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AN EXPLORATION OF RACIAL DIFFERENCES ON JOB ATTRIBUTES AND A CAUSAL MODEL OF FAIRNESS IN THE WORKPLACE

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Jeffrey Dean Houston

May, 1994

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DEDICATION

This dissertation is dedicated to my wife

Lisa Ann Houston

whose support, patience, and encouragement made this project possible.

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ABSTRACT

This research attempted to examine racial differences in organizational settings. A two strategy approach was utilized. First, multivariate analysis of covariance was used to identify racial differences in four different aspects of the work experience (i.e., work beliefs, job satisfaction, perceptions of fairness, and employee outcomes). Significant, albeit small, mean differences were identified in each of the four areas. The largest effect size was observed in the category of fairness perceptions where race accounted for over 5% of the variance. The second strategy required the development of a model of fairness that incorporated perceptions of justice, fairness, cultural tolerance, organizational and work satisfaction, organizational identification, perceptions of downsizing, and intention to leave the organization. The model was tested with structural equation modeling, and the fit was promising. Multi-sample analysis was utilized to test for racial differences in the model. The practical measures of fit indicated that race did not moderate the relationships in the model.

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CHAPTER ONE

INTRODUCTION

Status of Minority Employees in the Work Place

It has been thirty years since the passage of the Civil Rights Act of 1964, and it now seems appropriate to re-examine racial issues and their effects in organizational settings. Organizations are increasingly becoming multi-racial. This trend is a result of civil rights legislation as well as demographic changes in our society. With respect to the first issue, the federal government initiated a series of legislative actions in the 1960s and 1970s designed to alleviate the effects of discrimination against minorities (Ledvinka, 1982). These actions were a response to social pressures forcing society to examine the discriminatory treatment of minorities in and out of the work place. Legislation, judicial rulings, and Executive Orders required organizations to restructure their hiring and management practices. Consequently, minorities have become a more integral part of the work force.

Although significant gains have been made, governmental intervention has not completely eliminated racial inequities in the work place. Fields and Freeman (1972) point out that African Americans tend to enter the job market at lower initial salaries than Whites, earn promotions at a slower rate, and plateau much earlier in their careers. Many experts attribute the causes of this inequity to factors outside the control of the employee (Bramwell, 1973). For example, Taylor (1972) suggests that the organizational climate and structure often impose unnecessary injustices on the minority employee disallowing the individual an equal opportunity to advance. As a result, many

African Americans have experienced psychological stress, strain, and frustration. Kanter (1988) argues that the relative position of minority employees in the organization may be a contributing cause of the inequity. She indicates that African Americans are less likely to be employed in positions of high visibility. Consequently, African Americans may have a greater difficulty building alliances and developing same-race mentors and role models. Finally, racial inequity in organizations may be attributed to actual incidents of discrimination. Biases and stereotypes may work against specific cultural groups resulting in lower performance evaluations, fewer training opportunities, and less advantageous job assignments.

Some researchers believe that racial discrimination in organizations is overstated. Banfield (1970), for example, states that minority employees have made significant gains in recent years. He suggests that incidents of discrimination are perception based and not reality based. While the accuracy of this view is debatable, employee perceptions of discrimination should not be discounted. Employee perceptions will undoubtedly affect employee motivation and attitudes. This argument will be expanded upon in Chapter Two.

Demographic Trends

Although minority employees cannot yet claim parity in the work force, demographic trends may accelerate the process initiated by the government. More than one half of the current U.S. work force is composed of minorities, immigrants, and women, and within the next ten years, white males will make up only 15% of the new entrants to the labor market (Thomas, 1990b). Hodgkinson (1985) points out that racial minorities will make up over one third of the United States population by the year 2000.

Estimates such as these are based upon detailed demographic projections and analyses. One study, *Workforce 2000: Work and Workers for the Twenty-first Century* (Johnston & Packer, 1987), describes trends that will shape demographic changes during the last years of the twentieth century and proposes policy issues that should be addressed to effectively deal with these changes. In particular, Johnston and Packer state that the American work force will be influenced by five demographic "facts".

1. The population and the work force will grow at a slower rate than any time since the 1930s.

2. The average age of the work force will consistently rise resulting in a decrease in the availability of entry level workers.

3. Women will enter the work force at a faster pace than men.

4. Minorities will constitute a growing share of the work force.

5. Immigrants will enter the work force at an increasing rate.

Johnston and Packer are not alone in their assessment of the composition and growth of the labor market (Bacas, 1988; Goddard, 1989; LeGrande, 1989; Riche, 1988). LeGrande suggests that the slowdown of the growth of the labor force is a result of the large baby boom generation being followed by a small "baby-bust" generation.

The demographic "facts" described by Johnston and Packer (1987) will have a profound effect on organizations of the future. The reduced population growth and the aging of society will result in a critical situation for organizations as they attempt to attract and recruit employees in a competitive labor force. Organizations will be hit especially hard trying to fill entry level positions. Since nontraditional workers (i.e., minorities, women, and immigrants) will play a much greater role in the work force,

organizations will need to be able to attract and retain members of diverse demographic groups.

As the demographic composition of the work force changes, organizations will be faced with the responsibility of managing and motivating an increasingly diverse work force. Johnston and Packer (1987) suggest that the integration of the organization is one of the six greatest challenges that managers will be facing over the next ten to twenty years. They state that employment practices and policies will have to be modified in order to take full advantage of the pool of minority workers. Organizational leaders will be required to conduct a thorough organizational assessment in order to determine the types of actions that will be necessary. As part of this assessment, the role of minorities in the organization should be explored. A number of questions should be asked:

- Do minority and non-minority employees share similar work values and beliefs?
- Are minority and non-minority employees satisfied with the same facets of the job?
- Do minority and non-minority employees perceive the organization in the same manner?
- Are the work oriented attitudes (e.g., turnover intentions, organizational commitment, prosocial behaviors) of minority and non-minority employees similar?
- Does a single model of fairness in the work place apply equally well to different racial groups?

The Challenge Ahead

While management and leadership theories have tended to neglect cultural diversity as a critical concern, a number of practitioners have strongly advocated new management structures and human resource systems in order to capitalize on the

diversity of the new work force. Thomas (1990b) states that diversity is an asset that can give U.S. organizations a competitive edge in the global economy if properly managed. Jamieson and O'Mara (1991) call this competitive edge the diversity advantage. They state "By valuing diversity, we can gain potential and creativity from the synergy of the workforce, recapturing commitment and unleashing pent-up talent. In short, we can turn the tide of employee dissatisfaction and put the work ethic back to work." (p. 7) In addition to diversity advocates, organizational leaders are becoming much more aware of issues of diversity. Jackson (1992) cites one study of 645 firms that indicated that 74% of the respondents were concerned about the increased diversity within their organizations. Jackson presents a number of case studies of organizations that have implemented or developed diversity programs.

While the efforts of these practitioners is lauded, programs and initiatives should be based upon theory and an accurate appraisal of diversity in the work force. Assumptions about how minorities view and respond to the work environment may be misleading or inaccurate. Furthermore, previous research that has examined work force diversity may be inadequate. A clear understanding of racial differences in organizational settings is lacking. This paper recognizes four contributing causes for this lack of understanding:

1. scarcity of empirical research
2. outdated nature of the research
3. contradictory findings
4. over representation of African Americans as the minority group

With respect to the first issue, Graham (1992) conducted a content analysis of major psychological journals between 1970 and 1989 and concluded that only 3.4% of the articles focused on African Americans while 15% of the articles focused on gender. Furthermore, the research that has examined race in organizational settings tends to be outdated. Graham's content analysis indicated that most of the research was conducted in the early 1970s. Complicating matters is the fact that much of the diversity research conducted in the 1970s has resulted in contradictory findings. For example, data from national polls indicate that African Americans are generally less satisfied with their jobs than Whites (Ash, 1972; O'Reilly & Roberts, 1973; Weaver, 1974). Conversely, a number of studies have found the exact opposite (Gavin & Ewen, 1974; Katzell, Ewen, & Korman, 1970; Milutinovich, 1977). One explanation for the contradictory results is the differential manner for dealing with confounding factors (e.g., gender, socioeconomic status, etc.). Furthermore, the political, social, and economic climate influencing work attitudes have changed dramatically since that time. Greenberger and Marini (1972) suggest that racial differences in job attitudes may be influenced by different perceptions of job alternatives, opportunities for advancement and growth, and expectations for success in the job. As minority employees capitalize on the strides made in the late 1960s and early 1970s, work experiences and expectations for success may be very different. Thus, it is expected that work attitudes and organizational perceptions will have also changed. Finally, most of the research exploring racial differences have focused on African American employees. Hispanics and Asian Americans have been left out of many organizational studies. It is unwise to treat all minority groups as a single group. It is important, therefore, to identify how different racial groups perceive and respond to the work environment.

Purpose of the Dissertation

The purpose of this dissertation is to renew the research thrust exploring racial differences in the work place by examining the extent to which racial differences exist in the Department of the Navy. While the generalizability of the findings should not be expanded outside the federal government (and particularly the Department of Defense), it is hoped that the results will spur additional research efforts in this area. There are two separate sets of questions that will be explored in this study. First, this paper seeks to determine whether there are mean differences across race in different aspects of the work experience. Second, the paper seeks to develop a model of fairness in the work place and determine whether the same model holds for different racial groups.

Consistent with previous research efforts, this paper seeks to identify the extent to which individuals from diverse cultural groups share the same values, perceptions of the organization, and have similar job attitudes. Specifically, four different categories of the work experience have been identified: work beliefs, facets of job satisfaction, perceptions of organizational fairness and cultural tolerance, and employee outcomes. The first category seeks to explore the extent that individuals from different cultural groups share similar work belief systems (i.e., Protestant work ethic, participative decision making and team orientation). Understanding the work beliefs of the organization's employee base will assist organizational leaders in developing effective management practices and motivational policies. While different racial groups may possess the same beliefs, it is unwise to take this assumption for granted. Similarly, facets of job satisfaction should be taken into account. An individual may be generally satisfied with his or her job, but he or she may be dissatisfied with specific facets. As a result, it is important to identify whether different racial groups experience the same

degree of satisfaction with specific facets of the job. Of particular importance to this research endeavor are perceptions of fairness in the organization. Alderfer, Alderfer, Tucker and Tucker (1980) suggest that different racial groups may not view these issues the same way. Therefore, it is important to examine fairness and issues related to it (i.e., trust, cultural tolerance, and the quality of developmental relationships). Finally, employee outcomes (i.e., turnover intentions, organizational commitment, and altruism behaviors) are important determinants of organizational effectiveness and should be incorporated into a study of this type. Excessive employee turnover may be dysfunctional for an organization by increasing organizational costs (e.g., selecting replacements, training, etc.). Organizational commitment is important because of its relationship to turnover (Porters, Steers, Mowday, & Boulian, 1974), absenteeism (Koch & Steers, 1978), and performance (Van Maanen, 1975). Finally, altruism (an aspect of organizational citizenship) has been described as being necessary for organizational functioning by providing a social lubricant which serves to improve efficiency (Smith, Organ, & Near, 1983).

While it is important to identify where racial groups may differ in each of the identified areas, it is of even greater importance to examine the relationships between the variables. Therefore, the primary focus of this paper is the development and testing of a model of fairness in the work place. The model is designed to explore the relationships between many of the identified variables. In addition, the study seeks to determine whether the model developed in this study holds for different racial groups (i.e., whether the relationships between the variables are the same for each race).

Contributions of the Research

The research should contribute to the field in both an applied and an empirical manner. Empirically, the research should extend the existing understanding of racial differences in organizational settings. This study will be comprehensive in that a large sample will be utilized, four major racial groups will be included (i.e., Whites, Hispanics, African Americans, and Asians/Pacific Islanders), and extraneous influences will be controlled for. Furthermore, the study will help to bridge the gap between the research conducted nearly twenty years ago and the present. Finally, the model of fairness should be valuable to researchers desiring to better understand the causes and consequences of perceived fairness in the work place.

This research should also prove valuable to applied practitioners. As a result of the demographic changes expected in the future, organizations may need to be much more sensitive to minority issues. Organizations that are proactive in this area will be better equipped to attract and retain the diverse elements of the work force. Organizational leaders will need to understand the complicated issues involved. A model of fairness in the work place should prove beneficial in this area.

Limitations

It is important to recognize several limitations with respect to this research. As noted earlier, this research proposes the use of behavioral intentions instead of using actual turnover data. Despite the fact that behavioral intentions are a good predictor of turnover intentions, the correlation is not perfect. However, the use of objective turnover data in a study of this type is problematic. For example, it is often very difficult

to distinguish between voluntary and involuntary turnover. An employee may be given an option to voluntarily leave an organization instead of being terminated. While the actual reason for withdrawal is involuntary, the personnel records may indicate a voluntary choice. Furthermore, there may be numerous considerations which impact an employee's decision to leave the organization, not the least of which would be ability to find a similar job. Finally, the characteristics of this research effort dictate the anonymous collection of data from respondents. This anonymous nature was deemed important in order to gather accurate and candid responses from subjects who may perceive many items as being sensitive in nature. Collecting objective data on individuals is incompatible with this research feature.

A second limitation is the current downsizing effort within the federal government and, in particular, the Department of Defense. Since the data is coming from the civilian work force within the Department of the Navy, the perceptions of downsizing may influence attitudes towards the job and turnover intentions. It is believed, however, that this type of bias would affect minority and non-minority workers in a similar manner. Therefore, overall results should not be contaminated. Furthermore, downsizing perceptions are being measured in this study and will be incorporated into the fairness model.

A third limitation is the fact that the data will be collected from a single source utilizing a single method. It is possible that spurious relationships may occur with the use of a single method (Campbell and Fiske, 1959). The research questions of interest in this endeavor, however, deal with perceptions of the work place and job attitudes. Self-report data is the only method of gathering this type of information. Furthermore, the confidential and anonymous nature of this research required all data to come from a single source. For example, turnover intentions were gathered in lieu of objective

turnover data. Incorporating objective data would have required the respondents to be identified. Given the sensitive nature of some of the questions (e.g., satisfaction with supervisor), an anonymous approach was deemed more appropriate.

Finally, all subjects participating in this study are employed within the Department of the Navy. As a result, one must be careful when generalizing the results to different populations. This issue is especially important given the downsizing effort within the Department of Defense discussed earlier. It is hoped, therefore, that future studies will conducted in order to expand these findings to different settings (e.g., private sector).

CHAPTER TWO

LITERATURE REVIEW

As stated in the introduction, the field of industrial and organizational psychology has limited understanding of racial differences in the work place. Leadership theories and management philosophies have traditionally assumed that racial groups perceive and respond to the work environment in a similar manner. Conversely, many diversity advocates assume that racial differences in organizations are widespread. To the extent that either of these assumptions are inaccurate, organizations may not be fully utilizing their human resources. This issue will become much more critical as the demographic composition of the society changes and organizations compete for scarce human resources.

This chapter will explore the current status of the literature with respect to racial differences in organizations. In the initial section, the race question will be explored (i.e., what race is and why racial differences should be expected). In the second section, research which has examined racial differences in the work place will be reviewed. Finally, an *a priori* model of fairness developed for this study will be presented along with a review of the individual elements to be included in the model. Research questions and hypotheses will be posited at the end of sections two and three.

The Race Question

Many people have misconceptions about what race is. Dunn (1961) states that the word "race" in common speech has no specific meaning and has acquired false and

misleading connotations. Some individuals have used the word "race" to describe national origin (e.g., French, Japanese). In Nazi Germany, race was intended to classify individuals from Aryan and non-Aryan descent. The color of one's skin has been used to classify different races. For this reason, it is important to clarify what race is and what it is not. Dunn defines race in a biological sense: "a race, in short, is a group of related intermarrying individuals, a population, which differs from other populations in the relative commonness of certain hereditary traits" (p. 273). These traits originated in a process by which the group adapted to its environment. Historically, therefore, races were geographically separated. The geographical boundaries, however, have diminished with time and mobility. This has resulted in the important question of differences between races. These differences have resulted in discrimination, racial bias, feelings of superiority, and in some cases hostility and violence. Morant (1961) argues that feelings such as these are rooted in human nature. He suggests that people naturally have a certain affinity for those with whom they identify and a certain aversion to those with whom they are dissimilar.

The work place is a natural setting for the study of racial differences. An effective organization requires teamwork, cooperation, and motivated employees. Therefore, interpersonal and intrapersonal characteristics will be critical issues. Racial diversity brings both sets of characteristics into play. In order to adequately motivate and manage a diverse work force, organizational leaders need to understand the values, perceptions, and attitudes of the different groups.

Racial Differences in the Work Place

Job Satisfaction

Much of the research examining racial differences in the work place has focused on job attitudes contrasting the degree of job satisfaction of African Americans to the job satisfaction of Whites. Findings from this research have been inconsistent. Data from national polls suggest that African Americans are generally less satisfied with their jobs than Whites (Weaver, 1974; W. E. Upjohn Institute for Employment Research, 1973). However, data from polls can be misleading. Results are often confounded with other variables (e.g., income, occupational level, etc.). As a result, specific studies have attempted to determine whether the same conclusions hold up after controlling for demographic influences. For example, Ash (1972) controlled for occupational level and confirmed that African American employees were generally less satisfied than White employees. He further found that perceived discrimination often leads to dissatisfaction. O'Reilly and Roberts (1973) similarly found that African Americans were less satisfied with their jobs than Whites, although the differences tended to diminish for lower level jobs.

Other studies have indicated that the type or facet of job satisfaction must be taken into account. Gavin and Ewen (1974) administered a 53 item job satisfaction instrument. The instrument was factor analyzed and identified five factors (i.e., advancement, job, supervision, cooperation, and pay and working conditions). They found that African American employees were significantly more satisfied than White employees on all job aspects except supervision, although the effect sizes were small. Milutinovich (1977) used the Job Diagnostics Inventory (JDI) to measure satisfaction

with work, supervision, co-workers, pay, promotion, and the overall job. He found that overall, African Americans were significantly less satisfied with supervision and co-workers than their White counterparts. However, these results were tempered by occupational status and gender. For example, African American blue collar males were more satisfied than White blue collar males with promotional opportunities. On the other hand, African American white collar employees were less satisfied with their co-workers than their White counterparts. Finally, African American females were less satisfied than their White counterparts with supervision, co-workers, and overall job.

Several conclusions can be drawn from the previously described research. First, results do not support the notion that African Americans are, as a whole, more or less satisfied with their jobs than Whites. Furthermore, many researchers emphasize the notion that African Americans and Whites cannot be treated as homogeneous groups (Miller & Dreger, 1973). One must consider income, educational level, etc. when evaluating results. Second, African Americans tend to experience a greater degree of satisfaction with the job (in comparison to Whites) at lower levels of the organization. When higher occupational levels are considered (e.g., managerial, professional), African American satisfaction with the job tends to diminish. Third, it is important to consider specific facets of job satisfaction when examining racial differences. African Americans tend to experience less satisfaction with supervision and in some cases co-workers in contrast to Whites. Finally, effect sizes for racial differences in job satisfaction tend to be small to moderate in magnitude.

At this juncture, it is important to consider why racial differences in job satisfaction should be expected. Most explanations have centered on two distinct areas (i.e., a cultural perspective and a structural perspective). Cultural explanations refer to racial differences in beliefs, values, and psychological states as a result of one's culture in

which they were raised. A number of researchers have supported this view (Alper, 1975; Bloom & Barry, 1967; Slocum & Strawser, 1972). Structural explanations stress the effect of differential treatment on the job as a function of race. Brown and Ford (1977) support this position.

The cultural perspective proposes that culture can influence need for achievement, locus of control, and self-efficacy (Katzell, Ewen, & Korman,1974). Differences in these needs and traits may affect job attitudes by influencing perceptions of the work environment. O'Reilly and Roberts (1973), for example, state that culture may influence an employee's frame of reference which he or she brings to the job. This frame of reference provides the employee with a perspective which is essential to the evaluation of one's job. Similarly, Greenberger and Marini (1972) argue out that racial differences in job attitudes can be attributed to differences in expectations (e.g., job choice, job success, ability to find a job). Culture likely plays a role in determining expectations.

Work Values

A second body of research which has examined racial differences in organizational settings concerns differences in work values. A number of researchers have emphasized the notion that organizations must appreciate the aspects of the job that are valued by different members of the work force and be aware of the aspects that are not valued (Jackson & Mindell, 1980; Mindell & Gordon, 1981; Porter & Lawler, 1968). Mindell and Gordon found that only 13% of all working Americans found their work meaningful. They state that this has resulted in a dramatic decrease in employee productivity. Furthermore, they suggest that organizations find ways of motivating their

work force in a manner that is consistent with employee values. With this in mind, researchers have attempted to determine whether African Americans and Whites share similar work values. Mindell and Gordon stress that racial differences in values should be expected as a result of differences in socioeconomic status and ethnic differences. The greater a person's identification with a group or social state, the more clearly the values are defined by the group or social boundaries. Therefore, values are linked to the relationship between a person, his or her family, and his or her cultural heritage.

Most of the research in this area has explored differences in intrinsic versus extrinsic values. Extrinsic values include factors such as pay, working conditions, and financial security, while intrinsic values include factors such as psychological growth, creativity, and the importance of work. Overall, researchers have found that African Americans tend to be motivated by extrinsic values and Whites tend to be motivated by intrinsic values (Andrisiani & Milius, 1977; Champagne & King, 1967; Slocum & Strawser, 1972). In studies where intrinsic and extrinsic values were treated independently, researchers found that African Americans valued extrinsic aspects of the job more than Whites, but no significant differences were found for intrinsic aspects of the job (Alper, 1975; Bloom & Barry, 1967). Alper argues that minority workers may be more security oriented. This greater emphasis on extrinsic values has been supported even when occupational level and other confounding variables have been taken into account. For example, Shapiro (1977) used data from 1973 and 1974 national surveys and examined racial differences in work values while partialling out the effects of education, occupation, and income. Race had a significant effect on the importance of work values. African Americans ranked high income and job security more importantly than Whites, while Whites ranked the importance of the job higher than African

Americans. Race continued to have significant effects after controlling for gender, father's occupation, father's education, region of the country, and size of family.

Not all research has supported the contention that there are differences in work values. Feldman (1973) examined race and class differences in 15 different job outcomes (e.g., good pay, working with people you like, having a good boss, being promoted, having respect, etc.). He found little support for the notion that racial differences in work values exist in the work place. Similarly, Greenhaus and Gavin (1972) failed to find significant differences in the importance attributed to various work rewards for African Americans and Whites. They did find, however, that African Americans tended to perceive a greater connection between hard work and rewards than did Whites.

Complicating matters is the possibility that other demographic characteristics may interact with race in predicting work values. Brenner, Blazini, and Greenhaus (1988), for example, found a race by sex interaction for extrinsic work values. They found that White females placed a greater importance on extrinsic outcomes than White males. Similarly, African American males placed a greater importance on extrinsic outcomes than African American females. Kahoe (1974) argues that the intrinsic-extrinsic distinction is complicated by the possibility that factors which are extrinsic for Whites may have intrinsic implications for African Americans. Working conditions (e.g., salary, supervisor-peer relations, working in an organization that is fair to minorities) may have an effect on an African American's self concept and thus may have some intrinsic value. Also, as noted earlier, Greenhaus and Gavin (1972) found that African Americans perceived a stronger relationship between hard work and extrinsic rewards. To the degree that this finding is generalizable, African American employees may tend to view organizational rewards as a reflection of their worth.

Even though the evidence supporting racial differences in work values is not convincing, it is important to understand the reasons why differences may exist. Shapiro (1977) proposes two possible explanations, one cultural and one structural. For example, Mindell and Gordon (1981) suggest that different cultures have different priorities which ultimately determine values. Consistent with the structural perspective, Shapiro argues that discriminatory practices in the organization may lead to differences in work values. Rewards may not be equally distributed (e.g., salary, job security, promotional opportunities, etc.). As a result, African Americans may experience a greater degree of need deficiency when it comes to extrinsic rewards thus enhancing their value. Research by Slocum and Strawser (1972) supports this position. They found that African American CPAs experienced greater need deficiencies for extrinsic rewards and thus assigned greater value to these needs.

In a more comprehensive analysis of needs, Malpass and Symonds (1974) explored racial and social class differences in general values (i.e., the good life, balance and adjustment, artistic creativity, religiousness, and pleasant working conditions). They found that social class was the best predictor of the values except religiousness in which race was the best predictor. Hogan (1973) examined racial differences in moral judgments and advanced the notion that cultural socialization processes influence a person's moral judgments. Hayes and Hambright (1984) support this conclusion.

Work Needs

Work oriented needs have also received a fair degree of attention. Of particular interest, many researchers have found that African Americans tend to be less achievement motivated than Whites (Lott & Lott, 1963). However, these results are not

universal. Smith and Abramson (1962) found no racial differences in achievement motivation and Reiss and Rhodes (1959) found African Americans to be more achievement motivated than Whites. Furthermore, Catenall (1984) suggests that results indicating that Whites are more achievement motivated than African Americans are misleading. He suggests that African Americans and Whites have similar achievement needs but the construct and instruments used to measure the need were developed with an ethnocentric bias. Catenall stresses that the construct should be redefined in a culturally unbiased manner. Finally, the motivation to manage has received empirical attention with respect to racial differences. The limited research in this area suggests that African Americans tend to have a greater motivation to manage than Whites (Crane, 1971; Miner, 1977). Crane found that 55% of African Americans sampled had aspirations of moving into higher management compared to 24% of Whites.

Conclusions - Racial Differences

The research examining racial differences in the work place has focused predominantly on job attitudes, work values, and needs. The results have been ambiguous in nature with studies often having contradictory findings. To some extent, the results have been confounded with extraneous variables such as income, education levels, tenure, etc. In addition, the research has primarily examined African American - White differences. Research should also examine Hispanics and Asian/Pacific Islanders in the racial context. Finally, the preponderance of the research was conducted in the early to mid 1970s. There are valid reasons for believing that findings from that time may not be generalizable to the present. The structural and cultural determinants of attitudes and values have undoubtedly changed over time. Differences in attitudes or

values that existed in the past may no longer exist today or they may be more pronounced.

These aspects of the research dictate a further examination of racial differences in the work place. The first phase of this research is designed to examine these differences while minimizing these limitations. Four major cultural groups will be included in this study (i.e., Whites, Hispanics, African Americans, and Asian/Pacific Islanders). In addition, the study will control for several extraneous factors. Specifically, the sampling procedure will control for supervisory status, work status (i.e., white collar/blue collar), and command. Navy civilian organizations are organized by command. The largest commands are Navy Sea Systems Command (NAVSEA), Navy Air Systems Command (NAVAIR), and Navy Supply Systems Command (NAVSUP). Each command will be comprised of a number of organizations (e.g., Norfolk Naval Shipyard). Statistical controls will be employed for differences in income, education, and tenure. Finally, a large sample will be employed to ensure adequate power to detect even minor differences.

Four different aspects of the work experience will be examined for racial differences. Consistent with previous research, this research will search for racial differences in levels of job satisfaction. In addition, three other aspects of the work experience will be investigated (i.e., work beliefs, perceptions of fairness, and employee outcomes). The work beliefs identified for this study include the Protestant work ethic, belief in participative decision making, and belief in teamwork. Of critical interest in this study are racial differences in perceptions of fairness. Perceptions of fairness may influence other employee behaviors and attitudes. Finally, organizational leaders will ultimately be concerned with the behaviors that influence organizational effectiveness.

Three outcomes have been identified for analysis - intention to leave the organization, organizational commitment, and organizational citizenship.

Research Question One

The first purpose of this research endeavor is to determine whether there are racial differences in work beliefs, job satisfaction, perceptions of fairness, and work-related attitudes. Specifically, four hypotheses will be tested.

Hypothesis One:	There will be mean differences across racial groups with respect to work beliefs.
Hypothesis Two:	There will be mean differences across racial groups in levels of job satisfaction.
Hypothesis Three:	There will be mean differences across racial groups in perceptions of fairness/equal treatment in the organization.
Hypothesis Four:	There will be mean differences across racial groups in employee outcomes.

Fairness in the Work Place

The second purpose of this research endeavor is to determine the extent to which a common fairness model applies to different racial groups. In order to address this question, a model of fairness in the work place will be developed. The model will incorporate issues of perceived fairness, cultural tolerance, trust in management, job satisfaction, organizational commitment, and turnover intentions. The literature will be reviewed with respect to each of these variables. Following the review, the basic model

will be developed. Finally, the specific research question and hypothesis will be addressed.

Perceived Fairness

Perceptions of fairness have attracted a lot of theoretical attention. Thibaut and Walker (1975) and Leventhal, Karuza, and Fry (1980) stress the importance of identifying organizational procedures and policies that affect perceptions of fairness and the effects these perceptions have on work attitudes and behavior. Much of the work in this area has concentrated on theories of justice. Two different categories of justice have been proposed: distributive justice (Homans, 1961) and procedural justice (Thibaut & Walker, 1975). Procedural justice refers to the perceived fairness of the procedures used in making decisions (e.g., promotion policies), while distributive justice refers to the perceived fairness of the consequences of those decisions (Folger & Greenberg 1985). Alexander and Ruderman (1987) studied the effects of procedural and distributive justice on six organizational variables: job satisfaction, conflict harmony in the work place, trust in management, turnover intention, perceptions of tension and stress, and evaluations of supervisors. They found that both procedural and distributive justice significantly predicted each of the organizational variables with the exception of perceptions of tension and stress. Moorman (1991) examined organizational justice using structural equation modeling and concluded that an employee's decision to behave as an organizational citizen is affected by the degree to which the employee believes that he or she has been treated fairly.

Closely related to the constructs of procedural and distributive justice is the perception of equity. Equity theory (Adams, 1965) suggests that employees compare

their job inputs and outputs with those of a reference group (e.g., other co-workers). An employee who perceives that he or she is being treated inequitably will attempt to reduce the inequity (e.g., decreasing effort, withdrawing from the organization, etc.). A number of reviews (Adams & Freedman, 1976; Carrell & Dittrich, 1978; Goodman and Friedman, 1971; Lawler, 1968; Pritchard, 1969) have indicated a substantial amount of evidence supporting equity theory. While much of the research supporting equity theory is based on laboratory studies, a number of field studies have found similar results. Dittrich and Carrell (1979) conducted a longitudinal field study which supported the basic equity model. Their findings indicated that equity perceptions were significantly related to withdrawal behavior (i.e., absence). In addition, equity perceptions were significantly related to job satisfaction.

Folger and Buttram (1993) present an organizing schematic to clarify the justice/equity literature. They propose that perceptions of fairness are dependent upon the extent to which managers fulfill certain obligations to their employees. These obligations can be classified into two distinct categories (product and content). Managers will be perceived as fair to the extent that the distribution of products (e.g., wages) is fair. The equity-based theories would belong to this category. Perceptions of fairness will also depend upon conduct by management (e.g., how employees are treated). Conceptualizations of fairness based upon procedural justice would fall into this category. In addition to the product/content classification, Folger and Buttram propose that concepts of justice can also be viewed in terms of relational obligations that the organization has to each employee. Based upon Kluckhohn and Murray's (1953) three part distinction concerning the determinants of personality, Folger and Buttram propose that managers should in some ways treat all employees the same, in some ways treat employees as a member of a group, and in some ways treat all employees uniquely.

Specifically, managers should treat all employees with respect and dignity. For example, all employees should expect a safe place to work. However, some employees may be treated differently than others based upon certain group characteristics (e.g., higher performance, type of work, etc.). Finally, each employee brings to the work place a certain degree of uniqueness (e.g., special skills, experience, etc.). Based upon this uniqueness, an employee may receive a specific assignment suited to his or her qualifications. Folger and Buttram suggest that employees view their particular situations in light of these three obligations.

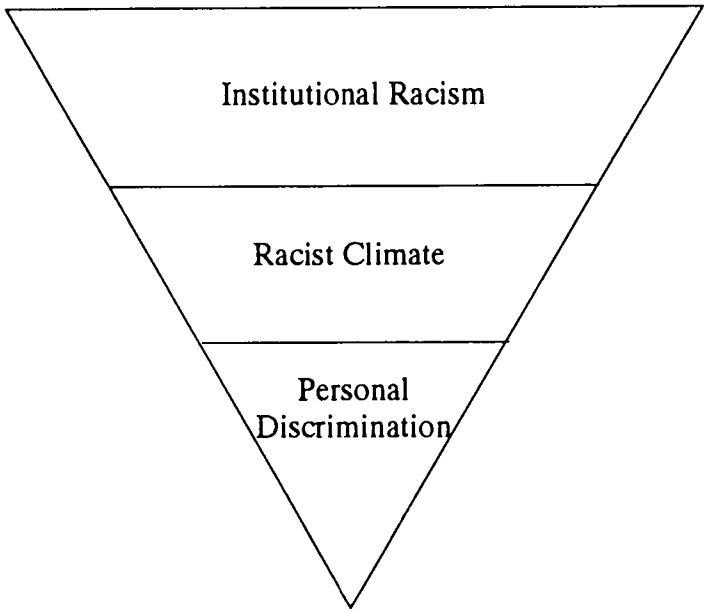
Cultural Tolerance

Cultural tolerance is defined in this study as the extent to which members of the organization are sensitive to cultural differences. An organization which is not culturally tolerant may be a hostile place for minority employees to work. Prejudice and racism may be prevalent in an organization of this type. Cultural tolerance has not been examined to any great degree in psychological research. However, a related construct, "institutional racism" has received limited attention. Although racism is generally thought of from an individual perspective, organizations may be racist (i.e., intolerant) in nature. Dovidio and Gaertner (1986) define institutional racism as "the intentional or unintentional manipulation or toleration of institutional policies (e.g., poll taxes, admissions criteria) that unfairly restrict the opportunities for particular groups of people" (p. 3). Rodriguez (1987) suggests that institutional racism is systematic in organizations. The common theme among all definitions of this type of racism is that particular groups of employees (e.g., African Americans) have fewer opportunities to advance or succeed in an organization as a result of organizational policies and/or

treatment by superiors. Thus, it may be possible for an organization to have a culture which promotes or reinforces racism even though it may be unintentional.

Watts and Carter (1991) stress that psychology has ignored the importance and implications of racism in organizational settings. They emphasize that it is critical for researchers to understand the perceptions of racism by African Americans in primarily White organizations. Furthermore, research should examine whether or not members of different racial groups perceive the same organization similarly in this respect. The limited research that has been conducted in this area suggests that there are racial differences in these perceptions. Aldefer, Aldefer, Tucker, and Tucker (1980) found significant racial differences in how African Americans and Whites viewed a common organizational environment. Their research indicated that Whites were blind to racial dynamics perceived by African Americans. In a laboratory experiment, Sherman, Smith, and Sherman (1983) explored racial differences in perceptions of fairness in the distributions of rewards. They concluded that African Americans were more sensitive to the racial context of the situation perceiving a greater amount of discrimination in the setting than did White subjects. The Whites believed that more progress has been made on racial issues.

Watts and Carter (1991) illustrated the psychological aspects of racism in organizations with a multilevel framework. This framework utilizes an inverted pyramid (see Figure 1). The pyramid is inverted because the base of the pyramid occurs at the highest levels of the organization and trickles down to the individual level. The essential element of this model is institutional racism which is defined by organizational policies and procedures at the highest levels of the organization. Further down in the organization, these policies are enacted upon by managers at the work unit level. As a



Source: Watts and Carter (1991)

Figure 1 - Elements of Institutional Racism

result, a racist climate may ensue. Finally, individual employees may experience personal discrimination as a result of specific actions by their managers.

Trust

Cangemi, Rice, and Kowalski (1989) outline employer and employee characteristics of organizations with varying degrees of trust. They view trust as a mutual relationship between the employee and the manager. If a high degree of trust is maintained, the management will respond in a positive manner to their employees (e.g., behave in a consistent and encouraging manner). In response, employees will be more satisfied and motivated. When trust is low, management will be more authoritative in nature relying upon formal sanctions and discipline. Employees respond with lower degrees of satisfaction, lower morale, and less productivity. McClelland (1987) suggests that trust in organizations is characterized by openness, consistency, autonomy, feedback, and shared values. However, trust deteriorates in the presence of mixed messages by management. For example, an organization that espouses certain values but acts in a manner that is inconsistent with those values will lose employee trust.

One specific area that has focused on trust in the work place concerns the importance of trust in the appraisal process. Bernardin and Cardy (1982) argue that rater trust should be one of the first parameters assessed when evaluating a performance appraisal system. Dobbins, Platz, and Houston (1993) examined trust from the ratee's perspective and found that trust in the appraisal process was related to satisfaction with appraisals, perceived usefulness of the appraisals, motivation to improve job performance, and decreased intention to leave the job. Overall, however, trust has been neglected as a variable of interest in organizational research. This paper argues that trust

is an important organizational variable, especially in the context of fairness and cultural diversity.

Job Satisfaction

Staw (1984) states that job satisfaction has attracted more research than any other dependent variable in the field of industrial and organizational psychology. Job satisfaction has been utilized as both a dependent variable and an independent variable in organizational research.

Causes of job satisfaction can be classified into two major groups (i.e., need fulfillment theories and comparison theories). Need theories propose that the fulfillment of relevant needs lead to satisfaction with the job while the deprivation of relevant needs decrease satisfaction. Herzberg, Mausner, and Snyderman (1959) proposed that motivation is directly related to one's satisfaction with the job. Herzberg and his colleges distinguished between factors that lead to satisfaction on the job (motivators) and factors that lead to dissatisfaction on the job (hygiene factors). Motivators and hygiene factors are conceptually different. Motivators reflect intrinsic characteristics of the job while hygiene factors reflect extrinsic characteristics of the job. While the motivator-hygiene theory has been surrounded with controversy, it has stimulated research examining characteristics of the job and their influence on satisfaction. One of the dominant theories based upon job characteristics is Hackman and Oldham's (1975) Job Characteristics Model. This model proposes that five characteristics of the job (i.e., skill variety, task identity, task significance, autonomy, and feedback) lead to critical psychological states (e.g., experienced meaningfulness of the work) which ultimately lead to job satisfaction and increased motivation. Loher, Noe, Moeller, and Fitzgerald

(1985) conducted a meta-analysis of the relation of job characteristics and found that correlation between the job characteristics index and job satisfaction was approximately .39. The correlation between each of the task characteristics and job satisfaction ranged from .32 (task identity) to .46 (autonomy).

Comparison theories make up the second major contribution to the causes of job satisfaction. Comparison theories can either be individual based or social based. The social based theories (e.g., equity theory) have received the most attention. Equity theory (Adams, 1965) was reviewed earlier in this chapter in the section describing fairness. However, it is important to note that equity theory may be an important consideration in the context of racial differences. To the extent that racial groups compare their relative status with other racial groups, a perception of equity or inequity may arise. These perceptions could account for a disparity in satisfaction levels for a particular racial group should inequity exist.

A relatively new area of research on the antecedents to job satisfaction is dispositional in nature (i.e., that people may have predisposition's towards satisfaction and subjective well being). Preliminary research has indicated that job satisfaction tends to remain stable over a time and is unaffected by changes in job status and pay (Staw & Ross, 1985). Locke (1976) proposed that thinking processes may influence subjective well being and job satisfaction. Early research on dispositional determinants of job satisfaction has suffered from conceptual ambiguities (Davis-Blake & Pfeffer, 1989; Gerhart, 1987). However, models of subjective well being and job satisfaction are currently being developed and tested. Judge and Locke (1993) found positive support for their model proposing that dysfunctional thoughts affect subjective well being and job satisfaction.

Job satisfaction has also been examined as an independent variable. The relationship between job satisfaction and performance has received a substantial amount of attention. However, the relationship between the two constructs has proven to be only minimal in magnitude. Vroom (1964) reviewed 20 studies and reported a median correlation of .14, while Iaffaldano and Muchinsky (1985) conducted a meta-analysis and found that the best estimate of the true population correlation between job satisfaction and performance to be .17.

Job satisfaction has also been linked to turnover and turnover intentions. For example, job satisfaction has been included as a major component in the major turnover models (Koslowky, 1987; Mobley, 1977; Price, 1977). Since these models are reviewed later in this chapter, they will not be reviewed here. However, the basic notion is that dissatisfaction with the job may lead to turnover intentions. In a meta-analysis, Cotton and Tuttle (1986) found that job satisfaction, satisfaction with work, and satisfaction with supervision were each highly predictive of turnover.

The relationship between job satisfaction and commitment has been examined by a number of researchers. While some researchers have argued that job satisfaction and commitment are not causally related (Dougherty, Bluedorn, & Keon, 1985), others have argued that the two constructs are causally related (Bateman & Strasser, 1984; Bluedorn, 1982; Williams & Hazer; 1986). Bateman and Strasser suggest that organizational commitment is an antecedent of job satisfaction. They contend that an individual who is committed to the organization will develop attitudes that are consistent with his or her behaviors. Most researchers, however, suggest that the causal relationship is from satisfaction to commitment. Williams and Hazer (1986) examined job satisfaction and organizational commitment within the context of a turnover model. While one purpose of the research was to examine the extent that both job satisfaction

and organizational commitment affect turnover, they also wanted to establish the relationship between commitment and job satisfaction. Their research supported the hypothesis that job satisfaction leads to organizational commitment. They also found that job satisfaction had an indirect effect on intention to leave the organization as mediated by organizational commitment.

Organizational Commitment

Organizational commitment has been shown to be negatively correlated with turnover (Hom, Katerberg, & Hulin, 1979; Porter, Crampon, & Smith, 1976; Porter, Steers, Mowday, & Boulian, 1974), negatively correlated with absenteeism (Koch & Steers, 1978; Mowday, Steers, & Porter, 1979), and positively correlated with performance (Van Maanen, 1975). However, organizational commitment has been examined much more thoroughly as a dependent variable. Various models have been proposed and tested to identify antecedents to commitment.

There have been several different conceptualizations of organizational commitment. One of the most popular views states that commitment refers to the extent to which the employee identifies with and involves him or herself in the organization (Porter, Steers, Mowday, & Boulian, 1974). A different view proposed by Becker (1960) states that organizational commitment refers to one's desire to remain with the organization (influenced by the costs of leaving the organization). An individual will attribute an attitude of commitment when he or she engages in overt, irrevocable, and public behaviors. Commitment, therefore, must be consistent with behaviors.

The view of commitment that one accepts depends upon the research question of interest. Although the different conceptualizations overlap, each is designed to explore

specific aspects of organizational behavior. Reichers (1985) describes the different conceptualizations and emphasizes the value of a multiple commitments perspective. Reichers points out that different people may be committed to an organization for different reasons.

Mowday, Porter, and Steers (1982) specify four categories of antecedents to organizational commitment (i.e., personal characteristics, job-related characteristics, work experience, and organizational characteristics). In addition, extra-organizational characteristics (e.g., perceived job opportunities) have been identified as influencing commitment. Dornstein and Matalon (1989) examined the influence of seventeen different variables classified into these categories using a sample of Israeli army personnel. Their study indicated that six of the seventeen variables were highly significant ($p < .001$) and two of the variables were significant ($p < .01$) in predicting commitment. The highly significant variables include interesting/challenging work, organizational dependability, education, age, co-workers attitudes, and employment alternatives. The significant variables include attitudes of family and friends and organizational importance. Their study accounted for 60% of the variance in organizational commitment.

The three facets of organizational commitment that are of greatest interest in this study are organizational identification, organizational involvement, and loyalty. Each of these facets capture unique aspects of an employee's behavior. Organizational identification refers to the extent which the individual identifies with the goals and values of an organization. It reflects an affinity and fondness for the organization. Organizational involvement reflects the extent to which the employee is willing to exert effort on the job. Loyalty centers on the employee's preference for remaining with the

organization even when a different organization even when given an opportunity to leave.

Employee Turnover

Employee turnover has been a topic of interest in psychology for many years. Macy and Mirvis (1983) define turnover as a "permanent movement beyond the boundary of the organization" (p. 142). Although this definition does not distinguish between voluntary and involuntary turnover, researchers are generally interested in determining the antecedents of voluntary turnover. Practitioners want to determine ways of decreasing turnover and academicians are interested in understanding why people quit. Becker (1978) emphasizes that excessive turnover can lead to higher organizational costs and may disrupt organizational functioning. Much of the research in this area has attempted to devise models which explain the turnover process. Many of the models are complimentary with current models being extensions of earlier models.

Price (1977) developed one of the early turnover models. His model stressed the importance of job satisfaction in the turnover process. Specifically, Price proposed that a number of structural (e.g., routinization, participation) and individual (e.g., salary) factors lead to employee satisfaction or dissatisfaction. His model proposes that job dissatisfaction leads to employee turnover. In addition, job opportunities interact with one's satisfaction with the job in determining whether he or she will leave the job. Price and Mueller (1981) revised the model to stress the importance of intention to leave the organization as a mediating variable. Research testing the original and revised models have mixed results. Overall, research has supported the basic structure of the Price model (Bluedorn, 1979; Martin, 1979; Price & Bluedorn, 1979). However, the research

has not supported the contention that there is an interaction with job satisfaction and perceived opportunity to find a job. It appears that perceived opportunity to find a job influences job satisfaction instead of interacting with it.

Mobley (1977) introduced a more complex model of turnover which proposes more specific linkages in the turnover process. Mobley suggested that one experiences satisfaction or dissatisfaction with job as a result of an internal evaluation of his or her job. An individual who experiences dissatisfaction may consider withdrawing from the job (e.g., absenteeism, tardiness) or he or she may consider leaving as the organization. A number of considerations may be taken into account in determining the response (e.g., perceived utility of looking for a job, costs associated with quitting, etc.). If the considerations outweigh the advantages of looking for a job, the employee can either alter his or her attitude about the job or withdraw. The intention to leave the organization is the last step in the turnover process prior to leaving. Mobley, Horner and Hollingsworth (1978) proposed a simplified version of the Mobley model which also incorporated age and tenure into the model. The Mobley models have generally found empirical support (Mobley et. al, 1978; Mowday, Koberg, & McArthur, 1984).

Koslowsky (1987) proposed a systems approach to explain the turnover process. This model incorporates key features from several major models and appears to be the most comprehensive model proposed. The Koslowsky model is divided into five different phases and is dynamic in nature. In phase one, personal demographic characteristics, extra-organizational characteristics, and job-related characteristics serve as precursors to job attitudes (e.g., job satisfaction and organizational commitment). Phase two describes the interplay between attitudes and behavior and the importance that stress plays in this relationship. While several researchers have emphasized stress as a precursor to turnover (Keller, 1984; Parasuraman & Alutto, 1984), Koslowsky was the

first researcher to incorporate it into a comprehensive model. The next phase in the turnover process is the individual's intention to leave the organization. Intention directly leads to turnover. Finally, the model incorporates possible outcomes of turnover to the individual and organization. The outcomes can either be positive or negative in nature. A key element included in the Koslowky model often overlooked in other models is the role of attributions at various stages of the process.

A number of other models have also been proposed to describe the turnover process. Murchinsky and Morrow (1980) proposed a turnover model which emphasizes economic opportunities, individual factors, and work-related factors. Steers and Mowday (1981) proposed a model which emphasizes the importance of met job expectations, organizational characteristics, and job performance as determinants of various affective responses (e.g., job satisfaction, organizational commitment, and job involvement). Finally, Bluedorn (1982) developed an integrated model of turnover synthesizing three major turnover models.

While each of the models have basic similarities, there are differences (e.g., the causal ordering of the variables, inclusion of additional factors, etc.). Without developing a model, Cotton and Tuttle (1986) conducted a meta-analysis examining 26 major correlates of turnover with 120 sets of data. The Cotton and Tuttle analysis categorized variables as external factors, work-related factors, and personal characteristics. Two external factors, employment perceptions and union presence, were highly significant ($p < .0005$). Six work-related factors (i.e., pay, job satisfaction, satisfaction with work, satisfaction with pay, satisfaction with supervision, and organizational commitment) were highly significant ($p < .0005$). Finally, eight personal characteristics (i.e., age, tenure, gender, education, number of dependents, biographical

information, met expectations, and behavioral intentions) were highly significant ($p < .0005$). Table 1 summarizes the results of the meta-analysis.

The present research utilizes intention to leave the organization rather than actual turnover data. There are a number of reasons for this position. First, the previously described research emphasized the value of turnover intentions in predicting turnover. Mobley (1977) stresses that only turnover intentions directly affect turnover. Attitudinal variables indirectly affect turnover through their influence on turnover intentions. Dalassio, Silverman, and Shuck (1986) empirically determined that intention to quit is the most power predictor of turnover. Similarly, in a meta-analysis examining the relationship between turnover intentions and employee turnover, Steel and Ovalle (1984) emphasized the importance of intentions. Their study indicated that behavioral intentions were superior to affective variables in predicting turnover. In addition, the practical aspects of the study disallowed the use of gathering actual turnover data. The anonymous nature of the study demanded the use of intentions rather than an objective turnover measure.

The use of behavioral intentions as an indirect measure of turnover is not without precedent (Thompson & Terpening, 1983; Walsh, Ashford & Hill, 1985). Other researchers have articulated arguments supporting the use of intentions. Lachman and Diamant (1987) state that utilizing intention to leave may improve the understanding of the psychological processes underlying turnover. Spencer, Steers, and Mowday (1983) stress the value of using turnover intentions because it focuses on the volitional component of turnover.

Table 1

Summary of Turnover Correlates by Confidence

Strong Confidence ($p<.0005$)	Moderate Confidence ($.0005<p<.005$)	Weak to Moderate Confidence ($.005<p<.01$)	Weak Confidence ($.01<p<.05$)	No Confidence ($p>.05$)
Employment Perceptions	Unemployment Rate	Maritial Status	Accession Rate	Intelligence
Union Presence	Job Performance	Aptitudes and Abilities	Task Repetiveness	
Pay	Satisfaction with Co-workers			
Overall Job Satisfaction	Satisfaction with Promotional Opportunities			
Satisfaction with Work	Role Clarity			
Satisfaction with Pay				
Satisfaction with Supervision				
Age				
Tenure				
Gender				
Education				
Number of Dependents				
Biographical Information				
Organizational Commitment				
Met Expectations				
Behavioral Intentions				

Source: Cotton & Tuttle (1986)

A Priori Model Development

While there have been a number of models designed to describe the turnover process, there has been little attention focused on developing models of fairness in the work place. Furthermore, current organizational theories have not taken cultural diversity into account. As a result, the *a priori* model developed for this study is tentative. The model was developed based upon the research described in the previous section. The underlying assumption is that perceptions of fairness significantly contribute to an employee's satisfaction with the organization. Organizational satisfaction leads to organizational commitment, and a lack of organizational commitment is a significant contributor to turnover intentions. The model integrates components of fairness models with turnover models. This effort is distinguished from previous research in several respects. For example, the current model introduces the construct cultural tolerance as a causal influence on trust in the organization and on organizational satisfaction. An employee who views the organization as culturally intolerant will exhibit less trust in the organization and will be less satisfied with the organization as a whole. Another difference between this model and previous research is that satisfaction with the organization and satisfaction with work are treated as conceptually different. It is proposed that the issues of fairness and tolerance in the organization will be related to organizational satisfaction and unrelated to satisfaction with work. Finally, perceptions of downsizing are incorporated into the present model. Due to the current trend in the federal government to reduce the size of the federal work force in general and the trend to reduce the size of the defense department in particular, it was deemed important to include employee perceptions of the downsizing effort in this particular model. Turnover intentions may be significantly influenced by the perceptions

or the reality of reductions in force. The overall structural model is illustrated in Figure 2. Each of the latent variables are defined below. Following the definitions, a theoretical justification for the relationships in the model will be presented.

Procedural Justice

Procedural justice refers to the perceptions that the organization has policies and procedures that are designed to ensure that all employees are treated equally. For example, an organization that is procedurally just may require supervisors to be trained on how to perform an accurate performance appraisal. Similarly, consistent and fair policies should be in place for determining who receives promotions.

Distributive Justice

Distributive justice refers to the perceptions that the resources and positions within the organization are allocated in a just and equitable manner. Employees who have the highest qualifications and talents should be represented at higher levels of the organization. Similarly, employees should be paid according to their talents and qualifications.

Perceived Fairness

Perceived fairness refers to the perception that, overall, the organization is a fair place to work. While perceived fairness is related to perceptions of justice, this construct is measured free of justice perceptions.

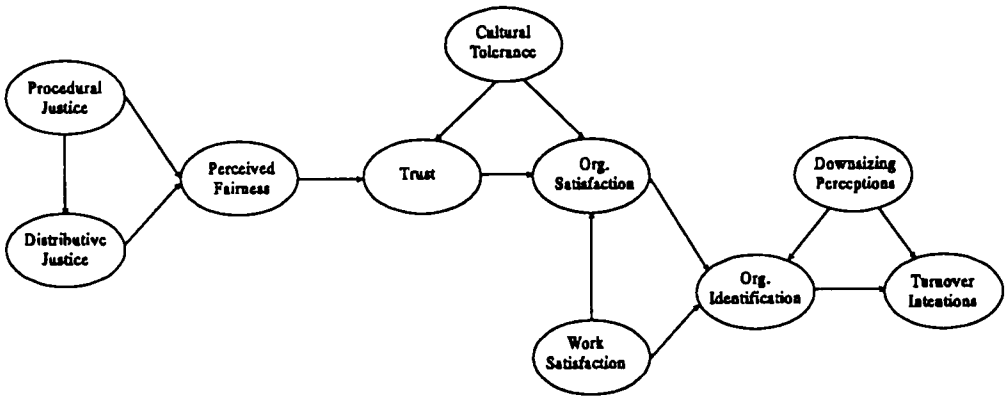


Figure 2 - *A Priori* Fairness Model

Trust

Trust refers to the extent to which management is viewed as being concerned for the welfare of its employees. If trust is present, employees will perceive the management as having the best interest of the work force at heart. If management is not trusted, employees may perceive that management has hidden agendas.

Cultural Tolerance

Cultural tolerance refers to the extent to which the organization is tolerant and accepting of cultural diversity. An organization that is culturally tolerant values and respects the members of all cultural groups. In an intolerant organization, certain cultural groups may perceive that they are not valued or respected as highly as other groups. An organization that is intolerant may be viewed as being a hostile place to work for minority employees.

Work Satisfaction

Work satisfaction is the extent to which the employee is satisfied with his or her job tasks. An employee who experiences work satisfaction enjoys the tasks that have to be performed on the job.

Organizational Satisfaction

In contrast to work satisfaction, organizational satisfaction measures the extent to which the employee enjoys working for the organization in general. While work and organizational satisfaction may be integrally related, they measure two distinct aspects of job satisfaction.

Organizational Identification

Organizational identification measures the extent to which the employee identifies with the organization. This employee will feel like part of the organization. He or she will feel proud to be able to work in their organization. An employee who does not identify with the organization may experience alienation and may feel that his or her values are incongruent with the organization as a whole. Organizational identification is one of the facets of organizational commitment described earlier. In order to maintain the unidimensional integrity of the construct, organizational identification was selected as the measure of commitment.

Downsizing Perceptions

Perceptions of downsizing refers to the extent to which the employee believes that his or her organization will be significantly affected by the downsizing effort within the Department of Defense. If an employee perceives downsizing to be an issue in his or her organization, he or she may believe that their job may be in jeopardy.

Turnover Intentions

Turnover intentions measures the extent to which the employee has intentions of the leaving the organization. In particular, it measures the employee's intention to look for another job in a different organization.

Theoretical Justification - *A Priori* Model

The theoretical justification for the model will be presented by breaking the model down into key sets of relationships between latent variables. Each set will be described in turn. Figure 3 presents the first set of relationships in the *a priori* model. This set proposes that distributive justice is the logical consequence of procedural justice. The presence of policies and procedures designed to promote justice should lead to the equitable distribution of resources and positions within the organization. On the other hand, if these policies are not in place, there are no guarantees as to fair allocation of resources. The model also proposes that each of these forms of justice will have a direct influence on perceptions of fairness. Finally, an organization which is perceived as being fair will ultimately result in employee trust in the intentions of management. While a case could be made for alternative relationships between the constructs (e.g., an employee who trusts management will more likely perceive the organization as being fair), it is proposed that trust develops over time as a result of management responding in a fair and consistent manner. Trust, in other words, must be earned.

Figure 4 illustrates a key subset of the model. This subset proposes that cultural tolerance has a direct effect on both trust and organizational satisfaction. The *a priori* model proposes that cultural tolerance is an issue separate from overall fairness. It is

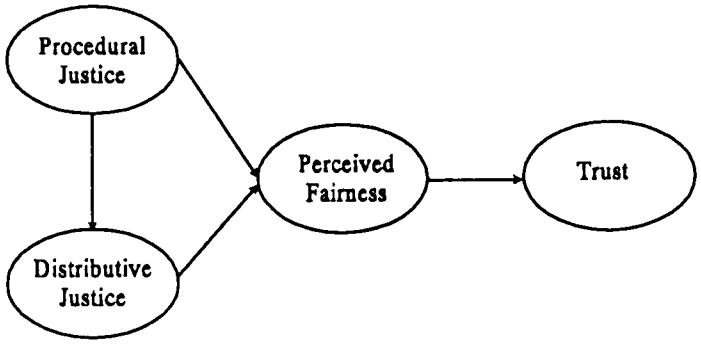


Figure 3 - Fairness Model Subset One

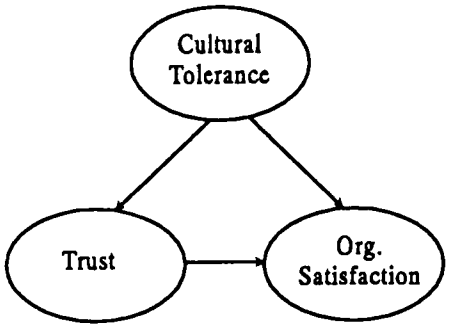


Figure 4 - Fairness Model Subset Two

viewed that intolerance may be subtle and may not be directly related to the procedures and policies in place in the organization. Tolerance deals more with respect and feeling valued. As a result, the model indicates that tolerance will have a direct influence on trust and organizational satisfaction. An employee who feels that the organization is not culturally tolerant will likely be dissatisfied working for the organization (especially if the employee is a member of culturally diverse group).

Figure 5 illustrates the final subset of the model. This subset is basically an abridged turnover model. In this portion of the model, work satisfaction is hypothesized to act as a causal influence of satisfaction with the organization. The more satisfied one is with his or her work, the more likely he or she will be satisfied with the organization. It is proposed that both organizational satisfaction and work satisfaction will affect organizational identification. Previous research has illustrated that organizational commitment has a negative impact on turnover intentions. The greater an employee's commitment to the organization, the less likely he or she will intend to leave. This relationship should persist when commitment is conceptualized as organizational identification. Finally, it is proposed that downsizing perceptions will influence both organizational identification and intention to leave the organization. While the relationship between downsizing perceptions and turnover intentions is obvious (i.e., an employee that perceives that his or her job is in jeopardy as a result of governmental cut-backs will likely have turnover intentions), it is proposed that this employee will also be less committed to the organization.

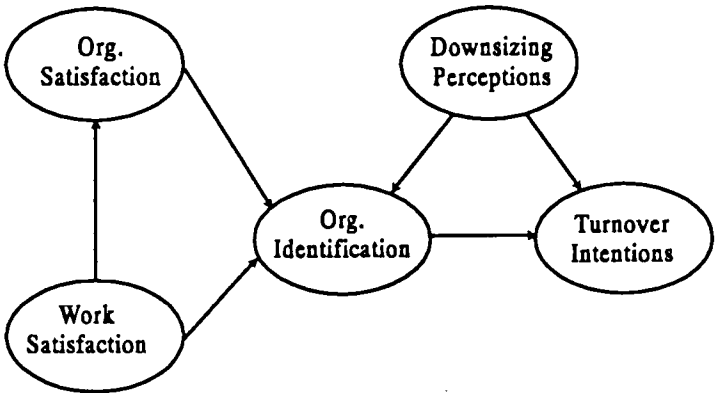


Figure 5 - Fairness Model Subset Three

Research Question Two

The second purpose of the present study is to determine whether a common model of fairness applies equally well to different cultural groups (i.e., racial groups). It would appear that the model developed in this study may work better for particular cultural groups. For example, cultural tolerance may be more important for minorities than for Whites. This question will require the *a priori* model to be tested and revised. The model can then be compared across racial groups to determine whether the same model holds equally well for each group.

CHAPTER THREE

METHOD

The research questions and hypotheses described in Chapter Two require two distinct research efforts (analysis one and analysis two). Analysis one employs analysis of variance techniques in order to assess mean differences between different cultural groups on several categories of the job experience. Analysis two employs structural equation modeling techniques (SEM) in order to test a model of fairness in the work place and explore differences in the model between different cultural groups. Both sets of analyses utilize information gathered in an organizational diversity survey constructed for the purpose of this research effort.

Subjects

7000 civilian employees with the Department of the Navy were randomly sampled within subgroup to participate in this study. Subgroups were race (i.e., White, Hispanic, African American, Asian/Pacific Islander), command, supervisory status, and job status (i.e., blue collar/white collar). Subgroups were utilized for two reasons. The first reason was to insure adequate representation of racial groups. Simple random sampling would not allow for an adequate sample size for specific racial groups. Second, random sampling within subgroup allows for the control of extraneous influences. Although this particular study merited such an approach, there are drawbacks to this sampling procedure. The drawbacks are discussed in Chapter Five.

Addresses for 317 employees were unavailable, therefore 6683 surveys were mailed out. Table 2 lists the number of surveys mailed to employees in each racial group. 2866 surveys were completed and returned by respondents. 264 surveys were returned to sender. The effective return rate was 44%. The effective return rate is not unreasonable for this type of research. However, the frequency of responses by racial group was significantly different. A chi-square test was computed to determine whether the frequency of response rates was the same across the four racial groups. The obtained $\chi^2 = 146.88$, df = 3, was significant at the .001 level. Possible causes and the potential threats to validity resulting from the differential response rates will be addressed in Chapter Five. Demographic characteristics of the sample are presented in Table 3.

Methods

Survey Overview

The survey is aimed at measuring employee attitudes, perceptions, and work beliefs. For the purpose of this research effort, four specific areas of interest were identified: general work beliefs, job satisfaction, fairness in the work place, and employee outcomes. Each category consists of several scales. All scale items are included in the appendix. In addition, several categories of scales were included for exploratory purposes. Reliability and scale statistics for each scale are summarized in Table 4.

Table 2

Surveys Mailed Out By Racial Group

Job/Supervisor Status	White	African American	Hispanic	Asian/Pacific Islander
White Collar:				
Supervisor	170	159	159	166
Nonsupervisor	684	666	665	680
Total White Collar	854	825	824	846
Blue Collar:				
Supervisor	162	172	168	170
Nonsupervisor	652	678	638	694
Total Blue Collar	814	850	806	864

Table 3

Demographic Characteristics By Racial Group

	Overall	White	African American	Hispanic	Asian
Sample Size N					
Surveys Mailed Out	6713	1698	1675	1630	1710
Surveys Completed	2866	956	578	586	746
Response Rate %	44.4*	56.3	34.5	36.0	43.6
N (%) By Command					
NAVSEA	1435 (50.1)	444 (46.4)	256 (44.3)	340 (58.0)	395 (52.9)
NAVAIR	1083 (37.8)	399 (41.7)	250 (43.3)	184 (31.4)	250 (33.5)
NAVSUP	348 (12.1)	113 (11.8)	72 (12.5)	62 (10.6)	101 (13.5)
% By Job Status					
White Collar	57.5	54.8	57.3	60.9	58.6
Blue Collar	42.5	45.2	42.7	39.1	41.4
% By Responsibility					
Non-supervisor	78.1	79.3	78.3	75.2	78.8
Low-level supervisor	14.4	13.6	14.1	16.3	14.3
Mid-level supervisor	5.8	5.6	5.9	6.3	5.5
Top Management	1.6	1.5	1.7	2.2	1.3
% Male	76.9	80.8	67.6	76.1	79.6
% Female	23.1	19.2	32.4	23.9	20.4
Mean Age (sd)	43.2 (10.4)	43.4 (10.1)	43.5 (9.8)	42.1 (6.7)	43.8 (10.7)
Mean Tenure - Years (sd)	12.5 (8.1)	12.9 (8.0)	12.6 (9.8)	12.0 (8.4)	12.3 (8.2)
Median Education	2 yrs coll.	2 yrs coll.	2 yrs coll.	2 yrs coll.	2 yr degree
Mean Paygrade (sd)	9.8 (2.8)	10.1 (2.6)	9.1 (3.0)	9.8 (3.0)	10.0 (2.8)
Mean Hourly Wage (sd)	17.21 (6.1)	17.32 (8.0)	16.17 (6.0)	17.56 (6.7)	17.61 (6.2)

Note: * The actual response rate of 42.7% was adjusted to account for 264 surveys returned to sender.

Table 4

Scale Statistics

Scale	No of Items	Scale Mean	Scale sd	Item Means	Mean inter-item correlation	Alpha
Work Beliefs						
Protestant Work Ethic	4	20.28	4.63	5.07	.29	.61
Belief in PDM	4	23.53	3.62	5.88	.35	.68
Belief in Teamwork	4	21.67	4.56	5.42	.36	.68
Job Satisfaction						
Satisfaction with Work	5	24.47	7.06	4.89	.44	.80
Satisfaction with Organization	2	10.52	3.26	5.26	.83	.91
Satisfaction with Supervision	6	26.83	11.23	4.47	.77	.95
Satisfaction with Management	3	9.13	5.58	3.04	.85	.94
Satisfaction with Co-workers	5	28.55	5.41	5.71	.56	.87
Satisfaction with Pay	2	8.90	3.90	4.45	.80	.89
Satisfaction with Security	2	7.40	4.27	3.70	.79	.88
Fairness in the Workplace						
Perceived Fairness	4	14.05	6.83	3.51	.72	.91
Organizational Tolerance	5	21.08	6.50	4.22	.44	.80
Social Tolerance	5	23.19	6.02	4.64	.39	.76
Developmenatal Relationships	10	26.17	10.34	2.62	.48	.90
Trust in Management	2	7.36	3.84	3.68	.88	.93
Trust in Co-workers	2	11.15	2.78	5.58	.80	.89
Employee Outcomes						
Intention to Leave Organization	2	6.36	4.34	3.18	.82	.90
Organizational Identification	4	20.32	5.99	5.08	.61	.86
Organizational Involvement	6	34.84	6.11	5.81	.38	.77
Loyalty	3	11.99	4.56	4.00	.41	.68
Altruism	6	34.76	13.10	5.79	.51	.86

Survey Administration

Surveys were mailed directly to each employee at his or her work address. A cover letter signed by a representative (usually the commander) of each organization accompanied each survey. The cover letters are illustrated in the appendix. A self-addressed and stamped envelope was provided with the survey so that the respondent could mail the completed survey directly to the researcher. Approximately ten days after the survey was mailed out, a follow-up card was sent to each respondent with a reminder to complete and return the survey if they had not yet done so.

Survey Development

The questionnaire was designed by incorporating various instruments commonly used in organizational research. Specific scales were selected due to their applicability to the research questions. In several situations, new scales were developed in order to measure a construct of interest. Two preliminary versions of the instrument were pilot tested with 189 civilian employees on two separate occasions. The survey was revised and items reworded based on the results of the pilot test. The final survey was fifteen pages in length and included the following parts:

Part I: Organizational Obligations

Part II: General Work Attitudes

Part III: Job Attitudes

Part IV: Job and Organizational Characteristics

Part V: Work Habits (Organizational Citizenship Behaviors)

Part VI: Developmental Relationships

Part VII: Downsizing and Employment Prospects

General Work Beliefs

This part is designed to measure three different sets of work beliefs: Protestant work ethic, belief in participative decision making, and belief in teamwork. The three scales included in this part reflect the employee's beliefs about the nature of work and working. All items in each of the scales were measured on a seven-point Likert scale anchored at "strongly disagree" and "strongly agree".

Protestant Work Ethic

The Protestant work ethic is concerned with the extent to which the employee values hard work. An individual with a strong Protestant work ethic would believe that hard work is a virtue and that success in a task is primarily determined by working hard. An individual with a weak Protestant work ethic views the role of work with less of a value orientation. This individual may believe that there are obstacles in life that cannot be overcome simply by working hard. It is important to note, however, that the level of an individual's Protestant work ethic does not necessarily imply how much effort the individual puts into the job or how hard he or she works. A person may work hard for other reasons. The scale consists of four items taken from various work ethic scales (Blood, 1969; Buchholz, 1977). An example of an item is: "Most people can be successful if they work hard enough." Coefficient alpha for the scale is .61.

Belief in Participative Decision Making

The belief in participative decision making scale is concerned with the extent to which an individual believes that *all* employees should have an active voice in the organizational decision making system. An individual that agrees with participative decision making may believe that a participative management philosophy can increase organizational effectiveness. An individual that disagrees with participative decision making would adhere to the belief that there should be a strict division of labor between management and the working class. The scale consists of four items taken from the Marxist-related Beliefs subscale in Buchholz' (1977) Beliefs About Work questionnaire. Some items were revised as a result of the two pilot tests. An example of an item is: "Factories would be run better if workers had a greater say in policy decisions." Coefficient alpha for the scale is .68.

Belief in Teamwork

Belief in teamwork reflects the belief that organizations that stress team work are more effective than organizations that stress individual performance. The scale consists of four items. The concept for the scale was taken from the Organizational Belief System subscale of Buchholz ' Beliefs About Work questionnaire. The shortened version of the scale was modified based on the results of the two pilot tests. An example of an item is: "Better decisions are made in groups than by individuals." The coefficient alpha for the scale is .68.

Job Satisfaction

This part contains scales designed to measure various facets of job satisfaction. The first two scales, satisfaction with work and satisfaction with the organization, are global in nature. The remaining scales, satisfaction with supervision, satisfaction with management, satisfaction with co-workers, satisfaction with pay, and satisfaction with security are more facet specific. Items for all scales were based upon satisfaction measures commonly used in organizational research such as the Job Diagnostic Survey (Hackman & Oldham, 1975) and the Job Descriptive Index (Smith, Kendall, & Hulin, 1969). Most items, however, are of a generic nature and are not identified with any specific scale. In several instances, items were written for the specific construct. Final scale items were selected following the two pilot tests for their psychometric and theoretical qualities. All items were measured on a seven-point Likert scale anchored at "strongly disagree" and "strongly agree".

Satisfaction with Work

The satisfaction with work scale measures the extent to which an employee is satisfied with work in general. It is comprised of five items. An example of an item is: "I enjoy the type of work that I do." Coefficient alpha for the scale is .80.

Satisfaction with the Organization

Satisfaction with the organization measures the extent to which an employee is satisfied working for the organization in general. An example of one of its two items is:

"I enjoy working for this organization." Both items were written specifically for this survey. Coefficient alpha for the scale is .91.

Satisfaction with Supervision

Satisfaction with supervision measures the extent to which an employee is satisfied with the supervisor-employee relationship. The scale is comprised of six items. An example is: "I am satisfied with the overall quality of supervision I receive on my job." Two items were extracted from the Job Diagnostics Survey (Hackman & Oldham, 1975). Coefficient alpha for the scale is .95.

Satisfaction with Management

Satisfaction with management is similar to satisfaction with supervision but deals with top management rather than one's direct superior. An example of one of the scale's three items is: "I am satisfied with the way top management makes its decisions." Coefficient alpha for the scale is .94.

Satisfaction with Co-workers

Satisfaction with co-workers measures the extent to which the employee is satisfied with his or her social relationships on the job. The scale is comprised of five items. An example of one of the items is: "I really enjoy working with the people in this organization." Coefficient alpha for the scale is .87.

Satisfaction with Pay

This scale, designed to measure one's satisfaction with his or her pay and benefits package, consists of two items. An example of an item is: "I am fairly paid for what I contribute to this organization." Coefficient alpha for the scale is .89.

Satisfaction with Security

Satisfaction with job security is measured with two items. An example of an item is: "My future in this organization appears secure." Coefficient alpha for the scale is .88.

Fairness in the Work Place

An integral part of this research effort is the focus on perceptions of fairness in the work place. Six different scales fall into this category. The first scale focuses on organizational fairness in general. The next two scales, organizational tolerance and social tolerance, are culturally oriented to measure the perceptions that the organization and its members are tolerant of different cultural groups. The fourth scale measures the quality of the supervisor-employee relationship. This particular scale should be distinguished from the satisfaction with supervision scale described earlier. The final two scales measure the extent to which the employee trusts those with whom he or she works. With the exception of the developmental relationships scale, all of the items within the scales were measure on a seven-point Likert scale anchored at "strongly disagree" and "strongly agree".

Perceived Fairness

Four items were constructed specifically for this survey to measure the extent to which the employee perceives the organization as being fair. An example of an item is: "I feel confident that the firm will always try to treat me fairly." Coefficient alpha for the scale is .91.

Organizational Tolerance of Diversity

Organizational tolerance of diversity measures the extent to which the employee perceives the organization (in particular, management) as being sensitive to diversity. An organization that is tolerant respects and values the members of all cultural groups. This scale consists of five items. Although most of the items were written specifically for this scale, several items were extracted from previous research (Dobbins, Burstein, & Houston, 1991). An example of an item is: "The management of this organization respects some cultural groups more than others." The coefficient alpha for this scale is .80.

Social Tolerance of Diversity

Where organizational tolerance emphasizes the extent to which management values and respects the culturally diverse elements of the work force (e.g., by listening to the comments and suggestions of minority members), social tolerance is concerned with the acceptance of diversity at an interpersonal level. An organization that is not socially tolerant is one in which racism and prejudice are openly expressed (particularly by co-

workers). This scale is comprised of five items based upon the research conducted by Dobbins et al. (1991). An example of an item is: "Racial/ethnic jokes are told in this organization." Coefficient alpha for this scale is .76. The two types of tolerance will likely coexist in an organization. For example, an organization whose management and leadership respect and value diversity will most likely establish a culture in which intolerance by employees is not accepted. The correlation between the two constructs is .65 which, although high, is substantially below unity.

Developmental Relationships

While organizational leaders can impose formal systems and procedures to support fairness, an employee's success in the organization may rest heavily upon the informal processes that occur between an employee and his or her supervisor. These processes, which result in the quality of developmental relationships between an employee and the supervisor, is measured with a revised scale created by Thomas (1990a). An example of an item is: "To what extent does your supervisor or direct supervisor listen to your ideas and encourage your thinking." Each of the items is measured on a five-point Likert scale anchored at "not at all" and "consistently". Coefficient alpha for the scale is .90.

Trust in Management

Trust is defined as the extent to which the employee ascribes good intentions to management. Trust in management was measured with two items extracted from the Faith in Management subscale of the Interpersonal Trust at Work questionnaire (Cook &

Wall, 1980). The items were reworded based upon the results of the pilot tests. An example of an item is: "Management at this firm sincerely cares about its workers." Coefficient alpha for this scale is .93.

Trust in Co-workers

Trust in co-workers reflects the extent to which the employee ascribes good intentions to his or her co-workers. This scale was measured with two items extracted from the Faith in Peers subscale of the Interpersonal Trust at work questionnaire (Cook & Wall, 1980). An example of an item is "I can trust the people I work with to lend me a hand if I need it." Coefficient alpha for this scale is .89.

Employee Outcomes

Employee outcomes of interest in this paper include intention to leave the organization, organizational commitment, and organizational citizenship. Each of these outcomes have been identified as being critical to organizational functioning. Intention to leave the organization and the organizational commitment scales are measured on seven-point Likert scales anchored at "strongly disagree" and "strongly agree".

Intention to Leave the Organization

Intention to leave the organization is defined as the extent to which a current employee will actively seek new employment within the next year. This construct was

measured with two items frequently used in turnover research. An example of one of the items is: "I am currently looking for another job." Coefficient alpha for the scale is .90.

Organizational Commitment

Organizational commitment is conceptualized as having three facets as described by Buchanan (1974): organizational identification, organizational involvement, and loyalty. Three subscales were constructed to measure these facets. Scale items were selected from commonly used organizational commitment measures (Buchanan, 1974; Cook & Wall, 1980; Porter & Smith, 1970). The final scales were selected based on their theoretical substance and on the psychometric qualities as determined by the pilot tests. Organizational identification is defined as identifying with organizational goals and values. An example of one of the scale's three items is: "I feel myself to be part of this organization." Coefficient alpha for this subscale was calculated at .80. Organizational involvement is defined as being immersed or absorbed in one's job. An example of an item is "I would not mind working a half hour past quitting time if I could finish a task I was working on." Coefficient alpha for the involvement subscale was calculated at .77. Loyalty is defined as the extent to which the employee desires to stay with the organization even if offered a better paying job in another organization. "I feel a strong sense of loyalty to this organization." Coefficient alpha for this subscale was calculated at .68.

Organizational Citizenship

The component of organizational citizenship that is of most interest in this study is altruism. Altruism is concerned with a class of prosocial behaviors which are characterized by the employee performing extraordinary tasks (e.g., helping a co-worker who has an extra heavy load). Organizational citizenship was measured with six items from a scale designed by Smith, Organ, and Near (1983). All items were revised to reflect the self-report nature of the study. An example of an item is: "I volunteer for tasks that are not required." A ten-point scale was utilized whereby the respondent rates him or herself to his or her colleagues. Coefficient alpha for the scale is .86.

Analyses

Two strategies of analyses were identified at the beginning of this chapter. Each analysis strategy is described below.

Analysis One

Chapter Two identified a number of hypotheses based upon the research question asking whether different racial groups experience the organization in a similar fashion. The hypotheses center on the four areas of interest described earlier: work beliefs, job satisfaction, perceptions of fairness, and employee outcomes. Furthermore it was determined that gender would be an important variable of interest to include in the study. Gender represents an important cultural group on which work experiences may differ. Including gender as a variable of interest in this study allows for the analysis of the direct

effects of gender on the dependent variables, removes gender as a potential confounding variable, and allows for the detection of a race by gender interaction. Finally, an additional variable that was deemed to be important to include in the analyses was income. Level of income may well influence many of the dependent variables in this study (e.g., job satisfaction). Including income allows for the removal of the potential confounding effects of different income levels.

Multivariate analysis of covariance (MANCOVA) was deemed the appropriate analysis strategy to examine group differences in these work-oriented areas with race and gender serving as independent variables and income serving as a covariate.

Analysis Two

Analysis two seeks to test a model of fairness in the work place and test the extent to which the same model holds for different racial groups. An *a priori* model of fairness developed for this study and the theoretical justification for the relationships between the constructs of interest are presented in Chapter Two. The first step in the analysis was to divide the data into two parts (an exploratory set and a set for cross validation). All initial tests of the model utilized the exploratory data set. After the two data sets were identified, the measurement model was tested and refined using the exploratory data set. Next, the *a priori* model (based upon the revised measurement model) was tested and competing models were identified. The model with the most promising fit was cross validated with a hold out sample. Finally, a series of multi-group analyses were conducted using LISREL 8 (Jöreskog & Sörbom, 1993) to detect the extent to which the same model holds for different cultural groups. Each of these steps are described in greater detail below.

Data Preparation

The data set was randomly divided into two halves and a covariance matrix was calculated for each using PRELIS 2, a data screening and preparation program. Survey items serving as indicators of the latent variables were inspected for excessive skewness and kurtosis. Variables that were identified as having excessive skewness and kurtosis were visually inspected and compared across racial groups to determine whether the deviations from normality exist for all racial groups. Variables were not transformed to reduce the non-normal features.

Measurement Model

The items serving as indicators of the latent variables are presented in Appendix 2. The measurement model was tested using confirmatory factor analysis (CFA) techniques with the use of LISREL 8 (Jöreskog & Sörbom, 1993). The phi matrix (Φ) was standardized in order to fix the variances of each of the latent variables to one. All latent variables were allowed to correlate.

The CFA was used to identify items which demanded attention (either because they failed to adequately measure the construct of interest or because their presence resulted in a high degree of error in the model). Problems were identified by examining the standardized residual matrix and the modification indices. Standardized residuals (and a plot of the residuals) can be used to identify variables which fail to correspond to the model. The standardized residuals can be useful in identifying errors which are correlated. The modification indices, on the other hand, indicate the extent to which the chi-square of the model test would be expected to decrease if a fixed parameter was

allowed to be freely estimated. Variables which load on more than one factor can be identified by examining these indices. In addition, standard errors of the parameter estimates, *t*-values of the estimates, and the squared multiple correlations for each variable were examined to assess the quality of each of the indicators. Large standard errors reflect poor precision in the measure. The *t*-values of the parameter estimates are defined as the ratio between the parameter estimate and its standard error. Therefore, estimates with small *t*-values represent items which poorly measure the construct of interest. Finally, the squared multiple correlation coefficient for each indicator is basically a measure of the reliability of the measure. The squared multiple correlation can range from zero to one with higher values representing greater reliability. Essentially, the squared multiple correlation represents the proportion of variance in the indicator attributed to the latent variable.

All of the information described above was examined jointly in assessing the quality of each element of the measurement model. Items judged to be of questionable quality were identified and inspected to determine potential causes of the problem. Where appropriate these items were removed from the measurement model. Items were, therefore, removed for theoretical and not solely statistical reasons.

A Priori Model Fit

The model fit was evaluated with a number of different criteria. The chi-square statistic provides a statistical test of the model fit with a non significant chi-square indicating that the differences between Σ and S are small enough to be due to sampling fluctuations (Hayduk, 1987). However, chi-square is very sensitive to sample size. Given a large sample, even small differences between the estimated covariance matrix

and the sample covariance matrix will lead to a significant chi-square. Due to the large sample size in this research effort, the chi-square was presented but not directly interpreted for the overall model tests. The chi-square value can also be used to compare different models that are nested. A model is nested in a second model if the free parameters of the first are a subset of the parameters of the second. The difference between the chi-square for the two models is distributed as a chi-square distribution with the degrees of freedom equaling the difference in degrees of freedom between the two models. The null hypothesis states that the models are equivalent (i.e., freely estimating the additional parameters in the larger model does not appreciably increase the model fit). A significant chi-square indicates that the additional parameters are significant and that the more comprehensive model better explains the relationships between the variables (Coovert, Penner, & MacCallum, 1989). The chi-square difference test for nested models is especially useful conducting multi-sample analyses (i.e., comparing a single model across different groups).

The second index which will be used to assess model fit is the root mean square error of approximation (RMSEA). While the chi-square tests the extent to which the model perfectly fits the data, the root mean square error or approximation (RMSEA) tests the extent to which the model closely fits the data. The RMSEA is a measure of the discrepancy per degree of freedom. It is calculated as follows:

$$\text{RMSEA} = \sqrt{F_0 / d}$$

F_0 represents the minimum value of the fit function and d represents the degrees of freedom. Browne and Cudeck (1993) suggest that a value of .05 indicates a close fit and

values up to .08 are reasonable errors of approximation in the population. As with the chi-square, a non significant p-value is desired.

The next estimate of overall fit that will be used in this study is the standardized root mean square residual (SRMR). The SRMR compares the elements of the population matrix generated by the model with the elements of the sample matrix (Jöreskog & Sörbom, 1993). The smaller the residuals, the better the model fits. Coovert, Penner, and MacCallum (1989) suggest that a SRMR below .05 indicates a good fit.

Because the chi-square statistic is sensitive to sample size, other indices of fit have been designed to assist in the evaluation of a model. The goodness of fit index (GFI) is designed to measure how much better the model fits compared to a null model (i.e., no model at all). It is calculated as follows:

$$\text{GFI} = 1 - \frac{F[S, \Sigma(\theta)]}{F[S, \Sigma(0)]}$$

The numerator is the minimum fit function after the model has been fitted, and the denominator is the minimum fit function before the model has been fitted.

The normed fit index reflects the proportion of total information accounted for in a model (Mulaik et al., 1989). It is calculated as follows:

$$\text{NFI} = (Fo - Fj) / (Fo - Fs) \frac{(F_{\bullet} - F_{j})}{(F_{\bullet} - F_{\cdot})}$$

In this case, F_O represents a lack of fit measure (e.g., χ^2) for a null model, F_j is the same measure for a restricted model, F_S and is the same measure for a fully saturated model

(i.e., all possible parameters freed). F_S will equal zero, because the sample covariance matrix and the model covariance matrix will be identical.

Since the fit of a model can be increasingly improved by freeing additional parameters, a number of fit indices make an adjustment for the degrees of freedom of the model. Corresponding to the GFI, the adjusted goodness of fit index (AGFI) makes an adjustment for the degrees of freedom in the following manner:

$$\text{AGFI} = 1 - \frac{(p+q)(p+q+1)}{2d}\,(1\text{-GFI})$$

$(p + q)$ is the total number of indicators and d is the total number of degrees of freedom. The AGFI, however, has been criticized on the grounds that the manner in which it adjusts for degrees of freedom is not completely rational. Mulaik et al., (1989) point out that the AGFI can take on negative values in some situations. Thus, the AGFI does not have a meaningful zero point.

The parsimony normed fit index (PNFI) adjusts the NFI for the parsimony of a model by multiplying the NFI by a parsimony index.

$$\text{PNFI} = \frac{(d_i)}{(d_*)}\,(\text{NFI})$$

d_i reflects the degrees of freedom of the model, and d_* reflects the total possible degrees of freedom for the model. Therefore, a model that capitalizes on a large number of degrees of freedom will penalized to a great extent. This adjustment does not suffer from the same limitations as the AGFI.

Many of these fit indices have been criticized on the grounds that in many cases, the fit of a model can be unduly influenced by the fit of the measurement model. It is

possible to have a model which has a number of indicators per latent variable which has an acceptable fit even though the actual structural relationships between the latent variables are misspecified. However, it is usually the relationships between the latent variables that are of most concern to the researcher. Mulaik et al., (1989) propose the use of the relative normed fit index (RNFI) which tests the fit of the structural model independent of the fit of the measurement model.

$$\text{RNFI} = \frac{F_u - F_j}{F_u - F_m - (d_j - d_m)}$$

F_u represents a lack of fit index (chi-square) for the uncorrelated latent variables. F_j represents the chi-square index for the model of interest. F_m represents the chi-square index for the confirmatory factor analysis model (i.e., correlated latent variable model). d represents the degrees of freedom for each corresponding model (j and m). The norm in this model is the difference in fit between the unrelated variables model and the measurement model.

Hoelter (1983) proposed a statistic critical N (CN) based upon the sample size that would be required for the chi-square to be significant at a particular alpha level. A CN of 200 has been suggested as an appropriate value for a close fitting model (Hayduk, 1987).

Following the initial test of the *a priori* model, several alternative models were identified based upon theoretical and statistical justification. Specifically, *t*-values for the significance of parameter estimates and modification indices indicating potential estimates which should be freed were evaluated to identify potential revisions to the model. Error variances were not allowed to correlate simply to increase the fit of the model. In addition, changes in the structural relationships had to make theoretical sense.

Each of the competing models were tested and the practical measures of fit were examined to identify the model with the most promising fit.

Cross Validation of the Final Model

The final model identified in the previous step was tested using the hold out sample to determine the stability of the model.

Multi-group analyses.

Given an adequate fit of the final model, a multi-group analysis was undertaken to determine whether the model holds for each racial group. The multi-group analysis required separate covariance matrices to be computed for each racial group. Then the model was tested for each group simultaneously assuming varying levels of invariance. In the first analysis, all model parameters were freely estimated for each racial group. In the second analysis, the B and Γ matrices were held invariant by setting equality constraints. Since the two models are nested, the difference between the chi-squares of the two tests can be tested to determine whether the equality constraints are plausible (i.e., whether the same model holds for each racial group). In addition to the statistical test, the fit indices described earlier were analyzed to assess the practical implications of the results.

CHAPTER FOUR

RESULTS

Analysis One

Analysis one utilized analysis of variance techniques to examine the extent to which racial differences exist in four areas of the work experience. Statistically significant race effects were detected in each area although the practical significance of these findings are questionable. The results for each of these areas will be addressed following an evaluation of the assumptions underlying the statistical techniques used.

Evaluation of Assumptions

Assumptions of multivariate analysis techniques were examined to determine the appropriateness of the approach. As in all ANOVA, it is assumed that the means of the sampling distributions are normally distributed. There are two statistical indices for the normality of the variables - skewness and kurtosis. Skewness indicates the extent to which a distribution is asymmetrically shaped. Kurtosis indicates the extent to which a variable is more or less peaked than it should be. Normal distributions have skewness and kurtosis of zero. While one may desire to statistically test the extent to which the skewness or kurtosis of a variable is significant in small or moderate size samples, even minor deviations from normality will likely be significant in large samples. Since the sample size in this study is large (N=2165), significance tests of the non normality statistics were not examined. Table 5 presents the scale statistics including the degree of

Table 5

Dependent Variable Statistics

Scale	No of Items	Scale Mean	Scale sd	Skewness	Kurtosis
Work Beliefs					
Protestant Work Ethic	4	5.09	1.12	-.56	.09
Belief in Participative Decision Making	4	5.87	.89	-.79	.37
Belief in Teamwork	4	5.43	1.11	-.57	-.08
Job Satisfaction					
Satisfaction with Work	5	4.88	1.39	-.53	-.23
Satisfaction with Organization	2	5.27	1.57	-1.00	.38
Satisfaction with Supervision	6	4.47	1.85	-.45	-.98
Satisfaction with Management	3	3.01	1.83	.49	-1.04
Satisfaction with Co-workers	5	5.74	1.00	-.92	.75
Satisfaction with Pay	2	4.48	1.91	-.43	-1.03
Satisfaction with Security	2	3.68	2.13	.07	-1.45
Fairness in the Work Place					
Perceived Fairness	4	3.50	1.66	.19	-.91
Organizational Tolerance	5	4.22	1.27	-.28	.12
Social Tolerance	5	4.66	1.19	-.39	.03
Developmenatal Relationships	10	2.63	1.01	.19	-.76
Trust in Management	2	3.67	1.89	.05	-1.23
Trust in Co-workers	2	5.60	1.33	-1.22	1.38
Employee Outcomes					
Turnover Intentions	2	3.19	2.16	.47	-1.19
Organizational Identification	4	5.08	1.44	-.81	.22
Organizational Involvement	6	5.83	.95	-.83	.37
Loyalty	3	3.97	1.51	.06	-.59
Altruism	6	5.83	2.14	-.18	-.62

skewness and kurtosis. Seven of the variables have either skewness or kurtosis over 1.00. Therefore, normality of the distributions is not assumed. On the other hand, large sample studies are robust against non normality. Tabachnick and Fidell (1989) suggests that a study should have a minimum of 20 degrees of freedom for error for each cell to assure robustness. The smallest cell in this study contains 103 cases.

Another assumption of analysis of variance techniques is homogeneity of variance. Tabachnick and Fidell (1989) emphasize that analysis of variance techniques are robust to this violation if the cell sizes are equal. Since this study does not meet the criteria of equal sample sizes, both univariate tests of homogeneity of variance and the multivariate test for homogeneity of dispersion were examined. The results of the univariate tests are presented in Table 6. With several exceptions, the dependent variables met the homogeneity of variance criteria using Cochrans C. In the cases where homogeneity of variance was violated, a ratio between the cell with the largest variance to the cell with the smallest variance was calculated. Harris (1975) suggests using a ratio of 2:1 as an indicator of homogeneity of variance problems. In this study, the largest calculated ratio was 1.77:1 which is well within the 2:1 heuristic. The Box's M test was used to examine the multivariate test of homogeneity of dispersion. Even using a conservative criteria of .001, three of the sets of dependent variables failed to meet this criteria. Since the violation of homogeneity of dispersion was violated, a visual inspection of the variance/covariance matrices was conducted as suggested by Harris. If cells with larger sample sizes have larger variances and covariances, the significance tests will be overly conservative. If the opposite situation holds true, the significance tests will be overly liberal. This visual inspection indicated that the significance tests in this study are liberal. Therefore, the p-value for rejection of the null hypothesis was set at .01 instead of .05.

Table 6

Univariate Homogeneity of Variance Tests - Cochrans C

Dependent Variables	p-value
Work Beliefs	
Protestant Work Ethic	.000
Belief in Participative Decision Making	.041
Belief in Teamwork	.201
Job Satisfaction	
Satisfaction with Work	.099
Satisfaction with Organization	.020
Satisfaction with Supervision	.083
Satisfaction with Management	.023
Satisfaction with Co-workers	.007
Satisfaction with Pay	.043
Satisfaction with Security	1.000
Fairness in the Work Place	
Perceived Fairness	1.000
Organizational Tolerance	.001
Social Tolerance	.012
Developmenatal Relationships	.000
Trust in Management	.050
Trust in Co-workers	.000
Employee Outcomes	
Intention to Leave Organization	1.000
Organizational Identification	.004
Organizational Involvement	.662
Loyalty	.259
Altruism	.036

The data was screened for the presence of missing data and outliers. Each search occurred within subgroup (race and gender). Using a criteria of 3.5 standard deviations away from the mean, 48 univariate outliers were identified and eliminated from the data set. The criteria was set at 3.5 standard deviations to reduce the influence of poor quality data (e.g., individuals who responded in an arbitrary or random fashion) while allowing serious respondents to deviate from the norm. 623 cases were identified with missing data on at least one variable of interest in the study. Although the number of cases with missing data is large, there did not appear to be any type of pattern to the missing information. A dummy variable was created to categorize subjects into one of two groups (i.e., those who completed all items and those who had missing data on at least one item). A test of mean differences was computed on demographic background (i.e., income, education level, and tenure) as well as on all dependent variables that are identified in this study. No significant differences at the $p<.01$ level were detected for the demographic items. For differences on scales, only five of the 21 variables examined for differences were significant at the $p<.01$ level. The differences found could easily be accounted for by chance. Therefore, listwise deletion was utilized resulting in an adjusted sample size N=2165. Listwise deletion removes each case from the data set which has any missing data.

The intercorrelations between all of the variables included in the MANCOVAs are presented in Table 7. The correlations among the categories were examined as were correlations between scales in different categories. Generally speaking, the correlations within categories were higher than correlations between scales across categories. However, the categories (i.e., work beliefs, job satisfaction, perceptions of fairness, and employee outcomes) were not created to represent unidimensional constructs. The categories represented different aspects of the work experience. The categories

Table 7

Dependent Variable Intercorrelations - Overall

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Protestant Work Ethic	1.00										
(2) Belief in Empowerment	.14	1.00									
(3) Belief in Teamwork	.19	.40	1.00								
(4) Work Satisfaction	.16	-.01	.12	1.00							
(5) Organization Satisfaction	.19	.01	.15	.60	1.00						
(6) Satisfaction with Supervision	.18	.01	.08	.37	.45	1.00					
(7) Satisfaction with Management	.17	-.04	.08	.34	.46	.48	1.00				
(8) Satisfaction with Co-Workers	.18	.14	.23	.33	.47	.34	.25	1.00			
(9) Satisfaction with Pay	.11	-.05	.06	.23	.35	.21	.27	.20	1.00		
(10) Satisfaction with Security	.09	.02	.06	.25	.29	.21	.31	.18	.23	1.00	
(11) Perceived Fairness	.20	-.05	.10	.38	.52	.53	.75	.29	.33	.35	1.00
(12) Organizational Tolerance	.12	-.10	-.01	.25	.33	.34	.44	.23	.27	.22	.55
(13) Social Tolerance	.09	-.06	.03	.29	.31	.31	.35	.29	.21	.25	.45
(14) Developmental Relationships	.08	-.01	.03	.32	.33	.67	.38	.25	.17	.15	.42
(15) Trust in Management	.18	-.04	.10	.38	.51	.50	.76	.28	.29	.32	.85
(16) Trust in Co-Workers	.16	.10	.17	.23	.31	.31	.23	.52	.19	.10	.30
(17) Turnover Intentions	-.08	.04	-.07	-.33	-.42	-.22	-.26	-.16	-.19	-.41	-.30
(18) Organizational Identification	.20	.05	.20	.55	.79	.40	.48	.45	.32	.28	.53
(19) Organizational Involvement	.12	.06	.16	.39	.38	.21	.25	.29	.14	.17	.24
(20) Loyalty	.13	-.02	.12	.40	.51	.26	.35	.23	.27	.28	.38
(21) Altruism	.02	.06	.05	.07	.03	.08	.03	.09	-.04	-.01	.02

Table 7 (cont.)

Dependent Variable Intercorrelations - Overall

	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
(1) Protestant Work Ethic										
(2) Belief in Empowerment										
(3) Belief in Teamwork										
(4) Work Satisfaction										
(5) Organization Satisfaction										
(6) Satisfaction with Supervision										
(7) Satisfaction with Management										
(8) Satisfaction with Co-Workers										
(9) Satisfaction with Pay										
(10) Satisfaction with Security										
(11) Perceived Fairness										
(12) Organizational Tolerance	1.00									
(13) Social Tolerance	.65	1.00								
(14) Developmental Relationships	.34	.31	1.00							
(15) Trust in Management	.48	.39	.41	1.00						
(16) Trust in Co-Workers	.26	.30	.26	.28	1.00					
(17) Turnover Intentions	-.22	-.22	-.17	-.29	-.14	1.00				
(18) Organizational Identification	.31	.30	.33	.53	.32	-.38	1.00			
(19) Organizational Involvement	.18	.20	.22	.26	.21	-.18	.52	1.00		
(20) Loyalty	.26	.22	.19	.37	.18	-.44	.57	.36	1.00	
(21) Altruism	.06	.05	.17	.02	.04	.04	.11	.20	.05	1.00

identified in this study made the most theoretical sense. As a result, it was not unexpected for scales within one category to correlate highly with scales in a different category. For example, belief in teamwork had a moderately high correlation with satisfaction with co-workers. Similarly, belief in the Protestant work ethic correlated moderately high with perceived fairness. Satisfaction with supervision correlated highly with quality of developmental relationships and trust in management. Overall, the facets of job satisfaction tended to correlate highly with the fairness scales.

Work Beliefs

A 4 x 2 multivariate analysis of covariance (MANCOVA) was performed on three dependent variables related to different work beliefs: Protestant work ethic, belief in participative decision making, and belief in teamwork. The means, standard deviations and intercorrelations of the dependent variables are presented in Table 8. Independent variables were race (White, Hispanic, African American, and Asian/Pacific Islander) and gender (male and female). Adjustment was made for three covariates - income, tenure, and education.

With the use of Wilks' criterion, the combined DVs were significantly related to the combined covariates, approximate $F(9, 5237.55) = 9.40$, $p < .001$, to race, approximate $F(9, 5237.55) = 10.83$, $p < .001$, to gender, $F(3, 2152) = 18.99$, $p < .001$, and to the race by gender interaction, approximate $F(9, 5237.55) = 2.38$, $p=.001$. The effect sizes for each of the significant relationships are listed in Table 9.

To investigate more specifically the power of the covariates to adjust the dependent variables, multiple regressions were run for each DV in turn. Income provided significant adjustment to Protestant work ethic, $\beta= -.11$, $t(2154) = -.4.34$,

Table 8

Dependent Variable Intercorrelations - Work Beliefs

	Mean	(1)	(2)	(3)
(1) Protestant Work Ethic	5.09	1.12		
(2) Belief in Participative Decision Making	5.87	.14**	.89	
(3) Belief in Teamwork	5.43	.19**	.40**	1.11

Note: Standard deviations located on diagonal.
** p<.001

Table 9

Multivariate Analysis of Covariance Summary Table

Work Beliefs

Effect	Wilks' Lambda	F	df	p-value	η^2
Covariates	.96177	9.40	9, 5237.55	.000	.013
Race	.95611	10.83	9, 5237.55	.000	.015
Gender	.97421	18.99	3, 2152	.000	.026
Race by Gender	.99011	2.38	9, 5237.55	.011	.003

$p<.001$. Education provided significant adjustment to Protestant work ethic, $\beta = -.09$, t (2154) = -3.55, $p<.001$ and to belief in teamwork, $\beta = -.09$, t (2154) = -3.59, $p<.001$. Tenure did not provide significant adjustment to any of the dependent variables.

The univariate statistics for each of the effects are presented in Table 10. Each of the multivariate main effects were significant but the interaction term was not. As a result, univariate tests were conducted on race and gender to determine which dependent variables were affected. A Bonferroni adjustment to the alpha rate was made to compensate for inflated Type I error due to multiple testing. The adjusted alpha was .003. Using this criteria, Protestant work ethic and belief in teamwork were dependent upon race and gender. Adjusted means are presented in Table 11 and graphically presented in Figure 6.

The significant results must be evaluated in terms of their practical significance. Race accounts for 1.5% and gender accounts for 2.6% of the variance in the set of work beliefs. The largest univariate effect was for race on Protestant work ethic where 3.3% of the variance was accounted for. The remaining significant univariate effects accounted for one percent of the variance or less.

Job Satisfaction

A 4 x 2 multivariate analysis of covariance (MANCOVA) was performed on seven dependent variables related to various facets of job satisfaction: work, organization, supervision, management, co-workers, pay, and security . The means, standard deviations and intercorrelations of the dependent variables are presented in Table 12. Independent variables were race (White, Hispanic, African American, and

Table 10

Summary of Univariate Results - Work Beliefs

Effect	DV	Univariate F	df	p-value	η^2
Race	Protestant Work Ethic	24.22	3, 2154	.000	.033
	Belief in Participative Decision Making	3.23	3, 2154	.022	.004
	Belief in Teamwork	9.25	3, 2154	.000	.013
Gender	Protestant Work Ethic	21.94	1, 2154	.000	.010
	Belief in Participative Decision Making	.36	1, 2154	.550	.000
	Belief in Teamwork	38.31	1, 2154	.000	.017
Race x Gender	Protestant Work Ethic	.49	3, 2154	.693	.000
	Belief in Participative Decision Making	1.92	3, 2154	.124	.003
	Belief in Teamwork	4.97	3, 2154	.002	.007

Table 11

Adjusted Means for Dependent Variables - Work Beliefs

Protestant Work Ethic

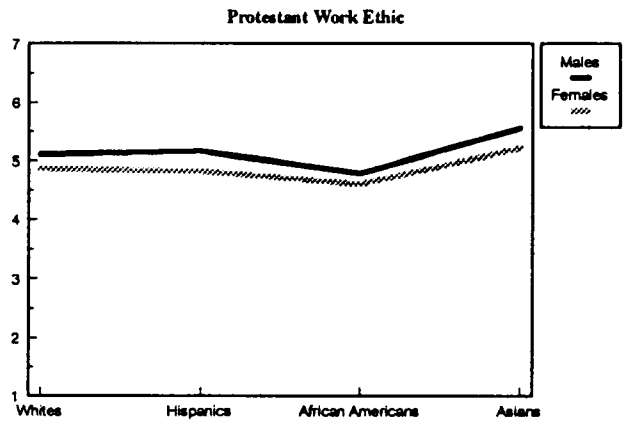
	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	5.10	5.16	4.78	5.56	5.15
Females	4.86	4.82	4.60	5.22	4.87
Combined	4.98	4.99	4.69	5.39	

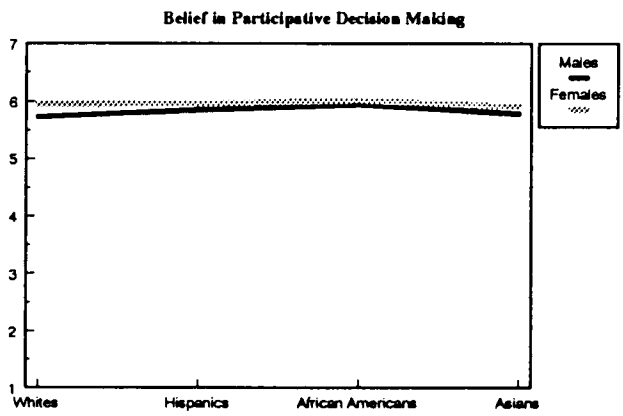
Belief in Participative Decision Making

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	5.72	5.94	5.94	6.01	5.90
Females	5.85	5.78	5.95	5.91	5.87
Combined	5.79	5.86	5.94	5.96	

Belief in Teamwork

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	5.19	5.54	5.65	5.78	5.54
Females	5.14	5.19	5.01	5.36	5.18
Combined	5.17	5.37	5.33	5.57	





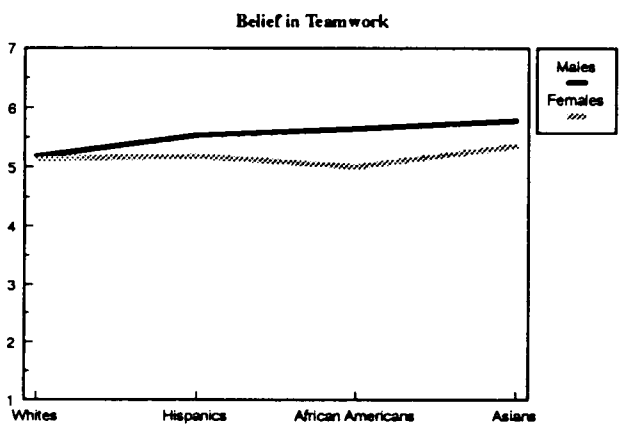


Figure 6 - Adjusted Means for Dependent Variables - Work Beliefs

Table 12

Dependent Variable Intercorrelations - Job Satisfaction

	Mean	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Work Satisfaction	4.88	1.39						
(2) Organizational Satisfaction	5.27	.60**	1.57					
(3) Satisfaction with Supervisor	4.47	.37**	.45**	1.85				
(4) Satisfaction with Mangement	3.01	.34**	.46**	.48**	1.83			
(5) Satisfaction with Co-workers	5.74	.33**	.47**	.34**	.25**	1.00		
(6) Satisfaction with Pay	4.48	.23**	.35**	.21**	.27**	.20**	1.91	
(7) Satisfaction with Security	3.68	.25**	.29**	.21**	.31**	.18**	.23**	2.13

Note: Standard deviations located on diagonal.
** $p<.001$

Asian/Pacific Islander) and gender (male and female). Adjustment was made for three covariates - income, tenure, and education.

With the use of Wilks' criterion, the combined DVs were significantly related to the combined covariates, approximate $F(21, 6168.45) = 12.50$, $p < .001$, and to race, approximate $F(21,6168.45) = 3.28$, $p < .001$, but not to gender or the race by gender interaction. The effect sizes for each of the relationships are listed in Table 13. The small effect sizes indicate that the practical significance of the results are questionable.

The set of covariates provided significant adjustment to all satisfaction variables. To investigate more specifically the power of the covariates to adjust the dependent variables, multiple regressions were run for each DV in turn. Income provided significant adjustment to work satisfaction $\beta = .21$, $t\ (2154) = 8.21$, $p<.001$, satisfaction with supervision, $\beta = .09$, $t\ (2154) = 3.53$, $p<.001$, satisfaction with management, $t\ (2154) = 4.28$, $p<.001$, satisfaction with pay, $\beta = .17$, $t\ (2154) = 6.74$, $p<.001$, and satisfaction with job security, $\beta = .17$, $t\ (2154) = 6.62$, $p<.001$. Education provided significant adjustment to work satisfaction, $\beta = -.11$, $t\ (2154) = -4.50$, $p<.001$, to organizational satisfaction, $\beta = -.14$, $t\ (2154) = -5.58$, $p<.001$, to satisfaction with co-workers, $\beta = -.09$, $t\ (2154) = -3.37$, $p=.005$, to satisfaction with pay $\beta = -.08$, $t\ (2154) = -3.19$, $p>.005$. Tenure provided significant adjustment to satisfaction with management, $\beta = -.09$, $t\ (2154) = -2.69$, $p<.01$ and to satisfaction with security, $\beta = .09$, $t\ (2154) = 4.21$, $p<.001$.

The univariate statistics for each of the effects are presented in Table 14. Race was the only independent variable that had a significant effect on the satisfaction set of dependent variables. Each of the multivariate main effects were significant but the interaction term was not. Univariate tests were conducted on race to determine which of the dependent variables were affected. A Bonferroni adjustment to the alpha rate was

Table 13

Multivariate Analysis of Covariance Summary Table

Job Satisfaction

	Wilks' Lambda	F	df	p-value	η^2
Covariates	.88722	12.50	21, 6168.45	.000	.039
Race	.96861	3.28	21, 6168.45	.000	.011
Gender	.99460	1.67	7, 2148	.113	.005
Race by Gender	.98378	1.68	21, 6168.45	.027	.005

Table 14

Summary of Univariate Results - Job Satisfaction

Effect	DV	Univariate F	df	p-value	η^2
Race	Satisfaction with Work	2.70	3, 2154	.044	.004
	Satisfaction with the Organization	7.03	3, 2154	.000	.010
	Satisfaction with the Supervision	4.37	3, 2154	.004	.006
	Satisfaction with Management	3.42	3, 2154	.017	.005
	Satisfaction with Co-workers	6.53	3, 2154	.000	.009
	Satisfaction with Pay	9.41	3, 2154	.000	.013
	Satisfaction with Security	4.59	3, 2154	.003	.006
Gender	Satisfaction with Work	.04	1, 2154	.851	.000
	Satisfaction with the Organization	.28	1, 2154	.594	.000
	Satisfaction with the Supervision	.08	1, 2154	.782	.000
	Satisfaction with Management	1.04	1, 2154	.309	.000
	Satisfaction with Co-workers	1.06	1, 2154	.302	.000
	Satisfaction with Pay	.22	1, 2154	.638	.000
	Satisfaction with Security	10.62	1, 2154	.001	.005
Race x Gender	Satisfaction with Work	3.35	3, 2154	.018	.005
	Satisfaction with the Organization	4.48	3, 2154	.004	.006
	Satisfaction with the Supervision	3.94	3, 2154	.008	.005
	Satisfaction with Management	2.55	3, 2154	.054	.004
	Satisfaction with Co-workers	1.38	3, 2154	.246	.002
	Satisfaction with Pay	.85	3, 2154	.464	.001
	Satisfaction with Security	1.55	3, 2154	.199	.002

made to compensate for inflated Type I error due to multiple testing. The adjusted alpha was .001. Using this criteria, race had a significant effect on satisfaction with the organization, satisfaction with co-workers, and satisfaction with pay. However, race only accounted for approximately 1% of the variance of each of these variables. Adjusted means are presented in Table 15 and graphically presented in Figure 7.

The results of this analysis indicate that males and females as well as members of different racial groups all see the organization very similarly. Even considering the magnitude of power in this study, few significant results were achieved. The covariates had the largest multivariate effects on the composite variable accounting for approximately 4% of the variance. Since the results are not of any substantive difference, post hoc contrasts to determine exactly where the groups differ were not conducted.

Fairness in the Organization

A 4 x 2 multivariate analysis of covariance (MANCOVA) was performed on six dependent variables related to organizational fairness and equal treatment: perceived fairness, organizational tolerance, social tolerance, developmental relationships, trust in management, and trust in co-workers. The means, standard deviations and intercorrelations of the dependent variables are presented in Table 16. Independent variables were race (White, Hispanic, African American, and Asian/Pacific Islander) and gender (male and female). Adjustment was made for three covariates - income, tenure, and education.

With the use of Wilks' criterion, the combined DVs were significantly related to the combined covariates, approximate $F(18, 6{,}078.78) = 11.33$, $p < .001$, to race,

Table 15

Adjusted Means for Dependent Variables - Job Satisfaction

Satisfaction with Work

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	4.68	4.92	4.95	4.89	4.86
Females	4.88	5.12	4.58	4.91	4.87
Combined	4.78	5.02	4.76	4.90	

Satisfaction with the Organization

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	5.10	5.29	5.23	5.41	5.26
Females	5.25	5.75	4.82	5.40	5.30
Combined	5.17	5.52	5.02	5.41	

Satisfaction with Supervision

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	4.29	4.35	4.51	4.70	4.46
Females	4.56	4.66	3.97	4.79	4.49
Combined	4.43	4.51	4.24	4.74	

Satisfaction with Management

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	2.85	2.88	3.04	3.22	3.00
Females	2.88	3.43	2.83	3.24	3.10
Combined	2.87	3.15	2.94	3.23	

Table 15 (cont.)

Satisfaction with the Co-workers

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	5.65	5.81	5.66	5.80	5.73
Females	5.71	5.86	5.57	6.02	5.79
Combined	5.68	5.84	5.61	5.91	

Satisfaction with Pay

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	4.41	4.35	4.14	4.74	4.41
Females	4.62	4.45	3.92	4.84	4.46
Combined	4.52	4.40	4.03	4.79	

Satisfaction with Security

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	3.20	3.74	3.43	3.85	3.55
Females	3.92	4.13	3.59	4.05	3.92
Combined	3.56	3.94	3.51	3.95	

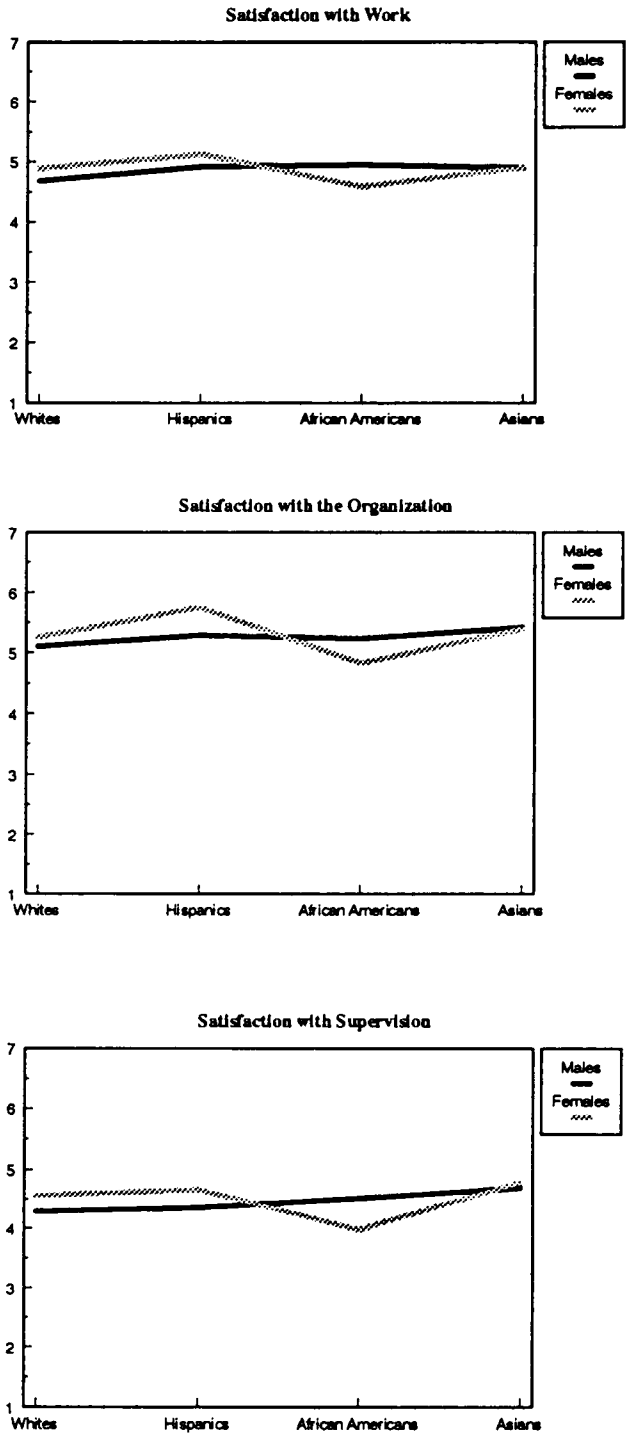
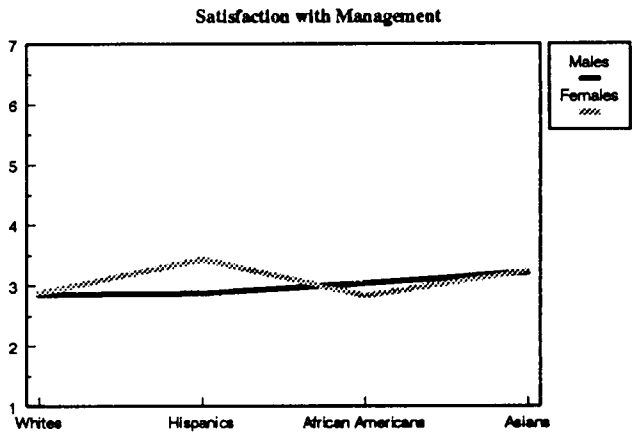
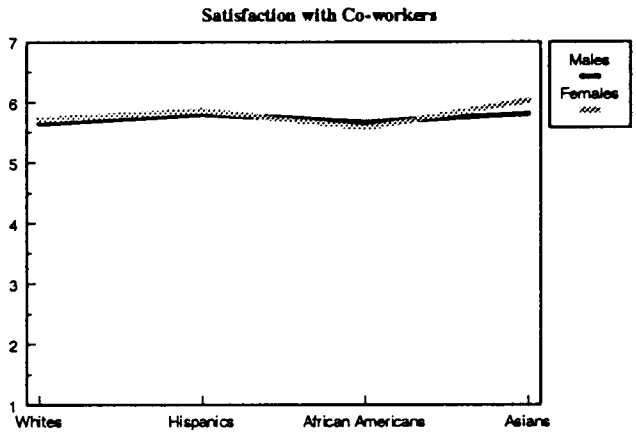


Figure 7 - Adjusted Means for Dependent Variables - Job Satisfaction





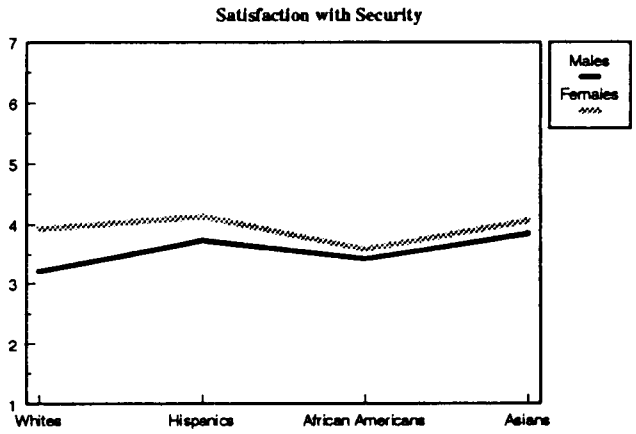


Figure 7 (cont.)

Figure 7 (cont.) - Adjusted Means for Dependent Variables - Job Satisfaction

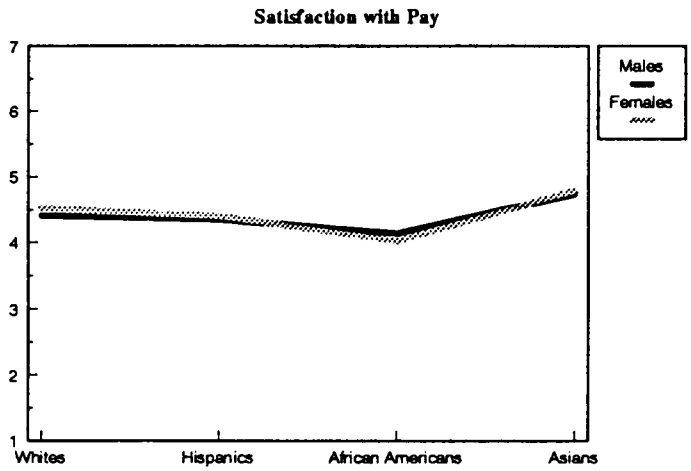


Figure 7 (cont.) - Adjusted Means for Dependent Variables - Job Satisfaction

Table 16

Dependent Variable Intercorrelations - Fairness in the Workplace

	Mean	(1)	(2)	(3)	(4)	(5)	(6)
(1) Organizational Fairness	3.50	1.66					
(2) Organizational Tolerance	4.22	.55**	1.27				
(3) Social Tolerance	4.66	.45**	.65**	1.19			
(4) Developmental Relationships	2.63	.42**	.34**	.31**	1.01		
(5) Trust in Management	3.67	.85**	.48**	.39**	.41**	1.89	
(6) Trust in Co-workers	5.60	.30**	.26**	.30**	.26**	.28**	1.33

Note: Standard deviations located on diagonal.
** $p<.001$

approximate $F(18, 6078.78) = 19.54$, $p < .001$, to gender, $F(6, 2149) = 4.40$, $p < .001$, but not to the race by gender interaction. The effect sizes for each of the significant relationships are listed in Table 17. The effect sizes are slightly larger than the previously described analyses Race accounted for 5% of the variance in fairness perceptions.

To investigate more specifically the power of the covariates to adjust the dependent variables, multiple regressions were run for each DV in turn. Income provided significant adjustment to fairness perceptions, $\beta = .13$, $t(2154) = .4.92$, $p<.001$, organizational tolerance, $\beta = .14$, $t(2154) = 5.90$, $p<.001$, social tolerance, $\beta = .17$, $t(2154) = 6.19$, $p<.001$, developmental relationships, $\beta = .19$, $t(2154) = 7.53$, $p<.001$, and trust in management, $\beta = .11$, $t(2154) = 4.17$, $p<.001$. Education provided significant adjustment to fairness, $\beta = -.09$, $t(2154) = -3.89$, to trust in management, $\beta = -.07$, $t(2154) = -2.79$, $p<.005$, and to trust in co-workers, $\beta = -.09$, $t(2154) = -3.38$, $p<.001$. Tenure provided significant adjustment to fairness, $\beta = -.06$, $t(2154) = -2.70$, $p<.01$, and to developmental relationships, $\beta = -.07$, $t(2154) = .-3.02$, $p<.005$.

The univariate statistics for each of the effects are presented in Table 18. Each of the multivariate main effects were significant but the interaction term was not. As a result, univariate tests were conducted on race and gender to determine which dependent variables were affected. A Bonferroni adjustment to the alpha rate was made to compensate for inflated Type I error due to multiple testing. The adjusted alpha was .0017. Using this criteria, perceived fairness, organizational tolerance, social tolerance, and trust in co-workers were all significantly dependent upon race. Developmental relationships was only dependent upon gender. Adjusted means are presented in Table 19 and graphically illustrated in Figure 8.

Table 17

Multivariate Analysis of Covariance Summary Table

Fairness in the Workplace

Effect	Wilks' Lambda	F	df	p-value	η^2
Covariates	.91087	11.33	18, 6078.78	.000	.031
Race	.85294	19.54	18, 6078.78	.000	.052
Gender	.98788	4.40	6, 2149	.000	.012
Race by Gender	.98636	1.64	18, 6078.78	.042	.005

Table 18

Summary of Univariate Results - Fairness in the Workplace

Effect	DV	Univariate F	df	p-value	η^2
Race	Perceived Fairness	15.25	3, 2154	.000	.021
	Organizational Tolerance	64.67	3, 2154	.000	.083
	Social Tolerance	22.75	3, 2154	.000	.031
	Developmental Relationships	3.49	3, 2154	.015	.005
	Trust in Management	4.85	3, 2154	.002	.007
	Trust in Co-workers	6.18	3, 2154	.000	.009
Gender	Perceived Fairness	.16	1, 2154	.691	.000
	Organizational Tolerance	.01	1, 2154	.930	.000
	Social Tolerance	1.98	1, 2154	.159	.001
	Developmental Relationships	11.10	1, 2154	.001	.005
	Trust in Management	.97	1, 2154	.325	.000
	Trust in Co-workers	.82	1, 2154	.364	.000
Race x Gender	Perceived Fairness	2.14	3, 2154	.094	.003
	Organizational Tolerance	4.02	3, 2154	.007	.006
	Social Tolerance	2.95	3, 2154	.032	.004
	Developmental Relationships	1.84	3, 2154	.138	.003
	Trust in Management	1.86	3, 2154	.135	.003
	Trust in Co-workers	2.68	3, 2154	.045	.004

Table 19

Adjusted Means for Dependent Variables - Perceptions of Fairness

Perceived Fairness

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	3.33	3.53	3.31	3.83	3.50
Females	3.25	3.77	2.92	3.91	3.46
Combined	3.29	3.65	3.12	3.87	

Organizational Tolerance

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	4.72	3.95	3.58	4.17	4.11
Females	4.55	4.24	3.32	4.30	4.10
Combined	4.64	4.09	3.45	4.24	

Social Tolerance

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	4.91	4.43	4.29	4.62	4.56
Females	4.85	4.68	4.17	4.91	4.66
Combined	4.88	4.56	4.23	4.76	

Developmental Relationships

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	2.61	2.59	2.53	2.56	2.57
Females	2.83	2.84	2.50	2.89	2.76
Combined	2.72	2.72	2.51	2.71	

Table 19 (cont.)

Trust in Management

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	3.39	3.66	3.71	3.88	3.66
Females	3.61	4.02	3.41	4.00	3.76
Combined	3.50	3.84	3.56	3.94	

Trust in Co-workers

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	5.59	5.65	5.53	5.70	5.62
Females	5.53	5.42	5.30	5.97	5.55
Combined	5.56	5.53	5.42	5.84	

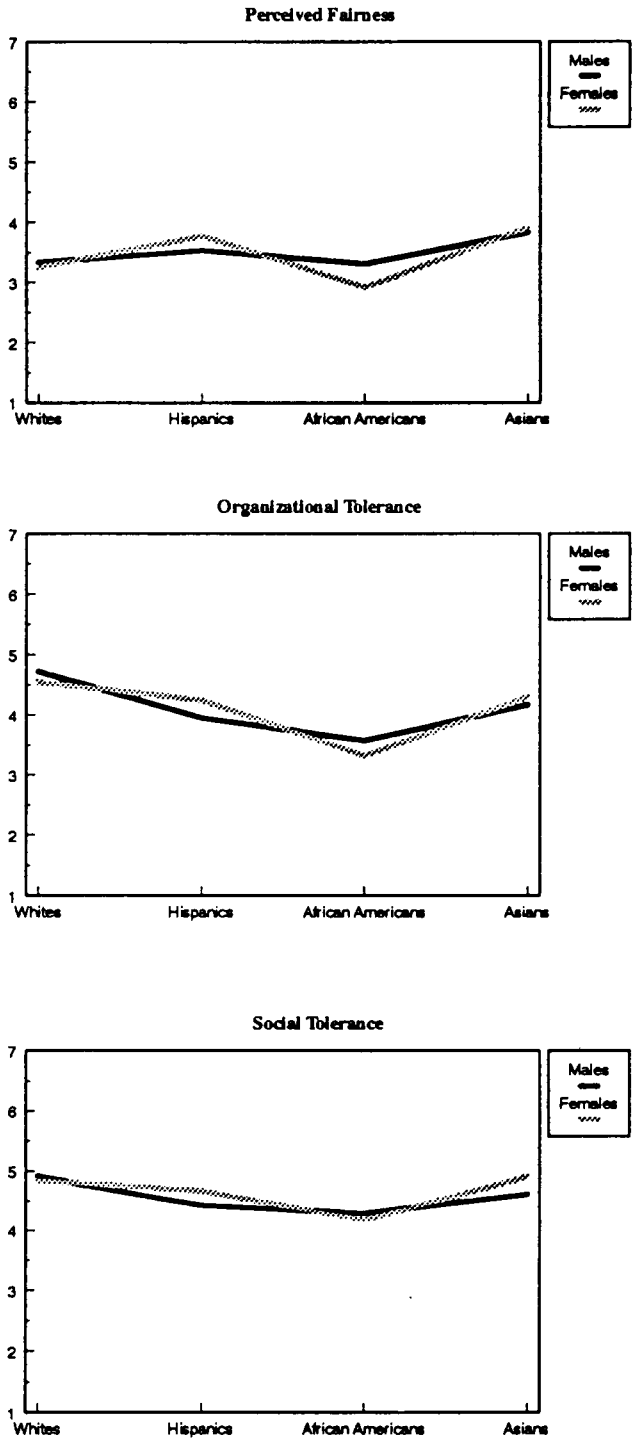
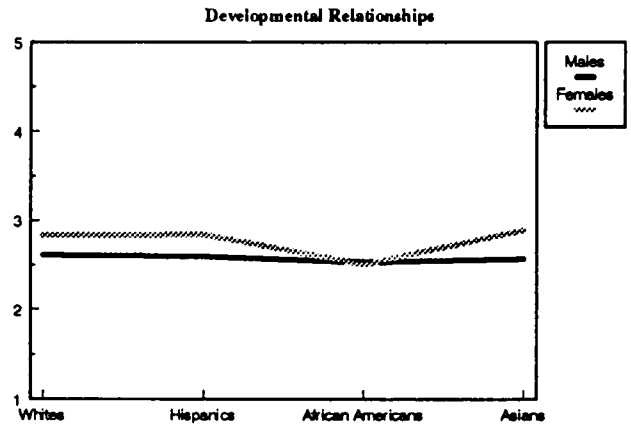
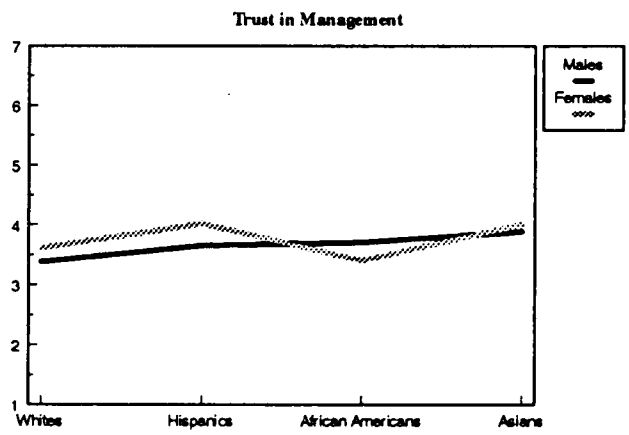


Figure 8 - Adjusted Means for Dependent Variables - Fairness in the Workplace





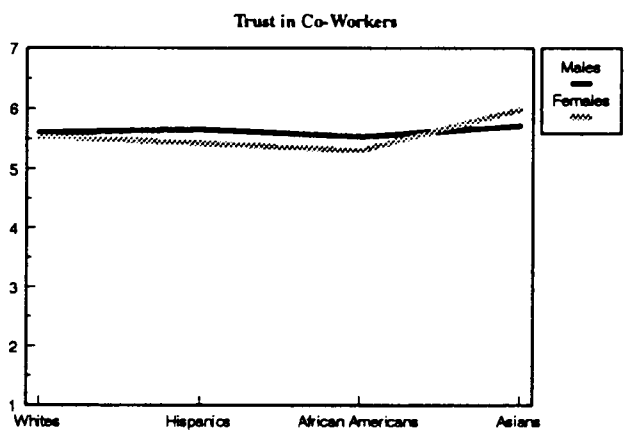


Figure 8 (cont.) - Adjusted Means for Dependent Variables - Perceptions of Fairness

An examination of the effect sizes was undertaken to determine the practical significance of the findings. Race accounted for 8.3% of the variance in organizational tolerance, 3.1% of the variance in social tolerance, and 2.1% of the variance in perceived fairness. Due to the magnitude of these effect sizes, post hoc tests were conducted to determine where the groups differed. African Americans viewed the organization as least tolerant (both socially and organizationally), and Whites perceived the organization as most tolerant. While Asian/Pacific Islanders perceived the organization as less organizationally tolerant than Whites, they did not significantly differ from Whites in terms of social tolerance. Interestingly, a different pattern was identified for perceived fairness. Asian/Pacific Islanders perceived the organization in the most favorable fashion. Similarly, Hispanics significantly perceived the organization as more fair than Whites. Whites and African Americans did not significantly differ from each other. The remaining effect sizes were less than one percent, therefore post hoc tests were not conducted.

Employee Outcomes

A 4 x 2 multivariate analysis of covariance (MANCOVA) was performed on five dependent variables related to employee outcomes: turnover intentions, organizational identification, organizational involvement, loyalty, and altruism. The means, standard deviations and intercorrelations of the dependent variables are presented in Table 20. Independent variables were race (White, Hispanic, African American, and Asian/Pacific Islander) and gender (male and female). Adjustment was made for three covariates - income, tenure, and education.

Table 20

Dependent Variable Intercorrelations - Employee Outcomes

	Mean	(1)	(2)	(3)	(4)	(5)
(1) Turnover Intentions	3.19	2.16				
(2) Organizational Identification	5.08	-.37**	1.44			
(3) Organizational Involvement	5.83	-.18**	.52**	.95		
(4) Loyalty	3.97	-.44**	.57**	.36**	1.51	
(5) Altruism	5.83	.04**	.11**	.20**	.05*	2.14

Note: Standard deviations located on diagonal.
* $p<.05$
** $p<.001$

With the use of Wilks' criterion, the combined DVs were significantly related to the combined covariates, approximate $F(15, 5935.6) = 16.61$, $p < .001$, and to race, approximate $F(15, 5935.6) = 6.23$, $p < .001$, and to gender, $F(15, 2150) = 5.39$, $p < .001$, but not to the race by gender interaction. The effect sizes for each of the relationships are listed in Table 21. The covariates account for 3.7% of the variance in the combined outcomes. Race and gender each account for slightly more than one percent of the variance in the combined outcomes.

The set of covariates provided significant adjustment to all the outcome variables. To investigate more specifically the power of the covariates to adjust the dependent variables, multiple regressions were run for each DV in turn. Income provided significant adjustment to each of the dependent variables: turnover intentions $\beta = -.09$, $t(2154) = -3.59$, $p<.001$, organizational identification, $\beta = .11$, $t(2154) = 4.22$, $p<.001$, organizational involvement, $t(2154) = .20$, $p<.001$, loyalty, $\beta = .10$, $t(2154) = 3.95$, $p<.001$, and altruism, $\beta = .09$, $t(2154) = 3.60$, $p<.001$. Education provided significant adjustment to , $\beta = .15$, $t(2154) = 6.13$, $p<.001$, to organizational identification, $\beta = -.12$, $t(2154) = -4.93$, $p<.001$, to loyalty, $\beta = -.12$, $t(2154) = -4.66$, $p=.001$, and to altruism $\beta = .09$, $t(2154) = 3.41$, $p>.001$. Tenure provided significant adjustment to turnover intentions, $\beta = -.14$, $t(2154) = -6.17$, $p<.001$ and to loyalty, $\beta = .09$, $t(2154) = 4.12$, $p<.001$.

The univariate statistics for each of the effects are presented in Table 22. Race and gender each had multivariate effects on the composite dependent variable. Univariate tests were conducted on race to determine which dependent variables were affected. A Bonferroni adjustment to the alpha rate was made to compensate for inflated Type I error due to multiple testing. The adjusted alpha was .002. Using this criteria, race had a significant effect on each of the dependent variables with the exception of

Table 21

Multivariate Analysis of Covariance Summary Table

Employee Outcomes

Effect	Wilks' Lambda	F	df	p-value	η^2
Covariates	.89271	16.61	15, 5935.6	.000	.037
Race	.95777	6.23	15, 5935.6	.000	.014
Gender	.98762	5.39	5, 2150	.000	.012
Race by Gender	.98737	1.83	15, 5935.6	.026	.004

Table 22

Summary of Univariate Results - Employee Outcomes

Effect	DV	Univariate F	df	p-value	η^2
Race	Turnover Intentions	4.34	3, 2154	.005	.006
	Organizational Identification	6.09	3, 2154	.000	.008
	Organizational Involvement	6.10	3, 2154	.000	.008
	Loyalty	6.87	3, 2154	.000	.009
	Altruism	7.23	3, 2154	.000	.010
Gender	Turnover Intentions	.94	1, 2154	.332	.000
	Organizational Identification	.05	1, 2154	.824	.000
	Organizational Involvement	9.99	1, 2154	.002	.005
	Loyalty	6.23	1, 2154	.013	.003
	Altruism	2.93	1, 2154	.087	.001
Race x Gender	Turnover Intentions	3.19	3, 2154	.023	.004
	Organizational Identification	4.65	3, 2154	.003	.006
	Organizational Involvement	1.52	3, 2154	.207	.002
	Loyalty	3.83	3, 2154	.010	.005
	Altruism	1.57	3, 2154	.194	.002

turnover intentions. The effect sizes were all one percent or less. Gender had a significant effect on loyalty, however the effect size was only .3%. Adjusted means are presented in Table 23 and graphically presented in Figure 9.

Summary Analysis One

The results of this analysis indicate that males and females as well as members of different racial groups all perceive the organization very similarly. The most significant findings were found in the area of perceptions of fairness where race accounted for over 5% of the variance in the set of dependent variables. With respect to the univariate tests, race accounted for 8.3% of the variance in organizational tolerance and 3.1% of the variance in social tolerance. Interestingly, race only accounted for 2.1% of the variance in the perceived fairness dependent variable. Work beliefs had the second strongest effect size for the cultural variables where gender accounted for 2.6% of the variance in the set of work beliefs. Several interesting findings were noted. First, females were more likely to perceive a higher quality developmental relationship with their supervisor than were the male employees. Another surprising result was that females tend to have a less favorable opinion of teamwork than their male counterparts. These differences are the greatest for the African American and Asian/Pacific Islander groups of employees.

Overall, it appears that African American women possess the most negative perceptions of the organization. This group tends to perceive the organization as being less fair and less tolerant than the other groups. They also tend to be the least satisfied with their job. Furthermore, African American women tend to have a less favorable view of teamwork than the other groups.

Table 23

Adjusted Means for Dependent Variables - Employee Outcomes

Turnover Intentions

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	3.34	3.21	3.36	3.02	3.23
Females	3.04	3.12	3.94	3.28	3.34
Combined	3.19	3.17	3.65	3.15	

Organizational Identification

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	4.87	5.13	5.10	5.20	5.07
Females	5.07	5.32	4.60	5.25	5.06
Combined	4.97	5.23	4.85	5.22	

Organizational Involvement

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	5.75	5.88	5.83	5.66	5.78
Females	6.03	6.13	5.87	5.73	5.94
Combined	5.89	6.00	5.85	5.70	

Loyalty

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	3.91	4.01	3.84	4.12	3.97
Females	3.98	4.04	3.27	3.78	3.77
Combined	3.95	4.02	3.55	3.95	

Table 23 (cont.)

Altruism

	Whites	Hispanics	African Americans	Asian/Pacific Islanders	Combined
Males	5.86	5.87	5.49	5.74	5.74
Females	6.37	6.06	5.35	5.97	5.93
Combined	6.11	5.97	5.42	5.86	

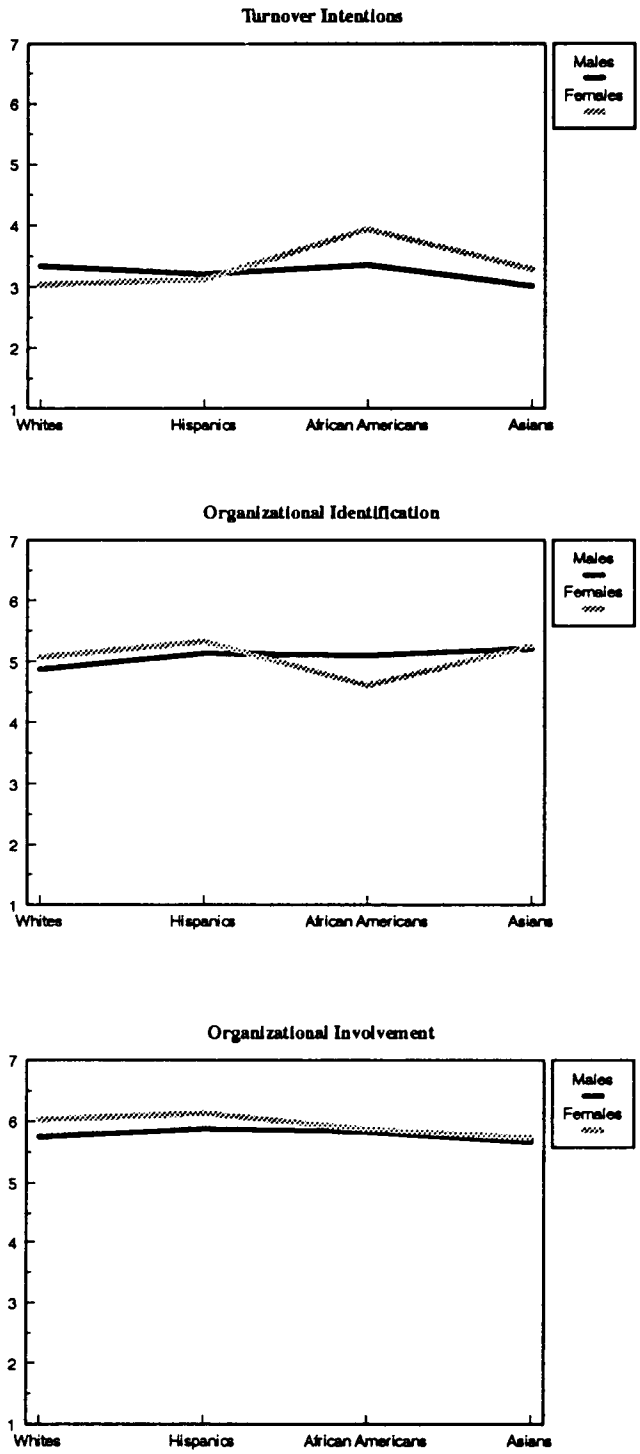
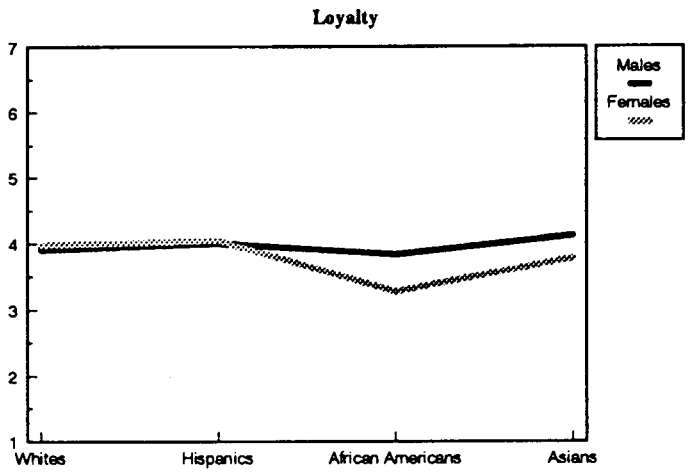


Figure 9 - Adjusted Means for Dependent Variables - Employee Outcomes



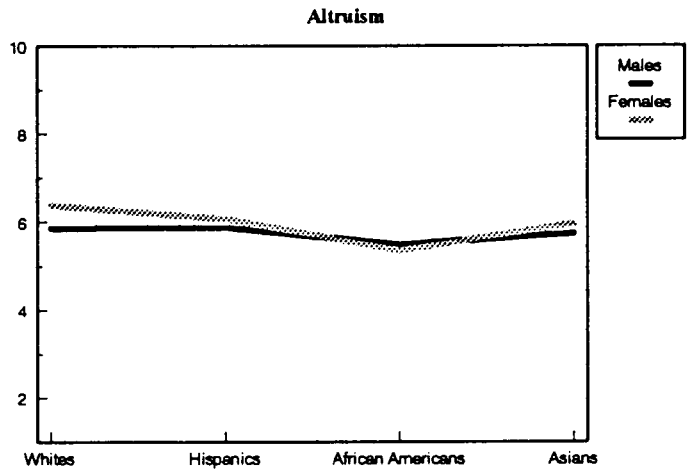


Figure 9 (cont.) - Adjusted Means for Dependent Variables - Employee Outcomes

Analysis Two

Analysis two utilized structural equation modeling techniques to test a model of fairness developed for this study, revise the model based upon the findings, and test the extent to which the same model holds for different racial groups. The analyses indicated a promising model fit. However, subgroup differences were minimal.

Evaluation of Assumptions

James, Mulaik, and Brett (1982) describe seven conditions which pertain to the appropriateness of a theoretical model for confirmatory analysis and causal inference. These conditions are:

1. formal statement of theory in terms of a structural model
2. theoretical rationale for the causal hypotheses
3. specification of the causal order
4. specification of the causal direction
5. self-contained functional equations
6. specification of the boundaries
7. stability of the structural model

The *a priori* model described in Chapter Two satisfies the first four conditions. A structural model was identified and a theoretical rationale for each of the relationships was outlined. The model indicated the causal order and the causal direction for the constructs. Boundaries refer to the context in which the model is expected to hold (i.e.,

to what contexts is the model expected generalize). This condition would be violated if the functional relationships are contingent on a third variable (i.e., a moderator variable). In this instance, racial group is a suspected moderator. Therefore, the extent to which the model depends upon racial group will be tested through the use of multi-sample analysis. The stability of the model is assumed. However, it may be wise to retest the model at a later date to determine the accuracy of this assumption. The most problematic condition deals with the assumption that the functional equations are self contained. Self contained refers to the notion that there are no relevant and unmeasured causes of any of the endogenous variables. Failure to meet this condition will result in biased parameter estimates and may make causal inference problematic. It is likely that the fairness model developed in this study violates this condition. It would be very difficult to include all relevant causes of the endogenous variables in this study (e.g., job satisfaction, commitment, turnover, perceived fairness, etc.). The model would become unwieldy and extremely unmanageable. However, relevant and unmeasured is a matter of degree. James (1980) states "The operative question is not whether one has an unmeasured variables problem but rather the degree to which the unavoidable unmeasured variables problem biases estimates of path coefficients [a form of structural parameter] and provides a basis for alternative explanations of results." (p. 415) Therefore, it is important to anticipate the potential biases that may exist when this condition is not met, and understand what effects may be expected in the model.

Measurement Model Fit

The measurement model was tested with the exploratory data set. The goodness of fit statistics for the measurement model (both prior to and following revisions) are

presented in Table 24. The χ^2 of the initial model was 2469.16 with 549 degrees of freedom ($p<.001$). Due to the large sample size (N=1284), a significant χ^2 was expected. Therefore, the practical measures of fit were examined to identify the promise of the measurement model. The GFI of .90 indicated a promising fit, but also suggested that the model could potentially be improved. Therefore, a detailed assessment of fit was undertaken to identify potential model revisions. This assessment included an examination of the factor loadings, standardized residuals, and modification indices. The standardized factor loadings for the initial measurement model are presented in Table 25. The factor loadings were most problematic for the cultural tolerance variable which ranged from .56 to .78. This may be due to the nature of the construct. The largest standardized residuals involved indicators of the procedural justice latent variable. The measurement errors for items oc_25 and oc_26 were highly correlated as were the measurement errors for items oc_27 and oc_28. The standardized residuals were 18.57 for oc_27 and oc_28 and 15.93 for oc_25 and oc_26. An examination of the items indicated that each pair of items were measuring specific aspects of the procedural justice construct (i.e., oc_27 and oc_28 both dealt with performance evaluations and oc_25 and oc_26 both dealt with promotional policies). Rather than to allow the measurement errors to correlate, items oc_25 and oc_27 were removed the measurement model. oc_25 and oc_27 had the lowest reliabilities of the redundant pairs. The model was retested and the χ^2 was reduced to 1789.16 with 482 degrees of freedom. The model was further reviewed and oc_44 was identified as a source of error. The errors for oc_44 and oc_55 were highly correlated, and oc_44 had very strong cross loadings on several other constructs (especially procedural and distributive justice). Therefore, oc_44 was removed from the measurement model reducing the χ^2 to 1459.08 with 450 degrees of freedom. Next, ja_49 was identified as

Table 24

Measurement Model - Goodness of Fit Statistics

Sample Size=1284

	χ^2	df	χ^2/df	GFI	AGFI	NFI	PNFI	RMSEA	SRMR	CN
Initial Model	2469.16	549	4.50	.90	.88	.92	.80	.052	.051	329
Final Model	944.98	341	2.77	.95	.94	.96	.81	.037	.032	550

Table 25

Initial Measurement Model - Standardized Factor Loadings

Survey Item	Distributive Justice	Procedural Justice	Perceived Fairness	Trust	Cultural Tolerance	Org. Satisfaction	Work Satisfaction	Org. Identification	Perceptions of Downsizing	Turnover Intentions
oc_31	.51									
oc_32	.37									
oc_33	.64									
oc_36	.73									
oc_37	.58									
oc_23		.81								
oc_25		.86								
oc_26		.89								
oc_27		.61								
oc_28		.71								
oc_19			.82							
oc_20			.90							
oc_21			.91							
oc_22			.90							
oc_11				.92						
oc_13				.96						
oc_38					.56					
oc_39					.78					
oc_42					.57					
oc_44					.66					
oc_55					.58					
ja_31						.93				
ja_32						.90				

Table 25 (cont.)

Initial Measurement Model - Standardized Factor Loadings

Survey Item	Distributive Justice	Procedural Justice	Perceived Fairness	Trust	Cultural Tolerance	Org. Satisfaction	Work Satisfaction	Org. Identification	Perceptions of Downsizing	Turnover Intentions
ja_7							.76			
ja_8							.67			
ja_9							.61			
ja_10							.57			
ja_33								.87		
ja_35								.76		
ja_39								.86		
ep_2									.68	
ep_3									.84	
ep_7									.44	
ja_49										.61
ja_51										.95
ja_52										.89

a poor indicator of turnover intentions. An examination of the modification indices suggested strong cross loadings on organizational satisfaction, organizational identification, fairness, procedural justice, distributive justice, and cultural tolerance. ja_49 measured the extent to which the employee would leave his or her job if given an opportunity to work in a similar company. The other two turnover items measured the employee's active role (i.e., actual intent) in looking for a job. Therefore, ja_49 was removed from the model. Finally, the relationships between the indicators of the three fairness oriented constructs was reviewed. The measurement model indicated that procedural and distributive justice were highly related. The correlation between the two constructs was .95. This could partially be due to the inability of the respondents to distinguish between the two constructs. It was decided that a combination of the two justice constructs made the most sense. Therefore, the procedural and distributive justice constructs were combined to form a perceived justice variable. Furthermore, two of the justice indicators and one fairness indicator (oc_19) were removed from the model due to strong cross loadings on other variables. The goodness of fit indices for the final measurement model are presented in Table 24. The GFI increased to .95 and the NFI increased to .96. The error terms were reduced to .037 (RMSEA) and .032 (SRMR). The standardized factor loadings for the revised model are presented in Table 26. Table 27 presents the intercorrelations between each of the latent variables.

Structural Model Fit

The *a priori* model after the measurement model revisions is illustrated in Figure 10. The model was tested with the exploratory data set and the goodness of fit indices are presented in Table 28. Consistent with the measurement model, the χ^2 of the general

Table 26

Final Measurement Model - Standardized Factor Loadings

Survey Item	Perceived Justice	Perceived Fairness	Trust	Cultural Tolerance	Org. Satisfaction	Work Satisfaction	Org. Identification	Perceptions of Downsizing	Turnover Intentions
oc_33	.61								
oc_36	.70								
oc_37	.57								
oc_23	.82								
oc_26	.84								
oc_28	.71								
oc_20		.89							
oc_21		.92							
oc_22		.91							
oc_11			.92						
oc_13			.96						
oc_38				.56					
oc_39				.82					
oc_42				.52					
oc_55				.48					
ja_31					.93				
ja_32					.90				

Table 26(cont.)

Final Measurement Model - Standardized Factor Loadings

Survey Item	Perceived Justice	Perceived Fairness	Trust	Cultural Tolerance	Org. Satisfaction	Work Satisfaction	Org. Identification	Perceptions of Downsizing	Turnover Intentions
ja_7						.77			
ja_8						.67			
ja_9						.61			
ja_10						.57			
ja_33							.87		
ja_35							.76		
ja_39							.86		
ep_2								.68	
ep_3								.84	
ep_7								.44	
ja_51									.95
ja_52									.89

Table 27

Final Measurement Model Correlations Between Latent Variables

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	Perceived Justice	1.00								
(2)	Perceived Fairness	.85	1.00							
(3)	Trust	.77	.87	1.00						
(4)	Cultural Tolerance	.74	.72	.63	1.00					
(5)	Organizational Satisfaction	.48	.59	.55	.43	1.00				
(6)	Satisfaction with Work	.32	.39	.37	.29	.69	1.00			
(7)	Organizational Identification	.50	.62	.58	.43	.95	.68	1.00		
(8)	Perceptions of Downsizing	-.18	-.16	-.16	-.14	-.05	-.10	-.05	1.00	
(9)	Turnover Intentions	-.24	-.31	-.29	-.23	-.45	-.36	-.45	.25	1.00

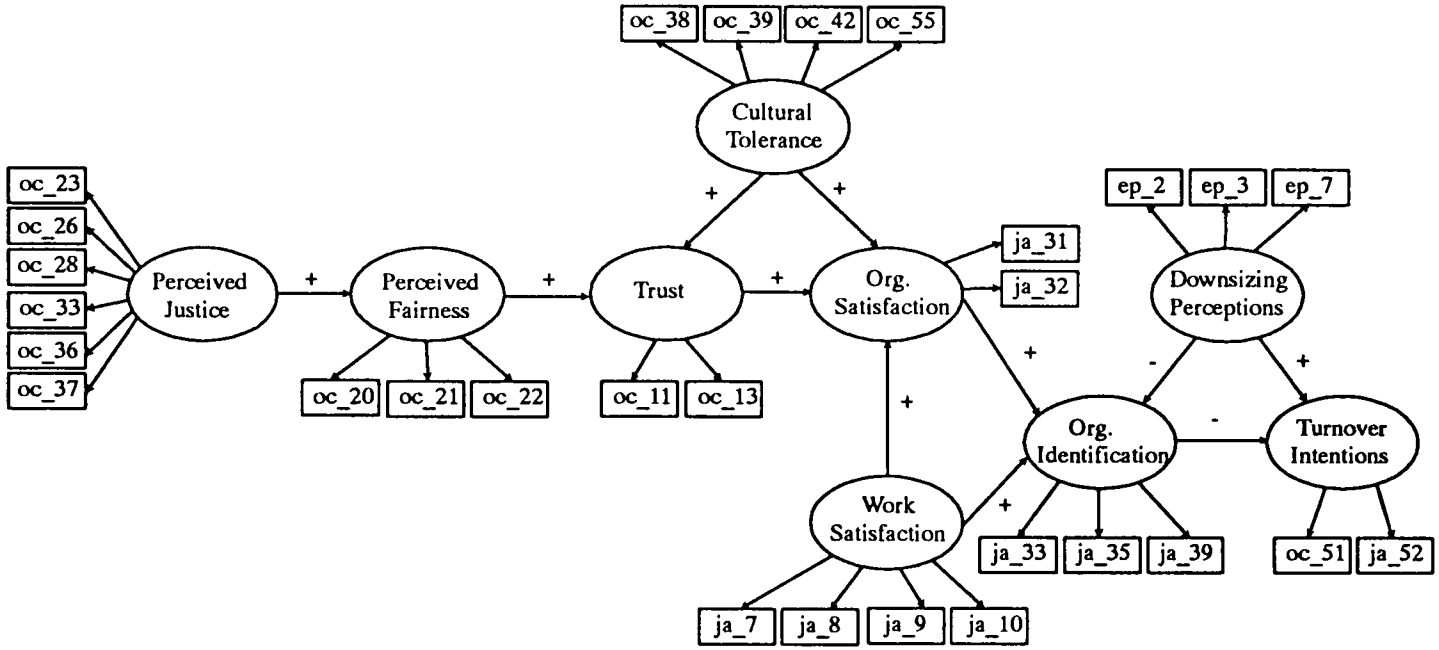


Figure 10 - *A Priori* Fairness Model - Revised

Table 28

A Priori Model Goodness of Fit Statistics

Sample Size=1284										
χ^2	df	χ^2/df	GFI	AGFI	NFI	PNFI	RNFI	RMSEA	SRMR	CN
1089.4	360	3.03	.94	.93	.95	.85	.97	.040	.040	502

model was significant. However, all the practical goodness of fit measures (with the exception of the PNFI) were over .90. Furthermore, the RMSEA and SRMR were both below .05.

Given the promising fit of the model, a closer examination of the results was undertaken to identify potential model revisions. This review illustrated several characteristics of the model. First, the relationship between cultural tolerance and trust and the relationship between cultural tolerance and organizational satisfaction were both non significant. Instead, cultural tolerance appeared to have a direct positive affect on perceived fairness. Therefore, individuals who perceive the organization as being culturally tolerant are more likely to perceive the organization as being fair. In addition, satisfaction with work did not have a direct effect on organizational identification. Finally, downsizing perceptions did not significantly affect organizational identification. The modification indices suggested one relationship that was not hypothesized (satisfaction with work → perceived fairness). The modification index for this relationship was 40.42. It appears that individuals that enjoy the tasks that they perform on the job are more likely to perceive the organization as being fair. One proposed reason for this relationship is that individuals who enjoy their work are more likely to have a general positive affect on the job which may influence their perceptions of the organization. The parameter estimates for the *a priori* model are presented in Figure 11.

Three competing models were identified based upon the results described above. The three models are illustrated in Figure 12 to Figure 14. Each model is identical except for the relationships posited between fairness, trust, and organizational satisfaction. Model one proposes that perceived fairness has a positive effect on both organizational satisfaction and trust. In turn, organizational satisfaction and trust have a direct effect on organizational identification. In model two, perceived fairness has a

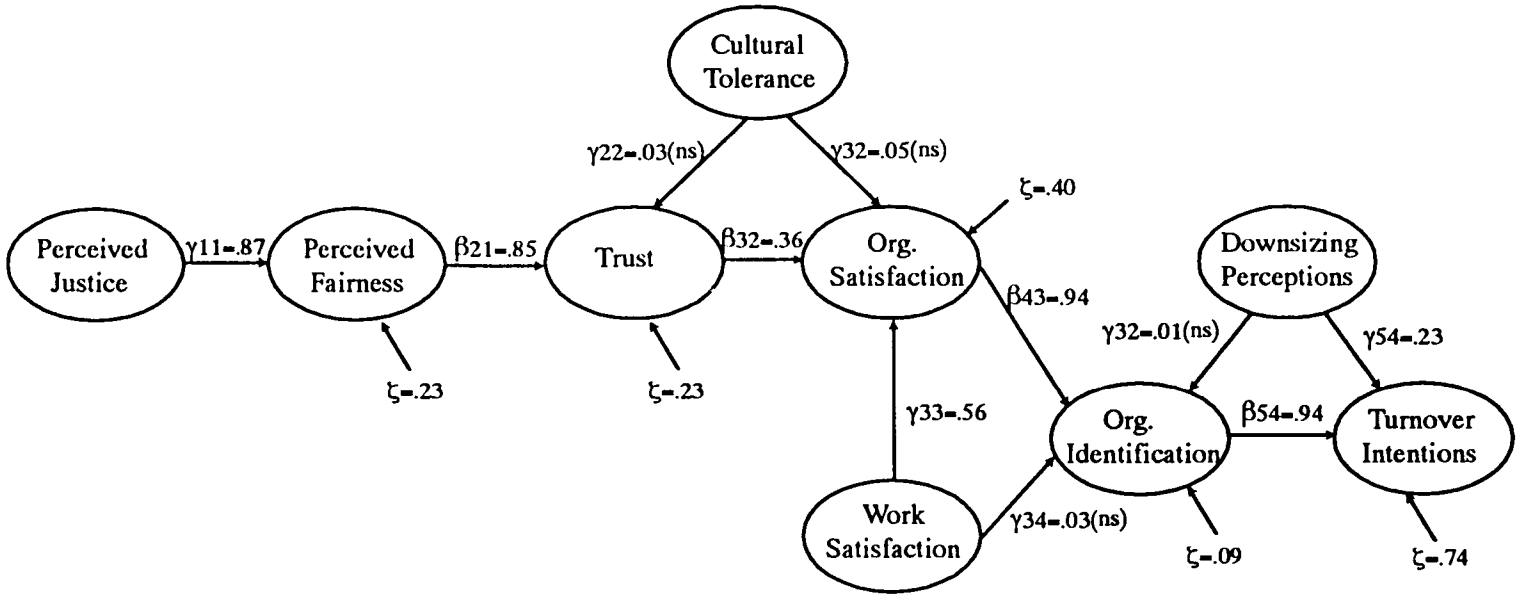


Figure 11 - *A Priori* Model - Standardized Parameter Estimates

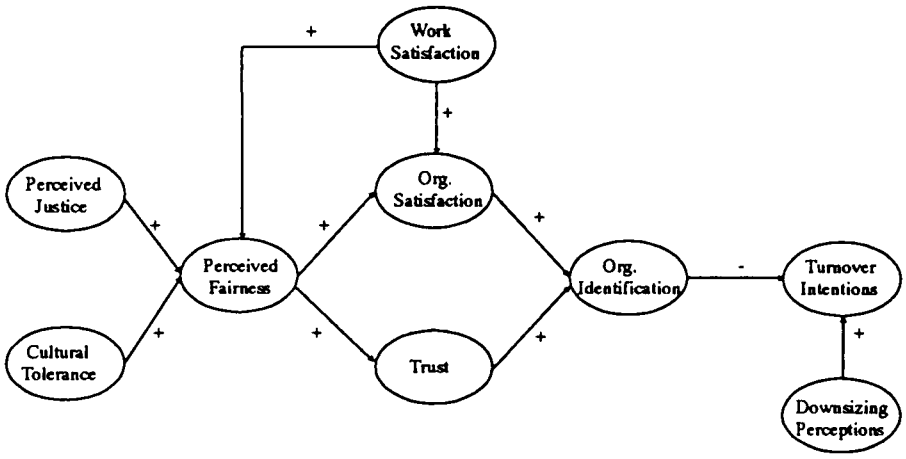


Figure 12 - Model One

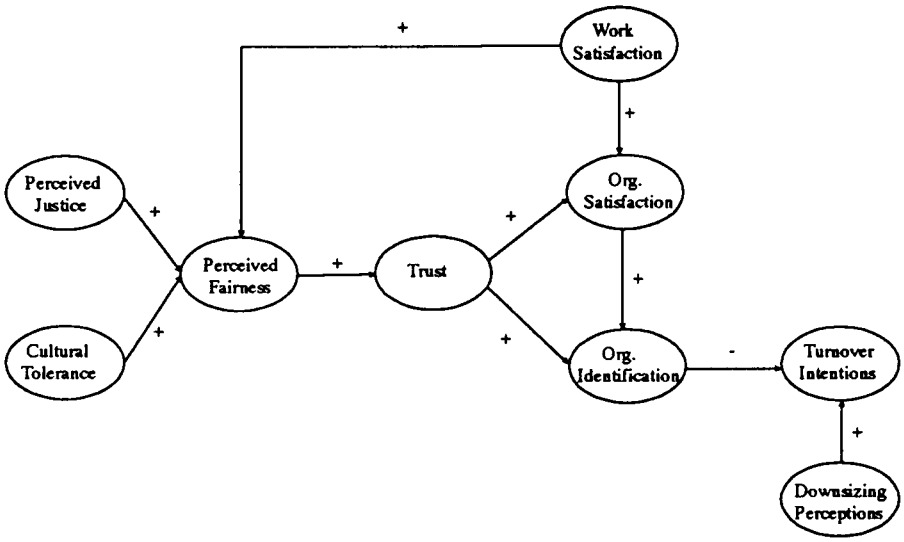


Figure 13 - Model Two

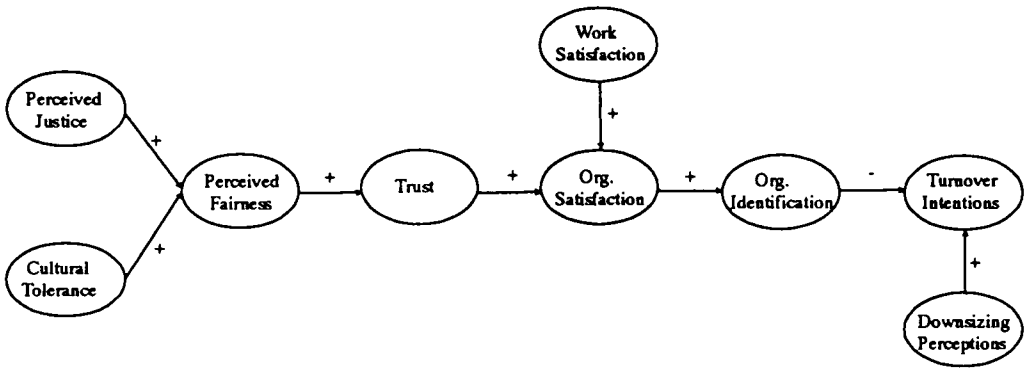


Figure 14 - Model Three

positive effect on trust. Trust, in turn, has a direct positive effect on organizational satisfaction and organizational identification. Finally, model three is the most parsimonious of the models illustrating a sequential ordering of the endogenous variables. Perceived fairness is posited to affect trust. It is proposed that trust affects organizational satisfaction and organizational satisfaction affects identification.

The results for each of these models and the *a priori* model are presented in Table 29. Based upon the exploratory data set, model one was the most promising. The value of the minimum fit function was lowest for that model (F=.77) as was the χ^2/df index (2.73). While researchers disagree on what the value of the χ^2/df index should be to considered a good model, a value of 2.73 given the large sample size seems very adequate. While Carmines and McIver (1981) suggest that a value of 2 to 3 is reasonable, Wheaton, Muthén, Alwin, and Summers (1977) argue that an index of 5 is reasonable. The 2.73 value would satisfy either of these criteria. The RNFI for model one was .99 similarly suggested that the structural model independent of the measurement model achieved a very good fit. Finally, both error indices (RMSEA=.037) and (SRMR=.033) were well below .05. The standardized parameter estimates for the structural model are presented in Figure 15.

Cross Validation of Final Model

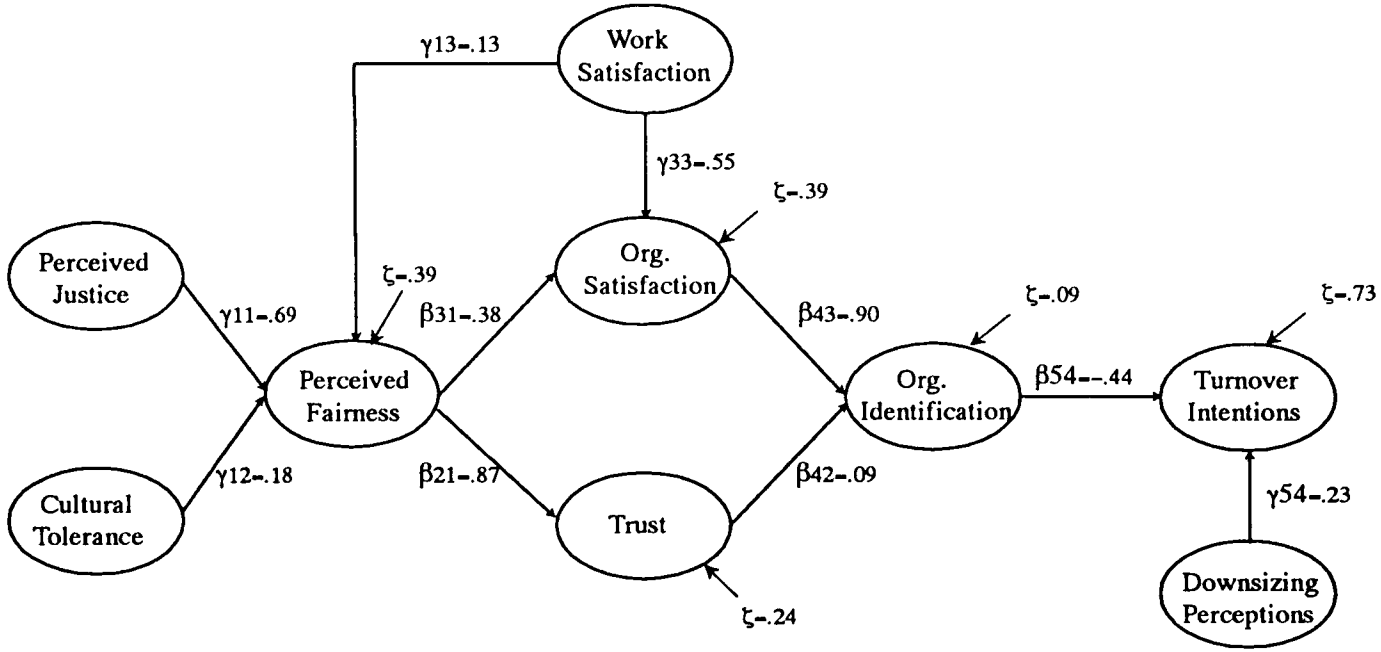
Since several modifications were made to the *a priori* model, the final model was tested with the hold out sample to determine the extent to which the relationships continued with the alternative sample. A series of nested analyses were conducted to test increasing degrees of invariance and a chi-square difference test was conducted at each level to determine the significance of the test. The results of these tests are

Table 29

Results of Competing Models

Sample Size=1284

Model	χ^2	df	χ^2/df	F	GFI	NFI	PNFI	RNFI	RMSEA	SRMR	CN
A Priori	1089.4	360	3.03	.85	.94	.95	.85	.97	.040	.040	502
Model One	985.1	361	2.73	.77	.95	.96	.85	.99	.037	.033	556
Model Two	1011.8	361	2.80	.79	.95	.96	.85	.98	.037	.035	542
Model Three	1067.9	363	2.94	.83	.94	.95	.85	.97	.039	.040	516



Final Model - Standardized Parameter Estimates

presented in Table 30. The first level of invariance involved establishing equality constraints on the lambda x and lambda y matrices in order to determine the extent to which the measurement model cross validated. The chi-square difference was 23.5 with 20 degrees of freedom. This difference was not significant indicating that the equality constraints were plausible. The next step was to establish equality constraints for B the Γ matrices. This tests the extent to which the relationships between the latent variables were the same for the two data sets. Again, the chi-square difference was not significant ($p>.05$). The next level of invariance involved the relationships between the exogenous concepts, the Φ matrix. The equality constraints proved plausible with a non significant chi-square difference (10.5 with 10 degrees of freedom). The final level was to test the extent to which equality constraints on the Ψ matrix were plausible. Again, the results indicated a satisfactory cross validation of the model. Furthermore, there was no decrease in the practical measures of fit (GFI and NFI).

Multi-Sample Analysis for the Examination of Group Differences

The overall sample was divided into the four separate racial groups and a covariance matrix was calculated for each with PRELIS. As an initial step, the final model was tested with each racial group independently. The fit indices for each group are presented in Table 31. The fit indices indicate that the model fits relatively well for each racial group. Although the χ^2 is significant for each group, the practical measures of fit are adequate. The test for close fit (RMSEA < .05) was non significant for each group indicating that the model closely fits the data for each group.

The standardized parameter estimates for each group are presented in Table 32. With the exception of β_{42} (trust → organizational identification) for the Hispanic

Table 30

Cross Validation Results

Sample Size=2544

Hypothesis	χ^2	df	GFI	NFI	PNFI	rmsea	srmr	$\Delta\chi^2$	Δ df	p level
H_{form}	1994.4	722	.95	.96	.85	.026	.034			
H_{Λ}	2017.9	742	.95	.96	.87	.026	.034	23.5	20	p>.10
$H_{\Lambda B\Gamma}$	2027.1	752	.95	.96	.89	.026	.035	9.2	10	p>.10
$H_{\Lambda B\Gamma\Phi}$	2037.6	762	.95	.96	.90	.026	.043	10.5	10	p>.10
$H_{\Lambda B\Gamma\Phi\Psi}$	2044.4	767	.95	.96	.90	.026	.043	6.8	5	p>.10

Table 31

Multi-Sample Analysis Results

Sample Sizes: Whites=956 Hispanics=545 African Americans=509 Asians/Pacific Islanders=686

Group	χ^2	df	χ^2/df	GFI	NFI	PNFI	RMSEA	SRMR
Whites	865.2	361	2.40	.94	.95	.85	.038	.036
Hispanics	684.8	361	1.90	.92	.94	.83	.041	.041
African Americans	667.3	361	1.85	.92	.93	.82	.041	.039
Asians/Pacific Islanders	807.8	361	2.24	.92	.94	.83	.043	.040

Table 32

Parameter Estimates By Racial Group

	Path	Whites	Hispanics	African Americans	Asians
β_{21}	Fairness → Trust	.96 (.02)	.97 (.03)	.94 (.03)	1.01 (.03)
β_{31}	Fairness → Org Sat	.34 (.03)	.36 (.03)	.40 (.04)	.36 (.03)
β_{42}	Trust → Org Identification	.08 (.02)	.04 (.02)	.06 (.03)	.08 (.02)
β_{43}	Org Sat → Org Identification	.78 (.03)	.89 (.03)	.94 (.04)	.82 (.04)
β_{54}	Org Id → Turnover Intent	-.57 (.05)	-.59 (.06)	-.78 (.06)	-.60 (.06)
γ_{11}	Justice → Fairness	.73 (.04)	.74 (.06)	.70 (.09)	.75 (.05)
γ_{12}	Cultural Tolerance → Fairness	.28 (.05)	.25 (.07)	.38 (.09)	.19 (.06)
γ_{13}	Work Sat → Fairness	.13 (.04)	.12 (.05)	.12 (.04)	.16 (.04)
γ_{33}	Work Sat → Org Sat	.78 (.05)	.69 (.07)	.49 (.05)	.65 (.05)
γ_{54}	Downsize → Turnover Intent	.39 (.05)	.35 (.07)	.30 (.08)	.23 (.06)

Unstandardized Parameter Estimate (Standard Error)

subgroup, all parameter estimates were significant. However, a visual inspection of the parameter estimates indicate potential differences between the subgroups. The largest difference was for β_{54} (organizational identification → turnover intentions) for the African American subgroup. The results indicate that the relationship between organizational identification and turnover intentions is greater for African Americans than for the other racial groups. Another interesting difference are the relative influences of justice and organizational tolerance on perceived fairness across the different groups. It appears that Justice perceptions have a less influential impact and cultural tolerance has a greater influential impact on fairness perceptions for the African American group in contrast to the other groups.

Statistically, the differences between the four racial groups were tested through a series of nested models in multi-sample analysis. In the first analysis, the parameters were freely estimated for each racial group. In the second analysis, equality constraints were imposed on the measurement model factor loadings (Λ_X and Λ_Y). In the second analysis, additional equality constraints were imposed on the parameter estimates between the latent variables (Γ and B). The results of the multi-sample analysis are presented in Table 33. Two sets of criteria were utilized when assessing model differences. The chi-square difference test statistically tests whether imposing the equality constraints is plausible. While the chi-square difference test is objective, a subjective review of the goodness of fit indices was also conducted to determine whether nor not the constrained models adequately fit the data. Because of the power inherent in this study (N=2696), the subjective test is designed to assess whether statistically significant results are meaningful.

The analysis resulted in a chi-square difference of 189.0 with 60 degrees of freedom indicating that the equality constraints are not plausible solely on statistical

Table 33

Multi-Sample Analysis of Racial Differences in the Fairness Model

Sample Size=2696

Hypothesis	χ^2	df	GFI	NFI	PNFI	rmsea	srmr	$\Delta\chi^2$	Δ df	p level
H_{form}	3025.2	1444	.92	.94	.84	.020	.040			
H_{Λ}	3214.2	1504	.92	.94	.87	.021	.049	189.0	60	$p < .001$
$H_{\Lambda B\Gamma}$	3255.5	1534	.92	.94	.88	.020	.050	41.3	30	$p > .10$

grounds. However, due to the sensitivity of the test, a significant chi-square was not unexpected. An inspection of the practical measures of fit (e.g., GFI and NFI) indicated that the equality constraints did not appreciably decrease the fit. While the mean of the standardized residuals did increase slightly, the degree of error (.049) is still within acceptable boundaries. The final analysis in the nested hierarchy tested the extent to which the equality constraints on Γ and B were plausible (i.e., whether the relationships between the latent variables are invariant across groups). The chi-square difference of 41.3 with 30 degrees of freedom was not significant indicating that the model is not significantly different across racial group (with respect to the relationships between the latent variables). As a result, modification indices for specific parameter estimates were not inspected.

Summary of Results - Fairness Model

The fairness model developed for this study underwent a thorough examination and revision process including cross validation to a hold out sample. The fit was promising with all practical measures of fit indicating an adequate model. While it was hypothesized that race would act as a moderator in the model, racial differences were minimal. Even given the power of the study, the relationships between the latent variables were invariant across racial group. The implications of these results will be presented in the next chapter.

CHAPTER FIVE

DISCUSSION

As a result of the changing demographic composition of the labor force, organizations will need to be more aware of the diversity within their organizations. Many organizational leaders are already developing and implementing programs designed to take full advantage of the increasing diversity. Whether aimed at capturing the creative potential within a diverse work force or aimed at proactively dealing with conflicts that may arise, organizational interventions should be based upon a comprehensive and accurate understanding of cultural diversity in organizational settings. Much of the current research which has examined diversity (e.g., racial differences) is outdated. Research conducted in the 1970s may not be generalizable to the present due to social and political changes in society. Similarly, the research has tended to neglect Asians and Hispanics and concentrated largely on African American-White differences. While African Americans comprise a significant proportion of the minority employees, Hispanics and Asians make up a significant percentage of the population in particular geographic regions (e.g., states bordering on Mexico and California). This research endeavor was designed to re-examine race in organizational settings. A two strategy approach was utilized. The first strategy was to examine the extent to which different racial groups share a similar work experience. The second strategy involved the development and testing of a model of fairness in the workplace to determine the extent to which race acts as a moderator in the model. An organizational diversity survey created for this research endeavor served as the primary data collection device.

Racial Differences in the Work Experience

The first purpose of the research endeavor was to answer the research question: "Are there mean differences between racial groups in the work experience?" Four categories of the work experience were examined: (1) work beliefs; (2) job satisfaction; (3) perceptions of fairness and equal treatment; and (4) employee outcomes (i.e., work-related attitudes).

Multivariate analysis of covariance was utilized to determine if there were race and/or gender differences in the four categories after controlling for tenure, education, and income. Because of the power inherent in this study resulting from the large sample size (N=2154), significant multivariate results were encountered for each category ($p < .001$). Therefore, effect sizes were examined to determine the practical significance of the findings. In general, the multivariate effect sizes for race ranged from .011 (satisfaction composite) to .052 (fairness/equal treatment composite). Each category will be examined individually.

Differences in Work Beliefs

Research examining cultural differences in work beliefs is very limited. Mirels and Garrett (1971) explored the Protestant Ethic as a personality variable. They did not find any gender differences in levels of the work belief. They did not look for race differences. Several researchers have found that African Americans perceive a greater relationship between hard work and rewards in contrast to Whites (Feldman, 1973; Greenhaus & Gavin, 1972). On the other hand, Triandis, Feldman, Weldon and Harvey (1975) found that African American individuals perceived a weaker relationship between

what one can do and outcomes. Given the limited and contradictory nature of the findings, strong race and gender effects were not anticipated.

The results of this study confirmed this expectation. The multivariate effect sizes were small in magnitude with race accounting for 1.5% of the variance and gender accounting for 2.6% of the variance. The largest univariate effect for race centered on the belief in the Protestant work ethic. Post hoc contrasts indicated that Hispanics did not respond in a significantly different manner than Whites, but African Americans reported a weaker belief in the work ethic and Asian/Pacific Islanders reported a stronger belief in the work ethic in contrast to Whites. This finding contradicts the Feldman conclusions. One explanation for the contradictory findings is the nature of the sample. While the Feldman research utilized the working class and the hard core unemployed, the respondents in this project were all employed, tended to be well educated, and highly paid. It may be that African Americans perceive greater obstacles to success than their White counterparts, lowering their belief that hard work leads to success.

The stronger work ethic for the Asian/Pacific Islanders may be due to cultural factors. Hofstede (1984) identifies different dimensions upon which cultures can be classified (i.e., power distance; uncertainty avoidance; masculinity; individualism). Some Asian cultures (e.g., Japan) have been identified as having a high degree of uncertainty avoidance. One of the characteristics of a high level of uncertainty avoidance is the belief that hard work is a virtue. According to Hofstede, countries with a low degree of uncertainty avoidance (e.g., United States) do not adhere to this value to as great an extent. Although the Asian workers in this study are citizens of the United States, their belief systems and values are undoubtedly affected by culture.

Differences in of Job Satisfaction

National surveys predominantly indicate that African American employees are less satisfied with their jobs than White employees (Quinn, Staines, & McCollough, 1974; Weaver, 1980). These results have been confirmed in a number of surveys over a period in excess of twenty years. Significant gender differences in job satisfaction have not been documented in these surveys. However, when confounding factors have been taken into account (e.g., pay, supervisory status, etc.), significant differences have dissipated (Weaver, 1977). Specific studies have examined racial differences in job satisfaction with conflicting results. Some studies have supported the results of the national surveys (O'Reilly & Roberts, 1973), while other studies have indicated that African Americans are more satisfied with their jobs than Whites (Gavin & Ewen, 1974). Regardless of the study, it appears that when extraneous influences are taken into account, effect sizes are small. For example, Jones, James, Bruni, and Sells (1977) compared African Americans to Whites in similar working conditions and found little support for the contention that racial differences in job satisfaction exist. Given the previous history of research in this area, effect sizes for racial differences in job satisfaction were expected to be small.

The results observed in this study confirmed these expectations. A significant multivariate effect for race was identified although the effect size was negligible (η^2 = .011), and a significant gender effect was not observed. The three covariates (i.e., education, tenure, income) accounted for the greatest proportion of variance (η^2 = .039). With respect to race, only one facet of job satisfaction (i.e., satisfaction with pay) had a univariate effect size in excess of .01. Generally speaking, however, African

Americans tended to be slightly less satisfied with the specific job facets in contrast to White. On the other hand, Asians/Pacific Islanders tended to be most satisfied.

The overriding implication is that whether examining global measures of job satisfaction or specific facets of the job, employees of a different sex or race experience very similar levels of satisfaction. The conflicting findings in the previous studies may be due to specific circumstances within the examined organizations (e.g., actual incidents of unfair treatment) or due to the effect of extraneous influences (e.g., amount of pay, type of job, education) that were not taken into account. The national surveys undoubtedly suffer from this limitation. The results of this study are consistent with research which has examined a common work environment (e.g., Jones et al., 1977). As a result, organizational attempts to increase the job satisfaction of a specific racial group may be misguided in many organizations.

Differences in Perceptions of Fairness and Equal Treatment

While cultural differences in fairness perceptions have not been examined thoroughly in organizational settings, there were reasons to expect both racial and gender differences. Previous research has suggested that African Americans and females tend to be more sensitive to the cultural context of a situation and are more likely to perceive inequity when race or gender is involved in a human resource decision. For example, Sherman, Smith, and Sherman (1983) found that both African Americans and females perceived discrimination in a human resource decision where the race of the candidate was manipulated (i.e., a White was promoted over an equally qualified African American). White males did not perceive inequity regardless of the race of the candidates. The current study specifically targeted variables of a cultural nature (e.g.,

organizational tolerance, social tolerance). Assuming employees of underrepresented groups are more sensitive to the racial context of an organization (specifically African Americans and women), it was expected these two groups would perceive their organizations as being less fair and less tolerant.

The results partially confirmed this expectation. There was a significant multivariate effect for both race and gender. While the multivariate effect size for race was moderate in degree ($\eta^2 = .052$), the effect size for gender was relatively small ($\eta^2 = .012$). As expected, a significant univariate effect was observed for race with respect to organizational tolerance accounting for 8.3% of the variance. There were also significant mean differences across perceptions of social tolerance where race accounted for 3.1% of the variance. Consistent with expectations, African Americans perceived the organization as the least tolerant (both socially and organizationally) and Whites perceived the organization as most tolerant confirming the findings by Alderfer et al. (1980). The lack of significance for gender contradicts the research which suggests that females are more sensitive to the cultural context of the situation. The research conducted by Sherman, Smith, and Sherman (1983), however, was based on a controlled experiment where the race of the candidate was a factor and the subjects were asked to rate the fairness of the decision. Thus, the fairness of a specific human resource decision was brought into question. Cultural tolerance, as defined in this study, is more subtle in nature and is not necessarily linked to organizational policies, procedures, or decisions.

The effect sizes for perceived fairness were less than the effect sizes for the tolerance variables. Race accounted for 2.1% of the variance in perceived fairness, and males and females did not significantly differ from one another. While African Americans perceived organization as the most unfair, both Hispanics and Asian/Pacific Islanders perceived the organization as more fair than the White respondents.

Surprisingly, the differences between Whites and African Americans were not statistically significant. While this effect may be counter to expectations, cultural factors may explain this result. One of the cultural dimensions discussed by Hofstede (1984) is power distance (i.e., the extent to which inequality of power is accepted). Hofstede's research indicates that the Hispanic and Asian cultures are characterized by a significantly greater degree of power distance in contrast to the United States. Hofstede argues that a country which has a high acceptance of power distance is characterized by a belief that "there should be an order of inequality in this world in which everyone has his rightful place; high and low are protected by this order." (p. 94) Cultures which have a low acceptance of power distance have a belief that inequality in society should be minimized. Therefore, Asian/Pacific Islanders and Hispanics are likely more accepting of inequality in the work place, and may perceive policies and procedures as fair even when inequity is a result. The fact that African Americans and Whites perceive fairness in a similar manner is interesting given the differential perceptions with respect to tolerance. This result supports the contention that perceived fairness is related to the policies, procedures, and allocation of resources, while tolerance is more subtle in nature.

Surprisingly, only one significant univariate gender effect was observed (i.e., developmental relationships) where females reported higher quality developmental relationships with their supervisor than did their male counterparts. While this result is consistent with other research (Thomas, 1990a), the effect size was minimal with only .5% of the variance explained. The absence of gender effects with respect to the remaining dependent variables was unexpected. Previous research which has suggested that females are more sensitive to the cultural context of the environment was not supported.

Differences in Employee Outcomes

The final category of differences in the work place reflected differences in employee outcomes (i.e., attitudes that influence specific employee behaviors). Of particular interest were issues of organizational commitment and organizational citizenship.

Significant race and gender effects were observed in this study; however, the effect sizes were minimal ($\eta^2 = .014$ for race and $\eta^2 = .017$ for gender). For race, only the commitment and altruism variables were significant, although no univariate effect size was in excess of .01. Interestingly, Hispanics and Asian/Pacific Islanders reported higher levels of organizational identification in contrast to Whites and African Americans. Whites and African Americans did not significantly differ from one another. Cultural factors may serve as an explanation of this result. Hofstede's (1984) research indicates that Hispanic and Asian cultures tend to be collectivistic in nature while the United States culture is highly individualistic. In collectivistic cultures, the organization has a strong influence on the individual's well being. In these cultures, the organization tends to be perceived as a family. As a result, organizational identification would be highly expected.

With respect to organizational involvement, only Asian/Pacific Islanders were significantly different from Whites where a lower level of involvement for Asian/Pacific Islanders was reported. This result was inconsistent with the results observed for belief in the Protestant work ethic. Since Asians have a stronger belief in the work ethic, it was expected that they would be more involved in the job (i.e., exert more effort). For loyalty, only African Americans differed from Whites where African Americans (especially females) reported a lower degree of loyalty. This is also the group that

perceives the organization as being the least tolerant with respect to cultural diversity. It may well be that these individuals would prefer to work in an environment, given the opportunity, that is more tolerant and accepting of cultural differences. Finally, the African American group was the only racial group that differed from Whites in levels of altruism behaviors where African Americans reported performing fewer prosocial deeds. Again, cultural tolerance may have played a role in this result. Employees who perceive that they are not valued as highly by the organization may be less likely to perform unrequired tasks. This conclusion, however, is only speculative, and more research is needed in this area.

Overall Conclusions

Although the four hypotheses were confirmed from a statistical perspective, effect sizes were relatively small with the exception of the category of fairness in the work place. Therefore, it appears that individuals from different cultural groups perceive and respond to the organization in a similar fashion. The similarities across racial groups may be due in part to the acculturation process that occurs within organizations. Schein (1992) defines culture as "a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. " (p. 12) To the extent that an organization has a strong culture, similar perceptions will prevail. If the similar perceptions observed in this study are due to a strong organizational culture within the Department of the Navy, it is possible that these findings will not generalize to organizations that lack this characteristic.

While employee experiences in the Navy organizations did not differ substantially across race or gender, there were some notable exceptions. Generally speaking, African American females were the least satisfied, perceived the organization in the most negative fashion, and had the strongest intentions to leave the organization. One possibility is that African American females may not feel as accepted and valued compared to the other cultural groups. There may be some type of stigma associated with being an African American female. The responses on both organizational and social tolerance support this position. While males and females did not significantly differ from each other in terms of the tolerance variables overall, African American females perceived the organization as less tolerant than either their other female or their African American male counterparts. Finally, Hispanics and Asian/Pacific Islanders tended to differ from Whites and African Americans in aspects of the work experience that are strongly value oriented (i.e., influenced by personal or work values). Hispanic and Asian countries tend to be very different from the United States in terms of the cultural dimensions within their cultures (e.g., Hispanics and Asians tend to be more collectivistic). While Hispanic and Asian citizens of the United States are undoubtedly acculturated to a North American culture to a great extent, their cultural background will likely exert some influence on their work values and belief systems. The results of this study are consistent with this proposition.

Implications

Since African American females tend to perceive the organization in a more negative manner, organizational leaders may find it wise to target diversity oriented programs and interventions to this population. However, the utility of any potential

program should be carefully considered in light of the very small effect sizes that exist as well as adverse effects that could ensue. For example, a program designed to aid a particular group of employees may find that it does more harm and disrupts perceptions of fairness to a greater extent than doing nothing. Perceptions of favoritism and attributions that minority success are due to special treatment could potentially surface. For example, in a laboratory study, Heilman, Block, and Lucas (1992) found that an affirmative action label was found to negatively affect the perceived competence of women hirees. The attributions of incompetence were made by both men and women subjects. Furthermore, research has indicated that in situations where an individual has some doubts about his or her competence, receiving preferential treatment may have a negative impact on their self-perceptions of performance (Heilman, Simon, & Repper, 1987). This scenario can be a no win situation for the minority employee. People may likely attribute success to the program and not to the employee. However, failure on the part of the minority employee may serve to reinforce the negative stereotypes that may exist in an organization.

While the results of this study indicate that employees from disparate cultural groups perceive the work environment in a common fashion, organizational leaders should examine objective criteria (e.g., promotion rates for specific groups of employees, grievances filed, etc.) when assessing the degree of inequity within the organization. Perceptions of fairness may be affected by expectations, cultural values, social comparisons, etc. that are only loosely related to objective indicators of equity. Both types of criteria are important when contemplating an organizational intervention.

Finally, the one area that organizational leaders may wish to consider to a greater extent is cultural tolerance. Unfortunately, this may be the one set of perceptions that is the hardest to change. Perceptions of cultural tolerance may be only weakly related to

the policies, procedures, and actions of management. Furthermore, stereotypes, biases, and attributions for success or failure may be very difficult to change in an organization.

Contributions

This study has been beneficial in clarifying the inconsistent results observed in previous studies. The results of this study support the contention that racial differences in job attitudes are negligible when extraneous influences are controlled. This research also served to include other racial groups previously neglected in diversity research. Furthermore, this research examined race and gender simultaneously allowing for an examination of an interaction between the two cultural factors. This phase of the research explored areas which have not been seriously examined from a cultural perspective (e.g., work beliefs, cultural tolerance, organizational commitment). Of particular interest were the racial differences in both organizational and social tolerance. Future research efforts may be fruitful in identifying antecedents and consequences of these culturally oriented variables.

Limitations

Several limitations in this research deserve special attention. First, the Department of Defense is in the process of a downsizing effort. While this fact was not foreseen at the start of the project, a number of organizations have been significantly influenced. At the time of the data collection, organizations identified for reductions in force and/or consolidation was largely a matter of speculation. The effects of this effort on the results is unknown. To some extent, these perceptions may have influenced

attitudes and perceptions. Therefore, the generalizability of the findings should be carefully considered. On the other hand, many organizations in private industry are similarly subjected to downsizing strategies.

A second limitation concerns the nature of the sampling strategy. As noted in Chapter Three, subjects were randomly sampled within subgroups. Subgroups allowed for the control of the command, white collar/blue collar status, occupational level, and supervisory status. Thus, the resulting subgroups were very similar in terms of income, job level, education, etc. This strategy has two drawbacks. First, the overall sample may not be representative of the organization as a whole. To the extent that certain groups of employees may be over-represented at lower levels of the organization, the sampling process may have resulted in an unrepresentative view of that racial group. As a result, generalizing to the population at large is cautioned. A second drawback is that this strategy may have artificially restricted the range of the respondents in a particular subgroup (i.e., the sample may be more homogeneous than would be found in the population as a whole). This could serve to attenuate the results and the effect sizes could potentially be of greater magnitude than those reported in this paper. The strategy employed in this paper is deemed appropriate, however, given the critical question of interest. This question is whether racial differences in the four aspects of the work experience exist with all other factors being held constant. This strategy was an attempt to control for some of the obvious confounding variables. Left uncontrolled, significant differences could have been attributed to differences in income, job level, etc. Thus, external validity was compromised for the sake of internal validity.

A related limitation concerned the differential response rates between the racial groups. As noted in Chapter Three, African Americans and Hispanics responded to a lesser extent than the White or Asian/Pacific Islander groups of employees. It is

unknown why these two groups of employees were less likely to complete the survey or how this fact potentially biased the results. For example, it is possible that the non respondents had significantly more negative views than the respondents. If this were the case, the scale means would be artificially inflated in contrast to their true values. One explanation for the differential response rate deals with the nature of the survey and the concern for confidentiality. Although respondents were not asked to identify themselves, a minority employee may feel that they could be identified as a result of the demographic information that they did supply. For example, there may only be one male, African American, GS-11 in a particular department. Given the sensitive nature of many of the questions (e.g., intention to leave the organization, satisfaction with supervision), some minority employees may have chosen not to complete the survey for fear of reprisal. The different response rate is interesting in and of itself, and dictates further research to determine the extent to which this type of bias may occur in all surveys of this nature.

One important consideration in diversity oriented research is the demographic composition of the work force. Pfeffer (1983) was one of the first researchers to emphasize the importance of organizational demography in the analysis of organizational behavior. Pfeffer argues that the proportion of men and women (race could easily be substituted for gender) has an impact on organizational processes. These processes may potentially influence pay levels, the power structure within an organization, and co-worker relationships. While the sample in this study was randomly selected within subgroup, employees meeting a particular criteria will undoubtedly be drawn from geographic locations where those employees are most likely to be found. Therefore, Asian/Pacific Islanders may be drawn predominantly from Hawaii and to a lesser extent, the West coast of the United States. As a result, a Pacific Islander may be a member of the majority group in a particular organization (e.g., an organization in Hawaii). This

fact could account for the higher degree of Asian/Pacific Islander responses in contrast to African Americans. Therefore, future research efforts should include degree of minority status as a potential moderating variable. For example, the issues faced by a Hispanic employee in an organization in Wisconsin may be very different from the issues that a Hispanic employee in southern Texas may face.

It is important to note the limitation of using self-report data. The survey depended upon employee perceptions of the work environment as well as job attitudes. The nature of perceptions must be distinguished from reality. Perceptions may not necessarily mirror reality. For example, an organization may have policies that are fair and equitable from an objective perspective yet be perceived as unfair by employees for a number of reasons. As a result, policies and programs should not necessarily be altered solely on the basis of the perceptions. Given the existence of fair policies, it may be that a public relations effort may be effective at altering perceptions.

Model of Fairness in the Work Place

The second research strategy was designed to develop a model of fairness in the work place and test the extent to which race acts as a moderator in the model. Therefore, two considerations are of special concern; 1) the overall fit of the model and 2) the extent to which racial differences are observed in the model.

Overall Fit of the Model

Since this area of research is undeveloped at this time, the development of the fairness model was partially exploratory. Therefore, it was uncertain as to how the

model would fit the data and what types of revisions would be necessary. As a result, some modifications to the model were expected. The fit of the measurement model was examined first. Although the fit of the measurement model was adequate (GFI = .90 and NFI=.92), several modifications were made to improve the fit. Several indicators were identified for removal based upon strong cross loadings on multiple factors and high standardized residuals. Each identified item was examined to determine whether there was theoretical justification for their removal. The most significant revision to the measurement model was combining the two justice constructs into one latent variable. It is very possible that the respondents were unable to clearly distinguish between these two constructs. For example, employees may not have enough information to assess the equity of organizational procedures and policies. As a result, the respondents may have a general affective response to justice issues. Another contributing factor may be the quality of the indicators (in particular, the distributive justice measures). The squared multiple correlations (a measure of the reliability of each of the indicators) ranged from .14 to .53. Therefore, better indicators of the construct may have improved this portion of the model. While the model could have been improved by allowing errors to correlate and allowing indicators to load on more than one factor, it was predetermined that these types of revisions would not be made so that the measurement model would remain pure. Following measurement model revisions, the fit of the model improved to .95 for the GFI and .96 for the NFI.

Following this phase of the model development, the *a priori* structural model was examined. The fit prior to revisions was promising with all practical measures of fit with the exception of the parsimony based indices greater than .90 (GFI=.94, NFI=.95, RNFI=.97). However, the results indicated several potential revisions. Of particular interest was the relationship of cultural tolerance to the endogenous variables. Cultural

tolerance has received very little attention by organizational researchers. Therefore, the relationship between tolerance and the endogenous variables was uncertain. Although it was posited that cultural tolerance would affect trust and organizational satisfaction, an alternative explanation was that cultural tolerance would affect perceived fairness. The exploratory phase of the research confirmed that this was the case (i.e., that tolerance has a direct effect on perceived fairness and only has an indirect effect on trust and organizational satisfaction). This revision did not substantially alter the theoretical basis for the model. The remaining revisions were all of a minor nature. The final model had a good fit with a RNFI=.99.

Final Model

The final model proposes that perceived justice and cultural tolerance each have a direct effect on perceptions of fairness in the organization. An individual who perceives the organization as being fair is more likely to be satisfied with the organization in general and is more likely to trust management. Both organizational satisfaction and trust have a positive and direct effect on the extent to which the employee identifies with the organization. Finally, organizational identification is positively related to turnover intentions. Two additional variables were included in the model. Downsizing perceptions were positively and significantly related to turnover intentions. While this relationship was expected, it was also hypothesized that downsizing perceptions would have a negative influence on organizational commitment (i.e., organizational identification). This was not confirmed. If the model had conceptualized organizational commitment as loyalty or job involvement, this relationship may have been observed. Another interesting result was the direct and significant relationship between work

satisfaction and perceived fairness (i.e., the more satisfied one is with his or her work, the more likely he or she is to perceive the organization as being fair). One explanation is that enjoying one's job may lead to a positive mood state which influences one's general affect. From a negative point of view, an employee who dislikes his or her job may perceive that they have been treated unfairly with respect to their job assignments.

Racial Differences in the Fairness Model

The multi-sample analysis focused on the extent to which race moderates both the measurement model and the structural model. The measurement model was significantly different across racial group according to a chi-square difference test, however, the practical measures of fit indicated that the differences were not of a substantial nature. The significance of the test is undoubtedly due to the sensitive nature of the test with a large sample size (N=2696). Therefore, the next level of analysis was conducted and the structural relationships were tested between the latent variables. Based upon a common measurement model (i.e., equality constraints imposed on Λ_X and Λ_Y), additional equality constraints were imposed on the Γ and B matrices. A chi-square difference test was conducted comparing this model to the one in which only the measurement model was invariant. The chi-square difference was not significant indicating that the equality constraints were plausible and that a common structural model applies across the different racial groups. The fact that the relationship between cultural tolerance and perceived fairness did not significantly differ across racial groups was surprising. It may be that the cultural tolerance variable is really measuring the extent to which the employee feels valued and respected. While a non minority employee may not be as sensitive to the cultural dynamics of the environment, he or she

will be able to perceive the extent to which they personally feel valued by the organization. If this is the case, future research should be directed at creating a better measure of cultural tolerance for all cultural groups. On the other hand, creating a culturally based measure that means the same thing for different cultural groups may be very difficult given the cultural and structural influences on an individual's perceptions.

Overall Conclusions

Overall, there was a good fit between the data and the model. The model emphasizes the importance of both justice perceptions and perceptions of cultural tolerance with respect to perceived fairness. Furthermore, fairness appears to have a strong influence on both trust in management and organizational satisfaction. The model did not appreciably differ across cultural group suggesting that race does not moderate the relationships in the model. As a result, the model can be applied across disparate cultural groups. However, it must be noted that racial group was the only cultural variable that was examined from this perspective. It may be that other gender or some other cultural factor may moderate the relationships.

Implications

The results of the fairness model indicate that perceptions of fairness strongly influence trust in management and to a lesser degree, organizational satisfaction. Furthermore, perceived fairness has an indirect effect on organizational identification and turnover intentions. Justice perceptions and cultural tolerance both have a positive direct effect on fairness perceptions. As a result, organizations may find it useful to examine

their current policies and procedures to determine the extent that they are equitable. Both objective and subjective criteria should be examined. For example, an organization may have policies and procedures designed to ensure equity, however, employees may still perceive a lack of justice. The negative perceptions may be due to a lack of information on the part of the employee or to an isolated event that attracted a lot of attention.

Cultural tolerance, on the other hand, may be more difficult to influence. Schein (1992) describes three levels of culture: 1) artifacts; 2) espoused values; and 3) basic underlying assumptions. Schein argues that the underlying assumptions occur at an unconscious level. The assumptions affect perceptions, thoughts, and feelings, and are not easily altered. Racial attitudes and issues related to tolerance will largely occur at this level. While difficult, it should not be impossible to alter the tolerance within an organization. The different levels of culture are all interrelated. That is, artifacts will influence espoused values, which may affect the basic underlying assumptions. Thus, an organization that wishes to promote cultural tolerance should consider focusing on the artifacts and espoused values and seek to alter the underlying assumptions over a longer period of time.

Contributions

The model sheds new light on the nature and implications of cultural tolerance and fairness in organizations. The importance of cultural tolerance as an antecedent to perceived fairness was substantiated. Furthermore, the model defines the influence of perceptions of fairness in organizational settings. While researchers have examined fairness as both a dependent variable and an independent variable, the current research

incorporates this important variable into a model whereby the relationships between all the variables can be examined simultaneously. As a result, the model illustrates the indirect effect that fairness perceptions may have on turnover intentions.

Limitations

Several limitations of the model development and testing deserve comment. First, Chapter Four described seven assumptions that dictate the appropriate use of structural equation modeling for latent variables. The most problematic assumption, and the one most difficult to meet, is the self contained nature of the model. A self contained model is one in which there are no relevant and unmeasured causes of the endogenous variables. Failure to meet this assumption will result in biased parameter estimates and may make causal inference problematic. While this assumption is a matter of degree, it is important to identify where these biases could exist.

There are potential causes of job satisfaction that were not incorporated into the model. To the extent that these causes are related to other variables in the model (e.g., fairness or trust), the parameter estimates between these variables may be biased. However, if a third unmeasured variable was causing two of the endogenous variables, the errors between the two latent factors will likely be correlated. An examination of the modification indices suggested that this was not the case. There were no significant modification indices in the Ψ matrix. This type of error is not unique to structural equation modeling however. Any form of correlational analysis will have this same limitation. The difference is that in correlational analyses, causal inference is not made. Therefore, it is suggested that strong causal inferences on the basis of the results of this model not be made until further research is conducted and the model further developed.

The issue of equivalent models must also be discussed in this context. A good model fit does not suggest that the best or most appropriate model has been identified. It merely suggests that the identified model cannot be ruled out as an explanation between the variables of interest. There may be other models which fit the data equally well. For example, the model proposed in this project treats trust as a consequence of perceived fairness. An alternative explanation is that trust affects perceived fairness (i.e., the more one trusts his or her management, the more likely he or she will perceive the organization as being fair). Similar relationships could be proposed for organizational commitment and job satisfaction. Again, causal inferences must be made cautiously.

Another bias is the problem of common method variance. To the extent that common method variance exists in a model, estimates between parameters may be inaccurate. The data from this model was exclusively self-report data from a single survey administration. As such, factors may be correlated as a result of a common method factor. There is controversy surrounding the extent to which method variance is a problem in studies of this type. Spector (1987) argues that method bias is not as serious a problem as many researchers have originally postulated. However, Williams, Cote, and Buckley (1989) suggest that Spector's results were biased as a result of the methodology utilized. They re-examined the data that Spector used and found that method bias accounted for approximately 25 percent of the variance in the variables measured. Similarly, Williams, Williams, and Gavin (1993) included surrogate measures of method variance (i.e., positive and negative affect items, and social desirability) in a study of employee attitudes. They tested two nested models - one with method effects and one without method effects. The model with method effects significantly fit the data better. Therefore, they concluded that method bias should be incorporated into models examining employee attitudes. While this conclusion may be warranted, a closer look at

the data suggests that the method effects may not be especially large. The comparative fit index for the two models were .95 (model with method effects) and .93 (model without method effects). The increase in fit was only .02 but at the cost of 45 degrees of freedom. Furthermore, the parameter estimates between the attitudinal variables did not change in dramatic fashion. For example, the relationship between job complexity and job satisfaction was .38 for the model with method effects and .34 for the model without method effects. The relationship between job satisfaction and affective commitment was .82 for the model with method effects and .84 for the model without method effects. Other researchers (Bagozzi & Yi, 1990) similarly posit that method bias does exist but in a lesser degree than Williams and his colleagues have posited.

The generalizability of the model must be taken into account. The sample was selected from Department of the Navy civilian workers. As such, the respondents have a fairly common work environment (at least with respect to the types of policies and procedures that are in place). Also, many Navy organizations either have or will soon be experiencing significant reductions in the employee work force. While these reductions had not taken place at the time of the survey administration, rumors and speculations of downsizing undoubtedly affected employee attitudes and their responses on the survey. An attempt was made to include these perceptions in the model. However, generalization to organizations not threatened by downsizing possibilities must be cautioned.

Finally, the multisample analysis conducted in this research assumed that the measurement model was invariant across subgroup. However, the significant chi-square difference test indicated that the measurement models were significantly different. Due to the sensitive nature of the chi-square test and the large sample size, the practical measures of fit were examined. These indices indicated that although significant, the

measurement models did not appreciably differ. To the extent that a common measurement model does not apply to the different groups, inferences from the model may be problematic.

Future Research Directions

The results from the two analysis strategies dictate further research in several key areas. First, the results of the MANCOVAs indicated that Asian/Pacific Islanders had a stronger Protestant work ethic in contrast to Whites, yet this group indicated a lower degree of job involvement. Future research may be beneficial in understanding the dynamics behind these relationships. Another area reflects the belief in teamwork and the race by gender interaction that was observed in this study. While White males and females responded in a very similar manner, minority females had less positive attitudes towards teamwork than their male counterparts. Reasons for this result and additional tests of these effects should be examined. Finally, a variable that should be included in future studies is degree of minority status. In many locations, a traditional minority group may make up a substantial proportion of the population. Therefore, the demographic composition of the work force should be taken into account.

With respect to the fairness model, future research should be directed at cultural tolerance and how to measure it. The significant chi-square test in the multi-sample analysis with respect to the measurement model suggested that Whites viewed tolerance as a justice issue. The other racial groups clearly differentiated the two constructs. Since the practical measures of fit supported the contention that measurement models were similar, a common measurement model was applied to all groups. However, future research should examine tolerance in a more comprehensive fashion.

Where possible, objective data should be included in the model (e.g., extent to which actual policies and procedures exist; numbers of grievances filed, etc.). This study was based solely on employee attitudes and perceptions. As such, objective indicators of fairness were not included. This may be particularly important when examining procedural and distributive justice. The distinction between these two constructs may have been more clearly delineated if this had been possible in this study.

While this model is micro in nature (i.e., from an individual perspective), future fairness models should be developed from an organizational perspective. A model of this type may examine the effects of different types of programs and policies, demographic composition of the organization, etc. on organizational tolerance and perceptions of fairness. Furthermore, organizational outcomes could be included (e.g., actual turnover rates, organizational measures of effectiveness, etc.) in a model of this type. This orientation may serve a more constructive purpose to organizational leaders contemplating diversity interventions.

The differential response rates were troubling, and future research needs to determine the factors that influence a respondent completing a survey (especially from a cultural perspective). It would be very useful to understand the characteristics of the responders versus the non responders. Are the people that fail to return the survey more skeptical? Do these individuals tend to have more negative views? If these types of systematic influences are present, the results from a survey of this type will be biased. One hypothesis is that minority employees may feel that they can be easily identified. If this is the case, the differential response rate may decrease if the survey is not anonymous. While this strategy has drawbacks of its own, comparisons across groups may be more meaningful.

Summary

Researchers have posited cultural and structural reasons why racial differences should exist in the work place. Due to the legislative, judicial, and executive actions initiated over thirty years ago, many of the structural influences have dissipated. To the extent that racial differences do exist in the work place, it appears that the primary influence may be cultural in nature. For example, differences in work values and beliefs can be traced back to the dimensions of cultures described by Hoftstede (1984). The racial differences observed in the fairness of set of variables provides evidence of this explanation. For example, African Americans and Whites did not significantly differ from each other in the mean levels of perceived fairness. However, Hispanics and Asian/Pacific Islanders perceived a greater degree of fairness than both Whites or African Americans. The Hispanic and Asian cultures tend to have a greater acceptance of power distance (i.e., an acceptance of inequality between people with power and people without power) in contrast to the United States. The largest differences in terms of fairness occurred with the organizational and social tolerance variables. As noted earlier, these types of experiences are likely related to the deepest level of organizational culture (i.e., basic underlying assumptions). While organizations may have implemented policies designed to ensure fairness and equality, the attitudes (e.g., racial stereotypes, attributions for success, etc.) of the work force may be slower to change. In fact, some of the programs designed to promote equality from a structural perspective may actually have a negative influence on the basic underlying assumptions (i.e., attributions for minority success).

While the cultural influences (both organizationally and racially oriented) appear to have an influence on the work experience, the differences across the racial groups

were negligible in most cases. Furthermore, a common model of fairness appears to apply to disparate racial groups. One reason for the small effect sizes and the similarity of groups observed in this study is the nature of the controls utilized in this study. Both the sampling procedure and the statistical controls employed in this study assured comparability of the different groups in terms of type of work, supervisory responsibilities, income, education, and tenure. While many studies examining racial differences have controlled for specific extraneous factors, the extent of control in this particular study is unique. This leads to the possibility that results in previous studies which have found significant differences (and meaningful effect sizes) across different racial groups may be due in part to the extraneous and uncontrolled influences.

It must also be acknowledged that the results may be due to an organization effect (i.e., that the Department of the Navy is unique) and that the findings may not generalize to non DoN agencies or organizations in private industry. It is possible that the Navy places greater emphasis on insuring equality and fairness for people of all cultural groups. While further research should attempt to extend these findings to different settings (e.g., private sector organizations), it is expected that similar results will be observed (assuming the same types of controls are utilized).

Finally, the meaningfulness and appropriateness of examining racial differences has been questioned by different groups of researchers (Yee et al., 1993; Zuckerman, 1990) in terms of scientific, social and ethical grounds. Zuckerman argues that findings can be misinterpreted and may be used in some cases for political purposes. However, the arguments against studying race tend to be most concerned with the examination of biological and genetic differences (e.g., African American - White IQ differences). Further arguments have been advanced indicating problems with how to classify individuals into different racial groups. While these arguments have may have merit, this

study did not attempt to examine genetic or biological differences by race. Germane to this study was the presence or absence of differences in job attitudes and perceptions of the work environment. Observed differences could be accounted for by differential treatment and experiences on the job. Furthermore, organizations are developing policies and programs targeted at racial and cultural diversity. Many of these programs are based upon assumptions and speculation. Therefore, it is imperative that researchers objectively and accurately study race in organizational settings from a social perspective.

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APPENDICES

APPENDIX A

COVER LETTERS

DEPARTMENT OF THE NAVY
NAVAL SUPPLY SYSTEMS COMMAND
1931 JEFFERSON DAVIS HIGHWAY
ARLINGTON VA 22241-5360

TELEPHONE NUMBER
COMMERCIAL
AUTOVON
IN REPLY REFER TO:

09 JUL 1993

From: Commander, Naval Supply Systems Command

Subj: CULTURAL DIVERSITY RESEARCH STUDY

1. The Assistant Secretary of the Navy (Manpower and Reserve Affairs) has requested that the Naval Supply Systems Command (NAVSUP) participate in a Navy Personnel Research and Development Center (NPRDC) research project. NPRDC is conducting research and examining work force diversity in Navy organizations. Your cooperation and participation in this project are important for its success.

2. The NPRDC is developing a general model of diversity in the work place. This model explores how individuals from different cultural groups perceive and respond to the work environment. It incorporates perceptions of fairness, trust, and cultural tolerance in order to predict employee attitudes such as satisfaction with the job, satisfaction with the organization, and intention to remain with the organization.

3. As part of this research, NPRDC will need to survey approximately 8,000 Navy civilian personnel employed in different organizations and commands. Field test pilot will begin in early July. The commands that participate will receive valuable feedback concerning the diversity in their respective organizations.

4. NAVSUP is committed to work force diversity. If NAVSUP is going to be able to effectively recruit and manage an increasingly diverse work force, we will need to understand issues of diversity and their impact on the organization.

R M Moore

R. M. MOORE

Distribution:
NAVSUP DEPCOMs and
Staff Assistants

DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND
2531 JEFFERSON DAVIS HIGHWAY
ARLINGTON VA 22242-5160

IN REPLY REFER TO

12713
OPR: HRO 043
Ser 00/748
29 Jul 93

From: Commander, Naval Sea Systems Command

Subj: CULTURAL DIVERSITY RESEARCH STUDY

1. The Assistant Secretary of the Navy (Manpower and Reserve Affairs) has requested that the Naval Sea Systems Command (NAVSEA) participate in a Navy Personnel Research and Development Center (NPRDC) research project. NPRDC is conducting research examining workforce diversity in Navy organizations.

2. NPRDC is developing a general model of diversity in the workplace. This model explores how individuals from different cultural groups perceive and respond to the work environment. It incorporates perceptions of fairness, trust, and cultural tolerance in order to predict employee attitudes such as satisfaction with the job, satisfaction with the organization, and intention to remain with the organization.

3. As part of this research, NPRDC will need to survey approximately 8,000 Navy civilian personnel employed in different organizations and commands. Field test pilot will begin in early August. The commands that participate will receive valuable feedback concerning the diversity in their respective organizations.

4. NAVSEA is committed to workforce diversity. If NAVSEA is going to be able to effectively recruit and manage an increasingly diverse workforce, we will need to understand issues of diversity and their impact on the organization.

KENNETH C. MALLEY

Distribution:
All Human Resources Offices servicing
NAVSEA Field Activities
SNDL: FKP (minus FKP6B, FKP6C)

DEPARTMENT OF THE NAVY
NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
WASHINGTON, DC 20361

IN REPLY REFER TO
12720
Ser AIR-7113B/0480
14 Jul 93

From: Commander, Naval Air Systems Command

Subj: CULTURAL DIVERSITY RESEARCH STUDY

Encl: (1) Cultural Diversity Survey

1. The Assistant Secretary of the Navy (Manpower and Reserve Affairs) has requested the Naval Air Systems Command participate in a Navy Personnel Research and Development Center (NPRDC) research project examining work force diversity in Navy organizations. The results of this research project will enable Navy organizations to develop programs and policies designed to more effectively manage a diverse work force.

2. To gather the information needed for the research project, NPRDC developed the survey provided as enclosure (1). Approximately 8,000 Navy civilian personnel employed in different organizations and commands will participate in this survey. NPRDC will develop an individual model of diversity in the workplace from this survey to explore how individuals from different cultural groups perceive and respond to the work environment. This model will also incorporate perceptions of fairness, trust, and cultural tolerance to predict employee attitudes such as satisfaction with the job, satisfaction with the organization, and intention to remain with the organization.

3. Your participation in this survey is entirely voluntary. However, we value your opinion and need your input if we are to succeed in developing programs that address the issues of a diverse work force. I appreciate your cooperation.

Donald V. Boecker

DONALD V. BOECKER
Acting

Distribution:
NAVAIR Survey Participants

APPENDIX B

SURVEY

Navy Personnel Research and Development Center
San Diego, CA 92152-7250

ORGANIZATIONAL DIVERSITY SURVEY

PLEASE DO NOT WRITE IN THIS AREA

9245

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ORGANIZATIONAL DIVERSITY SURVEY

We are asking for your opinions and attitudes regarding your organization, your job, and work in general. Your assistance will be appreciated and will be of great help to both the Navy and your organization. There are no right or wrong answers. We want YOUR opinions.

Public Law 93-579, called the Privacy Act of 1974, requires that you be informed of the purposes and uses to be made of the information collected. The information requested herein is collected under the authority of 5 United States Code 301. Authority to request this information is granted by the Chief of Naval Operations under Report Control Symbol OPNAV 5350-14, which expires on 31 December 1993. Your responses, along with others in your organization, will be used to measure attitudes and opinions of individuals with respect to the diversity in your workplace.

Providing information in this form is completely voluntary. Your responses will be completely confidential and anonymous and will be used for statistical purposes only. The information you provide will NOT become part of your permanent record and WILL NOT be used to make decisions about you which will affect your career in any way. Failure to respond to any questions will NOT result in any penalties except possible lack of representation of your views in the final results and outcomes.

Thank you for your assistance! And now, please read carefully the instructions given below and complete the questionnaire.

MARKING INSTRUCTIONS

CORRECT MARK ●

INCORRECT MARKS ⊘ ⊗ ◒ ⊙

- USE NO. 2 PENCIL ONLY.
- Do not use ink, ballpoint or felt tip pens.
- Erase cleanly and completely any changes you make.
- Make black marks that fill the circle.
- Do not make stray marks on the form.
- Write the numbers in the boxes at the top of the block.
- Fill in the corresponding circles below.

Please indicate today's date:

DATE		
MO.	DAY	YR.
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

You will be given the opportunity to make general comments at the end of the survey.

If you have any questions, you may contact:

Jeffrey D. Houston (619) 553-7959
DSN 553-7959

Please complete the survey within the next FIVE days. When you have completed it, return it in the enclosed envelope.

THANK YOU FOR YOUR TIME AND EFFORT!

1. What are you?
   - ○ Male
   - ○ Female

2. What was your age on your last birthday? →

Years	
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

3. What is your racial/ethnic background?
   - ○ White - Not of Hispanic origin
   - ○ Hispanic
   - ○ Black/African American
   - ○ Asian/Pacific Islander
   - ○ Native American/Aleut/Eskimo
   - ○ Other

4. What is your highest level of education?
   - ○ Less than high school
   - ○ High school equivalency (GED)
   - ○ High school degree graduate
   - ○ Vocational/technical training
   - ○ Less than two years of college
   - ○ Two years or more of college no degree
   - ○ Associate's Degree
   - ○ Bachelor's Degree
   - ○ Master's Degree
   - ○ Doctoral Degree

5. What is your current marital status?
   - ○ Not married but living with significant other
   - ○ Single and never been married
   - ○ Married
   - ○ Separated/Divorced
   - ○ Widowed

6. What is your current level of responsibility in your job?
   - ○ Non-supervisor
   - ○ First-line supervisor
   - ○ Mid-level supervisor
   - ○ Top management

7. What is your current pay plan?

○ DP	○ WM
○ ES	○ WS
○ GM	○ WT
○ GS	○ WD
○ WG	○ Other
○ WL	○ Don't Know

8. What is your current pay grade?

1	2	3	4	5	6	7	8
○	○	○	○	○	○	○	○

9	10	11	12	13	14	15	16 or above
○	○	○	○	○	○	○	○

9. What kind of work do you do? (Choose one only.)
   - ○ Management
   - ○ Professional
   - ○ Technical
   - ○ Office/clerical work
   - ○ Skilled labor
   - ○ Service
   - ○ General labor
   - ○ Other

10. How long have you been employed at this organization?

Number of Years	Number of Months
0 0	0 0
1 1	1 1
2 2	2
3 3	3
4 4	4
5	5
6	6
7	7
8	8
9	9

11. Do you have any physical disabilities/challenges?
    - ○ No
    - ○ Yes

12. What cultural group do you identify with most?
    - ○ Race
    - ○ Ethnic Group
    - ○ Sex
    - ○ Religion
    - ○ Age
    - ○ Other

The following definitions are to be used when responding to the questions.

Affirmative Action..... Steps in recruitment, hiring, upgrading jobs, etc. that are designed to eliminate the present effects of past discrimination. Affirmative Action requires the employer to make an **extra effort** to hire and promote those in a protected group (i.e., cultural groups that have been discriminated against in the past).

Cultural Group/Background..... Cultural group or background can refer to any group with which one identifies. This can imply your sex, race, ethnic background, religion, or even age. An individual will be a member of different cultural groups (e.g., Hispanic and female). However, an individual will often identify more closely with a specific group (e.g., his or her sex or his or her race). When answering questions asking about *your* cultural background, think about the group with which you identify most closely. Otherwise, think about cultural groups or diversity in general.

Cultural Identity..... The extent that an individual identifies with his or her cultural background.

Cultural Sensitivity..... Cultural sensitivity refers to an individual's or the organization's respect and understanding of cultural differences. If cultural sensitivity is present, there will be a respect and acceptance of individual and cultural differences.

Department..... A section of the organization that fulfills a major function, such as the maintenance department or the engineering department. A department will be a part of an organization.

Management..... Management refers to middle and top level managers within an organization. These tend to be the individuals who make policy decisions for the organization.

Organization..... The specific organization for which you work. Two examples of an organization would be Norfolk Naval Ship Yard *or* Naval Aviation Depot Jacksonville, FL.

Physical Disability/Challenges..... A physical or mental impairment that would designate a person as handicapped or disabled.

Supervisor..... The person to whom you directly report (the person who formally evaluates your performance).

PART I: ORGANIZATIONAL RESPONSIBILITIES

Instructions: The following statements reflect different attitudes concerning the responsibilities of organizations to meet the needs of individuals from different cultural groups (see definition on page two), employees who are physically handicapped or challenged, and employees who have special needs (e.g., single parents, working mothers, etc.). Please indicate the extent to which you agree with each statement by marking the answer which best reflects *your* beliefs. This response does *not* necessarily have to agree with legal requirements.

	STRONGLY DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	NEITHER AGREE NOR DISAGREE	SLIGHTLY AGREE	MODERATELY AGREE	STRONGLY AGREE
1. Organizations should be flexible with work scheduling in order to meet individual employee's needs (e.g., flexible work schedules, time off to meet family obligations, etc.).	O	O	O	O	O	O	O
2. An individual should make sure that his/her personal life does not interfere with his/her job.	O	O	O	O	O	O	O
3. An employee who has an excessive amount of time off in order to meet personal/family obligations should be disciplined.	O	O	O	O	O	O	O
4. Organizations should be very sensitive to the needs of workers in special situations (e.g., working mothers, single parents, etc.).	O	O	O	O	O	O	O
5. The organization should *not* make any *"special"* considerations for employees with work/nonwork conflicts (e.g., parents with childcare conflicts).	O	O	O	O	O	O	O
6. Overall, Affirmative Action policies are fair.	O	O	O	O	O	O	O
7. Affirmative Action policies are *not* necessary because the best talent will rise to the top regardless of race or gender.	O	O	O	O	O	O	O
8. Affirmative Action policies often lead to "reverse discrimination".	O	O	O	O	O	O	O
9. Without Affirmative Action policies, there would be far fewer minorities in positions of authority.	O	O	O	O	O	O	O
10. Affirmative Action policies have outlived their usefulness.	O	O	O	O	O	O	O
11. Because of the inherent nature of most organizations, Affirmative Action policies are necessary to give everyone a fair chance.	O	O	O	O	O	O	O
12. Cultural background (i.e., race, gender, religion) should *not* be considered when making human resource decisions (e.g, hiring, promotions, etc.).	O	O	O	O	O	O	O
13. Organizations should take responsibility to make up for society's past injustices.	O	O	O	O	O	O	O
14. Employees from different cultural groups should conform to the norms and expectations of the organization even if it is in conflict with their cultural values or background.	O	O	O	O	O	O	O
15. Organizations should be very sensitive to the needs of individuals from different cultural groups.	O	O	O	O	O	O	O
16. An individual should *not* have to alter his/her behavior (e.g., dress, appearance, speech) just to fit in better with the organization or his/her department.	O	O	O	O	O	O	O
17. Organizations should encourage employees from different cultural groups to maintain their cultural identity.	O	O	O	O	O	O	O
18. The relationships between different cultural groups may suffer when employees strongly identify with their cultural background.	O	O	O	O	O	O	O
19. Organizations should have programs specifically designed to meet the needs of individuals from minority cultural groups (e.g., EEO counseling program).	O	O	O	O	O	O	O

	STRONGLY DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	NEITHER AGREE NOR DISAGREE	SLIGHTLY AGREE	MODERATELY AGREE	STRONGLY AGREE
20. Organizations should make *special* attempts to hire individuals who have physical disabilities.	O	O	O	O	O	O	O
21. Organizations should *not* have to make costly changes (e.g., installing elevators, special ramps, buying new equipment) in order to accomodate individuals with physical disabilities.	O	O	O	O	O	O	O
22. Individuals with physical disabilities should *not* be given "*special*" consideration for jobs, promotions, etc.	O	O	O	O	O	O	O

PART II: GENERAL WORK ATTITUDES

Instructions: The following statements reflect different beliefs about the nature of work and working. Indicate the extent to which you agree or disagree with each statement by marking the answer which best reflects *your* beliefs. Please **do not** skip any questions.

	STRONGLY DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	NEITHER AGREE NOR DISAGREE	SLIGHTLY AGREE	MODERATELY AGREE	STRONGLY AGREE
1. By working hard, a person can overcome most obstacles that life presents.	O	O	O	O	O	O	O
2. Better decisions are made in groups than by individuals.	O	O	O	O	O	O	O
3. Factories would be run better if workers had a greater say in policy decisions.	O	O	O	O	O	O	O
4. People who have failed at a task have usually not worked hard enough.	O	O	O	O	O	O	O
5. Organizations that are team oriented are more effective than organizations that stress individual performance.	O	O	O	O	O	O	O
6. Workers should be more active in making decisions about products, financing, etc.	O	O	O	O	O	O	O
7. A good indication of a person's worth is how well he/she performs his/her job.	O	O	O	O	O	O	O
8. Organizations should base pay raises on individual performance rather than on team/department performance.	O	O	O	O	O	O	O
9. Management should carefully listen to the suggestions and comments of all workers.	O	O	O	O	O	O	O
10. Most people can be successful if they work hard enough.	O	O	O	O	O	O	O
11. Working as part of a team would be more enjoyable than working alone.	O	O	O	O	O	O	O
12. Organizations that let all employees participate in decision making tend to be more effective.	O	O	O	O	O	O	O
13. I would prefer to work alone rather than to work as part of a group.	O	O	O	O	O	O	O
14. People who work on a team tend to work less hard than employees who work alone.	O	O	O	O	O	O	O

PART III: ATTITUDES TOWARDS YOUR JOB

Instructions: The following items reflect different attitudes that you may hold towards your job and your organization. Indicate the extent to which you agree or disagree with each statement by marking the answer which best reflects your beliefs. Please **do not** skip any questions.

	STRONGLY DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	NEITHER AGREE NOR DISAGREE	SLIGHTLY AGREE	MODERATELY AGREE	STRONGLY AGREE
1. My job does *not* allow me enough opportunities to develop new skills.	O	O	O	O	O	O	O
2. I am satisfied with the amount of personal growth and development I get from doing my job.	O	O	O	O	O	O	O
3. I am satisfied with the amount of challenge in my job.	O	O	O	O	O	O	O
4. I enjoy the challenging aspects of my job.	O	O	O	O	O	O	O
5. I am satisfied with the working conditions on my job.	O	O	O	O	O	O	O
6. The physical working conditions are about as good as can be expected for this type of job.	O	O	O	O	O	O	O
7. I enjoy the type of work that I do.	O	O	O	O	O	O	O
8. I wish that I had chosen a different line of work.	O	O	O	O	O	O	O
9. I often get bored at work.	O	O	O	O	O	O	O
10. I do not like many of the tasks that I have to do on my job.	O	O	O	O	O	O	O
11. My job is very rewarding.	O	O	O	O	O	O	O
12. My immediate supervisor recognizes my potential.	O	O	O	O	O	O	O
13. I can count on my supervisor to help me out at his or her expense when I really need it.	O	O	O	O	O	O	O
14. I have an extremely effective working relationship with my supervisor.	O	O	O	O	O	O	O
15. I am satisfied with the support and guidance I receive from my supervisor.	O	O	O	O	O	O	O
16. I am satisfied with the overall quality of supervision I receive on my job.	O	O	O	O	O	O	O
17. My immediate supervisor understands my problems and needs.	O	O	O	O	O	O	O
18. I am satisfied with the top management in this organization.	O	O	O	O	O	O	O
19. I am satisfied with the way that top management makes its decisions.	O	O	O	O	O	O	O
20. Management in this firm understands the problems and issues of its workers.	O	O	O	O	O	O	O
21. I enjoy talking and working with my co-workers.	O	O	O	O	O	O	O
22. It is difficult to get to know other people while on this job.	O	O	O	O	O	O	O

	STRONGLY DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	NEITHER AGREE NOR DISAGREE	SLIGHTLY AGREE	MODERATELY AGREE	STRONGLY AGREE
23. I enjoy the social relationships I have made while working for this organization.	O	O	O	O	O	O	O
24. I have made a lot of friends in this organization.	O	O	O	O	O	O	O
25. I am satisfied with the working relationships I have on my job.	O	O	O	O	O	O	O
26. I really enjoy working with the people in this organization.	O	O	O	O	O	O	O
27. I am satisfied with the amount of job security that I have.	O	O	O	O	O	O	O
28. My future in this organization appears very secure.	O	O	O	O	O	O	O
29. I am fairly paid for what I contribute to this organization.	O	O	O	O	O	O	O
30. I am satisfied with the amount of pay and fringe benefits that I receive.	O	O	O	O	O	O	O
31. I enjoy working for this organization.	O	O	O	O	O	O	O
32. I am satisfied working for this organization.	O	O	O	O	O	O	O
33. I am quite proud to be able to tell people which organization it is that I work for.	O	O	O	O	O	O	O
34. I really feel as if this organization's problems are my problems.	O	O	O	O	O	O	O
35. I feel myself to be part of this organization.	O	O	O	O	O	O	O
36. It would please me to know that my efforts were helping this organization.	O	O	O	O	O	O	O
37. I enjoy putting a great deal of effort into my job.	O	O	O	O	O	O	O
38. I would be willing to come in on my day off if my organization needed me to.	O	O	O	O	O	O	O
39. Over the years, I have grown fond of this organization as a place to work.	O	O	O	O	O	O	O
40. I would not mind working a half hour past quitting time if I could finish a task I was working on.	O	O	O	O	O	O	O
41. I do what my job description requires; this organization does not have the right to expect more.	O	O	O	O	O	O	O
42. I am *not* willing to put myself out just to help this organization.	O	O	O	O	O	O	O
43. I would not quit my job just to make more money with another company.	O	O	O	O	O	O	O
44. I feel a strong sense of loyalty to this organization.	O	O	O	O	O	O	O
45. My loyalty is to my work, not to any particular organization.	O	O	O	O	O	O	O

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
46. It does not matter what organization I work for as long as I enjoy the type of work that I do.	O	O	O	O	O	O	O
47. If another organization offered me a 10% higher salary to perform the same type of work that I perform now, I would seriously consider switching companies.	O	O	O	O	O	O	O
48. I often think about quitting my job.	O	O	O	O	O	O	O
49. I would leave this job if I could find a similar job in another company.	O	O	O	O	O	O	O
50. I am looking forward to staying with this organization until retirement.	O	O	O	O	O	O	O
51. I am currently looking for another job.	O	O	O	O	O	O	O
52. I will probably look for another job within the next year.	O	O	O	O	O	O	O
53. I find that I look at the help wanted ads in the newspaper at least once a month.	O	O	O	O	O	O	O

PART IV: JOB AND ORGANIZATIONAL CHARACTERISTICS

Instructions: The following items concern characteristics of your job and your organization. Indicate the extent to which you agree or disagree with each statement by marking the answer which best reflects your beliefs. Please **do not** skip any questions.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1. It is basically my own responsibility to decide how my job gets done.	O	O	O	O	O	O	O
2. I have the freedom to decide what I have to do on my job.	O	O	O	O	O	O	O
3. My job requires a variety of different types of skills.	O	O	O	O	O	O	O
4. I get to complete a variety of different tasks on my job.	O	O	O	O	O	O	O
5. On my job, I produce a whole product or service.	O	O	O	O	O	O	O
6. My job does not make a major contribution to this organization.	O	O	O	O	O	O	O
7. My job is very important.	O	O	O	O	O	O	O
8. A lot of people can be affected by the work that I do.	O	O	O	O	O	O	O
9. Just doing the work required by my job gives me feedback on how well I am doing.	O	O	O	O	O	O	O

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
10. As I do my job, I can tell how well I am performing.	O	O	O	O	O	O	O
11. Management at this firm sincerely cares about its workers.	O	O	O	O	O	O	O
12. I feel confident that the firm will always try to treat me fairly.	O	O	O	O	O	O	O
13. The management of this organization is genuinely concerned about the welfare of its workers.	O	O	O	O	O	O	O
14. If I got into difficulties at work, I know my co-workers would try to help me out.	O	O	O	O	O	O	O
15. I can trust the people I work with to lend me a hand if I need it.	O	O	O	O	O	O	O
16. It often seems like I have too much work for one person to do.	O	O	O	O	O	O	O
17. Management in this organization treats *all* employees the same.	O	O	O	O	O	O	O
18. There seems to be one set of rules and expectations for some employees and another set for other employees.	O	O	O	O	O	O	O
19. Human resource decisions in this organization are made in a fair and just manner.	O	O	O	O	O	O	O
20. The management of this organization takes great effort to make decisions fairly.	O	O	O	O	O	O	O
21. This organization is a fair place to work.	O	O	O	O	O	O	O
22. I feel quite confident that this firm will always try to treat me fairly.	O	O	O	O	O	O	O
23. The procedures this organization uses to select employees allows for the best applicant to get the job.	O	O	O	O	O	O	O
24. The procedures used in this organization to hire employees unfairly discriminate against some cultural groups.	O	O	O	O	O	O	O
25. This organization has policies to ensure that the most qualified workers will get promoted.	O	O	O	O	O	O	O
26. The promotional policies in this organization are fair.	O	O	O	O	O	O	O
27. Supervisors receive adequate training on how to evaluate an employee's performance.	O	O	O	O	O	O	O
28. This organization has policies that ensure that employee evaluations are made in an accurate manner.	O	O	O	O	O	O	O
29. This organization has procedures to ensure that all employees are treated similarly.	O	O	O	O	O	O	O
30. The policies in this organization are designed so that all cultural groups are treated equally.	O	O	O	O	O	O	O
31. All employees in this organization are treated fairly when it comes to the amount of their salary.	O	O	O	O	O	O	O
32. I believe that many workers in this organization are underpaid while others are overpaid.	O	O	O	O	O	O	O

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
33. Employees in this organization tend to be paid according to their talents and qualifications.	O	O	O	O	O	O	O
34. Compared to my co-workers, my salary or wage is fair.	O	O	O	O	O	O	O
35. Certain groups of employees have failed to advance in this organization for reasons other than their qualifications and skills.	O	O	O	O	O	O	O
36. The most talented employees have risen to the top of the organization.	O	O	O	O	O	O	O
37. Many employees have been promoted in this organization for reasons other than their talents and qualifications.	O	O	O	O	O	O	O
38. This organization values people with different cultural backgrounds.	O	O	O	O	O	O	O
39. The management of this organization listens to the comments and suggestions of all cultural groups to the same extent.	O	O	O	O	O	O	O
40. It is more difficult for a woman to progress in this organization than it is for a man.	O	O	O	O	O	O	O
41. Minority employees have little influence or power in this organization.	O	O	O	O	O	O	O
42. The management of this organization respects some cultural groups more than others.	O	O	O	O	O	O	O
43. Very few attempts have been made to alter organizational policies in order to accomodate employees from different cultural groups.	O	O	O	O	O	O	O
44. This organization treats minorities like second class citizens.	O	O	O	O	O	O	O
45. Individuals from different cultural groups socialize together outside normal working hours.	O	O	O	O	O	O	O
46. There seems to be a lot of friction between individuals from different cultural groups in this organization.	O	O	O	O	O	O	O
47. Workers in this organization get along well together.	O	O	O	O	O	O	O
48. Employees from different cultural groups generally have good working relationships in this organization.	O	O	O	O	O	O	O
49. Racial/ethnic jokes are told in this organization.	O	O	O	O	O	O	O
50. There is a very sensitive understanding of people from different cultural groups in this organization.	O	O	O	O	O	O	O
51. Co-workers from different cultural groups socialize together in the work place.	O	O	O	O	O	O	O
52. It seems that employees from different cultural groups tend to stick together as a group instead of socializing with other groups.	O	O	O	O	O	O	O
53. People in this organization are sensitive to cultural differences.	O	O	O	O	O	O	O
54. A lot of employees in this organization appear to be prejudiced.	O	O	O	O	O	O	O
55. This organization is a hostile place to work for minority employees.	O	O	O	O	O	O	O

PART V: WORK HABITS

Instructions: The following items reflect behaviors that can be exhibited at work. Please indicate how often you exhibit each of these behaviors compared to your fellow employee (workers that perform the same type of work as yourself). A "10" indicates that you exhibit this behavior *much more often* than almost all employees (only 10% of all employees would exhibit this behavior more often). A "1" indicates that you exhibit this behavior *much less often* than almost all employees (only 10% of all employees would exhibit this behavior less often). All circles in between represent equal increments. For example, "5" to "6" represents the average employee.

	1	2	3	4	5	6	7	8	9	10
1. I am late to work.	O	O	O	O	O	O	O	O	O	O
2. I take extra work breaks during the work day.	O	O	O	O	O	O	O	O	O	O
3. I give advance notice if I am unable to come to work.	O	O	O	O	O	O	O	O	O	O
4. I am absent from work.	O	O	O	O	O	O	O	O	O	O
5. I work through my lunch break.	O	O	O	O	O	O	O	O	O	O
6. I work more hours than what is required of me.	O	O	O	O	O	O	O	O	O	O
7. I help co-workers catch up on work after they have been absent.	O	O	O	O	O	O	O	O	O	O
8. I volunteer for tasks that are not required.	O	O	O	O	O	O	O	O	O	O
9. I orient new people on the job even though it is not required.	O	O	O	O	O	O	O	O	O	O
10. I help others who have heavy work loads.	O	O	O	O	O	O	O	O	O	O
11. I assist my supervisor with his or her work.	O	O	O	O	O	O	O	O	O	O
12. I make innovative suggestions to improve the department.	O	O	O	O	O	O	O	O	O	O

PART VI: DEVELOPMENTAL RELATIONSHIPS

Instructions: Please indicate the extent to which your supervisor or immediate superior has been beneficial to your career in the following areas.

To what extent does your supervisor or direct superior.....	NOT APPLICABLE	NOT AT ALL	RARELY	FREQUENTLY	OCCASIONALLY	CONSISTENTLY
1. expose you to upper management?	O	O	O	O	O	O
2. direct and guide you?	O	O	O	O	O	O
3. listen to your ideas and encourage your thinking?	O	O	O	O	O	O
4. act as a professional role model for you?	O	O	O	O	O	O
5. inform you of key but unwritten aspects of your position?	O	O	O	O	O	O

	NOT APPLICABLE	NOT AT ALL	RARELY	FREQUENTLY	OCCASIONALLY	CONSISTENTLY
6. have a relationship with you characterized by trust and mutual sharing?	O	O	O	O	O	O
7. help you develop strategies to advance your career?	O	O	O	O	O	O
8. provide you with helpful feedback on your work?	O	O	O	O	O	O
9. advocate on your behalf to get you a promotion?	O	O	O	O	O	O
10. help you to get challenging assignments?	O	O	O	O	O	O
11. influence your non-work life?	O	O	O	O	O	O

What is the sex of your supervisor:

- ○ Male
- ○ Female

What is the ethnic/racial background of your supervisor:

- ○ White - Not of Hispanic origin
- ○ Hispanic
- ○ Black/African American
- ○ Asian/Pacific Islander
- ○ Native American/Aleut/Eskimo
- ○ Other

PART VII: DOWNSIZING AND EMPLOYMENT PROSPECTS

Instructions: The following statements reflect different beliefs about future employment prospects (both within the DoD and in general. Indicate the extent to which you agree or disagree with each statement by marking the answer which best reflects *your* beliefs. Please do not skip any questions.

	STRONGLY DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	NEITHER AGREE NOR DISAGREE	SLIGHTLY AGREE	MODERATELY AGREE	STRONGLY AGREE
1. The employment prospects for someone with my education, training, and experience are good.	O	O	O	O	O	O	O
2. Because of current budget cuts, I am worried about the stability of my job.	O	O	O	O	O	O	O
3. I am afraid that many of my co-workers may soon be laid off due to downsizing and consolidation.	O	O	O	O	O	O	O
4. I would not have any difficulties finding a good job should I decide to leave DoD.	O	O	O	O	O	O	O
5. I am not very optimistic about future job opportunities given the current economic and political climate.	O	O	O	O	O	O	O
6. I would have no trouble finding a job if I really wanted one.	O	O	O	O	O	O	O
7. The downsizing effort will not significantly affect my organization.	O	O	O	O	O	O	O
8. I believe that downsizing efforts in the DoD will hit minority employees especially hard.	O	O	O	O	O	O	O

PART VIII: ORGANIZATIONAL EFFECTIVENESS

Instructions: The following statements reflect different beliefs about the effectiveness of your organization. Please indicate the extent that you agree with each statement by marking the correct answer. Please do not skip any questions.

	STRONGLY DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	NEITHER AGREE NOR DISAGREE	SLIGHTLY AGREE	MODERATELY AGREE	STRONGLY AGREE
1. This organization is effective in accomplishing its objectives.	O	O	O	O	O	O	O
2. There is a lot of waste in this organization.	O	O	O	O	O	O	O
3. If this organization was in private industry, it would be very profitable.	O	O	O	O	O	O	O
4. This organization gets the most out of its workers.	O	O	O	O	O	O	O
5. This organization is not as productive as it should be.	O	O	O	O	O	O	O
6. Many employees in this organization seem lazy and unproductive.	O	O	O	O	O	O	O

GENERAL COMMENTS

Should the management of this organization attempt to promote cultural diversity in this organization? If so, what should it do? (Please be specific.)

Please mark this circle if you are answering the above question. This will allow us to identify the questionnaires that have written responses. ○

Thank you for participating in this survey. Your responses are greatly appreciated!

APPENDIX C

SCALE ITEMS

WORK BELIEFS

Protestant Work Ethic

By working hard, a person can overcome most obstacles that life presents.

A good indication of a person's worth is how well he/she performs his/her job.

People who have failed at a task have usually not worked hard enough.

Most people can be successful if they work hard enough.

Belief in Participative Decision Making

Factories would be run better if workers had a greater say in policy decisions.

Workers should be more active in making decisions about products, financing, etc.

Management should carefully listen to the suggestions and comments of all workers.

Organizations that let employees participate in decision making tend to be more effective.

Belief in Teamwork

Better decisions are made in groups than by individuals.

Organizations that stress team performance are more effective than organizations that stress individual performance.

Organizations should base pay raises on individual performance rather than on team/department performance. (reverse coded)

People who work on a team tend to work less hard than employees who work alone. (reverse coded)

JOB SATISFACTION

Satisfaction with Work

I enjoy the type of work that I do.

I wish I had chosen a different line of work. (reverse coded)

I often get bored at work. (reverse coded)

I do not like many of the tasks that I have to do on my job. (reverse coded)

My job is very rewarding.

Satisfaction with the Organization

I enjoy working for this organization.

I am satisfied working for this organization.

Satisfaction with Supervision

My supervisor recognizes my potential.

I can count on my supervisor to help me out at his or her expense when I really need it.

I have an extremely effective working relationship with my supervisor.

I am satisfied with the quality of supervision I receive on my job.

My immediate supervisor understands my problems and needs.

JOB SATISFACTION (Continued)

Satisfaction with Management

I am satisfied with the top management in this organization.

I am satisfied with the way top management makes its decisions.

Management at this firm understands the problems and issues of its workers.

Satisfaction with Co-Workers

I enjoy talking and working with my co-workers.

I enjoy the social relationships I have made while working for this organization.

I have made a lot of friends in this organization.

I am satisfied with the working relationships I have on my job.

I really enjoy working with the people in this organization.

Satisfaction with Pay

I am fairly paid for what I contribute to this organization.

I am satisfied with the amount of pay and fringe benefits I receive.

Satisfaction with Job Security

I am satisfied with the amount of job security that I have.

My future in this organization appears very secure.

FAIRNESS IN THE WORK PLACE

Perceived Fairness

I feel confident that this firm will always try to treat me fairly.

Human resource decisions in this organization are made in a fair and just manner.

The management of this organization takes great effort to make decisions fairly.

This organization is a fair place to work.

Organizational Tolerance of Diversity

This organization values people with different cultural backgrounds.

The management of this organization listens to the comments and suggestions of all cultural groups to the same extent.

The management of this organization respects some cultural groups more than others. (reverse coded)

Very few attempts have been made to alter organizational policies in order to accommodate employees from different cultural groups. (reverse coded)

This organization treats minorities like second class citizens. (reverse coded)

Social Tolerance of Diversity

There seems to be a lot of friction between individuals from different cultural groups in this organization. (reverse coded)

Employees from different cultural groups generally have good working relationships in this organization.

Racial/ethnic jokes are told in this organization. (reverse coded)

A lot of employees in this organization appear to be prejudiced. (reverse coded)

This organization is a hostile place to work for minority employees. (reverse coded)

Developmental Relationships

To what extent does your supervisor or direct superior....

expose you to upper management?
direct and guide you?
listen to your ideas and encourage your thinking?
act as a professional role model for you?
inform you of key but unwritten aspects of your position?
have a relationship with you characterized by trust and mutual sharing?
help you develop strategies to advance your career?
provide you with helpful feedback on your work?
advocate on your behalf to get you a promotion?
help you to get a challenging promotion?
help you to get challenging assignments?

Trust in Management

Management at this firm sincerely cares about its workers.

The management of this organization is genuinely concerned about the welfare of its workers.

Trust in Co-Workers

If I got into difficulties at work, I know my co-workers would try to help me out.

I can trust the people I work with to lend me a hand if I need it.

EMPLOYEE OUTCOMES

Intention to Leave the Organization

I am currently looking for another job.

I will probably look for another job within the next year.

Organizational Identification

I am quite proud to be able to tell people which organization it is that I work for.

I really feel as if this organization's problems are my problems.

I feel myself to be part of this organization.

Over the years, I have grown fond of this organization as a place to work.

Organizational Involvement

It would please me to know that my efforts were helping this organization.

I enjoy putting a great deal of effort into my job.

I would be willing to come in on my day off if my organization needed me to.

I would not mind working a half hour past quitting time if I could finish a task I was working on.

I do what my job description requires; this organization does not have the right to expect more. (reverse coded)

I am not willing to put myself out just to help this organization.

EMPLOYEE OUTCOMES (Continued)

Loyalty

I would not quit my job just to make more money with another company.

I feel a strong sense of loyalty to this organization.

If another organization offered me a 10% higher salary to perform the same type of work that I perform now, I would seriously consider switching companies. (reverse coded)

Altruism

I help co-workers catch up on work after they have been absent.

I volunteer for tasks that are not required.

I orient new people on the job even though it is not required.

I help others who have heavy work loads.

I assist my supervisor with his or her work.

I make innovative suggestions to improve the department.

APPENDIX D

LATENT VARIABLE INDICATORS

EXOGENOUS VARIABLES

Procedural Justice

oc_23 The procedures this organization uses to select employees allows for the best applicant to get the job.

oc_25 This organization has policies to ensure that the most qualified workers will get promoted.

oc_27 Supervisors receive adequate training on how to evaluate an employee's performance.

Cultural Tolerance

oc_38 This organization values people with different backgrounds.

oc_39 The management of this organization listens to the comments and suggestions of all cultural groups to the same extent.

oc_42 The management of this organization respects some cultural groups more than others.

oc_44 This organization treats minorities like second class citizens.

oc_54 A lot of employees in this organization appear to be prejudiced.

oc_55 This organization is a hostile place to work for minority employees.

Work Satisfaction

ja_7 I enjoy the type of work that I do.

ja_8 I wish I had chosen a different line of work.

EXOGENOUS VARIABES (Continued)

Downsizing Perceptions

ep_2	Because of current budget cuts, I am worried about the stability of my job.
ep_3	I am afraid that many of my co-workers may soon be laid off due to downsizing and consolidation.
ep_7	The downsizing effort will not significantly affect my organization.

ENDOGENOUS VARIABLES

Distributive Justice

oc_31 All employees in this organization are treated fairly when it comes to the amount of their salary.

oc_33 Employees in this organization tend to be paid according to their talents and qualifications.

oc_35 Certain groups of employees have failed to advance in this organization for reasons other than their qualifications and skills.

Perceived Fairness

oc_17 Management in this organization treats all employees the same.

oc_20 The management of this organization takes great effort to make decisions fairly.

oc_21 This organization is a fair place to work.

Trust

oc_11 Management at this firm sincerely cares about its workers.

oc_12 I feel confident that the firm will always try to treat me fairly.

oc_13 The management of this organization is genuinely concerned about the welfare of its workers.

Organizational Satisfaction

ja_31 I enjoy working for this organization.

ja_32 I am satisfied working for this organization.

ENDOGENOUS VARIABLES (Continued)

Organizational Identification

ja_33	I am quite proud to be able to tell people which organization it is that I work for.
ja_35	I feel myself to be part of this organization.
ja_39	Over the years, I have grown fond of this organization as a place to work.

Turnover Intentions

oc_51	I am currently looking for another job.
oc_52	I will probably look for another job within the next years.

VITA

VITA

Jeffrey Dean Houston earned a Bachelor of Arts Degree with a major in psychology and a Bachelor of Business Administration Degree with a major in accounting from Southwestern University in 1981. He worked in the field of accounting for seven years before returning to graduate school in 1988. His pre-graduate school work experience includes working as an auditor for the state of Texas, working in an accounting firm, and operating his own consulting practice as a certified public accountant. Jeffrey began working for the Department of the Navy in 1992 as a personnel research psychologist. Primary projects include the development of a conceptual and predictive model of quality of life for Navy personnel and the examination of diversity in the Department of the Navy with civilian employees.