

## **Training: An Opportunity for People with Disabilities in School Foodservice Operations**

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*Please note that this study was published before the implementation of Healthy, Hunger-Free Kids Act of 2010, which went into effect during the 2012-13 school year, and its provision for Smart Snacks Nutrition Standards for Competitive Food in Schools, implemented during the 2014-15 school year. As such, certain research may not be relevant today.*

### **ABSTRACT**

#### **Purpose/Objectives**

This study assessed current training methods and topics used at public school foodservice operations as well as school foodservice representatives' attitudes toward training employees with disabilities.

#### **Methods**

A mixed method approach of data collection included two phases. Phase I used a more qualitative approach; interviews were conducted with three experienced school foodservice directors. Phase II used a more quantitative approach whereby an online questionnaire was developed based on interview results. The questionnaire was sent to all school foodservice representatives in Iowa (N = 363). Interview transcripts were analyzed manually and with Atlas.ti™, a qualitative software package. Questionnaire responses were analyzed using SPSS; descriptive statistics, including frequencies, means, and standard deviations, were computed.

#### **Results**

Of the 363 questionnaires mailed to school foodservice representatives, 77 completed questionnaires were received for a response rate of 22%. Respondents reported the most common training methods (on-the-job and demonstrations), tools (texts/ manuals and audio/video tapes), and topics (food safety and cleaning procedures) used for all employees in their operations. Respondents agreed that different training methods needed to be used with employees with disabilities. Providing training for employees with disabilities on technical, communication, and social skills was reported as important so employees were prepared to do their jobs effectively.

#### **Applications to Child Nutrition Professionals**

To assure compliance with updates to the American with Disabilities Act (ADA) that went into effect January 8, 2009, it is imperative child nutrition professionals consider appropriate ways to integrate people with disabilities into their workforces. This study provided information about school foodservice representatives' attitudes on training methods used with and overall attitudes toward employees with disabilities. Foodservice directors may need to use different training methods covering technical, communication and social skills with employees with different types of disabilities in order to provide opportunities for them to succeed at their jobs.

### **INTRODUCTION**

School foodservice authorities are responsible for meeting nutritional and safety standards for school-aged children who participate in federal child nutrition programs. With changes in the economy, technological advances, worker demographics, nutrition awareness, and regulatory standards, (DeMicco, Cetron, & Williams, 2000) school foodservice programs must be prepared to adapt to these changes while satisfying customers' desires. Adoption of the Americans with

Disabilities Act (ADA) in 1990 provided new opportunities for people with disabilities to become contributing members of society (Price, Gerber, & Mulligan, 2007; U.S. Department of Justice [USDJ], 1990; U.S. Equal Employment Opportunity Commission [EEOC], 2008).

According to 2000 U.S. census data, about 43 million Americans (an estimated 17% of the U.S. population) have one or more physical and/or mental disabilities. Of those 16 years of age or older who reported having a disability, 21 million (11.9% of the total population) indicated existence of a condition that affected their ability to find a job or remain in one (U.S. Census Bureau, 2007). In Iowa, of the total civilian (not in military) non-institutionalized population 16 years of age and older, 15% (415,074) had some kind of disability and 6.3% reported that a disability made it difficult to find a job (State Data Center of Iowa, 2006). If this sector of the population continues to increase, organizations may need to make accommodations to employ and train people with disabilities (EEOC, 2005).

The EEOC defines someone with a disability as “anyone with a physical or mental impairment substantially limiting one or more major life activities; has a record of such impairment; or is regarded as having such impairment” (EEOC, 1991, p. 2). The ADA, enforced by the EEOC, states that no job discrimination should occur by covered organizations (private employers with 15 or more employees, state and local governments, employment agencies, and labor unions; EEOC, 1991). Public schools must comply with the ADA.

The foodservice industry represents a good employment opportunity for people with disabilities because it offers entry level jobs where unskilled workers can be employed (Mulvihill, Repetto, Andrews, & Gritz, 2008). Training is an important component of any operation because it helps employees learn the necessary skills to perform the job. In the early 1990's, school foodservice directors identified staff development and training as one of their principal job duties (DeMicco, Palakurthi, Sammons, & Williams, 1994). Since then, several researchers have identified training needs and preferred delivery methods of school foodservice directors, managers, and/or supervisors, (DeMicco et al., 1994; Kendrick & Gangadharan, 2001; Sneed, 1992; Sullivan, Harper, & West, 2001, 2002). Limited research about training methods used for food safety training as a result of HACCP implementation have been reported in the literature (Story & Strohbehn, 2010).

Six functional areas of the job duties of school nutrition employees were identified by Nettles, Carr, Cater, and Federico (2009): food production; sanitation, safety, and security; customer service; program regulations and accountability; equipment use and care; and professional excellence. In addition, 12 competencies, 45 knowledge statements, and 105 skill statements were confirmed. Demonstrations, on-the-job, and conferences have been identified by school foodservice directors as preferred training methods (Kendrick & Gangadharan, 2001; Sullivan et al., 2001, 2002).

Challenges with incorporating people with disabilities into the workplace have been identified: difficulty in defining and understanding disabilities, costs, extra training, amount of supervision, changes in work routine, lack of necessary skills, and need for accommodation (Bruyere, 2000; Geng-qing & Qu, 2003; Ruggeri-Stevens & Goodwin, 2007; Stokes, 1990; Unger, 2002). Researchers have also recognized advantages or benefits of working with employees with disabilities, which included good performance, improved sense of corporate social responsibility, lower turnover, better attendance, more loyalty, and stronger dedication (Geng-qing & Qu, 2003; Marcouiller, Smith, & Bordieri, 1987; Ruggeri-Stevens & Goodwin, 2007; Stokes, 1990; Unger, 2002). These studies were conducted in a variety of work organizations; yet no research has investigated training of employees with disabilities in the school foodservice setting. The purpose of this study was to assess current training methods and topics used in school foodservice operations as well as school foodservice authorities' attitudes toward training employees with disabilities.

## METHODOLOGY

For this study, a mixed method approach was used to collect and analyze the data, allowing for a deeper understanding of the topic (Creswell & Plano, 2007). School foodservice directors were interviewed in Phase I of the study; this information was used to develop an online questionnaire

that was sent to school foodservice representatives in Iowa for Phase II. A Human Subjects Institutional Review Board (IRB) approved the research study prior to data collection.

### **Phase I: Interviews**

*Sample.* A purposeful sample of public school foodservice directors from Iowa was used. Eight school foodservice directors from districts ranging in student enrollment of approximately 2,000 to 8,848 were contacted; three interviews were conducted.

*Questions.* A semi-structured interview format was followed with at least 10 open-ended questions asked during the interviews. Questions related to the definition of disability, types of disabilities, training methods and topics used for all employees, and current use of or willingness to use different training methods and topics for employees with disabilities. Demographic information about the representative and the district was also collected.

*Analysis.* Interviews were audio recorded and transcribed. The interviews lasted approximately 30 minutes each. Transcripts were analyzed manually by two researchers to look for emerging themes; themes were then grouped into categories. Additional analysis was done using Atlas.ti™ (Version 5.1), a qualitative software package.

### **Phase II: Questionnaires**

*Population.* All schools districts listed on the State Public District Directory of the Department of Education (Iowa Department of Education, 2009) were used for this study. The directory contained a total of 363 school superintendents' names and e-mail addresses. Each school's website was then visited to obtain the e-mail address of the school foodservice representative. If this information was available, the e-mail address of the foodservice director or supervisor was used for mailing purposes; if not, the superintendent's e-mail address was used. Superintendents were asked to complete the questionnaire if they were responsible for training foodservice employees or to forward the questionnaire to the person responsible for training foodservice employees. The three foodservice directors who participated in the Phase I interviews were included in the population and received a questionnaire.

*Instrument.* The online questionnaire, developed using information from the interviews and from a review of the literature, was pilot tested for content validity and understanding with educators and foodservice managers ( $N = 15$ ). The questionnaire was developed using SurveyGizmo™. An e-mail cover letter was sent to potential respondents with a hyperlink directing him/her to the questionnaire. Follow-up procedures were consistent with those recommended by Dillman (2007) in that a first reminder to complete the questionnaire was sent one week after the first questionnaire was sent and a second reminder was sent two weeks after the first questionnaire was sent. Twenty-two of the 363 questionnaires were undeliverable because of the Internet security systems in schools; paper questionnaires were mailed to these foodservice representatives and three were completed and returned.

The questionnaire consisted of five sections. The first section contained three questions related to current operation training topics, methods, and tools. Questions were adapted from a survey used by Harris and Bonn (2000) and developed based on interview data. The second and third sections assessed foodservice directors' attitudes and beliefs (31 items positively and negatively phrased) toward people with disabilities. Questions were adapted from an instrument used by Geng-qing and Qu (2003) and developed from interview data. A Likert-type scale and corresponding descriptors (SA = *strongly agree*, A = *agree*, N = *neutral*, D = *disagree*, SD = *strongly disagree*) were used in these sections. The last two sections requested demographic information about the school district and respondent.

*Analysis.* Questionnaires were analyzed using the Statistical Package for Social Sciences (SPSS) version 18.0. Descriptive statistics, including frequencies, means, and standard deviations, were computed. Reverse coding of negatively phrased statements was used to put all questions on the same scale. A Cronbach's Alpha estimate of reliability of 0.759 was obtained.

## **RESULTS AND DISCUSSION**

A total of 363 e-mails with a link to the web-based questionnaire were sent to all public school foodservice representatives. Of those that were deliverable, a 22.6% response rate was achieved with 77 usable questionnaires, however not all respondents answered all questions. Similar, earlier

studies with foodservice directors have reported response rates of 30% and 34% (Sullivan et al., 2001, 2002, respectively). However, more recent studies have shown decreased response rates closer to those achieved in this study (Hanna, 2008; Story & Strohbehn, 2010), perhaps due to increasing responsibilities of school nutrition program administration. Even though the response rate was low, it has been reported that nonresponse may not always generate bias (Groves, 2006). This response rate might also have been affected by the lack of computer equipment in some school districts, foodservice representatives' ages, low technology skills or comfort level, or lack of time to respond or familiarity with the topic.

### Respondents' Profile

The majority of respondents were foodservice directors/managers (89%), female (77%), Caucasian (55%), and over 46 years old (71%). More than one third (38%) of the respondents had worked more than 25 years for the foodservice industry (Table 1). Similar demographic characteristics have been reported in other studies with school foodservice directors as the sample (Hanna, 2008; Kendrick & Gangadharan, 2001; Story & Strohbehn, 2010; Sullivan et al., 2001). Almost all of the questionnaire respondents (89%) reported some type of personal or professional experience with people having disabilities, which may have encouraged them to respond to the survey. Over one third of the respondents (38%) were currently working with employees with disabilities. Positions reported as commonly held by employees with disabilities in the school foodservices were dishwasher (46%), kitchen helper (40%), and server (22%); Geng-qing and Qu (2003) reported that 60% of their respondents (restaurant managers in Oklahoma) had hired people with disabilities as kitchen helpers.

Table 1. *Demographic Characteristics of School Foodservice Representatives (n = 65-66)*

Characteristic	Questionnaire	
Gender		
Female	51	77
Male	15	23
Age		
19-35 years old	11	17
36-45 years old	8	12
46-55 years old	27	41
Over 55 years old	20	30
Ethnicity		
American Indian or Alaskan Native	5	8
Asian or Pacific Islander	2	3
Caucasian	55	83
Hispanic	4	6

Current Position		
Foodservice Director/Manager	57	89
Superintendent	7	11
Years Working for Hospitality Industry		
0-5 years	9	14
6-15 years	13	20
16- 25 years	18	28
Over 25 years	25	38
Years Working with Current Organization		
=1-5 years	22	33
6-15 years	25	38
16- 25 years	15	23
Over 25 years	4	6
Experience with Disabled People		
Yes	59	89
No	7	11

### Training Methods and Topics

Table 2 details training methods, topics, and tools reported as used in school foodservice operations for all employees. The most common training methods reported as used were on-the-job training (99%), demonstrations (89%), classroom style/lecture (64%), self-guided instruction (57%), and computer based learning (39%). Computers might not be used as often because some small school districts might not have this type of equipment available for use by employees in the foodservice areas or employees may not be familiar with this method of training.

Table 2. *Training Methods, Topics, and Tools Reported to be Used by School Foodservice Participants*

Training Methods, Topics, and Tools	Frequency <sup>a</sup>	Percent (%) <sup>b</sup>
Methods		
On-the-job Training	73	99
Demonstrations	64	89

Classroom Style/Lecture	47	64
Self-guided	39	57
Computer	25	39
Role Plays	13	21
Case Study	11	17
Topics		
Food Safety	75	99
Cleaning Procedures	74	99
Equipment Usage/Cleaning	74	97
Handling of Food	74	97
Food Preparation	73	96
Chemical Use	66	90
Customer Service	66	88
Knowledge of Product	61	84
Communication Skills	62	82
Employee Relations	57	77
Conflict Management	46	63
Tools		
Text and Manuals	55	74
Audio-video Tapes, DVDs, CDs	48	68
Computer Programs/Simulations	30	45
Transparencies	14	23
Podcasts/Vodcasts	9	14

<sup>a</sup> n = 61-74

<sup>b</sup>Percent total is more than 100 for each category as respondents selected all options that applied.

Training tools most commonly reported were text and manuals (74%) and audio/video tapes, DVDs, CDs (68%). Almost all of the respondents (more than 96%) reported training their employees on food

safety (which might include HACCP), cleaning procedures, equipment usage/cleaning, handling of food, and food preparation. This emphasis is not surprising given the 2004 Child Nutrition Reauthorization Act which required implementation of food safety plans based on HACCP principles by July 1, 2006, and that school districts serve young children who are considered a vulnerable population. Other topics identified as covered in training sessions were chemical use (90%), customer service (88%), knowledge of products (84%), and communication skills (82%). During the interviews, foodservice directors emphasized some of the same topics, for example: "We talk about nutrition, with the meal requirements; we talk about safety and sanitation; we do use of equipment; we do right-to-know, that's the HAZMAT one; we do Civil Rights; we do customer service."

Past research has identified on-the-job and demonstrations as training methods preferred by school foodservice directors or managers (Kendrick & Gangadharan, 2001; Sullivan et al., 2001, 2002). On-the-job training has been reported in the literature as one of the training methods most commonly used in the foodservice industry and an effective method for training people with disabilities (Brooks, Rose, Attree, & Elliot-Square, 2002; Harris & Bonn, 2000; Hignite, 2000; Vilá, Pallisera, & Fullana, 2007).

### Attitudes Toward Training People with Disabilities

School foodservice representatives, 38% whom currently employ a person with disabilities, had a relatively positive attitude toward training people with disabilities. The overall mean for the 17 attitude statements was 3.42 (scale: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, 5 = *strongly agree*) with a Cronbach's Alpha estimate of reliability of 0.759. Table 3 details means and standard deviations for each of the 17 statements. The majority of respondents (75%) agreed or strongly agreed (negatively phrased items were reverse coded) that providing additional training to employees with disabilities was not too costly. Foodservice authorities were asked to give their perceptions on whether it was harder to train employees with disabilities than those without disabilities depending on the disability; 18% agreed or strongly agreed that it is harder, 36% answered with neutral responses, and 36% disagreed or strongly disagreed. One interviewee's comments reflected her attitude toward people with disabilities as being no different from people without disabilities: "I think they're like our normal employees; I guess I don't see working with people with a disability any different than I see working with what we would consider our 'normal' employees."

Table 3. *School Foodservice Participants' Attitudes Towards Training Employees with Disabilities*<sup>a</sup>

Statement	M ± SD <sup>b</sup>	Frequency of Responses <sup>c</sup>				
		SD	D	N	A	SA
Providing training on technical skills important for EWD <sup>d</sup>	4.00 ±.67	0 (0%)	2 (3%)	9 (13%)	44 (65%)	13 (19%)
Providing training on communication skills important for EWD <sup>d</sup>	3.89 ±.53	0 (0%)	0 (0%)	13 (20%)	47 (71%)	6 (9%)
Providing training on social skills important for EWD <sup>d</sup>	3.79 ±.71	0 (0%)	3 (4%)	16 (24%)	40 (60%)	8 (12%)
I train/would train on different topics if an	3.65 ±.82	0	9	10	41	5

employee has a specific disability <sup>e</sup>		(0%)	(14%)	(15%)	(63%)	(8%)
I train/would train on different topics if an EWD has a certain job <sup>d,e</sup>	3.64 ±.79	0 (0%)	8 (12%)	13 (19%)	41 (61%)	5 (7%)
I use/would use different training methods for EWD <sup>d</sup>	3.41 ±.86	0 (0%)	12 (18%)	19 (29%)	31 (47%)	4 (6%)
Depending on the disability, I spend/would spend more time training EWD than EWOD <sup>d,e</sup>	3.28 ±.81	0 (0%)	13 (19%)	24 (36%)	28 (42%)	2 (3%)
Depending on the job, I spend/would spend more time training EWD than EWOD <sup>d,e</sup>	3.23 ±.82	0 (0%)	14 (21%)	25 (38%)	25 (38%)	2 (3%)
I use/would use the same training tools for EWD as EWOD <sup>d</sup>	3.09 ±.97	1 (1%)	21 (32%)	19 (29%)	21 (32%)	4 (6%)
I train/would train all employees using the same methods whether they are disabled or not <sup>e</sup>	2.91 ±1.20	4 (6%)	31 (46%)	7 (11%)	17 (25%)	8 (12%)
Even after training EWD need special attention from supervisors <sup>d,e</sup>	2.88 ±.79	1 (1%)	20 (30%)	34 (51%)	10 (15%)	2 (3%)
I do not believe EWD need to be trained different than EWOD <sup>d,e</sup>	2.82 ±.91	2 (3%)	25 (38%)	28 (42%)	9 (13%)	3 (4%)
Depending on disability, EWD are harder to train than EWOD <sup>d,e</sup>	2.81 ±.74	1 (1%)	23 (35%)	31 (46%)	12 (18%)	0 (0%)
Depending on disability, it costs/would cost more to train EWD <sup>d,e</sup>	2.76 ±.74	0 (0%)	12 (18%)	26 (39%)	28 (42%)	0 (0%)



Depending on job, EWD are harder to train than EWOD <sup>d, e</sup>	2.67 ±.66	1 (1%)	26 (39%)	34 (51%)	6 (9%)	0 (0%)
Depending on job, it costs/would cost me more to train EWD <sup>d, e</sup>	2.64 ±.69	0 (0%)	32 (48%)	27 (40%)	8 (12%)	0 (0%)
It is too costly to give additional training to EWD <sup>d, e</sup>	2.21 ±.66	6 (9%)	44 (66%)	14 (21%)	3 (4%)	0 (0%)
<b>Overall Mean</b>	<b>3.42 ± .34</b>					

<sup>a</sup> n = 65-67

<sup>b</sup> Mean ± Standard Deviation.

<sup>c</sup> Scale for statements: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree.

<sup>d</sup> EWD = employees with disabilities and EWOD = employees without disabilities

<sup>e</sup> These statements were reverse coded: 1 = Strongly Agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly Disagree

School foodservice representatives in this study agreed that it is important to provide training on communication, technical, and social skills for employees with disabilities, which is similar to what was reported in past research (Bruyere, 2000). Skills needed to interact with others, for example cooperation, sharing, and following directions (Gresham & Elliot, 1984) are social skills. Statements related to the importance of providing training on technical, communication, and social skills had the highest mean ratings ( $M = 4.00$ ,  $M = 3.89$ ,  $M = 3.79$ ; respectively). With close to 90% of respondents having had personal or professional experiences with people with disabilities, the high ratings indicate an understanding of special needs for these workers. One of the interviewees commented about the challenges of communicating with an employee with disabilities: "The communication is a challenge; the communication was a big issue." Communication skills refer to the skills needed to use language (spoken or written) to interact with others (Wrench, McCroskey, & Richmond, 2008). Communication is essential when working in foodservice operations; training for communication skills might also have an impact on the way employees with disabilities interact with coworkers and customers (students and teachers).

Most of the respondents agreed they would address different training topics for employees with disabilities depending on the disability (63%) and the job (61%). Less than half of the school foodservice representatives (47%) agreed they would use different training methods for employees with disabilities.

### **Attitudes Toward General Characteristics of Employees with Disabilities**

Respondents had a neutral attitude toward general characteristics of employees with disabilities with an overall mean rating of 3.27 (Table 4) calculated for the 13 items. Characteristics presented were related to loyalty, dependability, cooperation, absenteeism, and higher work quality. Many of the questions were negatively phrased so reverse coding was used for analysis and reporting these results. The majority of respondents agreed or strongly agreed that employees with disabilities are not often late for work (70%), usually stay longer at a job (57%), do not increase operational costs (55%), will adapt to new ways of doing things (59%), and do not need special attention from coworkers (55%). These findings suggest that even if managers have a neutral attitude on some items, there are some general characteristics where about half of the respondents had an overall positive work attitude toward people with disabilities. Interview participants expressed positive attitudes toward the general characteristics of people with disabilities:

"The benefit that I see that comes with hiring some people with disabilities, most of them seem to be pretty happy with their job, and so they come to work every day, as opposed to other people who may not come to work every day."

Table 4. *School Foodservice Participants' Attitudes towards Employees with Disabilities*<sup>a</sup>

Statement	M ± SD <sup>b</sup>	Frequency of Responses <sup>c</sup>				
		SD	D	N	A	SA
EWD are more loyal than EWOD <sup>d</sup>	3.11 ± .64	0 (0%)	9 (14%)	42 (64%)	14 (22%)	1 (1%)
EWD cooperate better than EWOD <sup>d,e</sup>	3.03 ± .61	0 (0%)	11 (16%)	42 (64%)	13 (20%)	0 (0%)
EWD are more dependable than EWOD <sup>d</sup>	2.93 ± .68	1 (1%)	13 (19%)	45 (67%)	6 (9%)	2 (3%)
EWD are absent less often than EWOD <sup>d</sup>	2.90 ± .74	3 (4%)	12 (18%)	42 (63%)	9 (14%)	1 (1%)
EWD need closer supervision than EWOD <sup>d,e</sup>	2.79 ± .88	2 (3%)	25 (37%)	28 (42%)	9 (14%)	3 (4%)
EWD produce higher quality work than EWOD <sup>d</sup>	2.76 ± .65	1 (1%)	20 (30%)	41 (61%)	4 (7%)	1 (1%)
EWD usually stay shorter time at a job than EWOD <sup>d,e</sup>	2.63 ± .58	3 (4%)	35 (53%)	29 (43%)	0 (0%)	0 (0%)
EWD work slower than EWOD <sup>d,e</sup>	2.63 ± .71	2 (3%)	28 (42%)	30 (45%)	7 (10%)	0 (0%)
EWD need special attention from coworkers <sup>d,e</sup>	2.58 ± .68	1	36	27	3	0

		(1%)	(54%)	(41%)	(4%)	(0%)
EWD make other employees uncomfortable <sup>d,e</sup>	2.58 ± .78	3 (4%)	30 (45%)	27 (41%)	6 (9%)	1 (1%)
Supervisors find/would find hard to get EWD to adopt new ways of doing the job <sup>d,e</sup>	2.52 ± .80	1 (1%)	39 (59%)	21 (32%)	3 (4%)	3 (4%)
EWD increase operational costs <sup>d,e</sup>	2.48 ± .61	1 (1%)	36 (54%)	27 (41%)	3 (4%)	0 (0%)
EWD are often late for work <sup>d,e</sup>	2.18 ± .68	9 (14%)	37 (56%)	19 (28%)	1 (2%)	0 (0%)
<b>Overall Mean</b>	<b>3.27 ± .30</b>					

<sup>a</sup> n = 66-67

<sup>b</sup> Mean ± Standard Deviation.

<sup>c</sup> Scale for statements: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree.

<sup>d</sup> EWD = employees with disabilities and EWOD = employees without disabilities

<sup>e</sup> These statements were reverse coded: 1 = Strongly Agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly Disagree

### **Accommodations**

Given the ADA requirement of providing accommodations in the workplace for employees with disabilities, a supplemental question was asked to gather information on whether the respondents had provided or would provide reasonable accommodations in order to hire a person or for a current employee with disabilities. Over three quarters of the respondents (78%) reported they have made or would make reasonable accommodations for employees with disabilities. Because the ADA of 1990 required these reasonable accommodations, findings from this study suggest about one-fourth of school foodservice directors or managers have not considered or would not make accommodations for people with disabilities. Lack of awareness of ADA law may be due to districts' hiring and selection processes as some districts may have a person other than the school foodservice representative responsible for posting job announcements.

## **CONCLUSIONS AND APPLICATIONS**

Results from this study provide information about training topics and methods used with school foodservice employees, and potential for employing persons with disabilities in child nutrition programs. School foodservice representatives' attitudes toward people with disabilities were assessed. Findings show school foodservice operations have been open to employing people with disabilities and use a variety of training methods and tools to meet their needs. This study also confirmed that traditional training methods and tools continue to be used in school foodservice operations, regardless of availability of web based instruction. The most commonly used training methods identified in this study were on-the-job training, demonstrations, and classroom

style/lecture, similar to methods identified in past research. However, the use of computers as a training method was reported and it appears computer based learning is used more frequently, not surprising given technological changes that have occurred. The most common tools identified in training were texts and manuals, audio/video tapes, DVDs, and CDs. The incorporation of different training methods by school foodservice operations may be necessary as new generations enter the work force and the need for anytime and anyplace learning increases. As the use of computer based reporting for child nutrition programs increases and paper reports declines, and as technology increases and school foodservice employees' comfort level grows, other training tools such as computer based instruction, podcasts/vodcasts, and other technologies may be used.

As noted by Mulvihill et al. (2008), people with disabilities should have the same opportunities to get training as do people without disabilities; this might provide development opportunities for people with disabilities, as most of the time they are hired for entry-level jobs. Foodservice operations offer a wide range and variety of employment opportunities for people with disabilities because they provide the flexibility to accommodate them and their specific needs. Although school foodservice representatives who responded to the questionnaire and those interviewed agreed they had provided or would provide reasonable accommodations to employees with disabilities if it were necessary, there was not unanimous agreement to the idea of opening up opportunities for people with disabilities. This could be due to uncertainty about the effect accommodations would have on the employee and others within the organization, or be due to others making hiring decisions for district employees. Because school districts participate in federal programs, such as Child Nutrition, and must comply with federal regulations, this particular finding suggests the need to increase awareness about considering people with disabilities for work in school foodservice programs.

Preparing people with disabilities for employment is an important task. Respondents agreed that different training methods should be used to train employees with disabilities; depending on the job and/or the disability, training methods and topics might vary. Foodservice directors need to consider these training differences in order to provide the best training methods and opportunities for their employees with disabilities and assure they succeed at their jobs. While almost all respondents had personal or professional experiences with people with disabilities, there may be a need to further educate school foodservice directors about special needs of employees with disabilities.

Past research has reported that individuals with disabilities may have difficulty learning and performing skills needed for employment. Employers want employees who have the technical, communication, and social skills needed to perform the job. Respondents agreed that providing training for those skills for employees with disabilities is important for their operations. School foodservice operations should consider including a training component that covers the basics of technical, communication, and social skills for their employees to perform their jobs better. School districts might consider training for staff to better understand benefits to hiring employees with disabilities.

Training of technical skills is critical for employees to learn the appropriate way to do the job and, thus, impact job performance and productivity. Employees with disabilities may need some training in how to interact appropriately with others in the work place; having good social skills also would enhance the overall work environment of the school foodservice operation. These trainings would also benefit all workers in the organization.

There are challenges associated with training and working with people with disabilities. This study found school foodservice representatives in Iowa had personal and professional experiences with people with disabilities and a positive attitude toward training and working with these individuals. Respondents' perceived challenges as well as benefits of employees with disabilities in school foodservice work organizations. As one of the interview participants concluded:

It would be an educational experience. . . It would be a teaching lesson for all of us involved to train the person, to work with that person, and for all of our customers to see that we are open to work with people that have disabilities.

Looking forward, researchers need to assess training methods and topics for specific types of employees with disabilities. This information could expand the knowledge about what is needed based on the specific disability and allow for the development of training methods oriented toward specific disabilities. In addition, future research could identify school foodservice directors' perceived benefits and challenges of employing people with disabilities, with subsequent development of educational modules to raise awareness of specific types of work that could be done in school foodservices by employees with disabilities.

One of the limitations of the study was the low response rate. Reasons for this low response rate are unknown but not uncommon and it has been reported that nonresponse may not always generate bias (Groves, 2006). Another potential limitation is that socially desirable responses might have been reported due to the sensitive nature of this topic. Questions to measure socially desirable responses were pilot tested during interviews and respondents voiced concerns about including those on the questionnaire. A majority of respondents had experience with people with disabilities, which may have contributed to their willingness to respond to the survey.

## REFERENCES

- Brooks, B. M., Rose, F. D., Attree, E. A., & Elliot-Square, A. (2002). An evaluation of the efficacy of training people with learning disabilities in a virtual environment. *Disability and Rehabilitation, 24*, 622-626.
- Bruyère, S. (2000). *Disability employment policies and practices in private and federal sector organizations*. Ithaca, NY: Cornell University, School of Industrial and Labor Relations Extension Division, Program on Employment and Disability.
- Creswell, J. W., & Plano, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications.
- DeMicco, F., Cetron, M., & Williams, J. (2000). The impact of trends on school foodservices. *The Journal of Child Nutrition & Management, 24*(1), 3-7.
- DeMicco, F., Palakurthi, R., Sammons, G., & Williams, J. (1994). Nutrition education and food service management training needs of school food service professionals. *School Food Service Research Review, 18*, 80-88.
- Dillman, D.A. (2007). Reduction of coverage in sampling errors. *In Mail and internet surveys: The tailored design method* (2nd ed.). New York: John Wiley and Sons.
- Geng-qing, C., & Qu, H. (2003). Integrating persons with disabilities into the workforce: A study on employment of people with disabilities in foodservice industry. *International Journal of Hospitality & Tourism Administration, 4*, 59-83.
- Gresham, F. M. & Elliot, S. N. (1984). Assessment of social skills: A review of methods and issues. *School Psychology Review, 13*, 292-301.
- Groves, R. (2006). Nonresponse rates and nonresponse bias in households surveys. *Public Opinion Quarterly, 70*, 646-675.
- Hanna, E. (2008). An assessment of performance measures in child nutrition programs (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 1588780911)
- Harris, K., & Bonn, M. (2000). Training techniques and tools: Evidence from the foodservice industry. *Journal of Hospitality & Tourism Research, 24*, 320-335.
- Hignite, K. (2000, December). The accessible association. *Association Management, 47*-43.
- Iowa Department of Education. (2009). *Iowa education directory 2009-2010*. State of Iowa, Department of Education, Des Moines, Iowa.
- Kendrick, O., & Gangadharan, V. (2001). Child Nutrition Program managers' and directors' perceptions of managers' training needs differ. *Journal of Child Nutrition & Management, 25*(1), 96-101.
- Marcouiller, J. A., Smith, C. A., & Bordieri, J. E. (1987). Hiring practices and attitudes of foodservice employers toward mentally retarded workers. *Journal of Rehabilitation, 3*, 47-50.
- Mulvihill, P., Repetto, J., Andrews, D., & Gritz, S. (2008). Hiring practices initiative: Uncovering an untapped employment pool. *ERS Spectrum, 26*(2), 13-19.

Nettles, M. F., Carr, D. H., Cater, J. B., & Federico, H. A. (2009). Identification of the competencies, knowledge, and skills needed by school nutrition assistants in the current environment. *Journal of Child Nutrition & Management*, 33(1). Retrieved from <http://www.schoolnutrition.org/jcnm>

Price, L., Gerber, P., & Mulligan, R. (2007). Adults with learning disabilities and the underutilization of the Americans with Disabilities Act. *Remedial and Special Education*, 28, 340-344.

Ruggeri-Stevens, G., & Goodwin, S. (2007). "Learning to work" in small businesses: Learning and training for young adults with learning disabilities. *Education and Training*, 49, 745-755.

Sneed, J. (1992). Continuing education needs of school food service supervisors. *School Food Service Research Review*, 16, 23-28.

State Data Center of Iowa. (2006). *Iowans with disabilities: October 2006*. Retrieved from <http://www.iowadatacenter.org/Publications/disabilities>

Stokes, S. (1990). Restaurant supervisors: Don't discount the disabled. *Cornell Hotel and Restaurant Administration Quarterly*, 30, 14-17.

Story, C., & Strohbehn, C. (2010). *School foodservice directors' perceptions of required and/or desired organizational inputs to implement a HACCP-based food safety plan: A national study*. School Nutrition Services Dietary Practice Group CEU article, June Newsletter.

Sullivan, K., Harper, M., & West, C. (2001). Professional development needs of school foodservice directors. *Journal of Child Nutrition & Management*, 25(2), 89-95.

Sullivan, K., Harper, M., & West, C. (2002). Training needs of school foodservice site managers. *Journal of Child Nutrition & Management*, 26(1). Retrieved from <http://docs.schoolnutrition.org/jcnm>

Unger, D. (2002). Employers' attitudes toward persons with disabilities in the workforce: Myths or realities? *Focus on Autism and Other Developmental Disabilities*, 17, 2-10.

U.S. Census Bureau. (2007). *Americans with Disabilities Act: July 26*. Retrieved from <http://www.census.gov/newsroom/releases/pdf/cb10ff-13.pdf>

U.S. Department of Justice. (1990). *Americans with Disabilities Act*. Washington, D.C. Retrieved from <http://www.ada.gov/pubs/ada.htm>

U.S. Equal Employment Opportunity Commission (EEOC). (1991). *The Americans with Disabilities Act: Your employment rights as an individual with a disability*. Washington, D.C.

U.S. Equal Employment Opportunity Commission. (2005). *Interim report on the best practices for the employment of people with disabilities in state government*. Retrieved from [http://www.eeoc.gov/facts/final\\_states\\_best\\_practices\\_report.pdf](http://www.eeoc.gov/facts/final_states_best_practices_report.pdf)

U.S. Equal Employment Opportunity Commission. (2008). *Notice concerning the Americans With Disabilities Act (ADA) Amendments Act Of 2008*. Retrieved from [http://www.eeoc.gov/ada/amendments\\_notice.html](http://www.eeoc.gov/ada/amendments_notice.html)

Vilá, M., Pallisera, M., & Fullana, J. (2007). Work integration of people with disabilities in the regular labor market: What can we do to improve these processes? *Journal of Intellectual & Developmental Disability*, 32, 10-18.

Wrench, J. S., McCroskey, J. C., & Richmond, V. P. (2008). *Human communication in everyday life: Explanations and applications*. Boston, MA: Allyn & Bacon.

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