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An investigation on the impact of training on employees' perceptions of occupational status and self-esteem in the foodservice industry

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AN INVESTIGATION ON THE IMPACT OF TRAINING ON EMPLOYEES’
PERCEPTIONS OF OCCUPATIONAL STATUS AND SELF-ESTEEM
IN THE FOODSERVICE INDUSTRY

by

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ABSTRACT

An Investigation on the Impact of Training on Employees’ Perceptions of Occupational Status and Self-Esteem in the Foodservice Industry

by

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As the hospitality community continues to grow into a leading national economical force, it is imperative that the industry investigates perceptions of occupational status and find methods that positively change the negative perceptions of one of its most prevalent divisions, foodservice (Aarnio, 1999). The historically influenced negative connotation of foodservice has persisted in deterring quality employees and managers from potential careers within the industry. Although there has been research in the areas of perceptions in the hospitality industry there is little done on foodservice and what impacts or changes the perceptions of its occupational status directly relating to self-esteem. Additionally, previous research on occupational status has basically followed the standard philosophy of comparing one occupation to another based on a ranking scale regardless of methodology; socioeconomic, categorical, or prestige concept. Subsequently, evaluating perceptions of internal occupational status
has been an undeveloped link in this area of research. In order to address internal occupational status, this study looks at the impact of initial foodservice training on the perceptions of newcomers to the career field moderated by specific demographic variables. Examining how training changes perceptions of occupational status and self-esteem may help to keep quality employees in the foodservice industry. Additionally, it may take on the larger task of helping to change society’s own antiquated image of the industry. The study was statistically analyzed using Repeated-Measures Multivariate Analysis of Variance (MANOVA), and Repeated-Measures Analysis of Variance (ANOVA) models.

Findings and Conclusion: This study has empirically provided results indicating that current Air Force and Navy’s training methods used to produce foodservice employees do not increase positive personnel feelings of occupational status and self-esteem. Although the training does fully meet the military’s objective to get trained personnel out to the field, it will not spark any level of personal attraction for the member to stay in the career field. However, the researcher’s contribution to the field is the introduction of the IOSQ. This instrument is not a one-dimensional device. It literally could be used in conjunction with any research on evaluating an individual’s attitudes or opinions of their specific career’s occupational status and self-esteem. Other modes of treatment may even be substituted for training.
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CHAPTER I

THE PROBLEM AND ITS PURPOSE

Introduction

The service industries are growing at a rapid rate in the United States, making up a disproportional 71 percent of the gross domestic product (Aarnio, 1999). As this growth continues and the economy becomes more dependent on the professional service arena, a phenomenon of this industry still remains: there is an overwhelming negative impression of the hospitality industry as an occupational choice. However, it is much more prevalent in the foodservice portion of the hospitality industry. It is commonly held and rarely challenged that the industry offers predominately unskilled or semi-skilled work opportunities with a reputation of low pay and poor working conditions, while being extremely labor intensive (Baum, 1996). This perception is predicated on the rise and popularity of fast food restaurants geared toward the part-time hourly wage employee. Unfortunately, this model of the foodservice industry represents a developed world stereotype.

Societal influences have severely stigmatized the image of the food service industry and this has led to an impact on occupational status and employees’ self esteem (Walsh, 1975). Occupational status can be described as the differences in the prestige attached to career of choice as it applies to social status. Since the first attempt at ranking occupations in terms of social status and prestige by T.H.C. Stevenson in 1911 (Reiss,
many studies have been completed to examine the changing perceptions of
society. The idea that different occupations have different status or prestige value has
intrigued psychologists, sociologists, and others for many years (Counts, 1925; Centers,
1949; Caplow, 1954; Packard, 1959; Hall, 1975; Chamberlin & Moomaw, 1985). The
consistent common factor in all these empirical studies (concentrating on various
segments of society) was that foodservice related careers ranked extremely low.

The perceptions of foodservice have definitely withstood the test of time in
reference to its standing in the occupational status hierarchy. These perceptions have
major implication for career choice and self-esteem. Social scientists commonly assume
that occupational factors are central in determining self image and esteem (Vanfossen,
1979; Rothman, 1978; Harvey, 1975; Hall, 1975). It is deduced that work plays a crucial,
and perhaps an unparalleled psychological role in the formation of self image and esteem.
That deduction has been summarized as a person’s whole self-worth, feelings of self-
esteeem and self-approval appear to have become largely embodied in his occupation
(Harvey, 1975).

Self-image and self-esteem are major determinants in the selection of occupations
and whether one’s stay will be temporary (careerless) or a career decision. Self image is
described as a representation of self that changes within and across situations as roles and
expectations change (Kinch, Faulk, & Anderson, 1983). It is also defined as one’s idea
of oneself or one’s status (Webster’s, 1984). Self-esteem is described as the process of
judging oneself based on the evaluation of a person toward himself and feeling good or
bad about that judgment (Falk & Miller, 1997). Therefore, there is strong evidence that
a person’s work is one of the things by which he or she is judged and certainly is one of
the more significant things by which people judge themselves (Hughes, 1958). These distinctions are very important, as they may be an important key to helping break the pattern of poor retention due to the negative effect of perceived low occupational status.

Throughout the foodservice industry, firms are scrambling to invent ways to increase retention. Finding good employees and keeping them has long been the challenge for the foodservice industry. The revolving door is legendary, as many workers perceive a foodservice career as socially undesirable. It is often a temporary stop along their life experiences, or until they land a so-called respectable job. With annual turnover rates reaching 300%, apparently the foodservice industry's problem is not finding employees, but keeping them (Weinstein, 1992). Consequently, foodservice seems to attract specific types of employees. Goldwasser classified them into four distinct categories; a "careerist", someone who plans to stick with food service for the long term, the "undecided", a person who has landed in the industry as a result of not making a career choice, the "passing through" are on their way to their "real" careers, and the "misplaced" are unhappy and unproductive due to their dissatisfaction with the industry in general (Goldwasser, 2000).

As the service community grows, it is imperative that we investigate occupational status (OS) perception-changing techniques and find methods that positively change the perceptions of employees. Although there has been research in the area of perceptions in the hospitality industry, there is little done on what affects or changes perceptions of OS and self-esteem as they pertain to foodservice.

Additionally, there has been extensive research done on the rewards and roles of training in the effort to fight the problem of employee retention. Training is said to be a
leading industry tool to dramatically reduce turnover. People stay where they can grow so when an employer invests in employees through training, they return with more productivity and more loyalty (Love, 1998). Participation in training activities is perceived by individuals as a way to increase skill levels, improve job performance and elevate feelings of self-worth. Job involvement is a key attribute derived from the motivation of training. Job involvement is defined as the extent to which individuals identify psychologically with work or the importance of work to total self-image and esteem (Cheng & Ho, 2001). There is very little research done in the foodservice industry on the impact of training on perceptions of OS and self-esteem.

The lack of research is also very prevalent in the Air Force Services career field, the military equivalent to the commercial hospitality industry. For decades, Air Force leaders have tried to improve the reputation of foodservice as a respectable career choice. One of the instruments in this process is extensive indoctrination training for new Airmen in the career field. Training may help to bring awareness and information of the potential growth within and around foodservice.

Problem Statement

It is imperative that leaders in foodservice find a way to change their employees' negative perceptions about the industry in an effort to help reduce retention problems associated with this phenomenon. As a response to the limited research done on perceptions of OS and self-esteem as they pertain to foodservice, this research will examine the affect of military foodservice training on changing participants' attitudes.
Purpose of Study

The particular purpose of this study was to examine the impact of training on perceptions of OS and self-esteem as they pertain to foodservice. This study provided leaders in the foodservice industry with empirical information about how employees are affected by training and if it changes their perceptions of themselves and the industry. This research focused on the United States Air Force and Navy personnel newly graduated from basic military training who have been assigned to the Services or Foodservice career fields. The research examined their initial perceptions of foodservice and then their perceptions after they completed United States Air Force and Navy Initial Foodservice Training located in San Antonio, Texas.

Research Questions

1. Does USAF Initial Foodservice Training significantly affect participants’ perceptions of occupational status pertaining to foodservice and are the changes significantly moderated by demographic variables?

2. Does USAF Initial Foodservice Training significantly affect participants’ perceptions of self-esteem pertaining to foodservice and are the changes significantly moderated by demographic variables?

Significance of Study

The negative connotation of foodservice has persisted in deterring quality employees and managers from potential careers within the industry. By examining
whether training changes perceptions of OS and self-esteem as they pertain to the foodservice industry may help to retain quality employees and managers.

Definition of Terms

**Airmen** – New entrants of the United States Air Force associated with the rank structure. The initial ranks of members before they reach the Noncommissioned Officer status.

**Basic Military Training (BMT)** – The training applied to new members of the Air Force to indoctrinate them into the professional military.

**Career** – The evolving sequence of a person’s work experiences over time (Wood, 2000).

**Careerless** – Work experiences without the notion of development over time, which applies to those in semi-skilled and unskilled jobs that offer no lengthy training and little chance for advancement (Wood, 2000).

**Job Involvement** - The extent to which individuals identify psychologically with work or the importance of work to total self-image (Cheng & Ho, 2001).

**OS** - The differences in the prestige attached to career of choice as it applies to social status

**Self-Esteem** - The process of judging oneself based on the evaluation of a person toward himself and feeling good or bad about that judgment (Falk & Miller, 1997).

**Self-Image** - A representation of self that changes within and across situations as roles and expectations change (Kinch, Faulk, & Anderson, 1983).

**Services Career Field** – It is the equivalent of the hospitality industry as it relates to the Air Force. The various entities are lodging, foodservice, fitness, clubs, libraries, etc.
Services Technical Training – The initial blocks of training provided to newly assigned members of the Services career field. It is composed primarily of foodservice training. This training ranges from sanitation to preparation of entrees.

Limitations

The population of this study consists of young people from all over the United States who have joined the Air Force and Navy and have been placed in the Services or Foodservice career fields with the commonality of all receiving basic military instruction. Some of these participants have selected these career fields as their primary choice, others were placed in the career field due to the needs of the specific military service, or cross-trained into the career field from another career field for various reasons. However, all of the individuals were formally trained on a military installation in the Southwestern United States. I did not take into consideration the reason members joined the military, time of year entering service, or the disposition of their initial self-esteem.

The study was conducted at the primary training site using the existing program as the vehicle for his research. The real world nature of the military training prohibited the possibility of having a control group and experimental group. All participants will receive the same stimulus over a five-week period.

There are some concerns of validity due to a one-group pretest posttest design. I attempted to minimize unnecessary challenges. However, Air Force training officials would not implement any additional controls. As in the case with all military training, there is somewhat of a regimented controlled atmosphere currently in place. Participants may be minimally affected by the history effect due to the natural control factors already
implemented in the military's real world training. Even in the case of military crisis (war, contingency operation, etc.) the trainees would receive the full training without any interruption. Maturation is a problem that will naturally evolve, as the training will take five weeks and a combination of resocialization to the military way of life and the foodservice industry. It will have an affect on the respondents. The testing effect will be controlled by not telling the respondents that there will be a posttest (avoiding anticipated and loaded responses) as they may respond in a way that they imagine the researcher wants them to. The testing instrument was identical in both pre and posttest with the exception of the inclusion of the demographic questions on the pretest, minimizing the instrument effect. Problems with mortality are extremely low as there is a 97% graduation rate and elimination would be more associated with respondents' personal disciplinary issues. External validity issues are not as prevalent due to the real world Air Force training conducted on military members without any staged procedures or artificial laboratory enhanced experiments.

Although the measurement instrument was a compilation of two validated widely used instruments, I did not perform a factorial analysis of the components used from the Minnesota Satisfaction Questionnaire (Achievement and Status) to ensure they remained valid as a proxy for occupational status. I relied on the validity tests performed on each section of the MSQ by its creators.
CHAPTER 2

LITERATURE REVIEW

Introduction

This chapter will discuss the literature related to the main and sub topics of OS and how it impacts employees and affects self-esteem within the foodservice industry. It will also discuss the possible affects of initial foodservice training on those employees’ perceptions.

The history of foodservice extends to the far reaches of ancient Egyptian dynasties where innkeepers served food to travelers and merchants along the trade routes of the Far East. Traders and explorers from Europe and other middle-eastern countries who traveled to Asia and the Far East seeking treasure helped spawn the formation of these same types of inns along their numerous routes. This early form of hospitality spread very quickly throughout Europe. It became very popular to stop at the inn during travel for shelter, safety, and subsistence, which was prepared and served by an agent of the innkeeper.

The Romans had a very “advanced” foodservice industry. Roman society, especially the wealthy, frequently held large banquets where they were served a large variety of foods. The events were usually coordinated by a foodservice “manager” who was trained in the art and management of preparing and serving food. Many of these managers were formally trained in culinary schools. The Romans were the first society
to establish such educational programs (NAAFEM, 1996). However, the main function of these managers and their staff was to serve the more affluent population.

The culinary trade also flourished in England. During the 13th Century, the banks of the River Thames were taken over by wine vaults and cook shops. At that time, those who mastered the mystic art of foodservice were somewhat respectable. There was a tendency or social phenomenon for workers and townsfolk to organize themselves into fraternities, mysteries, and guilds during the Middle Ages. It is generally accepted that cooks began a fraternity in 1311 (Edwards, 1996). They were so widely accepted that in 1482, King Edward IV granted the Cooks of London the first of eight charters to conduct their official duties. They were required to perform their culinary mastery regularly by way of banquets and large celebrations of the nobility. However, even though recognized by the powers of the day, these elite groups of foodservice professionals were still considered the servants of the royal class.

In the United States, the development of the foodservice industry paralleled that of Europe in the sense that its genesis was in taverns, small inns, boarding houses, and trading posts that were established by explorers and traders. Meals were for sale to travelers and others as early as the seventeenth century, but few Americans frequented these places without the excuse of being away from home. Much of society was rural working class and innkeepers/cooks were a part of that class. Pleasure travel was usually only afforded to the very rich (Edwards, 1996). Most colonial Americans never even dined in a restaurant (Pillsbury, 1990). However, with the American system of slavery, it was common for the duties of food preparation to be bestowed upon the slave. This was the ultimate sign of servitude. Subsequently, after slavery, newly freed Americans could

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only work service-oriented jobs such as foodservice. Due to their previous position former slaves were frequently still considered as servants and thereby held to a lower status (Stovall, 1993).

As the country entered the industrial age and the automobile was introduced, the concept of foodservice changed with it. Rapid urbanization brought fast paced city life with it. The development of roadside stands, drive-ins, and all the other kinds of latter day roadside restaurants (soda fountains and luncheonettes, main street cafés, and diners) came out of a well-established tradition of offering food quickly to hurried customers. The epitome of this revolution was the quick service restaurant, which came to prominence in the 1950s with the invention of Maurice and Richard McDonald's establishment of the world renowned McDonald's. As these restaurants grew in popularity, variety, and numbers, hiring practices changed. It is widely known that most fast food restaurants use unskilled, teenage workers settling for low paying, temporary work. Currently, this particular segment is the largest in the foodservice industry and has shown consistent growth over the past several years (NAAFEM, 1996).

In reviewing the history of foodservice, it is hard not to notice the subservience associated with the foodservice occupation. This association has perpetuated a negative connotation that has socially tainted occupations in foodservice for quite some time. Social taint occurs where occupations involving regular contact with people or groups are themselves regarded as stigmatized or where the worker appears to have a servile relationship to others (Ashforth & Kreiner, 1999). This negative perception of foodservice has helped stabilize the occupation in the lower echelon of almost all OS (hierarchy) studies, and may threaten the ability of occupational members to construct an
esteen-enhancing social identity (Ashforth & Kreiner, 1999). Having used history as a foundation for the origin of the negative perceptions of foodservice careers, I will now discuss the concepts of OS and self-esteem.

Occupational Status

It is common in our society when people first meet to have the traditional “What line of work are you in?” conversion (Treiman, 1977). This exchange is the basis of the initial measure of a person’s influence or importance. It marks a person as “someone to reckon with” or one who can be safely ignored. The reality is some jobs are just more respected than others. This is a recognizable fact, both when people discuss occupations in daily conversation and when they must actually choose among careers. The perceived OS substantiates individuals in the social arena, thereby setting the stage for interaction with one another (Treiman, 1977). Throughout history, our society has shared a certain acceptance and understanding about occupations and the attributes that are associated with them: skills required, physical demands, whether they are considered feminine or masculine, white collar or blue collar work, and the list goes on. These things basically determine the status of each occupation as established by the applicable society.

Currently, in the U.S., the most widely used measures of OS all build on the Census Bureau’s occupational categories. These categories change from one census to the next, but there are typically 300-500 of them (Jencks, Perman, & Rainwater, 1988). The primary goal of occupational classification has traditionally been to group together jobs that require similar technical skills or activities.
Technical considerations are strongly related to educational requirements and economic rewards. Many other job characteristics that are important to workers vary with the organizational setting in which work occurs. Subsequently, these measures of OS take occupational titles as their building blocks; they do not take into consideration the individuality of specific occupations (Jencks, Perman, & Rainwater, 1988). However, occupationally based hierarchies may be limited to comparisons of job types in a community or society derived from the occupation’s general standing in the applicable society’s value system (Faunce, 1989).

Customarily, occupational scales come in three main varieties: prestige measures, socioeconomic scales, and nominal class categories (Ganzeboom & Treiman, 1996). Each of these is based on different logical concepts with various scales developed to measure them.

**Standard International Occupational Prestige Scale (SIOPS)**

Donald Treiman (1977) developed SIOPS in an effort to consolidate the differences in the occupational structure of various societies and the institutions that evolve around them. He used numerous national prestige scales to develop this comprehensive scale. Prestige measures are generated from the popular (societal) evaluation of occupational standing. They reflect the classical sociological hypothesis that OS constitutes the single most important dimension in social interaction (Ganzeboom & Treiman, 1996). Treiman matched occupational titles from national and local prestige studies conducted in 60 countries with a four-digit code to accommodate distinctions that were found cross-nationally in prestige scales. The SIOPS scale was generated by averaging the national prestige scores and rescaled to a common metric. This scale has
been an uncontested candidate for use as a prestige scale in international research (Bornschier, 1986; Krymkowski, 1988).

The research and predictions within the long-standing tradition of prestige scaling are now a part of sociological lore. Within this domain of stratification, these scales represent "collective perceptions and beliefs" about the structure of occupational hierarchies (Hope, 1982). This methodology is considered liberal in comparison to alternate concepts on this same topic. The liberal approach to this topic centers around the belief that prestige and social standing are sensitive to honorific considerations and societal influences (Hope, 1982; Siegel, 1971; Turner, 1958), whereas the opposing camp argues that socioeconomic factors play a dominant role in structuring OS perceptions (Featherman & Hauser 1976, Goldthorpe & Hope, 1974).

**Socioeconomic Indexes (SEI)**

Duncan's Socioeconomic Index of Occupations (Duncan, 1961) has become one of the most widely used OS scales in research conducted in America (Treiman, 1977). This scale was developed as a way to generalize prestige scores for all occupations. The operations used to derive SEI scales, in fact, are combined with prestige scores (Hodges, 1981; Ganzeboom, Degraaf, & Treiman 1992). SEI scores are created by computing the weighted sum of socioeconomic characteristics of incumbents of various occupations, usually education and income, but others such as father's socioeconomic characteristics and wealth can be used (Duncan-Jones, 1972). SEI scales are now in existence for a number of countries because they capture the basic parameters of the process of stratification somewhat better than existing scales. These scales tend to be more widely
used than prestige scales by stratification researchers (Featherman, Jones, & Hauser, 1975).

**Erickson and Goldthorp's Class Categories (EGP)**

The EGP uses a class designation to group applicable occupations in like categories. These nominal class categories differ from prestige and socioeconomic status scales, not only in their discrete nature, but also the format. They often combine occupational information with data on employment status and are to be regarded as nominal (non-ordered) typologies. The EGP has emerged as the most widely accepted international standard. It is composed of a ten-category classification, with what has come to be the standard labels for international comparisons of occupation titles.

Although international and national organizations still conduct ongoing research on OS, they just measure the external perceptions of occupations as influenced by societal frameworks, regardless of type of scale; prestige, socioeconomic, or categorical.

The first empirical study of OS was conducted by Counts (1925). He used college students, high school teachers, and students to rank 45 occupations. It was the prototype model for future similar research in this field. Deeg and Paterson (1946) repeated this methodology by using graduate, undergraduate, and high school students to again rank 25 out of the original 45 occupations in order of their importance or status. This type of assessment tool has been used repeatedly in this type of research (Thomas, K. & O'Brien, R., 1984). While the above-mentioned OS philosophies and studies vary somewhat in their specific details, they all utilize the same basic procedure. A sample of the population is asked to rate or rank a set of occupational titles (25-100) with respect to their prestige or social standing in comparison to one another. These ratings are then
aggregated into mean scores (or other measures of central tendency) and the scores are treated as indicators of the relative status of the evaluated occupations (Treiman, 1977).

The review of the various occupational scaling systems, although different, presents a one-dimensional, external view of the measurement. They tend to measure the occupation using a ranking or rating regiment based on the perceptions that have been nurtured by societal influences: parents, friends, educational affiliations, economic background, etc. These are basically comparisons of one occupation to another. Subsequently, there is an absence of an instrument to evaluate an incumbent’s perception of occupational status of their specific occupation. Society, for the most part, has generally predetermined where specific occupations fall on the status hierarchy; therefore, an additional measure to test individuals’ feelings on a job’s internal characteristics, as it relates to OS, needs to be a part of the process. The review has shown, in this vast area of research, there is no tool to assess the internal nuances of OS in order to get something more than just a simple ranking of occupations. Such an assessment tool would benefit leaders in occupations that want to reevaluate their position on the tiers of occupational hierarchy. Specific areas of interest could be pinpointed and examined by managers to help inspire processes to minimize or eliminate negative factors.

However, even if various measures of OS captured all facets of this area there is still another segment that needs to be examined. There is evidence that indicates there is a definite relationship between occupation and self-esteem. Everett Hughes assertion that, “a man’s work is one of the things by which he is judged and certainly one of the more significant things by which he judges himself” (1958, p. 42), is established
throughout the literature on work attitudes. This statement substantiates the strong
association between OS and self-esteem (Faunce, 1989). On the basis of this assumption
it has been established that OS does affect one's self-esteem.

Self-Esteem

In the social sciences, self-esteem is a hypothetical construct that is quantified, for
example, as the sum of evaluations across prevalent attributes of one's self or personality.
It is the overall affective evaluation of one's own worth, value, or importance. The
class concept of self-esteem goes by a variety of names (self-worth, self-regard, self-respect,
self-acceptance) all of which are compatible with the dictionary definition of "esteem"
ascribed to the self (Blascovich & Tomaka, 1991).

Earlier, in Chapter 1, I briefly described self-esteem. Below is an expansion of
the description enabling the full appreciation of the OS and self-esteem relationship.
Self-esteem is a self-evaluation reflecting the extent to which individuals believe
themselves to be capable, significant, successful and worthy. It is a personal judgment of
worthiness; it is an attitude of "approval," (or disapproval) that ultimately manifests itself
in the degree to which a person "likes" (or dislikes) him or herself. Self-esteem can be
powerfully affected by the messages received from significant others, the work and life
systems to which an individual is exposed and feelings of efficacy and competence
derived from one's experiences (Gardner, Newstrom, & Pierce, 1999).

Additionally, there is another level of self-esteem; one that appears to have
particular significance for individuals and their work. The self-perceived value that
individuals have of themselves as organizational members working within the
organization is defined as organization-based self-esteem (Gardner, Newstrom, & Pierce, 1999). This concept applies to this research, as this study examines employees’ perceptions of a specific occupation’s status by measuring their feelings toward the job’s internal attributes.

A review of associated literature reveals that social scientists commonly assume that occupational factors are critical in determining adult identity and self-esteem. The authors of Work in America (Department of Health, Education, and Welfare, 1973) summarize this viewpoint when they write “work plays a crucial, and perhaps unparalleled psychological role in the formation of self-esteem, identity, and a sense of order (p. 4). Another study in industrial sociology duplicates this message by stating that a person’s whole self-worth; feelings of self-esteem, and self-approval appear to have become largely embodied in her or his occupation (Harvey, 1975). There have been numerous studies on work and its impact on self-esteem with some very interesting and somewhat contradicting outcomes.

**Traditional Position**

In the spirit of Mead’s (1934) theory of reflective appraisals, it is frequently assumed that workers internalize societal evaluations of their occupations in arriving at self-evaluations and that lowered self-esteem is one of the numerous costs associated with occupations on the bottom end of the hierarchy. Merton (1968) and Rothman (1978) state that harmful effects of low OS on low self-esteem will be more pervasive and long lasting than the presumed negative impact of either race or sexual status. I will observe those and other specific demographic variables to determine if they moderate changes in perceptions.
A cast of researchers throughout the field supports the traditional position. Sennett and Cobb interviewed manual workers in New England who displayed feelings of diminishing self-worth due to the social status of their occupations (1972). The Department of Health, Education, and Welfare, which authored “Work in America”, also conducted research supporting the notion that manual workers think less of themselves than people in higher-status occupations.

**Alternative Positions**

Ashforth and Kreiner argue that the stigma of low OS placed on workers in these fields do not stick as they develop strong occupational or workgroup cultures. This ideology refocuses selective social comparisons and differential weighting of outsiders’ views (Ashforth & Kreiner, 1999). They argue that the stigma placed on low-status occupations seems that it would have a negative affect on workers’ construction of self-esteem. However, members within the lower tier (consciously or subconsciously) collectively secure positive meaning in their occupations by differentiating it with some of its unique characteristics in an effort to negate negative connotations associated with the occupation (Pratt, 1998). These people form groups and take on the persona of “us versus them” (Freud, 1951). There are numerous characteristics that help form these occupational subcultures (e.g., the inherent danger that the soldier or prison guard faces, the superior interpersonal skills and beverage mixing knowledge of a bartender).

Another viewpoint examines the affect working conditions rather than societal impressed status or prestige has on self-esteem. Kohn and his associates concluded that occupational conditions conducive to self-direction, freedom from supervision, nonroutinization of workplace activity, and substantive complexity are important
predictors of self-esteem, independent of OS (Kohn & Schooler, 1973). In addition,
Rossi later found that personal achievement on the job is another important influence on
most workers' self-esteem (Rossi, 1976). It was noted in earlier occupational
achievement research that comparisons could threaten self-esteem in the higher status
occupations, as Lortie pointed out with his research of high school teachers (Lortie,
1975). Conversely, there was a positive relationship between achievement and self-
estime among low status occupations such as prostitution (Jackman, 1963) and garbage
collections (Walsh, 1975). These findings indicate there is some significance to the
theory of personal occupational achievement affecting self-esteem.

Researchers have various ideas regarding self-esteem, with an abundance of
literature to substantiate their claims as it relates to OS. However, one thing is certain,
there is a definite relationship between OS and self-esteem, regardless of the negative or
positive reflection of how high or low their occupational placement on the hierarchy tiers.
Therefore, when choosing an occupation, one is, in effect, choosing a means of
implementing a self-concept (Super, 1951). It is concluded that any research to
determine the true OS of a specific job must incorporate some way to evaluate the impact
it has on employees' self-esteem.

Training

For an individual in a society to effectively evaluate the OS of a specific job, she
or he must learn either the applicable attributes of each job or occupation and the criteria
for socially evaluating them or the social evaluation for each occupation itself. In either
case, the knowledge obtained will vary according to the socialization of the person.
Some factors that may play a role in this transaction could be educational background, exposure to the occupants, or the occupation itself. Subsequently, this study examines the affects of training on the outcome of entry-level employees' perceptions of OS and its impact on self-esteem. Training was used as the method to inform and educate individuals about the occupation as it prepares them for real-world participation in the specific career field. For many newcomers to organizations, training programs are often the main process of their socialization. In fact, formal training programs are increasingly becoming a major part of the socialization process (Feldman, 1989).

Training can be described as the systematic process of attempting to develop knowledge, skills, and attitudes for current or future occupations (Blanchard & Thacker, 1999). Therefore, training is used within organizations to improve current job skills, prepare for career advancement, teach new or changing occupational requirements, and provide entry-level socialization (Tannenbaum, Mathieu, Salas & Cannon-Bowers, 1991). This research will examine training for the purpose of socializing new employees to the world of foodservice.

Organizational socialization has been described as the process by which newcomers come to understand and appreciate the values, abilities, expected behaviors, and social knowledge essential for assuming an organizational role and for participating as an organizational member (Louis, 1980). Socialization tactics of organizations (Van Maanen & Schein, 1979; Jones, 1986) are used to persuade newcomers to accept and adopt the roles, values, and norms of the organization (Wanous, 1992). These tactics play a key role in the conversion of preconceived perceptions and societal impressions of occupations that employees may have given limited realistic information, especially...
when it comes to their personal growth potential. Organizations often attempt to actively influence perceptions and interpretations of newcomers in a variety of ways: orientation, training and mentoring programs, reiteration of company slogans and mission and vision statements, and employee handbooks and job descriptions (Lundberg & Young, 1997).

Kirkpatrick (1976) suggested that when examining the impact of training programs, one should consider trainees’ reactions, learning, and behavior change, along with subsequent organizational results. However, others feel there should be a measurement of attitudes and behavioral changes specifically as they pertain to training programs that provide employees with their first indication of what the occupation or organization is like (Tannenbaum, Mathieu, Salas & Cannon-Bowers, 1991).

Unfortunately, little is known about how entry-level training affects newcomers’ pre-training attitudes, beliefs, and perceptions of their OS (Tannenbaum, 1991). This led to Tannebaum’s examination of training fulfillment as an important variable in the socialization of military trainees. Training fulfillment is the extent to which training meets the needs of the trainee’s expectations and desires. Tannenbaum (1991) found that training fulfillment was positively related to post-training organizational commitment, training motivation, and self-efficacy. This work was essential in establishing the importance of training as it pertains to influencing the development of new attitudes and beliefs (Saks, 1996). This research examines the affect of initial foodservice training on employees’ perceptions of OS and the impact on their self-esteem using a similar framework.
Air Force Food Service Training

The Air Force Initial Food Service Training consists of five blocks of instructional training using a three part introductory system based on the Services career field peacetime and wartime functionality. The first portion of the 31-day training revolves around classroom instruction and eventually graduates to an actual food lab where trainees apply lessons learned in the classroom and performs a number of culinary skills. Finally, trainees are taken to an isolated field (rural location) to learn and apply their wartime foodservice responsibilities. The five blocks of training, consisting of multiple levels of instructions can be viewed in Appendix D.

Research Questions and Hypotheses

The purpose of this study is to examine the affect of training on foodservice employees’ perceptions of OS and self-esteem as they pertain to the foodservice industry. Additionally, I wanted to examine specific demographic variables to see if they would moderate changes in perceptions. This study will provide leaders in the foodservice industry with empirical information about how employees are affected by training and if it changes their existing perceptions, ultimately giving a better view of themselves and the industry. The two research questions described in Chapter 1 were converted into research hypotheses. The interaction effects and main effects were both tested hierarchically:

1. Does USAF Initial Foodservice Training significantly affect participants’ perceptions of occupational status pertaining to foodservice and are the changes significantly moderated by demographic variables?
$H_1$: Changes in participants’ perceptions of OS are significantly moderated by age.

$H_2$: Changes in participants’ perceptions of OS are significantly moderated by gender.

$H_3$: Changes in participants’ perceptions of OS are significantly moderated by ethnicity.

$H_4$: Changes in participants’ perceptions of OS are significantly moderated by education.

$H_5$: Changes in participants’ perceptions of OS are significantly moderated by selection status.

$H_6$: Changes in participants’ perceptions of OS are significantly moderated by income.

$H_7$: Changes in participants’ perceptions of OS are significantly moderated by foodservice experience.

$H_8$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of ability utilization.

$H_9$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of achievement.

$H_{10}$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of advancement.

$H_{11}$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of recognition.
$H_{12}$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of authority.

$H_{13}$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of social status.

2. Does USAF Initial Foodservice Training significantly affect participants’ perceptions of self-esteem pertaining to foodservice and are the changes significantly moderated by demographic variables?

$H_{14}$: Changes in participants’ perceptions of self-esteem are significantly moderated by age.

$H_{15}$: Changes in participants’ perceptions of self-esteem are significantly moderated by gender.

$H_{16}$: Changes in participants’ perceptions of self-esteem are significantly moderated by ethnicity.

$H_{17}$: Changes in participants’ perceptions of self-esteem are significantly moderated by education.

$H_{18}$: Changes in participants’ perceptions of self-esteem are significantly moderated by selection status.

$H_{19}$: Changes in participants’ perceptions of self-esteem are significantly moderated by income.

$H_{20}$: Changes in participants’ perceptions of self-esteem are significantly moderated by foodservice experience.
\( H_{21} \): USAF Initial Foodservice Training has a significant effect on participants’ perceptions of self-esteem pertaining to the foodservice industry.

Summary

Chapter 2 discussed the historical implications and a suggested evolution of the negative connotation of the foodservice career field and how it has affected society’s perception of it within the OS hierarchy. It also examines the various methodologies and philosophies associated with the measurement of OS. There was a noticeable absence of research that measures an employee’s perception of OS based on a specific job and its internal characteristics (social status, achievement, and self-esteem) not in comparison to its ranking to societal impression of various occupations. The review of literature established the relationship between OS and self-esteem, requiring the incorporation of a self-esteem measurement when examining perceptions of OS. Training was discussed as a form of socialization for new members of the organizations. Finally, the hypotheses are developed from the literature reviewed and the questions addressed earlier in Chapter 1.
CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study is to examine the impact of training on foodservice employees’ perceptions of OS and self-esteem as they pertain to the foodservice industry. This study will provide leaders in the foodservice industry with empirical information about how employees are affected by training and if it changes their existing perceptions, ultimately giving a better view of themselves and the industry. This research focused on the United States Air Force and Navy personnel newly graduated from Basic Military Training who have been assigned to the Services career field. The research examined their initial perceptions of the foodservice, then reexamined and compared their perceptions after they had completed Initial Foodservice Training located in San Antonio, Texas.

Research on OS has basically followed the standard philosophy of measuring one occupation to another based on a ranking scale regardless of concept (socioeconomic, categorical, or prestige). Subsequently, evaluating perceptions of internal OS has been an undeveloped link in this area of research. In order to address internal OS, this study looks at the relationship of initial foodservice training on the perceptions of newcomers to the career field moderated by specific demographic variables. By examining how training changes perceptions of OS and self-esteem as they pertain to foodservice may
give managers leverage to enable them to keep quality employees in the foodservice industry.

Evaluation

This section describes the assessment instrument and model used to evaluate the effect initial foodservice training has on new employees' perception of OS and self-esteem. Additionally, this evaluation examined the effect of specific demographic variables (age, gender, ethnicity, education, income history, selection status, and foodservice experience) had on the changes of perception. Researchers using the Minnesota Satisfaction Questionnaire (MSQ) (Vondrasek, 1997; Feinstein, 1999) commonly measured the first three demographic variables (age, gender, and ethnicity). Educational attainment and income history are two very prominent components on which the Socioeconomic Index of Occupations are based (Duncan-Jones, 1972). The existing variables (selection status and foodservice experience) are exploratory and apply to the specific nature of this study. Selection status pinpoints how the participant ends up in the career field while foodservice experience examines the individual’s level of familiarity with foodservice prior to their participation in this study.

Assessment Instrument

In an effort to evaluate the impact of foodservice training on employees’ perceptions of OS and their self-esteem, two validated instruments that assess these areas were identified and combined – Minnesota Satisfaction Questionnaire and Rosenberg’s Self-Esteem Scale.
Minnesota Satisfaction Questionnaire

The Minnesota Satisfaction Questionnaire (MSQ) was developed to be measured and scored on three scales; intrinsic satisfaction, extrinsic satisfaction, and general satisfaction (Weiss, Davis, England, & Lofquist, 1967). Additionally, it measures six very distinct vocational values; achievement, altruism, comfort, safety, status, and autonomy. The MSQ utilizes a Likert-type scale with five response alternatives ranging from “Very Dissatisfied” (weighted 1) to “Very Satisfied” (weighted 5) for each of the 100 items.

Rosenberg’s Self-Esteem Scale

This scale was originally designed to measure adolescents’ global feelings of self-worth or self-acceptance (Robinson, Shaver, & Wrightsman, 1991). Rosenberg designed the Self-Esteem Scale (SES) to optimize ease of administration, economy of time, undimensionality, and face validity. The 10-item scale requires the respondent to report feelings about the self directly. Although originally designed as a Guttman-type scale, the SES is typically scored using a four-point response format ranging from “Strongly Agree” to “Strongly Disagree”, resulting in a scale range of 10-40, with higher scores representing higher self-esteem. Additionally, this scale is by far the most frequently used in studies dealing with self-esteem measurements (Robinson, Shaver, & Wrightsman, 1991).

Development of Internal Occupational Status Questionnaire

This study is intended to measure the impact of training on new employees’ perceptions of foodservice’s OS and self esteem. It was administered at the U.S. Air Force’s Initial Foodservice Training site at Lackland Air Force Base, San Antonio, TX,
using newly appointed entrants of the Services Career Field. These newcomers completed the Internal Occupational Status Questionnaire (IOSQ) before and after training.

Integrating two very distinct and established assessment tools led to IOSQ. I utilized the widely used Minnesota Satisfaction Questionnaire (MSQ) (long form) and Rosenberg's Self-Esteem Scale (SES). First, I received permission from the University of Minnesota, Psychology Department to use portions of the questionnaire pertaining to OS. However, permission was granted with the stipulation that whatever facet of the test was to be utilized, it had to be represented in its entirety. The MSQ long form is a 20-scale compilation of 100 questions measuring job satisfaction. The occupational values used for this study were achievement and status and their characteristics (Table 1). Achievement was selected due to its relationship with the prestige occupational scales and occupational achievement associated with self-esteem. Status is the obvious due to the direct relationship to our topic. Together, they serve as a proxy for internal OS.
Table 1

**Edited Minnesota Satisfaction Questionnaire’s Values for Internal OS**

<table>
<thead>
<tr>
<th>Value</th>
<th>Characteristics</th>
<th>Questions Numbers in IOSQ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Achievement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ability Utilization</td>
<td>1, 2, 12, 24, 30</td>
</tr>
<tr>
<td></td>
<td>• Achievement</td>
<td>5, 6, 8, 18, 26</td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Advancement</td>
<td>3, 10, 11, 13, 15</td>
</tr>
<tr>
<td></td>
<td>• Recognition</td>
<td>16, 17, 20, 22, 29</td>
</tr>
<tr>
<td></td>
<td>• Authority</td>
<td>4, 9, 21, 23, 25</td>
</tr>
<tr>
<td></td>
<td>• Social Status</td>
<td>7, 14, 19, 27, 28</td>
</tr>
</tbody>
</table>

The Likert-style questionnaire evaluates each characteristic with a battery of five questions with five potential answers ranging from “Very Dissatisfied to Very Satisfied”.

All aspects of the vocational values of the MSQ meet the accepted standards for reliability; and show strong evidence of validity (Weiss, Dawis, England, & Lofquist, 1967).

To complete the IOSQ I added the global SES, which consists of 10 questions designed to optimize ease of administration, economy of time, unidimensionality, and face validity, to report feelings about the self directly (Robinson, Shaver, & Wrightsman, 1991). This scale is the most widely used scale in the field and considered the standard with which developers of other measures usually seek convergence (Blascovich &
Tomaka, 1991). Fleming and Courtney (1984) reported an alpha of .88 in their use of the Rosenberg SES. This assessment is also a Likert-style questionnaire with four answers ranging from “Strongly Agree” to “Strongly Disagree”.

The literature review in Chapter 2 establishes the relationship of occupation to self-esteem. It is clearly documented that a person’s whole self-worth, feelings of self-esteem, and self-approval appear to have become largely embodied in his or her occupation (Harvey, 1975). In order to measure the true internal OS of foodservice, this study suggests that both the edited MSQ combined with the Rosenberg’s SES sufficiently fills the gap.

**Research Design**

The design of this study was a repeated-measures, pretest-posttest one-group, quasi-experimental design. It utilized newly assigned members of the Air Force and Navy Services and Foodservice Career Fields (Figure 1). This design requires the pretest and posttest to be compared to evaluate the effect of the USAF Initial Foodservice Training on participants (Babbie, 1992; Cook & Campbell, 1979). The experiment focused on the effect of training on employees’ perceptions of OS and self-esteem. Air Force initial foodservice training was the treatment applied to the trainees. A total of 216 people participated in the quasi-experiment over a four-month period (May-August). Two assistants were used to administer the pretest and posttest, collect and maintain documents, and control for bias and interference.
Figure 1. Experiment Design: One Group Pretest Posttest (Repeated Measures)

Figure 2. shows the graphical depiction of the construct used to determine the impact of training, moderated by demographic variables on OS characteristics interpreted into a total Internal OS score (Figure 2). The study was statistically analyzed using Repeated-Measures Multivariate Analysis of Variance (MANOVA), and Analysis of Variance (ANOVA) models (see Figures 3 & 4). The experimental design variables are nominal and ratio (see Table 2).
Figure 2. Theoretical Construct of Internal OS
### Table 2

**Dependent, Independent, and Moderating Variables and Descriptions**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Value or Category</th>
<th>Question Number</th>
<th>Used As</th>
</tr>
</thead>
<tbody>
<tr>
<td>{IOSQ Scores (Y)}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability Utilization (ABL)</td>
<td>Achievement</td>
<td>1, 2, 12, 24, 30</td>
<td>Ratio</td>
</tr>
<tr>
<td>Achievement (ACH)</td>
<td>Achievement</td>
<td>5, 6, 8, 18, 26</td>
<td>Ratio</td>
</tr>
<tr>
<td>Advancement (ADV)</td>
<td>Status</td>
<td>3, 10, 11, 13, 15</td>
<td>Ratio</td>
</tr>
<tr>
<td>Recognition (REC)</td>
<td>Status</td>
<td>16, 17, 20, 22, 29</td>
<td>Ratio</td>
</tr>
<tr>
<td>Authority (AUT)</td>
<td>Status</td>
<td>4, 9, 21, 23, 25</td>
<td>Ratio</td>
</tr>
<tr>
<td>Social Status (SOC)</td>
<td>Status</td>
<td>7, 14, 19, 27, 28</td>
<td>Ratio</td>
</tr>
<tr>
<td>Self-Esteem (EST)</td>
<td>Self-Esteem</td>
<td>31 – 40</td>
<td>Ratio</td>
</tr>
<tr>
<td>Overall Opinion (OVR, CAR, FND)</td>
<td>Overall Opinion</td>
<td>41 – 43</td>
<td>Ratio</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Definition</th>
<th>Response Range</th>
<th>Used As</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Initial Foodservice</td>
<td>NA</td>
<td>Nominal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Moderating Variables</th>
<th>Definition</th>
<th>Response Range</th>
<th>Used As</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Experience (EXP)</td>
<td>Time in the Field</td>
<td>0; &gt;1yr; 1-3yrs; &lt;3yrs</td>
<td>Nominal</td>
</tr>
<tr>
<td>Economical (INC) History</td>
<td>Gross Income</td>
<td>≥20,000; 20,001-40,000; 40,001-60,000; &lt;60,001</td>
<td>Nominal</td>
</tr>
<tr>
<td>Family (FAM)</td>
<td>Number of Family Members</td>
<td>≤3; 4-6; 7-9; ≥10</td>
<td>Nominal</td>
</tr>
<tr>
<td>Selection Status (SEL)</td>
<td>Volunteer; Non-volunteer</td>
<td>“Same”</td>
<td>Nominal</td>
</tr>
<tr>
<td>Education (EDU)</td>
<td>Education Attainment</td>
<td>GED; HS; Some College; BS/A or Higher</td>
<td>Nominal</td>
</tr>
<tr>
<td>Age (AGE)</td>
<td>Years Old</td>
<td>17-20; 21-24; 25-28; 29+</td>
<td>Nominal</td>
</tr>
<tr>
<td>Gender (GEN)</td>
<td>Male or Female</td>
<td>“Same”</td>
<td>Nominal</td>
</tr>
<tr>
<td>Ethnicity (ETH)</td>
<td>White; Black, Hispanic; Asian; Other</td>
<td>“Same”</td>
<td>Nominal</td>
</tr>
</tbody>
</table>
\[ Y_1 + Y_2 + Y_3 + Y_4 + Y_5 + Y_6 = \mu + \text{Test} + \text{Age} + \text{Gender} + \text{Ethnicity} + \text{Education} + \text{Income} + \text{Family} + \text{Selection} + \text{Experience} + \text{Test} \times \text{Age} + \text{Test} \times \text{Gender} + \text{Test} \times \text{Ethnicity} + \text{Test} \times \text{Education} + \text{Test} \times \text{Income} + \text{Test} \times \text{Family} + \text{Test} \times \text{Experience} \]

Where:

\( Y_1 = \text{Ability Response for } Y \)-th individual

\( Y_2 = \text{Achievement Response for } Y \)-th individual

\( Y_3 = \text{Advancement Response for } Y \)-th individual

\( Y_4 = \text{Recognition Response for } Y \)-th individual

\( Y_5 = \text{Authority Response for } Y \)-th individual

\( Y_6 = \text{Social Status Response for } Y \)-th individual

\( \mu = \text{Overall Mean} \)

\( \text{Test} = \text{Fixed Effect} = 0,1 \) (Pretest, Posttest)

\( \text{Age} = \text{Fixed Effect} = 1,2,3,4 \) (<20, 21 to 24, 25 to 28, ≥29 years)

\( \text{Gender} = \text{Fixed Effect} = 1,2 \) (Male, Female)

\( \text{Ethnicity} = \text{Fixed Effect} = 1,2,3,4 \) (White, Black, Hispanic, Asian, Mixed/Other)

\( \text{Education} = \text{Fixed Effect} = 1,2,3,4 \) (GED, HS, Some College, ≥Bachelors Degree)

\( \text{Income} = \text{Fixed Effect} = 1,2,3,4,5 \) (<20,000, 20,001 to 40,000, 40,001 to 60,000, ≥60,001, Don’t Know)

\( \text{Family} = \text{Fixed Effect} = 1,2,3,4 \) (<3, 4 to 6, 7 to 9, ≥10)

\( \text{Selection} = \text{Fixed Effect} = 1,2,3 \) (Volunteer, Non-volunteer, Other)

\( \text{Experience} = \text{Fixed Effect} = 1,2,3,4 \) (0, <1, ≥1 but <3, ≥3)

\( \epsilon = \text{Error Term} = \text{All three-way and higher interactions} \)

**Figure 3.** Repeated-Measures MANOVA used for Research Question 1.
\[ Y_i = \mu + Test + Age + Gender + Ethnicity + Education + Income + Family + Selection + Experience + Test*Age + Test*Gender + Test*Ethnicity + Test*Education + Test*Income + Test*Family + Test*Experience \]

Where:

\[ Y_i = \text{Self Esteem Response for } i\text{-th individual} \]
\[ \mu = \text{Overall Mean} \]
\[ \text{Test} = \text{Fixed Effect} = 0,1 (\text{Pretest, Posttest}) \]
\[ \text{Age} = \text{Fixed Effect} = 1,2,3,4 (<20, 21 to 24, 25 to 28, \geq 29 \text{ years}) \]
\[ \text{Gender} = \text{Fixed Effect} = 1,2 (\text{Male, Female}) \]
\[ \text{Ethnicity} = \text{Fixed Effect} = 1,2,3,4 (\text{White, Black, Hispanic, Asian, Mixed/Other}) \]
\[ \text{Education} = \text{Fixed Effect} = 1,2,3,4 (\text{GED, HS, Some College, \geq Bachelors Degree}) \]
\[ \text{Income} = \text{Fixed Effect} = 1,2,3,4,5 (<20,000, 20,001 to 40,000, 40,001 to 60,000, \geq 60,001, \text{Don't Know}) \]
\[ \text{Family} = \text{Fixed Effect} = 1,2,3,4 (<3, 4 to 6, 7 to 9, \geq 10) \]
\[ \text{Selection} = \text{Fixed Effect} = 1,2,3 (\text{Volunteer, Non-volunteer, Other}) \]
\[ \text{Experience} = \text{Fixed Effect} = 1,2,3,4 (0, <1, \geq 1 \text{ but } < 3, \geq 3) \]
\[ \varepsilon = \text{Error Term} = \text{All three-way and higher interactions} \]

**Figure 4.** Repeated-Measures ANOVA used for Research Question 2.
CHAPTER 4

ANALYSIS AND INTERPRETATION OF THE DATA

Introduction

This study investigated the effect of training on participants’ overall perception of OS and self-esteem as it pertains to the food service industry. Two research questions were created to address this inquiry and were presented in Chapter III. Participants received professional foodservice training from the combined U.S. Air Force and Navy Technical School as the treatment in a one-group pretest, posttest (repeated measures) experimental design.

Profile of the Participants

New entrants (n = 216) in the U.S. Air Force Services Technical Training School and the U.S. Navy Food Service School in San Antonio, TX volunteered to participate in the study. The study was compiled from 10 separate classes over a period of four months (May-August). Participants were given a questionnaire at the beginning of their professional food service training. After completion of the training, the questionnaire was reapplied. These paired responses were the primary assessment methodology for the study. Out of the 216 participants, 10 did not complete the training due to academic or disciplinary problems, while another 10 participants' were disqualified due to erroneous
responses to the posttest questionnaires. This left a total of 196 legitimate participants or a 91% response rate for this study.

Descriptive statistics were run using Minitab computer software package, release 12.2 (Minitab Inc., 1998) on each of the demographic variables. Fifty-seven percent of the respondents were male and 43 percent were female (Figure 5). This sample characteristic is not reflective of the Air Force population, in which 19 percent of the active duty members are female (Air Force Personnel Center, 2000). The age of the participants fell in one of four categories, 59 percent of the participants were 20 or younger and 27 percent of the participants fell into the 21 to 24 years old age group, while the 25 to 28 years old group was represented by 8 percent and remaining participants were 29 or older (Figure 6).

It was equally important to the researcher to look at ethnicity to determine if it significantly moderated changes in participant's perception of OS and self-esteem through training (Figure 7). The two major categories were Whites at 44 percent and Black at 31 percent with Hispanics making up an additional 13 percent while Mixed/Others and Asians make up the 12 percent of the ethnicity category.
Figure 5. Percent of Participants Who Were Male and Female

Figure 6. Percent of Participants Who Fell Within the Four Age Ranges
Figure 7. Percent of Participants Who Fell in the Various Ranges of Ethnicity
Figure 8. Percent of Participants Who Fell in the Various Levels of Educational Attainment

The Air Force and Navy personnel are historically two of the most educated and technically advanced out of the military services. Therefore, it was essential that I examined the distribution of various levels of participants' educational attainment (Figure 8). The majority of military entrants had at least some college (44 percent), while a small portion of the participants (4 percent) had a Bachelors Degree or higher.

I was equally interested in whether experience level would moderate changes in perceptions (Figure 9).
In summary, the majority of the participants were white males between the ages of 17 and 24 years with some college education and at least one to three years of foodservice experience. The demographics of the participants limit the generalizability of the study to other formal training culinary programs.

Data Analysis

The data was analyzed by using Minitab computer software package release 12.2 (Minitab Inc., 1998). The first question was analyzed using repeated-measures
MANOVA, to observe the affect of training on the six characteristics of OS (ability, achievement, advancement, recognition, authority, and social status) but first I examined the interaction effects to determine if there were differences within the demographic variables. However, initially, the six variables were analyzed for correlation using Pearson’s product-moment correlation coefficient (C). It was determined that all six variables were significantly correlated at the \( \alpha = 0.05 \) significance level as seen in Table 3. Subsequently, I utilized a hierarchical repeated-measures MANOVA.

Table 3

Pearson’s Correlation Matrix for Dependent Variables (Six Characteristics of OS)

<table>
<thead>
<tr>
<th></th>
<th>Ability</th>
<th>Achievement</th>
<th>Advancement</th>
<th>Recognition</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>C = 0.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p &lt; 0.00*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advancement</td>
<td>C = 0.62</td>
<td>C = 0.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognition</td>
<td>C = 0.62</td>
<td>C = 0.71</td>
<td>C = 0.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authority</td>
<td>C = 0.61</td>
<td>C = 0.61</td>
<td>C = 0.62</td>
<td>C = 0.67</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
<td></td>
</tr>
<tr>
<td>Social Status</td>
<td>C = 0.69</td>
<td>C = 0.72</td>
<td>C = 0.63</td>
<td>C = 0.75</td>
<td>C = 0.72</td>
</tr>
<tr>
<td></td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
<td>p &lt; 0.00*</td>
</tr>
</tbody>
</table>

* Correlation (C) is significant at the \( \alpha = 0.05 \) level (2 tailed).
Hypothesis

$H_1$: Changes in participants' perceptions of OS are significantly moderated by age.

$H_2$: Changes in participants' perceptions of OS are significantly moderated by gender.

$H_3$: Changes in participants' perceptions of OS are significantly moderated by ethnicity.

$H_4$: Changes in participants' perceptions of OS are significantly moderated by education.

$H_5$: Changes in participants' perceptions of OS are significantly moderated by selection status.

$H_6$: Changes in participants' perceptions of OS are significantly moderated by income.

$H_7$: Changes in participants' perceptions of OS are significantly moderated by foodservice experience.

Again, I analyzed this data using a hierarchical repeated-measures MANOVA on the interaction effects and then the main effects and test as the independent variables. The MANOVA indicated that the demographic variables did have some significant differences due to the interactions. There were four individual demographic variables that exhibited significant differences amongst their respondent groupings as seen in Table 4, to include age ($F = 1.76, p = 0.02$), ethnicity ($F = 1.87, p = 0.00$), income ($F = 1.59, p = 0.03$), and experience ($F = 1.98, p = 0.01$) at the $\alpha = 0.05$ level of significance. These
findings were (later) further analyzed to determine where the differences occurred. However, the demographic variables did not significantly moderate changes in participants’ perceptions of OS. The results failed to reject the null hypothesis of all demographic variables with scores ranging from ($F = 1.22, p = 0.23$) to ($F = 0.41, p = 0.98$) at the $\alpha = 0.05$ significance level (Table 4).

Additionally, I examined the main effects to determine if the training significantly affected participants’ perception of OS pertaining foodservice.

$H_8$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of ability utilization.

$H_9$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of achievement.

$H_{10}$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of advancement.

$H_{11}$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of recognition.

$H_{12}$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of authority.

$H_{13}$: USAF Initial Foodservice Training has a significant effect on participants’ perceptions of social status.

It was hypothesized that the foodservice training would have an effect on participants’ perceptions of OS. The results of the repeated-measures MANOVA failed to reject the null hypothesis of all six characteristics of OS with scores ranging from ($T =$
1.23, \( p = 0.22 \) to \( (T = 0.48, \ p = 0.98) \) at the \( \alpha = 0.05 \) significance level (Table 4). Therefore, USAF and Navy Initial Foodservice Training had no effect on participants' perception of OS as it pertained to foodservice as witnessed from data provided from the pretest and posttest.

Table 4

Hierarchical Multivariate Analysis of Variance of OS Characteristics by Demographic Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Criterion</th>
<th>Test Statistic</th>
<th>( F )</th>
<th>Df</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>Wilk's</td>
<td>0.98</td>
<td>0.77</td>
<td>(6, 337)</td>
<td>0.59</td>
</tr>
<tr>
<td>Age</td>
<td>Wilk's</td>
<td>0.91</td>
<td>1.76</td>
<td>(18, 953)</td>
<td>0.02</td>
</tr>
<tr>
<td>Gender</td>
<td>Wilk's</td>
<td>0.95</td>
<td>1.20</td>
<td>(12, 674)</td>
<td>0.27</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Wilk's</td>
<td>0.87</td>
<td>1.86</td>
<td>(24, 1176)</td>
<td>0.00</td>
</tr>
<tr>
<td>Education</td>
<td>Wilk's</td>
<td>0.93</td>
<td>1.22</td>
<td>(18, 953)</td>
<td>0.23</td>
</tr>
<tr>
<td>Income</td>
<td>Wilk's</td>
<td>0.89</td>
<td>1.59</td>
<td>(24, 1176)</td>
<td>0.03</td>
</tr>
<tr>
<td>Family</td>
<td>Wilk's</td>
<td>0.93</td>
<td>1.22</td>
<td>(18, 953)</td>
<td>0.23</td>
</tr>
<tr>
<td>Selection</td>
<td>Wilk's</td>
<td>0.96</td>
<td>0.915</td>
<td>(12, 674)</td>
<td>0.53</td>
</tr>
<tr>
<td>Experience</td>
<td>Wilk's</td>
<td>0.90</td>
<td>1.98</td>
<td>(18, 953)</td>
<td>0.00</td>
</tr>
<tr>
<td>Test*Age</td>
<td>Wilk's</td>
<td>0.97</td>
<td>0.41</td>
<td>(18, 953)</td>
<td>0.98</td>
</tr>
<tr>
<td>Test*Gender</td>
<td>Wilk's</td>
<td>0.97</td>
<td>0.84</td>
<td>(12, 674)</td>
<td>0.60</td>
</tr>
<tr>
<td>Test*Ethnicity</td>
<td>Wilk's</td>
<td>0.96</td>
<td>0.48</td>
<td>(24, 1176)</td>
<td>0.98</td>
</tr>
</tbody>
</table>

(Continued on next page)
A one-way ANOVA was used to analyze the variables that showed significant differences and Tukey’s pairwise comparisons to determine which response categories were significantly different. I aggregated scores from the items for each construct in the following results. The one-way ANOVA for participants’ level of satisfaction with the authority given their foodservice experience as it applies to age (Table 5) shows age to be significant ($F = 3.22, p = 0.02$). Tukey’s pairwise comparisons were then utilized. It was found that significant differences exist between the 20 or less and 25 – 28, and 25 – 28 and 29 – 35 age groups at the $\alpha = 0.05$ significance level (Table 6). Table 7 shows the least square means (using aggregate scores from the five point Likert scale) for satisfaction with the level of authority according to age groups and Figure 10 shows the resulting trend of age effect on satisfaction of authority. Younger participants respond reasonably high with satisfaction of their authority. However, the scores drops considerably in the 25 - 28 age group and rise just as dramatically in the 29 – 35 age group.
Table 5

One-way Analysis of Variance for Satisfaction with Authority by Age Group

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>3</td>
<td>109.3</td>
<td>36.3</td>
<td>3.22</td>
<td>0.02</td>
</tr>
<tr>
<td>Error</td>
<td>388</td>
<td>4383.3</td>
<td>11.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>391</td>
<td>4492.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6

Tukey’s Pairwise Comparisons for Satisfaction with Authority by Age

<table>
<thead>
<tr>
<th>Intervals for (column level mean) – (row level mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 – 24</td>
</tr>
<tr>
<td>&lt; 20</td>
</tr>
<tr>
<td>21 – 24</td>
</tr>
<tr>
<td>-0.76</td>
</tr>
<tr>
<td>1.27</td>
</tr>
<tr>
<td>25 – 28</td>
</tr>
<tr>
<td>25 – 28</td>
</tr>
<tr>
<td>*0.14</td>
</tr>
<tr>
<td>3.39</td>
</tr>
<tr>
<td>3.25</td>
</tr>
<tr>
<td>29 – 35</td>
</tr>
<tr>
<td>29 – 35</td>
</tr>
<tr>
<td>-2.59</td>
</tr>
<tr>
<td>1.11</td>
</tr>
<tr>
<td>-2.95</td>
</tr>
<tr>
<td>0.95</td>
</tr>
<tr>
<td>*-4.84</td>
</tr>
</tbody>
</table>

Note. An asterisk indicates those levels that are significantly different from each other at the α = 0.05 significance level.
Table 7

**Least Square Means and Standard Deviations for Satisfaction with Authority by Age Group**

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 20</td>
<td>230</td>
<td>18.55</td>
<td>3.73</td>
</tr>
<tr>
<td>21 – 24</td>
<td>106</td>
<td>18.92</td>
<td>3.97</td>
</tr>
<tr>
<td>25 – 28</td>
<td>32</td>
<td>16.78</td>
<td>3.31</td>
</tr>
<tr>
<td>29 – 35</td>
<td>24</td>
<td>19.29</td>
<td>3.14</td>
</tr>
</tbody>
</table>

**Figure 10.** Level of Satisfaction with Authority by Age Group

Additionally, the one-way ANOVA for level of social status (satisfaction) by age (Table 8) also shows age to be significant ($F = 3.94$, $p = 0.01$). Tukey’s pairwise
comparisons were then utilized. It was found that significant differences exist between the 20 or less and 25 – 28, and 25 – 28 and 29 – 35 age groups at the \( \alpha = 0.05 \) significance level (Table 9). Table 10 shows the least square means (using aggregate scores from the five point Likert scale) for the level of satisfaction with social status according to age groups while Figure 11 shows the trend of age effect on the level of satisfaction with social status. Younger participants respond reasonably high with their level of satisfaction with social status. Again, however the scores drop considerably in the 25 - 28 age group and rise even more dramatically in the 29 – 35 age group.

Table 8

One-way Analysis of Variance for Satisfaction with Social Status by Age Group

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>3</td>
<td>136.4</td>
<td>45.5</td>
<td>3.94</td>
<td>0.01</td>
</tr>
<tr>
<td>Error</td>
<td>388</td>
<td>4475.3</td>
<td>11.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>391</td>
<td>4611.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 9

Tukey's Pairwise Comparisons for Satisfaction with Social Status by Age

Intervals for (column level mean) – (row level mean)

<table>
<thead>
<tr>
<th></th>
<th>&lt; 20</th>
<th>21 – 24</th>
<th>25 – 28</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 – 24</td>
<td>-0.32</td>
<td>1.73</td>
<td></td>
</tr>
<tr>
<td>25 – 28</td>
<td>*0.30</td>
<td>-0.52</td>
<td>3.00</td>
</tr>
<tr>
<td>29 – 35</td>
<td>-2.28</td>
<td>-3.08</td>
<td>*-4.71</td>
</tr>
</tbody>
</table>

Note. An asterisk indicates those levels that are significantly different from each other at the $\alpha = 0.05$ significance level.

Table 10

Least Square Means and Standard Deviations for Satisfaction with Social Status by Age

<table>
<thead>
<tr>
<th>Group</th>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≤ 20</td>
<td>230</td>
<td>19.38</td>
<td>3.35</td>
</tr>
<tr>
<td></td>
<td>21 – 24</td>
<td>106</td>
<td>18.68</td>
<td>3.43</td>
</tr>
<tr>
<td></td>
<td>25 – 28</td>
<td>32</td>
<td>17.44</td>
<td>3.41</td>
</tr>
<tr>
<td></td>
<td>29 – 35</td>
<td>24</td>
<td>19.79</td>
<td>3.68</td>
</tr>
</tbody>
</table>
The one-way ANOVA for the level of satisfaction with social status by ethnicity (Table 11), shows ethnicity to be significant ($F = 2.43, p = 0.04$). Tukey's pairwise comparisons were then utilized. It was found that significant differences exist between the White and Black ethnic groups at the $\alpha = 0.05$ significance level (Table 12). Table 13 shows the least square means for the level of satisfaction with social status according to ethnicity and Figure 12 shows the trend of ethnicity effect on satisfaction with social status. Whites and Asians tend to score lower on their satisfaction level of their perceived social status while Blacks, Hispanics, and mixed/others score slightly higher.
Table 11

One-way Analysis of Variance for Satisfaction with Social Status by Ethnicity

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>4</td>
<td>113.0</td>
<td>28.3</td>
<td>2.43</td>
<td>0.04</td>
</tr>
<tr>
<td>Error</td>
<td>387</td>
<td>4498.6</td>
<td>11.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>391</td>
<td>4611.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12

Tukey’s Pairwise Comparisons for Satisfaction with Social Status by Ethnicity

Intervals for (column level mean) – (row level mean)

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Asian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>*-2.16</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>-2.30</td>
<td>-1.31</td>
<td>0.65</td>
<td>1.77</td>
</tr>
<tr>
<td>Asian</td>
<td>-1.56</td>
<td>-0.55</td>
<td>-0.92</td>
<td>4.12</td>
</tr>
<tr>
<td>Mixed/Other</td>
<td>-2.19</td>
<td>-1.19</td>
<td>-1.65</td>
<td>-3.85</td>
</tr>
<tr>
<td></td>
<td>1.60</td>
<td>2.71</td>
<td>2.71</td>
<td>1.77</td>
</tr>
</tbody>
</table>

Note. An asterisk indicates those levels that are significantly different from each other at the $\alpha = 0.05$ significance level.
Table 13

Least Square Means and Standard Deviations for Satisfaction with Social Status by Ethnicity

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>172</td>
<td>18.63</td>
<td>3.23</td>
</tr>
<tr>
<td>Black</td>
<td>122</td>
<td>19.69</td>
<td>3.59</td>
</tr>
<tr>
<td>Hispanic</td>
<td>52</td>
<td>19.46</td>
<td>3.64</td>
</tr>
<tr>
<td>Asian</td>
<td>18</td>
<td>17.89</td>
<td>3.01</td>
</tr>
<tr>
<td>Mixed/Other</td>
<td>28</td>
<td>18.93</td>
<td>3.42</td>
</tr>
</tbody>
</table>

Figure 12. Level of Satisfaction with Social Status by Ethnicity
The one-way ANOVA for level of satisfaction with recognition by income groups (Table 14) shows income to be significant ($F = 5.53$, $p = 0.00$). Tukey's pairwise comparisons were then utilized. It was found that significant differences exist between "$40K - $60K" and "$60,001" groups at the $\alpha = 0.05$ significance level (Table 15). Table 16 shows the least square means for the satisfaction with the level of recognition according to income levels and Figure 13 shows the trend of income on satisfaction with ability. Participants from the income bracket (over $60,000 gross annually) show significantly less satisfaction with the recognition they receive or perceive they will receive than the rest of the respondents.

Table 14

One-way Analysis of Variance for Satisfaction with Recognition by Income Category

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>4</td>
<td>198.4</td>
<td>49.6</td>
<td>5.53</td>
<td>0.00</td>
</tr>
<tr>
<td>Error</td>
<td>387</td>
<td>5443.1</td>
<td>14.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>391</td>
<td>5641.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 15

Tukey's Pairwise Comparisons for Satisfaction with Recognition by Income Category

Intervals for (column level mean) – (row level mean)

<table>
<thead>
<tr>
<th></th>
<th>&lt;$20,000</th>
<th>$20,001 - 40,000</th>
<th>$40,001 - 60,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$20,000</td>
<td>2.74</td>
<td>0.69</td>
<td></td>
</tr>
<tr>
<td>$20,001 - 40,000</td>
<td>0.32</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>$40,001 - 60,000</td>
<td>-3.19</td>
<td>-1.83</td>
<td>0.32</td>
</tr>
<tr>
<td>≥ $60,001</td>
<td>-1.63</td>
<td>-0.32</td>
<td>*-0.06</td>
</tr>
</tbody>
</table>

Note. An asterisk indicates those levels that are significantly different from each other at the α = 0.05 significance level.

Table 16

Least Square Means and Standard Deviations for Satisfaction with Recognition by Income Category

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$20,000</td>
<td>52</td>
<td>18.48</td>
<td>4.26</td>
</tr>
<tr>
<td>$20,001 - 40,000</td>
<td>112</td>
<td>19.50</td>
<td>3.64</td>
</tr>
<tr>
<td>$40,001 - 60,000</td>
<td>98</td>
<td>19.92</td>
<td>2.96</td>
</tr>
<tr>
<td>≥ $60,001</td>
<td>56</td>
<td>18.43</td>
<td>4.47</td>
</tr>
</tbody>
</table>
The hypotheses derived from the second question were also analyzed in two phases. The first phase examines the interaction effects to determine if changes in self-esteem are moderated by the specific demographic variables.

$H_{14}$: Changes in participants' perceptions of self-esteem are not significantly moderated by age.

$H_{15}$: Changes in participants' perceptions of self-esteem are not significantly moderated by gender.

$H_{16}$: Changes in participants' perceptions of self-esteem are not significantly moderated by ethnicity.

$H_{17}$: Changes in participants' perceptions of self-esteem are not significantly moderated by education.

$H_{18}$: Changes in participants' perceptions of self-esteem are not significantly moderated by selection status.

Figure 13. Level of Satisfaction with Recognition by Income Category
H_{19}: Changes in participants' perceptions of self-esteem are not significantly moderated by income.

H_{20}: Changes in participants' perceptions of self-esteem are not significantly moderated by foodservice experience.

It was hypothesized that the demographic variables would moderate changes in participants' perception of self-esteem. Using hierarchical repeated-measures ANOVA, I examined the interaction effects to determine if there would be any significant differences within the demographic response. The results failed to reject the null hypothesis of all demographic variables with scores ranging from \( F = 1.36, p = 0.25 \) to \( F = 0.05, p = 0.98 \) at the \( \alpha = 0.05 \) significance level (Table 17).

The second phase addresses whether USAF Initial Foodservice Training significantly effects participants' perception of self-esteem pertaining to the foodservice industry. The researcher used a repeated-measures ANOVA statistical model to answer this question. The results of the ANOVA failed to reject the null hypothesis at the \( \alpha = 0.05 \) significance level (Table 17). Therefore, USAF Initial Foodservice Training had no effect on participants' perception of self-esteem as it pertained to foodservice as witnessed from the data provided from the pretest and posttest.

H_{14}: Changes in participants' perceptions of self-esteem are not significantly moderated by age.
Table 17
Hierarchical Analysis of Variance for Self Esteem Scores by Tests

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>Seq SS</th>
<th>Adj SS</th>
<th>Adj MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>1</td>
<td>90.16</td>
<td>31.21</td>
<td>31.21</td>
<td>1.22</td>
<td>0.27</td>
</tr>
<tr>
<td>Age</td>
<td>3</td>
<td>81.11</td>
<td>33.98</td>
<td>11.33</td>
<td>0.44</td>
<td>0.72</td>
</tr>
<tr>
<td>Gender</td>
<td>2</td>
<td>47.47</td>
<td>32.96</td>
<td>16.48</td>
<td>0.64</td>
<td>0.52</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>4</td>
<td>118.71</td>
<td>161.59</td>
<td>40.40</td>
<td>1.58</td>
<td>0.18</td>
</tr>
<tr>
<td>Education</td>
<td>3</td>
<td>163.87</td>
<td>168.05</td>
<td>56.02</td>
<td>2.18</td>
<td>0.09</td>
</tr>
<tr>
<td>Income</td>
<td>4</td>
<td>201.66</td>
<td>181.89</td>
<td>45.47</td>
<td>1.77</td>
<td>0.13</td>
</tr>
<tr>
<td>Family</td>
<td>3</td>
<td>151.75</td>
<td>139.29</td>
<td>46.43</td>
<td>1.81</td>
<td>0.14</td>
</tr>
<tr>
<td>Selection</td>
<td>2</td>
<td>78.43</td>
<td>93.88</td>
<td>46.94</td>
<td>1.83</td>
<td>0.16</td>
</tr>
<tr>
<td>Experience</td>
<td>3</td>
<td>149.39</td>
<td>146.33</td>
<td>48.78</td>
<td>1.90</td>
<td>0.12</td>
</tr>
<tr>
<td>Test*Age</td>
<td>3</td>
<td>35.70</td>
<td>22.49</td>
<td>7.50</td>
<td>0.29</td>
<td>0.83</td>
</tr>
<tr>
<td>Test*Gender</td>
<td>2</td>
<td>9.16</td>
<td>13.30</td>
<td>6.65</td>
<td>0.26</td>
<td>0.77</td>
</tr>
<tr>
<td>Test*Ethnicity</td>
<td>4</td>
<td>27.52</td>
<td>34.36</td>
<td>8.59</td>
<td>0.33</td>
<td>0.85</td>
</tr>
<tr>
<td>Test*Education</td>
<td>3</td>
<td>1.24</td>
<td>4.20</td>
<td>1.40</td>
<td>0.05</td>
<td>0.98</td>
</tr>
<tr>
<td>Test*Income</td>
<td>4</td>
<td>61.28</td>
<td>47.39</td>
<td>11.85</td>
<td>0.46</td>
<td>0.76</td>
</tr>
<tr>
<td>Test*Family</td>
<td>3</td>
<td>37.72</td>
<td>41.99</td>
<td>14.00</td>
<td>0.55</td>
<td>0.65</td>
</tr>
<tr>
<td>Test*Selection</td>
<td>2</td>
<td>68.63</td>
<td>69.89</td>
<td>34.95</td>
<td>1.36</td>
<td>0.25</td>
</tr>
<tr>
<td>Test*Experience</td>
<td>3</td>
<td>31.20</td>
<td>31.20</td>
<td>10.40</td>
<td>0.41</td>
<td>0.74</td>
</tr>
<tr>
<td>ERROR</td>
<td>339</td>
<td>8694.58</td>
<td>8694.58</td>
<td>25.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>388</td>
<td>10049.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Although the primary research questions were answered, I extended the research to examine if training would affect participants' overall opinion of the foodservice industry. Therefore, I included three variables (under the title of overall opinion) focused on participants' opinions and attitudes toward the foodservice industry that might be highly correlated – overall opinion of the foodservice industry (OVR), would consider foodservice career (CAR), and would recommend foodservice career to friends (FND). These three variables were analyzed for correlation using Pearson's product-moment correlation coefficients (C). The variables were significantly correlated at the $\alpha = 0.05$ significance level as seen in Table 18. Subsequently, I analyzed this data using a hierarchical repeated-measures MANOVA to examine the interaction and then the main effects as the independent variables. The MANOVA indicated that the demographic variables did have some significant differences due to the interactions. There were four individual demographic variables that exhibited significant differences amongst their respondent groupings as seen in Table 19 to include age ($F = 1.94, p = 0.04$), selection ($F = 3.25, p = 0.00$), and experience ($F = 2.23, p = 0.01$) at the $\alpha = 0.05$ level of significance. I will use One-way ANOVA's to analyze these differences.

Additionally, this analytical process examines if training significantly affects participants' opinions of foodservice. The results provided no significant differences for the impact of training on participants' overall opinion at the $\alpha = 0.05$ significance level.
### Table 18

Pearson’s Correlation Matrix for Dependent Variables (Overall Opinions)

<table>
<thead>
<tr>
<th></th>
<th>OVR</th>
<th>CAR</th>
</tr>
</thead>
</table>
| CAR | C = 0.59  
     | p < 0.00* | C = 0.69  
     |      | p < 0.00* |
| FND | C = 0.64  
     | p < 0.00* |   |

* Note: Correlation (C) is significant at the α = 0.05 level (2 tailed).

### Table 19

Hierarchical Multivariate Analysis of Variance of Overall Opinion Variables by Demographic Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Criterion</th>
<th>Test Statistic</th>
<th>F</th>
<th>Df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>Wilk’s</td>
<td>0.99</td>
<td>0.89</td>
<td>(3, 336)</td>
<td>0.44</td>
</tr>
<tr>
<td>Age</td>
<td>Wilk’s</td>
<td>0.94</td>
<td>1.94</td>
<td>(9, 817)</td>
<td>0.04</td>
</tr>
<tr>
<td>Gender</td>
<td>Wilk’s</td>
<td>0.97</td>
<td>1.64</td>
<td>(6, 672)</td>
<td>0.13</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Wilk’s</td>
<td>0.94</td>
<td>1.68</td>
<td>(12, 889)</td>
<td>0.06</td>
</tr>
<tr>
<td>Education</td>
<td>Wilk’s</td>
<td>0.95</td>
<td>1.71</td>
<td>(9, 817)</td>
<td>0.08</td>
</tr>
<tr>
<td>Income</td>
<td>Wilk’s</td>
<td>0.95</td>
<td>1.18</td>
<td>(12, 889)</td>
<td>0.28</td>
</tr>
<tr>
<td>Family</td>
<td>Wilk’s</td>
<td>0.96</td>
<td>1.47</td>
<td>(9, 817)</td>
<td>0.15</td>
</tr>
<tr>
<td>Selection</td>
<td>Wilk’s</td>
<td>0.94</td>
<td>3.25</td>
<td>(6, 672)</td>
<td>0.00</td>
</tr>
<tr>
<td>Experience</td>
<td>Wilk’s</td>
<td>0.94</td>
<td>2.23</td>
<td>(9, 817)</td>
<td>0.01</td>
</tr>
</tbody>
</table>

(Continue on next page)
(Table 19 continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Criterion</th>
<th>Test Statistic</th>
<th>F</th>
<th>Df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test*Age</td>
<td>Wilk's</td>
<td>0.97</td>
<td>0.98</td>
<td>(9,  817)</td>
<td>0.44</td>
</tr>
<tr>
<td>Test*Gender</td>
<td>Wilk's</td>
<td>0.98</td>
<td>0.72</td>
<td>(6,  672)</td>
<td>0.63</td>
</tr>
<tr>
<td>Test*Ethnicity</td>
<td>Wilk's</td>
<td>0.96</td>
<td>0.86</td>
<td>(12, 889)</td>
<td>0.58</td>
</tr>
<tr>
<td>Test*Education</td>
<td>Wilk's</td>
<td>0.97</td>
<td>0.83</td>
<td>(9,  817)</td>
<td>0.58</td>
</tr>
<tr>
<td>Test*Income</td>
<td>Wilk's</td>
<td>0.98</td>
<td>0.51</td>
<td>(12, 889)</td>
<td>0.90</td>
</tr>
<tr>
<td>Test*Family</td>
<td>Wilk's</td>
<td>0.98</td>
<td>0.59</td>
<td>(9,  817)</td>
<td>0.79</td>
</tr>
<tr>
<td>Test*Selection</td>
<td>Wilk's</td>
<td>0.97</td>
<td>1.15</td>
<td>(6,  672)</td>
<td>0.33</td>
</tr>
<tr>
<td>Test*Experience</td>
<td>Wilk's</td>
<td>0.97</td>
<td>1.08</td>
<td>(9,  817)</td>
<td>0.37</td>
</tr>
</tbody>
</table>

I used a one-way ANOVA's to analyze the CAR variable that showed significant differences and Tukey's pairwise comparisons to determine which response categories were significant. The one-way ANOVA for the level of agreement with choosing foodservice as a career by selection status (Table 20) shows selection status to be significant (F = 6.35, p = 0.00). Tukey's pairwise comparisons were then utilized. It was found that significant differences exist between the volunteer and non-volunteer groups at the α = 0.05 significance level (Table 21). Table 22 shows the least square means for foodservice as a choice of career according to selection status groups and Figure 14 shows the trend of selection status effect on choosing foodservice as a career. There is a slight decrease in non-volunteer's agreement of foodservice as respectable career choice then the other two groups of respondents.
Table 20

One-way Analysis of Variance for Agreement with Choosing Foodservice as a Career by Selection Status

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection</td>
<td>2</td>
<td>9.02</td>
<td>4.51</td>
<td>6.35</td>
<td>0.00</td>
</tr>
<tr>
<td>Error</td>
<td>386</td>
<td>274.37</td>
<td>0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>388</td>
<td>283.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 21

Tukey’s Pairwise Comparisons for Agreement with Choosing Foodservice as a Career by Selection Status

Intervals for (column level mean) – (row level mean)

<table>
<thead>
<tr>
<th>Career Choice</th>
<th>Overall Opinion</th>
<th>Career Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>* -0.17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>Suggest to Friend</td>
<td>-0.25</td>
<td>* -0.91</td>
</tr>
<tr>
<td></td>
<td>0.23</td>
<td>-0.14</td>
</tr>
</tbody>
</table>

Note: An asterisk indicates those levels that are significantly different from each other at the \( \alpha = 0.05 \) level of significance.
Table 22

Least Square Means and Standard Deviations for Agreement with Choosing Foodservice as a Career by Selection Status

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer</td>
<td>260</td>
<td>3.11</td>
<td>0.83</td>
</tr>
<tr>
<td>Non-Volunteer</td>
<td>36</td>
<td>2.59</td>
<td>1.01</td>
</tr>
<tr>
<td>Other</td>
<td>92</td>
<td>3.12</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Figure 14. Level of Agreement with Choice of Career by Selection Status
The one-way ANOVA for the level of agreement with choosing foodservice as a career by experience level (Table 23) shows experience to be significant ($F = 6.80$, $p = 0.00$). Tukey's pairwise comparisons were then utilized. It was found that significant differences exist between participants in the no experience and less than one year, the no experience and one to three years, and the no experience and more than three years groups at the $\alpha = 0.05$ significance level (Table 24). Table 25 shows the least square means for foodservice as a choice of career according to experience level groups and Figure 15 shows the trend of experience level on choosing foodservice as a career. There tends to be a significant decrease in the agreement level to choose foodservice as a career among the 1 to 3 years experience group and then a significant increase in the more than three years experience group.

Table 23

One-way Analysis of Variance for Agreement with Choosing Foodservice as a Career by Experience Level

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience</td>
<td>3</td>
<td>14.27</td>
<td>4.76</td>
<td>6.80</td>
<td>0.00</td>
</tr>
<tr>
<td>Error</td>
<td>385</td>
<td>269.13</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>388</td>
<td>283.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 24

Tukey’s Pairwise Comparisons for Agreement with Choosing Foodservice as a Career by Experience Level

Intervals for (column level mean) − (row level mean)

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>&lt; 1 yr</th>
<th>1−3 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 yr</td>
<td>*-0.71</td>
<td>-0.11</td>
<td></td>
</tr>
<tr>
<td>1−3 yrs</td>
<td>*-0.69</td>
<td>-0.29</td>
<td>0.29</td>
</tr>
<tr>
<td>&gt; 3 yrs</td>
<td>*-0.82</td>
<td>-0.41</td>
<td>-0.40</td>
</tr>
</tbody>
</table>

Note. An asterisk indicates those levels that are significantly different from each other at the α = 0.05 level of significance.

Table 25

Least Square Means and Standard Deviations for Agreement with Choosing Foodservice as a Career by Experience Level

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>108</td>
<td>2.75</td>
<td>0.97</td>
</tr>
<tr>
<td>&lt; 1 yr</td>
<td>98</td>
<td>3.16</td>
<td>0.82</td>
</tr>
<tr>
<td>1−3 yrs</td>
<td>118</td>
<td>3.16</td>
<td>0.83</td>
</tr>
<tr>
<td>&gt; 3 yrs</td>
<td>68</td>
<td>3.23</td>
<td>0.62</td>
</tr>
</tbody>
</table>
Summary of the Findings

Hypotheses formed from two questions were tested to determine whether USAF and Navy Initial Foodservice Training had an effect on OS and self-esteem as they pertain to foodservice and whether those changes are significantly moderated by demographic variables. Hypotheses derived from question 1 focused on training significantly impacting participants' perceptions of OS and whether those changes were moderated by demographic traits. The results failed to reject the null hypothesis in both instances. The training had no impact on participants' perceptions of OS nor did demographic traits significantly moderate changes as they pertain to the foodservice industry.

However, first I evaluated the interaction effects to determine differences in the demographic variables. Four variables exhibited statistically significant differences within participants' response groups as seen in Table 4, to include age (F = 1.76, p =
Additionally, I observed the interaction of the main effects of OS and test with the demographic traits and the relationship between demographic variables response categories simultaneously. The hierarchical repeated-measures MANOVA failed to reject the null hypotheses, implicating training did not affect OS and the demographic variables did not significantly moderate participants’ changes in perceptions of OS as they pertain to foodservice.

However, the test of interaction effects identified that participants had different attitudes and responses within various demographic variables. Participants’ responses in the age category with the level of satisfaction with authority and social status assumed in their foodservice position were significantly different ($F = 3.22, p = 0.02$), ($F = 3.94, p = 0.01$) respectively. Responses in the ethnicity category with the level of satisfaction with social status assumed in their foodservice position were significantly different ($F = 2.43, p = 0.04$). Additionally, participants’ responses in the income category with the level of satisfaction with perceived how they are recognized for their work contribution ($F = 5.53, p = 0.00$).

Hypotheses formed from question 2 concentrated on determining if training significantly effected participants’ perceptions of self-esteem and if changes were moderated by specific demographic variables. These hypotheses were observed using a repeated-measure ANOVA. The ANOVA failed to reject the null hypotheses, indicating that training did not affect self-esteem and the demographic variables did not
significantly moderate participants' changes in perceptions of self-esteem as it pertains to foodservice.
CHAPTER 5

SUMMARY. CONCLUSIONS. IMPLICATIONS. AND RECOMMENDATIONS

Introduction

The foodservice industry has been plagued with societal based negative connotations that can be traced back throughout its history. These connotations have grown into preconceived perceptions that continue to deter quality employees and managers from potential careers within the industry. Although there has been research in the areas of perceptions in the hospitality industry there is little work addressing the impact of individuals' perceptions of foodservice's OS and their self-esteem associated with the occupation. This study focus on the effect of initial foodservice training on the perceptions of individuals entering the foodservice industry moderated by specific demographic variables. I was specifically interested with Air Force foodservice training and what effect it had on newcomers to the Services career field. The study was conducted on a military installation assessing military personnel. Therefore, the results of the study cannot be generalized to populations outside of the military.

Summary of Key Findings

It was hypothesized that the foodservice training would have an effect on participants' perceptions of OS and self-esteem and changes would be moderated by demographic variables. In examining the analysis of the hypotheses from the first...
question. the hierarchical repeated-measures MANOVA statistical model showed there were significant differences in the interaction effects regarding the demographic variables. However, Air Force and Navy Initial Foodservice Training had no significant effect on participants' changes in perception of OS nor were changes significantly moderated by demographic traits as exhibited in Table 4 from pretest to the posttest.

The statistical model testing interaction effects revealed there were four individual demographic variables that exhibited significant differences among their respondent groupings as seen in Table 4. These demographic traits are age (F = 1.76, p = 0.02), ethnicity (F = 1.87, p = 0.00), income (F = 1.59, p = 0.03), and experience (F = 1.98, p = 0.01). This basically shows that individuals in the various response categories had their own attitudes and opinions, although not changed by training, were significantly different and remained different throughout the experiment.

The one-way ANOVA statistical model was used to show participants' level of satisfaction with the amount of authority they perceived they had within their foodservice employment as it applies to age (Table 5), shows age to be significant (F = 3.22, p = 0.02). Younger participants were moderately satisfied with the level of authority they garnered in comparison to the less satisfied 25-28 age group. However, the oldest age category had a much higher level of satisfaction with authority possessed then the 25 - 28 age group. Keep in mind that the participants are in the entry (trainee) level in the military and therefore are given minimal authority and responsibility. It seems as if the younger groups expect not to have high levels of authority due to age and position. Whereas, the 25 - 28 age group may be less satisfied with not being in a position of more authority. They may have expected to have more authority at work, at this point in their
lives. Surprisingly, the oldest group (29-35) seem to be extremely comfortable with their low level of authority. This could be explained by them coming into the military at such an older age, where they may want some direction or discipline in their life.

Additionally, satisfaction with social status by age (Table 8) also shows age to be significant ($F = 3.94, p = 0.01$). Younger participants respond reasonably high with their level of satisfaction with social status. Again, however, the scores drop considerably in the 25-28 age group and rise even more dramatically in the 29-35 age group. Conceptually, the previous explanations should apply to these outcomes as well.

Participants' satisfaction with social status by ethnicity (Table 11) shows ethnicity to be significant ($F = 2.43, p = 0.04$). It was found that significant differences exist between the White and Black ethnic groups. Whites and Asians tend to score lower on their satisfaction level of their perceived social status while Blacks, Hispanics, and mixed/others score slightly higher. Black and Hispanic participants may come from a background where employment is valued differently. A study job may be held in higher status in their communities or circles of socialization, regardless of the occupation. Additionally, these groups tend to serve in the more labor intensive, and less high profile career markets (Stovall, 1993).

Participants' level of satisfaction with recognition by income (Table 14) shows income to be significant ($F = 5.53, p = 0.00$). The over $60,001 income bracket shows significantly less satisfaction with the recognition they receive or perceive they will receive than the rest of the respondents. It could be suggested that individuals that come from higher income households need more recognition for achievements. They may have
been socialized in an atmosphere conducive to a more elaborate "reward for effort" situation.

Hypotheses from question 2 concentrated on determining if training significantly effected participants' perceptions of self-esteem and if changes were moderated by specific demographic traits. These hypotheses were observed using a repeated-measure ANOVA. The ANOVA failed to reject the null hypotheses (primary and sub), indicating that training did not impact self-esteem and the demographic traits had no significant effect on participants' changes in perceptions of self-esteem as it pertains to foodservice.

Conclusion

As the hospitality industry continues to grow, specifically foodservice, into a leading national economical force, it is imperative that the leaders in this field investigate perceptions of occupational status and find methods that positively change the negative perceptions of one of its most prevalent divisions, foodservice (Aarnio, 1999). Subsequently, Air Force and Navy Foodservice training was used in an attempt to change participants' overall perceptions of OS and self-esteem as they pertain to the foodservice industry. This study found there were no significant differences caused by the training or moderating demographic traits.

Earlier in Chapter 2, I discussed training as the leading industry tool to reduce turnover dramatically as people stay where they can grow. Additionally, it highly probable they will be more productive and loyal (Love, 1998). Participation in training activities is perceived by individuals as a way to increase skill levels, improve job performance and elevate feelings of self-worth (Blanchard & Thacker, 1999). However,
I did not evaluate the effectiveness of training making the individual more cognizant of their abilities to perform occupational tasks, increase productivity or enhance loyalty. It focused on the impact of a military foodservice training, changing how individuals perceived the foodservice occupation and if it could increase feelings of positive self-esteem. This specific type of training failed to change individuals’ perceptions of OS and self-esteem.

Although the training did not significantly affect participants' perceptions, it is extremely important and effective in meeting the objective of the Air Force and Navy. It does a great job of making trainees prepared for their respective positions as foodservice operators in military but does appear not to enhance their opinions or attitudes about the occupation or feeling of self-esteem. The researcher has spent over 14 years in the Services career field and has first hand knowledge of the operational importance of the training for both peacetime and war situations. Trainees receive this training and depart to a real-world functional military installation and are expected to perform at a satisfactory level to fulfill mission requirements. The skills learned from initial foodservice training will be the cornerstone of their career while in this specific career field. Throughout their career members will receive additional or supplementary specialized training in foodservice. But, there still exists the attitude that foodservice is a non-glamorous occupation among many of the incumbents throughout the career field. This may explain why it is extremely hard to keep members in foodservice without them attempting to cross-train into other career fields, opting to leave the military, or maneuvering to get into another discipline within Services career field.
The US Air Force's Initial Foodservice Training does not provide the type of stimuli to induce positive changes in perceptions of OS and self-esteem. Therefore, something, however intangible, is missing from their training formula or approach. The participants are trained in industrial (mass feeding) cooking technique and may not be exposed to other rewarding aspects of the foodservice industry. This could cause a "just get the job done" or "slinging hash" mentality. Without any specialized instruction or attempts at glamorization of the foodservice industry, individuals may become bored with the militarized routine of preparing food for hundreds of personnel per meal period, causing a disinterest or a desire to leave the career field.

Leaders in the industry should use this study to reevaluate the current administration of foodservice training to determine what exactly is being conveyed to trainees. If there is to be an awareness building of personnel in foodservice, it will have to start with the indoctrination process through training. Initial training is the optimal opportunity to formulate and deliver occupational enhancing tactics and dialogue. An example of some occupational awareness programs was witnessed at Nellis AFB, NV. I conducted an interview with key military managers in the Services squadron and found that the foodservice management team coordinates a cross-flow training program, "Partners in Training" with the Rio Hotel Casino's foodservice managers. The program entails a military foodservice technician, training with certified chefs for eight weeks. This training did a remarkable job of enhancing the trainees' perspectives of the foodservice industry and the possible opportunities that were available to them. Not only did it increase their competency as foodservice workers, it also increased their positive attitude towards the occupation as witnessed by various military managers. This is just
one example of ways to develop strategies to meet dual objectives; fulfill mission requirements, and increase OS and positive self-esteem through training. Although there are probably many other creative ways to accomplish this goal, leaders need to invest in this aspect of trainee development and begin creating strategies to create a win-win situation for those involved.

Again, training had no significant impact on participants’ perceptions of OS and self-esteem as they pertained to foodservice. However, my contribution to the field is the combining of two existing assessment tools to establish a system (IOSQ) to measure internal OS and self-esteem simultaneously. This instrument is not a one-dimensional device. It literally could be used in conjunction with any research on evaluating an individual’s attitudes or opinions of their specific career’s OS and self-esteem. Other modes of treatment may even be substituted for training.

Implications of the Study

This study was undertaken because the investigator’s belief that training could positively change individuals’ perceptions of OS and self-esteem as they pertain to the foodservice industry. I also believed that demographic traits would significantly modify those changes, and this knowledge could assist leaders in the industry on processes to help attain and retain quality employees and managers.

This study provided results indicating that the current Air Force training methods used to produce foodservice employees do not increase the personnel’s feelings of OS and self-esteem. Although the training does fully meet the military’s objective to get trained personnel out to the field it will not spark any level of personal attraction for the
member to stay in the career field. Subsequently, this study should be used as a springboard to generate ideas for ways to make the training more conducive to promoting an atmosphere of career awareness and growth outside of just industrial and mass field feeding.

**Recommendations for Future Research**

1. This study should be replicated at bases that have formal commercial training programs, including specialized cooking, ice carvings, certified chef instruction, etc.

2. This study should be replicated in the commercial and other institutional sectors to determine differences in response.

3. A study could be conducted to include a control group that receives no training.

4. A study should be conducted to look at military foodservice managers to determine their perception of OS and self-esteem.

5. A study should be conducted using qualitative analysis, such as a participative observer throughout the duration of the training process.
REFERENCES


Industrial Relations Center (2000). *IRC History.* Carlson School of Management. Minneapolis, MN: University of Minnesota Industrial Relations Center.


APPENDIX A

LETTER OF APPROVAL FOR USE OF HUMAN SUBJECTS FOR SURVEY RESEARCH

UNLV

DATE: May 4, 2001

TO: Keithen Washington
Hotel Administration
M/S 6040

FROM: Dr. Fred Preston, Chair
UNLV Social/Behavioral Sciences Institutional Review Board

RE: Status of Human Subject Protocol Entitled:
"An Investigation of Employees' Perception of Occupational Status and Self-Esteem as it Relates to the Foodservice Industry"

OPRS# 600s0501-029

This memorandum is official notification that the protocol for the project referenced above has been reviewed by the Office for the Protection of Research Subjects and has been determined as having met the criteria for exemption from full review by the UNLV Social/Behavioral Sciences Institutional Review Board. In compliance with this determination of exemption from full review, this protocol is approved for a period of one year from the date of this notification and work on the project may proceed.

Should the use of human subjects described in this protocol continue beyond a year from the date of this notification, it will be necessary to request an extension.

If you have any questions or require assistance, please contact the Office for the Protection of Research Subjects at 895-2794.

cc: OPRS File
APPENDIX B

PARTICIPANT INFORMED CONSENT FORM

University of Nevada, Las Vegas
William F. Harrah College of Hotel Administration

Dear Military Member,

As competition within the career market and growth in the hospitality industry continues, it is imperative for Air Force leaders/managers to become aware of employees' perceptions of self image and self esteem as it pertains to OS. Unfortunately, the negative connotation associated with the foodservice portion of this growing industry has had a lasting impact. This stigma has been one of the contributing factors for problems with recruitment and retention that plagues foodservice. Subsequently, this study may provide critical research-based information: enabling leaders/managers to better understand concerns of military members working in food service.

Please participate in the foodservice focus group dealing with some of the issues that continue to stigmatize the career field. It will be administered before you begin your initial foodservice and training and reapplied upon completion of training and will last for approximately ten minutes per survey. The information gathered from all participants is strictly confidential! All data collected will be maintained by the faculty advisor (Andrew Feinstein, Ph.D.) in a locked file cabinet in his office (BEH 550) for a period of three years. The principal investigator and Dr. Andrew Feinstein can be reached at (702) 895-1795.

Participation in this study is completely voluntary and may be discontinued at any time, without penalty. If you have any questions specifically regarding the rights of the research subjects, please contact UNLV Office for Protection of Research Subjects at (702) 895-2794.

Thank you for your participation.
Sincerely,

KEITHEN A. WASHINGTON
Graduate Student, UNLV

I agree to participate in the research project described above.

______________________________  _______________________
Signature Date

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APPENDIX C

Internal OS Questionnaire

Initial of Last Name followed by the Last Four digits of SSN ____________________

The purpose of this questionnaire is to give you a chance to tell how you feel about your present job in the Services Career field, what things you are satisfied with and what things you are not satisfied with. On the basis of your answers and those of people like you, we hope to get a better understanding of the things people like and dislike about their jobs. Decide how satisfied you feel about the aspect of your job described by the statement, by using the scale below.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Dissatisfied</td>
<td>Dissatisfied</td>
<td>Neutral</td>
<td>Satisfied</td>
<td>Very Satisfied</td>
<td></td>
</tr>
</tbody>
</table>

1. The chance to do the kind of work I do best
2. The chance to make use of my best abilities
3. The chances for advancement on this job.
4. The chance to tell other workers how to do things.
5. Being able to see the results of the work I do.
6. Being able to take pride in a job well done.
7. The chance to "rub elbows" with important people.
8. The feeling of accomplishment I get from the job.
9. The chance to tell others what to do.
10. The opportunities for advancement on this job.
11. The chances of getting ahead on this job.
12. The chance to do something that makes use of my abilities.
13. The way promotions are given out on this job.
14. The chance to be important in the eyes of others.
15. My chances for advancement:
16. The way I am noticed when I do a good job.
17. The way I get full credit for the work I do.
18. Being able to do something worthwhile.
19. The chance to have a definite place in the community.
20. The recognition I get for the work I do.
21. The chance to tell people what to do.
22. The praise I get for doing a good job.
Listed below are a series of statements that represent possible feelings you may have about yourself. Please indicate the degree of your agreement or disagreement with each statement by checking one of the four alternatives next to the statement.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

31. I feel that I am a person of worth, at least on an equal basis with others.  
32. I feel that I have a number of good qualities.  
33. All in all, I am inclined to think that I am a failure.  
34. I am able to do things as well as most other people.  
35. I feel I do not have much to be proud of.  
36. I take a positive attitude toward myself.  
37. On the whole, I am satisfied with myself.  
38. I wish I could have more respect for myself.  
39. I certainly feel useless at times.  
40. At times I think I am no good at all.  
41. Overall the foodservice industry is a respectable career choice.  
42. I would consider a career in the foodservice industry.  
43. I would recommend foodservice as a career choice to my friends.  
44. What is your age?  
   ① 20 or younger  ② 21 to 24  ③ 25 to 28  ④ 29 to 35  
45. What is your gender?  
   ① Male  ② Female  
46. What is your Ethnicity?  
   ① White  ② Black  ③ Hispanic  ④ Asian  ⑤ Mixed/Other
47. What is the highest level of education you have completed?
   ① GED    ② High School    ③ Some College    ④ Bachelors Degree or Higher

48. What was the gross annual household income of the house you grew up in?
   ① Under 20,000    ② 20,001 to 40,000    ③ 40,001 to 60,000    ④ Over 60,001    ⑤ Don’t Know

49. How many people (including yourself) were in your family in the house you grew up in?
   ① Under 3    ② 4 to 6    ③ 7 to 9    ④ Over 10

50. How did you get selected in the foodservice career field?
   ① Volunteer    ② Non-Volunteer    ③ Other

51. How much foodservice experience do you have?
   ① None    ② Less than 1 yr    ③ 1 to 3 yrs    ④ More than 3 yrs
# APPENDIX D

## Air Force Services Blocks of Instruction

### Block I

<table>
<thead>
<tr>
<th>Subject</th>
<th>Plan of Instruction</th>
</tr>
</thead>
</table>
| Orientation                            | a. Chain of Command and building layout  
b. Course content, issues with fraud, waste, and abuse  
c. Sexual harassment, hazing, and cheating policies  
d. College accreditation              |
| Quality Air Force Awareness            | a. Analyze problems and identify solutions                                              |
| Services Career Field                  | a. Services mission  
b. Services vision  
c. Services organization chart and career progression  
d. Duties and management of activities and programs                                    |
| Core Competencies                      | a. Lodging operations  
b. Sports and fitness programs  
c. Prime Vendor program                                                              |
| Operation Management                   | a. Identify sources of funding and income  
b. Identify conflicts of interest                                                     |
| Protection of Assets                   | a. Identify change fund procedures  
b. Identify cashier procedures  
c. Identify cash register functions  
d. Identify facts about asset accountability                                            |
| AF Foodservice Operations              | a. Department of Defense food service program  
b. USAF worldwide menu  
c. Principles of foodservice documentation  
d. Types of authorized flight meals  
e. Types of authorized ground meal                                                      |

(Continued on next page)
(Table 1 continued)

| Storeroom Operations | a. Perishable/semi-perishable storage procedures  
b. Purpose of foodservice automation  
c. Procedures for ordering, inventory, transfers, and inspection |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AFOSH</td>
<td>a. Identify AF Occupational Safety and Health Standards</td>
</tr>
<tr>
<td>Block II</td>
<td>Plan of Instruction</td>
</tr>
</tbody>
</table>
| Subject              | Safety  
|                      | a. Hazards in foodservice operations  
b. Correcting and reporting safety hazards  
c. Fire prevention measures and procedures  
d. Safe lifting procedures  
e. Safe operation of foodservice equipment |
|                      | Sanitation and Personal Hygiene  
|                      | a. Maintaining personal hygiene  
b. Facts about communicable diseases  
c. Disease control measures  
d. Safe use of cleaning agents  
e. Sanitizing equipment and facilities  
f. Prevention of insect and rodent infestation  
g. Machine and manual dishwashing |
|                      | Nutrition  
|                      | a. Principles of proper nutrition  
b. Principles about the conservation of nutrients |
|                      | Armed Forces Recipe Service  
|                      | a. Use of recipe cards  
b. Converting recipes (portions and serving sizes) |
|                      | Fundamentals of Food Preparation  
|                      | a. Cooking and baking terms  
b. Functions of ingredients used in pastry production  
c. Functions of seasoning agents  
d. Principles of dry and moist heat cooking  
e. Thawing procedures |

(Continued on next page)
(Table 1 continued)

**Block III**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Plan of Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Preparation and Serving</td>
<td>a. Foodservice Practicum (128 hours in the lab)</td>
</tr>
<tr>
<td>Line Techniques</td>
<td></td>
</tr>
</tbody>
</table>

**Block IV**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Plan of Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bake Fundamentals</td>
<td>a. Prepare yeast dough products</td>
</tr>
<tr>
<td></td>
<td>b. Prepare quick breads</td>
</tr>
<tr>
<td></td>
<td>c. Prepare cookies</td>
</tr>
<tr>
<td></td>
<td>d. Prepare pastries and desserts</td>
</tr>
</tbody>
</table>

**Block V**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Plan of Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Objectives and Team Concepts</td>
<td>a. Services Readiness Program</td>
</tr>
<tr>
<td></td>
<td>b. Identify team concepts</td>
</tr>
<tr>
<td>Forced Beddown</td>
<td>a. Field feeding systems</td>
</tr>
<tr>
<td></td>
<td>b. Wartime feeding concepts</td>
</tr>
<tr>
<td></td>
<td>c. Wartime lodging and locator service</td>
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<td></td>
<td>d. Field laundry concepts</td>
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<tr>
<td></td>
<td>e. Mortuary support concepts</td>
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<tr>
<td></td>
<td>f. Field sports and fitness concepts</td>
</tr>
<tr>
<td></td>
<td>g. Field exchange and retail operation concepts</td>
</tr>
<tr>
<td></td>
<td>h. Field recreation lounges</td>
</tr>
<tr>
<td>Deployment Practicum</td>
<td>a. Wartime field practicum (23 hours in the field)</td>
</tr>
</tbody>
</table>
VITA

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Committee Member, Dr. Sheymus Bagolu, Ph.D.
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