we made, based on the survey and discussion with the students, have improved the students' opinion of our food and services.

out by our research that showed students who never eat had a more negative opinion about school foodservice than students who ate frequently. Students who never eat voiced their perception based on limited experiences.

Data from the survey will help you in identifying areas for program enhancement. If the recommended surveying guidelines are followed as outlined in *The Child Nutrition Program Director/Supervisor's Survey Guide*, you will have valuable information on which to make decisions. *The Child Nutrition Program Director/Supervisor's Survey Guide* is also available through the NFSMI Sales and Distribution Office.

Once areas for program enhanced are identified, NFSMI can help you with resources and training materials. A help desk, YHF-LINE (1-800-943-5463), is available to help you with menu planning, purchasing, food preparation, equipment selection, program marketing and managing within your budget. NFSMI also has developed a list of resources organized according to *ASFSA Keys to Excellence*. Other training materials are available through the NFSMI Sales and Distribution Office.

After program enhancements have been made, based on survey results, students should again be asked to decide if the enhancements met their wants and needs. This time, asking the students can be done by conducting a less formal survey of a few questions or an informal round table discussion of a group of seven to ten randomly selected students.

To monitor child nutrition programs regularly, it would be helpful to conduct surveys yearly. Consideration should be given to the time of year and day of the week surveys are administered. Students tire of menus by the end of the school year. If you plan to survey students yearly, early spring, such as March or April, would be recommended. You may be tempted to omit seniors if you are surveying in the spring. Seniors represent a quarter of the school population. By omitting them, you could create a bias in the information gathered. Seniors are a valuable source of information and should be included.

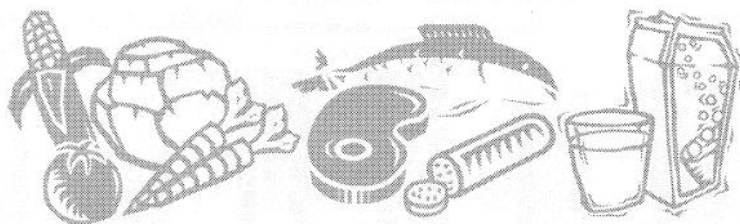
When students are surveyed on a day when a special meal is offered or they are preoccupied with exams, results may be misleading. Tuesday, Wednesday or Thursday when no special activities are planned are good days for conducting surveys.

For further assistance with any materials or information on conducting a high school survey, contact NFSMI (1-800-321-3054).

FOR MORE INFORMATION

RESOURCES:

- Culinary Institute of America. (1993). *Techniques of healthy cooking*. Hyde Park, NY: author.
- Continental Management Consultants. (1991). *Achieving quality in school foodservice: A quality control manual*. Charlotte, NC. (Call No for NAL: DNAL TX945.2.H64)
- Cronin, J. J. & Taylor, S. A. (1972). Measuring service quality: A reexamination and extension. *Journal of Marketing Research*, 7, 315-321.
- Dean, J. W. & Evans, J. R. (1994). *Total Quality Management, Organization and Strategy*. West Publishing Co., New York, NY.
- Oh, H., & Parks, S. C. (1997). Customer satisfaction and service quality: A critical review of the literature and research implications for the hospitality industry. *Hospitality Research Journal*, 20(3), 35-64.
- Meyer, M. K. & Sackin, B. (1997). Does your branding program work? Ask your students. *School Foodservice & Nutrition*, 51(2), 32-36.
- Meyer, M. K., Conklin, M. & Carr, D. (1997). *Child Nutrition Program Director/Supervisor's Survey Guide*, NFSMI-R-28-97, University, MS: National Food Service Management Institute.
- NFSMI. Go For the Gold With Customer Service, NFSMI-ET-9-94, University, MS: author.
- NFSMI. Participation: The Key to Healthy Food Practices, NFSMI-TT030994, University, MS: author.



Information about this and other topics may be obtained by contacting the

NATIONAL FOOD SERVICE MANAGEMENT INSTITUTE

The University of Mississippi

Telephone: 800-321-3054

Order Number R108-97

Author: Mary K. Meyer, PhD, RD. Dr. Meyer is a Research Scientist in the Division of Applied Research, National Food Service Management Institute.

Editor: Martha T. Conklin, PhD, RD. Dr. Conklin is the Director, Division of Applied Research, National Food Service Management Institute, September 1997.

This project was funded at least in part with Federal funds provided to the National Food Service Management Institute at The University of Mississippi from the U.S. Department of Agriculture, Food and Consumer Service under Grant number F33385. The contents of this publication do not necessarily reflect the view or policies of the U.S. Department of Agriculture, nor does mention of trade names, commercial products or organizations imply endorsement by the U.S. government.

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