A STUDY OF OKLAHOMA FOODSERVICE EMPLOYERS' ATTITUDES TOWARDS HIRING PEOPLE WITH DISABILITIES

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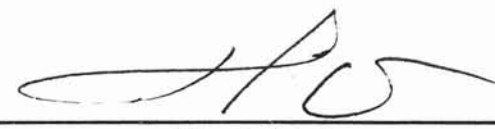

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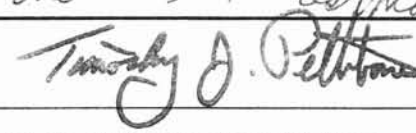

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CHAPTER 1

INTRODUCTION

Background

The late 1990s witnessed an unprecedented labor shortage in the United States in a generation: the unemployment rate is at a 30-year low with around 4% nationally and less than 2% in many regions (Anonymous, 2000). Economists believed that the repercussions of the crippling labor shortage would not be short-lived. If nothing is done to address the problem by 2006, the country will have a 10-million-worker shortfall (Allen, 2000). Being a labor-intensive industry, food service is increasingly competing against other industries for workers in the nation's shallow labor pool. The labor shortage problem is exacerbated by high labor turnover-the food service industry has been plagued by a rate ranging from 137-238%, disproportionately higher than the other industries (Prewitt, 1999). Such high turnover led to deteriorating service quality, damaged employee morale and a voracious drain on profits.

Whereas foodservice employers have been struggling to find enough workers to fill open positions, there exits a group of people who are significantly unemployed or underemployed. Approximately 54 million non-institutionalized Americans, about 1 in 5, have physical, intellectual or psychiatric disabilities. Of these cases, 26 million are classified as having a severe disability (US Bureau of the Census, 1999). Moreover, the number of people with disabilities is expected to climb, as more people self-identify as having a disability, more survive accidents and illnesses that leave them impaired, and more live long enough to become limited in some functional way (Hignite, Dec 2000).

However, historically individuals with disabilities have not fared well in the US labor force (Braddock & Bachelder, 1994). The 2000 NOD/Harris Survey of Americans with Disabilities found that only 32% of working-age adults with disabilities (aged 18-64) were employed, compared to 81% of their non-disabled peers (Hignite, Dec 2000). Louis Harris and Associates, the most frequent cited poll, found that 84% of unemployed people with disabilities say that they want to work (Wehmen et al, 1998).

The ability to be employed is for the benefits of the disabled themselves, their employers, and the taxpayers: (1) social welfare payments diminish. (2) The disabled persons receive wages and benefits and are able to pay taxes (Anonymous, 1992). Being productive on a daily basis in a meaningful vocation is critically important to establishing one's self-esteem and dignity, building new friendships and networks of social support, and creating greater independence and mobility in the community at large (Wehman et al, 1998).

As for the state of Oklahoma, while the unemployment rate has dropped from 5.7% in 1990 to 3.4% in 1999, the demand for labor has been increasing, especially in foodservice industry. Based on Oklahoma employment projections for the period between 1998 and 2008, foodservice is listed as No. 1 in terms of job openings (3,580) and employment growth rate - 11.9% (Oklahoma Employment Security Commission). There were 103,000 Oklahomans on Social Security disability rolls, but their impairments were not serious enough to prevent some form of employment (The Daily Oklahoman, Jan. 2002).

The high unemployment of the disabled lies in the assumption that employers are reluctant to hire people with disabilities. Wilgosh and Skaret (1987) inferred that

employers' attitude is a potential barrier to employment opportunities for people with disabilities. Thanks to the passage of the Americans with Disability Act (ADA), the most comprehensive civil rights law protecting individuals with disabilities in employment settings to date, a more favorable environment has been created for people with disabilities. However, success of the ADA employment provisions is highly contingent upon the actions and attitudes of employers (Fowler & Wadsworth, 1991; Watson, 1994; Wehman, 1993). Tony Coelho, Chairman of the President's Committee on Employment of People with Disabilities and one of the authors of the ADA, noted that although innovative programs, actual job opportunities, and federal and local laws are still needed, employer attitudes are now the main obstacles for people with disabilities in the employment arena (Conference Report: President's Committee on Employment of People with Disabilities, 1997).

With a shrinking and aging labor force in the US, and an increasing need for labor in foodservice industry, the time appears ripe for foodservice employers to pursue this untapped source of qualified workers. The significance of employers' attitudes toward disabled workers links directly to the hypothesis of many researchers that positive attitudes facilitate successful employment, whereas negative attitudes build barriers which destroy employee performance and related placement efforts (Rochlin, 1989). Thus, it is essential to investigate the attitudes of employers toward hiring persons with disabilities, to identify the specific variables that effect positive or negative attitudes in the hiring process of disabled workers. Although many studies have been carried out to determine employers' attitudes toward disabled job candidates during the last decade, limited researches have been conducted to survey employers' awareness of handicapped

individuals in the foodservice industry, therefore, research into this area is important and necessary.

Objective of the Study

The purpose of the study is to measure the attitudes of foodservice employers toward hiring persons with disabilities and to assess the effects of these attitudes on hiring practices. The objectives of the study are:

1. To determine whether employers' attitudes towards disabled workers differ based on various disability types such as physical disability, mental retardation, sensory impairment.
2. To discover underlying dimensions of food service employers' attitude towards employees with physical disability, mental retardation, sensory impairment.
3. To identify the impact of employers' attitude dimensions towards disabled employees on their hiring practices and to recognize the relative importance of each underlying dimension.
4. To assess the relationship between employers' prior experience working with the disabled workers and their attitudes towards employees with physical disability, mental retardation, sensory impairment;
5. To explore the relationship between employers' attitudes dimensions for different disability types and their demographic profiles such as age, gender, education level, etc; and,

6. To discern the relationship between employers' attitudes dimensions for different disability types and different characteristics of the restaurants such as operation size and type, etc.

Assumptions

For the purpose of utilizing results of this study, the following assumptions were accepted by the researcher:

a. The respondents honestly completed the instrument to the best of their abilities
b. Participants were familiar enough with the industry terms to understand the meaning of the questions.
c. Participants were fluent in the English language.
d. The respondents were responsible for hiring employees in the operations.

CHAPTER 2

LITERATURE REVIEW

Definition of Terms

Americans with Disabilities Act (ADA)

It is the civil rights protections for persons with disabilities parallel to those that have been established by the Federal government for women and minorities. The Act not only makes it unlawful to discriminate in employment against a qualified individual with a disability, but outlaws discrimination against individuals with disabilities in state and local government services, public accommodation, transportation and telecommunication (Wodatch, 1990).

Attitude

There is no universal definition for the concept of attitudes. Historically, attitude has been defined in terms of evaluation, effect, cognition, and behavioral predisposition (Hernandez et al, 2000).

Individual with a disability

Refers to any person (a) who has a physical or mental impairment that substantially limits one or more major life activities; (b) has a record of such impairment; or (c) is regarded as having such impairment (ADA, 1990).

Reasonable accommodation

Any changes in the workplace environment or in the way things are done in the workplace that gives individuals with disabilities equal employment opportunities (Colbridge, 2000).

Unemployment Problems of Persons with Disabilities and the Consequences

In recent years, the high unemployment levels of persons with disabilities have received increased attention from a number of federal agencies, public policy makers, consumer groups, and professionals. The unemployment rate has consistently hovered in the 60-70 percent area for decades despite increased innovations in rehabilitation and newer laws, such as the ADA (PL. 101-336) (Wehman et al, 1998). In some states, the number of employed disabled persons has actually decreased. In Michigan the employment of disabled persons has fallen from 7.5 percent in 1990-91 to 5.7 percent in 1998-99; in Nebraska from 4.3 percent in 1990 to 3.2 percent as of March, 2000; and in Iowa from 5.8 percent in 1992 to 4.5 percent in 1998 (Barr, 2000).

According to General Accounting Office June 1996 report, the number of working age people with disabilities who receive Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) benefits from the Social Security Administration increased from 4 million in 1985 to 6.3 million in 1994. SSDI consumes 14% of the Social Security budget, paying out an enormous expenditure of $52.9 billion in 1996 and $ 57 billion in 1999 to the working age beneficiaries (Wooster, 2000). The extraordinary costs are a highly non-productive and inefficient use of human potential that are now reaching an unacceptable level, which leads to greater federal deficits and

ultimately fosters the incorrect perception among society that people with disabilities must be dependent on public support and are not capable of active lives that include competitive employment (Wehman et al, 1998).

Considering the fact that an overwhelming majority of disabled individuals are willing to work and the substantive advances in assistive technology, rehabilitation technology and medicine, the challenge remains how to integrate the disabled into the working mainstream and make them valuable to the society.

Barriers to Employing Disabled Job Candidates

There are a variety of barriers that still keep people with disabilities at arm's length from employment and participation. Include are: (1) lingering stereotypes about the kind of work they can do or want to do (2) lack of management training about ADA-related employment concerns (Hignite, 2000) (3) lack of knowledge about accommodation in terms of both managers and disabled people themselves (Dutton, 2000) (4) an assumption by employers that identifying, hiring, training, and accommodating employees is too complicated to undertake (Hignite, 2000) (5) persons with disabilities tend to be less educated and therefore, to be restricted occupationally (Hale et al, 1998)

One of the biggest barriers is the negative attitude of supervisors and coworkers, according to a July 2000 study by Cornell University, "Americans with Disabilities Act Implementation in the Federal and private Workplaces". In the Cornell study of human resources managers from 400 federal employers and 800 private-sector employers, 43% of the federal and 22% of the private employers cited negative attitudes of supervisors

and coworkers toward persons with disabilities as a continuing barrier to employment and advancement (Dutton, 2000).

Previous Studies of Attitudes toward Persons with Disabilities

In their review of literature, Wilgosh and Skaret (1987) concluded that: (1) in some cases, employer attitudes were negative and thus likely to inhibit the employment and advancement of people with disabilities; (2) prior positive contact with disabled people was related to favorable employer attitudes; (3) a discrepancy existed between employers' expressed willingness to hire applicants with disabilities and their actual hiring practices. Greenwood and Johnson's (1987) review examined employer characteristics and their receptivity to hiring applicants with disabilities. The authors found that: (1) employers from larger companies reported more positive attitudes than those from smaller ones; (2) respondents with higher levels of academic attainment expressed more positive attitudes than those with lower academic attainment; and (3) employers were more likely to express positive attitudes toward individuals with physical or sensory disabilities than those with intellectual or psychiatric disabilities.

Several of these trends identified by Wilgosh & Skaret (1987) and Greenwood & Johnson (1987) are supported by recent studies. Six recent investigations (Diksa & Rogers, 1996; Hutchins, 1990; Kanter, 1988; Levy et al., 1993; Levy et al, 1992; McFarlin et al., 1991) corroborated that prior positive contact with people with disabilities was related to favorable employer attitudes. Three studies (Eigenbrood & Retish, 1988; Scheid, 1999; Cooper, 1991) suggested that the discrepancy, existing between employers' expressed willingness to hire applicants with disabilities and their

actual hiring, continues, though it appears to be diminishing. Scheid (1999) found that 50% of the companies surveyed thought that they would make greater efforts to hire workers with psychiatric disabilities in the next three years, and 38% of the sample actually had hired such an employee since 1992. Recent studies indicated that the preferential hierarchy based on disability type still exists. Johnson et al (1988) found that employers expressed fewest concerns about workers with physical disabilities when compared to those with intellectual, psychiatric, and communication disabilities. Jones et al (1991) found employers perceived workers with physical disabilities as more desirable than those with psychiatric conditions. Similarly, Hutchins (1990) reported that workers with physical disabilities were viewed more positively than those with severe intellectual disabilities and multiple disabilities. Lastly, Callahan (1994) and Scheid (1999) found that employers expressed more comfort with workers with physical disabilities than those with intellectual or psychiatric disabilities.

Of nine studies that investigated the variable of company size, only four (Hutchins, 1990; John & McLellan, 1988; Levy et al., 1993; Nietupski et al., 1996) supported the trend that employers of larger companies reported more positive attitudes than those of small ones; The remaining studies (Ehrhart, 1995; McFarlin et al., 1991; Kregel & Tomiyasu, 1994; Levy et al., 1992; Tobias, 1990) found no attitude difference based on company size.

Of five studies that examined the variable of employers levels of academic attainment (Christman & Staten, 1991; Levy et al., 1992; Tobias, 1990; Hutchins, 1990; Levy et al., 1993), two of them (Levy et al., 1992; Tobias, 1990) approved the previous

finding (Greenwood & Johnson, 1987) that employers with higher levels of education expressed more favorable attitudes than those with lower educational level.

A national survey of Fortune 500 personnel executives revealed negative views toward the employment of workers with disabilities (McFarlin et al., 1991). Concerns included the promotability of these workers and the cost of accommodating their needs. More positive views were expressed concerning their turnover, absenteeism, and performance. Johnson et al. (1988) found local employers had doubts about the work-related skills of people with disabilities (such as flexibility, productivity, and promotability). Their work-related personality attributes were also questioned, including their ability to benefit from instruction, the amount of supervision demanded, the extent supervisors were sought for help, work-role acceptance, and work tolerance. Tobias (1990) indicated that local business people expressed more conservative opinions about hiring workers with disabilities than did supervisors from a non-profit educational institution.

Brigida Hernandez et al. 's recent literature review (2000) discovered that few researchers address the source of the attitude problem. It is unclear to what extent employer attitudes towards workers with disabilities stem from personal experiences, lack of information, or from global myths and stereotypes. It is also unclear to what extent these attitudes generalize to actual employment settings. Since 1987, no studies were identified that directly observed employers' actual hiring practices.

Previous Research Method

Since 1987, primarily three methods have been used in exploring employer attitudes toward workers with disabilities: 1) traditional paper-and-pencil surveys, 2) telephone and personal interviews with employers, and 3) responses to hypothetical scenarios that require employers to make hiring decisions and to rate their expectations for applicant success. The experimental or quasi-experimental study of Christman and Staten (1991) used video simulations of workers with disabilities. Viewing videos of disabled applicants may have a more direct and realistic impact compared to reading scenarios. The range of disabilities examined has included back pain, epilepsy, intellectual disabilities, learning disabilities, mental retardation, physical disabilities, psychiatric disabilities, sensory disabilities, and disabilities in general.

Null Hypotheses

The study investigated five hypotheses, which were stated below in the null form:

H_1: there are no significant differences in employers' attitude towards disabled workers based on various types of disabilities such as mental retardation, physical disability, and sensory impairment.

H_2: employers' attitude toward workers with disability has no significant impact on their hiring decisions.

H_3: there is no significant relationship between employers' prior working experiences with the disabled workers and their attitudes towards the disabled.

H_4: there is no significant relationship between employers' attitude towards disabled workers and employers' demographic profiles such as age, gender, education level, etc.

H_5: there is no significant relationship between employers' attitudes towards disabled workers and characteristics of the restaurants such as operation size and type.

CHAPTER 3

METHODOLOGY

Research Design

The research design of the study entailed cross-sectional descriptive research, utilizing a questionnaire survey with a static group to identify the food service employers' attitudes toward hiring individuals with disabilities. Descriptive research involves data in order to test hypotheses or answer questions concerning the current status of the subject of the study (Gay, 1976).

Instrument

The employer attitude assessment questionnaire was designed specifically to identify business and employer demographics and employer attitudes towards disabled workers. The questionnaire consisted of six parts. The first part included general questions regarding respondents' tenure and job title, number of disabled persons hired their disability type and job positions, etc. It also involved questions about the business for which the respondents are working (e.g. operation size and type), which were used later to analyze the relationship between employers' attitude and business demographics.

The second part was aimed at identifying employers' attitudes based on different types of disabilities. It contained a series of statements regarding employees with disabilities, in which employers indicate their level of agreement using a 4-point Likert Scale (4=strongly agree to 1=strongly disagree). A four-point Likert scale was

used to eliminate the respondents' ability to choose the middle point, thus compelling them to state if they agree or disagree with the statements. The statements concerned a range of employment issues associated with disabled employees, for example: employees with disabilities are harder to train for jobs; employees with disabilities are usually loyal to the companies they work for, etc. The statements were developed from literature review and the researchers' industry experiences. Respondents selected a numeric rating indicating their degree of agreement as it applied to persons with different types of disabilities-mental, physical, sensory disabilities.

The third section requested the respondents to rate their prior experience with disabled workers on a scale of 1 to 4, from very dissatisfied (1) to very satisfied (4). The question was devised to find out if prior positive contacts with disabled employees are related to more favorable employers' attitude.

The fourth part called for a rating of the probability of the respondents' intention to hire or continue to hire disabled individuals, again on a scale of 1 to 4, with 1 representing very unlikely and 4 very likely. This part provided information for exploring if more favorable attitudes lead to successful employment of the disabled.

The fifth section captured demographic information about the respondents of the survey (e.g. age, gender, educational level, etc.), to be applied later for examining the existence of a relationship between employers' attitude and their demographics.

The last part contained instructions on how to mail back the questionnaire. The questionnaire was designed with one page being prepaid, self-addressed business reply. The respondents were instructed to fold the questionnaire in such a way that the business reply page will be visible before mailing.

A cover letter was carefully drafted to enhance the response rate, which stated the importance of the study, the confidentiality of the responses, and the mailing instructions. Several foodservice managers were invited to review the questionnaire instrument to improve its comprehensiveness and clarity. There were some changes in the wording of the instrument as a result of the review.

Sampling

The target population for this study was foodservice employers who are members of Oklahoma Restaurant Association. With the most current ORA membership listing (1,313) available, a simple random sampling approach was used. In a simple random sample, each unit included in the sample has a known and equal chance of being selected for study, and every combination of population elements is a sample possibility (Churchill, 1996). Therefore simple random samples are usually representative of the population.

Confidence Interval Approach was used to determine the sample size. In order to calculate the proper sample size for a survey, three factors need to be considered: 1) p = estimated variability in the population 50/50, which is widely used in social research (e.g. National opinion polls in the USA). 2) e = the desired accuracy, and 3) z = standard error associated with chosen level of confidence (Burns & Bush, 1995). The formula of obtaining $\pm$ 5% accuracy at 95% confidence interval for the sample size was:

$$n = z^2 (p \times q) / e^2 = 1.96^2 (50 \times 50) / 5^2 = 384$$

To allow for 20 % refusal (100), and 3 % (16) wastage due to missing value or unusable data, the sample size was determined to be 500.

The Excel program for simple random sampling was used to generate the random numbers. Although there is some recent evidence that suggests the numbers generated by computer programs are not as random as is commonly believed, their accuracy is sufficient for most applied marketing research studies (Churchill, 1996).

After obtaining the name and addresses of ORA members across Oklahoma, a copy of the questionnaire along with the cover letter was sent to each selected employer listed.

Data Analysis

In this study, SPSS program was used for data analysis. Frequency analysis was used to analyze the demographic information (both employer and business demographics). Mean scores on the 17 statements (4=strongly agree, 1=strongly disagree) were calculated to identify employers' overall attitude towards disabled workers. Paired sample t-test was applied to identify differences of employers' attitudes among different disability types.

Factor analysis was employed to reduce the 17 statement attributes into a few correlated and meaningful dimensions. The component factor model was used to determine the minimum number of factors needed to account for the maximum portion of the variance represented in the original set of variables (Hair, Anderson, Tatham, Black, 1998). Only items with eigenvalues equal to or greater than one and factor loadings of 0.5 or above were retained. Summated scales of the attitude dimensions were developed for ANOVA and regression analysis. The objective is to increase the reliability of the measurement through multivariate measurement, to allow the researcher to obtain a more

"well-rounded" perspective (Hair et al, 1998). Factor scores are also composite measures of each factor computed for each subject. The one key characteristic that differentiates a factor score from a summated scale is that the factor score is computed based on the factor loadings of all variables on the factor; whereas the summated scale is calculated by combining only selected variables (Hair et al, 1998).

Multiple regression analysis was used to examine the relative impact of employers' attitude dimensions (predicting variables) on the hiring probability of the disabled (dependent variable). The dependent variable (probability of hiring) was regressed against the summated scales of the independent variable (employers' attitude), in order to identify the relative importance of the dimensions derived from factor analysis in determining or predicting employers' likelihood of hiring the disabled workers. It was assumed that there was a positive relationship between employers' attitude dimensions towards employees with disability and their willingness to hire the disabled persons. The relative importance of the dimensions was evaluated based on their Beta weights.

A regression model of 'probability of hiring' was hypothesized relating to the latent dimensions of physical disability, mental retardation, and sensory impairment as follows:

$$Y_i = \beta_{i\text{-}0} + \beta_{i\text{-}1}X_{i\text{-}1} + \beta_{i\text{-}2}X_{i\text{-}2} + \ldots\ldots + \beta_{i\text{-}j}\,X_{i\text{-}j} + \epsilon$$

Where,

Y_i – dependent variable: hiring probability

i: 1 – 3 (1 – physical disability, 2 – mental retardation, 3 – sensory impairment)

$\beta_{i\text{-}0}$ – regression of coefficient of intercept

$\beta_{i-1} - \beta_{i-j}$ – regression coefficients of latent independent variables for physical disability, mental retardation and sensory impairment

$X_{i-1} - X_{i-j}$ – latent independent variables for physical disability, mental retardation and sensory impairment

ϵ – random error

ANOVA was applied to explore if employers' attitude towards the disabled workers varies based on employers' prior working experience with the disabled.

Analysis of variance (F-test) was conducted to examine the possibility of existing significant differences in employers' attitude dimensions towards persons with disability according to the specific employer demographic variables and business characteristics. Where differences did exist, Tukey post-hoc test was applied to determine statistically significant differences between individual demographic groups.

Limitations

The following limitations were inherent in the study:

1. The population of the study was members of the Oklahoma Restaurant Association (ORA), thus the findings cannot be generalized beyond this population.
2. The response rate is relatively low (14%). There may be biases in the data if only those employers with positive attitudes towards persons with disability chose to participate in the study. Therefore external validation of findings remained unknown.

CHAPTER 4

RESULTS

Response Rate

Five hundred ORA members were randomly selected and contacted to participate in the survey. Seventy-one questionnaires were returned, indicating a response rate of 14.2%. The response rate was higher than the survey conducted by the National Restaurant Association regarding the industry characteristics in 1994, in which 18,000 questionnaires were sent out to restaurant operators, eliciting an 11% response rate (Prewitt, 1994). Of the 71 returned surveys, twenty-three were incomplete, mostly missing data from part II where employers were asked about their perceptions towards some of the employment issues regarding employees with different disability types. Since some of the respondents only had experiences with certain type of disability, they only expressed opinions on the disability type that they were familiar with. The researcher replaced the missing values with mean value.

Employers' Demographic Profile

In general, these employers were educated baby boomers who had extensive working experiences in the foodservice industry. Of the 70 respondents, more than 75% was male. About 63% of the respondents were aged between 35-54, followed by the age groups of 55 or above and 25-34, which accounted for 24% and 13%, respectively. Eighty percent of the respondents had received some or 2-year or 4-year college

education, with nine respondents (13%) holding high school/vocational school diploma and five respondents (7%) boasting masters or doctorate degrees.

About 86% of the respondents had been working in the food service industry for over ten years, with six respondents indicating experience in the industry for a range of 6-10 years, and only four respondents having five or less than five years in the food service industry. More than half (59%) of the respondents run their own foodservice business, with 35% of the respondents being managers, and four respondents being supervisors.

More than 85% of the respondents had hired persons with disability. For the ten respondents (15%) who had never hired disabled employees, a question requesting for reasons for not hiring was asked. Eight respondents (80%) replied that no disabled people had ever applied for a job from them, with two respondents (20%) indicating that there were no suitable positions for the disabled. In Harris (1995) national survey of senior executives, primary reasons given for not hiring people with disabilities included a lack of qualified applicants (61%), and an absence of job openings / a hiring freeze (53%).

In terms of the number of disabled employees whom the respondents had worked with, 66% had hired 1-6 disabled persons, with the remainder (34%) hiring more than seven disabled workers. With regards to the types of disabilities that these employees have, around 66% of the respondents had experience with workers with various types of disabilities – physical disability, mental retardation and sensory impairment. More than 17% had hired only people with mental retardation, and 12% had hired only persons with physical disability, with three respondents (5%) reporting to have worked with only sensory-impaired workers.

For the job positions that these disabled people had held, almost 60% of the respondents had hired disabled people as kitchen helpers, with four respondents (7%) having disabled employees as servers, and 31% hiring them for different job positions as cashier, server or kitchen helper; one respondent had a piano-player with disability, while one respondent had hired a disabled person as manager.

Ninety percent of the respondents had no personal disability, with seven respondents (10%) documenting a personal disability. Sixty percent of the respondents had no immediate family members or friends with disabilities (see table 1).

Table 1 Frequency – Employers' Demographics

Variable	Frequency	Percentage	Cumulative %
Tenure			
5 years under	4	5.8	5.8
6 - 10 years	6	8.7	14.5
10 years above	59	85.5	100.0
Position (employer)			
owner	41	59.4	59.4
manager	24	34.8	94.2
supervisor	4	5.8	100.0
Previous experience			
yes	58	85.3	85.3
no	10	14.7	100.0
Gender			
male	53	75.7	75.7
female	17	24.3	100.0
Age			
25 - 34	9	12.9	12.9
35 - 54	44	62.8	75.7
55 and above	17	24.3	100.0
Education level			
high/vocational school	9	12.9	12.9
some college	16	22.9	35.8
2 - year college	11	15.7	51.5
4 - year college	29	41.4	92.9
masters	3	4.2	97.1
doctorate	2	2.9	100.0
Disability (employer)			
yes	7	10.0	10.0
no	63	90.0	100.0
Disability (family or friends)			
yes	28	40.0	40.0
no	42	60.0	100.0

Business Characteristics

Questions referring to business characteristics, such as type of operation and business size and volume, were surveyed. Family restaurant accounted for 36% within this study, followed by casual dining (25%), fast food (22%), and fine dining (17%). More than 60% respondents had more than 20 employees working in their operations, while about 21% had 10-19 employees and 19% had less than ten employees. About 76% of the respondents indicated that they served more than 700 customers a week, with 18% serving 350-700 patrons and only four restaurants (6%) having less than 350 customer a week (see table 2).

Table 2 Frequency – Business Demographics

Variable	Frequency	Percentage	Cumulative %
Business type			
fast food	15	21.7	21.7
family restaurant	25	36.2	57.9
casual dining	17	24.6	82.5
fine dining	12	17.5	100.0
Employee number			
under 5	2	2.9	2.9
5 - 9	11	16.2	19.1
10 - 19	14	20.6	39.7
20 above	41	60.3	100.0
Business volume			
under 350	4	6.0	6.0
350 - 700	12	17.9	23.9
701 - 1050	14	20.9	44.8
1050 above	37	55.2	100.0
Disabled employee #			
1 - 3	21	36.2	36.2
4 - 6	17	29.3	65.5
7 - 9	2	3.4	68.9
10 and above	18	31.1	100.0
Disability type (employee)			
mental retardation	10	17.2	17.2
physical disability	7	12.1	29.3
sensory impairment	3	5.2	34.5
all of the above or some	38	65.5	100.0
Position (disabled employee)			
server	4	6.9	6.9
kitchen helper	34	58.6	65.5
various positions above	18	31.1	96.6
others	2	3.4	100.0
Reasons for not hiring			
no disabled people applied	8	80.0	80
no suitable position	2	20.0	20

Employers' Attitudes towards Employees with Disabilities

Means and standard deviations of employers' responses to the 17 attitude statements were calculated. Respondents' degree of agreement with each statement based on different disability types was rated on a scale of one to four, with 1 = strongly disagree and 4 = strongly agree. In order for the comparison of means to be consistent, responses for the statements with negative interpretations (statement 8 to 16) were recoded prior to the calculation, with 1 = strongly agree and 4 = strongly disagree. After the reversed coding, for all statements a higher score pointed to a more favorable opinion towards the disabled workers.

Table 3 showed that, in general, employers had a somewhat favorable perception of disabled workers (overall means of the 17 statements for all disability types were greater than 2). Sensory impairment had the highest mean average (2.62), while mental retardation had the lowest mean average (2.49). This might indicate that respondents regarded workers with sensory impairment most approvingly, whereas they considered workers with mental retardation least favorably.

It is interesting to note that regardless of the disability type, the lowest two mean scores for each disability type appeared in statement 10 'supervision' and statement 14 'attention', while the highest two mean scores for each disability type appeared in statement 12 'punctuality' and statement 5 'loyalty'. This meant that disabled workers were perceived as requiring closer supervision and more special attention from coworkers and/or supervisors (mean scores ranging from 1.88 – 2.18), whereas they were viewed most positively in terms of their loyalty to the company and their punctuality in the job (mean score > 3).

For analysis sake, the researcher grouped the mean scores into four categories: < 2 unfavorable, 2 – 2.5 somewhat unfavorable, 2.5 – 3 somewhat favorable, > 3 favorable. Only two mean scores were less than 2, statement 10 'supervision' and 14 'attention' for mental retardation. For physical disability and sensory impairment, seven statements fell into 'somewhat unfavorable' (2 – 2.5) category: supervision, attention, accident-proneness, work quality, better employee, efficiency, and ability to benefit from training. For mental retardation, six statements were included in 'somewhat unfavorable' group: accident-prone, work quality, better employee, efficiency, ability to benefit from training, and adaptability. Johnson et al. (1988) found employers had doubts about the work-related skills of people with disabilities, such as flexibility, productivity and promotability. In Johnson's study, disabled employees' work-related personality attributes were also questioned, including their ability to benefit from instruction, the amount of supervision demanded, the extent supervisors were sought for help, etc.

For all disability types, respondents expressed somewhat favorable attitude (2.5 – 3) regarding dependability, business cost, cooperation, absenteeism, accommodation, turnover, and interaction with coworkers. These findings were in agreement with previous studies by Tombari (1979), NRA (1981), Johnson et al (1988), McFarlin et al (1991), which concluded that more positive views were expressed concerning disabled employees' dependability, turnover, absenteeism, and able to interact with others (particularly when appropriate support services were provided). For physical disability and sensory impairment, 'adaptability' was also included in 'somewhat favorable' category.

Respondents indicated favorable attitude (> 3) towards workers with different disability type with respects to their commitment to the company and their punctuality in the job. This finding corresponded to the study by Smith (1981), where employers indicated that persons with disability make better employees.

Table 3 Mean & Standard Deviation – Employers' Attitude towards Disabled Workers

	Physical disability		Mental Retardation		Sensory Impairment	
Items	Mean	SD	Mean	SD	Mean	SD
1. I think employees with disabilities have fewer accidents on the job	2.23	0.563	2.22	0.599	2.38	0.602
2. Disabled employees are absent less often than other employees	2.76	0.652	2.74	0.711	2.72	0.671
3. I believe that disabled employees cooperate more on the job	2.89	0.635	2.72	0.648	2.90	0.627
4. Disabled employees usually turn out work of higher quality	2.25	0.623	2.19	0.639	2.34	0.658
5. Disabled employees are usually loyal to the companies	**3.08**	0.586	**3.12**	0.629	**3.06**	0.586
6. I think employees with disabilities make better employees	2.29	0.562	2.20	0.528	2.33	0.559
7. I feel that disabled employees are more dependable	2.63	0.641	2.58	0.686	2.63	0.672
8. Disabled employees usually quit their jobs sooner than others	2.87	0.566	2.91	0.606	2.94	0.550
9. Disabled employees are harder to train for jobs	2.30	0.691	2.04	0.654	2.24	0.716
10. Disabled employees need closer supervision	***2.15***	0.727	***1.88***	0.657	***2.12***	0.689
11. Disabled employees work slower than other employees	2.29	0.645	2.15	0.678	2.46	0.713
12. Disabled employees are often late for work	**3.13**	0.499	**3.11**	0.524	**3.08**	0.488
13. Supervisors find it hard to get disabled workers to adopt new methods on the job	2.63	0.717	2.44	0.764	2.73	0.707
14. Disabled employees need special attention from co-workers and supervisors	***2.18***	0.695	***1.89***	0.618	***2.18***	0.691
15. Disabled employees make other employees uncomfortable	2.82	0.624	2.74	0.695	2.80	0.670
16. Employment of disabled persons would increase business costs	2.70	0.715	2.68	0.716	2.80	0.670
17. It's fair to make special accommo -dations for disabled employees	2.88	0.666	2.77	0.738	2.86	0.707

Attitude Differences among Different Types of Disability

A paired-sample t-test was run in order to identify if employers' attitude varied significantly based on different types of disabilities. The employers' responses to 17 'attitude' statements were compared between physical disability and mental retardation, mental retardation and sensory impairment, and physical disability and sensory impairment. As noted in tables 4, 5 and 6, the results revealed significant differences on 21 of the 51 pairs examined. Respondents expressed significant different opinion towards the three different disabled groups on 11 of the 17 attitude statements.

For statement 1 "disabled employees have fewer job accidents", significant negative mean differences were found between mental retardation and sensory impairment ($p \leq .019$), and physical disability and sensory impairment ($p \leq .010$). Significant positive mean differences were reported for physical disability and mental retardation ($p \leq .005$ for statement 3, $p \leq .044$ for statement 6, $p \leq .000$ for statements 9, 10 and 14) for five statements: statement 3 "disabled employees cooperate more", statement 6 "disabled employees make better employees", statement 9 "disabled employees are harder to train", statement 10 "disabled employees need closer supervision", and statement 14 "disable employees need special attention"; whereas significant negative mean differences were documented between mental retardation and sensory impairment ($p \leq .001$ for statement 3, $p \leq .018$ for statement 6, $p \leq .002$ for statement 9, $p \leq .000$ for statement 10 and 14). Significant negative difference existed between mental retardation and sensory impairment for statement 4 "disabled employees turn out work of higher quality" ($p \leq .018$) and statement 16 "disabled employees will increase business costs" ($p \leq .015$). Significant negative mean difference ($p \leq .05$) was

documented between physical disability and sensory impairment for statement 8 "disabled employees quit their job sooner". As for statement 11 "disabled employees work slower" and statement 13 "it's harder for disabled employees to adopt new working methods", significant positive mean differences were reported between physical disability and mental retardation ($p \leq .015$ for statement 11, and $p \leq .000$ for statement 13), while significant negative mean differences were documented between mental retardation and sensory impairment ($p \leq .000$ for both statements), and physical disability and sensory impairment ($p \leq .002$ for statement 11, and $p \leq .038$ for statement 13).

Overall, for physical disability and mental retardation, the mean differences of 15 statements were positive, among which 7 are significant. This indicated that on the whole employers have more favorable attitude towards people with physical disability than to people with mental retardation. The mean difference of statement 5 'loyalty' and statement 8 'quit' were negative but not significant. This suggested that employers might hold somewhat more positive attitude towards mentally retarded employees in terms of their commitment towards the company and their turnover (see table 4).

Table 4 - Paired-sample t Test – Attitude Differences between Physical Disability (PH) and Mental Retardation (MR)

'Attitude' Statement	Mean PH	Mean MR	Paired-mean Difference	t-value	Sig.
1. I think disabled employees have fewer accidents on the job	2.233	2.218	0.015	0.267	0.790
2. Disabled employees are absent less often than others	2.763	2.736	0.027	0.489	0.627
3. I believe that disabled employees cooperate more on the job	2.885	2.719	0.166	2.897	**0.005**
4. Disabled employees usually turn out work of higher quality	2.246	2.193	0.053	1.891	0.063
5. Disabled employees are usually loyal to the companies	3.082	3.123	-0.041	-1.498	0.139
6. I think employees with disabilities make better employees	2.293	2.204	0.089	2.057	**0.044**
7. I feel that disabled employees are more dependable	2.627	2.582	0.045	0.974	0.333
8. Disabled employees usually quit their jobs sooner than others	2.867	2.912	-0.045	-1.352	0.181
9. Disabled employees are harder to train for jobs	2.295	2.035	0.260	4.293	**0.000**
10. Disabled employees need closer supervision	2.148	1.877	0.271	3.810	**0.000**
11. Disabled employees work slower than other employees	2.288	2.145	0.143	2.498	**0.015**
12. Disabled employees are often late for work	3.131	3.105	0.026	0.950	0.345
13. Supervisors find it hard to get disabled workers to adopt new methods on the job	2.627	2.436	0.191	4.200	**0.000**
14. Disabled employees need special attention from co-workers and supervisors	2.180	1.895	0.285	4.795	**0.000**
15. Disabled employees make other employees uncomfortable	2.817	2.737	0.080	1.675	0.098
16. Employment of disabled persons would increase business costs	2.705	2.679	0.026	0.706	0.483
17. It's fair to make special accommo -dations for disabled employees	2.883	2.768	0.115	1.850	0.210

Note: 1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

As for mental retardation and sensory impairment, the mean differences of 14 statements were negative, among which 10 were significant. This implied that in general employers view people with sensory impairment more positively than people with mental retardation. However, exceptions existed for statement 2 'absenteeism', statement 5 'loyalty', and statement 12 'punctuality', which indicated that employers had slightly higher regards (though not statistically significant) towards workers with mental disability relating to their attendance, timekeeping and allegiance (see table 5).

Table 5 - Paired-sample t Test – Attitude Differences between Mental Retardation (MR) and Sensory Impairment (SI)

'Attitude' Statement	Mean MR	Mean SI	Paired-mean Difference	t-value	Sig.
1. I think disabled employees have fewer accidents on the job	2.218	2.380	-0.162	-2.412	**0.019**
2. Disabled employees are absent less often than others	2.736	2.720	0.016	0.363	0.718
3. I believe that disabled employees cooperate more on the job	2.719	2.896	-0.177	-3.381	**0.001**
4. Disabled employees usually turn out work of higher quality	2.193	2.340	-0.147	-2.431	**0.018**
5. Disabled employees are usually loyal to the companies	3.123	3.060	0.063	1.869	0.066
6. I think employees with disabilities make better employees	2.204	2.333	-0.129	-2.423	**0.018**
7. I feel that disabled employees are more dependable	2.582	2.625	-0.043	-1.100	0.275
8. Disabled employees usually quit their jobs sooner than others	2.912	2.940	-0.028	-0.692	0.491
9. Disabled employees are harder to train for jobs	2.035	2.240	-0.205	-3.267	**0.002**
10. Disabled employees need closer supervision	1.877	2.120	-0.243	-4.163	**0.000**
11. Disabled employees work slower than other employees	2.145	2.458	-0.313	-4.725	**0.000**
12. Disabled employees are often late for work	3.105	3.080	0.025	0.932	0.354
13. Supervisors find it hard to get disabled workers to adopt new methods on the job	2.436	2.729	-0.293	-5.038	**0.000**
14. Disabled employees need special attention from co-workers and supervisors	1.895	2.180	-0.285	-4.123	**0.000**
15. Disabled employees make other employees uncomfortable	2.737	2.800	-0.063	-1.597	0.115
16. Employment of disabled persons would increase business costs	2.679	2.800	-0.121	-2.484	**0.015**
17. It's fair to make special accommo -dations for disabled employees	2.768	2.857	-0.089	-1.265	0.210

Note: 1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

For pair physical disability and sensory impairment, it's an equal split - the mean differences of eight statements were negative, among which four were significant; the other eight were positive, among which none were found significant; respondents reported no difference in opinion towards statement 14 'attention'. This meant that employers might not see people with physical disability and people with sensory impairment as two distinctly different groups, though they showed a bit more affirmative attitude towards the latter (see table 6).

Table 6 - Paired-sample t Test – Attitude Differences between Physical Disability (PH) and Sensory Impairment (SI)

'Attitude' Statement	Mean PH	Mean SI	Paired-mean Difference	t-value	Sig.
1. I think disabled employees have fewer accidents on the job	2.233	2.380	-0.147	-2.644	**0.010**
2. Disabled employees are absent less often than others	2.763	2.720	0.043	0.955	0.343
3. I believe that disabled employees cooperate more on the job	2.885	2.896	-0.011	-0.228	0.820
4. Disabled employees usually turn out work of higher quality	2.246	2.340	-0.094	-1.800	0.076
5. Disabled employees are usually loyal to the companies	3.082	3.060	0.022	0.658	0.512
6. I think employees with disabilities make better employees	2.293	2.333	-0.040	-0.817	0.417
7. I feel that disabled employees are more dependable	2.627	2.625	0.002	0.048	0.962
8. Disabled employees usually quit their jobs sooner than others	2.867	2.940	-0.073	-1.978	**0.052**
9. Disabled employees are harder to train for jobs	2.295	2.240	0.055	0.973	0.334
10. Disabled employees need closer supervision	2.148	2.120	0.028	0.447	0.657
11. Disabled employees work slower than other employees	2.288	2.458	-0.170	-3.165	**0.002**
12. Disabled employees are often late for work	3.131	3.080	0.051	1.611	0.112
13. Supervisors find it hard to get disabled workers to adopt new methods on the job	2.627	2.729	-0.102	-2.113	**0.038**
14. Disabled employees need special attention from co-workers and supervisors	2.180	2.180	0.000	0.006	0.995
15. Disabled employees make other employees uncomfortable	2.817	2.800	0.017	0.377	0.707
16. Employment of disabled persons would increase business costs	2.705	2.800	-0.095	-1.584	0.118
17. It's fair to make special accommo -dations for disabled employees	2.883	2.857	0.026	0.624	0.535

Note: 1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

It appeared that employers did not treat disability as a homogenous entity, but instead tend to evaluate each type of disability as a unique phenomenon. Among three types of disabilities, employers might be more accepting of persons with sensory impairment and physical disability, and less accepting of people that are mentally retarded.

Hypothesis one: "There are no significant differences in employers' attitude towards disabled workers based on various types of disabilities such as mental retardation, physical disability, and sensory impairment" was rejected.

This finding supported earlier studies by Mithaug (1979), Fuqua et al (1983), Wilgosh and Skaret (1987), Jones et al (1991), and Scheid (1999), who concluded that employers' attitude differed towards specific types of disability that limited employment, and employers considered the physically disabled as more desirable than the mentally retarded. However, the results did not agree with the findings of past studies by Hartlage et al (1971), Williams (1972), and Florian (1978), who found that the mentally retarded were regarded as the best employment risks by employers.

Underlying Dimensions of Employers' Attitude

In order to identify the underlying dimensions (factors) of the employers' attitude towards some employment issues related to persons with disabilities, exploratory factor analysis was performed separately for each disability group using principal component with varimax rotation. The factor analysis in this study were applied for two purposes: 1) to obtain a relatively smaller number of variables that explain most of the variations among the 'attitude' attributes, and 2) to create correlated variable composites from the

original attributes for subsequent analysis such as multiple regression analysis, and one-way ANOVA.

To determine whether the data were appropriate for factor analysis, data set was examined to ensure that the variables were not inter-correlated and that the variables were grouped properly. Bartlett's test of sphericity (using a chi-square test) was applied to test for inter-correlation, and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to make sure that the variables were grouped properly. For data to be appropriate for factor analysis the result of the Bartlett's test should be significant and the KMO value should be greater than .50. Table 7 showed that the chi-square of the variables for all three disability types were significant at .000, and the KMO value for physical disability, mental retardation and sensory impairment were .767, .668 and .721, respectively, indicating data were suitable for factor analysis.

Table 7 - Factor Analysis – KMO & Barlett's test

Disability Type	Barlett Chi-square	Chi-square (df)	KMO	Sig.
Physical Disability	458.22	136	0.77	**0.000**
Mental Retardation	461.88	136	0.67	**0.000**
Sensory Impairment	637.50	136	0.72	**0.000**

Varimax rotation, a method of orthogonal rotation that centers on simplifying the factor matrix by maximizing variance and producing conceptually pure factors, was applied. The criteria for the number of factors to be extracted were based on eigenvalue, percentage of variance, significance of factor loading, and assessment of structure. A loading cut-off of .46 was adopted in this study. Only the factors with eigenvalue equal to or greater than 1 were considered as significant. The solution that accounted for at least 50% of the total variance was regarded as a satisfactory solution.

Underlying Attitude Dimensions of Physical Disability

For physical disability, three factors with Eigenvalues equal to or greater than one were extracted, which represented 53.8% of the explained variance. The communalities of the items for physical disability ranged from 0.44 to 0.70. The average communality of the variables for all disability types was above 0.5, suggesting the variance of the original values was reasonably explained by the common factors. Cronbach's alpha test was employed to evaluate the reliability and internal consistency of each factor through the computation of a coefficient of reliability. The three factors had robust alpha levels from 0.87 to 0.63. The loaded factors were labeled based on the underlying variables that constituted them (see table 8).

Factor 1: work performance and employment costs. It involved six variables and explained 22.4% of the variance in the data, with an eigenvalue of 3.8. It included disabled employees' productivity, their adaptability of new working methods, the supervision, attention and training that they need from the employers and co-workers in order to get job done. Furthermore, it incorporated the variable 'business costs'.

Factor 2: labeled as work ethic, general evaluation and employment risk. This factor explained 17.5% of the variance in the data, with an eigenvalue of 3.0. It consisted of three variables that were related to the disabled persons' work ethic, encompassing their loyalty to the employers, dependability, job quality, and two variables reflecting employers' opinion regarding to risk and special accommodations involved in employing the disabled workers (job-related accidents, special accommodations), and one variable about employers overall appraisal of the disabled employees (better employees).

Factor 3: labeled as stereotype. This factor was loaded by three items, explaining 13.9% of the variance, with an eigenvalue of 2.36. This factor showed some of the preconceptions employers had about the disabled workers, including their co-operation, absenteeism and turnover.

Table 8 - Factor Analysis – Attitude Dimensions for Physical Disability

	Varimax Rotated Loading			
Variables	Factor 1	Factor 2	Factor 3	Communality
F1 - Work performance & Employment cost				
Harder to train for jobs	0.826	0.102	-0.034	0.694
Need closer supervision	0.815	-0.134	0.116	0.695
Need special attention	0.778	0.023	0.205	0.649
Work slower	0.744	0.028	0.173	0.585
Increase business costs	0.699	0.246	-0.071	0.554
Harder to adopt new methods	0.616	0.093	0.516	0.655
F2 - Work ethic, employment risk & general evaluation				
Make better employees	-0.014	0.698	-0.077	0.494
Loyal to the employers	-0.113	0.682	0.380	0.622
Fewer accidents on the job	0.324	0.652	-0.016	0.529
Fair to make accommodation	0.289	0.607	-0.193	0.489
Work of higher quality	0.076	0.580	0.308	0.437
More dependable	-0.087	0.564	0.452	0.530
F3 - Stereotype				
Quit jobs sooner	0.282	-0.164	0.717	0.620
Absent less often	-0.287	0.390	0.636	0.639
Cooperate more on the job	-0.135	0.541	0.597	0.668
				Total Var. explained
% of Variance explained	22.428	17.504	13.869	53.801
Eigenvalue	3.813	2.976	2.358	
Cronbach's Alpha	0.867	0.746	0.629	

Underlying Attitude Dimensions of Mental Retardation

For mental retardation, five factors were loaded, accounting for 66.6% of the explained variance. The communalities of the items for mental retardation ranged from 0.41 to 0.82. The alpha coefficients for the five factors ranged from .776 to .657, which were considered acceptable as indications of construct reliability.

Factor 1: also labeled as work performance and employment costs, but it involved five variables and explained 17.9% of the variance in the data, with an eigenvalue of 3.1. It contained all the variables as in physical disability except for disabled employees' adaptability, comprising their productivity, the supervision, attention and training that they call for during the job, and the variable 'business costs'

Factor 2: work ethic and co-workers' feeling. This factor explained 15.3% of the variance in the data, with an eigenvalue of 2.6. It consisted of five variables - their commitment to the employers, the absenteeism, dependability, punctuality, and co-workers' feeling towards the disabled employees.

Factor 3: labeled as employment risk and overall evaluation. With an eigenvalue of 2.1, this factor explained 12.4% of the variance. It consisted of three attributes: job-related accidents, special accommodations, and general evaluation.

Factor 4: work quality and work attitude. This factor contained two variables – disabled employees' work quality and their cooperation in the job. It has an eigenvalue of 2 and explained 11.7% of the total variance.

Factor 5: labeled as negative stereotype, because it reflected many of the trite excuses that could be used as unspoken reasons why disabled workers should not be hired, such as "disabled employees quit their jobs sooner" and "disabled employees are

harder to adopt new working methods". This factor with two variables explained 9.3% of the variance, with an eigenvalue of 1.6 (see table 9).

Table 9 - Factor Analysis – Attitude Dimensions for Mental Retardation

Variables	Varimax Rotated Loading					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Communality
F1 - Work performance & Employment cost						
Work slower	0.81	0.09	-0.09	0.16	0.06	0.70
Harder to train for jobs	0.75	0.01	0.22	0.08	-0.15	0.64
Need special attention	0.73	-0.09	-0.05	0.29	0.22	0.66
Need closer supervision	0.71	-0.04	0.17	-0.30	0.20	0.66
Increase business costs	0.48	-0.03	0.31	0.24	0.17	0.41
F2 - Work ethic & Co-workers' feeling						
Absent less often	-0.17	0.77	0.13	0.24	0.14	0.72
More dependable	-0.10	0.77	0.31	0.10	0.21	0.75
Loyal to the employers	-0.05	0.69	0.32	0.26	-0.07	0.65
Late for work	0.39	0.58	0.03	-0.40	0.10	0.69
Make others uncomfortable	0.28	0.53	-0.32	0.30	0.04	0.55
F3 - Employment risk & Overall evaluation						
Fewer accidents on the job	0.13	0.13	0.78	0.12	0.20	0.69
Make better employees	0.03	0.16	0.78	0.13	-0.07	0.65
Fair to make accommodation	0.30	0.24	0.56	0.11	-0.26	0.54
F4 - Work quality & Work attitude						
Work of higher quality	0.11	0.22	0.25	0.78	0.01	0.74
Cooperate more on the job	0.11	0.34	0.17	0.73	0.08	0.69
F5 - Negative stereotype						
Quit jobs sooner	0.07	0.15	0.03	-0.08	0.89	0.82
Harder to adopt new methods	0.41	0.16	0.03	0.35	0.67	0.77
						Total Var. explained
% of Variance explained	17.92	15.32	12.43	11.66	9.25	66.58
Eigenvalue	3.05	2.61	2.11	1.98	1.57	
Cronbach's Alpha	0.776	0.734	0.673	0.756	0.657	

harder to adopt new working methods". This factor with two variables explained 9.3% of the variance, with an eigenvalue of 1.6 (see table 9).

Table 9 - Factor Analysis – Attitude Dimensions for Mental Retardation

Variables	Varimax Rotated Loading					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Communality
F1 - Work performance & Employment cost						
Work slower	0.81	0.09	-0.09	0.16	0.06	0.70
Harder to train for jobs	0.75	0.01	0.22	0.08	-0.15	0.64
Need special attention	0.73	-0.09	-0.05	0.29	0.22	0.66
Need closer supervision	0.71	-0.04	0.17	-0.30	0.20	0.66
Increase business costs	0.48	-0.03	0.31	0.24	0.17	0.41
F2 - Work ethic & Co-workers' feeling						
Absent less often	-0.17	0.77	0.13	0.24	0.14	0.72
More dependable	-0.10	0.77	0.31	0.10	0.21	0.75
Loyal to the employers	-0.05	0.69	0.32	0.26	-0.07	0.65
Late for work	0.39	0.58	0.03	-0.40	0.10	0.69
Make others uncomfortable	0.28	0.53	-0.32	0.30	0.04	0.55
F3 - Employment risk & Overall evaluation						
Fewer accidents on the job	0.13	0.13	0.78	0.12	0.20	0.69
Make better employees	0.03	0.16	0.78	0.13	-0.07	0.65
Fair to make accommodation	0.30	0.24	0.56	0.11	-0.26	0.54
F4 - Work quality & Work attitude						
Work of higher quality	0.11	0.22	0.25	0.78	0.01	0.74
Cooperate more on the job	0.11	0.34	0.17	0.73	0.08	0.69
F5 - Negative stereotype						
Quit jobs sooner	0.07	0.15	0.03	-0.08	0.89	0.82
Harder to adopt new methods	0.41	0.16	0.03	0.35	0.67	0.77
						Total Var. explained
% of Variance explained	17.92	15.32	12.43	11.66	9.25	66.58
Eigenvalue	3.05	2.61	2.11	1.98	1.57	
Cronbach's Alpha	0.776	0.734	0.673	0.756	0.657	

Underlying Attitude Dimensions of Sensory Impairment

For sensory impairment, three factors were loaded, corresponding to 60.2% of the total variance explained. The communalities of the items ranged from 0.33 to 0.72, while the alpha scores for the three dimensions varied from a vigorous .886 to .681 (see table 10).

Factor 1: also labeled as work ethic, general evaluation, and employment risk. This factor explained 24.7% of the total variance, with an eigenvalue of 4.2. It involved seven variables, five of which linked to work ethic - disabled employees' loyalty to the employers, their cooperation in the job, their attendance, dependability, job quality; one variable was about employers' general assessment of the disabled, and one about disabled employees' job-related accidents.

Factor 2: work performance and accommodation costs. It consisted of six variables, four of which associated with work performance - disabled employees' efficiency, the supervision, attention and training that they require during the job, and two of which were concerning accommodation costs for disabled employees – 'business costs' and 'special accommodation'. It explained 19.8% of the variance, with an eigenvalue of 3.4.

Factor 3: again dubbed as negative stereotype, but encompassed four variables - "disabled employees quit their jobs sooner", "disabled employees are harder to adopt new working methods", "disabled employees are often late for job", and "disabled employees make other employees uncomfortable". It had an eigenvalue of 2.7 and total variance explained was 15.6%.

Table 10 - Factor Analysis – Attitude Dimensions for Sensory Impairment

Variables	Varimax Rotated Loading Factor 1	Factor 2	Factor 3	Communality
F1 - Work ethic, general evaluation & Employment risk				
Loyal to the employers	0.82	0.11	0.12	0.70
Cooperate more on the job	0.82	0.06	0.21	0.72
Work of higher quality	0.80	0.04	-0.09	0.64
More dependable	0.74	-0.04	0.33	0.65
Absent less often	0.72	-0.12	0.45	0.73
Make better employees	0.71	0.28	-0.14	0.60
Fewer accidents on the job	0.66	0.27	-0.04	0.52
F2 - Work performance & Accommodation costs				
Need closer supervision	-0.04	0.81	0.23	0.70
Work slower	0.12	0.78	0.29	0.71
Harder to train for jobs	0.13	0.77	0.26	0.67
Increase business costs	0.13	0.71	0.18	0.55
Need special attention	-0.02	0.61	0.51	0.63
Fair to make accommodation	0.33	0.51	-0.20	0.41
F3 - Negative stereotype				
Quit jobs sooner	0.15	0.13	0.77	0.63
Harder to adopt new methods	0.18	0.39	0.72	0.71
Late for work	0.03	0.17	0.56	0.34
Make others uncomfortable	0.09	0.14	0.55	0.33
				Total Var. explained
% of Variance explained	24.74	19.82	15.62	60.18
Eigenvalue	4.21	3.37	2.66	
Cronbach's Alpha	0.886	0.835	0.681	

Probability of Hiring Disabled Persons

On the whole, the respondents indicated their willingness to hire or continue to hire disabled persons, with an overall mean score of 2.98 (1 - very unlikely, 2 - unlikely, 3 - likely, 4 - very likely). To find out if different attitude dimensions had different impacts in contributing to the employers' probability to hire or continue to hire disabled persons, the probability score was regressed against the attitude summated scales derived from the factor analysis. The results showed significant positive relationships between employers' attitude and their hiring decisions for workers with physical disability and sensory impairment. Hypothesis two: "employers' attitude toward workers with disability has no significant impact on their hiring decisions" was rejected except for 'mental retardation'

Probability of Hiring Persons with Physical Disability

The multiple correlation coefficient (R), coefficient of determination (R^2) and F-ratio were examined to predict the goodness-of-fit of the regression model. For physical disability, the correlation coefficient of the three independent variables on dependent variable was 0.50, indicating that the attitude dimensions were relatively adequate in predicting hiring probability. The coefficient of determination was .25, showing that about 25% of the variation in 'hiring probability' was explained by the attitude variables. Although R^2 was not very high, it's within a range acceptable in many academic social science and business journals (Knutson & Schmidgall, 1999). The F-ratio of 6.98 was

significant ($p \leq .000$), indicating that the results of the regression equation could hardly have occurred by chance.

The t-statistics tests were used to examine whether the attitude dimensions contributed to the variance of 'hiring likelihood'. In this study, if the t-value of an independent variable was found to be significant at 0.10 level, the variable was included in the model. For physical disability, two factors emerged as significant independent variables ($p \leq .01$) and were thus retained in the regression model (see table 11). The model was written as the following:

$$\hat{Y} = -.237 + .602\ X_2 + .537\ X_1$$

Where,

$\hat{Y}$ Dependent variable "probability of hiring or continuing to hire the disabled persons

X_1 Independent variable "working performance and employment cost"

X_2 Independent variable "work ethic, employment risk and overall evaluation"

The results of the regression analysis demonstrated that regression coefficients (B) carried positive signs as expected, indicating a positive relationship between the independent variables 'attitude dimensions' and the dependent variable 'hiring probability'. It also implied that the likelihood of employers' hiring persons with physical disability depended essentially on their work ethic, working performance and accommodation costs involved in employing them, thereby making these two variables the determinant factors or the best predictors of an employer's willingness to hire the physically disabled workers. These independent variables played important roles in

employers' hiring decisions. It could be concluded that the more positive employers' attitude towards the physically disabled employees, the more likely they would hire or continue to hire persons with physical disability.

The results also predicted that, on average, the probability of employers' hiring the physically disabled persons increased by 1.139 (.602+ .537) for each unit change in the two variables. So, when employers were strongly disagreeable with the physically disabled workers regarding their work performance and the costs of accommodations (1 - strongly disagree), the probability of hiring the disable workers was less than one (1 – very unlikely):

$$Y = -0.237 + 0.602 + 0.537 = 0.902$$

While when employers were strongly agreeable (4 - strongly agree) with workers with physical disability, the probability of hiring the disabled workers increased to the maximum (4 - very likely):

$$Y = -0.237 + (0.602 + 0.537) \times 4 = 4.319$$

The standardized β was used to indicate the impact. For physical disability, the dimension with the heaviest weight in explaining 'hiring probability' was 'work performance and employment cost' ($\beta = .325$) followed 'work ethic, employment risk and overall evaluation' ($\beta = .271$). The result illustrated that 'work performance and employment cost' variable was the most important determinant of employers' 'hiring probability" for physically disabled people, followed by 'work ethic, employment risk and overall evaluation'.

The value of variance of inflation (VIF) and tolerance for each variable indicated that there was no multi-collinearity in the model. No VIF values exceeded 10; and all the

tolerance values were more than 0.1, meaning that in no case did collineraty explain more than 10% of any predictor variable's variance.

Table 11 - Regression Analysis – Hiring Probabilities of Physically Disabled Persons

Goodness-of-fit:						
Multiple R	0.497					
R-square	0.247					
Adjusted R-square	0.211					
Standard error	0.743					
ANOVA	DF	Sum of squares	Mean square	F - Value	Prob. > F	
Regression	3	11.556	3.852	6.981	**0.000**	
Residual	64	35.312	0.552			
Total	67	46.868				
Model	B	Beta	t	Sig.	Tolerance	VIF
Variables in the model						
Work ethic, Employment risk & Overall evaluation (F2)	0.602	0.271	2.153	**0.035**	0.744	1.344
Work performance & Employment cost (F1)	0.537	0.325	2.918	**0.005**	0.951	1.052
(Constant)	-0.237		-0.311	0.757		
Variables not in the model						
Stereotype (F3)	0.133	0.070	0.567	0.573	0.770	1.299

Depend variables: probabilities that Oklahoma foodservice employers would hire or continue to hire disabled persons

Independent variables: three orthogonal factors representing the components of employers' attitude attributes towards employees with disabilities

Probability of Hiring Persons with Mental Retardation

None of the attitude dimensions derived from factor analysis came out as significant in impacting employers' hiring decisions of the mentally retarded workers.

Table 12 - Regression Analysis – Hiring Probabilities of Mentally Rtarded Persons

Goodness-of-fit:	
Multiple R	0.401
R-square	0.161
Adjusted R-square	0.095
Standard error	0.784

ANOVA	DF	Sum of squares	Mean square	F - Value	Prob. > F
Regression	4	7.534	1.507	2.452	0.043
Residual	65	39.334	0.615		
Total	69	46.868			

Independent variables	B	Beta	t	Sig.	Tolerance	VIF
Employment risk & Overall evaluation (F3)	0.275	0.132	1.018	0.312	0.777	1.286
Negative stereotype (F5)	0.255	0.063	0.461	0.646	0.705	1.418
Work ethic & Co-worker's feelings (F2)	0.137	0.197	1.511	0.136	0.773	1.294
Work performance & Employment cost (F1)	0.378	0.024	0.177	0.860	0.717	1.395
Work quality & Work attitude (F4)	0.040	0.179	1.366	0.177	0.763	1.311
(Constant)	0.280		0.321	0.749		

Depend variables: probabilities that Oklahoma foodservice employers would hire or continue to hire disabled persons

Independent variables: five orthogonal factors representing the components of employers' attitude attributes towards employees with disabilities

Probability of Hiring Persons with Sensory Impairment

For sensory impairment, the correlation coefficient was .43, and the R square was .19; the F-ratio was significant ($p \leq .004$). Two factors were kept in the regression model:

$$\hat{Y} = -0.06 + .454\ X_1 + .45\ X_2$$

Where,

$\hat{Y}$ Dependent variable "probability of hiring or continuing to hire the disabled persons

X_1 Independent variable "work ethic, general evaluation, and employment risk "

X_2 Independent variable "working performance and accommodation cost"

The result also revealed a positive relationship between attitude dimensions and hiring probability. The more positive employers felt about workers with sensory impairment concerning their work ethic, work performance, and employment costs, the more likely they would hire the disabled workers. For each unit change in the two variables, the probability of hiring the sensory disabled workers improved by 0.904 (.454 + .45). When employers felt strongly disagreeable with sensory impaired workers (1 – strongly disagree), the probability of hiring these workers was less than 1 (1 – very unlikely):

$$Y = -0.06 + 0.454 + 0.45 = 0.844$$

Whereas when employers were strongly accepting of workers with sensory impairment (4 = strongly agree), the likelihood of hiring the disabled workers boosted to 3.6 (3 = likely, 4 = very likely):

$$Y = -0.06 + (0.454 + 0.45) \times 4 = 3.556$$

The dimension with the greatest effect was "working performance and accommodation cost" (standardized $\beta = .234$), trailed by "work ethic, general evaluation, and employment risk" (standardized $\beta = .222$).

No multi-collinearity was found in the model. All VIF values were less than 10 and all tolerance values exceeded 0.1.

Table 13 - Regression Analysis: Hiring Probabilities of Sensory Impaired Persons

Goodness-of-fit:						
Multiple R	0.430					
R-square	0.185					
Adjusted R-square	0.147					
Standard error	0.761					
ANOVA	DF	Sum of squares	Mean square	F - Value	Prob. > F	
Regression	3	8.649	2.883	4.979	0.004	
Residual	66	38.219	0.579			
Total	69	46.868				
Independent variable	B	Beta	t	Sig.	Tolerance	VIF
Variables in the model						
Work ethic, employment risk & overall evaluation (F1)	0.454	0.222	1.887	**0.064**	0.896	1.116
Work performance & Accommodation cost (F2)	0.450	0.234	1.767	**0.082**	0.702	1.425
(Constant)	-0.060		-0.068	0.946		
Variables not in the model						
Negative stereotype (F3)	0.248	0.109	0.807	0.422	0.683	1.465

Depend variables: probabilities that Oklahoma foodservice employers would hire or continue to hire disabled persons

Independent variables: three orthogonal factors representing the components of employers' attitude attributes towards employees with disabilities

Attitude Dimensions and Prior Working Experiences

Overall, respondents were satisfied with their experience with disabled employees, with a mean score of 2.81 (1 - very dissatisfied, 2 - dissatisfied, 3 - satisfied, 4 - very satisfied). One-way ANOVA was employed to identify if employers' attitude towards workers with disability significantly differs based on rated prior working experience with the disabled workers ($p \leq 0.05$). Results of these tests were provided in Tables 14, 15 and 16.

For physical disability, a significant relationship existed between previous experiences and all 'attitude' dimension 1 – work performance and employment costs (sig. $\leq .005$), dimension 2 – work ethic, employment risk and overall evaluation (sig. $\leq .045$) and dimension 3 – stereotype (sig. $\leq .013$). The higher the satisfaction level with the prior working experience with the disabled workers was, the higher the mean value of agreement level with the 'attitude' statements. The findings indicated that employers' attitudes dimensions were significantly related to prior working experiences: the more satisfied the employers were with previous working experience with the disabled workers, the more favorable opinion the employers had towards this group (see table 14).

Table 14 - One-way ANOVA – the Relationship between Attitude Dimensions and Previous Working Experience with Physical Disabled Persons

Dependent variable	N	Mean	F	Sig.
Factor 1 - work performance & employment costs			4.66	**0.005**
very satisfied	8	2.80		
satisfied	41	2.42		
dissatisfied	10	2.07		
very dissatisfied	5	2.00		
F2 - work ethic, employment risk & overall evaluation			2.85	**0.045**
very satisfied	8	2.58		
satisfied	41	2.63		
dissatisfied	10	2.50		
very dissatisfied	5	2.13		
F3 - stereotype			3.92	**0.013**
very satisfied	8	2.99		
satisfied	41	2.90		
dissatisfied	10	2.74		
very dissatisfied	5	2.26		

For mental retardation, a significant relationship was identified between 'satisfaction level with previous working experience with the disabled' and attitude factor 1 'work performance and employment costs' (sig. = .013). The finding suggested that the more contented the employers felt about their previous working experience with the disabled workers, the more approving they felt towards this group with respects to 'work performance and employment costs' (see table 15).

Table 15 - One-way ANOVA – One-way ANOVA – the Relationship between Attitude Dimensions and Previous Working Experience with Mentally Retarded Persons

Dependent variable	N	Mean	F	Sig.
Factor 1 - work performance & employment costs			3.870	**0.013**
very satisfied	8	2.57		
satisfied	41	2.10		
dissatisfied	10	1.99		
very dissatisfied	5	1.92		
Factor 2 - work ethic & co-workers' feeling			2.170	0.101
very satisfied	8	3.12		
satisfied	41	2.88		
dissatisfied	10	2.72		
very dissatisfied	5	2.60		
Factor 3 - employment risk & overall evaluation			0.471	0.703
very satisfied	8	2.35		
satisfied	41	2.43		
dissatisfied	10	2.33		
very dissatisfied	5	2.20		
Factor 4 - work quality & work attitude			1.432	0.242
very satisfied	8	2.50		
satisfied	41	2.52		
dissatisfied	10	2.39		
very dissatisfied	5	2.00		
Factor 5 - negative stereotype			2.518	0.067
very satisfied	8	2.96		
satisfied	41	2.72		
dissatisfied	10	2.41		
very dissatisfied	5	2.30		

For sensory impairment, significant relationships were recognized on all attitude dimensions and previous working experiences with the disabled. For all the attitude factors, factor 1 'work ethic, general evaluation, and employment risk' (sig. = .015), factor 2 'work performance and accommodation costs' (sig. = .001), and factor 3 'negative stereotype' (sig. = .000), a higher satisfaction level corresponded to a stronger agreement level, pointing to the conclusion that the more satisfied employers were with their prior contacts with sensory impaired workers, the more auspicious attitude they held towards this disabled group (see table 16).

Table 16 - One-way ANOVA – One-way ANOVA – the Relationship between Attitude Dimensions and Previous Working Experience with Sensory Impaired Persons

Dependent variable	N	Mean	F	Sig.
Factor 1 - work ethic, employment risk & overall evaluation			3.78	**0.015**
very satisfied	8	2.79		
satisfied	41	2.68		
dissatisfied	10	2.54		
very dissatisfied	5	2.11		
Factor 2 - work performance & accommodation costs			6.52	**0.001**
very satisfied	8	2.95		
satisfied	41	2.44		
dissatisfied	10	2.30		
very dissatisfied	5	2.04		
Factor 3 - negative stereotype			8.54	**0.000**
very satisfied	8	3.30		
satisfied	41	2.91		
dissatisfied	10	2.64		
very dissatisfied	5	2.51		

H_3 was rejected. (H_3: there is no significant relationship between employers' prior working experiences with the disabled workers and their attitudes towards the disabled.)

The ANOVA results corroborated earlier researches by Diksa & Rogers (1996), Hutchins (1990), Kanter (1988), Levy et al. (1993), and McFarlin et al. (1991), who concluded that prior positive contacts with workers with disabilities was related to favorable employer attitudes. At this time, it is unknown whether positive attitudes resulted from the contact or whether they existed prior to the work experiences. One would suspect that both factors interact with each other over time.

Attitude Dimensions and Employer-related Variables

The specific employer-related variables include gender, age, educational level, tenure, current job position, previous hiring experience with persons with disability, employer disability, and family members or friends with disabilities. One-way ANOVA was applied to examine if these variables were related to employers' attitude dimensions. The results showed that significant differences in attitude dimensions were only found for variable 'current job position' for physical disability and sensory impairment, and 'previous hiring experience' for sensory impairment. For the other employer-related variables, there were no significant statistical differences in attitude dimensions found for any disability types (see Appendix C for ANOVA results). The researcher failed to reject H_4 except for variables "current job position" and "previous hiring experience". (H_4: there is no significant relationship between employers' attitude towards disabled workers and employers' demographic profiles such as age, gender, education level, etc.)

Table 17 presents the ANOVA and post-hoc results for the relationship between respondents' current job position and three attitude dimensions for physical disability. A significant relationship was found between factor 2 'work ethic, employment risk and overall evaluation' (sig. $\leq .017$) and employers' current job positions. Post Hoc tests revealed that significant positive mean difference was found between manager and owner ($p \leq .022$), implying that managers had a more favorable opinion than owners towards the physically disabled workers in terms of disabled workers' work ethic (loyalty, job quality, and dependability), overall evaluation of the disabled workers (make better employees) and business risks involved in employing the disabled persons (job-related accidents and special accommodation).

Table 17 - ANOVA & Post Hoc Tests – Attitude Dimensions for Physical Disability & Employers' Job Positions

			N	F	Sig.	
F1 - work performance & employment costs			69	1.042	0.358	
	Independent variable - current position			Mean difference	Standard error	Sig.
	owner	manager		-0.164	0.129	0.414
		supervisor		-0.236	0.263	0.644
	manager	supervisor		-0.071	0.271	0.962
			N	F	Sig.	
F2 - work ethic, employment risk & overall evaluation			69	4.325	**0.017**	
	Independent variable - current position			Mean difference	Standard error	Sig.
	owner	manager		-0.250	0.092	**0.022**
		supervisor		0.108	0.187	0.831
	manager	supervisor		0.359	0.193	0.158
			N	F	Sig.	
F3 - stereotype			69	2.191	0.120	
	Independent variable - current position			Mean difference	Standard error	Sig.
	owner	manager		-0.079	0.110	0.754
		supervisor		-0.464	0.225	0.105
	manager	supervisor		-0.385	0.232	0.228

For sensory impairment (table 18), a significant relationship existed between attitude dimension 1 'work ethic, overall evaluation and employment risk' and employers' job position (sig. = .026). Post-hoc tests further indicated a significant positive mean difference between manager and owner (sig. = .028), suggesting that managers had a more positive perception towards the sensory impaired workers than owners with respects to disabled workers' work ethic (including loyalty, co-operation,

attendance, dependability, and job quality), general evaluation of the disabled employees (make better employees), and employment risk (job-related accidents).

Table 18 - ANOVA & Post Hoc Tests – Attitude Dimensions for Sensory Impairment & Employers' Job Positions

			N	F	Sig.
Factor 1 - work ethic, employment risk & overall evaluation			69	3.86	**0.026**
	Independent variable - current position			Mean difference	Standard error	Sig.
	owner	manager		-0.264	0.100	**0.028**
		supervisor		0.079	0.204	0.922
	manager	supervisor		0.343	0.211	0.241
			N	F	Sig.
Factor 2 - work performance & accommodation costs			69	1.86	0.163
	Independent variable - current position			Mean difference	Standard error	Sig.
	owner	manager		-0.213	0.111	0.138
		supervisor		-0.085	0.225	0.925
	manager	supervisor		0.128	0.232	0.845
			N	F	Sig.
Factor 3 - negative stereotype			69	0.88	0.419
	Independent variable - current position			Mean difference	Standard error	Sig.
	owner	manager		0.013	0.095	0.990
		supervisor		-0.246	0.193	0.415
	manager	supervisor		-0.258	0.199	0.400

The findings implied that employers in different managerial positions had different attitudes towards persons with physical disabilities and sensory impairment, especially when it's on the subjects of work ethic, general evaluation, and business risks. Managers tend to have a more constructive attitude than owners.

Table 19 demonstrates the ANOVA test results for the relationship between 'previous employment experience' and attitude dimensions. A significant relationship was found between employers' previous hiring experience and attitude dimension 2 'work performance and accommodation costs' ($p \leq .026$) for sensory impairment. Those who had hired disabled persons before reported a higher agreement level towards sensory impaired workers in regards to their work performance (productivity, amount of supervision, attention and training needed), and accommodation costs resulting from employing disabled workers (business costs and special accommodation). This suggested that employers who had previously worked with sensory impaired people have more favorable viewpoints on this disadvantaged group of people in terms of 'work performance and accommodation costs'. This finding in some way confirmed the result of the other ANOVA analysis performed for the relationship between attitude dimensions and 'satisfaction level with previous working experience with the disabled', which concluded that previous positive working experience was associated with employers' positive attitude towards the disabled workers.

Table 19 ANOVA – Attitude Dimensions for Sensory Impairment & Previous Hiring Experiences

Dependent variable	N	Mean	F	Sig.
Factor 1 - work ethic, employment risk & overall evaluation			0.38	0.542
Yes	58	2.62		
No	10	2.70		
Factor 2 - work performance & accommodation costs			5.16	**0.026**
Yes	58	2.51		
No	10	2.18		
Factor 3 - negative stereotype			0.54	0.466
Yes	58	2.91		
No	10	2.82		

No significant differences were discovered between gender and attitude (see Appendix C tables C – 10, 11 &12). This finding corresponded to the previous study by Fuqua et al (1983), who concluded that male and female employers did not differ significantly on attitudes towards the disabled. In Livneh's study (1982), however, it was found that women displayed more favorable attitudes than men toward the physically disabled workers.

There were no significant differences existing among different age groups on attitude dimensions (see Appendix C tables C- 7, 8 & 9). Age groups were condensed into three groups: 34 and under, 35-54, and 55 and above. The finding agreed to the study by Gade and Toutges (1983), but did not support Livneh's study, which concluded that attitudes were more positive at adulthood, and less favorable attitudes were found at old age.

The educational level (Appendix C tables C – 13, 14 &15) was also not a significant factor in employers' perception of disabled workers in this study. Educational levels were condensed into three groups: under college education, college education, and postgraduate education. This result was in disagreement with Levy et al's (1993) study, which reported that employers with higher levels of academic attainment expressed more favorable attitudes than those with lower academic attainment. Cohen (1963) found, however, that there was a significantly negative relationship between years of schooling and attitudes. He explained that employers with a lower level of education might have felt a greater degree of empathy with the relatively undereducated disabled people.

No significant relationship was found between tenure and attitude (Appendix C tables C – 4, 5 & 6). In addition, respondents' personal association with people with

disabilities was examined to measure effect on attitude. No significant attitude differences were found between respondents with disability and those without disability (see Appendix C tables 16, 17 & 18). No significant attitude differences were found between respondents who had family members or friends with disability and those who did not (see Appendix C tables 19, 20 & 21). This finding was not consistent with previous study by Darnell (1981), which documented that employers with a disabled family member or friend had more positive perceptions of disabled workers than other employers.

Attitude Dimension and Business-related Variables

ANOVA tests were employed to identify if employers' attitude varied based on business-related variables, such as business type, volume, number of employees, and number of disabled employees. There were significant differences existing in employers' attitude dimension 2 'work performance and accommodation costs' for sensory impairment according to business type ($p \leq .048$). No significant relationships were found between attitude dimensions and other business-related variables for any disability types. The researcher failed to reject H_5 except for variable 'business type'. (H_5: there is no significant relationship between employers' attitudes towards disabled workers and characteristics of the restaurants such as operation size and type.)

'Business type' groups were condensed into three groups: fast food, casual dining/family restaurant, and fine dining. ANOVA and Post hoc findings (see table 20) revealed that for attitude factor 'work performance and accommodation costs', significant negative mean difference was identified between 'casual dining' and 'fine dining' ($p \leq$

.04), indicating that employers from fine-dining restaurants had more approving opinions than those from casual dining towards sensory impaired workers with respects to their work performance (productivity, amount of supervision, attention and training needed), and accommodation costs from employing disabled workers (business costs and special accommodation). This finding in some way backed up the study by Hutchins (1989) and Tobia (1990), who found that employers from businesses of different types, e.g. non-profit vs. profit business, expressed different opinions about hiring workers with disabilities.

Table 20 ANOVA & Post Hoc Tests – Attitude Dimensions for Sensory Impairment & Business Type

			N	F	Sig.
Factor 1 - work ethic, employment risk & overall evaluation			68	2.289	0.109
	Independent variable - current position		Mean difference	Standard error	Sig.
	fast food	casual dining/ family restaurant	0.071	0.120	0.825
		fine dining	-0.208	0.154	0.374
	casual dining	fine dining	-0.279	0.131	0.090
			N	F	Sig.
Factor 2 - work performance & accommodation costs			68	3.192	**0.048**
	Independent variable - current position		Mean difference	Standard error	Sig.
	fast food	casual dining/ family restaurant	0.128	0.127	0.576
		fine dining	-0.217	0.163	0.386
	casual dining	fine dining	-0.344	0.138	**0.040**
			N	F	Sig.
Factor 3 - negative stereotype			68	0.779	0.463
	Independent variable - current position		Mean difference	Standard error	Sig.
	fast food	casual dining/ family restaurant	0.110	0.111	0.584
		fine dining	-0.008	0.143	0.998
	casual dining	fine dining	-0.118	0.121	0.596

The effect of operation size (weekly business volume and number of employees) on employers' attitude towards the disabled was also tested. No significant differences were demonstrated for any disability types in the ANOVA findings (see Appendix C tables 24, 25, 26, 27, 28 & 29). The finding was not consistent with Nietupski et al's study (1996), which concluded that employers of larger companies reported more positive attitudes than those of smaller ones. However, the finding supported Callahan's study (1994), which did not find attitude differences based on company size.

No significant relationship existed between employers' attitude and the number of disabled employees according to the ANOVA analysis (see Appendix C tables 30, 31 & 32). This result substantiated the study by Fuqua et al (1983), which concluded that there were no significant differences among employers' attitudes based on the number of disabled workers in the company.

CHAPTER 5

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Conclusions

The purpose of the study was to examine the existence of prejudice based on a variety of factors that potentially influence employers' attitudes towards hiring persons with disability in the workplace. This study showed that, of the ORA members surveyed, the majority possessed a somewhat favorable, or at least not negative, attitude towards the disabled workers (average means of the attitude statements of all disability types were greater than 2, whereby 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree). The respondents reported the most favorable opinions relating to disabled employees' loyalty and punctuality, while expressed the most concerns about the disabled workers in terms of the amount of attention and supervision demanded in the job, regardless of the disability types. The following are the conclusions drawn from the statistical analysis based on the objectives of the study.

Attitude Differences among Disability Types

Paired sample t-tests found a preferential hierarchy existed based on disability types, where employers were more likely to express positive attitudes towards employees with sensory or physical disabilities than those with mental ones. This finding supported previous research by Greenwood and Johnson (1987). Similarly, Johnson et al. (1988) found that employers expressed fewest concerns about workers with physical disabilities when compared with intellectual disabilities. Hutchins (1990) reported that workers with

physical disabilities were viewed more positively than those with intellectual disabilities. Callahan (1994) and Scheid (1999) found that employers expressed more comfort with workers with physical disabilities than those with mental retardation.

Underlying Dimensions of Employer's Attitudes towards Disabled Workers

Factor analysis identified the underlying dimensions of employers' attitude towards the disabled employees for different disability types. Three dimensions were developed for employers' attitudes towards workers with physical disabilities, labeled as: 1) work performance and employment cost; 2) work ethic, employment risk and overall evaluation; and 3) stereotypes. Five dimensions were loaded for employers' attitudes towards workers with mental retardation: 1) work performance and employment cost; 2) work ethic and co-workers' feeling; 3) employment risk and overall evaluation; 4) work quality and work attitude; and 5) negative stereotypes. Three dimensions were extracted for employers' attitudes towards workers with sensory impairment: 1) work ethic, employment risk and general evaluation; 2) work performance and accommodation cost; and 3) negative stereotype. "Work performance and employment / accommodation costs" reflected employers' perceptions regarding disabled workers' job performance (such as the disabled workers' productivity, flexibility, etc.) and the cost of accommodating the disabled workers' needs. These were usually concerns and doubts that employers had about the disabled workers. "Work ethic" highlighted some worker traits deemed necessary by employers for successful employment, such as loyalty, co-operation, and dependability, among others. Employers usually held positive attitudes towards disabled workers in terms of work ethic. "Employment risk and overall evaluation" addressed

employers' safety concerns and general perceptions about the disabled workers. "Negative stereotype" reflected some of the misconceptions and prejudices that excluded disabled persons from entering job market.

Probability of Hiring Disabled Persons

The results of the multiple regression analysis indicated a positive relationship between the independent variables – attitude dimensions and the dependent variable 'hiring probability' for workers with physical disability and sensory impairment: the more positive employers' attitude towards the disabled employees, the more likely they would hire or continue to hire persons with disability. For physical disability, two factors came out as significant independent variables ($p \leq .10$): 1) work performance and employment costs 2) work ethic, employment risk and overall evaluation. For sensory impairment, two factors were retained in the regression model: 1) work ethic, general evaluation, and employment risk 2) working performance and accommodation cost. It implied that these attitude dimensions had significant impacts on the likelihood of employers' hiring persons with physical disability and sensory impairment; they were the determinant factors or the best predictors of an employer's willingness to hire the disabled workers. In both cases, accommodation cost incurred from employment of person with physical disability and sensory impairment remained a concern for employers' hiring decisions. In Roessler and Summer's 1997 study, it was found that although national human resource representatives were favorably disposed to a variety of accommodations (including flexible scheduling, assistive/adaptive equipment, and special parking), they were also concerned about the costs of accommodations, the

interference of accommodations with typical work schedules, and worker productivity. Similar results can be found in Gilbride, Stensrud, and Connolly's (1992) survey among human resource directors. Cornell University's survey of human resources managers (2000) found that companies have had more success providing access for people who use wheelchairs than in providing services for people who have hearing or sight impairments. No attitude factors for mental retardation emerged as significant in impacting employers' hiring decisions.

Attitude Dimensions and Prior Working Experiences

One-way ANOVA revealed that positive prior contacts with employees with disabilities were associated with favorable employer attitudes. A significant relationship was found between employers' previous working experience with workers with different disabilities and their attitude dimensions; the more satisfied the employers were with the prior contacts, the more agreeable they felt with the disabled workers. This trend was substantiated by previous researches by Diksa & Rogers (1996), Hutchins (1990), Kanter (1988), Levy et al (1992, 1993), and McFarlin et al. (1991). The finding indicated that more interactions and contacts would help employers conquer the attitudinal barriers and thus ultimately increase employment opportunities for disabled persons. Therefore, it is imperative and necessary to include people with disabilities in the workforce as fully as possible.

Attitude Dimensions and Employer-related Profiles

ANOVA and Tukey post hoc tests showed that, out of all employer-related profiles (such as gender, age, educational level, tenure, current job position, previous hiring experience with persons with disability, employer disability, and family members or friends with disabilities), only variable 'current job position' for physical disability and sensory impairment, and 'previous hiring experience' for sensory impairment were found significantly related to employers attitude dimensions.

Managers reported a more favorable opinion than owners towards workers with physical disability with respects to their work ethic (loyalty, job quality, and dependability), assessing them as better employees, and in terms of risks involved in employing the disabled workers (job-related accidents and special accommodations); and managers viewed workers with sensory impairment more positively than owners in regards to the disabled workers work ethic (loyalty, co-operation, attendance, dependability, and job quality), in terms of evaluating them as better employees, and of the disabled employees' accident-proneness. This might be due to the fact that managers usually work directly with the disabled workers thus having more contacts and experiences with this group of people. Such experiences help enhance managers' understandings and appreciation of the disabled workers, and help remove managers' biases and misconceptions.

Employers who had previously hired disabled people have more positive attitude on sensory impaired workers than those who had not hired any disabled workers, with regards to their work performance (supervision, attention, and training needed, and productivity), and in terms of accommodating them (business costs and special

accommodation). This again proved the importance of prior contacts and experiences in influencing employers' attitudes.

For the other employer-related variables, there were no significant statistical differences in attitude dimensions found for any disability types, which suggested that the effects of employers' demographic variables such as age, gender and education level on their attitudes towards the disabled workers were diminishing. The above findings pointed to a conclusion that employers' greater exposures to the disabled individuals in work settings facilitated a positive attitude towards the disabled workers.

Attitude Dimensions and Business-related Profiles

ANOVA and Tukey post hoc tests results indicated that only 'business type' of sensory impairment was found significantly related to employers' attitude dimensions. Employers from fine-dining restaurants had more positive opinions than those from casual dining towards sensory impaired workers in terms of their work performance and accommodating costs. This might be because fine-dining restaurants had more established programs and more financial resources to hire and train disabled employees, resulting in more contacts and interactions between employers and disabled workers, which in turn enhanced employers' positive reception of the disabled workers, and dispelled myths and biases. No significant relationships were found between attitude dimensions and other business-related variables for any disability types.

Implications and Recommendations

The above conclusions generated tremendous implications for the foodservice industry. With a labor shortage and a high rate of turnover in the foodservice industry, hiring, training and retaining employees with disabilities would be a successful business strategy. As previous researches and this study showed, employees with disability have strengths such as loyalty, punctuality, dependability, and co-operation. They generally have a lower level of absenteeism and turnover. All these qualities combined make them better employees in many senses. In addition, employers who hire the disabled will have advantages of tax legislation, such as the Welfare-to-Work and Work Opportunity Tax Credit, where an employer can claim a 40% credit for the first $ 6,000 of qualified wages earned by a disabled employee (www.doleta.gov/employer/wotc).

The study showed that employers were less accepting of mentally retarded workers. For foodservice industry, however, mentally disabled persons will make valuable employees. The tasks in foodservice operations are very repetitive, tedious and do not require great mental demands. Kitchen and menial labor jobs are performed away from the customers. Structural modifications required for adaptation of the mentally retarded to the work environment are less than those for other types of disabled employees. Furthermore, supported-employment program makes it possible to integrate persons with less acceptable disabilities in the open market for the benefit of both the disabled themselves and their employers.

Supported employment is a program specifically designed to assist persons with the most significant disabilities to achieve competitive level, community-integrated employment in a long run. The findings of this study and previous researches (McFarlin

et al., 1991; Johnson et al., 1988) indicated that one of the biggest concerns about the mentally disabled employees is the amount of training, special attention and supervision they need in the job. Supported employment provides individualized work supports and assistance both at and away from the workplace by assigning each disabled worker an employment specialist or 'job coach', who will handle the training, supervision, counseling, and even transportation for the disabled. The impediments to employment faced by prospective workers are reduced, and their abilities and work potentials are emphasized.

Supported employment had carefully documented positive employment outcomes for persons with disability in a number of important areas, including favorable employer perceptions (Kregel & Unger, 1993), improved employment retention (Kregel, Parent, & West, 1994), consumer satisfaction (Test, Hisson, Solow, & Kuel, 1993), job placement (Mank et al., 1997), Wages and benefits (Kregel, Wehman, & Banks, 1989; Thompson, Powers, & Houchard, 1992), and effective support strategies (Parent, Unger, Gibson, & Clements, 1994). Previous researches (Cook et al., 1994; Sandys, 1994; Nietupski et al., 1996; Petty & Fussell, 1997) indicated positive employer attitudes towards workers with intellectual and psychiatric disabilities placed by vocational employment or supported-employment programs. Employers who had participated in supported-employment programs reported a high satisfaction level with supported employees, and held extremely positive attitudes toward the employment potential of these workers.

As this research and previous researches (Roessler & Summer, 1997; Gilbride, Stensrud, & Connolly, 1992) noted, cost of accommodation for physical and sensory disabilities has always been a concern for management and an important factor in

employers' hiring decision. Employers' lack of knowledge of accommodations was cited as an obstacle to hiring disabled job candidates in Cornell's 2000 study about the ADA. Shedding the mind-set that a job must be performed in a particular way is a key to creating a disabled-friendly workplace. Many times accommodation does not cost a fortune, but is simply a matter of being creative. Identifying accommodations and making them work relies very much on having a good manager. Employers should think of making accommodations for the disabled in the interest of productivity, in the same way employers will do for the non-disabled workers to improve productivity and accuracy.

Making productivity-enhancing accommodations is getting much easier. A wide range of assistive technologies are quickly being developed that enable people with disabilities to be as efficient as anyone else. National Institute on Disability and Rehabilitation Research, a federally funded research arm within the US Department of Education, has designed a comprehensive database containing more than 17,000 assistive technology products available in the US (www.abledata.com). Information about assistive technology abounds in the Internet. WebABLE (www.webable.com) lists hundreds of Internet-based resources on accessibility and can help direct the search for disability-related topics. Access Unlimited (www.accessunlimited.com), a manufacturer and distributor of adaptive transportation and mobility equipment, provides links by particular disability categories to many other groups. Tax incentives are also available to help defer the cost of complying with the ADA. Business can be granted a tax deduction of up to $15,000 a year for any ADA-related facilities alteration made for disabled workers (Weinstein, 1992).

This research supported the trend identified by previous researches (Diksa & Rogers, 1996; Hutchins, 1990; Kanter, 1988; Levy et al., 1992 & 1993; & McFarlin et al., 1991) that employers who had previously hired persons with disabilities were more receptive of such persons. The Cornell 2000 survey of human resource managers found that lack of experience and lack of information resulted in biases and attitude barriers. Exposure to one another is the key. To the extent that people with disabilities are represented within a company, their managers and non-disabled co-workers can overcome fears and uncertainties about how to respond to them. As employers get more familiar and more comfortable working with the disabled workers, myths and stereotypes give way to appreciation and understandings. Therefore, it is vital to integrate the disabled people into the social web of the work community. Such experiences and interactions tend to erode employers' attitudinal hurdles and ultimately increase employment opportunities for people with disabilities.

Successful employment also depends on disabled employees themselves. They need to take initiatives and get more involved in the employment process. For the ten respondents who had never hired disabled persons, eight of them cited the reason as "no disabled persons have ever applied". There are all kinds of resources available to help the disabled join the work force. State vocational-rehabilitation services provide a full range of employment and training services for disabled individuals seeking jobs and for employers seeking workers. Supported employment discussed above is one of the service options included in VR services. Goodwill Industries, Inc. also offers employment and training opportunities for disabled persons (www.state.ok.us). Other agencies and companies involved in the "work network" include: Professional Rehabilitation and

Occupational Services Inc., Hope Community Services Inc., Employment Resources Inc., to name just a few (Killackey, 2002). There is also legislative act that encourages the disabled to go back to work. Work Incentive Improvement Act of 1999 assure to workers with disabilities that they won't have to forfeit disability and health-care benefits once employed or lose the benefits altogether if they later become unable to work.

This study did not claim to answer all the questions related to Oklahoma foodservice employers' attitudes towards hiring persons with disabilities, but has attempted to address some of the questions and provided a foundation for future research in this area. Recommendations for future researches were:

1. It will help increase response rate if a second mailing could be done, and/or some incentives could be included in the survey as a token of appreciation.
2. It will help increase validity of the study if the survey could be extended to the whole nation.
3. Future researchers could develop different sets of attitude attributes for different disability types.
4. Future researches need to address the source of employers' attitudes towards workers with disabilities: does attitude stem from personal experiences, lack of information or from global myths and stereotypes? This knowledge would expand the understanding of these attitudes and hopefully allow for the development of more effective informational and experiential strategies for change.
5. It is unclear to what extent these attitudes generalize to actual employment settings. Future researches need to observe actual hiring practices in employment settings and their relation to attitudes and behavioral intent.

6. Future researchers could begin to develop studies that focus on the abilities of workers with disabilities. This information would not only broaden this body of research, but also would provide a more complete and realistic representation of workers with disabilities and employer attitudes.
7. More researches could be done to corroborate the efficacy of supported-employment programs.

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APPENDIX A – QUESTIONNAIRE FOR EMPLOYER ATTITUDE SURVEY

Survey on Food Service Employers' Awareness of Disabled Employees

I. Please indicate your response below by circling the appropriate number.

1. How long have you been working in the restaurant business?

   5 years under..... 1
   6-10 years..... 2
   10 years above 3

2. What's your current job position?

   Owner 1
   Manager 2
   Supervisor 3

3. Type of operations where you work now: (please circle ONLY one)

   Fast food 1
   Family restaurant 2
   Casual dining house 3
   Fine dining house..... 4
   Others (please specify) _____

1. How many employees do you have?

   Under 5 1
   5-9..... 2
   10-19..... 3
   20 above..... 4

2. Business volume (# of patrons) per Week

   Under 350 1
   350-700..... 2
   701-1050..... 3
   Above 1050..... 4

6. Have you ever hired persons with disabilities? (If no, go to question # **10**)

   Yes..... 1
   No 2

7. If yes, how many disabled persons have you hired?

   1-3 ..... *1*
   4-6 ..... *2*
   7-9 ..... *3*
   10 and above..... *4*

8. What types of disability do those employees have? (Circle all that apply)

   Mental retardation..... 1

Physical disability 2

Sensory impairment
(hearing, visual, etc.) 3

Others (please specify) _____

9. What type of job positions do they have? (Circle all that apply)

Administrative clerk 1

Cashier 2

Server 3

Kitchen helper 4

Others (please specify) _____

10. If you have not hired disabled persons, please specify reasons:

No disabled people have applied 1

No suitable position 2

Previous unpleasant experiences 3

Concerns with their capability 4

Others (please specify) _____

II. Read each statement carefully and indicate your response according to each *disability type* in each column using the rating scale provided. Rating scale:

1 = SD (strongly disagree) 2 = D (disagree) 3 = A (agree) 4 = SA (strongly agree)

	Physical Disability				Mental Retardation				Sensory Impairment			
	SD	D	A	SA	SD	D	A	SA	SD	D	A	SA
1 I think employees with disabilities have fewer accidents on the job	1	2	3	4	1	2	3	4	1	2	3	4
2 Disabled employees are absent less often than other employees	1	2	3	4	1	2	3	4	1	2	3	4
3 I believe that disabled employees cooperate more on the job	1	2	3	4	1	2	3	4	1	2	3	4
4 Disabled employees usually turn out work of higher quality	1	2	3	4	1	2	3	4	1	2	3	4
5 Disabled employees are usually loyal to their employers	1	2	3	4	1	2	3	4	1	2	3	4
6 I think employees with disabilities make better employees	1	2	3	4	1	2	3	4	1	2	3	4
7 I feel that disabled employees are more dependable	1	2	3	4	1	2	3	4	1	2	3	4
8 Disabled employees usually quit their jobs sooner than other employees	1	2	3	4	1	2	3	4	1	2	3	4
9 Disabled employees are harder to train for jobs	1	2	3	4	1	2	3	4	1	2	3	4
10 Disabled employees need closer supervision	1	2	3	4	1	2	3	4	1	2	3	4

11 Disabled employees work slower than other employees	1	2	3	4		1	2	3	4		1	2	3	4
12 Disabled employees are often late for work	1	2	3	4		1	2	3	4		1	2	3	4
13 Supervisors find it hard to get disabled workers to adopt new methods on the job	1	2	3	4		1	2	3	4		1	2	3	4
14 Disabled employees need special attention from co-workers and supervisors	1	2	3	4		1	2	3	4		1	2	3	4
15 Disabled employees make other employees uncomfortable	1	2	3	4		1	2	3	4		1	2	3	4
16 Employment of disabled persons would increase business costs	1	2	3	4		1	2	3	4		1	2	3	4
17 It's fair to make special accommodations for disabled employees	1	2	3	4		1	2	3	4		1	2	3	4
	SD	D	A	SA		SD	D	A	SA		SD	D	A	SA

III. Please rate your experience with disabled employees on a scale of 1-4.

Very dissatisfied 1

Dissatisfied 2

Satisfied 3

Very satisfied 4

IV. Please rate the probability that you would hire or continue to hire persons with disability on a scale of 1-4.

Very unlikely 1

Unlikely 2

Likely 3

Very likely 4

V. Please respond by circling the appropriate number.

1. Your gender

   Male 1

   Female 2

2. Your age

   25 under 1

   25-34 2

   35-54 3

   55 or above 4

3. Your education

   High school /
   Vocational school 1

Some college.....2
2-year college 3
4-year college 4
Master degree 5
Doctorate.....6

4. Do you have a disability?

Yes..... *1*
No..... *2*

5. Do you have immediate family members or friends who have a disability?

Yes.....1
No 2

Please fold the questionnaire and make sure that the self-addressed, prepaid business reply page is visible; tape or staple at the bottom and drop in the mail. Thanks!

If you are interested in receiving a report of the survey findings, please e-mail your request to **cgengqi@yahoo.com** or mail to:

Christina Chi
210 HESW
School of Hotel & Restaurant Administration
Oklahoma State University
Stillwater, OK 74075

Once again, thank you for your participation!!!

Christina Chi
Master candidate in Hospitality Administration

Hailin Qu, PhD.
Professor & William E. Davis Distinguished Chair
Graduate Coordinator

APPENDIX B – COVER LETTER FOR EMPLOYER ATTITUDE SURVEY

«First» «Last»
«Business»
«Address»
«City», «State» «Zip»

Dear «Title» «Last»,

You have been selected as one of the 1,313 members of **Oklahoma Restaurant Association** to participate in an important survey on disabled employees in the Oklahoma food service industry. The survey is my thesis study in partial fulfillment of the requirements for the Masters degree. "Individual with a disability" refers to any person (a) who has a physical or mental impairment that substantially limits one or more major life activities; (b) has a record of such impairment; or (c) is regarded as having such impairment (ADA, 1990). In recent years there has been considerable interest in hiring persons with disabilities - the untapped source of workers - to meet staffing needs. More research on the disabled employees facilitates successful future employment. The attached questionnaire focuses on your awareness of employees with disabilities.

We are requesting that you or the most appropriate personnel at this unit responsible for hiring employees complete this short survey. **It will only take about 5 minutes**. Once the questionnaire is completed, please fold it so that the self-addressed, prepaid business reply page will be visible. Tape or staple at the bottom and **mail it at your earliest convenience.**
Your response will remain anonymous and completely confidential, and your participation in this study is strictly voluntary. Receiving your views is extremely important to the outcome of this study. We will be glad to provide you with a summary of the survey results in order to compensate for your time. The summary may be obtained through e-mail or regular mail.

We value your input and thank you in advance for your time and willingness to participate in the study. **If you have any question or need further assistance, please feel free to contact us through e-mail or simply call me at 405-332-2457.**

Sincerely,

Christina Chi
Master candidate in Hospitality Administration

School of Hospitality Administration
Oklahoma State University
Email: cgengqi@yahoo.com

Hailin Qu, PhD.
Professor & William E. Davis Distinguished Chair
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This project has been approved by the Institutional Review Board (IRB) of Oklahoma State University. Any questions regarding your rights as a research subject may be addressed to the IRB Executive Secretary Sharon Bacher at 405-744-5700.

APPENDIX C – ANOVA ANALYSIS RESULTS

Table C-1 ANOVA – Attitude Dimensions for Mental Retardation & Employers' Job Positions

	N	F	Sig.
Factor 1 - work performance & employment costs	68	0.507	0.605
Factor 2 - work ethic & co-workers' feeling	68	0.367	0.694
Factor 3 - employment risk & overall evaluation	68	2.818	0.067
Factor 4 - work quality & work attitude	68	2.827	0.066
Factor 5 - negative stereotype	68	0.906	0.409

Table C-2 ANOVA – Attitude Dimensions for Physical Disability & Previous Hiring Experiences

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	68	3.391	0.070
F2 - work ethic, employment risk & overall evaluation	68	0.061	0.806
F3 - stereotype	68	0.129	0.720

Table C-3 ANOVA – Attitude Dimensions for Mental Retardation & Previous Hiring Experiences

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	68	2.628	0.110
F2 - work ethic & co-workers' feeling	68	0.087	0.768
F3 - employment risk & overall evaluation	68	0.000	0.996
F4 - work quality & work attitude	68	0.235	0.630
F5 - negative stereotype	68	0.196	0.659

Table C-4 ANOVA – Attitude Dimensions for Physical Disability & Tenure

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	69	0.989	0.377
F2 - work ethic, employment risk & overall evaluation	69	0.120	0.887
F3 - stereotype	69	0.014	0.986

Table C-5 ANOVA – Attitude Dimensions for Mental Retardation & Tenure

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	69	0.714	0.493
F2 - work ethic & co-workers' feeling	69	0.120	0.888
F3 - employment risk & overall evaluation	69	0.178	0.837
F4 - work quality & work attitude	69	0.497	0.611
F5 - negative stereotype	69	0.514	0.600

Table C-6 ANOVA – Attitude Dimensions for Sensory Impairment & Tenure

Dependent Variables	N	F	Sig.
F1 - work ethic, employment risk & overall evaluation	69	0.321	0.727
F2 - work performance & accommodation costs	69	0.680	0.510
F3 - negative stereotype	69	0.364	0.696

Table C-7 ANOVA – Attitude Dimensions for Physical Disability & Age

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	70	0.811	0.449
F2 - work ethic, employment risk & overall evaluation	70	0.098	0.907
F3 - stereotype	70	0.310	0.735

Table C-8 ANOVA – Attitude Dimensions for Mental Retardation & Age

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	70	0.373	0.690
F2 - work ethic & co-workers' feeling	70	0.673	0.514
F3 - employment risk & overall evaluation	70	0.538	0.587
F4 - work quality & work attitude	70	0.891	0.415
F5 - negative stereotype	70	0.379	0.686

Table C-9 ANOVA – Attitude Dimensions for Sensory Impairment & Age

Dependent Variables	N	F	Sig.
F1 - work ethic, employment risk & overall evaluation	70	0.288	0.751
F2 - work performance & accommodation costs	70	0.392	0.677
F3 - negative stereotype	70	0.295	0.746

Table C-10 ANOVA – Attitude Dimensions for Physical Disability & Gender

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	70	0.038	0.846
F2 - work ethic, employment risk & overall evaluation	70	0.698	0.406
F3 - stereotype	70	0.098	0.755

Table C-11 ANOVA – Attitude Dimensions for Mental Retardation & Gender

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	70	0.851	0.359
F2 - work ethic & co-workers' feeling	70	0.060	0.808
F3 - employment risk & overall evaluation	70	0.044	0.835
F4 - work quality & work attitude	70	0.107	0.745
F5 - negative stereotype	70	1.662	0.202

Table C-12 ANOVA – Attitude Dimensions for Sensory Impairment & Gender

Dependent Variables	N	F	Sig.
F1 - work ethic, employment risk & overall evaluation	70	0.241	0.625
F2 - work performance & accommodation costs	70	0.382	0.539
F3 - negative stereotype	70	0.334	0.565

Table C-13 ANOVA – Attitude Dimensions for Physical Disability & Education

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	70	0.971	0.384
F2 - work ethic, employment risk & overall evaluation	70	0.937	0.397
F3 - stereotype	70	1.129	0.329

Table C-14 ANOVA – Attitude Dimensions for Mental Retardation & Education

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	70	1.302	0.279
F2 - work ethic & co-workers' feeling	70	0.533	0.589
F3 - employment risk & overall evaluation	70	1.738	0.184
F4 - work quality & work attitude	70	0.987	0.378
F5 - negative stereotype	70	0.685	0.508

Table C-15 ANOVA – Attitude Dimensions for Sensory Impairment & Education

Dependent Variables	N	F	Sig.
F1 - work ethic, employment risk & overall evaluation	70	0.853	0.431
F2 - work performance & accommodation costs	70	2.761	0.070
F3 - negative stereotype	70	1.657	0.198

Table C-16 ANOVA – Attitude Dimensions for Physical Disability & Employers' Disability

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	70	3.363	0.071
F2 - work ethic, employment risk & overall evaluation	70	1.083	0.302
F3 - stereotype	70	3.234	0.077

Table C-17 ANOVA – Attitude Dimensions for Mental Retardation & Employers' Disability

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	70	0.922	0.340
F2 - work ethic & co-workers' feeling	70	0.204	0.653
F3 - employment risk & overall evaluation	70	0.120	0.730
F4 - work quality & work attitude	70	3.101	0.083
F5 - negative stereotype	70	3.525	0.065

Table C-18 ANOVA – Attitude Dimensions for Sensory Impairment & Employers' Disability

Dependent Variables	N	F	Sig.
F1 - work ethic, employment risk & overall evaluation	70	0.043	0.836
F2 - work performance & accommodation costs	70	0.676	0.414
F3 - negative stereotype	70	0.240	0.626

Table C-19 - ANOVA – Attitude Dimensions for Physical Disability & Family and Friends with Disability

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	70	0.017	0.898
F2 - work ethic, employment risk & overall evaluation	70	0.327	0.570
F3 - stereotype	70	0.106	0.745

Table C-20 - ANOVA – Attitude Dimensions for Mental Retardation & Family and Friends with Disability

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	70	1.278	0.262
F2 - work ethic & co-workers' feeling	70	0.737	0.394
F3 - employment risk & overall evaluation	70	0.282	0.597
F4 - work quality & work attitude	70	0.241	0.625
F5 - negative stereotype	70	0.045	0.832

Table C-21 - ANOVA – Attitude Dimensions for Sensory Impairment & Family and Friends with Disability

Dependent Variables	N	F	Sig.
F1 - work ethic, employment risk & overall evaluation	70	0.315	0.577
F2 - work performance & accommodation costs	70	0.374	0.543
F3 - negative stereotype	70	0.018	0.894

Table C-22 ANOVA – Attitude Dimensions for Physical Disability & Business Type

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	69	0.042	0.959
F2 - work ethic, employment risk & overall evaluation	69	1.164	0.319
F3 - stereotype	69	0.701	0.500

Table C-23 ANOVA – Attitude Dimensions for Mental Retardation & Business Type

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	69	0.412	0.664
F2 - work ethic & co-workers' feeling	69	1.583	0.213
F3 - employment risk & overall evaluation	69	1.201	0.307
F4 - work quality & work attitude	69	0.144	0.866
F5 - negative stereotype	69	0.260	0.772

Table C-24 ANOVA– Attitude Dimensions for Physical Disability & Weekly Business Volume

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	67	0.553	0.578
F2 - work ethic, employment risk & overall evaluation	67	1.949	0.151
F3 - stereotype	67	0.544	0.583

Table C-25 ANOVA– Attitude Dimensions for Mental Retardation & Weekly Business Volume

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	67	0.534	0.589
F2 - work ethic & co-workers' feeling	67	0.500	0.609
F3 - employment risk & overall evaluation	67	2.410	0.098
F4 - work quality & work attitude	67	0.095	0.910
F5 - negative stereotype	67	0.932	0.399

Table C-26 ANOVA– Attitude Dimensions for Sensory Impairment & Weekly Business Volume

Dependent Variables	N	F	Sig.
F1 - work ethic, employment risk & overall evaluation	67	0.610	0.546
F2 - work performance & accommodation costs	67	0.132	0.876
F3 - negative stereotype	67	1.306	0.278

Table C-27 ANOVA– Attitude Dimensions for Physical Disability & Number of Employees

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	68	0.934	0.398
F2 - work ethic, employment risk & overall evaluation	68	0.385	0.682
F3 - stereotype	68	0.835	0.438

Table C-28 ANOVA– Attitude Dimensions for Mental Retardation & Number of Employees

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	68	1.539	0.222
F2 - work ethic & co-workers' feeling	68	1.532	0.224
F3 - employment risk & overall evaluation	68	0.934	0.398
F4 - work quality & work attitude	68	0.799	0.454
F5 - negative stereotype	68	0.632	0.535

Table C-29 ANOVA– Attitude Dimensions for Sensory Impairment & Number of Employees

Dependent Variables	N	F	Sig.
F1 - work ethic, employment risk & overall evaluation	68	0.125	0.883
F2 - work performance & accommodation costs	68	1.527	0.225
F3 - negative stereotype	68	2.119	0.128

Table C-30 ANOVA – Attitude Dimensions for Physical Disability & Number of Disabled Employees

Dependent variable	N	F	Sig.
F1 - work performance & employment costs	58	0.250	0.780
F2 - work ethic, employment risk & overall evaluation	58	0.016	0.985
F3 - stereotype	58	2.881	0.065

Table C-31 - ANOVA – Attitude Dimensions for Mental Retardation & Number of Disabled Employees

Dependent Variables	N	F	Sig.
F1 - work performance & employment costs	58	1.047	0.358
F2 - work ethic & co-workers' feeling	58	0.267	0.766
F3 - employment risk & overall evaluation	58	0.432	0.652
F4 - work quality & work attitude	58	0.755	0.475
F5 - negative stereotype	58	1.426	0.249

Table C-32 - ANOVA – Attitude Dimensions for Sensory Impairment & Number of Disabled Employees

Dependent Variables	N	F	Sig.
F1 - work ethic, employment risk & overall evaluation	58	0.583	0.562
F2 - work performance & accommodation costs	58	0.116	0.891
F3 - negative stereotype	58	0.959	0.389

Oklahoma State University
Institutional Review Board

Protocol Expires: 4/16/03

Date: Monday, April 22, 2002 IRB Application No: HE0246

Proposal Title: A STUDY OF OKLAHOMA FOODSERVICE EMPLOYERS' ATTITUDE TOWARDS PERSONS WITH DISABILITIES

Principal Investigator(s):

Gengqing Chi
89 S. University Place #3
Stillwater, OK 74075

Hailin Qu
201 HEWS
Stillwater, OK 74075

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 203 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson

Carol Olson, Chair
Institutional Review Board

VITA 2

Gengqing Chi

Candidate for the Degree of

Master of Science

Thesis: A STUDY OF OKLAHOMA FOODSERVICE EMPLOYERS' ATTITUDES TOWARDS HIRING PEOPLE WITH DISABILITIES

Major Field: Hospitality Administration

Biographical:

Education: Received Bachelor of Arts in English Language and Literature from Guangzhou Foreign Language University, Guangzhou, P. R. China. Completed the requirements for the Master of Science degree with a major in Hospitality Administration at Oklahoma State University in December 2002.

Experience: Employed by China International Travel Service as travel administrator from 1993 to 1999; employed by Oklahoma State University, Residential Life as dining graduate assistant from 2000 to 2002; employed by Marriott International as accounting intern for summer 2001.

Membership: OSU Chapter The National Honor Society of Phi Kappa Phi