HOSPITALITY STUDENTS', FACULTY'S AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

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CHAPTER I

INTRODUCTION

A trend is a definite, predictable direction or sequence of events, and it is currently happening as well as developing patterns are being established. Trends are what we need to build long-term proactive strategies, and are used in the present and to forecast the future. It is how events move through time. Although the trend itself is not a prediction statement, but by looking at a trend, predictions can be made about the future.

The most difficult part of futures thinking may be distinguishing between trends, fads, and events. Trends are what we need to build long-term events. Trends have an effect on social, economic, and political events (ADA 1998), and then impact environmental and technological events in the hospitality industry. In contrast, a fad is unpredictable, short-lived, and without social, economic and political significance (Parks 1994).

According to the American Dietetic Association, (ADA), to identify trends one must look at events and watch for a direction or sequence, and ask: Does the event have more than one point or direction? Does a trend impact society in a social, economic or political way? What caused the trend? What likely effects will it have? If the answers are significant, then it is a trend. If the answers are trivial, then it is not a trend (1998).

When looking at the future and attempting to identify trends, Naisbett (1993) suggested that foodservice managers need a more strategic understanding of how "nutrition and health" can be used to position food products in the marketplace. The commercial foodservice industry will continue to provide careers for those interested in combining an interest in foods, international cuisine, and business administration. This combination can be a career path for the foodservice and hospitality management majors who have been prepared with supportive curricula. The hospitality industry continues to experience phenomenal growth, increasing 23 percent faster than the world economy (Ananth & DeMicco 1991).

In America, over 50 percent of the people utilize computers in all jobs (Parks 1998). Managers must be familiar with technology and utilize it to gain maximum benefits for their place of employment. They need to know how to access, acquire, disseminate and evaluate knowledge to stay abreast of current information. To be competitive in a rapidly changing environment will require an unprecedented understanding of the changing hospitality industry.

Eating out is an important element of the American lifestyle and has fostered the growth of the foodservice industry along with the development of a new breed of consumers (Sun 1995a). These customers want social pleasure, eating pleasure, and lifestyle "convenience". While these goals are being met, the customer is conscious of healthy nutritious food consumption, while they demand quality service with good prices and value, convenience, and variety. These are the American consumers' major criteria for selecting a restaurant (Sun 1995b).

According to Rita Storey Grandgenett, Director of Nutrition Services at ConAgra Frozen Foods (1998), there are 10 food trends. These are taste and texture, convenience, home meal replacement, health and nutrition, low-fat/fat free foods with good taste, nutraceuticals, ethnic majority (i.e., California), vegetarianism, marketing, and the Internet and its marketing effects. The ADA (1998) has identified macro trends that affect the foodservice industry: changing demographics, growing globalization, increasing consumer expectations, merging knowledge economy, technological revolution, and the continual changing consumer demands. These trends are very similar to foodservice trends culled from the literature, which are as follows: customer service, merchandising to the diverse customer, quality standards, technology, biotechnology/engineered foods, and healthy nutritious menus.

Turbulent times create both threats and opportunities, and it is necessary to be open to future opportunities. Trends can be classified as threats or opportunities by the faculty, students and managers in the hospitality industry. It is important that the profession stay abreast of the profession's trends. "The key is how to translate trends into new opportunities, and it is important to focus on how important these events are to the profession and to screen out the detractor events" (Parks 1994, p. 844).

An educated person is required in the industry to have knowledge of restaurant and menu trends that can distinguish between what will succeed in their own establishment with their customers and what will not. It is important for the success of each foodservice establishment to please its customers and to exceed their expectations.

If the foodservice industry is to respond positively to this challenge, the views of the next generation of hospitality managers, today's students are of considerable

importance. Few research studies have been reported on this topic. Bruce and Nies (1994) determined the nutrition knowledge level of Texas hospitality students in four-year programs. They studied their perceptions of nutrition and the commercial foodservice's nutrition role. Hamm, Schnaak and Janas (1995) studied hotel and restaurant management students' nutrition knowledge and attitudes at Rutgers University in 1993, while Gowdy and McKenna (1994) studied Irish hospitality students' knowledge and attitudes of healthy eating and how they can be incorporated into the industry. Allen, Cumming, and Woodward (1997) examined Australian hospitality management students and their views on the significance of healthy and nutrition issues in both their personal and professional lives. These studies only focused on a few of the trends specifically knowledge of nutrition, attitudes towards nutrition and healthy eating and how these impact the foodservice industry. It is the goal of this researcher, therefore, to explore the perspectives (attitudes and knowledge) of American foodservice management and culinary art students, faculty, and food and beverage managers towards a more comprehensive set of foodservice trends.

Purpose and Objectives

The purpose of this study was to discover the hospitality students', faculty's, and food and beverage managers' perspective of selected foodservice trends.

The specific objectives were to:

1. Determine the knowledge of hospitality students, faculty, and managers toward six foodservice trends such as: a) Customer Service, b) Marketing to the Diverse Customer c) Healthy Nutritious Menu d) Quality Standards, e) Biotechnology/Engineered Foods, and f) Technology.

2. Determine the attitudes of hospitality students, faculty, and managers toward six foodservice trends such as: a) Customer Service, b) Marketing to the Diverse Customer c) Healthy Nutritious Menu d) Quality Standards, e) Biotechnology/Engineered Foods, and f) Technology.

3. Determine the opinions of hospitality students, faculty, and managers in relation to the importance of the six foodservice trends: a) Customer Service, b) Marketing to the Diverse Customer c) Healthy Nutritious Menu d) Quality Standards, e) Biotechnology/Engineered Foods, and f) Technology.

Hypotheses

The hypotheses postulated in this study were:

$H0_1$ - There will be no significant associations between knowledge scores about foodservice trends and personal variables of age, gender, ethnic origin, years of foodservice work experience, types of foodservice work experience, and if one has taken a college nutrition course.

$H0_2$ - There will be no significant associations between attitude scores toward foodservice trends and personal variables of age, gender, ethnic origin, years of foodservice work experience, types of foodservice work experience, and if one has taken a college nutrition course.

$H0_3$ - There will be no significant associations between knowledge scores toward foodservice trends and institutional variables of level, major, and college.

$H0_4$ - There will be no significant associations between attitude scores toward the foodservice trends and institutional variables of level, major and college.

$H0_5$ – There will be no significant associations between importance ranking of the foodservice trends and the type of respondents: faculty, students, and managers.

$H0_6$ – There will be no significant associations between the perspective, (knowledge and attitudes) of faculty, students, and managers, and their rankings of the foodservice trends.

Limitations

1. This study was limited to 30 randomly selected foodservice and culinary faculty in two-year and four-year programs members listed in A Guide to College Programs in Hospitality & Tourism, A Directory of Council on Hotel and Restaurant Institutional Education, (CHRIE), Member Colleges and Universities, Fifth Edition, (1997), and their students in quantity food production courses.

2. Only 350 representatives were randomly selected from the 1997 National Restaurant Association (NRA), membership list representing nine regional areas.

Assumptions

1. Respondents willingly participated in the study and completed the questionnaires objectively and without bias.

2. A panel of 25 experts (Restaurant Association Presidents and educators from two and four year didactic programs in dietetics) and the research faculty committee examined the survey instrument for content validity, format, and clarity. Therefore the instrument was assumed valid to collect data to answer the postulated hypotheses.

Definitions

Attitude – a person's predisposed favorable or favorable evaluation of a subject based on his or her set of beliefs about that subject (Ajzen & Fishbein 1975, pp. 12, 14).

CHRIE – Council on Hotel and Restaurant Institutional Education is an international professional organization of hospitality educators, and industry representatives in the field of hospitality and tourism whose objective is to stay abreast of

the current goals and concepts in the field (CHRIE 1997).

Foodservice industry – an industry composed of 12 segments or markets: full-service restaurants, quick service restaurants, health care food service, elementary and secondary school foodservice, college and university food service, hotel/motel/resort food service, military and correctional food service, transportation food service, business and industry food service, retail and convenience grocery food service, recreational food service, and contract food service/vending (CHRIE 1997; NRA & Knapp 1996).

Hospitality - means welcome, friendship, comfort and gracious service. It includes the idea of extending friendship to others and providing them with comfort (CHRIE 1997).

Hospitality student - a student enrolled in a post-secondary program that prepares them for career-serving guests in one of the following industry segments: foodservice, lodging, recreation, or travel-related services (CHRIE 1997).

Knowledge – the fact or condition of intelligence; familiarity gained through experience or association with understanding (Bruce & Nies 1994).

Managers – foodservice or food and beverage supervisor or management staff (CHRIE 1997).

Marketing – all business activity involved in the moving of goods from the producer to the consumer, including selling advertising and packaging (Neufeldt & Guralnik 1994, p. 828).

Merchandising - the most effective means of selecting, pricing, displaying and advertising items for sale (Neufeldt & Guralnik 1994, p. 848).

National Restaurant Association – NRA, a professional organization responsible

for establishing standards and educational information for the profession of restaurateurs and the restaurant industry (NRA & Knapp 1996).

Restaurant – a business that encompasses all meals and snacks prepared outside the home, including all takeout meals and beverages (NRA & Knapp 1996).

Perspective - a specific point of view in understanding or judging things or events especially one that shows them in their true relations to one another. It is the ability to see things in a true relationship. (Neufeldt & Guralnik 1994, p. 1008).

Trend – general tendency or characteristic of a definite and predictable sequence of events, conditions, or opinions (Parks 1994).

CHAPTER II

REVIEW OF LITERATURE

Overview of Commercial Foodservice

A series of historical, cultural, and technological factors has brought the foodservice industry to the position it occupies today. Maslow's hierarchy of needs begins with the physical needs for survival that is the most basic human need, for food (Kittler & Sucher 1998; Klein & Miller 1993). The history of cooking is undoubtedly almost as old as that of mankind itself and almost all areas of human endeavor have had an influence.

The contemporary status of the foodservice industry as a whole is a direct reflection of man's development. Although humans tend to seek out the familiar, reassuring foods of their native countries, travel has had a broadening influence, not only on the kinds of foods that are eaten, but also on the ways in which familiar and unfamiliar foods are prepared. Thus, American ethnic dishes were created. The gradual dissolution of strict class lines, and the ability of people to move from the lower class to the middle or upper classes, allowed the cookery of the nobility (upper class) to blend with the cooking of hearth and home (lower class). This exchange between domestic cooks and classically trained chefs in all countries produced a number of innovations and refinements (Conway 1991).

The first restaurant, as we know restaurants today, opened in Paris, France, in 1765. Boulanger, a tavern keeper, served a dish of sheep's feet in a white sauce known as a restorative or restorante (Kittler & Sucher 1998; Conway 1991). Although he was brought to court for infringing on a separate guild's monopoly, he won the case and was allowed to continue. Once the ice was broken, other restaurants followed in fairly rapid succession (Conway 1991).

From ancient tribal gatherings around the fire to modern meetings at the mall, family and friends have come together to share food, and drink (NRA1996b). During the mid-1980's, restaurants were a place to be seen, and entree presentation became an art form. In America, a popular market niche has developed and that is to prepare meals away from home, now known as home meal replacement, for the time-pressed dual-income households (Powers 1993). Then, because of the recession in the early 1990's, attention was placed on less conspicuous forms of consumption, and restaurant delivery and takeout markets surged to satisfy the needs of introverted customers. By the mid-1990's consumers once again began to search for social interaction and stimulation of dining out, a trend that continues today. The 1996 NRA *Dinner Decision Making Survey* reveals a number of characteristics that consumers associate with a great place to eat a sit-down meal, including tasty food, fresh ingredients, a comfortable atmosphere, a good reputation and friendly service (NRA 1996c).

The hospitality industry continues to experience phenomenal growth, increasing 23 percent faster than the world economy (Ananth & DeMicco 1991). A little less than half of all consumer food dollars are being spent eating food prepared away from home (Cetron, DeMicco & Williams 1996). Americans spent 45 percent of the total food dollar

outside the home, an increase of two percent from 1992 to 1993, and it continues to increase (NRA 1997, Powers 1993, Quinton & Weinstein 1992). The annual increase of real personal income is approximately 2.6 percent annually in the United States (Puzo 1997).

Hospitality businesses continue to provide fertile ground for both entry-level employment and long-term careers. At present, nearly one of every 12 workers in the United States work in the hospitality industry and employment growth is predicted well into the future (NRA 1995). In an effort to keep pace with employment opportunities, a proliferation of colleges and universities are offering degrees in hospitality management. Over the last two decades, the number of four-year hospitality management programs in the United States has grown from approximately 40 to almost 170. Additionally, it is estimated that over 700 other programs (i.e., associate degree and certificate) currently exist (CHRIE 1997).

If the foodservice industry is to respond positively to customers' wants and needs in restaurant offerings, the views of the next generation of hospitality managers, today's students are of considerable importance. Few research studies have been reported on what the students' expectations are while managing a restaurant. Bruce & Nies (1994) studied how Texas students perceived their nutritional knowledge and the accuracy of that perception, while Hamm, Schnaak and Janas (1995) studied the nutritional knowledge and attitudes of hotel and restaurant management student in New Jersey at Rutgers University. "Because Americans are consuming a large number of meals away from home, healthful menus are important in restaurants and foodservice facilities" (Hamm, Schnaak, & Janas 1995, p. 1158). Therefore, it is the goal of this researcher to explore the perspectives,

attitudes and knowledge, of hospitality students, faculty, and food and beverage managers in relation to six foodservice trends. What foodservice trend they, the hospitality students, faculty and managers, perceive as important will be ranked in order of importance. The six selected foodservice trends are customer service, biotechnology/engineered foods, merchandising to the diverse customer, healthy nutritious menu, quality standards, and technology.

Trends

Distinguishing trends from fads and events in time is one of the most difficult parts of futures thinking. Long-term proactive strategies are roads for the path to success which lies in the future, and fads are just the detours on the path to success. Social, economic and political events affect trends and they in turn affect environmental and technological events in the hospitality industry. "The key is how to translate trends into new opportunities, and it is important to focus on how important these events are to the profession and to screen out the detractor events" (Parks 1994, p. 844). Trends are logical and predictable sequence of events that move through time.

It is important to note that in the foodservice industry, the six selected foodservice trends do not have clear boundaries. Customer services, merchandising to the diverse customer, healthy nutritious menu, are interwoven, as are biotechnology/engineered foods, quality standards, and technology. Technology affects all of the other trends. The trends in foodservice overlap, and sometimes it is difficult to distinguish one from the other, because of the dynamic effects each have on the other. A restaurant cannot function without any one of these selected foodservice trends, and management may emphasize or

hold one more important than the other, but they function as spokes on a wheel with the restaurant itself as the cog of the wheel.

The major challenge for dining services is to be as efficient and effective as possible with their own resources. According to Dohrman (1993a), the following approach to futurecasting must have effectiveness and efficiency. Quality standards, control and adherence to consumer protection demands will be keys when the consumer wants nutritious menus. Today's children and teenagers have dined everywhere and have become accustomed to the finest foods in any product line. Ethnic foods have gained in significance as the world continues to shrink. Nutritious food items are in demand. Products using top equipment technology for preparation will be features to offset the growing shortage of service personnel. Today's younger consumers graze all day long, and late into the evening, creating the demand for more take-out foods and foods to prepare in the microwave known as home meal replacement. Given the increased disposable income due to dual careers in modern day households, dining experiences in all commercial type facilities have educated the individuals to be some of the most knowledgeable customers. Customers want to eat what they want, when they want, and in the amount they want for prices they are willing to pay (Dohrman 1993a).

A 1970 futures study concluded that the restaurant industry would demand less technological growth and more marketing change on consumption patterns (Powers 1993). Despite this conclusion, technology, marketing/merchandising and consumption patterns all contribute substantially to commercial foodservices. Changes occurring within foodservice industry have been based on the economy and business trends. In addition to their impact on costs, these trends have affected methods of operation, especially those

related to quality standards, customer satisfaction, customer service and management style (Lechowich & Soto 1995).

In the "Top 10 Developments for Managers" (NRA 1992a) seven have a direct relationship with the foodservice trends being studied. Assuming responsibility for quality control by training and educating employees on quality standards of products supports the quality standards trend. These developments fit into two trends, merchandising to the diverse customer and healthy nutritious menus. One of the current issues for managers has been to learn to deal with educated consumers regarding nutrition, and acquire a knowledge base concerning ingredients and nutritional content. Supporting the customers' desire for menu item alternatives has been offerings of regional dishes as well as ethnic menu items. The "10 Developments" are necessary for customer support both now and in the future, as each development has a direct relationship with the menu development and adapting these developments can support the success of any foodservice operation.

Management has more flexibility to promote food and beverage items that sell well in age specific markets. Current managerial responsibilities are to ensure the highest possible quality of product preparation, more responsibility for quality control and product consistency. Service, new products, and new innovations have to be 10 times better and 10 times faster, in order to be in the race of the customer's dollar (Parker 1994). The challenge to possess the market share is now between dine-in restaurants, and take-out establishments. Families are enjoying home meal replacements and are consuming them in the comfort of their homes by means of delivery or take-out orders (NRA 1996b, Sciancalepore 1995).

Whether take-out orders or delivery was offered, managers need to be cognizant of the following suggestions listed below by Reich (1995 p. 5).

- All customer-contact employees will be required to know enough about any menu changes to converse with and answer customer's questions.
- The kitchen staff will obviously need to be trained in nutritionally sound procedures.
- The human resources department will need to prepare training manuals focusing on nutrition, in language that all employees will understand.
- Job descriptions will possibly need to be modified to reflect a higher level of necessary skills.
- The menu development department will need to be competent in fundamental nutritional principles, and imaginative enough to create or locate recipes that are compatible with the kitchen's equipment, the skills of its employees and allow for reasonable degree of cross-utilization with current product inventories.
- The marketing department will need to know how customers perceive nutrition, what they will actually purchase, and how to communicate the facility's new offering without offending present customers;
- Changes must take into account present and possible future laws governing presentation of nutritional information.
- The finance department will be required to consider the importance of expenditures for new equipment and smallwares, and advertising budgets.
- Management must coordinate these changes within the current organizational structure, and corporate culture without allowing costs to escalate.

By the 21st Century, a restaurant's survival will be contingent on adapting menu items to the consumers' lifestyle. With the heightened desire for healthier lifestyles, the trend is for commercial foodservice operators to offer healthier menu alternatives for the customer. The general public is interested in menu items that are low in cholesterol,

sodium, and calories, and expect to purchase foods that are microbiologically and chemically safe. People want more convenience, fresh food, menu diversity, quality service and an offering of good value with a choice for everyone (Cetron, DeMicco & Williams 1996; Sciancalepore 1995; Pederson & DeMicco 1992; Carlson-Ganem 1990; Heller 1990; Gordon 1989; Gallup Organization, Inc. 1983).

Few commercial foodservice managers find the time to ponder the future with the daily problems of running a restaurant. From overseeing food quality to dealing with customers to making staffing decisions, hundreds of varied yet critically important tasks are performed on a daily basis. These daily decisions often determine the ultimate success or failure of a foodservice operation (Lechowich & Soto 1995). As responsibilities change the requirements of management changes by trends identified for the commercial foodservice.

Consumer Behavior

The subject of consumer behavior is relatively new and it has its roots in behavioral sciences theory. The basic element of influencing other people remains at the core of consumer aspects of marketing. Behaviorist approaches are solely concerned with observable behaviors. They focus on learning resulting in behavior change. The process of acquiring knowledge, through experience, leads to changed behavior. Cognitive approaches emphasize the changes in knowledge and focus on the processes by which people learn information. Learning implies changed knowledge. Rice (1985) encompassed these two contrasting views by defining learning as "the process by which experience leads to change in knowledge, attitudes and behavior" (p. 114).

Consumers are a group of human beings that purchase a consumable product in the restaurant environment, and much of the time purchase a service as well. Consumers bring about frequent complex environmental changes. Consumers are exposed to all types of foodservice facilities and are considerably more educated now, than in the past (Rousseau 1997b).

Demographics

The typical foodservice manager is male (55%), while a supervisor in the food preparation and service occupation is more likely to be female (67%). Three in 10 (31%) foodservice and lodging managers are women in their childbearing years (16 to 44), while the proportion rises to 5 in 10 (49%) for supervisors in food preparation and service occupations. The overwhelming majority of foodservice managers and supervisors are white (83%). African Americans account for approximately one in 10 foodservice and lodging managers, while the proportion of Hispanics are 8% managers, and 10% supervisors and that mirrors their presence in the workplace (NRA 1995).

By 2050, the population of the United States will be larger, bi-polar in age and more diverse. Minorities are expected to account for 47.5 percent of the population; the largest growing population in America is the Hispanics, succeeding the African Americans, and then the Asians and Native Americans follow (NRA 1994). As the net immigration is anticipated to stay the same into the 21st Century, these forces will cause the American food consumption to shift. More diversity in the foodservice industry will be reflected in employees and in ethnic menu development, as the United States becomes more of an ethnic melting pot (Dohrman 1993b).

The United States is growing faster than any other industrialized country, because of high birth rates and high levels of immigration. As we approach the millennium, approximately one in 11 of people will be an immigrant, and of all the races. Hispanics are expected to become the largest minority group, and five percent of our population is expected to be Asian American. "African-American, Hispanic and Asian American control an estimated $750 billion in annual buying power," reported Kate Salazer of the Strategic Research Institute in New York (Rousseau 1997a, p. 1).

The overall United States population is expected to continue aging, and increasing especially in the 85 to 100 age group. One out of every five Americans will be age 65 and older by 2050 (NRA 1994). The 16 to 24 age group will continue to represent the smallest marketable age group.

Recent demographically segmented studies have examined female and minority hospitality student perceptions of hospitality careers, employment decision factors, and college major choice (Umbreit and Diaz 1994). There is evidence of gender, racial, and ethnic diversity across lower levels of employment within the hospitality industry (NRA 1994; NRA 1995). Minority enrollment within major United States hospitality management programs has been below overall minority enrollment levels at the same universities.

The importance of women in the work force cannot be overstated. During World War II, when women began entering the work force in record numbers, the economy and consumers' lifestyles changed immeasurably. Working women have had a pronounced impact on the restaurant industry (Brownell, 1993) in that they have created a higher demand for meals prepared outside the home, and they have earned income that can be

used to purchase this food (Powers 1993). Forty-three percent of the working women in the United States are single, and with children (Ananth & DeMicco 1991). Both the number of single households and dual income households are the contributing to the overall food dollar that is being spent on food prepared away from the home (NRA & Knapp 1996).

Families with children have immeasurable influence on where the family's food dollars are spent. The growth of this large demographic group, children aged 5 to 15, has many implications for restaurateurs. Teens have a significant influence on their parents' decisions about dining out. Their exposure to restaurant options today will influence both their palates and their proclivity to dine out in the future. These families demand that restaurants be friendly to all family members (1996b).

Two influences on restaurant spending are age and household income. Total food away-from-home expenditures, per capita spending and the proportion of the food dollar allocated to food away-from-home all increased as household income rose. Higher-income households are prime users of foodservice; households with incomes of $70,000 or more spend the largest amount on food away from home among all age and income categories (Masur 1997; Kindelan 1996).

Households headed by persons under the age of 25 spent 49 percent of their total food budget on food away from home, the largest proportion among all age groups (Kindelan 1996). Households headed by persons age 25 to 34, have less to spend eating out, but allot a larger portion of their total food dollars for food consumed away from home. Persons age 35 to 54 spent a lower proportion of their total food dollar on food

consumed away from home, but their total spending is higher due to their peak earning power (NRA 1995, Masur 1997).

What age group is eating out? Everyone. Generation Xers, people born between 1964 and 1983, may eat out more often than other groups, but baby-boomers, people born between 1946 and 1963, have more to spend when they choose to dine out, according to the Bureau of Labor Statistics (BLS) *Consumer Expenditure Survey* (1994). Males and females over the age of 65 report eating the lowest average number of commercially prepared meals per week. BLS data indicate that income, age, household size, children, occupation and geographic location all influence expenditures for food away from home. Other groups showing a higher-than-average propensity toward commercially prepared meal consumption include African-Americans, Hispanics, residents of Southern states and employed female head of households (Cousminer & Hartman 1996).

Customer Service

In the 21st century, according the NRA (1992b), the important issues facing service as a trend in the commercial foodservice industry are customer relations, and delivery/off premises. In a 1994 National Restaurant Association survey, 25 percent of the restaurateurs surveyed said that service was the most important factor of the dining experience for their customers, even more important than the quality of the restaurant's food. The best service is often the least noticeable. Service is of critical importance to small independents; chains, as well as fast food and full service restaurants. Giving good service is what restaurants can do to compete and keep ahead of the competition (Lechowich & Soto 1995). Service has become a more competitive point of difference

and both managers and staff assumes greater responsibility in achieving an excellent service standard. Good service has always been fundamental to winning and retaining restaurant customers (NRA 1992b).

Restaurants give consumers a meal of food and drink, a place to eat it, chefs to prepare it, waiters to serve it and an atmosphere in which to dine. It is the combination the goods and services that generated the total degree of customer satisfaction for restaurant dining. Therefore, the dimensions and attributes of restaurant dining should be clearly distinguished. In Sun's (1995b) research, a model of restaurant selection was evaluated for consumer involvement of restaurant selection based on customer satisfaction. Customer service models by Jones, Nightingale, and Haywood were combined for this study. They attempted to categorize the dining experience into different dimensions of food and beverage, direct consumption of physical goods, and the supporting facility and physical items. Then the meal as a whole was evaluated including the service quality (Sun 1995b).

With today's financial pressures, loyal satisfied customers are critical to the success of a foodservice according to Almanza, Jaffe & Lin's 1994 study. Operators must recognize the needs of their customers, or they won't survive. Customer satisfaction and dissatisfaction began to emerge as a major topic in the field of consumer research in the late 1970's.

Quality-driven business philosophies emphasize quality service as it is directly linked to repeat business according to hospitality marketers (Oh & Jeong 1996). Cho, Connolly and Tse (1995) value investments in people as much as machines and use technology to support the efforts of men and women in service. The workplace has

created a demand for quality service, and employees must be able to identify problems and be responsive to customer needs. Managers can easily empower their employees at this point. Individuals who work in the hospitality industry must possess a strong foundation in service (Katz 1997). The employees' ability to understand and anticipate the needs of guests is critical to the success of every business. Guest service skills represent the core skills needed for success in the hospitality and tourism industry (Adair, Conway & Talbot 1993).

Albrecht and Zemke (1985) state three characteristics that differentiate service organizations from the mediocre ones are the front-line employee, the delivery system and an excellent strategy. A well-conceived strategy for service simply means the company must know what they do. Service strategy directs the attention of people in the organization toward the real priorities of the customer. This guiding concept has found its way into all aspects of what employees and managers do. In a service-oriented business the management must encourage and help employees who deliver the service to keep their attention on the needs of the customer. The service employee must focus attention by tuning into the customer's current situation, frame of mind, and need. This must be met with responsiveness, attentiveness, and the willingness to assist in giving the customer superior service. The delivery system must back up the front-line employees so that it will truly be there for the convenience of the customer. Everything must be geared to meet the needs of the customer.

According to Sonic's senior vice president, Pattye Moore, "You do not see good service at fast-food restaurants as they become more and more automated. Good service has become our point of differentiation" (Lowe 1997 p. 1). Good service comes down to

personal interaction between the server and the customer. According to one formula for improving service the answer is:

"Friendliness + warmth + personal attention"

(Lowe 1997 p. 2). "Restaurateurs give it to employees, employees give it to guests, and guests pleased with the service they receive return it to the restaurant by becoming loyal customers" (Lechowich & Soto 1995, p. 1164). Making a commitment to improve customer service can pay off in repeat business and increased employee loyalty. The big difference needs to be personalization, and friendliness has to be the key to good customer service (NRA 1992b; NRA 95).

Teaching future responsible management will empower employees to render better service. These service employees will need to be trained to be more sensitive to customer needs and desires. Most importantly, employees need to have the flexibility and training to react immediately to satisfy customer requests.

Merchandising to the Diverse Customer

America's estimated 400,000 restaurants, 93,000 convenience stores, 30,000 supermarkets, and 13,000 discounters selling food are giving answers to the age-old question, "What's for dinner?"(Saporito 1995, p.50). The dramatic shift to reliance on the restaurant and foodservice industries for everyday meals has escalated consumer expectations from traditional food products. Reported reasons people are eating out are that they prefer freshly prepared items, have a special occasion to celebrate, lack preparation time, lack the desire to cook or the inability to cook, or they enjoy the

restaurant atmosphere (Sloan 1996). The most popular day to eat out is Saturday, followed by Friday and Sunday; and Monday is the least popular (NRA & Knapp 1996).

The most current survey conducted by the National Restaurant Association, *Meal Consumption Behavior* (1991) found that Americans consume an average of 4.5 meals per week prepared in a commercial setting as compared to 3.8 in 1991. The consumption of meals skipped or prepared at home or commercially in 1996 are compared in Table I (NRA 1996a).

Breakfast was the most skipped meal of the three, and approximately two-thirds of all meals were prepared at home (62.7%). Lunch was skipped 10.5% of the time, while over half of lunch consumed was prepared at home. More consumers eat out at lunch; 59.8% eat out once a week, while 24.5% eat five to seven lunches out weekly. Out of the three meals, dinner was prepared the most often at home (78.4%), while about half (48.3%) of the consumers ate dinner out commercially one to two times a week (NRA 1996a) (Table I).

Table II examines the weekly average meals skipped, prepared at home or commercially in 1981 and 1996. Fewer breakfast and dinners were prepared at home in 1996 than in 1981, while lunches stayed the same on a weekly basis. Overall there was 0.7 fewer meals per week prepared at home, while commercially prepared meals for the week increased 0.4, and the average weekly meals skipped increased 0.2 (Table II).

Masur (1997) reported a higher proportion of men eating out more frequently than women. On the average 21.8 percent of meals consumed by males were commercially prepared, compared with 18.1 percent for women. Men and women skipped virtually the

TABLE I

1996 CONSUMPTION OF MEALS
SKIPPED OR PRIVATELY AND COMMERCIALLY PREPARED

	Number of Meals	Prepared Privately	Prepared Commercially	Skipped
BREAKFAST				
	None	15%	75.1%	64.6%
	At least once	85.0	24.9	35.6
	1 to 2 times	12.8	15.5	8.7
	3 to 4 times	9.4	4.3	7.6
	5 to 7 times	62.7	5.2	19.4
LUNCH	None	15.0%	40.2%	79.1%
	At least once	85.0	59.8	20.9
	1 to 2 times	19.4	23.2	10.7
	3 to 4 times	13.2	12.1	4.7
	5 to 7 times	52.4	24.5	5.6
DINNER	None	3.1%	42.5%	93.1%
	At least once	96.9	57.5	6.9
	1 to 2 times	4.4	39.0	5.0
	3 to 4 times	14.0	12.7	1.2
	5 to 7 times	78.4	5.7	0.8

Note: Totals may not sum to 100 percent because of rounding.

Source: Meal Consumption Behavior – 1996, National Restaurant Association

TABLE II

WEEKLY AVERAGE NUMBER OF MEALS SKIPPED, PREPARED PRIVATELY AND COMMERCIALLY, BY MEAL

		AVERAGE NUMBER OF MEALS PER WEEK				CHANGE IN MEALS PER WEEK
BREAKFAST	Seven Meals Per Week	1981	1985	1991	1996	1981-1996
	Privately prepared	5.2	5.2	4.9	4.7	-0.5
	Commercially prepared	0.4	0.5	0.5	0.7	0.3
	Skipped	1.4	1.5	1.6	1.6	0.2
LUNCH	Seven Meals Per Week					
	Privately prepared	4.2	4.2	4.3	4.2	0.0
	Commercially prepared	2.1	2.2	2.1	2.2	0.1
	Skipped	0.7	0.6	0.6	0.7	0.0
DINNER	Seven Meals Per Week					
	Privately prepared	5.7	5.7	5.7	5.5	-0.2
	Commercially prepared	1.2	1.2	1.2	1.3	0.1
	Skipped	0.1	0.1	0.1	0.2	0.1
TOTAL	21 Meals Per Week					
	Privately prepared	15.1	14.9	14.8	14.4	-0.7
	Commercially prepared	3.7	3.9	3.8	4.1	0.4
	Skipped	2.2	2.2	2.3	2.4	0.2

Note: Totals may not sum precisely because of rounding.
Source: Meal Consumption Behavior – 1996, National Restaurant Association

same number of meals per week (2.5 for men and 2.4 for women) (Masur, 1997, p. 2). Twenty-one percent skipped lunch at least once a week (NRA 1996a).

The skipped meal syndrome sweeping America may have created the increase in snack consumption. Snacks and appetizers have become popular and are being consumed as mini-meals. Appetizers have been the most popular restaurant snack, and specifically meat appetizers such as chicken wings, shrimp cocktail, egg rolls, nachos, calamari, stuffed jalapeno peppers, quesadillas, and empanadas. Favorite appetizers were prepared with batters and coatings such as tempura, corn flake, and highly spiced versions. In addition to meat appetizers, fruit and cheese combinations have become popular as snack items (Sloan 1996).

Ethnic food trends have provided every indication that the desire for hot and spicy is here to stay. Proof of fiery foods can be found in Mexican, Indian and Middle Eastern spicy foods found in restaurants and in grocery store isles (Rousseau 1997b). PepsiCo's Taco Bell has supported the hot and spicy trend with the successful promotion of the *Border Lights* Products (Sloan 1996). Chinese, Italian, and Mexican are the most numerous ethnic restaurants, accounting for one-quarter of all tableservice establishments (NRA 1996b). A term used for dishes that have combined two or more ethnic dishes is known as ethno-infusion that contributes to make a unique dining experience or a new dish (NRA 1997).

In Nies' study (1993), the addition of customer requests for ethnic foods were tested by the student–operated restaurants in the hospitality classroom curriculum. Two of 38 restaurants have fixed menus, with notations of vegetarian plates prepared as requested, and one restaurant highlighted meatless dishes, which offered a heart-healthy

entrée two out of five days a week. Particular cuisines were offered such as Italian, Chinese, French, and Southwest Indian. Various marketing strategies were utilized by the students, such as advertisements in the local newspaper, university radio announcements, flyers, and comment cards (Nies 1993).

Perishables prevail and hunting for home meal replacements is important to today's consumer. The explosion in "takeout, take-home" eating has allowed today's time-crunched consumers to experiment with new tastes, food concepts, and cuisine in the privacy of their own homes, accelerating both the demands for new food products. The desired for pleasure has lead to a specific craving for home cooking. The rapid growth of delivery traffic boosted the number of eater occasion (one meal eaten by one person) has occurred in the home. "Fifty-five percent of all off-premises eater occasions took place in the home. Eating occasions in the car has grown a modest two percent, and eating occasions at work remained unchanged" (Masur 1997, p. 11). If meals are not prepared at home, then a home meal replacement is sought (NRA & Knapp 1996).

American's eating habits and preferences have blurred the lines between the once sacred dinner plates with the basic four food groups, and have shifted to the evolution of one-dish meals. According to Weinstein & Straus (1994), the one-dish entree has been the best selling items in restaurants and in supermarket produce or frozen food isles: Caesar salad, stir fry chicken, teriyaki/oriental chicken, fajitas and spaghetti. These dishes reinforce the ethnic dishes that have been eaten on a daily basis (Uhl 1996). In 1997, there was a growing incidence of vegetarianism that fueled the move to one-dish cooking. According to the Consumer Reports on Eating Share Trends (CREST), consumers have discovered one-bowl dinners created by oriental cuisine and vegetarian dishes creating

unique combinations (Masur 1997). Dishes containing risotto, wild rice, polenta and couscous are popular in the one-dish entrees (Sloan 1996).

In the Spring 1996 Quarterly Report of CREST, the fast food segment (quick service or limited-service) comprised 73% of the total restaurant traffic (Parsa & Khan 1991). The best bargain going in the fast food industry was the use of the consumer-perceived deals, which expanded this segment six percent in 1996 (Masur 1997).

Susan Gilleran, author of *Kids Dine Out* has suggested several ways to attract children as a loyal customer base (1993). The first thing was to provide a "kid" specific menu with portions and costs to accommodate the family. Then make the menu fun for the children and find out what children are eating. The third idea was to offer finger foods for younger children and provide a selection of sauces or gravy on the side. This can assist restaurants in succeeding with children as customers, and causing "kid" loyalty to abound. Another important factor is putting the adults at ease by making sure that the family members are welcome, are treated well, and given something to do immediately upon arrival (NRA 1995). Examples of entertainment materials for the younger children are colors and paper, while video games and computer generated games are made available for teenagers and adults. Live entertainment is also becoming popular, as well as Karioke entertainment.

The foodservice industry should focus their marketing efforts on the largest population segment, which is the baby-boomer generation. Efforts to understand and serve the retirement market have been and continue to be front-burner issues for our society and for hospitality management in the coming decade. By 2010 the baby-boom

generation will have begun to retire (Cetron, DeMicco & Williams 1996). Being user friendly to this large market is essential for operators who want a fair share of this group's spending.

Healthy Nutritious Menu

The menu is the principal document that affects every area of operation in the foodservice facility. Most operations start with a menu or an idea of what the menu should be. The menu is essential to the concept of a commercial facility, and is a controlling factor in both commercial and non-commercial operations. Using the menu as a management tool in every area of operation can help ensure success (Kotschevar & Escoffier 1994).

Analysis of menu trends, past and current, and the contributing factors would be helpful in understanding emerging menu trends. Since the success of any restaurant is closely associated with the main menu product it offers, understanding the effects of environmental factors on menu trends is essential. Restaurants want to adapt menu changes by implementing sound nutritional strategies, but forethought is necessary about the greater impact that nutrition has on the entire facility. Today's dynamic business climate mandates that nutritional programs can no longer be based primarily on intuition, but must follow thinking based on the strategic planning process (Green and Badinelli 1995).

Americans consume a large number of meals away from home and their knowledge and attitudes toward nutrition have influenced their food choices both at home and when dining in restaurants (Hahn 1995; Bruce & Nies 1994). Given the role of health issues in

food choice, it is not surprising that consumers increasingly expect healthy food options when they dine out (Wood 1992; Granzin & Bahn 1988).

Increasing awareness of food's impact on the physical well being has placed increased pressure on the foodservice industry to respond to consumer concerns and demands. There are opposing viewpoints within the industry on whether foodservice professionals play a role in providing intentionally healthy, nutritious meals (Carlson 1987). According to Allen, Cumming, and Woodward (1997), the foodservice industry too often fails to incorporate nutrition and healthy eating into commercially viable concepts and menus. Food and beverage managers' decisions to implement new menu items often depend on the importance they believe their customers attribute to nutrition.

The importance of hospitality training in relation to food and nutrition was emphasized by Renaghan and O'Brein (1995), who concluded that only through dynamic and updated nutrition knowledge will challenges in the food and foodservice industry be met. They further concluded that companies who ignore complex nutrition issues will, in the long run, not only suffer business loss but will cause a injustice of responsibility to society. Future managers in the foodservice industry need to understand the relationship between food and health in the commercial sector.

Hospitality students in several studies, American, Irish, and Australian, felt a strong responsibility to provide healthy options (Bruce and Nies 1994, Hamm, Schnaak & Janas 1995; Gowdy and McKenna 1994; Allen, Cumming & Woodward 1997). These studies suggested that the next generation of managers may take further steps to provide healthy food options. If foodservice establishments are to respond to consumer demand for healthy food choice when eating out, hospitality managers must have a sound

knowledge of and know how to address nutrition issues. The Australian authors found that females and males differed significantly about health considerations. Females were more inclined to apply health considerations to their own diets, and feel a responsibility to offer a healthy option to customers, and distinguish fat contents of different menu items.

Students who plan to become chefs, foodservice managers, or restaurant owners will be responsible for providing the public with a balance of food choices. Bruce and Nies (1994), and Hamm, Schnaak and Janas (1995) suggest that hotel and restaurant management students require effective education in nutrition if foodservice facilities are to provide more healthful options for their customers. These studies support the integration of nutrition concepts into practical, hands-on learning experiences that already exist in restaurant management curriculums (Hamm, Schnaak & Janas 1995; Bruce & Nies 1994).

"The 1995 Dietary Guidelines and Food Guide Pyramid are designed to help Americans choose diets that will meet nutrient requirements, promote health, support active lives, and reduce chronic disease risks" (Hahn 1995, p. 1097). The American Dietetic Association advocates that consumers have a good understanding of the food pyramid concept and the approach to variety, balance and moderation.

Many customers, conscious of the healthy implications, expect foodservice professionals to offer such items as low-fact choices (Gowdy & McKenna 1994). A host of governmental reports and recommendations including the United States Surgeon General's Nutrition and Health Report (DHHS, PHS 1988), the National Academy of Science's Diet and Health Reports, and *Healthy People 2000* (DHHS, PHS 1991; IFIC 1995) agree with advice from health organizations, as well as medical and nutritional experts, that the daily fat consumption should be reduce to less than 30% of the total daily

calories to help decrease the risk of chronic disease. The goals are related to reducing the fat intake of Americans, decreasing the risks of coronary heart disease, stroke, and high blood pressure, and reducing weight (Hahn 1995).

The three areas of greatest importance to restaurateurs will be nutrient claims, health claims and the reference amount of foods. The nutrient claims with the greatest consumer appeal are the ones most operators are interested in using on their menus. To qualify a food for a particular claim, its nutritional analysis must be based on the predetermined reference amount, but the restaurateurs are not stuck with using that as a serving size. This assumption for restaurants is where the owner or management knows enough about the product to promote it correctly and prepare it safely and correctly. The reference amounts come into play when making both nutrient and health claims (Pederson & DeMicco 1992). A reference amount as established by the FDA, is the reasonable and customary amount of a food or beverage consumed at any one time.

In 1997, FDA regulations on menu labeling for product identification became effective to assist Americans to better understand the new health and nutritious menu proclamations and definitions. If restaurateurs are making any written claims on the menu, their obligation is only to have nutritional documentation back up the claims. The information can be conveyed in any written format that is required to be available upon request (NRA Washington Weekly 1997).

Today, Americans recognize they need not sacrifice taste to eat right, and the basic ideological combination for a healthy lifestyle is balance, variety and moderation. Consumers can enjoy their favorite foods in a way that combines the basic tenets of a healthy diet (IFIC 1994b). The interest in diet and health has continued to rise at a fairly

consistent level (IFIC 1995). Customers in the various market sectors are looking for the "healthy" product and the foodservice provider's knowledge in this area allows healthy choices to be offered, thus, gaining a marketing edge (Knutson & Patton 1993; Wood 1992).

Quality Standards

The three greatest concerns confronting restaurant management in the 21st century in quality standards regarding sanitation are food handling, food storage, cleaning and sanitizing. Quality has been internally developed, continually changing by personal definition (Lynn 1996). Clean means free of visible soil and food waste, and sanitary refers to being free of harmful levels of contamination (Educational Foundation of the NRA 1995b). Increased sanitary requirements will require the resources of time and dollars dealing with equipment. Employing new cleaning equipment and technology such as laser and sound technology can assist in product safety and sanitation (IFIC 1997b).

The Hazard Analysis Critical Control Point (HACCP) system of self-regulation has become more common in the foodservice industry. A HACCP system allows an establishment to evaluate its operation, locate possible points of contamination, determine the severity of a hazard, and take preventive measures to protect against a foodborne illness outbreak. Self-inspection and training help ensure that the correct steps are being followed, and the safety and quality are maintained. (Educational Foundation of NRA 1995a).

One of the primary responsibilities of foodservice management is to ensure the highest possible quality of product preparation. Irradiation "is to improve a healthy food

supply by killing pathogens and slowing maturation, making food safer to eat and extending its shelf life" (Featsent 1997; Pszczola 1997). It also allows produce to be left on the vine longer before harvesting, because it retards further ripening and removes the need to harsh steam and pesticide treatments that require greener, tougher fruits and vegetables that can withstand such handling (Featsent 1997). In addition, "new food processing techniques will decrease the possibility of foodborne illness" (NRA 1997b p. 2).

The safety of the food supply is of interest to the public and the lay media frequently mentions this topic. It is estimated that outbreaks of foodborne illness affect more than 15,000 individuals annually in this country (Bean, Griffin, Goulding & Ivey 1990). The public expects and demands to be protected from unsafe foods. The most imposing responsibility of the foodservice management is food safety. With the culturally diverse and unskilled labor force, assuring food safety is a challenging task. Nevertheless, the safety of foods served to customers is ultimately and literally in the hands of the foodservice handlers who may or may not follow sanitation requirements (Lynn 1996). These functions have an impact on the health of a large economic sector.

Lechowich & Soto (1995) conducted a mail survey of 1,000 independent restaurants and small chains. Topping their list of concerns from the restaurant industry was sanitation/food handling, quality assurance and control. The industry has a high demand for experienced persons who are trained in quality control and sanitation, and adhere to consumer protection demands. (Dohrman 1993b).

Management must face many different priorities that deal with different aspects of quality standards in commercial foodservice. Examples are: 1) greater restrictions on the

use of pesticides and cleaners, 2) more natural ingredients in cleaners that can be broken down environmentally, 3) crisis management to respond to immediate concerns regarding employees and patrons with Acquired Immune Deficiency Syndrome (AIDS) and 4) foodborne illness is kept at a minimum are priorities for commercial foodservice management.

At the turn of the century, foodservice managers will likely be required to have a sanitation certificate. Hopefully most states will mandate sanitation testing and require more stringent regulations on food handling. A larger number of facilities have been providing in-house sanitation and food handling training. It would be phenomenal if everyone was required to undergo "continuing education" on sanitation issues. Sanitation in equipment and food handling, food safety and storage have become a more important component of competitor differentiation that equates to quality standards.

Biotechnology/Engineered Foods

Biotechnology plays a vital role in food safety. A procedure that uses sound vibrations to detect the presence of salmonella infection is currently being tested and may one day guarantee that eggs are uninfected. Another technique to assist in ridding salmonella in poultry will be handled through feed pellets. "Smart" packaging with tags that alerts operators when food safety is at risk will be developed (NRA 1994). Visuals such as tags changing colors are capable of aiding non-English speaking employees in food safety techniques.

Biotechnology and engineered foods are sowing the seeds of the future and cultivating controversy in the food industry. "An exact definition of biotechnology is not

possible, because of its diversity. Biotechnology is not a product. It is a set of techniques for enhancing existing products and production practices" (Reilly 1989, p. 1). The effects of biotechnology can reduce food costs, improve food quality, and enhance food safety. Only a few will generate new consumer products and revolutionize exiting food products. Ethical considerations must be dealt with on the front lines when these controversies hit the food industry. Consumers are likely to be largely unaware that products consumed have a biotechnology component (Morgan & Davis 1997; Edelstein 1992).

Due to biotechnology, foods are more abundant, cheaper, have a longer shelf life and are higher in vitamins and nutrients. As biotechnology gains in importance the actual and perceived risks become smaller, and consumers become better educated about the technology. Foods that have been genetically altered to have a longer shelf life, retard bruising and rotting, resist viruses and diseases, reduce the use of insecticides, reduce fat content and improve processing will become more mainstream (Nelson & Poorani 1997).

The United States has a long history of having the world's safest food supply, due to thorough government regulations. Three agencies that may assist in federal regulations and labeling in food biotechnology are the United States Food and Drug Administration (FDA), the United States Department of Agriculture (USDA), and the Environmental Protection Agency (EPA). In May 1992, the FDA issued specific guidelines for plant-based genetically modified foods. These guidelines state:

> "Genetically-modified food products will be regulated in the same way as foods produced by other means. These products will be judged on their individual safety, allergenicity, toxicity, etc., rather than the methods or techniques used to produce them."

in the *Food Biotechnology: Federal Regulations and Labeling* were adopted by the International Food Information Council (IFIC 1996 p. 2). The FDA has evaluated the safety of new ingredients added to foods through biotechnology the same way it now evaluates a new food additive such as a preservative or food color added to a cake mix or soft drink (IFIC 1997c).

Much has been written about the potential benefits that will come from food biotechnology. It has been a new approach to old goals. In Table III, the most sensible way to approach biotechnological benefits in food and agriculture is to consider real applications as they unfold over time (IFIC 1994a).

For food and food components developed through the application of biotechnology, the principles of substantial equivalence are utilized by regulatory agencies for assessing food safety. This practical approach considers whether the food derived from biotechnology is substantially equivalent to the conventional food product. Animal well being is an important consideration in the development of drugs produced through biotechnology. Consumers can be confident that their food is safe (Lauderdale 1996).

TABLE III

IFIC: 1996 FEDERAL REGULATIONS AND LABELING GUIDELINES

The following are biotechnological benefits that are here, or will arrive in the near future:

- Better-tasting tomatoes year round - Flavr-Savr tomatoes can stay on vines longer before shipping, thereby gaining added flavor and color.
- Environmentally friendlier squash do not require chemical sprays to combat viruses. Thus increased availability and lower prices for crookneck squash.
- Healthier cooking oils- corn, soybeans, canola and other plants could be modified to reduce the saturated fat content of cooking oils derived from these crops.
- Potatoes, cotton, and corn that resist insects on their own.
- Animal-friendly cheese enzymes.
- Herbicide-tolerant crops - fewer applications and more environmentally friendly herbicides.
- Spoilage and damage can claim 40 percent of fresh fruit and vegetable harvests before they make it to market.
- Growers can harvest product closer to peak freshness.
- Expansion of the list of crops that can naturally withstand insects and other environmental stresses.
- Genetically modified food products will be regulated in the same way as foods produced by other means.
- These products will be judged on their individual safety, allergenicity, toxicity, etc., rather than the methods or techniques used to produce them.
- Consumers can get fresh produce throughout the year, enjoying better flavor and quality.
- Isolated locations that seldom receive fresh product can get it.

Source: IFIC: *Food Biotechnology: Federal Regulations and Labeling (1996, p. 2).*

Technology

"New and revised technologies have been developed on a regular basis" (Katz 1997 p. 46). Technology has made it possible for restaurants to clone themselves in ever-smaller locations, like mobile food carts on street corners. These technological advances have begun to move into home kitchens.

Changes in packaging and technology have made it easier for restaurants to prepare meals more quickly and efficiently, and will make it easier and more convenient to prepare food at home. The microwave oven will take on an even greater role in people's dining lives in days to come, according to Canadian futurist Frank Ogden. "Microwave ovens are expected to be in 25 percent of all cars and in 90 percent of homes by 2001" (Ebro 1997, p 2). Foods have to be shelf-stable, hand-held, easy to open and quick to heat and eat.

Marketing has revolutionized the technological support available. Alternative media, such as the Internet assisting in consumers' dining decisions by making reservations, placing orders, ensuring payment, and fax broadcasting will help restaurateurs targeting certain niches. Database marketing with "smart" programs enable the most unsophisticated operator to generate potential customer profiles based on demographics, geographic, psychographics and purchasing habits and to develop promotions geared specifically to each market niche (Masur 1997).

Foodservice will have to demonstrate aggressive marketing techniques, state-of-the-art facilities and systems, and shrewd financial management as operating losses will not be tolerated. Food service management at all levels will have to feel comfortable using

computer hardware while understanding relevant software programs. Word processors and desktop publishing will be commonplace. Remaining competitive will demand being knowledgeable about the latest computerized systems. Technological advancements that have an impact on food preparation are improved equipment- more portable, easier to clean, use less energy, better product display, and faster production to improve cooking-to-order. Operational trends are for managers to have complete reliance on electronic data systems for forecasting, ordering, production, service, point-of-sale transactions, and inventory and cost control. (Dohrman 1993b).

In the hospitality industry, personalized services are the key to success and product differentiation. The Internet can expand service and offer new forms of service delivery and customer interaction. In this day and age of technological advancement, hospitality companies need to provide choices or alternatives for customers so that they can decide, based on their personal preferences, comfort levels, and moods, which method of delivery is best suited for them. "The Internet is a technological revolution for the hospitality industry" (Cho, Connolly & Tse 1995 p. 39).

The National Restaurant Association has inaugurated a new complimentary service for its members. NRA members have an opportunity to advertise their restaurants, at no cost, on the World Wide Web. This new service is called Dine Find. The official Dining Guide of the National Restaurant Association, and its goal is to present a convenient and attractive dining guide for consumers. The growth of cybercafes is evident by the increasing list of locations both within the United States and abroad. Simply stated, "cybercafes are coffee bars with computer terminals" (Kasavana & Borchgrevink 1997 p. 57).

As management attempts to create a strategic plan for quality service at their particular establishment many have not produced a successful environment with the human interaction element. In the future it will become harder to create an environment with the shortages of employees. Robots will replace foodservice employees resulting in employee shortages in areas of production, service and sanitation where help is needed. The shortage of service personnel will be supplemented by top equipment technology for preparation. The best investment will be money spent on employees' skill building in their current jobs as well as adapting to task changes and technological advances (Klein & Miller 1993).

Unfortunately, top-notch service is not always as easy to achieve as top-notch food. Today's operators deal with labor pool they believe to be less qualified, which makes good service even more difficult to provide. More operators are implementing technologies such as Point Of Sale systems, hand-held ordering terminals and seating management software to meet customers' needs. Technology improves the ability of service staff to present customers with an accurately totaled check and to assist in expediting the protocol associated with placing orders. Such technology should continue to heighten productivity and service into the coming century.

Technology can assist in creating a competitive edge for establishments providing products and service, particularly the restaurant industry. The presence of computers in so many foodservice management functions has put immeasurable information literally at the managers' fingertips (Dohrman 1993b). Enhancing customer service creates an opportunity for a larger portion of the consumer's dollar, hence, the organization has the opportunity to gain a larger portion of the market share.

Technology will continue to revolutionize business by lowering entry costs into the marketplace and allowing firms to personalize and customize orders. This will facilitate fierce global competition in the future. Only the cutting edge establishments will receive their market share and the average restaurants will be forced out by this competitiveness.

Summary

Six trends have been presented that have shaped the restaurant industry of the future. They are merchandising to the diverse customer, customer service, healthy nutritious menu, quality standards, biotechnology/engineered foods, and technology. Many of these forces will require changes and adaptations that may be difficult to accept. But as a matter of fact, that is what the hospitality industry traditionally and typically does well...change and adapt to the new environments.

Customers have an overwhelming desire for convenience, quality and customization where and whenever possible. Today's sophisticated restaurant consumer is requesting products that maximize sensory appeal. Wanted are foods that are intense in flavor, texture, color retention, superb aroma, and splendid overall presentation are critical product attributes. Many consumers expect large portions, a variety of menu choices, and fresh ingredients, making each a unique dining experience (NRA 1997).

"The guideposts to a customer-driven organization is when it has a clear service strategy, customer-oriented front-line people, and customer-friendly systems for delivering its service" (Albrecht & Zemke 1985, p. 170). To augment this philosophy Blanchard and Bowles, authors of *Raving Fans*, (1993) enlightens readers with this simple message of decide, discover, and deliver.

There is a need for hospitality leaders to stay informed of current and future trends. In addition, hospitality leaders need to posses the flexibility to change. With 2.5 million jobs at risk because of technology, future leaders must prepare themselves to be resigned to new age environments, and future leaders must make a commitment to service quality. A challenge for current and future hospitality managers is to have a "genuine commitment to people; it's the key to success" stated Mr. Ron Evans, president and CEO of Best Western International (Evans & Starkey 1996 p. 22).

Foodservice trends are intertwined and it is difficult to separate them because each trend overlaps with the other trends. An analogy of the foodservice trends is bobbed-wire fencing – it is continually all twisted with spikes of each trend affecting each other. Technology effects each one of the other five trends, and if an establishment attempts to function without technology the foodservice institution or restaurant will not be as efficient or as effective as possible. Their market share will be less than it could be, and less market share means less profit. Many of today's managerial positions are contingent on what they bring in as the bottom line or profit to the establishment.

CHAPTER III

METHODOLOGY

The review of literature indicated that limited information was available regarding the perspective of foodservice management and culinary art students, faculty, and food and beverage managers towards trends in the areas of consumers, customer service, consumption patterns, menu patterns, nutrition, marketing/merchandising, quality standards, biotechnology/engineered foods, and technology. The purpose of this research was to determine how hospitality students, faculty, and managers perceive these trends. This chapter includes the research design; sample/population selection; data collection, which includes planning and development, instrumentation and survey procedures; and data analyses used in this study.

Research Design

The descriptive survey was the research design that was used to meet the objectives and hypotheses testing of this study. Descriptive research is used to obtain information from members of a population in order to determine the current status of that population with respect to the opinions, attitudes, preferences and perceptions of interest to the research (Gay 1992, Bartz 1988).

In this study, the dependent variables were scores from the instrument use

used to determine the knowledge and attitudes of hospitality students, faculty, and food and beverage managers toward foodservice trends. The independent variables were selected personal and institutional variables.

Sample/Population

The sample consisted of 30 foodservice management and culinary arts faculty, randomly selected from two and four-year programs listed in The Council on Hotel, Restaurant and Institutional Education, (CHRIE) Guide to College Programs in Hospitality & Tourism, Fifth Edition, (1997). Faculty were asked to distribute surveys to 20 students in a quantity foods class during the Spring 1998 semester. Two faculty members requested additional student surveys of 18 and 20, therefore the students in the sample totaled 638. The 30 programs were in nine geographic regions of the United States (New England, Middle Atlantic, East North Central, East North Central, East South Central, West North Central, West South Central, Mountain and Pacific) as designated by the National Restaurant Association (as shown on a United States map in Appendix A). In addition, food and beverage managers (N=350), randomly selected from the 1997 National Restaurant Association membership list were surveyed.

Data Collection

Planning and Development

While working in the 1994 summer session as a Teaching Associate at Oklahoma State University in HRAD/NSCI 4365 Quantity Food Production Management, the

researcher became aware that students had very limited knowledge about restaurant trends, particularly nutritional and foodservice trends. A major assignment given to quantity food students was creating a manager's "daily specials" featured in the Big Ate Dining Room. In creating the specials, students were to utilize knowledge of the current foodservice trends. The researcher conducted a pilot study assessing the nutrition knowledge and attitudes of these hospitality students in the Hotel and Restaurant Administration Department, and dietetic students in the Nutritional Sciences Department in the College of Human Environmental Sciences at Oklahoma State University. The researcher asked the students to answer nutritional knowledge questions in true/false format, and answer attitude questions on a 5-point Likert-type scale about nutrition in the foodservice industry. The students scored in the 70s in nutritional knowledge, but low in attitude scores concerning the application of nutrition in the foodservice industry. Results of this pilot study indicated the need to pursue students' perspectives of foodservice trends and to survey a larger sample. This led to the current study where the researcher expanded the survey to include six foodservice trends, and to investigate hospitality students', as well as hospitality faculty's and professional managers' perspectives on foodservice trends.

Instrumentation

The researcher developed the instrument consisting of four parts. Part I contained demographic information. There were three different forms: one for the hospitality students, one for the hospitality faculty, and one for the food and beverage managers. Part II contained attitudinal statements regarding the foodservice trends, while Part III

included knowledge statements about the foodservice trends. Part IV was an opinionnaire asking students, faculty, and professional managers to rank the trends in order of their importance to the foodservice industry. The researcher created and adapted the sections on knowledge and attitudinal statements from selected articles (Almanza, Jaffe, & Lin 1994; Bruce & Nies 1994; Dohrman 1993a; NRA 1994; Hamm, Schnaak & Janas 1995; NRA & Knapp 1996; Nelson & Poorani 1997) (Appendix B).

Expert Panel

A draft questionnaire, and letter of explanation on Oklahoma State University letterhead (Appendix C) were mailed to an expert panel of 98 professionals including 46 state restaurant association presidents and 52 educators. The educators were 26 randomly selected directors of didactic programs in dietetics as well as 26 dietetic technician program directors from the 1997-1998 Directory of Dietetic Programs published by the American Dietetic Association (ADA 1997). The draft questionnaires were duplicated at Poesy's Printing Services in Russellville, Arkansas. The letters were color coded as follows: 1) yellow was sent to two-year program faculty, 2) green was sent to the four-year program faculty, and 3) orange was sent to state restaurant associations. A pre-paid return business reply envelope was enclosed for the convenience of the expert panel members.

The expert panel members were asked to examine the 96 statements (88 statements and 8 rank order trend questions) questionnaire for format, content validity, and clarity. They were first asked to clarify each statement provided into a trend category and to designate the trend in the space provided on the left side of the survey questions.

Then they were to decide whether each item was a knowledge or an attitude statement and to indicate their choice on the space provided on the right hand column of the questionnaire. The last portion of the questionnaire was to rank order the foodservice trends. The expert panel's response rate was 25.5 percent (N=25), and how they responded to the survey questionnaire were tabulated (Appendix D).

The panel of experts reviewed and responded to 88 foodservice statements. Their responses were tallied, and based on their suggestions, the statements were adjusted accordingly. Questions with the most votes were retained in their trend category, and ambiguous questions were eliminated to condense the survey size. Some questions were changed to represent another trend or moved to form a new trend as suggested by the panel of experts and the research committee. They also rank ordered the eight foodservice trends.

Based on the expert panel's suggestions, 28 questions were eliminated. Three of the 8 original trends stayed the same: quality standards, customer service, and biotechnology/engineered foods. The consumers' trend, consumption patterns trend and marketing/merchandising trends were combined to create a new trend, merchandising to the diverse customer. In addition, the menu analysis trend and nutrition trend were combined to create a new trend, healthy nutritious menu. A new trend, technology, was added. The revised survey questionnaire has 66 questions (Appendix E).

Survey Procedures

The Institutional Review Board (IRB) at Oklahoma State University (OSU) approved the questionnaire on December 07, 1997, prior to mailing to the faculty of

hospitality programs and food and beverage managers (Appendix F). The faculty received a packet which included: three letters, two addressed to the faculty and one for the students; two types of demographic scanable answer forms, one for faculty, and 20 for the students; 21 copies of the survey questionnaire; and one 10 X 12 inch postage paid return envelope (Appendix G). An introductory letter was sent to the quantity foods instructor explaining the contents of the packet sent to them. It was printed on Oklahoma State University letterhead. A second faculty letter was enclosed endorsing the researcher's study from her Department Chair, Dr. Theresa Herrick in the Parks, Recreation and Hospitality Department, Arkansas Tech University, on Arkansas Tech's letterhead. Twenty student letters on orange-colored Oklahoma State University letterhead stationary were sent to accompany each student questionnaire explaining the research, providing instruction for completion and ensuring confidentiality. A new one dollar bill incentive was sent to the instructor as a thank you for helping the researcher in collecting data for this study.

Another mailing was sent to the 350 food and beverage manager members of the National Restaurant Association. An introductory letter printed on Oklahoma State University letterhead stationery explained the research, provided instructions for completion of the questionnaire, and ensured confidentiality. A demographic scanable form was provided for food and beverage managers and was enclosed with each individual questionnaire (Appendix H).

The faculty's and managers' questionnaire packets were mailed on January 15, 1998 and they were asked to reply on or before February 14, 1998. A reminder postcard was mailed on February 1, 1998, to the managers and the hospitality faculty with

appropriate reminder information (Appendix I).

Data Analysis

The returned scanable demographic forms and questionnaires were taken to the University Testing and Evaluation Service at Oklahoma State University in North Murray Hall. The scanable forms were processed into the computer using the software program PC-File III. SAS statistical software (Version 5, 1985) was used in the data analysis. Percentages and frequencies were determined for the demographic information. Standard statistical procedures, which included t-test, analysis of variance (ANOVA), and Duncan's Multiple Range Test were used to test if associations existed between knowledge and attitude scores on the six foodservice trends and the independent variables. Chi-square values were used to test whether a relationship existed between how the students, faculty, and managers ranked the six foodservice trends (Kerlinger, 1986).

The knowledge statements were in true and false format. The correct answer was assigned or given one point. If the respondent answered false to a true statement the item was scored zero. Two statements required false answers as the correct answer; therefore scoring was reversed for these two statements (questions #36, and #50). The scores were then tallied for the knowledge questions for all three respondent groups. Subjects responded to the attitude statements by rating each statement on a five-point Likert scale, where "1" is strongly agree, "2" is agree, "3" is neutral, "4" is disagree, and "5" is strongly disagree. The studies and articles supporting or reputing the subject matter located by the researcher determined the answers. Each number on the Likert scale had a value of one.

Scores under each of the "5" points in the scale were totaled, then percentages and Likert scale averages were determined for answers given by each group of respondents.

For the statistical analysis, the faculty category was not analyzed because there were only 14 respondents out of the sample of 30. Only hospitality students and food and beverage managers, therefore, were included in the statistical analysis.

CHAPTER IV

RESULTS AND DISCUSSION

This study assessed the attitudes and knowledge of hospitality students, faculty, and food and beverage managers concerning selected commercial foodservice trends. Data were obtained using the research instrument described in Chapter III. The questionnaires were mailed to two groups. The first group was a sampling of 30 randomly selected faculty who were CHRIE members. The researcher sent each faculty member, one faculty survey and 20 student surveys. Two of the faculty in the sample requested 18 and 20 additional student surveys, creating 638 total student surveys mailed. The response rate of the faculty was 46.7 percent (N=14), and the student response rate was 58.6 percent (N=380). The response rate for students could have been higher had the researcher asked each faculty the total count of students enrolled in class, which may have been less than 20. Three hundred fifty randomly selected food and beverage managers who were National Restaurant Association (NRA) members were the other group surveyed. Of the 350 questionnaires mailed, 10 were undeliverable by the postal service due to incorrect addresses or closed businesses. Therefore, the second group, the NRA food and beverage managers group was only 340. Ninety-nine surveys were returned, however, five were incomplete making 94 usable survey questionnaires with a 27.6 percent return rate. The total for the combined groups, faculty, students, and managers was 1,008 mailed surveys,

and the return rate was 48.4 percent (N=488). The questionnaires were not coded, therefore the researcher sent out reminder postcards to all faculty and managers sampled producing a better response rate.

Characteristics of the Survey Participants

Personal Variables

Table IV lists the personal variables in frequencies and percentages for all respondents. Variables included were gender, age, ethnic background, foodservice work experience, major work task, and whether one had taken a college nutrition course.

Gender

Of the 488 respondents, hospitality faculty (N=10, 76.9%) had the greatest percentage of working females (Table IV). The reverse is true for the professional managers where under one-third were females (N=30, 31.9%). Female students (N=206, 54.8%) outnumbered their male counterparts (N=170, 45.2%) (Table IV). In the United States more women are entering the workforce, especially in the service industries, hence, a larger population of workers is expected to be female. The student population reflects this; however, the management population is not representative based on prior research reports (Howey & Savage 1995).

Age

Hospitality administration is a relatively young academic field, and most higher education institutions require that hospitality faculty have a variety of industry experiences

(Su, Miller & Shanklin 1997). The faculty had the largest older population of the three sample groups with five (35.7%) in the 36-45 age group, and eight (57.1%) in the 46 and older age group. Managers also tended to be older than most of their employees; therefore, more than 75% of the respondents are older than 36 years.

Most of the students were in the 20-25 age group. When the under 20 age group is combined with those in the 20-25 age group the total was 74.1% of the student population. This group is the traditional age for college students. There were only 98 (25.6%) non-traditional students (26 years and older) in the total student population (Table IV).

Ethnicity

All faculty (N=14) and over three-fourths (N=277) of their students were Caucasian. Minority students (N=76, 21.5%) were African American, American Indian, Asian/Pacific Islander or Hispanic. Almost all of the managers (N=83, 94.3%) were also Caucasians (Table IV). Society will see an increase in workplace ethnicity as the student population enters the work force as professionals (NRA 1995; NRA 1994).

Years of Foodservice Work Experience

The faculty's foodservice work experience varied from less than 5 years to over 21 years. The professional managers had years of foodservice work experience in the following categories: 39.4% (N=37) had 21 or more years experience, 39.3% (N=37) had 11-20 years of experience, while 21.3% (N=20) had 10 years or less work experience (Table IV).

Over 50 percent of the student respondents (51.1%) had less than three years of foodservice work experience, while about one-third (30.3%) had three to six years experience. Only 15.6% (N=68) of the students had seven or more years of industry experience (Table IV).

Foodservice Work Responsibilities

For the types of foodservice experience multiple answers were allowed. Possible answers included service, production, managerial, quality control, and other. Totals were therefore not added in Table IV. Faculty, managers and students had experiences in all areas. When comparing the three populations, more managers (N=92, 97.9%) performed more managerial duties than the other two groups. Over 70% of the faculty had production (N=11, 78.6%), service (N=10, 71.4%) and managerial (N=11, 78.6%) work experience. Work experience of the student respondents included 297 (78.2%) students had experience in production, while 229 (60.3%) students had service work experience (Table IV).

Major Work Task

This variable was asked of two subgroups: the faculty and the managers. The major tasks performed by faculty were teaching (N=8, 57%) and managing (N=5, 35.7%). As expected, managers (N=79, 84%) spent most of their time with managerial responsibilities. Several responses were written in under "other" tasks performed as follows: chef, accounting, research and development of products, consultant, training, owner, sales and marketing, and purveyor (Table IV).

University Nutrition Course

When queried about whether they had taken a university or college nutrition course the responses were diverse. Almost all of the faculty (N=13, 92.9%) and a majority of the students (79.8%) had taken a nutrition course. In contrast, less than one-third (30.8%) of the managers had taken any college nutrition course (Table IV).

TABLE IV

PERSONAL CHARACTERISTICS OF SURVEY PARTICIPANTS

CHARACTERISTICS	FACULTY		MANAGERS		STUDENTS	
	N	(%)	N	(%)	N	(%)
Gender:	N=13		N=94		N=376	
Female	10	(76.90)	30	(31.90)	206	(54.80)
Male	3	(23.10)	64	(68.10)	170	(45.20)
Age:	N=14		N=94			
Under 25	0	0.00	3	(3.20)		
26-35	1	(7.10)	20	(21.30)		
36-45	5	(35.70)	29	(30.90)		
46 and older	8	(57.10)	42	(44.70)		
Age:					N=378	
Under 20					35	(9.30)
20-25					245	(64.80)
26-30					35	(9.30)
31 and older					63	(16.30)
Ethnicity:	N=14		N=88		N=353	
Caucasian	14	(100.00)	83	(94.30)	277	(78.50)
African American	0	0.00	2	(2.30)	23	(6.50)
American Indian	0	0.00	1	(1.10)	13	(3.70)
Asian/Pacific Islander	0	0.00	1	(1.10)	21	(5.70)
Hispanic	0	0.00	1	(1.10)	19	(5.90)
Foodservice Work Experience:	N=14		N=94			
0-5 Year(s)	2	(14.30)	8	(8.50)		
6-10 Years	2	(14.30)	12	(12.80)		
11-15 Years	2	(14.30)	16	(17.00)		
16-20 Years	3	(14.30)	21	(22.30)		
21 or more Years	5	(35.70)	37	37 (39.4)		
					N=366	
0-3 Year(s)					187	(51.00)
3-6 Years					111	(30.30)
7-9 Years					33	(9.00)
10 or more Years					35	(9.60)

TABLE IV

PERSONAL CHARACTERISTICS OF SURVEY PARTICIPANTS

CHARACTERISTICS	FACULTY		MANAGERS		STUDENTS	
	N	(%)	N	(%)	N	(%)
*Work Responsibility:						
Service	10	(71.40)	77	(81.90)	229	(60.30)
Production	11	(78.60)	88	(93.60)	297	(78.20)
Managerial	11	(78.60)	92	(97.90)	148	(38.90)
Quality Control	8	(57.10)	83	(88.30)	135	(35.50)
Other	8	(42.90)	30	(31.90)	47	(12.40)
Most Work Task:	N=14		N=94			
Service	0	0.00	8	(8.50)		
Production	1	(7.10)	2	(2.10)		
Managerial	5	(35.70)	79	(84.00)		
Quality Contol	0	0.00	1	(1.00)		
Other	8	(57.10)	4	(4.40)		
College Nutrition Course Taken:	N=14		N=91		N=371	
Yes	13	(92.90)	28	(30.80)	296	(79.80)
No	1	(7.10)	63	(69.00)	75	(21.00)

*Respondents allowed multiple answers.

Institutional Variables

The institutional variables analyzed were educational level, institutional category (two or four-year), institution type (culinary or foodservice management), and the major teaching area or field of study (Table V). Educational level, one of these institutional variables applies to the three groups: managers, students and faculty. The other variables only concerned faculty and students.

Educational Level

As expected, the faculty either completed the MS degree or MBA (N=8, 57.1%), or held a PhD/EdD degree (N=6, 42.9%). Additional credentials reported by faculty reported include: Registered Dietitian, Food Management Development Program by the Educational Foundation of NRA, and certification in food safety. Over one-third (36.7%) of the managers had a Bachelor of Science degree and under one-third (28.9%) completed high school or the GED (Table V). Additional credentials provided by the managers included: licensed sanitarian, food and beverage certificates, chef certification, refrigeration license, Certified Public Accountant, and National Sanitation Foundation certification.

Students in quantity food production or advanced foods class were invited to take part in this survey, therefore as expected, student respondents were mostly juniors and seniors (N=263, 71%). There were, however 61 (16.5%) sophomores and 13 (3.5%) freshman (answered in the "other" category) who responded to the survey. Possibly, these two last groups were working toward an associate degree (Table V).

Institutional Category

The faculty sample included 15 randomly selected from two-year and 15 randomly selected from four-year institutions. The response rate for faculty was 12 (85.7%) from the four-year schools, and two (14.3%) from the two-year institutions (Table V). The student population reflected similar responses to faculty where 77.7% (N=281) were from four-year and 19.7% (N=72) were from two-year institutions.

Pursuing Degree Type

When asked the degree they were pursuing, 258 (75.7%) students, answered a Bachelor of Science, 16.5% (N=64) were pursuing an Associate Degree while eight (02.3%) were pursuing certification only. Seven (2.1%) students answered in the "other" category, and this could be undecided students pursuing continuing education, or perhaps graduate students needing leveling courses (Table V).

Institutional Type

Eleven of the 14 (78.5%) faculty taught in hospitality management programs while three (21.4%) taught in a culinary arts program. Only faculty was asked to identify program types (Table V).

Major Field of Study/Teaching

The majority of faculty (85.7%) and students (62.1%) responded that their major field of study was foodservice or hospitality. Two others faculty were teaching in either

business or nutrition, and students in these areas of study totaled 15.4%. There were 82 (22.5%) students were pursuing a culinary arts degree, while 23 (06.3%) students were pursuing a degree in business (Table V).

College

Student respondents were enrolled in various colleges. About one-third (30.1%) were in a culinary arts college, and 29% of the student respondents were in the "other" category. Approximately one-fifth were enrolled in the college of business (21.5%) and human ecology/home economics (19.4%). Students who chose the "other" category (29%) could perhaps be enrolled in the following colleges: agriculture, applied technology, systems sciences, or professional studies, which were not identified as such on the questionnaire (Table V).

TABLE V

INSTITUTIONAL CHARACTERISTICS OF SURVEY PARTICIPANTS

CHARACTERISTICS	FACULTY N	(%)	MANAGERS N	(%)	STUDENTS N	(%)
Educational Level:	N=14		N=90			
High School/GED	0	(00.0)	26	(28.9)		
Associate Degree	0	(00.0)	19	(21.1)		
Bachelor of Science	0	(00.0)	33	(36.7)		
MS/MBA	8	(57.1)	7	(07.8)		
PhD/EdD	6	(42.9)	0	(00.0)		
Other	0	(00.0)	5	(05.6)		
Educational Level:					N=370	
Sophomore					61	(16.5)
Junior					98	(26.5)
Senior					165	(44.6)
Graduate					23	(06.2)
Other					23	(06.2)
Institutional Category:	N=14				N=365	
2-Year	2	(14.3)			72	(19.7)
4-Year	12	(85.7)			281	(77.0)
Other	0	(00.0)			12	(03.3)
Institutional Type:	N=14					
Culinary	3	(21.4)				
Foodservice/Hospitality	11	(78.5)				
Other	0	(00.0)				
Major Field of Teaching/Study:	N=14				N=364	
Business	1	(07.1)			23	(06.3)
Culinary	0	(00.0)			82	(22.5)
Foodservice/Hospitality	12	(85.7)			226	(62.1)
Nutrition	1	(07.1)			33	(09.1)
Other	0	(00.0)			0	(00.0)
Pursuing Degree Type:					N=341	
Associate Degree					64	(16.5)
Bachelor of Science					258	(75.7)
Certification					8	(02.3)
Advanced Degree					4	(02.3)
Other					7	(02.1)
College:					N=335	
Business					72	(21.5)
Culinary					101	(30.1)
Human/Home Economics					65	(19.4)
Other					97	(29.0)

Knowledge Statements

The survey questions are presented under each trend and identified whether they represent an attitude or knowledge statement. The question numbers are not in numerical sequence, and appear as they were randomly selected and presented on the survey questionnaire. The trend knowledge statements are in Table VI in true/false format. The trends are in random order as follows: healthy nutritious menu, customer service, and biotechnology/engineered food merchandising to the diverse customer, technology, and quality standards.

Healthy Nutritious Menu Trend

The foodservice industry fails too often to incorporate nutrition and healthy eating into commercially viable concepts and menus (Renaghan & O'Brein 1995). The overall educators' scores for the healthy nutrition menu trend were the highest (90.2%), which was expected by the researcher. The managers' scores (75.1%), and the students' scores (73.3%) were very similar overall. All three groups knew nutritional and health information concerning heart disease patients. The researcher believes that some of their knowledge was obtained from the media. The question that received diverse scores among the respondents was the statement about consuming a wide variety of foods to obtain nutrients. Managers scored 76.1%, students scored 84.3%, and the faculty scored 85.7%. The managers understood the calories of margarine and butter better than the students did, but the students knew more about sodium (Table VI p. 1). The overall respondent knowledge mean score on healthy nutritious menu was 79.5%.

The students scored 90.7%, the highest score, on the statement, "heart patients should not worry about preventive dieting when eating out" (Hamm, Schnaak & Janas 1995; Kris-Etherton & Krummel 1993). False was the correct answer based on published literature from to the American Heart Association and American Dietetic Association (Bruce & Nies 1994). "It is possible to obtain all the nutrients needed by eating a wide variety of foods," (Bruce 1993, p. 92) received a score of 84.3% from the students, while, "a menu is the central core around which a restaurant revolves," (& Escoffier 1994) received a 76.5% score. Future managers in the foodservice industry need to understand the relationship between food and health in the commercial sector, however, students did not score well on specific nutritional knowledge statements, such as the calorie content of margarine verses butter (50.3%), and the table salt question (69.5%) (Hamm, Schnaak & Janas 1995; Bruce 1993). The students' mean score was 73.3% for the healthy nutritious menu knowledge statements.

Managers in the foodservice industry need to understand the relationship between food and health in the commercial sector; and customers' knowledge of this relationship is changing the menus everywhere. Managers scored very well (94.6%) on the heart patient who dines in restaurants question. The statement, "it is possible to obtain all the nutrients needed by eating a wide variety of foods," (IFIC 1994) was scored correctly by 76.1% of the managers, while "a menu is the central core, around which a restaurant revolves," (Kotschevar & Escoffier 1994) received a score of 71.7%. Of the two specific questions about nutrition, managers scored 69.6% concerning margarine verses butter, and 63.7% on the sodium statement (Table VI p. 1). The average knowledge score for managers for healthy nutritious menu was 75.1%.

The 14 faculty scores averaged 90.2% for the healthy nutritious menu trend questions. The entire faculty (Hamm, Schnaak & Janas 1995; Kris-Etherton & Krummel 1993) answered the heart disease patient question correctly. Almost all (13 of 14) knew that, "the menu is the central core around which a restaurant revolves," (Kotschevar & Escoffier 1994) while 12 out of 14 knew "that a person can obtain all the nutrients needed by the body by eating a wide variety of foods" (IFIC 1994), that margarine had the same calories as butter, and that table s alt contains sodium and chloride needed by the body (Bruce 1993, p. 95).

Customer Service Trend.

The best overall mean score on the trend customer service belonged to the managers (94.7%), followed by the students (91.5%), and then the faculty (88.2%) (Table VI p. 2). The statement with the best mean average was "improving customer service quality is important for restaurant success" (Oh & Parks 1997) with 97%. Statements about understanding customer's expectations (students 93%, managers 94.5%, and faculty 100%), and satisfying customers (students 91.6%, managers 95.6%, and faculty 100%) had high scores from all respondents. One of the lower scoring statements concerned the rude or unfriendly service with an average score of 89%. Effectiveness and efficiency in dining services (Dohrman 1993a) brought about the most divergent scores with correct responses from 57% of the faculty, 88% of the students, and 94.3% of the managers. The overall respondent knowledge mean score in customer service was 91.4%. Good service has always been fundamental to winning and retaining restaurant customers (NRA 1992b). Giving good service is what restaurants can do to compete and stay ahead of the

competition (Lechowich & Soto 1995).

The students knew that, "improving customer service quality is important for restaurant success" (Oh & Parks 1997) (96.2%). "Understanding the customer's expectations" (Oh & Parks 1997) scored 93%, while "satisfaction is related closely to customer's general attitude toward service" and "a dissatisfied customer will tell at least nine other people of the unpleasant experience" (Oh & Jeong 1996) both scored 91.6% (Table VI p. 2). Eight-eight percent or more of the students believed that what tops the list of irritants of customers is rude or unfriendly service (Sun 1995b), and efficiency and effectiveness are major challenges for customer service. The researcher knows that when customer service is done well, it appears easy which is far from the truth (Blanchard & Bowles 1993). The overall students mean score for the knowledge statements in customer service was 91.5%.

On the customer service trend, the managers scored 98.9% on the statement, "Improving customer service quality is important for restaurant success" (Oh & Parks 1997). "Satisfaction is related closely to customer's general attitude toward service" (Oh & Jeong 1996) scored 95.6% while both the importance of understanding the customer's expectations, and the dissatisfied customer tells nine other people of the unpleasant experience (Blanchard & Bowles 1993), received a score of 94.5% (Table VI p. 2). The importance of being efficient and effective also received a good score (94.3%). The lowest scored question concerned rude or unfriendly service (90.1%). The managers overall mean score for the knowledge questions in customer service was 94.7%. The researcher believes that the managers' work experiences made their score on this trend higher than the students' scores.

All faculty correctly answered the statements about customer's expectations, customer's general attitude and improving quality for restaurant success (Table VI p. 2). Most of the faculty (12 of 14) knew the statement concerning rude or unfriendly service, and dissatisfied customers, however, only eight knew that "the major challenge for dining services is to be as efficient and effective as possible" (Dohrman 1993b).

Biotechnology/Engineered Foods Trend

In Table VI (p. 3) the students and managers both scored the highest on the statements about the plants being modified to create healthier cooking oils. The average respondents score for this statement was 81.6%. The faculty scored 100% on the statements about genetically altered foods having a longer shelf life, while the students (76.5%) and managers (71.6%) had the next best scores on this statement. The potato starch content question had an average score of 57.9%, and the tomato question had the lowest score of 48.8%. The overall respondent mean score for the biotechnology/engineered foods knowledge questions was 68.5%. These low scores indicate a lack of knowledge or perhaps a lack of interest in biotechnology. Biotechnology has a direct impact on the financial and safety aspects of food items currently available and in the future (IFIC 1997a; Lauderdale 1996).

It was clear to the researcher that the student respondents had little exposure to biotechnological information. The students highest score (82.9%) was on the statement, "plants are being modified to create healthier cooking oils with reduced saturated fats," (Liu & Brown 1996; IFIC 1996) and "genetically altered foods have a longer shelf life, retard bruising and rotting, viruses and diseases" (IFIC 1994a; IFIC 1996) scored 76.5%

(Table VI p. 3). The students scored lowest on the statements about potato starch (58.3%), and tomatoes (50.8%). The researcher felt that the students' mean biotechnology knowledge score of 67.1% should have been higher, however, they may have limited exposure to food science courses according to Marsico, Borja, Harrison, and Loftus (1998). Biotechnology and engineered foods can enhance existing products and production practices (Reilly 1989). Consumers are likely to be unaware that products consumed have a biotechnology component (Morgan & Davis, 1997).

The food and beverage managers scored low on the biotechnology/engineered foods. The statement, "plants are being modified to create healthier cooking oils with reduced saturated fats" (Liu & Brown 1996; IFIC 1996) received the managers' best score (75.6%) (Table VI p.3). The next highest score was 71.6% on the statement about genetically altered foods having a longer shelf life. The managers scored 54.4% on the potato starch content question (Katz 1996; Katz 1997), and 37.6% on the biotechnological tomato question. As many as 15 managers chose not to answer some of the questions. The managers' mean score for the biotechnology knowledge statements was only 59.8%. The researcher believes biotechnology has an impact on restaurant quality standards and that managers need to invest more time to learn about biotechnology, which could have a direct influence on business.

The entire faculty agreed with the statement, "genetically altered foods have a longer shelf life, retard bruising and rotting, viruses and diseases" (IFIC 1996). "Plants are being modified to create healthier cooking oils with reduced saturated fats," (Liu & Brown 1996; IFIC 1996) received the correct knowledge score from 12 of the 14 faculty (Table VI p. 3). The specific questions pertaining to biotechnology received the lowest

scores from the faculty. Nine out of 14 (64.3%) faculty correctly answered the potato starch and the biotechnological tomatoes knowledge questions. The faculty's mean score for the biotechnology knowledge statements was (78.6%) which was lower than the researcher expected

Merchandising to the Diverse Customer Trend

The statement with the overall best score for all the respondents was about ethnic foods (90.3%) (Table VI p. 4). The students and managers had almost equal scores on statements about take-out foods and microwavable foods (students 80.9%, and managers 80.6%), and about the fast food having the largest market share (students 88.8%, and managers 86.7%). The statement that received low scores from all groups was on bagels as a breakfast item (students 74.6%, managers 67%, and faculty 76.9%). The overall respondent mean score for the merchandising to the diverse customer trend was 86.7%.

The students scored well on demographic statements that probably reflected their lifestyles such as, "dual career families in modern households eat out more frequently" (Gallup Organization Inc. 1983) (85.1%), and the largest market share in the US belongs to fast food restaurants (88.8%) (Table VI p. 4). The students scored 89.7% correctly on the statement, "ethnic foods is gaining in demand in menu offerings" (Uhl 1996; Dohrman 1993a). Students knew (80.9%) that "more take out foods and foods to prepare in the microwave are in demand" (NRA 1996; Reich 1995; Sciancalepore 1995). Let us not forget the most important meal of the day, breakfast. The statement "bagels are a leading breakfast item across the United States" (NRA 1996; Rousseau 1997b) received a student

score of 74.6%. The students' mean knowledge score for merchandising to the diverse customer was 83.8%.

The food and beverage managers scored (94.4%) on the statement, "dual career families in modern households eat out more frequently" (Gallup Organization, Inc. 1983). Ethnic foods is gaining in demand in menu offerings received a managers' score of 91.3% (Table VI p. 4). The statement, "in the US, the largest market share belongs to fast food restaurants in the industry" (Parsa & Khan 1991; Rousseau 1997b) received a score of 86.7%, while the statement in regards to take outs and home replacement meals for the microwave was correctly answered by 80.6%. "Bagels are a leading breakfast item across the United States," (NRA 1996; Rousseau 1997b) received the managers' lowest score of 67%. Breakfast offerings vary in many establishments and manager respondents perhaps see that customers have preferences other than bagels. The managers' mean knowledge score for merchandising to the diverse customer was 84%, which could be considered the equivalent to the 83.8% students' average knowledge scores.

All faculty who responded knew that "dual career families in modern households eat out more frequently," (Gallup Organization, Inc. 1983) (Table VI p. 4) and "ethnic foods is gaining in demand in menu offerings" (Uhl 1996; Dohrman 1993a). Thirteen out of 14 faculty knew that "more take out foods and foods to prepare in the microwave are in demand, and 12 out of 13 knew that the market share belongs to quick-serve restaurants (Parsa & Khan 1991; Rousseau 1997b). They were not, however, too sure about bagels being a leading breakfast item in America (10 out of 13). The faculty's mean score for knowledge statements in merchandising to the diverse customer was 92.4%.

Technology Trend

The scores for the statement "the cutting edge restaurants will utilize and invest in technology to stay competitive" (Cho, Connelly & Tse 1995) were between 85 and 89% (Table VI p. 5). The scores for the statement concerning the self-diagnosing equipment ranged from 56.3% from the managers, 65.7% from the students, 76.9% from the faculty (Mermelstein & Katz 1997). The "aroma sensor" question had similar scores between the faculty (61.5%), manager (47%) and the student (43.9%) respondents (Mermelstein & Katz 1997). The salmonella sound vibration question had the lowest respondents' mean score of 45% (faculty 38.5%, managers 48.2%, and students 47.9%). The growing market of fax and Internet orders was correctly forecasted by the managers (83.5%), students (87.9%), and the faculty (100%) (Kasavana & Borchgrevink 1997 p. 57). The overall respondent mean knowledge score for technology, however, was only 67.8%.

The students knew that "cutting edge restaurants will utilize and invest in technology to stay competitive" (Cho, Connelly & Tse 1995) (89.2%) and that "a growing market is customers utilizing fax machines and Internet orders to then be picked up or delivered at their place of business/home" (Kasavana & Borchgrevink 1997 p. 57) (87.9%) (Table VI p. 5). They were, however, less knowledgeable about self-diagnosing equipment (65.7%), about a procedure using sound vibrations to detect the presence of salmonella infection in eggs (Katz 1997) (47.9%), and robotic harvesters with "aroma" sensors (43.9%). The average scores for the technology trend for students was rather low (66.9%).

Most managers (84.6%) correctly answered the statement, "cutting edge restaurants will utilize and invest in technology to stay competitive" (Cho, Connelly & Tse 1995) (Table VI p. 5). Managers knew (83.5%) that there is a growing market utilizing fax and Internet orders. The managers did not know much about new technological equipment. Their scores were very low for the self-diagnosing equipment (56.3%), sound vibrations detecting salmonella infection in eggs (48.2%), and the "aroma" sensors of robotics (47%). The managers' mean knowledge score for technology was only 63.9%, which was lower than the students' average scores.

All faculty knew about the growing use of fax machines and Internet orders. The faculty also scored high (12 out of 14) (Table VI p. 5) on the statement, "cutting edge restaurants will utilize and invest in technology to stay competitive" (Cho, Connelly & Tse 1995). Their knowledge on other technological equipment was fair: 10 out of 13 knew about the self-diagnosing equipment, while 8 out of 13 had knowledge about the robotic harvesters with "aroma" sensors statement, and 5 out of 13 faculty thought the sound vibration detection of salmonella was possible. It was clear that the faculty believed the salmonella question was false, but the correct answer was true (IFIC 1996; Katz 1997). The faculty's mean average knowledge score on technology was 72.5%.

Quality Standards Trend

When comparing the three groups of respondents, the best overall score for the quality standards were the students' responses. There were three quality standard statements that the faculty, managers, and students scored between 90 and 100% (Table VI p. 6). They were the restaurant obligation statement, the temperature control

statement, and the cross-contamination statement. The cross-contamination question received the best respondent mean score of 95.3%. The consumer protection agency questions had a range of scores between 50 and 80%. The statement with the lowest overall mean score was the statement ensuring a quality product by food planning and control (73.8%)(Lechowich & Soto 1995). The overall respondent knowledge mean score for quality standards was 85.1%. The three greatest concerns confronting restaurant management in the 21st Century in quality standards regarding sanitation are food handling, food storage, and cleaning and sanitizing (Lynn 1996; IFIC 1997a).

The best student response (95.3%) was with the statement, "cross-contamination is a common cause of foodborne illness resulting from improper cleaning and sanitizing workspaces and equipment" (IFIC 1997d) (Table VI p. 6). The next quality standard statements, which received a high student score had to do with food temperature in a foodservice establishment (93.4%), and a restaurant's food quality assurance is important to the customer (90.8%) (1997a). The statement regarding governmental agencies helping guarantee quality standards (Almanza, Nelson & Chai 1997) only received a score of 79.7%, and food planning and controls help to ensure a quality product received a score of 74.1% by the students. The students' average knowledge mean score for quality standard was 86.7%, and the best of the three respondent average scores.

Most managers knew that survival for a restaurant must be able to guarantee that their food supply is safe (97.8%) and that food temperatures are critical to guarantee quality products (96.6%) (Table VI p. 6). In addition, they recognized that food preparation sanitation and safety is essential especially in prevention of cross-contamination (95.5%). They did not score well on food planning and controls, which

ensure a quality product (72.8%), and on consumer protection agencies as a key to quality standards (62.2%). The managers' mean knowledge score for quality standards was 85%.

Two statements received perfect scores by the faculty, the temperature of food and the restaurant's obligation to guarantee safe food (Table VI p. 6). Thirteen out of 14 faculty knew the correct answer to the cross-contamination statement. The statement about food planning and controls ensuring a quality product was answered correctly by 10 out of 14 faculty. The statement about the consumer protection agencies ensuring quality standards was controversial for the faculty; only 7 out of 13 correctly answered true (Table VI). The faculty's mean knowledge scores for quality standards was 83.6%.

Summary

The researcher completed evaluations on the three respondents groups, hospitality faculty's, students', and food and beverage managers' knowledge scores on the foodservice trends. As expected by the researcher the faculty's mean knowledge score overall was highest with 82.8%, then the students' score of 78.4% followed by the food and beverage managers' respondents with 77.6%. The cumulative overall respondents' score on knowledge statements for the six foodservice trends was 79.6%. Average scores ranged from the highest of 94.7% made by the managers in customer service to the lowest score of 59.8% made by the managers in biotechnology. The overall mean average scores for knowledge of the foodservice trends were: customer service with 91.4%; merchandising to the diverse customer with 86.7%; quality standards with 85.1%, healthy nutritious menu with 79.5%, biotechnology with 68.5%, and technology with 67.8%.

The researcher believed that in order to have a working knowledge in each trend the scores needed to be 75% or more. The faculty scored well in all areas, except in technology (72.5%). The students and managers scored 75% or higher in three trends, customer service (students 91.5%,managers 94.7%), merchandising to the diverse customer (students 83.8%, managers 84%), and quality standards (students 86.7%, managers 85%). The other three trends had below average scores in healthy nutritious menu (students 73.3%, managers 75.1), technology (students 67.8%, managers 66.9%) and biotechnology (students 67.1%, managers 59.8%).

The knowledge questions were in true/false format. Based on the overall frequencies of respondents' knowledge scores, the following trends are in order of importance: (1) customer service with 91.4%, (2) merchandising to the diverse customer with 86.7%, (3) quality standards with 85.1%, (4) healthy nutritious menu with 79.8%, (5) technology with 72.5%, and (6) biotechnology with 67.8%. The overall knowledge mean score of all respondents for all six trends was 80.5%.

TABLE VI

FOODSERVICE TREND KNOWLEDGE QUESTIONS AND RESPONDENTS' ANSWERS

HEALTHY NUTRITIOUS MENU	FACULTY Total N	FACULTY True N(%)	FACULTY False N(%)	MANAGERS Total N	MANAGERS True N(%)	MANAGERS False N(%)	STUDENTS Total N	STUDENTS True N(%)	STUDENTS False N(%)
*36. Margarine is lower in calories than butter.	14	2(14.3)	**12(86.0)**	92	28(30.4)	**64(69.6)**	372	185(49.7)	**187(50.3)**
44. It is possible to obtain all the nutrients needed by eating a wide variety of foods.	14	**12(85.7)**	2(14.3)	92	**70(76.1)**	22(23.9)	369	**311(84.3)**	58(15.4)
50. Heart disease patients should worry about preventive dieting when eating out.	14	0(0)	**14(100)**	92	5(05.4)	**87(94.6)**	368	34(09.3)	**334(90.7)**
54. Table salt contains sodium and chloride, and both are essential to a person's diet.	14	**12(86.0)**	2(14.3)	91	**58(63.7)**	33(36)	367	**255(69.5)**	112(30.5)
56. The menu is the central core around which a restaurant revolves.	14	**13(93.0)**	1(7.1)	91	**65(71.7)**	26(28.3)	371	**284(76.6)**	87(23.1)
		90.2%			75.1%			73.3%	

*Randomly assigned question numbers in questionnaire.

Shaded areas denote agreement to research question.

Overall average 79.5

TABLE VI

FOODSERVICE TREND KNOWLEDGE QUESTIONS AND RESPONDENTS' ANSWERS

CUSTOMER SERVICE	FACULTY Total N	FACULTY True N(%)	FACULTY False N(%)	MANAGERS Total N	MANAGERS True N(%)	MANAGERS False N(%)	STUDENTS Total N	STUDENTS True N(%)	STUDENTS False N(%)
*45. Rude or unfriendly service tops the list of customer irritants.	14	12(86.0)	2(14.3)	91	82(90.1)	09(10.0)	371	328(88.4)	43(11.4)
48. A dissatisfied customer will tell at least nine other people of the unpleasant experience.	14	12(86.0)	2(14.3)	91	86(94.5)	05(05.0)	369	338(91.6)	31(08.2)
51. Satisfaction is related closely to customer's general attitude toward the service.	14	14(100)	0(00)	92	88(95.6)	04(04.0)	370	338(91.6)	31(08.2)
55. Understanding the customer's expectations is the first step in delivering high service quality.	14	14(100)	0(00)	91	86(94.5)	05(05.0)	369	343(93.0)	26(07.0)
57. The major challenge for dining services is to be as efficient and effective as possible.	14	08(57.0)	6(43.0)	88	83(94.3)	05(05.0)	371	327(88.0)	44(11.7)
59. Improving customer service quality is important for restaurant success.	14	14(100)	0(00)	91	90(98.9)	01(01.0)	368	354(96.2)	14(03.7)
		88.2%			94.7%			91.5%	

*Randomly assigned question numbers in questionnaire.

Shaded areas denote agreement to research question.

Overall average 91.4%

TABLE VI

FOODSERVICE TREND KNOWLEDGE QUESTIONS AND RESPONDENTS' ANSWERS

BIOTECHNOLOGY/ENGINEERED FOODS	FACULTY Total N	FACULTY True N(%)	FACULTY False N(%)	MANAGERS Total N	MANAGERS True N(%)	MANAGERS False N(%)	STUDENTS Total N	STUDENTS True N(%)	STUDENTS False N(%)
*31. Plants are being modified to create healthier cooking oils with reduced saturated fats.	14	12(85.7)	02(14.3)	90	68(75.6)	22(24.5)	375	311(82.9)	64(17.1)
33. Biotechnological tomatoes will soften slower and have added taste and nutrients.	14	9(64.3)	05(35.7)	85	32(37.6)	53(62.4)	372	189(50.8)	183(49.0)
38. Genetically altered foods have a longer shelf life, retard bruising and rotting, and viruses and diseases.	13	13(100)	0(00)	88	63(71.6)	25(28.4)	370	283(76.5)	87(23.5)
58. Biotechnology research has developed a way to increase potato starch content.	14	9(64.3)	4(30.8)	79	43(54.5)	36(45.6)	362	211(58.3)	151(41.7)
		78.6%			59.8%			67.1%	

*Randomly assigned question numbers in questionnaire.

Shaded areas denote agreement to research question.

Overall average 68%

TABLE VI

FOODSERVICE TREND KNOWLEDGE QUESTIONS AND RESPONDENTS' ANSWERS

MERCHANDISING TO THE DIVERSE CUSTOMER	FACULTY Total N	FACULTY True N(%)	FACULTY False N(%)	MANAGERS Total N	MANAGERS True N(%)	MANAGERS False N(%)	STUDENTS Total N	STUDENTS True N(%)	STUDENTS False N(%)
*35. More take out foods and foods to prepare in the microwave are in demand.	14	13(92.9)	01(07.1)	93	75(80.6)	18(8.4)	376	304(80.9)	72(19.2)
39. The demand for ethnic foods is gaining in menu offerings.	14	14(100)	0(00)	92	84(91.3)	8(08.7)	369	331(89.7)	38(10.3)
52. Dual career families in modern households eat out more frequently.	13	13(100)	0(00)	90	85(94.4)	5(15.6)	369	314(85.1)	55(14.9)
53. In the U.S., the largest market share belongs to fast foods in the foodservice industry.	13	12(92.3)	01(07.7)	90	78(86.7)	12(13.3)	367	326(88.8)	41(11.2)
60. Bagels are a leading breakfast item across the United States.	13	10(76.9)	03(21.4)	91	61(67.0)	30(33.0)	366	273(74.6)	93(25.4)
		92.4%			84%			83.8%	

*Randomly assigned question numbers in questionnaire.

Shaded areas denote agreement to research question.

Overall average 86.7%

TABLE VI

FOODSERVICE TREND KNOWLEDGE QUESTIONS AND RESPONDENTS' ANSWERS

TECHNOLOGY	FACULTY Total N	FACULTY True N(%)	FACULTY False N(%)	MANAGERS Total N	MANAGERS True N(%)	MANAGERS False N(%)	STUDENTS Total N	STUDENTS True N(%)	STUDENTS False N(%)
*37. Robotic harvesters can identify whether melons and other crops are ripe to be picked using "aroma sensors."	13	08(61.5)	05(38.5)	83	39(47.0)	44(53.0)	362	159(43.9)	203(56.0)
40. Self-diagnosing equipment will be able to call a repairman and communicate a description of the problem.	13	10(76.9)	03(23.1)	87	49(56.3)	38(44.0)	361	237(65.7)	124(34.4)
41. Cutting edge restaurants will utilize and invest in technology to stay competitive.	14	12(85.7)	02(14.3)	91	77(84.6)	14 (15.0)	370	330(89.2)	40(10.8)
43. A procedure using sound vibrations detecting the presence of salmonella infection is currently being tested and may one day guarantee that eggs are uninfected.	13	05(38.5)	08(61.5)	83	40(48.2)	43(51.8)	361	173(47.9)	188 (52.1)
49. A growing market is customer's utilizing fax machines and Internet orders to then be picked up or delivered at their place of business/home.	14	14(100)	00(00)	91	76(83.5)	15(16.5)	364	320(87.9)	44(12.1)
		72.5%			63.9%			66.9%	

*Randomly assigned question numbers in questionnaire.

Shaded area denotes agreement to research question.

Overall average 67.8%

TABLE VI

FOODSERVICE TREND KNOWLEDGE QUESTIONS AND RESPONDENTS' ATTITUDES

QUALITY STANDARDS	FACULTY Total N	FACULTY True N(%)	FACULTY False N(%)	MANAGERS Total N	MANAGERS True N(%)	MANAGERS False N(%)	STUDENTS Total N	STUDENTS True N(%)	STUDENTS False N(%)
*32. Food planning and control ensure a quality product.	14	10(71.4)	04 (28.5)	92	67(72.8)	25 (27.2)	374	277(74.1)	97 (25.9)
34. Consumer protection mandated by the FDA, USDA, EPA and Consumer Product Safety Commission is a key to quality standards.	13	07(53.8)	06(42.9)	90	56(62.2)	34(37.8)	365	291(79.7)	74(20.3)
42. Cross-contamination is a common cause of foodborne illness resulting from improper cleaning and sanitizing workspaces and equipment.	14	13(92.8)	01(07.1)	92	88(95.5)	04(04.3)	370	338(95.3)	31(46.7)
46. Once food has entered the operation, the temperature at which it is stored, prepared, cooked and served becomes critical.	14	14(100)	0(00)	90	87(96.6)	03(03.3)	364	340(93.4)	24(06.6)
47. A restaurant's obligation is to assure customers their food will be guaranteed safe.	13	13(100)	0(00)	88	83(97.8)	05(02.2)	371	327(90.8)	44(09.2)
		83.6%			85%			86.7%	

*Randomly assigned question numbers in questionnaire.

Shaded areas denote agreement to research question.

Overall average 85.1%

Attitude Statements

Foodservice trend attitude questions and respondents' answers are presented in Table VII. The responses to attitude questions are based on a Likert scale ranging from one to five. One represents when the respondent strongly agrees with the statement and five represents when the respondent strongly disagrees with the statement. The attitudinal questions refer to the participant's feelings or viewpoints concerning the preparation, presentation, and purchasing of food consumed by customers who choose to eat out or have it prepared outside the home. Table VII has the respondents' results for each of the five responses on the Likert scale. The researcher combined and shaded the matching responses (to the research literature) in the "strongly agree" and "agree" columns, and combined the "strongly disagree" and "disagree" columns, while the included "neutral" column was in original format. This was done for discussion purposes only.

Healthy Nutritious Menu Trend

The first two questions (Number 1 & Number 3) had reversed answers; therefore the scores were also reversed. Based on the Likert scale, the respondents' overall mean attitude score for healthy nutritious menu was 2.0 (students 2.0, managers 2.2, and faculty 1.9) which means that all respondents, especially faculty and students agreed with the attitude statements (Table VII p. 1). The attitudes toward the need to avoid beef altogether to have a lowfat menu had the highest average of 1.6 (1.8 for managers, 1.8 for students, and 1.3 for faculty), which indicated that respondents agreed or strongly agreed that one need not avoid consuming beef to have a lowfat menu. Two attitude questions

(Numbers 3 and 30) received an average respondent score of 1.8 on the Likert scale. Question 3 dealt with eating whatever you wanted when you are healthy, and most of the respondents disagreed with this statement. The other statement had to do with foodservice courses teaching about food choices and health and most of the respondents agreed with this statement. Three attitude statements (Numbers 8, 10 and 29) received an average respondent score of 2.1 on the Likert scale. These three statements dealt specifically with the restaurants promoting menu items, variety of menu items, and healthy choices on the menu. The only question with a neutral overall respondent score (3.0) dealt with the respondent's willingness/ unwillingness to pay more for nutritious items.

A majority of the hospitality students felt strongly (89%) (53% agreed and 36% strongly agreed) that part of their knowledge base should incorporate how the preparation of foods affects its nutritive value (Table VII p. 1). The Australian study of hospitality students by Allen, Cumming, and Woodward (1997), supported these findings. Menu variety is a key to attracting and maintaining customers for restaurant managers according to 82% of student respondents. The hospitality students felt that "restaurants should promote healthy menu items" (NRA 1990) (75%), and that the restaurant "menu planner has the responsibility to offer healthy choices" (Allen, Cumming & Woodward 1997; Montgomery & Ebro 1994) (77%). The students agreed with the negative statements about individuals need to consume a variety of foods in order to be healthy (76%), and that all foods and menu items eaten in moderation would not be harmful to one's health, including a low-fat menu offering of beef (84%).

Students responded as expected on all statements but one concerning if restaurants offered a more nutritious menu item that one would be willing to pay a higher price. The

student respondents scores were varied (47% agree, 24% neutral, 29% disagreed) with regards to paying more for nutritious menu items (Table VII p. 1). Perhaps more information was needed about food type, preparation, presentation, or nutritive value of the nutritious menu items. Today's customer wants to be able to select healthful choices if they so desire (IFIC 1996). In the 1990s, students feel that nutritious menus can be created without restaurants having higher food costs or charging the customer a higher price (Bruce & Nies 1994). The students' mean attitude score for healthy nutritious menu trend was 2.0 based on the Likert scale.

A majority of the managers (86%) disagreed with the statement that restaurant managers who offer a low-fat menu must avoid beef items. Almost the same majority (86%) concurred with the statement that you can eat what you want if you are healthy. Food and beverage managers (78%) believed that menu variety is one of the keys to attracting and maintaining customers (Table VII p.1). More than half (54%) of the managers supported the statement, "restaurants should promote healthful menu items," (NRA 1990) while over one-third (34%) of them were neutral about promoting healthful menu items. Again over half (54%) supported the idea that, "a menu planner's responsibility is to offer healthy choices" (Allen, Cumming & Woodward 1997; Montgomery & Ebro 1994).

The managers were almost equally divided in their responses concerning purchasing nutritious menu items for more money (36% agreed, 28% neutral, and 35% disagreed) (Table VII p. 1). While 15.2% of the food and beverage managers were neutral to the statement that "foodservice courses should teach food choices and health," (Allen, Cumming, & Woodward 1997) a majority of them agreed (76%). The researcher

concluded that these respondents had a slightly negative view of the foodservice industry's social responsibility to offer and prepare nutritious menu items. The overall managers' mean attitude score for healthy nutritious menu was 2.2 based on the Likert scale.

The entire faculty agreed that foodservice courses should teach food choices and health, and "a menu planner's responsibility is to offer healthy choices" (Allen, Cumming, & Woodward 1997; Montgomery & Ebro 1994). Thirteen out of 14 of the faculty answers supported the literature concerning the next two negative statements, "in order to have a low-fat menu, restaurant operators need to avoid beef altogether," (NRA 1993; IFIC 1995) and eating what you want is okay if you are healthy (IFIC 1994a or b). Twelve out of the 14 faculty supported the statement about restaurants promoting healthful menu items. The faculty's supported the attitude statement about menu variety attracting and maintaining customers by nine out of the 14. Only four educators would purchase nutritious menu items at a higher price, while six out of 14 would not pay more. The general public's attitude is in agreement with the four faculty members who were willing to purchase health nutritious menu items at a higher price (Bruce 1993) (Table VII p. 1). The overall faculty's mean attitude score for healthy nutritious menu was 1.9 based on the Likert scale.

Customer Service

There was very little difference in the attitude scores of the customer services for the three respondent groups. They agreed with the statement, "food, good service, and atmosphere generate total customer satisfaction." (Lauderdale 1996). The students strongly agreed (1.6), and the managers were very close in agreement with the students'

responses (1.7), while the faculty scored 2.1 based on the Likert scale. The faculty and students both strongly agreed (1.7),while the managers agreed (2.1) with the statement on genetic alteration of products and disclosing that information to the customer. Both the managers and students agreed (2.1) about customers believing they are being served high quality products, while the faculty's response inclined to be more neutral (2.3) creating an average mean score of 2.2 based on the Likert scale. The statement concerning customers desiring human touch rather than robots when being served brought the strongest response from the students (1.5), and managers did not feel as strongly about it with a score of 1.8 based on the Likert scale, while the faculty agreed with a score of 2.1. The respondents' overall mean attitude score for the customer service trend was 1.9 based on the Likert scale, and this score indicates the respondents agreed and strongly agreed with all the statements.

Most student respondents agreed with all four statements about customer service. They believed that food, good service, and atmosphere generates total customer satisfaction in the dining experience 89% (58% strongly agree, 31% agree), and the customers definitely want pampering by the human touch rather than robotics when being served in the restaurant (79%) (Table VII p. 2). Most of the student respondents (71%) were of the opinion that restaurant customers believe the food products are of high quality standard (Lowe 1997), while 22% were neutral on this subject. Over four-fifths (81%) of the students agreed with the statement about customers' rights to know about product alteration. The students' mean attitude score for the customer service trend was 1.7 based on the Likert scale and that indicated they agreed and tended to strongly agree.

Managers support the statement about food, good service, and atmosphere generating a total dining experience by 83%. Managers also believe (87%) in the service area customers prefer humans to robotics (Table VII p. 2). They supported the statement about customers believing that restaurants serve high quality standard products (78%). The managers believe that in addition, customers have the right to know if a product has had genetic alterations (73%). Overall, the managers' mean attitude score for customer service was agreeable at 1.9 based on the Likert scale.

A majority of the faculty (13/14) was of the opinion that customers have a right to know about genetic alteration of foods that they intend to consume. Twelve out of 14 faculty also supported the statement about the total restaurant dining experience. Only 10 out 14 agreed that customers want the human element in the service area. About two-thirds of the faculty (9/14) support that statement about customers' beliefs in high quality products served to them at restaurants (Table VII p. 2). The faculty's overall mean attitude score for customer service was 2.1 based on the Likert scale.

Biotechnology/Engineered Foods Trend

In general, most of the attitude statements regarding biotechnology received from low agreement (1.7) to neutral responses (3.4) based on the Likert scale (Table VII p. 3). Faculty had an average of 2.4, managers had 3.0 and students 2.8, with an overall respondent score of 2.7 on a scale of 5 based on the Likert scale regarding the biotechnology/engineered foods trend. Faculty agreed more (1.7) with the attitude statement that they personally would purchase genetically altered foods while both students and managers' attitudes (3.0 and 3.1) were neutral. The faculty, managers and

students displayed similar attitudes (2.2 to 2.4) that genetically altered foods need to be labeled on the menus. Both faculty and students also agreed similarly (2.1 and 2.2) that as actual and perceived risks regarding biotechnology become smaller, customers will actually accept biotechnology. In contrast, the managers were near neutral (2.6) relative to the acceptance of biotechnology. Almost all respondents were neutral (2.9 to 3.3) towards the attitude statements that the hospitality industry should encourage acceptance of genetically altered food, and that consumers are ready (2.9 to 3.4) to accept these foods (Table VII p. 3). Results regarding the biotechnology/engineered foods trend were in agreement with the results reported by Nelson and Poorani (1997).

Most student respondents determined that genetically altered foods should be labeled as such on restaurant menus (60%). Four statements had neutral responses from students. These statements in Table VII (p.3) with large neutral responses were: (1) "I would be willing to purchase and consume genetically altered meats and vegetables," (Mills & Riehle 1993) (36% neutral and 32% agree); (2) "The hospitality industry should encourage acceptance of genetic altered foods," (Nelson & Poorani 1997) (53% neutral and 18% agree); (3) "In my opinion, consumers are ready to accept genetically altered foods," (IFIC 1997b) (42% neutral and 18% agree), (4) "Biotechnology will gain in acceptance as the actual and perceived risks become smaller," (IFIC 1997c) (47% neutral and 44% agree). The last two statements results were consistent with the Wirthlin Group Quorum Survey (1997).

The researcher believes that in general, people are afraid of trying new products they are not familiar with, (Wirthlin Group Quorum Survey 1997) and the students reacted no differently in this survey. According to Goss' study (1996), consumers will be more

acceptable of genetically altered foods when more information becomes available to them. Approximately 44% of the students are in agreement with the research. The students' mean attitude score for biotechnology/ engineered foods trend was close to neutral with 2.8 based on the Likert scale.

Over half (54%) of the manager respondents agreed with the statement about genetically altered foods being labeled on menus when used (Table VII p. 3). They believed (45%) that biotechnology will gain in acceptance, as the actual and perceived risks become smaller. Only 29% of the managers were willing to purchase and consume genetically altered meats and vegetables. A few of the managers (14%) supported the statement that hospitality industry should encourage acceptance of genetic altered foods. Only 10% of the managers believed that consumers are ready to accept genetically altered foods. The range of managers' scores was 32 to 48%. The managers' overall mean attitude score for biotechnology/engineered food was neutral (3.0 on the Likert scale).

Most of the educators (11/14) believed that biotechnology would gain in acceptance, as the actual and perceived risks become smaller (Table VII, p. 3). Genetically altered foods, when utilized by foodservice should be labeled on menus as such, and was supported by almost two-thirds of the faculty (9/14). The largest portion of the three respondent groups that were willing to purchase and consume genetically altered meats and vegetables was the faculty (8/14). However only five believed that the hospitality industry should encourage acceptance of genetic altered foods, and five of the faculty believed that consumers are ready to accept genetically altered foods. The faculty compared to the managers and students came the closest to agreeing with the attitude statements with an overall mean attitude score of 2.4 based on the Likert scale for the

biotechnology/engineered foods trend.

Merchandising to the Diverse Customer Trend

One statement had a reversed answer, and therefore the scores were also reversed (Table VII p. 4). The attitude statements regarding marketing or merchandising covered many different aspects of the industry. The faculty, managers, and students were in agreement (1.9 to 2.3 on the Likert scale) that more educated or older individuals are not necessarily the worst customers, and that for couples with children, good service, value and convenience determine whether they eat at fast foods or full-service restaurants (Table VII p. 4). All respondents have similar attitudes ranging from 2.3 (agreement) to 3.2 (neutral) based on the Likert scale regarding four attitude statements: complainers are better educated, women are healthier eaters, men eat out more often and lunchtime is the meal to cut calories. The attitude towards cutting calories at lunch supports the results found by Masur (1997). Based on the Likert scale, the overall respondents average for merchandising to the diverse customer was 2.5 (faculty 2.6; managers 2.4; and students 2.5) which is midway between agreement and no opinion or neutral.

The students' attitude scores varied for each of the statements (Table VII, p. 4). Only two-thirds (67%) of the students supported the statement that more women order healthier entrees than men do . More than three-fourths (79%) believed that couples with children considered good service, value and convenience when selecting a foodservice establishment. The statement about cutting calories at lunch was supported by only 51% of the students. Students were indecisive about their responses towards statements regarding demographics and merchandising to diverse customers. A little less than half

(46%) of the students believed that male heads of households eat out most often. Most students did not believe (52%) that the worst customers are older adults, while 30% answered neutral. About 28% of the students were both neutral and agreed that customers with a greater amount of education are those who publicly complain more, while 44% disagreed that public complainers are more educated (Table VII p. 4). The students' mean attitude score for merchandising to the diverse customer trend was 2.5 based on the Likert scale.

The managers were different in their knowledge and attitudes about merchandising to the diverse customers. On the whole, the managers' attitudes matched the responses of the students and faculty (Table VII, p. 4). Most of the managers (87%) felt that to couples with children, the important factors to consider where to dine include good service, value and convenience. Managers mostly disagreed (76%) that the worst customers are older adults. Nearly two-thirds (63%) of the managers agreed, and about one-fourth (23%) disagreed that more women order healthier entrees more than men do. Both of the following statements received varied responses. However, the statement about male head of households eating out more often (45% agreed, 31% neutral, and 25% disagreed), and about cutting calories at lunchtime (47% agreed, 28% neutral, 25% disagreed) had similar responses in the three possible categories (Table VII p. 4). Managers were unlikely to agree (49%) with the statements that, "customers who publicly complain are better educated," (Cetron, DeMicco & William 1996). About one-fifth (19%) agreed and 31% remained neutral about the statement. The managers' overall mean attitude score was 2.4 based on the Likert scale and the respondents' score came closer to agreeing with the attitude statements than the other two respondent groups.

The faculty's mean attitude responses based on the Likert scale was 2.6 for merchandising to diverse customers trend was more neutral than expected (Table VII p. 4). Half of the faculty (7/14) believed that customers who publicly complain are better educated, while five disagreed with the statement. Ten out of 14 faculty disagreed with the statement, "the worst customers are older adults," (Pederson & DeMicco 1992) while three were neutral. Nine of the 12 faculty agreed that couples with children look for good service, value and convenience as factors to consider when eating out, however three disagreed with the statement. More than half (8/14) of the faculty agreed that "women order healthier entrees more than men do" (Wood 1992), while more than half (8/14) of the faculty disagreed with the statement that male head of households eat out most often of all consumers. Four faculty supported the statement while another two remained neutral.

Technology Trend

The technology attitude statements contained novel ideas and may have been interpreted as controversial issues, hence the type of responses which were given. One statement had a reverse answer; therefore the score was also reversed. The statement receiving the highest overall attitude score was 2.4 by the faculty and managers, and students (2.3) concerning the training of hospitality employees and using new technology (Table VII p. 5). There were diverse answers from the three respondents regarding the safety of food irradiation. The faculty (2.1) was in favor of food irradiation, and in contrast the managers and the students (2.9) were undecided about food irradiation. The researcher believed that education and exposure to information on this subject has a direct

affect on the scores. Strong feelings of disagreement were evident on whether the respondents would purchase an automobile with a microwave as an added feature. Most of the respondents, (managers 4.4, students 4.0, and faculty 3.8) disagreed with the statement and would not invest in a car with a microwave. The overall attitude mean score for the technology trend was neutral 2.9 (2.7 faculty, 3.0 students, and 3.1 managers) based on the 5-point Likert Scale (Table VII p. 5).

Technology can be considered a threat or an opportunity, and it depends how the person perceives it. Over two-thirds of the students (68%) believed that is not difficult to train hospitality employees in using new technology (Table VII p. 5). About half of the students (49%) responses were neutral, or did not have an opinion about food irradiation, and 24% did not think it was safe to use. The researcher believes that the students in this study have not been taught about the subject of food irradiation in foodservice courses. They were not sure if restaurants would be receptive to a laser eye detecting handwashing by employees before returning to work either (38% agree 42% neutral and 21% disagree). The students felt very strongly (77%) about not purchasing an automobile with a microwave oven, which is the opposite of what the researcher expected. Microwave ovens are expected to be in 25% of all cars by 2001 (Sloan 1996; Ebro 1998). The students' mean attitude score for the technology trend was 3 or neutral on the Likert scale.

Over half (56%) of the managers disagreed with the statement that it was difficult to train hospitality employees when using new technology, (27% are neutral and 17% agree) (Table VII, p. 5). Most were not supportive of the statement, "I believe food irradiation is safe to use (33% agree, 46% neutral, and 22% disagreed). Some of the

managers (36%) (Table VII p. 5) supported the Nueborne's 1997 article in *USA Today* about being receptive to a new laser handwashing eye detecting (51% were neutral and 14% disagreed). The managers adamantly disagreed, (87%) that if given the opportunity they would not purchase an automobile with the added feature of a built-in microwave, and only 5% would invest in it. After all, this new automobile feature would go against restaurant dining. The managers mean attitude average score was 3.1 based on the Likert scale, and slightly towards disagreement with the technology trend statements.

The faculty supports the use of food irradiation and its safety (11/14). About two-thirds (9/14) of the faculty disagreed with the statement that it was difficult to train hospitality employees in the use of new technology (Table VII p. 5). About one-third of the faculty (5/14) believed that restaurants are receptive to the new laser eye-detecting hand washing, seven were neutral and two disagreed. The majority (10/14) of the faculty was not interested in purchasing an automobile with a microwave, while four of the faculty were in favor of such an investment. The faculty's overall means attitude score for the technology trend was 2.7 based on the Likert scale, and the most positive out of the three respondents.

Quality Standards Trend

Three out of four of the questions (Numbers 4, 24, and 28) had reversed answers; therefore the scores were also reversed (Table VII p. 6). The statement with the strongest agreement of all respondents based on the 5 point Likert scale was the food poisoning question with managers scoring 1.4, and the students and faculty both scoring 1.5. The human contamination statement received an overall attitude score of 1.7 (students 1.5,

faculty, 1.7 and managers 2.0). Faculty were in agreement (2.1) with the statement that few employees are concerned about the Food Danger Zone, while managers (2.7) and students (2.9) were more neutral about the statement. Managers and students (2.7) were more neutral than the faculty (2.3) about the higher costs of training employees to properly prepare healthy foods. The overall average respondent attitude score was 2.1 (faculty 1.9; managers 2.2; and students 2.2) based on the 5-point Likert scale (Table VII p. 6). Quality standards should be a major concern to the industry with the advent of new foodborne pathogens since this trend could become a point of differentiation for restaurant selection for customers.

Almost all the students (87%) disagreed with the statement, "it is really no big deal about food poisoning; it never results in more than minor discomfort" (IFIC 1997d; IFIC 1997e) (Table VII p. 6). Most respondents also agreed (81%) that "the greatest threat of foodborne illness is contributed by human contamination" (IFIC 1997e). Only 39% agreed with the statement that "few foodservice employees are concerned with the Food Danger Zone, 40 to 140°F" (Featsent 1997 p. 10), which is similar to the managers' attitude (38%), yet disagreed with the research literature (Table VII p. 6). Perhaps the students opinion about the Food Danger Zone has to do with the type of supervisor, work experience, the size of establishment where they are employed or the part of the country where they live. The students' mean attitude score for the quality standards trend was 2.2 based on the Likert scale.

The responses of over half of the managers (51%) agreed with the research literature which is to disagree with the statement, "it costs more for management to train employees to properly prepare healthy foods," (Lynn 1996) while 17% remained neutral

and 32% agreed with the statement (Table VII p. 6). The majority of the managers (79%) felt that the greatest threat of foodborne illness was human contamination. The managers overwhelmingly disagreed (95%) with the food poisoning being no big deal. Over half of the managers (53%) agreed with the literature and disagreed with the statement, "few foodservice employees are concerned with the Food Danger Zone, 40-140° F," (Featsent 1997, p. 10). The other half either agreed (38%) or was neutral (10%) (Table VII p. 6). Being in the work world, they may rely on what they see, rather than what should be. The overall attitude managers' mean score was 2.2 based on the Likert scale.

Almost all the faculty (13/14) disagreed with the food poisoning question (Table VII p. 6). The researcher anticipated a higher score for the faculty (12/14) relative to the human contamination as the greatest threat of foodborne illness, and that "few foodservice employees are concerned with the Food Danger Zone, 40-140° F," (Featsent 1997, p. 10). Over two-thirds of the faculty (10/14) disagreed with the statement, "it does not cost more for management to train employees to properly prepare healthy foods," (Lynn 1996) while three believed it does (Table VII p. 6). The faculty's overall mean attitude score for quality standards was 1.9 based on the Likert scale, and the faculty agreed more so than the students or managers with the attitude statements in the quality standards trend.

Summary

The attitude statements receiving the strongest responses were the quality standards trend statement regarding food poisoning was no big deal received a score of 1.5, the strongest agreed reply in all statements for the six trends. The statement with the strongest disagreement (4.1) in the technology trend was concerning purchasing a car with

a microwave. These scores were average means for one of the respondent groups based on a 5-point Likert scale.

The researcher completed reviewing the three respondents groups' (hospitality faculty, students, and food and beverage managers) attitude scores on the foodservice trends. The students were the most agreeable with the attitude statements based on the six foodservice trends with an overall mean attitude score of 2.3, while the managers and the faculty both scored 2.4 out of five based on the Likert scale. The overall mean attitude score for the three respondent groups was 2.3.

The most agreeable attitude trend scores for the respondents was the customer service trend with 1.9, and the other overall attitude scores ranged from 2.0 and 2.9, thus an respondents' overall mean attitude average was 2.4 based on the Likert scale. Healthy nutritious menu had an overall mean score of 2.0, followed by quality standards with an overall mean attitude score of 2.1. The last three trends had overall mean attitude scores inclined to be neutral with merchandising to the diverse customer score of 2.5, biotechnology/engineered foods had an overall mean attitude score of 2.7, while the most neutral overall attitude mean score was the technology trend with 2.9.

It appears that the respondents, faculty, managers and students agree with the trend statements in customer service, healthy nutritious menu, and quality standards. In the industry, these trends seem to overlap each other, and are necessary to accomplish an excellent dining experience for customers. The last three trends are supportive of the restaurant organizational process as opposed to being necessary for it to function on a daily basis. These three trends are merchandising to the diverse customer, biotechnology/engineered foods and technology. The first trend, merchandising to the

diverse customer, deals with the market and creating an approach for restaurants so they may acquire their market share of the profit. By knowing the customers' demographics the managers or owners are able to more easily achieve their market share. By investing in the second trend, the precise technology for each particular restaurant can assist the managers into running an efficient and effective operation with fewer problems. The last of the three supportive trends is biotechnology/engineered foods. Part of keeping up with one's profession is finding out about what is new in product development, and the advantages and disadvantages of these products. It is up to the managers to evaluate what will assist the restaurant by means of better quality products, quality control and in creating a larger profit. After all most managers' positions is contingent upon the business making a net profit.

TABLE VII

FOODSERVICE TREND ATTITUDE QUESTIONS AND RESPONDENTS' ANSWERS

HEALTHY NUTRITIOUS MENU		FACULTY SA	A	N	D	SD	MANAGERS SA	A	N	SD	D	STUDENTS SA	A	N	SD	D
*1. In order to have a lowfat menu, restaurant operators need to avoid beef together.	N	00	00	01	02	11	03	01	09	39	41	04	14	45	161	153
	%	00	00	07	14	79	03	01	10	42	44	01	04	12	43	41
3. As long as you are healthy it doesn't matter what you eat.	N	00	00	01	05	08	01	04	08	45	36	12	26	53	151	131
	%	00	00	07	36	57	01	04	09	48	38	03	07	14	41	35
8. Restaurants should promote healthful menu items.	N	02	10	02	00	00	15	36	32	08	03	113	170	74	12	09
	%	14	71	14	00	00	16	38	34	09	03	30	45	20	03	02
10. Menu variety is a key to attracting and maintaining customers for full service.	N	04	05	03	02	00	20	54	11	09	00	108	198	36	29	05
	%	05	06	21	14	00	21	57	12	10	00	29	53	10	08	01
27. I would be willing to pay more for menu items if I knew they were more nutritious.	N	00	04	04	05	01	04	30	26	30	03	45	129	91	90	19
	%	00	29	29	36	07	04	32	28	32	03	12	35	24	24	05
29. A menu planner has the responsibility offer healthy choices.	N	03	04	00	00	00	15	36	22	16	03	80	211	52	28	05
	%	21	79	00	00	00	16	39	24	17	03	21	56	14	07	01
30. Foodservice courses should teach about food choices and health.	N	06	08	00	00	00	21	49	14	07	01	132	197	28	11	04
	%	43	57	00	00	00	23	53	15	08	01	36	53	08	03	01
				79.3%					67.3%					76.1%		

*Randomly assigned question numbers in questionnaire.
Shaded area denotes agreement to research literature.

Overall average 74.2%

TABLE VII

FOODSERVICE TREND ATTITUDE QUESTIONS AND RESPONDENTS' ANSWERS

CUSTOMER SERVICE		FACULTY SA	A	N	D	SD	MANAGERS SA	A	N	D	SD	STUDENTS SA	A	N	D	SD
*2. Food, good service, and atmosphere generates total customer satisfaction in the restaurant dining experience.	N	03	09	01	00	01	50	27	09	05	02	218	119	15	20	07
	%	21	64	07	00	07	54	29	10	05	02	58	31	04	05	02
5. Vegetarians have the right to know if the vegetables they are served contain genetic material from animals.	N	05	08	01	00	00	29	39	17	06	03	158	147	54	13	07
	%	36	57	07	00	00	31	42	18	06	03	42	39	14	03	02
6. When customers walk into a restaurant they believe the products received are of a high quality standard.	N	02	07	04	01	00	20	52	14	05	02	97	170	81	22	05
	%	14	50	29	07	00	22	56	15	05	02	26	45	22	06	01
25. In the service area, customers want the human element and not be receptive to robotics when giving food orders.	N	05	05	01	03	00	41	40	04	05	04	174	120	41	35	07
	%	36	36	07	21	00	44	43	04	05	04	47	32	11	09	02
		78.5%					80.4%					80%				

*Randomly assigned question numbers in questionnaire.

Shaded areas denote agreement to research literature.

Overall average 79.6%

TABLE VII

FOODSERVICE TREND ATTITUDE QUESTIONS AND RESPONDENTS' ANSWERS

BIOTECHNOLOGY/ENGINEERED FOODS		FACULTY					MANAGERS					STUDENTS				
		SA	A	N	D	SD	SA	A	N	D	SD	SA	A	N	D	SD
*7. Genetically altered foods should be labeled as such on restaurant menus.	N	04	05	03	02	00	24	26	30	12	02	84	142	100	41	9
	%	29	36	21	14	00	26	28	32	13	02	22	38	27	11	02
9. Biotechnology will gain in acceptance as the actual and perceived risks become smaller.	N	01	10	03	00	00	09	33	40	12	00	34	131	177	31	04
	%	7	71	21	00	00	10	35	43	13	00	09	35	47	08	01
11. I would be willing to purchase and consume genetically altered meats and vegetables.	N	01	07	06	00	00	04	23	40	16	11	24	100	135	86	34
	%	07	50	43	00	00	04	25	43	17	12	06	26	36	23	09
14. The hospitality industry should encourage acceptance of genetic altered foods.	N	00	05	06	03	00	02	11	45	31	05	08	58	200	82	27
	%	00	36	43	21	00	02	12	48	33	05	02	16	53	22	07
17. In my opinion, consumers are ready to accept genetically altered foods.	N	00	05	05	04	00	02	07	41	39	04	08	59	156	123	29
	%	00	36	36	29	00	02	08	44	42	04	02	16	42	33	08
				54.4%					31.2%					34.4%		

*Randomly assigned question numbers in questionnaire.

Shade areas denote agreement to research literature.

Overall average 40.0%

TABLE VII

FOODSERVICE TREND ATTITUDE QUESTIONS AND RESPONDENT ANSWERS

MERCHANDISING TO THE DIVERSE CUSTOMER		FACULTY SA	A	N	D	SD	MANAGERS SA	A	N	D	SD	STUDENTS SA	A	N	D	SD
*12. The worst customers are older adults.	N	01	00	03	06	04	03	09	11	43	28	25	44	113	122	71
	%	07	00	21	43	29	03	10	12	46	30	07	12	30	33	19
19. Studies state that customers who publicly complain are better educated.	N	02	05	02	05	00	01	17	29	29	17	22	83	107	123	40
	%	14	36	14	36	00	01	18	31	31	18	06	22	29	33	11
21. For couples with children, good service value, and convenience determine whether they eat at fast foods or full-service restaurants.	N	03	06	00	03	00	27	51	07	02	03	114	174	39	29	10
	%	25	50	00	25	00	30	57	08	02	03	31	48	11	08	03
22. Women order healthier entrees more than men do.	N	01	07	03	03	00	11	48	13	20	02	59	192	75	44	08
	%	07	50	21	21	00	12	51	14	21	02	16	51	20	12	02
23. Male heads of households continue to lead all consumers for eating out most often.	N	00	04	02	08	00	07	34	29	22	01	40	134	113	72	19
	%	00	29	14	57	00	08	37	31	24	01	11	35	30	19	05
26. Lunchtime is the period customers try to cut calories most often.	N	01	07	02	04	00	04	40	26	21	03	29	163	89	70	26
	%	07	50	14	29	00	04	43	28	22	03	08	43	24	19	07
		56.7%					56.2%					53.8%				

*Randomly assigned question numbers in questionnaire.

Shaded areas denote agreement to research literature.

Overall average 55.6%

TABLE VII

FOODSERVICE TREND ATTITUDE QUESTIONS AND RESPONDENTS' ANSWERS

TECHNOLOGY		FACULTY SA	FACULTY A	FACULTY N	FACULTY D	FACULTY SD	MANAGERS SA	MANAGERS A	MANAGERS N	MANAGERS D	MANAGERS SD	STUDENTS SA	STUDENTS A	STUDENTS N	STUDENTS D	STUDENTS SD
*13. It is difficult to train hospitality employees when using new technology.	N	00	03	02	06	03	03	13	25	41	10	04	37	81	192	63
	%	00	21	14	43	21	03	14	27	45	11	01	10	22	51	17
15. I believe food irradiation is safe to use.	N	02	09	03	00	00	10	20	43	15	06	27	74	183	71	19
	%	14	64	21	00	00	11	21	46	16	06	07	20	49	19	05
16. Restaurants are receptive to the new laser eye detecting employee handwashing before returning to work.	N	02	03	07	02	00	08	25	48	09	04	41	100	156	59	17
	%	14	21	50	14	00	09	27	51	10	04	11	27	42	16	05
20. I would purchase an automobile with the added feature of a built-in microwave suited to aide in the preparation of food on the go.	N	01	03	00	04	06	01	04	07	29	53	18	25	45	124	164
	%	07	21	00	29	43	01	04	07	31	56	05	07	12	33	44
				51.3%					32.3%					36.6%		

*Randomly assigned question numbers in questionnaire.

Shaded areas denote agreement to research literature.

Overall average 40%

TABLE VII

FOODSERVICE TREND ATTITUDE QUESTIONS AND RESPONDENTS' ANSWERS

QUALITY STANDARDS		FACULTY SA	A	M	D	SD	MANAGERS SA	A	M	D	SD	STUDENTS SA	A	M	D	SD
*4. It costs more for management to train employees to properly prepare healthy foods.	N	01	02	01	06	04	07	23	16	34	14	23	82	80	149	41
	%	07	14	07	43	29	07	25	17	36	15	06	22	21	40	11
18. The greatest threat of foodborne illness is contributed by human contamination.	N	07	05	01	01	00	25	48	05	13	02	161	143	34	39	00
	%	50	36	07	07	00	27	52	05	14	02	43	38	09	10	00
24. It's really no big deal about food poisoning; it never results in more than minor discomfort.	N	01	00	00	03	10	03	02	00	19	70	13	10	24	77	253
	%	07	00	00	21	71	03	02	00	20	75	03	03	06	20	67
28. Few foodservice employees are concerned with the Food Danger Zone (40-140 degrees F).	N	00	02	00	10	02	07	28	09	27	22	39	110	49	119	58
	%	00	14	00	14	71	08	30	10	29	24	10	29	13	32	16
		83.8%					69.5%					66.8%				

*Randomly assigned question numbers in questionnaire.
Shaded areas denote agreement to research literature.

Overall average 73.4%

Ranking of Trends

The respondent groups were asked to rank the six foodservice trends in order of importance to the hospitality industry. On the scanable questionnaire, they were to rank "1" as the most important and "5" was the least important. Since there were only five selections, and six trends were to be ranked, the respondents were asked to omit the least important trend in their opinion to the foodservice industry. Seven to 13 faculty respondents ranked the trends. The number of students who ranked the trends ranged from 269 to 358 respondents. Seventy to 92 manager respondents ranked the trends "1 to 5." The trend with the highest frequencies was ranked as trend number "1", and the trend with the lowest frequencies of faculty, students and managers received the sixth rank (Table VIII).

Customer service was ranked as the most important, while biotechnology was ranked as the next to the least important trend, and technology was ranked as the least important of the six foodservice trends. Managers ranked quality standards as the second most important trend in the industry. The students were in agreement with the faculty and ranked healthy nutritious menu as number three in order of importance to the industry. Merchandising to the diverse customer was ranked fourth in importance by the respondents. The overall ranking of trends by the three respondent groups were 1) customer service, 2) quality standards, 3) healthy nutritious menu, 4) merchandising to the diverse customer, 5) technology, and 6) biotechnology/engineered foods.

By forecasting trends, hospitality professionals can be responsive to the needs of consumers and the marketplace. Futurecasting of trends is needed to determine probable

and logical outcomes and arriving at future goals by the hospitality industry for the 21st Century.

TABLE VIII

FREQUENCIES OF RESPONSES TO FOODSERVICE TRENDS IN RANK ORDER

FOOD SERVICE TREND RANKING	FACULTY						MANAGERS						STUDENTS					
	Total N	*1	2	3	4	5	Total N	*1	2	3	4	5	Total N	*1	2	3	4	5
1. Customer Service	13	11	2	0	0	0	92	60	25	4	1	2	356	206	101	39	6	4
2. Quality Standards	13	1	5	3	3	1	90	45	34	5	4	2	358	139	121	68	21	9
3. Healthy Nutritious Meals	11	0	3	5	2	1	90	6	28	39	12	5	335	70	105	96	44	20
4. Merchandising to the Diverse Customer	12	0	4	3	2	3	80	4	28	22	18	8	329	40	80	76	90	43
5. Technology	13	2	1	4	4	2	89	7	14	22	22	24	336	52	67	53	79	85
6. Biotechnology/Engineered Foods	7	0	0	4	0	3	70	4	16	19	10	21	269	59	44	59	23	84

*1 = Most important
5 = Least important

Hypothesis Testing

There were only 14 faculty respondents, therefore no statistical analysis were performed between faculty knowledge and attitude scores and their personal and educational characteristics. Statistical analysis was performed between students' and managers' knowledge and attitude scores and their personal and educational characteristics.

H01 - There will be no significant association between knowledge scores toward foodservice trends based on personal variables of: age, gender, ethnic origin, years of foodservice work experience, type of foodservice work experience, and if respondents have taken a college nutrition course. The dependent variables were the knowledge scores of the hospitality students, and food and beverage managers for the foodservice trends: biotechnology/engineered foods, customer service, marketing to the diverse customer, quality standards, technology and healthy nutritious menu. The independent variables were the personal variables: age, gender, ethnicity, years of foodservice work experience, type of work experience, and if respondents have taken a college nutrition course.

The t-test determination was used to discern associations between knowledge scores towards foodservice trends and personal variables of managers, and students. With managers, no significant associations were found between knowledge scores and the personal variables at the $p \leq 0.05$ level of significance.

With students, no significant associations were found between the foodservice trends knowledge scores and the personal variables of age, gender, ethnicity, years of

foodservice work experience, and having taken a nutrition course. There was one significant association at the $p \leq 0.05$ level between the students' healthy nutritious menu knowledge scores and the types of foodservice work experiences, production ($p=0.0015$, Table IX). In contrast, those with substantial production experience may pay more attention to the food product, whether it is fresh, frozen, irradiated, how its packages, how it is obtained, prepared and served (NRA 1997). These elements affect the end product, which was described on the menu for the customers. Students with a variety of foodservice work experiences knew more about healthy nutritious menus and scored higher than those with less experience.

TABLE IX

T-TEST ON STUDENTS KNOWLEDGE OF HEALTHY NUTRITIOUS MENU AND FOODSERVICE WORK EXPERIENCE IN PRODUCTION

Group	N	Mean (%)	Standard Deviation (%)	p
No Experience	142	70.0	21.7	0.0015
Experience	217	77.2	19.0	

Testing of the Hypothesis 1

1. There were no significant associations out of 60 possibilities between the knowledge scores and personal variables at the $p \leq 0.05$ level of significance for the food and beverage mangers. Therefore the researcher failed to reject H01.

2. With the hospitality student population, the researcher failed to reject H01 based on only 1 significant out of 60 associations at ($p \leq 0.05$) between knowledge scores in healthy nutritious menus trend and the types of foodservice experience in the area of production. There were no other significant associations between the students' knowledge scores and the personal variables: age, gender, ethnicity, and years of foodservice work experience and having taken a nutrition course.

H02 - There will be no significant association between the students' or managers' attitude scores toward foodservice trends based on personal variables of: age, gender, ethnic origin, and years of foodservice work experience, type of foodservice work experience, and if respondents had taken a college nutrition course. The dependent variables were the attitude scores of the hospitality students and the food and beverage managers for the foodservice trends. The trends were stated in H01.

Testing of Hypothesis 2

1. Based on 60 possible associations, there were none between the food and beverage managers' attitude scores and the personal variables. Therefore researcher failed to reject H02 based on the $p \leq 0.05$ level of significance.

2. Based on t-test determinations, there were 0 significant out of 60 possible associations ($p \leq 0.05$) between student attitude scores on all foodservice trends and the personal variables. Based on these results, the researcher failed to reject H02.

H03 - There will be no significant association between knowledge scores toward the foodservice trends based on institutional variables: level, major, and college. The dependent variables were the knowledge scores on trends as stated in H01. The three independent variables were the educational level, major or field of the study, and college. The educational level was one independent variable of the students and managers. Hospitality students have the other two independent variables: the major field of study and college.

For managers, there was no significant association ($p \leq 0.05$) between knowledge scores on all foodservice trends and level of education. Based on the analysis of variance for the technology knowledge trend and the students' college, the level of significance was $p=0.0302$ (Table X). According to the Duncan Multiple Range Test, the students' who selected the "other" college category scored significantly higher in knowledge (72.7%) on the technology statements than the business (64.7%), culinary arts (64.6%), and human ecology/home economics (63.4%) college students (Table XI). With 90 students selecting the "other" category, the researcher believes that perhaps the students may have been enrolled in the colleges of agriculture, systems sciences, applied science, or professional studies. Perhaps the curricula in these technically oriented colleges required more exposure to technology. It is also possible that courses have required experiential experiences (laboratories and internship experiences) have given these students additional exposure to state-of-the-art technology.

TABLE X

ANALYSIS OF VARIANCE FOR STUDENTS' KNOWLEDGE OF TECHNOLOGY TREND AND COLLEGE

Source	DF	Mean Square	F Value	Pr>F
Students				
College	3	0.152	3.02	0.0302
Error	306	0.05		
Corrected Total	309			

TABLE XI

DUNCAN'S MULTIPLE RANGE TEST FOR THE STUDENTS' KNOWLEDGE OF TECHNOLOGY TREND AND COLLEGE

College	N	Mean (%)	Groupings[1]
Students			
"Other"	90	72.7	A
Business	65	64.7	B
Culinary	96	64.6	B
Human Ecol/Home Economics	59	63.4	B

[1]Means with the same letter are not significantly different.

Testing of Hypothesis 3

1. For students, there was one significant association ($p \leq 0.05$) between technology knowledge scores and the college where the students were enrolled. There were no other significant associations between other trends and institutional variables. Based on this one association, the researcher failed to reject H03.

2. No association was found between the managers' knowledge scores on all foodservice trends and level of education, therefore, the researcher failed to reject H03.

H04 - There will be no significant association between attitude scores toward the foodservice trends based on institutional variables: level, major, and college. The dependent variables are the attitude scores on foodservice trends as stated in H01. The independent variables are the educational level, major or field of the study, and college. The variable, educational level, was for managers and students, while the other two independent variables namely, major field of study and college were for the students only.

With the managers, there were no significant associations between attitude scores on all foodservice trends and institutional variables. For students, there were three significant associations ($p \leq 0.05$) between attitude scores on healthy nutritious menu and field of study ($p=0.0133$, Table XII), healthy nutritious menu attitude scores and college ($p=0.0080$, Table XIV) and also between attitudes scores on customer service and students' college ($p=0.0499$, Table XVI) according to the Analysis of Variance Test and the Duncan Multiple Range Test.

In Table XIII, the attitude scores of healthy nutritious menu of nutrition students (2.54) were significantly lower (tended to agree) with the statements more so than the culinary art (2.76) and business (2.90) college students. The hospitality students score was 2.68 on the Likert scale and was significantly lower than the business students; scores (2.90). Perhaps the business students were looking at the overall picture of running an establishment, and felt that menu items must make a profit or removed from the menu. The culinary students could possibly have been looking at the overall artistic and creative presentation of a healthy nutritious menu.

There was a significant association between the students' healthy nutritious menu attitudes and college ($p=0.0080$, Table XV). The "other" college category (2.6) and

human ecology/home economics college students' scores (2.66) tended to agree more with the attitudes than the culinary college students (2.82, Table XV). It appears that when it comes to attitudes toward a healthy nutritious menu the culinary college students lean toward a neutral position. In most four-year programs offering foodservice/ hospitality and nutrition, a great deal of emphasis is placed on food courses with attention given to basic food preparation and quantity food production (Marisco, Borja, Harrison, & Loftus 1998). It may be that the majority of culinary colleges had not begun to integrate nutrition into their foods courses, and the possibility that culinary students have not been given the opportunity to transfer this knowledge into analyzing menu items could account for this significance in scores.

Table XVI showed the third association of attitude scores on customer service and college ($p=0.0499$). Those students in the "other" college category scored significantly lower (1.79) on the customer service attitude trend than human ecology/home economics students (2.02). The colleges of culinary arts and business students' attitude scores were not significantly different from the college of human ecology/home economics or students enrolled in the "other" college (Table XVII).

Customer service is a combination of atmosphere, food, service, reservations, wait time, and basically all elements of the dining experience (Albrecht & Zemke 1985). All elements, the physical, social, psychological, political and economical affect humans in any environment.

TABLE XII

ANALYSIS OF VARIANCE FOR THE HEALTHY NUTRITIOUS MENU ATTITUDE TREND AND STUDENTS' MAJOR FIELD OF STUDY

Source	DF	Mean Square (%)	F Value	Pr>F
Students				
Field of Study	3	0.688	3.63	0.0133
Error	334	0.19		
Corrected Total	335			

TABLE XIII

DUNCAN'S MULTIPLE RANGE TEST FOR THE HEALTHY NUTRITIOUS MENU ATTITUDE TREND AND STUDENTS' MAJOR FIELD OF STUDY

Field of Study	N	Mean	Groupings[1]
Students			
Business	22	2.90	A
Culinary	79	2.76	AB
Foodservice/Hospitality	206	2.68	BC
Nutrition	31	2.54	C

[1]Means with the same letter are not significantly differently.

TABLE X1V

ANALYSIS OF VARIANCE FOR THE STUDENTS' HEALTHY NUTRITUOUS MENU ATTITUDE TREND AND COLLEGE

Source	DF	Mean Square (%)	F Value	Pr>F
Students				
College	3	0.78	4.01	0.0080
Error	311	0.19		
Corrected Total	314			

TABLE XV

DUNCAN'S MULTPLE RANGE TEST FOR THE STUDENTS' HEALTHY NUTRITIOUS MENU ATTITUDE TREND AND COLLEGE

College	N	Mean	Groupings[1]
Students			
Culinary	97	2.82	A
Business	71	2.72	AB
Human Ecol/Home Economics	58	2.66	B
"Other"	89	2.60	B

[1]Means with the same letter are not significantly different.

TABLE XVI

ANALYSIS OF VARIANCE FOR THE STUDENTS' CUSTOMER SERVICE ATTITUDE TREND AND COLLEGE

Source	DF	Mean Square (%)	F Value	Pr>F
Students				
College	3	0.747	2.63	0.0499
Error	324	0.283		
Corrected Total	327			

TABLE XVII

DUNCAN'S MULTPLE RANGE TEST FOR THE STUDENTS' CUSTOMER SERVICE ATTITUDE TREND AND COLLEGE

College	N	Mean	Groupings[1]
Students:			
Human Ecol/Home Economics	64	2.02	A
Culinary	97	1.93	AB
Business	71	1.84	AB
"Other"	96	1.79	B

[1]Means with the same letter are not significantly different.

Testing of Hypothesis 4

1. There were no significant associations between the attitude scores on foodservice trends and the managers' institutional variables. Therefore, the researcher failed to reject H04 for food and beverage managers.

2. There were three significant associations at ($p \leq 0.05$) level of significance between students' attitude scores on healthy nutritious menu and field of study, healthy nutritious menu and college, and between consumer service and college. Based on these three out of 18 associations ($p \leq 0.05$) the researcher rejected H04.

H05 -There will be no significant association between importance ranking of the foodservice trends and the type of respondents: students or managers. The dependent variables were the ranking of the trends: biotechnology/engineered foods, customer service, and healthy nutritious menus, merchandising to the diverse customers, quality standards and technology. The independent variables were the two types of respondents: students and managers.

Testing of Hypothesis 5

1. There were no significant associations ($p \leq 0.05$) between the importance rankings of the six hospitality trends and the type of respondents: the hospitality students (Appendix J).

2. There were no significant associations ($p \leq 0.05$) between the importance rankings of the six hospitality trends and the type of respondents: the food and beverage managers (Appendix J).

Based on the chi-square determination, no significant associations were found between the importance rankings of the six hospitality trends and the two types of respondents: hospitality students and food and beverage managers. Therefore, the researcher failed to reject H05.

H06 – There will be no significant association between the perspective, (knowledge and attitudes) of students and managers, and their rankings of the foodservice trends. The dependent variables were the knowledge and attitude scores of hospitality faculty, students, and food and beverage managers for the foodservice trends: biotechnology/engineered foods, customer service, marketing to the diverse customer, quality standards, technology and healthy nutritious menu. The independent variables were how the students and managers rank the six foodservice trends in order of importance

There were no associations found between managers perspectives and ranking of the six foodservice trends at the $p \leq 0.05$ level of significance. Based on Analysis of Variance Test, and the Duncan's Multiple Range Test, there were two significant associations ($p \leq 0.05$) between the foodservice trends and student perspective scores. One significant association was between the customer service knowledge trend scores and the students' ranking of customer service trend as number one at $p=0.0041$ (Table XVIII). Students (N=90) who ranked the trend as number one scored the highest in customer service knowledge (98%) also ranked the customer trend as number one, while the students (N=5) who ranked the trend as number six scored the lowest (83%) (Table XIX).

The second significant association was between the students' healthy nutritious menu attitude scores and the healthy nutritious menu trend ranking at $p=0.0218$ (Table XX). The students (N=18) who had ranked the trend number 1 had the lowest mean attitude score (2.47) based on the Likert scale in regards to healthy nutritious menu. In contrast, those who ranked the trend as number 2, 4, 5, and 6 rated the health nutritious menu statements towards the neutral area (2.8 to 2.91). Those students' attitudes close to

neutral were neither for or against the healthy nutritious menu statements were indecisive about the trend's importance to the operation (Table XXI).

Testing of Hypothesis 6

1. There were no significant associations between the managers' perspectives and their rankings of the foodservice trends. Therefore the researcher failed to reject HO6.

2. There were two significant associations ($p \leq 0.05$) between the students' perspectives and their rankings of the foodservice trends. Based on only two significant associations out of the possible 72, the researcher failed to reject H06.

TABLE XVIII

ANALYSIS OF VARIANCE FOR KNOWLEDGE OF STUDENTS' CUSTOMER SERVICE SCORES AND THE CUSTOMER SERVICE TREND RANKING

Source	DF	Mean Square	F Value	Pr>F
Students				
Customer Service	5	0.038	3.60	0.0041
Error	161	0.011		
Corrected Total	166			

TABLE XIX

DUNCAN'S MULTIPLE RANGE TEST FOR KNOWLEDGE OF STUDENTS' CUSTOMER SERVICE AND CUSTOMER SERVICE TREND RANKING

Group	N	Mean(%)	Groupings[1]
Students			
1	90	97.8	A
3	19	94.7	AB
2	46	93.1	AB
5	2	91.7	AB
4	5	86.7	AB
6	5	83.3	B

[1]Means with the same letter are not significantly different.

TABLE XX

ANALYSIS OF VARIANCE FOR STUDENTS' HEALTHY NUTRITIOUS MENU ATTITUDE SCORES AND THE HEALTHY NUTRITIOUS MENU TREND RANKING

Source	DF	Mean Square	F Value	Pr>F
Students				
Healthy Nutritious Menu	5	0.526	2.73	0.0218
Error	153	0.193		
Corrected Total	158			

TABLE XXI

DUNCAN'S MULTIPLE RANGE TEST FOR THE HEALTHY NUTRITIOUS MENU ATTITUDE SCORES AND HEALTHY NUTRITIOUS MENU TREND RANKING

Group	N	Mean	Groupings[1]
Students			
6	22	2.91	A
5	10	2.90	A
4	31	2.80	A
2	35	2.80	A
3	43	2.67	AB
1	18	2.47	B

[1]Means with the same letter are not significantly different.

CHAPTER V

SUMMARY, RECOMMENDATIONS, AND IMPLICATIONS

Summary

This study investigated hospitality students', faculty's, and professional managers' perspectives, (attitudes and knowledge), of six selected foodservice trends. The specific objectives determined the respondents' knowledge and the attitudes in relation to the following trends: healthy nutritious menus, customer service, merchandising to the diverse customers, biotechnology/engineered foods, quality standards, and technology. In addition, the respondents were asked to rank the six foodservice trends in order of importance to the industry. As a result of these objectives six hypotheses were formulated. Survey questionnaires were sent to 30 randomly selected quantity foods faculty and each were asked to have their students (assumed to be 20 in each class) to complete questionnaires. NRA randomly selected 350 food and beverage managers from the 1997 membership representing nine regional areas of the United States. A total of 1,018 individuals were sent questionnaires.

The questionnaire had four sections: demographic information (personal and institutional), knowledge statements in true/false format, a 5-point Likert-type scale was to evaluate attitude statements, and a section ranking the foodservice trends in order of importance to the industry. Data obtained from 488 questionnaires (response rate 48.4%)

were analyzed using t-test, frequency, percentage, analysis of variance, Duncan's multiple test, and Chi-square. Fourteen out of 30 faculty was too small to be a representative sample of hospitality educators when testing the hypotheses, but their perspectives of the foodservice trends, and rankings were discussed.

Personal Variables

Respondents were mostly Caucasian, and female. Faculty and managers were predominantly 46 years and older, while students were mostly 20-25 years of age. Sixty percent of all respondents had managerial experiences. Over 70% of the faculty and the managers had service and production work experience. Students mostly had (78.2%) production experience, but over 60% had experience in the service area. Over two-thirds of the faculty and students had taken a nutrition course, while only about one-third of the managers had taken a college level nutrition course.

Institutional Variables

Over 50% of the faculty had had completed a master's degree, and the remainder had doctoral degrees. The majority of student respondents were juniors or higher. Three-fourths of the students responded they planned to obtain a bachelor's degree, while under one-fifth had plans of obtaining an associate degree. Students were obtaining their education from various colleges. The following are estimated percentages of their responses: one-third for culinary college, while about one-fifth for human ecology/home economics college, and also for the college of business. The "other" college category received less than one-third of the student responses.

The managers were a diverse group with regard to educational level. Over one-third of the food and beverage managers had a bachelors degree, while a little under one-third of the managers only had a high school degree or GED, and over one-fifth (21.1%) of the managers had an associate degree.

The educational institution type was a variable for the faculty and students, and over three-fourths of both groups were involved in four-year programs. Most of the faculty (85.7%) taught in foodservice/hospitality programs, with almost two-thirds of the students enrolled in those programs. About one-fifth of the faculty taught in culinary arts and nearly one-fifth of the students had culinary as their major field of study.

Knowledge and Attitude Responses

The perspective (knowledge and attitude) scores for the six foodservice trends were discussed and compared by the researcher for the hospitality faculty, student, and food and beverage manager respondents. For discussion purposes only, the faculty's perspectives (knowledge and attitudes) were included with the students and managers. Their opinion on how to rank the six foodservice trends according to industry importance were also included in this discussion.

Overall respondents' trend knowledge averages were highest in customer service, merchandising to the diverse customer and quality standards, and low (under 70%) in biotechnology and technology. The healthy nutritious menu knowledge scores indicated respondents knew menu information, but lacked nutritional knowledge for application. As expected the faculty's overall knowledge scores were the highest, and the student and managers overall knowledge scores were similar. One trend with divergent scores was

the healthy nutritious menu, the faculty scores were over 90% and the managers' and students' knowledge scores were approximately 75%. A contrast in knowledge scores between the managers and students was in biotechnology/engineered foods trend. The students' scores were about 10% higher than the managers' scores. The overall average score for the three respondent groups was 80.5% for the six foodservice trends.

An attitude is how one feels toward a fact of statement or knowledge. Therefore the respondents attitudes and knowledge work together with each other to develop a person's perspective about a topic. It is the researcher's opinion that experiences, attitudes and knowledge are considered as major parts of a person's knowledge base. There were questions based on general information, as well as specific information. Some of the attitude questions dealt with personal biases, as well as feelings about what the future might hold for the industry. Several of the attitude questions were controversial.

Respondents agreed most strongly with attitude statements about customer service trend average (1.9). Based on a 5-point Likert scale, (with 1 = strongly agree, to 5 = strongly disagree) the other overall attitude scores ranged from 2.0 and 2.9. Healthy nutritious menu had an overall mean score of 2.0, and then quality standards followed with an overall mean attitude score of 2.1. The last three trends had larger overall mean attitude scores that leaned towards neutral with merchandising to the diverse customer score of 2.5, biotechnology/engineered foods had an overall mean attitude score of 2.7, while the most neutral overall attitude mean score was the technology trend with 2.9.

In conclusion, it appears that the respondents, faculty, managers and students agree with the trend statements in customer service, healthy nutritious menu, and quality

standards. In the industry, these trends seem to overlap each other, and necessary to accomplish an excellent dining experience for customers. The last three trends are supportive of the restaurant organizational process as opposed to being necessary for it to function on a daily basis. These three trends are merchandising to the diverse customer, biotechnology/engineered foods, and technology. The first trend, merchandising to the diverse customer, deals with the market and creating an approach for restaurants so they may acquire their market share of the profit. By knowing the customers' demographics the managers or owners are able to more easily achieve their market share. By investing in the second trend, the right technology for each particular restaurant can assist the managers running an efficient and effective operation with fewer problems. The last of the three supportive trends is biotechnology/engineered foods. Part of keeping up with one's profession is finding out about what is new in product development, and the advantages and disadvantages of these products. It is up to the managers to evaluate what will assist the restaurant by means of better quality products, quality control and in creating a larger profit. After all most managers' positions are contingent upon their place of business creating a net profit.

Ranking of Trends.

No significant associations ($p \leq 0.05$) were found between the respondents' ranking of the six foodservice trends in the foodservice industry and the respondents: hospitality faculty, students, and food and beverage managers. The ranking of the trends were determined by the total number of frequencies in the rankings of each trend of all three respondent groups. Each ranking had a score of one, and was tallied on Table VIII. The

rankings of the trends were in nominal order as viewed by their importance to the industry by this study's respondents: 1) customer service, 2) quality standards, 3) healthy nutritious menu, 4) merchandising tot he diverse customer, 5) technology, and 6) biotechnology/engineered foods.

These six trends have helped to shape the current restaurant industry. They trends may require changes and adaptations that may be perceived as opportunities or threats. Yet, what the hospitality industry traditionally and typically does well is adapt to change and new environments. To be competitive in a rapidly changing environment will require an unprecedented understanding of the changing hospitality industry and foodservice trends.

By forecasting trends, hospitality professionals can be responsive to the needs of consumers and the marketplace. Futurecasting of trends is needed to determine probable and logical outcomes and arriving at future goals by the hospitality industry for the 21st Century. "The future belongs to those who can dream and then translate those dreams into reality," (Parks 1998, p. 319).

Hypothesis Testing

The associations between the perspectives of managers and students, and the personal and institutional variables were shown in Tables IX through XVII in Chapter IV. The researcher failed to reject H01, H02, and H03. There were no significant associations between the managers' knowledge and attitudes scores and the personal and institutional variables. The researcher partially failed to reject H04 because the managers failed to have any significant associations at $p \leq 0.05$ level, and there were three

significant associations between the students' attitude scores and institutional variables. The significant associations ($p \leq 0.05$) were between students' attitude scores on healthy nutritious menu and their field of study, healthy nutritious menu and their college, and customer service and college. Based on three out of 18 possible associations, the researcher rejected H04 for the student respondents.

There were no significant associations between the rankings of the trends and the respondents, therefore the researcher failed to reject H05 based on the $p \leq 0.05$ level of significance. The null hypothesis 6 tested for any significance associations between perspectives of students and managers and their trend ranking. Out of the possible 72 associations, there were two significant associations ($p \leq 0.05$) found between students' perspectives in customer service knowledge, and healthy nutritious attitude scores and how they chose to ranked each of them (Tables XVIII to XXI). However, the researcher failed to reject H06.

There seemed to be a tendency developing with the respondents', managers and students, knowledge scores and the type of work experiences. These associations were not significant at the $p \leq 0.05$ level of significance, but a pattern had developed. With the food and beverage managers an association ($p \leq 0.10$) between their managerial experiences and the knowledge scores in customer service, quality standards and technology trends had developed. The student respondents had developed patterns with varied work experiences and knowledge scores. Associations between quality standards knowledge scores and managerial experiences, healthy nutritious menu and customer service knowledge scores and production experiences had developed. There was one additional association at the $p \leq 0.10$ level that merits mentioning and that is between

students' quality standards knowledge scores and whether the students had taken a nutrition course.

Recommendations

Based on the results of this study, the following recommendations are offered for future studies. Subjects could be expanded to include more faculty and students in four year colleges and universities offering hotel restaurant curriculum rather than a combination of two and four year curriculum. Another suggestion for further research could be to survey only faculty or only food and beverage managers. For the managers, the type of commercial foodservice, volume of sales, size of facility, salary range, number of employees and the establishment's location in the United States' regional areas according to NRA, could be added to demographics.

Studies in trends are generally ongoing or scheduled on a regular basis, therefore, this study involving foodservice professionals' needs to be repeated periodically. Trends are evolving and changing frequently, and, therefore, those in the hospitality industry need to be cognizant of which trends will impact their facility. Trends need to be defined for the respondents and if ranking is required; it must be explicitly explained that there should be absolutely no duplication of ranking of trends in their answers.

One way to improve response rate might be through the use of technology such as electronic mail or facsimile mail to remind subjects to compete the study. Electronic addresses may be more available in the future. Labels purchased from NRA and other sources may already have electronic addresses as well.

If surveys are sent to students via faculty, the number of students enrolled in each

class needs to be reported to derive a true response rate. Perspective of foodservice trends by dietetic students could also be studied and, perhaps, compared with perspectives of the hospitality students.

Faculty had several challenges that need to be addressed to assist hospitality students in their knowledge repertoire. The curricula need to include courses, which encompass three trends: healthy nutritious menu, biotechnology, and technology. Students' knowledge base should include applying nutrition to menus and menu analysis, incorporating biotechnology into sanitation, including food production courses and purchasing courses in college curricula. Technology is in all aspects of the restaurant industry, and the researcher believes that hospitality students should be expected to know technology by attending state and national restaurant association shows, and investigating what the technological field is making available for the industry. The above aforementioned contribute to a future manager's professionalism. The students need a knowledge base in areas that are not the major topic of the course which help them to develop professionally, and helps to develop their critical thinking skills, and problem solving techniques. Then the students have the capability to deal with big picture thinking or to pay attention to small details; whichever is necessary at any particular given situation. This creates well-rounded future hospitality managers with exemplary education.

Current food and beverage managers need to improve their knowledge base in nutritional application to the menu, and menu analysis, biotechnology and technology. Reading industry journals can assist the manager in staying abreast of what the technological and biotechnological world has to offer. Another suggestion to improve

the managers' knowledge base is to network with other restaurant owners; joining state associations, and attending trend shows, or industry repositions. Managers should network with their purveyors about what is new and available in the industry. This information can assist them in staying abreast of current products, both in consumable items and equipment. Life-long learning can be a goal for food and beverage managers, and this objective is being met by alliances set up between the NRA and universities to teach courses via Internet or by distance learning.

The faculty needs to stay current in the information presented in courses they teach. Most students are consumers who want the best for their money and this means keeping up with the industry and the educational field. This means it is necessary for the faculty to read trade journals, as well as, professional educational journals. Scholarly research keeps many of the faculty current in their knowledge base. Current work experience from industry internships and externships can help faculty to be on the cutting edge of knowledge. Faculty can share their newfound knowledge, and schools can bring in industry representatives to teach courses, which benefit the school, the students, and the industry.

Implications

No longer is eating out an occasion, it is a meal. But for many consumers convenience overrules nutrition, and the rest of the consumers are approaching menus with a healthy nutritious preventive approach. When students consider education, many feel a strong responsibility to provide healthy options and welcome nutritional training as part of their education with food courses. This study's findings support previously

reported data findings concerning students and their attitudes toward healthy food options on menus in restaurants in the Allen, Cumming, and Woodward study (1997). Food-preparation laboratories are a better setting than traditional lecture classes for teaching nutrition to food professionals. Whether this will successfully translate into appropriate and effective action in this competitive industry, remains to be seen.

Globally many foodservice managers are aware of the relationship between food and health but do not feel it is their responsibility to implement healthier styles of eating. The application of such principles is often dependent upon the decisions made by food and beverage managers, who in turn may depend on the importance of what they believe their customers, attribute to nutrition. Future managers in the foodservice industry need to understand the relationship between food and health in the commercial sector (Knutson & Patton 1993; Wood 1992). In the Allen, Cumming, & Woodward (1997) study, the Australian students responded that given the role of health issues in food choice, they felt a strong responsibility to provide healthy options and would welcome nutritional training as part of their education. These findings were consistent with the results of studies on American (Bruce & Nies, 1994) and Irish (Gowdy & McKenna 1994) hospitality students.

There is a need for more nutrition education for hospitality managers who are seeking this knowledge. Such teachings, however, must focus on the translation of nutrition theory into a cuisine which can be successfully marketed to the health-conscious consumer and still meet the economic and business needs of the foodservice provider. Short-courses or seminars are an option for the manager whose schedule does not offer time to attend a formal classroom setting. A new mindset of today is necessary along

with becoming "tech-literate" (Parks 1998). Teaching by satellite, the Internet and independent study may be alternatives to life-long education for professionals in the foodservice industry.

Further research is necessary to establish whether food preparation classrooms are suitable sites for nutrition education in culinary and foodservice management programs. Dietitians would be essential in the development of collaborative curriculums that merge nutrition and culinary education, a recommendation that has been suggested by Dr. Sara Parks (Parks, Lechowich, & Halling 1994).

The two areas of greatest concern that were brought out in the survey were how the faculty, students and food and beverage managers ranked biotechnology and technology. These two subject areas are synonymous with change and are already happening in the 1990s, and will continue more strongly in the 21st century.

Whether faculty, students and managers are receptive to these trends or not, customers are utilizing technology and engineered foods which are becoming available in the supermarkets. Virtual reality has expanded learning with cybernetics and holograms.

The public needs to be exposed to more information on biotechnology or engineered foods and technology in order to change the public's perception and view to a more positive mindset. Updating oneself about technology and biotechnology/engineered food is a professional responsibility to the customers of the respondents. In order to be on the cutting edge and to keep current professionally, hospitality faculty, students, and managers must embrace change. The issue of managing the continuing professional education becomes a survival strategy. Those who choose not to update themselves will be left behind.

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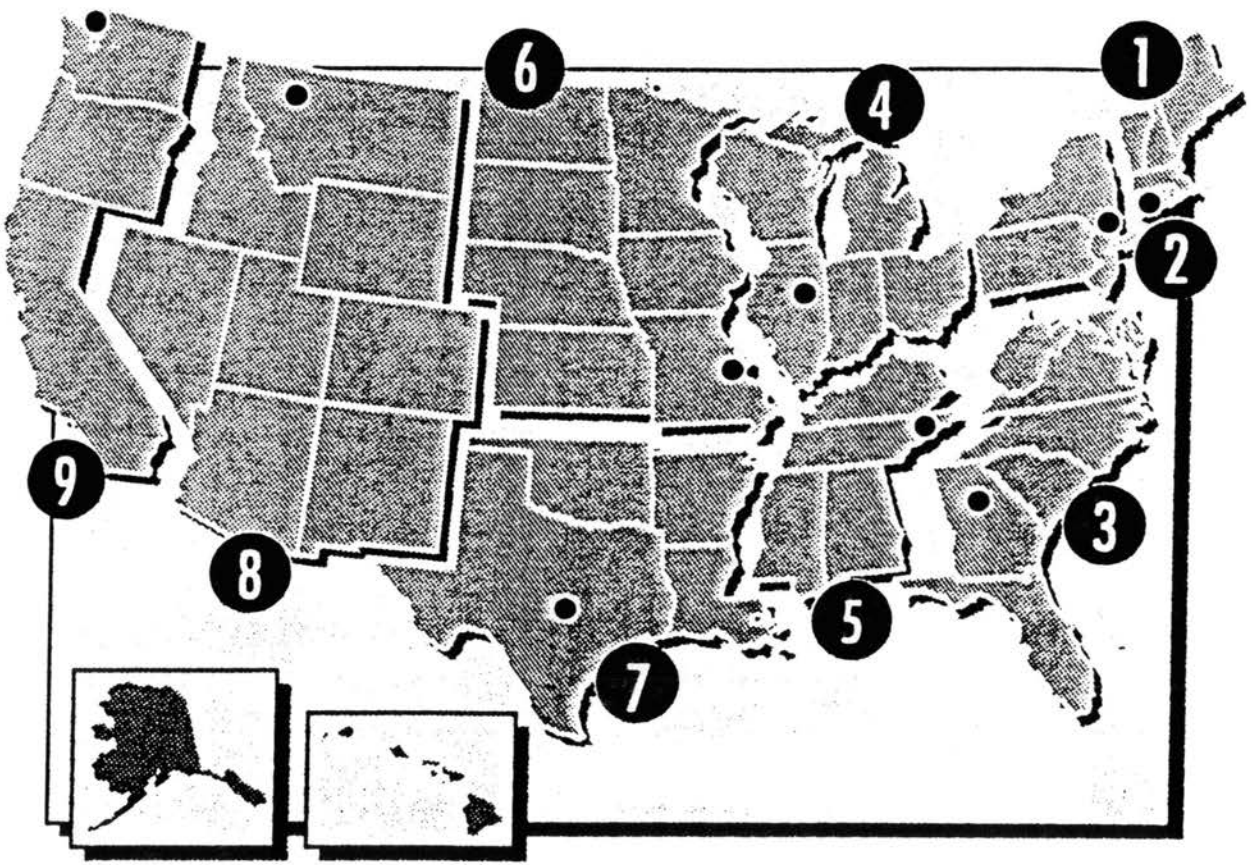
APPENDICES

APPENDIX A

NRA REGIONAL MAP AND RESPONDENT SCHOOL LISTING

NINE UNITED STATED REGIONAL AREAS BY THE
NATIONAL RESTAURANT ASSSOCIATION



1. New England 2. Mid-Atlantic 3. South Atlantic 4. East North Central 5. East South Central
6. West North Central 7. West South Central 8. Mountain 9. Pacific

SCHOOL SURVEY LISTING

1. Arkansas Tech University
2. Art Instate of Houston
3. Auburn University
4. California State Polytechnic
5. Central Arizona College
6. Cuyahoga Community College
7. East Caroline University
8. Elgin Community College
9. Ferris State University
10. Florida State University
11. Grand Rapids Community
12. Johnson & Wales University
13. Johnson County Community College
14. Kansas State University
15. Kendall College
16. New Hampshire College
17. New Mexico State University
18. Nichollis State University
19. Oklahoma State University
20. OSU-Okmulgee Tech University
21. Penn State University
22. SE Missouri State University
23. SW Missouri State University
24. Texas State University
25. University of Alaska-Anchorage
26. University of Kentucky
27. University of Massachusetts
28. University of North Texas
29. University of Wisconsin
30. Widener University

APPENDIX B

KNOWLEDGE AND ATTITUDE STATEMENTS

HOSPITALITY STUDENTS', FACULTY AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

CONSUMERS

Attitude

1. Consumers are requesting nutritious fast foods items from quick service restaurants.

2. Consumers recognize the menu-labeling regulation words and can distinguish their meanings such as free, low, reduce, light, fresh, natural and healthy.

3. Customers are more price-sensitive than operators believe.

4. The worst customers are older adults.

5. Americans thrive on, or depend on, fast food more than other foodservice segment.

Knowledge

1. Dual career families in modern households eat out more frequently.

2. Today, consumers are more educated concerning foods, and nutrition.

3. Male heads of households continue to lead the pack for eating out most often.

4. Couples with children are the most concerned with nutrition when eating out.

5. Middle-aged couples are the most likely to try someplace new to eat.

6. Customers are more assertive and more demanding in restaurants they patronize.

CONSUMPTION PATTERNS

Attitudes

1. Heart disease patients should not worry about preventive dieting when eating out..

2. Small children need smaller portions of food than adults.

3. When eating out for a special occasion, consumers are less concerned about the nutritional value of the food they eat.

4. Hamburgers and ice cream are still ranked number one in American food consumption.

5. In the US the largest market share belongs to fast foods in the foodservice industry.

Knowledge

1. In order to have a low-fat menu, restaurant operators need to avoid beef altogether.

2. Consumers have created a large market for bottled and flavored waters.

3. Dining out, taking out, and ordering in are currently American lifestyle choices.

4. Bagels are a leading breakfast item across the United States.

5. Lunch time is the period customers try to cut calories most often.

MENUS

Attitudes

1. It is the chef's responsibility to provide low-fat options on menus.

2. Restaurants should promote healthful menu items.

3. "Healthy" dishes generally are not popular menu items.

4. Low-fat menu items are not as satisfying to customers as rich menu items.

5. It costs more for management to train employees to properly prepare healthy foods.

Knowledge

1. The demand for ethnic foods are gaining in menu offerings.

2. Restaurants using nutrient/heath menu claims must provide backup nutritional information according to the Nutritional Labeling Education Act effective May, 1997.

3. Consuming decadent desserts after a healthy meal is habitual for many Americans.

4. Vegetarian, seafood, chicken and salad entree consumption are on the rise.

5. The menu is the central core around which a restaurant revolves.

NUTRITION

Attitudes

1. Consumers are tired of hearing what's good and bad for them when it comes to food.
2. I would be willing to pay more for menu items if I knew they were more nutritious.
3. Providing nutrition information for consumers should not be a concern of restaurants.
4. As long as you are healthy, it does not matter what you eat.
5. Healthy nutritious menu items cannot be appetizing nor taste as good as regular items.

Knowledge

1. Margarine is lower in calories than butter.
2. Ingredients like butter, oil, and cream are necessary to attain the richest flavors.
3. It is possible to obtain all the nutrients needed by eating a wide variety of food.
4. Table salt contains sodium and chloride, and both are essential to a person's diet.
5. A 12 ounce beer contains more alcohol than a 5 ounce glass of wine.

BIOTECHNOLOGY/ENGINEERED FOODS

Attitudes

1. I would be willing to purchase and consume genetically altered meats and vegetables.

2. Biotechnology will gain in importance as the actual and perceived risks become smaller.

3. In my opinion, consumers are ready to accept genetically altered foods.

4. The hospitality industry should encourage acceptance of genetic altered foods.

5. Genetically altered foods should be labeled as such on restaurant menus.

Knowledge

1. Vegetarians have the right to know if the vegetables they are served contain genetic material from animals.

2. Genetically altered foods have a longer shelf life, retard bruising and rotting, and resist viruses and diseases

3. Biotechnology research has developed a way to increase potato starch content.

4. Plants are being modified to create healthier cooking oils with reduced saturated fats.

5. Biotechnological tomatoes will soften slower, and have added taste and nutrients

CUSTOMER SERVICE

Attitude

1. Rude or unfriendly service top the list of customer irritants.

2. Exceeding customers expectations will keep them loyal and returning.

3. Improving service quality to consumers is important for restaurant success.

4. Satisfaction is related closely to customer's general attitude toward the service.

5. Understanding the customer's expectations is the first step in delivering high service quality.

Knowledge

l. For couples with children, good service, vale, and convenience are factors which determine whether they eat at fast foods or full-service restaurants.

2. Food, good service and atmosphere generates total customer satisfaction in the restaurant dining experience.

3. A dissatisfied customer will tell at least nine other people of the unpleasant experience.

4. The major challenge for dining services is to be as efficient and effective as possible.

5. Operators must recognize the needs of their customers, or their doors will not stay open.

MARKETING/MERCHANDISING

Attitudes

1. I believe that restaurants ought to be able to add a fee for delivery of their product.

2. Freshness is more important than price to the average customers.

3. Women order healthful entrees more than men.

4. It costs more to eat healthy foods.

5. Atmosphere is part of the total package when dining out for some customers.

Knowledge

1. Americans are spending more on lighter, faster fare.

2. More take-out foods and foods to prepare in the microwave are in demand.

3. Studies state that consumers who publicly complain are better educated and have higher incomes.

4. "Frequent Diner" programs will remain a popular tool encouraging repeat patronage.

5. Menu variety is a key to attracting and maintaining customers for full service restaurants.

TECHNOLOGY

1. Robotic harvesters can identify whether melons and other crops are ripe to be picked using "aroma sensors".

2. I would purchase an automobile with the added feature of a build-in microwave suited to aide in the preparation of food on the go.

3. In the service area, customers want the human element and will not be receptive to robotics when giving food orders.

4. Restaurants are receptive to the new laser eye detecting employee hand-washing before returning to work.

5. Self-diagnosing equipment will be able to call a repairman and communicate a description of the problem.

6. A growing market is customer's utilizing fax machines and Internet orders to then be picked up or delivered at their place of business/home.

7. Food irradiation is a technological ways to prolong the length of shelf life of a product.

8. Cutting edge restaurants will utilize and invest in technology to stay competitive.

QUALITY STANDARDS

Attitudes

1. When customers walk into a restaurant they believe the products received are of a high quality standard.

2. It's really no big deal about food poisoning; it never results in more than minor discomfort.

3. Few foodservice employees are concerned with the Food Danger Zone (40(-140(F).

4. Food planning and control ensure a quality product.

5. A restaurant's obligation is to assure customers their food will be guaranteed safe.

Knowledge

1. A procedure that uses sound vibrations procedure to detect salmonella infection presence is currently being tested and may one day guarantee that eggs are uninfected.

2. The greatest threat of foodborne illness is contributed by human contamination.

3. Once food has entered the operation, the temperature at which it's stored, prepared, cooked and serviced becomes critical.

4. Consumer protection mandated by FDA, USDA, EPA and the Consumer Product Safety Commission is a key to quality standards.

5. Cross-contamination is a common cause of foodborne illness resulting from improper cleaning and sanitizing work spaces and equipment.

APPENDIX C

PANEL OF EXPERTS QUESTIONS

OSU

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October 11, 1997

Dear

May I have 10 minutes of your time? I am Brenda Montgomery, a doctoral candidate in Human Environmental Sciences majoring in foodservice management at Oklahoma State University, and currently teach Hospitality Administration courses in the Parks, Recreation and Hospitality Administration Department at Arkansas Tech University. As an experienced quantity foodservice professional, I have selected you to be a member of my panel of experts to assist me in the validation of my research instrument.

Limited information is available documenting the perspectives of foodservice and culinary managers, instructors, and students. Therefore, the purpose of my research is to determine "*Hospitality Instructors', Students' and Managers' Perspective of Selected Commercial Foodservice Trends.*" The technological impacts of the selected trends will be studied as well.

Enclosed you will find a copy of the questionnaire for your appraisal. I would greatly appreciate your support of my research by filling out the instrument, with additional comments and/or suggestions. Please return the completed instrument on or before October 28, 1997, in the enclosed prepaid envelope.

Thank you for your time and participation in this research. If you have any questions please feel free to call either of us, or you may contact Ms. Gay Clarkson, OSU Internal Review Board representative at 405-744-7500.

Respectfully

Brenda G. Montgomery, M.S.
Arkansas Tech University
Hospitality Instructor, and
OSU Doctoral Candidate
1-501-964-0893

Lea L. Ebro, PhD, RD/LD
Professor, and
Dietetic Internship Director
1-405-744-8294

HOSPITALITY STUDENTS', FACULTY AND MANGERS' PERSPECTIVE OF FOODSERVICE TRENDS

This first section is an appendices for the research committee to review statements under each of the nine trends. Each trend has five attitudinal questions and five knowledge questions. Immediately following the first section is the questionnaire; and the trend questions are then divided into two sections (1) attitudinal and (2) knowledge and (3) an opinionaire.

TRENDS:

A. CONSUMERS
B. CUSTOMER SERVICE
C. CONSUMPTION PATTERNS
D. MENU ANALYSIS
E. MARKETING/MERCHANDISING
F. NUTRITION
G. QUALITY STANDARDS
H. BIOTECHNOLOGY/ENGINEERED FOODS
I. TECHNOLOGY

HOSPITALITY INSTRUCTORS', STUDENTS', and MANAGERS' PERSPECTIVE OF SELECTED COMMERCIAL FOODSERVICE TRENDS

Listed below are statements regarding nine selected foodservice commercial trends. Read each statement carefully and decide which trend it reflects. Then place the assigned number in the space provided in the left hand column.

Indicate in the right hand column whether the statement best represents a knowledge statement or an attitude. Place an "A" if the statement reflects an attitude or a "K" if it reflects a statement of knowledge.

DEFINITION OF TERMS:

1. **Knowledge – the fact or condition of intelligence; familiarity gained through experience or association with understanding.**
2. **Attitude – a feeling or emotion toward a fact of statement or knowledge.**

SELECTED COMMERCIAL FOODSERVICE TRENDS	
1. Biotechnology/Engineered foods	5. Marketing/Merchandising
2. Consumers	6. Menu analysis
3. Consumption patterns	7. Nutrition
4. Customer service	8. Quality standards
	9. Technology

Trend Number		**Attitude (A) or Knowledge (K)**
_____	1. Consumers are requesting nutritious fast foods from quick service restaurants.	_____
_____	2. Rude or unfriendly service top the list of customer irritants.	_____
_____	3. Heart disease patients should not worry about preventive dieting when eating out.	_____
_____	4. It is the chef's responsibility to provide low-fat options on menus.	_____
_____	5. I believe that restaurants ought to be able to add a fee for delivery of their product.	_____
_____	6. Consumers are tired of hearing what's good and bad for them when it comes to food.	_____
_____	7. When customers walk into a restaurant they believe the products received are of a high quality standard.	_____

_____	8. I would be willing to purchase and consume genetically altered meats and vegetables.	_____
_____	9. Cutting edge restaurants will utilize and invest in technology to stay competitive.	_____
_____	10. Women order healthful entrees more than men.	_____
_____	11. Robotic harvesters can identify whether melons and other crops are ripe to be picked using "aroma sensors".	_____
_____	12. I would purchase an automobile with the added feature of a build-in microwave suited to aide in the preparation of food on the go.	_____
_____	13. Biotechnology will gain in importance as the actual and perceived risks become smaller.	_____
_____	14. It's really no big deal about food poisoning; it never results in more than minor discomfort.	_____
_____	15. I would be willing to pay more for menu items if I knew they were more nutritious.	_____
_____	16. Freshness is more important than price to the average customers.	_____
_____	17. Restaurants should promote healthful menu items.	_____
_____	18. Small children need smaller portions of food than adults.	_____
_____	19. Consumers recognize the menu-labeling regulation words and can distinguish their meanings such as free, low, reduce, light, fresh, natural and healthy.	_____
_____	20. Exceeding customers expectations will keep them loyal and returning.	_____
_____	21. Improving customer service quality is important for restaurant success.	_____
_____	22. Customers are more price-sensitive than operators believe.	_____
_____	23. When eating out for a special occasion, consumers are less concerned about the nutritional value of the food they eat.	_____
_____	24. "Healthy" dishes generally are not popular menu items.	_____
_____	25. Providing nutrition information for consumers should not be a concern of restaurants.	_____
_____	26. Few foodservice employees are concerned with the Food Danger Zone (40°-140° F).	_____

_____	27. In my opinion, consumers are ready to accept genetically altered foods.	_____
_____	28. In the service area, customers want the human element and will not be receptive to robotics when giving food orders.	_____
_____	29. Restaurants are receptive to the new laser eye detecting employee hand-washing before returning to work.	_____
_____	30. The hospitality industry should encourage acceptance of genetic altered foods.	_____
_____	31. Food planning and control ensure a quality product.	_____
_____	32 As long as you are healthy, it does not matter what you eat.	_____
_____	33. Genetically altered foods should be labeled as such on restaurant menus.	_____
_____	34. Low-fat menu items are not as satisfying to customers as rich menu items.	_____
_____	35. Hamburgers and ice cream are still ranked number one in American food consumption.	_____
_____	37. The worst customers are older adults.	_____
_____	38. Satisfaction is related closely to customer's general attitude toward the service.	_____
_____	39. A growing market is customer's utilizing fax machines and Internet orders to then be picked up or delivered at their place of business/home.	_____
_____	40. Food irradiation is a technological ways to prolong the length of shelf life of a product.	_____
_____	41. Understanding the customer's expectations is the first step in delivering high service quality.	_____
_____	42. Americans thrive on, or depend on, fast food more than other foodservices.	_____
_____	43. In the US the largest market share belongs to fast foods in the foodservice industry.	_____
_____	44. It costs more for management to train employees to properly prepare healthy foods.	_____
_____	45. Atmosphere is part of the total package when dining out for some customers.	_____
_____	46. Healthy nutritious menu items cannot be appetizing nor taste as good as regular items.	_____

_____ 47. A restaurant's obligation is to assure customers their food will be guaranteed safe. _____

_____ 48. It costs more to each healthy foods. _____

_____ 49. Dual career families in modern households eat out more frequently. _____

_____ 50. For couples with children good service, value, and convenience are factors which determine whether they eat at fast foods or full-service restaurants. _____

_____ 51. In order to have a low-fat menu, consumers need to avoid beef altogether. The demand for ethnic foods are gaining in menu offerings. _____

_____ 52. Americans are spending more on lighter, faster fare. _____

_____ 53. Margarine is lower in calories than butter. _____

_____ 54. A procedure using sound vibrations detecting the presence of salmonella infection is currently being tested and may one day guarantee that eggs are uninfected. _____

_____ 55. Vegetarians have the right to know if the vegetables they are served contain genetic material from animals. _____

_____ 56. Genetically altered foods have a longer shelf life, retard bruising and rotting, and resist viruses and diseases. _____

_____ 57. The greatest threat of foodborne illness is contributed by human contamination. _____

_____ 58. Ingredients like butter, oil, and cream are necessary to attain the richest flavors. _____

_____ 59. More take-out foods and foods to prepare in the microwave are in demand. _____

_____ 60. Restaurants using nutrient/heath menu claims must provide backup nutritional information according to the Nutritional Labeling Education Act effective May, 1997. _____

_____ 61. Consumers have created a large market for bottled and flavored waters. _____

_____ 62. Today, consumers are more educated concerning foods, and nutrition, and they are more assertive and demanding patrons of restaurants. _____

_____ 63. Food, good service and atmosphere generates total customer satisfaction in the restaurant dining experience. _____

_____ 64. A dissatisfied customer will tell at least nine other people of the unpleasant experience. _____

_____ 65. Male heads of households continue to lead the pack for eating out most often. _____

_____ 66. Dining out, taking out, and ordering in are currently American lifestyle choices. _____

_____ 67. Biotechnology research has developed a way to increase the starch content of potatoes. _____

_____ 68. Consuming decadent desserts after a healthy meal is habitual for many Americans. _____

_____ 69. Studies state that consumers who publicly complain are better educated and have higher incomes. _____

_____ 70. It is possible to obtain all the nutrients needed by eating a wide variety of food. _____

_____ 71. Once food has entered the operation, the temperature at which it's stored, prepared, cooked and serviced becomes critical. _____

_____ 72. Consumer protection mandated by Federal Department of Agriculture, United States Department of Agriculture, Environmental Protection Agency and the Consumer Product Safety Commission is a key to quality standards. _____

_____ 73. Table salt contains sodium and chloride, and both are essential to a person's diet. _____

_____ 74. "Frequent Diner" programs will remain a popular tool encouraging repeat patronage. _____

_____ 75. Vegetarian, seafood, chicken and salad entree consumption are on the rise. _____

_____ 76. Plants are being modified to create healthier cooking oils with reduced saturated fats. _____

_____ 77. Bagels are a leading breakfast item across the United States. _____

_____ 78. The major challenge for dining services is to be as efficient and effective as possible. _____

_____ 79. Couples with children are the most concerned with nutrition when eating out. _____

_____ 80. Middle-aged couples are the most likely to try someplace new to eat. _____

_____ 81. Operators must recognize the needs of their customers, or their doors will not stay open. _____

_____ 82. Self-diagnosing equipment will be able to call a repairman and communicate a description of the problem. _____

_____ 83. Lunch time is the period customers try to cut calories most often. _____

_____ 84. The menu is the central core around which a restaurant revolves. _____

_____ 85. Menu variety is key to attracting and maintaining customers for full service restaurants. _____

_____ 86. A 12-ounce beer contains more alcohol than a 5-ounce glass of wine. _____

_____ 87. Cross-contamination is a common cause of foodborne illness resulting from improper cleaning and sanitizing work spaces and equipment. _____

_____ 88. Biotechnological tomatoes will soften slower, and have added taste and nutrients. _____

OPINIONNAIRE

Please rank order the following commercial foodservice trends from 1-8. 1 being the most important and 8 being the least important in the commercial foodservice industry.

_____Biotechnology/engineered foods
_____Consumers
_____Consumption patterns
_____Customer service
_____Marketing/merchandising
_____Menu analysis
_____Nutrition
_____Quality standards

Additional comments or suggestions:

_____
_____
_____
_____
_____
_____
_____

Thank you for completing this questionnaire. Your help will assist the researcher in validating this instrument.

APPENDIX D

PANEL OF EXPERTS RESPONSES

HOSPITALITY STUDENTS', FACULTY'S AND MANAGER'S PERSPECTIVE OF FOODSERVICE TRENDS

QUALITY STANDARDS

Attitudes

N=25

19 It's really no big deal about food poisoning; it never results in more than minor discomfort.

20 Few foodservice employees are concerned with the Food Danger Zone (40-140 F).

13 It costs more for management to train employees to properly prepare healthy foods.

20 The greatest threat of foodborne illness is contributed by human contamination.

Knowledge

22 Once food has entered the operation, the temperature at which it's stored, prepared, cooked and serviced becomes critical.

20 Consumer protection mandated by FDA, USDA, EPA and the Consumer Product Safety Commission is a key to quality standards.

24 Cross-contamination is a common cause of foodborne illness resulting from improper cleaning and sanitizing work spaces and equipment.

21 Food planning and control ensure a quality product.

21 A restaurant's obligation is to assure customers their food will be guaranteed safe.

CUSTOMER SERVICE

Attitude

8 When customers walk into a restaurant they believe the products received are of a high quality standard.

5 Vegetarians have the right to know if the vegetables they are served contain genetic material from animals.

11 In the service area, customers want the human element and will not be receptive to robotics when giving food orders.

10 Food, good service and atmosphere generates total customer satisfaction in the restaurant dining experience.

Knowledge

22 Rude or unfriendly service is number one on the customer irritant list.

14 Improving service quality to consumers is important for restaurant success.

17 Satisfaction is related closely to customer's general attitude toward the service.

13 Understanding the customer's expectations is the first step in delivering high service quality.

12 The major challenge for dining services is to be as efficient and effective as possible.

MARKETING TO DIVERSE CUSTOMERS

Attitudes

16 For couples with children, good service, value, and convenience are factors, which determine whether they eat at fast foods or full-service restaurants.

15 Women order healthful entrees more than men do.

17 The worst customers are older adults.

15 Lunchtime is the period customers try to cut calories most often.

16 Studies state that consumers who publicly complain are better educated and have higher incomes.

15 Male heads of households continue to lead the pack for eating out most often.

Knowledge

19 In the US the largest market share belongs to fast food in the foodservice industry.

17 Consuming decadent desserts after a healthy meal are habitual for many Americans.

17 Dual career families in modern households eat out more frequently.

19 Bagels are a leading breakfast item across the United States.

18 More take-out foods and foods to prepare in the microwave are in demand.

The demand for ethnic foods is gaining in menu offerings.

NUTRITIOUS/HEALTHY MENUS

Attitude

10 Menu variety is a key to attracting and maintaining customers for full-service restaurants.

12 Restaurants should promote healthful menu items.

12 I would be willing to pay more for menu items if I knew they were more nutritious.

16 As long as you are healthy, it does not matter what you eat.

12 In order to have a low-fat menu; restaurant operators need to avoid beef altogether.

Knowledge

17 Margarine is lower in calories than butter.

20 It is possible to obtain all the nutrients needed by eating a wide variety of foods.

20 Table salt contains sodium and chloride, and both are essential to a person's diet.

disease patients should not worry about preventive dieting when eating out.

16 The menu is the central core around which a restaurant revolves.

BIOTECHNOLOGY/ENGINEERED FOODS

Attitudes

19 I would be willing to purchase and consume genetically altered meats and vegetables.

19 Biotechnology will gain in importance, as the actual and perceived risks become smaller.

16 In my opinion, consumers are ready to accept genetically altered foods.

14 The hospitality industry should encourage acceptance of genetic altered foods.

17 Genetically altered foods should be labeled as such on restaurant menus.

Knowledge

16 Genetically altered foods have a longer shelf life, retard bruising and rotting, and resist viruses and diseases

18 Biotechnology research has developed a way to increase potato starch content.

13 Plants are being modified to create healthier cooking oils with reduced saturated fats.

19 Biotechnological tomatoes will soften slower, and have added taste and nutrients

TECHNOLOGY

Attitude

15 I would purchase an automobile with the added feature of a build-in microwave suited to aid in the preparation of food on the go.

12 Restaurants are receptive to the new laser eye-detecting employee hand-washing before returning to work.

I do not believe food irradiation is safe.

It is difficult to train employees with new technology in the hospitality students.

Knowledge

18 Robotic harvesters can identify whether melons and other crops are ripe to be picked using "aroma "sensors".

21 Self-diagnosing equipment will be able to call a repairman and communicate a description of the problem0.

12 A growing market is customer's utilizing fax machines and Internet orders to then be picked up or delivered at their place of business/home.

16 Cutting edge restaurants will utilize and invest in technology to stay competitive.

16 A procedure using sound vibrations detecting the presence of salmonella infection is currently being tested and may one day guarantee that eggs are uninfected.

EXPERT PANEL RESULTS

Trend	Knowledge	Attitude
1. Biotechnology/Engineered Foods	4	5
2. Consumers	1	5
3. Consumption Patterns	11	9
4. Customer Service	8	3
5. Marketing/Merchandising	1	2
6. Menu Analysis	2	1
7. Nutrition	6	9
8. Quality Standards	6	5
9. Technology	6	2

APPENDIX E

REVISED QUESTIONNAIRE

HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

DEFINITIONS OF TERMS:

1. **Attitude – a feeling or emotion towards a fact of statement or knowledge.**
2. **Knowledge – the fact or condition of intelligence; familiarity gained through experience or association with understanding.**

ATTITUDINAL QUESTIONS

Please answer the following questions according to your perception of trends in the foodservice industry. Fill in the circle 1 if you strongly agree and fill in the circle 5 if you strongly disagree.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1	2	3	4	5
1. In order to have a low-fat menu, restaurant operators need to avoid beef altogether.	1	2	3	4	5
2. Food, good service, and atmosphere generates total customer satisfaction in the restaurant dining experience.	1	2	3	4	5
3. As long as you are healthy, it does not matter what you eat.	1	2	3	4	5
4. It costs more for management to train employees to properly prepare healthy foods.	1	2	3	4	5
5. Vegetarians have the right to know if the vegetables they are served contain genetic material from animals.	1	2	3	4	5
6. When customers walk into a restaurant they believe the products received are of a high quality standard.	1	2	3	4	5

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1	**2**	**3**	**4**	**5**
7. Genetically altered foods should be labeled as such on restaurant menus.	1	2	3	4	5
8. Restaurants should promote healthful menu items.	1	2	3	4	5
9. Biotechnology will gain in acceptance as the actual and perceived risks become smaller.	1	2	3	4	5
10. Menu variety is a key to attracting and maintaining customers for full-service.	1	2	3	4	5
11. I would be willing to purchase and consume genetically altered meats and vegetables.	1	2	3	4	5
12. The worst customers are older adults.	1	2	3	4	5
13. It is difficult to train hospitality employees when using new technology.	1	2	3	4	5
14. The hospitality industry should encourage acceptance of genetic altered foods.	1	2	3	4	5
15. I believe food irradiation is safe to use.	1	2	3	4	5
16. Restaurants are receptive to the new laser eye detecting employee hand-washing before returning to work.	1	2	3	4	5
17. In my opinion, consumers are ready to accept genetically altered foods.	1	2	3	4	5
18. The greatest threat of foodborne illness is contributed by human contamination.	1	2	3	4	5
19. Studies state that consumers who publicly complain are better educated and have higher incomes.	1	2	3	4	5

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1	**2**	**3**	**4**	**5**
20. I would purchase an automobile with the added feature of a built-in microwave suited to aide in the preparation of food on the go.	1	2	3	4	5
21. For couples with children, good service, value, and convenience are factors which determine whether they eat at fast foods or full-service restaurants.	1	2	3	4	5
22. Women order healthier entrees more than men do.	1	2	3	4	5
23. Male heads of households continue to lead all consumers for eating out most often.	1	2	3	4	5
24. It's really no big deal about food poisoning; it never results in more than minor discomfort.	1	2	3	4	5
25. In the service area, customers want the human element and will not be receptive to robotics when giving food orders.	1	2	3	4	5
26. Lunchtime is the period customers try to cut calories most often.	1	2	3	4	5
27. I would be willing to pay more for menu items if I knew they were more nutritious.	1	2	3	4	5
28. Few foodservice employees are concerned with the Food Danger Zone (40-140°F).	1	2	3	4	5

PART III

KNOWLEDGE QUESTIONS

Please fill in the corresponding circle for the best answer in the true/false questions.

T F 1. Plants are being modified to create healthier cooking oils with reduced saturated fats.

T F 2. Food planning and control ensure a quality product.

T F 3. Biotechnological tomatoes will soften slower, and have added taste and nutrients.

T F 4. Consumer protection mandated by FDA, USDA, EPA and the Consumer Product Safety Commission is a key to quality standards

T F 5. More take-out foods and foods to prepare in the microwave are in demand.

T F 6. Margarine is lower in calories than butter.

T F 7. Robotic harvesters can identify whether melons and other crops are ripe to be picked using "aroma "sensors".

T F 8. Genetically altered foods have a longer shelf life, retard bruising and rotting, and viruses and diseases.

T F 9. The demand for ethnic foods is gaining in menu offerings.

T F 10. Self-diagnosing equipment will be able to call a repairman and communicate a description of the problem.

T F 11. Cutting edge restaurants will utilize and invest in technology to stay competitive.

T F 12. Cross-contamination is a common cause of foodborne illness resulting from improper cleaning and sanitizing workspaces and equipment.

T F 13. A procedure using sound vibrations detecting the presence of salmonella infection is currently being tested and may one day guarantee that eggs are uninfected.

T F 14. It is possible to obtain all the nutrients needed by eating a wide variety of foods.

T F 15. Rude or unfriendly service tops the list of customer irritants.

T F 16. Once food has entered the operation, the temperature at which it's stored, prepared, cooked and served becomes critical.

T F 17. A restaurant's obligation is to assure customers their food will be guaranteed safe.

T F 18. A dissatisfied customer will tell at least nine other people of the unpleasant experience.

T F 19. A growing market is customer's utilizing fax machines and Internet orders to then be picked up or delivered at their place of business/home.

T F 20. Heart disease patients should not worry about preventive dieting when eating out.

T F 21. Satisfaction is related closely to customer's general attitude toward the service.

T F 22. Dual career families in modern households eat out more frequently.

T F 23. In the US, the largest market share belongs to fast foods in the foodservice industry.

T F 24. Table salt contains sodium and chloride, and both are essential to a person's diet.

T F 25. Understanding the customer's expectations is the first step in delivering high service quality.

T F 26. The menu is the central core around which a restaurant revolves.

T F 27. The major challenge for dining services is to be as efficient and effective as possible.

T F 28. Biotechnology research has developed a way to increase potato starch content.

T F 29. Improving customer service quality is important for restaurant success.

T F 30. Bagels are a leading breakfast item across the United States.

OPINIONAIRE

Please rank order the following foodservice trends from 1-6. **1 being the most important and 6 being the least important** in the foodservice industry.

_____BIOTECHNOLOGY/ENGINEERED FOODS
_____CUSTOMER SERVICE
_____HEALTHY/NUTRITIOUS MENUS
_____MERCHANDISING TO THE DIVERSE CUSTOMER
_____QUALITY STANDARDS
_____TECHNOLOGY

ADDITIONAL COMMENTS OR SUGGESTIONS -

_____
_____
_____
_____
_____
_____
_____
_____

Thank you for completing this questionnaire. Your help assists the researcher in gathering data to complete her study.

APPENDIX F

IRB FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 12-05-97 **IRB#:** HE-98-028

Proposal Title: HOSPITALITY STUDENTS', FACULTY'S AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

Principal Investigator(s): Lea L. Ebro, Brenda G. Montgomery

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

==========

Comments, Modifications/Conditions for Approval or Disapproval are as follows:
There is a typographical error on #48 of Appendix C of the Foodservice Commercial Trends.

Signature

Chair of Institutional Review Board

Date: December 8, 1997

cc: Brenda G. Montgomery

APPENDIX G

FACULTY PACKET

OKLAHOMA STATE UNIVERSITY

OSU

Department of Nutritional Sciences
425 Human Environmental Sciences
Stillwater, Oklahoma 74078-6141
405-744-5040, Fax 405-744-7113
Email nutrsci-i@okway.okstate.edu
http://www.okstate.edu/hes/nsci/nutsci.html

January 15, 1998

Dear Colleague:

May I have a few minutes of your time? I am Brenda Montgomery, the foodservice instructor at Arkansas Tech University, and a doctoral student in Human Environmental Sciences at Oklahoma State University majoring in foodservice management. The purpose of my research is to determine the "Hospitality Students', Faculty's, and Managers' Perspective of Foodservice Trends." Your institution's participation is vital to my research data.

Enclosed you will find 20 copies of the student questionnaires and student letters, and one copy of the faculty's questionnaire. If you need extra copies for your students, please feel free to copy. Kindly fill out the faculty questionnaire, and please administer the student questionnaires in your advanced/quantity foods class. Since these are scannable answer sheets, please have the surveys completed with a #2 pencil. It will take approximately 20 minutes for your students to complete.

Your assistance with the data collection is very much appreciated. A dollar bill is enclosed so you may have a cup of coffee on me. **PLEASE** do not fold or bend the scantrons when placing them in the enclosed self-addressed envelope. Please complete and return the surveys by February 14, 1998. We want to assure you that the results will remain strictly confidential, and the results will be aggregate data. If you have any questions, please call either of us, or Ms. Gay Clarkson, OSU Internal Review Board representative, at 405-744-7500.

Respectfully

Brenda Montgomery

Brenda G. Montgomery, M.S.
OSU Doctoral Student and
Arkansas Tech University
Hospitality Instructor,
1-501-964-0893

L. Ebro

Lea L. Ebro, PhD, RD/LD
Professor, and
Dietetic Internship Director
1-405-744-8294

The Campaign for OSU

Bringing Dreams to Life

Arkansas Tech University
Russellville, Arkansas 72801-2222

Department of Parks, Recreation And Hospitality Administration

Williamson Hall ◆ Russellville, Arkansas 72801 ◆ (501) 968-0378 ◆ Fax (501) 968-0600

January 15, 1998

Dear Colleague:

As a fellow program member of CHRIE, I am requesting your support of Ms. Brenda Montgomery's doctoral research in foodservice management in Human Environmental Sciences at Oklahoma State University. Ms. Montgomery is one of our hospitality faculty members in the Department of Parks, Recreation and Hospitality Administration.

As professional educators, we are supportive of current, critical and timely knowledge and research. Ms. Montgomery's study is to determine the perspective of hospitality students, faculty, and professional foodservice managers of foodservice trends. The survey population is students and faculty in randomly selected CHRIE programs with a foodservice specialization or culinary arts. The foodservice management population is randomly selected National Restaurant Association members in the United States.

Thank you for your support and assistance. If you have any questions please call either of us in the Parks, Recreation and Hospitality Administration Department at 501-968-0378 at Arkansas Tech University.

Respectfully

Theresa Herrick

Theresa A. Herrick, PhD
Department Head and Associate Professor

HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

FACULTY GENERAL INFORMATION

PART I

Directions: Please provide the appropriate personal information by darkening the proper response.

1. Gender: F_____ M_____
2. Age Range: _____ 25 and under _____ 26-35 _____ 36-45 _____ 46 and older
3. Ethnic Origin: _____ African-American _____American Indian
   _____Asian/Pacific Islander _____Caucasian _____ Hispanic
   _____Other; specify
4. Foodservice Work Experience:
   _____ 0-5 years _____ 6-10 years _____ 11-15 years
   _____ 16-20 years _____21 years or more
5. Check All Foodservice Work Experiences:
   _____Service _____Production _____Managerial
   _____Quality Control _____Other; specify
6. Have Taken a College Nutrition Course: _____yes _____no
7. Highest Degree Obtained: _____ Associate Degree _____ Bachelors Degree
   _____ MS/MBA _____ PhD/EdD
8. Additional Certifications or License: _____
9. Total Higher Education Teaching Experience:
   _____ 0-5 years _____ 6-10 years _____ 11-15 years
   _____ 16-20 years _____ 21 years or more
10. Major Teaching Field:
    _____Culinary _____ Foodservice _____ Hospitality
    _____ Nutrition _____ Business _____ Other; specify
11. Institution Category: _____2 year _____ 4 year _____Other; specify
12. Institution Type: _____Culinary _____Foodservice Management
13. Local ZIP CODE:_____.

ID NUMBER

SPECIAL CODES
A B C D E F G H I J

GENERAL PURPOSE DATA SHEET II
form no. 70921

USE NO. 2 PENCIL ONLY

HOSPITALITY FACULTY'S PERSPECTIVE OF FOODSERVICE TRENDS

E
D
C
B
A

Directions: Please provide the following personal information by shading in the appropriate circle.

1. Gender: A - Female B - Male
2. Age Range: A - 25 and under B - 26-35 C - 36-45 D - 46 and older
3. Ethnic Origin: A - African-American B - American Indian C - Asian/Pacific Islander D - Caucasian E - Hispanic
4. Foodservice Work Experience:
   A - 0-5 years B - 6-10 years C - 11-15 years D - 16-20 years E - 21 or more
5. Check All Foodservice Work Experiences:
   A - Service
   A - Production
   A - Managerial
   A - Quality Control
   A - Other; specify _____
5. Select the one job performed currently and most frequently: A - Service B - Production C - Managerial D - Quality Control E - Other; specify _____
7. Have Taken a College Nutrition Course: A - Yes B - No
8. Educational Level: A - Associate Degree B - Bachelors Degree C - MS/MBA D - PhD/EdD
9. Additional Certification or License: _____
10. Total Higher Education Teaching Experience:
    A - 0-5 years B - 6-10 years C - 11-15 years D - 16-20 years E - 21 years or more
11. Major Teaching Field:
    A - Culinary B - Foodservice/Hospitality C - Nutrition D - Business
    E - Other - _____
12. Institutional Category: A - 2 year B - 4 year C - Other; specify _____
13. Institutional Type: A - Culinary B - Foodservice Management
14. Local ZIP CODE: _____

YOU MAY MAKE ADDITIONAL COMMENTS OR SUGGESTIONS ON THE BACK.

Thank you for completing this questionnaire. Your help assists the researcher in gathering data to complete her study.

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HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

STUDENT GENERAL INFORMATION

PART I

Directions: Please provide the appropriate personal information by darkening in the appropriate response.

1. Gender: F_____ M_____
2. Age Range:_____ under 20 _____ 20 - 25 _____ 26 – 30 _____ over 30
3. Ethnic Origin: ____ African-American _____American Indian
   _____Asian/Pacific Islander _____Caucasian _____ Hispanic
   _____Other; specify
4. Foodservice Work Experience:
   _____ 0-3 years _____ 3-6 years
   _____ 7-9 years _____ 10 years and more
5. Check All Foodservice Work Experiences:
   _____Managerial _____Service _____Production
   _____Quality Control _____Other; specify
6. Have Taken a College Nutrition Course: _____yes _____no
7. Education Level: _____ Sophomore _____ Junior _____ Senior
   _____Graduate _____Other; specify
8. Pursuing Which Degree: _____ Associate Degree _____ Bachelors Degree
   _____ Certification _____Advanced Degree _____ Other; specify
9. Institution Category Attending: _____2 year _____4 year _____Other; specify
10. Major Field of Study: _____ Culinary _____ Foodservice _____Hospitality
    _____Nutrition _____Other; specify
11. Your College: _____ Human Ecology/Home Economics _____Culinary
    _____ Business _____Other; specify

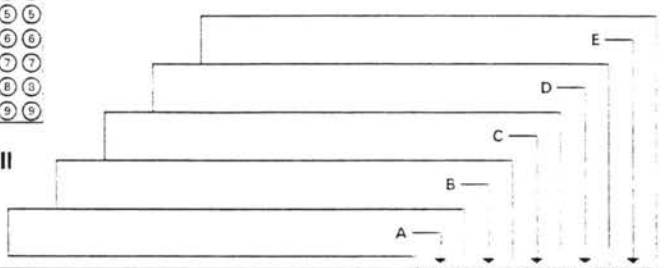
Local ZIP CODE:_____

ID NUMBER | SPECIAL CODES A B C D E F G H I J

GENERAL PURPOSE DATA SHEET II
form no. 70921

USE NO. 2 PENCIL ONLY

HOSPITALITY STUDENTS' PERSPECTIVE OF FOODSERVICE TRENDS



Directions: Please provide the following personal information by shading in the appropriate circle.

1. Gender: A - Female B - Male
2. Age Range: A - under 20 B - 20-25 C - 26-30 D - over 30
3. Ethnic Origin: A - African-American B - American Indian C - Asian/Pacific Islander D - Caucasian E - Hispanic
4. Foodservice Work Experience:
   A - 0-3 years B - 3-6 years C - 7-9 years D - 10 years or more
5. Check All Foodservice Work Experiences:
   A - Managerial
   A - Service
   A - Production
   A - Quality Control
   A - Other; specify _____
6. Have Taken a College Nutrition Course: A - Yes B - No
7. Educational Level:
   A - Sophomore B - Junior C - Senior D - Graduate E - Other; specify _____
8. Pursuing Which Degree: A - Associate Degree B - Bachelors Degree C - Certification D - Advanced Degree E - Other; specify _____
9. Institutional Category Attending: A - 2 year B - 4 year C - Other; specify _____
10. Major Field of Study:
    A - Culinary B - Foodservice/Hospitality C - Nutrition D - Business E - Other - _____
11. Your College: A - Human Ecology/Home Economics B - Culinary C - Business D - Other; specify _____
12. Local ZIP CODE: _____

YOU MAY MAKE ADDITIONAL COMMENTS OR SUGGESTIONS ON THE BACK.

Thank you for completing this questionnaire. Your help assists the researcher in gathering data to complete her study.

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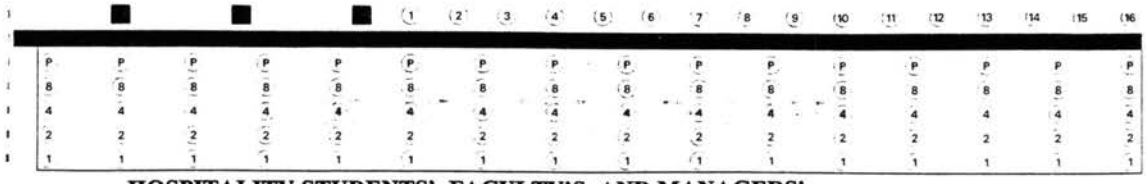

HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

Directions: USE ONLY A No. 2 PENCIL. Please answer the following questions based on your perspective of trends in the foodservice industry. Read each statement then shade the appropriate circle for your response. Shade in a 1 if you strongly agree and a 5 if strongly disagree. Select only one answer for each question.

Strongly Agree 1 — Agree 2 — Neutral 3 — Disagree 4 — Strongly Disagree 5

1.	In order to have a low-fat menu, restaurant operators need to avoid beef altogether.	1	2	3	4	5
2.	Food, good service, and atmosphere generates total customer satisfaction in restaurant dining.	1	2	3	4	5
3.	As long as you are healthy, it does not matter what you eat.	1	2	3	4	5
4.	It costs more for management to train employees to properly prepare healthy foods.	1	2	3	4	5
5.	Vegetarians have the right to know if the foods served contain genetic material from animals.	1	2	3	4	5
6.	When customers walk into a restaurant they believe the products received are of high quality.	1	2	3	4	5
7.	Genetically altered foods should be labeled as such on restaurant menus.	1	2	3	4	5
8.	Restaurants should promote healthful menu items.	1	2	3	4	5
9.	Biotechnology will gain in acceptance as the actual and perceived risks become smaller.	1	2	3	4	5
10.	Menu variety is a key to attracting and maintaining customers for fullservice.	1	2	3	4	5
11.	I would be willing to purchase and consume genetically altered meats and vegetables.	1	2	3	4	5
12.	The worst customers are older adults.	1	2	3	4	5
13.	It is difficult to train hospitality employees when using new technology.	1	2	3	4	5
14.	The hospitality industry should encourage acceptance of genetically altered foods.	1	2	3	4	5
15.	I believe food irradiation is safe to use.	1	2	3	4	5
16.	Managers are receptive to the new laser eye which detects if employees wash their hands.	1	2	3	4	5
17.	In my opinion, consumers are ready to accept genetically altered foods.	1	2	3	4	5
18.	The greatest threat of foodborne illness is contributed by human contamination.	1	2	3	4	5
19.	Studies state that consumers who publicly complain are better educated and have higher incomes.	1	2	3	4	5
20.	I would purchase a car with a built-in microwave to prepare food.	1	2	3	4	5
21.	For couples with children, good service, value, and convenience are factors which determine whether they eat at fast foods or fullservice restaurants.	1	2	3	4	5
22.	Women order healthier entrees more than men do.	1	2	3	4	5
23.	Male heads of households continue to lead consumers for eating out most often.	1	2	3	4	5
24.	It's really no big deal about food poisoning; it never results in more than minor discomfort.	1	2	3	4	5
25.	Customers want the human element and will not be receptive to robots as waitstaff.	1	2	3	4	5
26.	Lunchtime is the period customers try to cut calories most often.	1	2	3	4	5
27.	I would be willing to pay more for menu items if I knew they were more nutritious.	1	2	3	4	5
28.	Few foodservice employees are concerned with the Food Danger Zone (40-140°F).	1	2	3	4	5
29.	A menu planner has the responsibility to offer healthy choices.	1	2	3	4	5
30.	Foodservice courses should teach about food choices and health.	1	2	3	4	5
	Please darken in the response what reflects your opinion with an '1' for True and a '2' for False.					
31.	Plants are being modified to create healthier cooking oils with reduced saturated fats.	1	2			
32.	Food planning and control ensure a quality product.	1	2			
33.	Biotechnological tomatoes will soften slower, and have added taste and nutrients.	1	2			
34.	Consumer protection mandated by FDA, USDA, EPA and the Consumer Product Safety Commission is a key to quality standards.	1	2			
35.	More take-out foods and foods to prepare in the microwave are in demand.	1	2			
36.	Margarine is lower in calories than butter.	1	2			

Continued on Back

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	1	2	3	4	5
37. Robotic harvesters can identify whether melons and other crops are ripe to be picked using "aroma sensors".	1	2	3	4	5
38. Genetically altered foods have a longer shelf life, retard bruising and rotting, and viruses and diseases.	1	2	3	4	5
39. The demand for ethnic foods is gaining in menu offerings.	1	2	3	4	5
40. Self-diagnosing equipment will be able to call a repairman and communicate a description of the problem.	1	2	3	4	5
41. Cutting edge restaurants will utilize and invest in technology to stay competitive.	1	2	3	4	5
42. Cross-contamination is a common cause of foodborne illness resulting for improper cleaning and sanitizing workspaces and equipment.	1	2	3	4	5
43. A procedure using sound vibrations detecting the presence of salmonella infection is currently being tested and may soon guarantee that eggs are uninfected.	1	2	3	4	5
44. It is possible to obtain all the nutrients needed by eating a wide variety of foods.	1	2	3	4	5
45. Rude or unfriendly service tops the list of customer irritants.	1	2	3	4	5
46. Once food has entered the operation, the temperature at which it is stored, prepared, cooked and served becomes critical.	1	2	3	4	5
47. A restaurant's obligation is to assure customers their food will be guaranteed safe.	1	2	3	4	5
48. A dissatisfied customer will tell at least nine other people of an unpleasant experience.	1	2	3	4	5
49. A growing market is customers utilizing fax machines, and Internet orders to be picked up or delivered at their place of business/home.	1	2	3	4	5
50. Heart disease patients should not worry about preventive dieting when eating out.	1	2	3	4	5
51. Satisfaction is related closely to customer's general attitude toward the service.	1	2	3	4	5
52. Dual career families in modern households eat out more frequently than other households.	1	2	3	4	5
53. In the US, the largest market share belongs to fast foods in the foodservice industry.	1	2	3	4	5
54. Table salt contains sodium and chloride, and both are essential to a person's diet.	1	2	3	4	5
55. Understanding the customer's expectations is the first step in delivering high quality service.	1	2	3	4	5
56. The menu is the central core around which a restaurant revolves.	1	2	3	4	5
57. The major challenge for dining services is to be as efficient and effective as possible.	1	2	3	4	5
58. Biotechnology research has developed a way to increase potato starch content.	1	2	3	4	5
59. Improving quality customer service is important for restaurant success.	1	2	3	4	5
60. Bagels are a leading breakfast item across the United States	1	2	3	4	5
Please rank order the following foodservice trends from 1-5. **1 being the Most Important, 2 - Important, 3 - Neutral, 4 - Unimportant, 5 - Least Unimportant** in the foodservice industry. You can only have one number per trend line and there will be one trend omitted.					
61. BIOTECHNOLOGY/ENGINEERED FOODS	1	2	3	4	5
62. CUSTOMER SERVICE	1	2	3	4	5
63. HEALTHY/NUTRITIOUS MENUS	1	2	3	4	5
64. MERCHANDISING TO THE DIVERSE CUSTOMER	1	2	3	4	5
65. QUALITY STANDARDS	1	2	3	4	5
66. TECHNOLOGY	1	2	3	4	5

ADDITIONAL COMMENTS OR SUGGESTIONS -

Thank you for completing this questionnaire. Your help assists the researcher in gathering data to complete her study

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APPENDIX H

MANAGER'S PACKET

OSU

Department of Nutritional Sciences
425 Human Environmental Sciences
Stillwater, Oklahoma 74078-6141
405-744-5040, Fax 405-744-7113
Email nutrsci-i@okway.okstate.edu
http://www.okstate.edu/hes/nsci/nutsci.html

January 15, 1998

Dear Professional Food and Beverage Manager:

Congratulations! You are one of the randomly selected National Restaurant Association members chosen to assist me with my doctoral research. I am Brenda Montgomery, foodservice instructor at Arkansas Tech University and a doctoral student majoring in foodservice management at Oklahoma State University. Can you spare 20 minutes from your busy schedule to complete the survey in pencil on the scannable answer form? Your participation in this research will strengthen future hospitality education and is very much appreciated. The purpose of my research is to determine the "Hospitality Students', Faculty's, and Managers' Perspective of Foodservice Trends."

Please do not fold or bend the completed questionnaire survey when placing it in the return
self-addressed envelope by February 14, 1998. We want to assure you that the results will remain strictly confidential, and the results will be reported as aggregate data. Your assistance is very much appreciated. If you have any questions, please call either of us or Ms. Gay Clarkson, OSU Internal Review Board representative, at 405-744-7500.

Respectfully

Brenda G. Montgomery, M.S.
OSU Doctoral Student and
Arkansas Tech University
Hospitality Instructor
1-501-964-0893

Lea L. Ebro, PhD, RD/LD
Professor, and
Dietetic Internship Director
1-405-744-8294

HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF COMMERCIAL FOODSERVICE TRENDS

FOOD AND BEVERAGE MANAGER'S GENERAL INFORMATION

PART I

Directions: Please provide the following personal information by darkening the appropriate response.

1. Gender: F_____ M_____

2. Age Range: _____ 25 and under _____ 26-35 _____ 36-45 _____ 46 and older

3. Ethnic Origin: _____Caucasian ____ African-American _____ Hispanic

_____American Indian _____Asian/Pacific Islander _____Other; specify

4. Foodservice Work Experience:

_____ 0-5 years _____ 11-15 years _____ 21 or more

_____ 6-10 years _____ 16-20 years

5. Check All Foodservice Work Experiences:

_____ Service _____Production _____Managerial

_____Quality Control _____Other; specify

6. Have Taken a College Nutrition Course: _____yes _____no

7. Educational Level: _____H.S. Diploma/GED _____Associate Degree

_____ Bachelors Degree _____ Advanced Degree _____Other; specify

8. Additional Certifications or License: _____

9. Local ZIP CODE:_____.

HOSPITALITY MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

GENERAL PURPOSE DATA SHEET II
form no. 70921

Directions: Please provide the following personal information by shading in the appropriate circle.

1. Gender: A - Female B - Male
2. Age Range: A - 25 and under B - 26-35 C - 36-45 D - 46 and older
3. Ethnic Origin: A - African-American B - American Indian C - Asian/Pacific Islander D - Caucasian E - Hispanic
4. Foodservice Work Experience:
   A - 0-5 years B - 6-10 years C - 11-15 years D - 16-20 years E - 21 or more
5. Select All Foodservice Work Experiences:
   A - Service
   A - Production
   A - Managerial
   A - Quality Control
   A - Other; specify _____
5. Select the one job performed currently and most frequently: A - Service B - Production C - Managerial D - Quality Control E - Other; specify _____
6. Have Taken a College Nutrition Course: A - Yes B - No
7. Educational Level: A - H.S. Diploma/GED B - Associate Degree C - Bachelors Degree D - Advanced Degree E - Other; specify _____
8. Additional Certification or License: _____
9. Local ZIP CODE: _____

YOU MAY MAKE ADDITIONAL COMMENTS OR SUGGESTIONS ON THE BACK.

Thank you for completing this questionnaire. Your help assists the researcher in gathering data to complete her sutdy.

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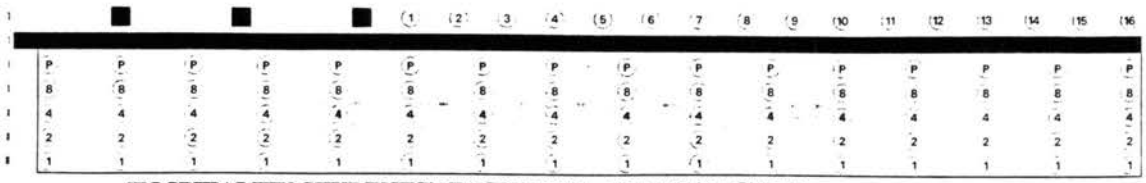

HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

Directions: USE ONLY A No. 2 PENCIL. Please answer the following questions based on your perspective of trends in the foodservice industry. Read each statement then shade the appropriate circle for your response. Shade in a 1 if you strongly agree and a 5 if strongly disagree. Select only one answer for each question.

	Strongly Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
1. In order to have a low-fat menu, restaurant operators need to avoid beef altogether.	1	2	3	4	5
2. Food, good service, and atmosphere generates total customer satisfaction in restaurant dining.	1	2	3	4	5
3. As long as you are healthy, it does not matter what you eat.	1	2	3	4	5
4. It costs more for management to train employees to properly prepare healthy foods.	1	2	3	4	5
5. Vegetarians have the right to know if the foods served contain genetic material from animals.	1	2	3	4	5
6. When customers walk into a restaurant they believe the products received are of high quality.	1	2	3	4	5
7. Genetically altered foods should be labeled as such on restaurant menus.	1	2	3	4	5
8. Restaurants should promote healthful menu items.	1	2	3	4	5
9. Biotechnology will gain in acceptance as the actual and perceived risks become smaller.	1	2	3	4	5
10. Menu variety is a key to attracting and maintaining customers for fullservice.	1	2	3	4	5
11. I would be willing to purchase and consume genetically altered meats and vegetables.	1	2	3	4	5
12. The worst customers are older adults.	1	2	3	4	5
13. It is difficult to train hospitality employees when using new technology.	1	2	3	4	5
14. The hospitality industry should encourage acceptance of genetically altered foods.	1	2	3	4	5
15. I believe food irradiation is safe to use.	1	2	3	4	5
16. Managers are receptive to the new laser eye which detects if employees wash their hands.	1	2	3	4	5
17. In my opinion, consumers are ready to accept genetically altered foods.	1	2	3	4	5
18. The greatest threat of foodborne illness is contributed by human contamination.	1	2	3	4	5
19. Studies state that consumers who publicly complain are better educated and have higher incomes.	1	2	3	4	5
20. I would purchase a car with a built-in microwave to prepare food.	1	2	3	4	5
21. For couples with children, good service, value, and convenience are factors which determine whether they eat at fast foods or fullservice restaurants.	1	2	3	4	5
22. Women order healthier entrees more than men do.	1	2	3	4	5
23. Male heads of households continue to lead consumers for eating out most often.	1	2	3	4	5
24. It's really no big deal about food poisoning; it never results in more than minor discomfort.	1	2	3	4	5
25. Customers want the human element and will not be receptive to robots as waitstaff.	1	2	3	4	5
26. Lunchtime is the period customers try to cut calories most often.	1	2	3	4	5
27. I would be willing to pay more for menu items if I knew they were more nutritious.	1	2	3	4	5
28. Few foodservice employees are concerned with the Food Danger Zone (40-140°F).	1	2	3	4	5
29. A menu planner has the responsibility to offer healthy choices.	1	2	3	4	5
30. Foodservice courses should teach about food choices and health.	1	2	3	4	5
Please darken in the response what reflects your opinion with an '1' for True and a '2' for False.					
31. Plants are being modified to create healthier cooking oils with reduced saturated fats.	1	2			
32. Food planning and control ensure a quality product.	1	2			
33. Biotechnological tomatoes will soften slower, and have added taste and nutrients.	1	2			
34. Consumer protection mandated by FDA, USDA, EPA and the Consumer Product Safety Commission is a key to quality standards.	1	2			
35. More take-out foods and foods to prepare in the microwave are in demand.	1	2			
36. Margarine is lower in calories than butter.	1	2			

Continued on Back

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	1	2	3	4	5
37. Robotic harvesters can identify whether melons and other crops are ripe to be picked using "aroma sensors".	1	2	3	4	5
38. Genetically altered foods have a longer shelf life, retard bruising and rotting, and viruses and diseases.	1	2	3	4	5
39. The demand for ethnic foods is gaining in menu offerings.	1	2	3	4	5
40. Self-diagnosing equipment will be able to call a repairman and communicate a description of the problem.	1	2	3	4	5
41. Cutting edge restaurants will utilize and invest in technology to stay competitive.	1	2	3	4	5
42. Cross-contamination is a common cause of foodborne illness resulting for improper cleaning and sanitizing workspaces and equipment.	1	2	3	4	5
43. A procedure using sound vibrations detecting the presence of salmonella infection is currently being tested and may soon guarantee that eggs are uninfected.	1	2	3	4	5
44. It is possible to obtain all the nutrients needed by eating a wide variety of foods.	1	2	3	4	5
45. Rude or unfriendly service tops the list of customer irritants.	1	2	3	4	5
46. Once food has entered the operation, the temperature at which it is stored, prepared, cooked and served becomes critical.	1	2	3	4	5
47. A restaurant's obligation is to assure customers their food will be guaranteed safe.	1	2	3	4	5
48. A dissatisfied customer will tell at least nine other people of an unpleasant experience.	1	2	3	4	5
49. A growing market is customers utilizing fax machines, and Internet orders to be picked up or delivered at their place of business/home.	1	2	3	4	5
50. Heart disease patients should not worry about preventive dieting when eating out.	1	2	3	4	5
51. Satisfaction is related closely to customer's general attitude toward the service.	1	2	3	4	5
52. Dual career families in modern households eat out more frequently than other households.	1	2	3	4	5
53. In the US, the largest market share belongs to fast foods in the foodservice industry.	1	2	3	4	5
54. Table salt contains sodium and chloride, and both are essential to a person's diet.	1	2	3	4	5
55. Understanding the customer's expectations is the first step in delivering high quality service.	1	2	3	4	5
56. The menu is the central core around which a restaurant revolves.	1	2	3	4	5
57. The major challenge for dining services is to be as efficient and effective as possible.	1	2	3	4	5
58. Biotechnology research has developed a way to increase potato starch content.	1	2	3	4	5
59. Improving quality customer service is important for restaurant success.	1	2	3	4	5
60. Bagels are a leading breakfast item across the United States	1	2	3	4	5
Please rank order the following foodservice trends from 1-5. **1 being the Most Important, 2 - Important, 3 - Neutral, 4 - Unimportant, 5 - Least Unimportant** in the foodservice industry. You can only have one number per trend line and there will be one trend omitted.					
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63. HEALTHY/NUTRITIOUS MENUS	1	2	3	4	5
64. MERCHANDISING TO THE DIVERSE CUSTOMER	1	2	3	4	5
65. QUALITY STANDARDS	1	2	3	4	5
66. TECHNOLOGY	1	2	3	4	5

ADDITIONAL COMMENTS OR SUGGESTIONS -

Thank you for completing this questionnaire. Your help assists the researcher in gathering data to complete her study

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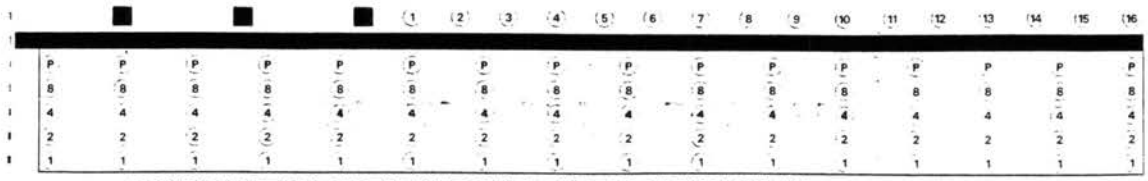

HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

Directions: USE ONLY A No. 2 PENCIL. Please answer the following questions based on your perspective of trends in the foodservice industry. Read each statement then shade the appropriate circle for your response. Shade in a 1 if you strongly agree and a 5 if strongly disagree. Select only one answer for each question.

Strongly Agree 1 — **Agree** 2 — **Neutral** 3 — **Disagree** 4 — **Strongly Disagree** 5

1. In order to have a low-fat menu, restaurant operators need to avoid beef altogether.
2. Food, good service, and atmosphere generates total customer satisfaction in restaurant dining.
3. As long as you are healthy, it does not matter what you eat.
4. It costs more for management to train employees to properly prepare healthy foods.
5. Vegetarians have the right to know if the foods served contain genetic material from animals.
6. When customers walk into a restaurant they believe the products received are of high quality.
7. Genetically altered foods should be labeled as such on restaurant menus.
8. Restaurants should promote healthful menu items.
9. Biotechnology will gain in acceptance as the actual and perceived risks become smaller.
10. Menu variety is a key to attracting and maintaining customers for fullservice.
11. I would be willing to purchase and consume genetically altered meats and vegetables.
12. The worst customers are older adults.
13. It is difficult to train hospitality employees when using new technology.
14. The hospitality industry should encourage acceptance of genetically altered foods.
15. I believe food irradiation is safe to use.
16. Managers are receptive to the new laser eye which detects if employees wash their hands.
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19. Studies state that consumers who publicly complain are better educated and have higher incomes.
20. I would purchase a car with a built-in microwave to prepare food.
21. For couples with children, good service, value, and convenience are factors which determine whether they eat at fast foods or fullservice restaurants.
22. Women order healthier entrees more than men do.
23. Male heads of households continue to lead consumers for eating out most often.
24. It's really no big deal about food poisoning; it never results in more than minor discomfort.
25. Customers want the human element and will not be receptive to robots as waitstaff.
26. Lunchtime is the period customers try to cut calories most often.
27. I would be willing to pay more for menu items if I knew they were more nutritious.
28. Few foodservice employees are concerned with the Food Danger Zone (40-140°F).
29. A menu planner has the responsibility to offer healthy choices.
30. Foodservice courses should teach about food choices and health.

Please darken in the response what reflects your opinion with an '1' for True and a '2' for False.

31. Plants are being modified to create healthier cooking oils with reduced saturated fats.
32. Food planning and control ensure a quality product.
33. Biotechnological tomatoes will soften slower, and have added taste and nutrients.
34. Consumer protection mandated by FDA, USDA, EPA and the Consumer Product Safety Commission is a key to quality standards.
35. More take-out foods and foods to prepare in the microwave are in demand.
36. Margarine is lower in calories than butter.

Continued on Back

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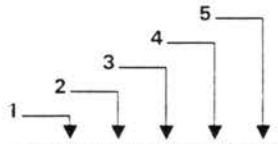

37. Robotic harvesters can identify whether melons and other crops are ripe to be picked using "aroma sensors".	1	2	3	4	5
38. Genetically altered foods have a longer shelf life, retard bruising and rotting, and viruses and diseases.	1	2	3	4	5
39. The demand for ethnic foods is gaining in menu offerings.	1	2	3	4	5
40. Self-diagnosing equipment will be able to call a repairman and communicate a description of the problem.	1	2	3	4	5
41. Cutting edge restaurants will utilize and invest in technology to stay competitive.	1	2	3	4	5
42. Cross-contamination is a common cause of foodborne illness resulting for improper cleaning and sanitizing workspaces and equipment.	1	2	3	4	5
43. A procedure using sound vibrations detecting the presence of salmonella infection is currently being tested and may soon guarantee that eggs are uninfected.	1	2	3	4	5
44. It is possible to obtain all the nutrients needed by eating a wide variety of foods.	1	2	3	4	5
45. Rude or unfriendly service tops the list of customer irritants.	1	2	3	4	5
46. Once food has entered the operation, the temperature at which it is stored, prepared, cooked and served becomes critical.	1	2	3	4	5
47. A restaurant's obligation is to assure customers their food will be guaranteed safe.	1	2	3	4	5
48. A dissatisfied customer will tell at least nine other people of an unpleasant experience.	1	2	3	4	5
49. A growing market is customers utilizing fax machines, and Internet orders to be picked up or delivered at their place of business/home.	1	2	3	4	5
50. Heart disease patients should not worry about preventive dieting when eating out.	1	2	3	4	5
51. Satisfaction is related closely to customer's general attitude toward the service.	1	2	3	4	5
52. Dual career families in modern households eat out more frequently than other households.	1	2	3	4	5
53. In the US, the largest market share belongs to fast foods in the foodservice industry.	1	2	3	4	5
54. Table salt contains sodium and chloride, and both are essential to a person's diet.	1	2	3	4	5
55. Understanding the customer's expectations is the first step in delivering high quality service.	1	2	3	4	5
56. The menu is the central core around which a restaurant revolves.	1	2	3	4	5
57. The major challenge for dining services is to be as efficient and effective as possible.	1	2	3	4	5
58. Biotechnology research has developed a way to increase potato starch content.	1	2	3	4	5
59. Improving quality customer service is important for restaurant success.	1	2	3	4	5
60. Bagels are a leading breakfast item across the United States	1	2	3	4	5
Please rank order the following foodservice trends from 1-5. **1 being the Most Important, 2 - Important, 3 - Neutral, 4 - Unimportant, 5 - Least Unimportant** in the foodservice industry. You can only have one number per trend line and there will be one trend omitted.					
61. BIOTECHNOLOGY/ENGINEERED FOODS	1	2	3	4	5
62. CUSTOMER SERVICE	1	2	3	4	5
63. HEALTHY/NUTRITIOUS MENUS	1	2	3	4	5
64. MERCHANDISING TO THE DIVERSE CUSTOMER	1	2	3	4	5
65. QUALITY STANDARDS	1	2	3	4	5
66. TECHNOLOGY	1	2	3	4	5

ADDITIONAL COMMENTS OR SUGGESTIONS -

Thank you for completing this questionnaire. Your help assists the researcher in gathering data to complete her study

APPENDIX I

REMINDER POST CARD

REMINDER POSTCARDS

THERE ARE TWO SEPARATE POSTCARDS THAT WERE SENT OUT FEBRUARY 1, 1998. POSTCARD A WAS SENT TO THE PROFESSIONAL MANAGERS, AND POSTCARD B WAS SENT TO THE FACULTY MEMBERS WHO WERE SENT BULK ENVELOPES TO ADMINISTER TO THEIR STUDENTS, AND ONE TO COMPLETE THEMSELVES.

POSTCARD A

FRIENDLY REMINDER

RESEARCH STUDY: HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

Thank you for participating in my study. If you have already mailed the completed questionnaire, please disregard this reminder. IF NOT...Kindly complete the questionnaire and return it in the furnished envelope.

PLEASE DO NOT FOLD THE SURVEY WHEN MAILING.

YOUR ASSISTANCE AND COOPERATION
IS GREATLY APPRECIATED.

POSTCARD B

FRIENDLY REMINDER

RESEARCH STUDY: HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

Thank you for participating in my study. If you have already mailed the completed student and faculty questionnaires, please disregard this reminder. **IF NOT...**Kindly administer the questionnaires and return them in the furnished envelope.

PLEASE DO NOT FOLD THE SURVEYS WHEN MAILING.

YOUR ASSISTANCE AND COOPERATION
IS GREATLY APPRECIATED.

APPENDIX J

H05 CHI-SQUARE TABLES

Correct ranking data set. 1888
13:02 Friday, March 27, 1998

TABLE OF GROUP BY Q61

GROUP	Q61						
Frequency Expected Cell Chi-Square Percent Row Pct Col Pct	1	2	3	4	5	6	Total
fac	0 0.2569 0.2569 0.00 0.00 0.00	0 0.2569 0.2569 0.00 0.00 0.00	1 0.5505 0.3671 0.46 12.50 6.67	0 0.4037 0.4037 0.00 0.00 0.00	3 2.422 0.1379 1.38 37.50 4.55	4 4.1101 0.0029 1.83 50.00 3.57	8 3.67
man	0 1.3165 1.3165 0.00 0.00 0.00	1 1.3165 0.0761 0.46 2.44 14.29	4 2.8211 0.4926 1.83 9.76 26.67	1 2.0688 0.5522 0.46 2.44 9.09	12 12.413 0.0137 5.50 29.27 18.18	23 21.064 0.1779 10.55 56.10 20.54	41 18.81
stud	7 5.4266 0.4562 3.21 4.14 100.00	6 5.4266 0.0606 2.75 3.55 85.71	10 11.628 0.228 4.59 5.92 66.67	10 8.5275 0.2543 4.59 5.92 90.91	51 51.165 0.0005 23.39 30.18 77.27	85 86.826 0.0384 38.99 50.30 75.89	169 77.52
Total	7 3.21	7 3.21	15 6.88	11 5.05	66 30.28	112 51.38	218 100.00

STATISTICS FOR TABLE OF GROUP BY Q61

Statistic	DF	Value	Prob
Chi-Square	10	5.092	0.885
Likelihood Ratio Chi-Square	10	7.278	0.699
Mantel-Haenszel Chi-Square	1	0.898	0.343
Phi Coefficient		0.153	
Contingency Coefficient		0.151	
Cramer's V		0.108	

Sample Size = 218
WARNING: 56% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Correct ranking data set. 1889
13:02 Friday, March 27, 1998

TABLE OF GROUP BY Q62

GROUP	Q62						
Frequency Expected Cell Chi-Square Percent Row Pct Col Pct	1	2	3	4	5	6	Total
fac	7 4.4404 1.4755 3.21 87.50 5.79	1 2.2018 0.656 0.46 12.50 1.67	0 0.8073 0.8073 0.00 0.00 0.00	0 0.1835 0.1835 0.00 0.00 0.00	0 0.1835 0.1835 0.00 0.00 0.00	0 0.1835 0.1835 0.00 0.00 0.00	8 3.67
man	24 22.757 0.0679 11.01 58.54 19.83	12 11.284 0.0454 5.50 29.27 20.00	3 4.1376 0.3128 1.38 7.32 13.64	0 0.9404 0.9404 0.00 0.00 0.00	2 0.9404 1.194 0.92 4.88 40.00	0 0.9404 0.9404 0.00 0.00 0.00	41 18.81
stud	90 93.803 0.1542 41.28 53.25 74.38	47 46.514 0.0051 21.56 27.81 78.33	19 17.055 0.2218 8.72 11.24 86.36	5 3.8761 0.3259 2.29 2.96 100.00	3 3.8761 0.198 1.38 1.78 60.00	5 3.8761 0.3259 2.29 2.96 100.00	169 77.52
Total	121 55.50	60 27.52	22 10.09	5 2.29	5 2.29	5 2.29	218 100.00

STATISTICS FOR TABLE OF GROUP BY Q62

Statistic	DF	Value	Prob
Chi-Square	10	8.221	0.607
Likelihood Ratio Chi-Square	10	11.099	0.350
Mantel-Haenszel Chi-Square	1	3.012	0.083
Phi Coefficient		0.194	
Contingency Coefficient		0.191	
Cramer's V		0.137	

Sample Size = 218
WARNING: 72% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Correct ranking data set. 1890
13:02 Friday, March 27, 1998

TABLE OF GROUP BY Q63

GROUP	Q63						
Frequency Expected Cell Chi-Square Percent Row Pct Col Pct	1	2	3	4	5	6	Total
fac	0	2	2	1	1	2	8
	0.7706	1.7248	2.3853	1.6514	0.5505	0.9174	
	0.7706	0.0439	0.0622	0.2569	0.3671	1.2774	
	0.00	0.92	0.92	0.46	0.46	0.92	3.67
	0.00	25.00	25.00	12.50	12.50	25.00	
	0.00	4.26	3.08	2.22	6.67	8.00	
man	1	7	19	11	2	1	41
	3.9495	8.8394	12.225	8.4633	2.8211	4.7018	
	2.2027	0.3828	3.755	0.7603	0.239	2.9145	
	0.46	3.21	8.72	5.05	0.92	0.46	18.81
	2.44	17.07	46.34	26.83	4.88	2.44	
	4.76	14.89	29.23	24.44	13.33	4.00	
stud	20	38	44	33	12	22	169
	16.28	36.436	50.39	34.885	11.628	19.381	
	0.8501	0.0672	0.8103	0.1019	0.0119	0.354	
	9.17	17.43	20.18	15.14	5.50	10.09	77.52
	11.83	22.49	26.04	19.53	7.10	13.02	
	95.24	80.85	67.69	73.33	80.00	88.00	
Total	21	47	65	45	15	25	218
	9.63	21.56	29.82	20.64	6.88	11.47	100.00

STATISTICS FOR TABLE OF GROUP BY Q63

Statistic	DF	Value	Prob
Chi-Square	10	15.228	0.124
Likelihood Ratio Chi-Square	10	17.394	0.066
Mantel-Haenszel Chi-Square	1	0.418	0.518
Phi Coefficient		0.264	
Contingency Coefficient		0.256	
Cramer's V		0.187	

Sample Size = 218
WARNING: 50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Correct ranking data set. 1891
13:02 Friday, March 27, 1998

TABLE OF GROUP BY Q64

GROUP	Q64						
Frequency Expected Cell Chi-Square Percent Row Pct Col Pct	1	2	3	4	5	6	Total
fac	0 0.1468 0.1468 0.00 0.00 0.00	2 0.6972 2.4341 0.92 25.00 10.53	2 1.8349 0.0149 0.92 25.00 4.00	2 2.6055 0.1407 0.92 25.00 2.82	2 1.3578 0.3037 0.92 25.00 5.41	0 1.3578 1.3578 0.00 0.00 0.00	8 3.67
man	1 0.7523 0.0816 0.46 2.44 25.00	5 3.5734 0.5695 2.29 12.20 26.32	11 9.4037 0.271 5.05 26.83 22.00	11 13.353 0.4147 5.05 26.83 15.49	4 6.9587 1.258 1.83 9.76 10.81	9 6.9587 0.5988 4.13 21.95 24.32	41 18.81
stud	3 3.1009 0.0033 1.38 1.78 75.00	12 14.729 0.5058 5.50 7.10 63.16	37 38.761 0.08 16.97 21.89 74.00	58 55.041 0.159 26.61 34.32 81.69	31 28.683 0.1871 14.22 18.34 83.78	28 28.683 0.0163 12.84 16.57 75.68	169 77.52
Total	4 1.83	19 8.72	50 22.94	71 32.57	37 16.97	37 16.97	218 100.00

STATISTICS FOR TABLE OF GROUP BY Q64

Statistic	DF	Value	Prob
Chi-Square	10	8.543	0.576
Likelihood Ratio Chi-Square	10	9.344	0.500
Mantel-Haenszel Chi-Square	1	1.788	0.181
Phi Coefficient		0.198	
Contingency Coefficient		0.194	
Cramer's V		0.140	

Sample Size = 218
WARNING: 50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Correct ranking data set. 1892
13:02 Friday, March 27, 1998

TABLE OF GROUP BY Q65

GROUP Q65

Frequency / Expected / Cell Chi-Square / Percent / Row Pct / Col Pct	1	2	3	4	5	6	Total
fac	0	3	2	1	1	1	8
	2.0183	3.156	1.7615	0.5138	0.2936	0.2569	
	2.0183	0.0077	0.0323	0.4602	1.6998	2.1497	
	0.00	1.38	0.92	0.46	0.46	0.46	3.67
	0.00	37.50	25.00	12.50	12.50	12.50	
	0.00	3.49	4.17	7.14	12.50	14.29	
man	13	20	3	3	1	1	41
	10.344	16.174	9.0275	2.633	1.5046	1.3165	
	0.682	0.9049	4.0245	0.0511	0.1692	0.0761	
	5.96	9.17	1.38	1.38	0.46	0.46	18.81
	31.71	48.78	7.32	7.32	2.44	2.44	
	23.64	23.26	6.25	21.43	12.50	14.29	
stud	42	63	43	10	6	5	169
	42.638	66.67	37.211	10.853	6.2018	5.4266	
	0.0095	0.202	0.9006	0.0671	0.0066	0.0335	
	19.27	28.90	19.72	4.59	2.75	2.29	77.52
	24.85	37.28	25.44	5.92	3.55	2.96	
	76.36	73.26	89.58	71.43	75.00	71.43	
Total	55	86	48	14	8	7	218
	25.23	39.45	22.02	6.42	3.67	3.21	100.00

STATISTICS FOR TABLE OF GROUP BY Q65

Statistic	DF	Value	Prob
Chi-Square	10	13.495	0.197
Likelihood Ratio Chi-Square	10	15.128	0.127
Mantel-Haenszel Chi-Square	1	0.410	0.522
Phi Coefficient		0.249	
Contingency Coefficient		0.241	
Cramer's V		0.176	

Sample Size = 218
WARNING: 50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Correct ranking data set. 1893
13:02 Friday, March 27, 1998

TABLE OF GROUP BY Q66

GROUP	Q66						
Frequency Expected Cell Chi-Square Percent Row Pct Col Pct	1	2	3	4	5	6	Total
fac	1 0.4404 0.7112 0.46 12.50 8.33	0 0.4037 0.4037 0.00 0.00 0.00	1 0.9908 0.0001 0.46 12.50 3.70	4 2.3853 1.093 1.83 50.00 6.15	1 3.0092 1.3415 0.46 12.50 1.22	1 0.7706 0.0683 0.46 12.50 4.76	8 3.67
man	2 2.2569 0.0292 0.92 4.88 16.67	2 2.0688 0.0023 0.92 4.88 18.18	6 5.078 0.1674 2.75 14.63 22.22	12 12.225 0.0041 5.50 29.27 18.46	17 15.422 0.1615 7.80 41.46 20.73	2 3.9495 0.9623 0.92 4.88 9.52	41 18.81
stud	9 9.3028 0.0099 4.13 5.33 75.00	9 8.5275 0.0262 4.13 5.33 81.82	20 20.931 0.0414 9.17 11.83 74.07	49 50.39 0.0383 22.48 28.99 75.38	64 63.569 0.0029 29.36 37.87 78.05	18 16.28 0.1818 8.26 10.65 85.71	169 77.52
Total	12 5.50	11 5.05	27 12.39	65 29.82	82 37.61	21 9.63	218 100.00

STATISTICS FOR TABLE OF GROUP BY Q66

Statistic	DF	Value	Prob
Chi-Square	10	5.245	0.874
Likelihood Ratio Chi-Square	10	5.936	0.821
Mantel-Haenszel Chi-Square	1	0.572	0.449
Phi Coefficient		0.155	
Contingency Coefficient		0.153	
Cramer's V		0.110	

Sample Size = 218
WARNING: 50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

VITA

Brenda Green Montgomery

Candidate for the Degree of

Doctor of Philosophy

Thesis: HOSPITALITY STUDENTS', FACULTY'S, AND MANAGERS' PERSPECTIVE OF FOODSERVICE TRENDS

Major Field: Human Environmental Sciences

Area of Specialization: Foodservice Management

Biographical:

Personal Data: Born in Duncan, Oklahoma, on May 25, 1957, the daughter of Irene Green and the late S.W. Green. Mother of one child: Lindsey.

Education: Graduated from Duncan High School, Duncan, Oklahoma, in May 1975; received Bachelor of Science degree in Vocational Home Economics Education in May 1979 and Master of Science degree in Nutrition Education from the University of Central Oklahoma, Edmond, Oklahoma, in December, 1992; completed the requirements for the Doctor of Philosophy degree at Oklahoma State University, Stillwater, Oklahoma in December, 1998.

Professional Experience: Taught vocational home economics education in Oklahoma Public Schools, 1979 to 1992. Teaching Associate for Hotel and Restaurant Administration Department, HRAD, Oklahoma State University, 1992 to 1997. Hospitality Instructor, Arkansas Tech University, Russellville, Arkansas, 1997 to present.

Professional Memberships: CHRIE, KOMA-CHRIE, AAUW, Arkansas Hospitality Association, National Restaurant Association, Phi Upsilon Omicron and Kappa Omicron Nu, Home Economics Honor Fraternities.