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Rational Bias and Its Relationship to the Glass Ceiling

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ABSTRACT

This thesis will focus on the affect of rational bias to the "glass ceiling." Research has suggested that a "glass ceiling" exists in corporate America. It attributes the lack of women in middle and upper management to the "glass ceiling."

Some theorists acknowledge that not all women want to be at the top in management due to the "mommy track" or general lack of interest for that position. However, for those women who desire a position in upper management, some theorists believe women are blocked from upper management positions by the "old boys network"... the "glass ceiling."

The purpose of this study is to investigate if the existence of a "glass ceiling" is perceived by both male and female managers. It is hypothesized that people, both male and female, in the corporate sector favor men over women in decision making roles.

Fifty-three office managers participated in the study, twenty males and thirty-three females. The

subjects were mailed a questionnaire on rational bias which first was used in a Larwood et al study, and a brief original questionnaire on the "glass ceiling." The Larwood et al's questionnaire was modified to focus only on the independent variable of gender instead of the independent variables of gender and race. It was also modified so that responses to version A were counter-biased by the responses of version B. Data were analyzed by univariate and multivariate statistics.

Results of the analysis provided sufficient evidence to reject the hypothesis. Even though the analysis of the data showed men are favored over women in decision making roles, the hypothesis had to be rejected on the basis that the belief of the existence of a "glass ceiling" in corporate America is dependent on the gender of the respondent.

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INTRODUCTION

Women

Women's role in history has been that of a second class citizen. For instance, when the Germanic tribes attacked and conquered the Roman Empire, they regarded women as property in which men had the right to trade. Under the Carolingian rulers of England in the 9th century, women gained the right to inherit land. Also during this era, marriage was considered indissoluble, thus securing a woman's marriage. However, in the 11th century, women were once again considered man's possession with the rise of "courtly love." Women were the objects of a man's love. Eventually, the women's suffrage movement died out during the middle ages (Fox-Genovese 20: 202).

Women's struggle for equal rights started before the birth of the United States of America. In 1776, Abigial Adams tried to convince her husband, John Adams, to "remember the ladies" at the First Constitutional Convention. He refused to give women an

equal say in the country's government. However, their son, John Quincy Adams, supported the women's suffrage amendment. Women did not benefit from this amendment until 1920, nearly 100 years after John Quincy Adams proposed the amendment (English 51). Although women benefitted from the women's suffrage amendment, they do not have the same "political, legal, economic, social, educational, and sexual equality with men" (Fox-Genovese 20:203).

Besides not having equal political rights, women do not have equal earnings. Ever since the days of Moses in the desert, women were valued less than men (Table 1). In Leviticus 27: 3-4, the ratio between the value of a woman to a man was 30:50 silver shekels (New American Bible 117). In 1978, a silver shekel was worth between sixty to seventy-five cents (The Picture Bible 757). In over two millenniums, women have not narrowed the gap between their value/earning power and that of men. The most sizable gain in women's earning power has been in the last decade when women increased their earning power by eight cents. A woman's inability to earn an equal salary to a man contributes to the formation of the "glass ceiling" (Bullard,

Wright 189). The "glass ceiling" is the subtle, invisible barrier which prevents women and other minorities from advancing in management (Morrison, Von Glinow 200).

Table 1

The Comparison of Money Between Men and Women

	Value in the Days of Moses	Earned in 1981	Earned in 1991
Women	30 shekels	64 cents	72 cents
Men	50 shekels	100 cents	100 cents

SOURCE: U.S. News & World Report. "Trouble at the Top; A U.S. Survey Says a 'Glass Ceiling' Blocks Women From Corporate Heights. New Critics Say It's Time for Women to Re-examine Their Goals," by Amy Saltzman (1991).

Women in Management

In the United States, women have not risen through the ranks in management. Most United States companies overlook the feminine characteristics in managers. Ever since the popularity of Japanese form of management, only innovative and fast-growth companies in the United States accepted attributes in managers which were considered feminine. The feminine attributes in managers are the sharing of information

with colleagues and the participatory form of management (Saltzman 47). Most companies tend to believe that feminine attributes cause women to fear success and risk taking (Morrison, Von Glinow 201). The feminine characteristics in management have been considered "weak," because the feminine characteristics are relatively new to the business world. Managers who possess the feminine characteristics are thought to make unsuccessful managers (Leventhal, Garcia 835). The "good manager" is described in masculine characteristics (Leventhal, Herbert 260). Some of these characteristics are "task oriented, aggressive, active, competitive, and risk taking" (Leventhal, Garcia 836).

Although feminine characteristics in management are considered "weak," the masculine attributes are thought to be "good." Society tends to overlook that "men and women complement each other in the workforce" (Stuart 74).

At a conference held at the National Training Labs Institute in 1983, participants were encouraged to divide into three groups for a "gender and the egg" experiment. The three groups consisted of an all male

group, an all female group, and a half male and half female group. These groups were instructed to build an egg catcher. The guideline for this egg catcher was to be able to catch an egg one foot above the ground after it was dropped from the ceiling. The all male group spent a significant portion of their time trying to decide which member had the best idea for the egg catcher. They listened in on other groups ideas, and finally they organized sub committees to test their different ideas. On the other hand, the all female group worked towards an unanimous decision on what their objective was for the project. However, the half male and half female group had some differences at first, but they managed to work together and finished the project first. The all female group finished second, and the all male group finished last, but they had the most elaborate egg catcher design (Stuart 78).

The gender and the egg experiment provides some evidence that a well balanced management team works better than an all male or an all female management team. Even though this experiment does not directly involve the "glass ceiling" issue, it does provide reason to believe that the "glass ceiling" should be

broken to give male and female managers an equal opportunity in the business world. In order to give male and female managers this opportunity, there needs to be a proportionate number of male and female managers at every level to reflect the number of men and women in society. Fisher, a reporter for Fortune magazine, states:

> The best reason for believing that more women will be in charge before long is that in a ferociously competitive global economy, no company can afford to waste valuable brain power simply because it is wearing a skirt. (56)

However, before male and female managers can co-exist in a competitive global society as equals, managers need to eliminate the biases that lead to a "glass ceiling."

Glass Ceiling

In the business world, glass is used to express the limitations and barriers of women and minorities in corporate America. A "glass ceiling" is the invisible barrier that prevents women and minorities from moving up the corporate ladder (Morrison, Von Glinow 200). If lateral movement is necessary for employees to receive

a promotion the "glass wall" prevents women and minorities from receiving the lateral position (Pierson-Cunningham 21). A "glass house" hinders women and minorities from maintaining their self owned businesses (Miller, Springen, Tsianter 56).

The "glass ceiling" applies to both women and minorities. Although minorities experience the "glass ceiling," many researchers focus their coverage of the "glass ceiling" to women.

There is no one cause for the "glass ceiling" experienced by women in corporate America. Instead, the "glass ceiling" is a collection of biases and attitudes that managers have towards female employees. It has been used to help justify female employees' positions in corporate America. Since no two companies are exactly alike, the "glass ceiling" experienced at one company may greatly differ at another company (Vision 92). The main components of the "glass ceiling" are gender bias, systemic bias, rational bias, comfort factor, bitch factor, and colleagues' attitudes. The different aspects of the "glass ceiling" usually coincide with each other.

Gender bias is alluded to in Stuart's article, "What Does the Glass Ceiling Cost You?" as the discrimination against women by either men or women in businesses. Women managers are consistently denied constructive work appraisals by their supervisors. Their supervisors feel that women will not appreciate the criticism given to them. These supervisors believe women would be devastated by their work appraisals. On the contrary, women want to know how they can improve their work performances. Their supervisors feel it is more convenient not to appraise women, so they don't (76). At some corporations, the need to address the gender bias issue may be unknown to women, because there are not enough women in upper management to let others know there is a gender bias problem. Women tend to have gender bias against themselves, because they judge other women harder than men (78-80). A woman who has a flirtatious personality may find other colleagues discriminating against her. According to Tim Jernigan, Vice President of personnel for Dallas based Half Price Books, "Although a woman may endear herself to one superior by various degrees of flirting, she'll likely

alienate other men and women whose respect she needs" (80).

Managers use rational bias to justify their gender bias. Rational bias occurs when superiors discriminate against women, because they feel insecure to give women the necessary guidance and feedback. If managers give women the guidance and feedback they need, the managers may experience repercussions for trying to help women (Larwood, Szwajkowski, Rose 10).

Besides having grudges against women, some managers refuse to listen to the winds of change and maintain their old policies. These managers do not allow culturally diverse committees to be formed. According to Butler, founding director of aha! (American Humanagement Association), systemic bias happens when corporations cannot create culturally diverse recruiting committees to promote diversity at work (Stuart 72).

Research reveals other factors that contribute to the "glass ceiling." For example, most managers feel comfortable hiring and promoting people who are a lot like themselves. The most common perception of the comfort factor is the white male manager hiring and

promoting another white male (Hellwig 109). Butler explained the comfort factor one step further:

> When she asked recruiters to describe the applicant in the best interview they had ever conducted, several white male subjects described themselves, right down to the number and style or rings worn, color of neckties and so on. (Stuart 70)

Due to the comfort factor, male managers neglect female employees, because they feel uncomfortable to develop a close working relationship with a subordinate of the opposite sex (Stuart 72).

However the first time a woman questions the comfort factor or speaks her mind; she is dubbed a bitch. Women who are victims of the bitch factor are considered too aggressive for the stereotype of the female managers (Dowd 78). In Deborah Tannen's book **You Just Don't Understand: Women and Men in Conversation**, she states:

> The expectations for a person in authority and for a woman are contradictory, and you can't do both. Whatever a woman does violates one or the other. Ergo, a bitch is a woman who is not behaving the way a woman is supposed to behave. (Dowd 80)

Since this factor tends to show the double standards in the work force between men and women, it contributes to the "glass ceiling."

The last factor which contributes to the formation of the "glass ceiling" is colleagues' perceptions of female managers. Women visualize female managers in a more positive manner then male managers. Female managers are thought to be more amiable, smarter, and successful (Leventhal, Garcia 836; Leventhal, Herbert 260). Leventhal and Hebert stated in their study, "traditional" minded female employees found themselves threatened by women managers both emotionally and intellectually. In general, male employees believed women managers to be threatening which leads to a less than satisfactory work environment. Despite how colleagues viewed women managers, they accepted male characteristics to be "proper" managerial traits (260).

Statement of Purpose

In August 1991, the Department of Labor, DOL, released its preliminary results of the glass ceiling initiative. The DOL's findings appeared in Visions, a special monthly section in HRMagazine. These findings

include: a "glass ceiling" does exist in corporate America, the "glass ceiling" is lower than what the DOL expected, and the biases and attitudes associated with the "glass ceiling" vary at different companies (91-92). In the Glass Ceiling Commission's statement of purpose, the DOL plans to release their final findings and proposed solutions to the problem at hand in November 1995 (3). Although the DOL is investigating different remedies for the "glass ceiling" in major United States corporations and contractors (Fisher 45), this thesis will examine different remedies people may foresee for the "glass ceiling." These remedies may vary from maintaining the status quo, making companies have an equal employment and advancement program, or finding a solution somewhere in between the extremes (3). No matter which remedy to the "glass ceiling" people will accept, it will take time for the "glass ceiling" to be shattered.

Chapter II

LITERATURE REVIEW

The "glass ceiling" is a relatively new term in corporate America. It originated from a March 1986, **Wall Street Journal** article. After this "problem" received its name, many debates concerning women's rights in the workforce soon followed (Miller 6). Currently, the Department of Labor's Glass Ceiling Commission is focusing upon the barriers which prevent women from advancing up the corporate ladder. In an interview with the BNA's Daily Reporter System--the Labor Report, Joyce D. Miller, director of the Glass Ceiling Commission, said:

> Any worker ought to have the ability to rise as high as their ability and their desire goes. Not everyone wants to be the president of the company, not everyone wants the top job. But when one has a relatively low-level job and wants to go one step higher, they should have that ability. A glass ceiling at that level should not stop them. (1)

Although the term, "glass ceiling" is less than ten years old, laws and surveys concerning women's inequality at the workforce predates the name of this

"problem." In 1964, President Lyndon B. Johnson signed the Civil Rights Act into law. This law prohibited the racial discrimination in employment, housing, education, labor unions, and voting registrars. Specifically, Title VII of the Civil Rights Act dealt with job discrimination based on a person's race, color, creed, and ethnicity. However, with the growing popularity of the Women's Movement, Congress amended Title VII of the Civil Rights Act by passing the Equal Employment Opportunity Act in 1972. This act prohibited discrimination at the work place on the basis of sex (Visions 91).

Although discrimination at the work place is illegal, the Department of Labor began to investigate the barriers in corporations. In July 1990, the DOL launched a glass ceiling initiative under the guidance of then Secretary, Elizabeth Hanford Dole. Seven months later, Senate Minority Leader Robert Dole proposed similar legislation to the DOL's glass ceiling initiative to the Senate. Under Senator Dole's proposal, the Senate would study the effects of the "glass ceiling" through a newly created committee. Later, the House of Representatives helped pass the

Civil Rights Act of 1991 which incorporated the Senate's "glass ceiling" initiative into law (Visions 91). Under the Civil Rights Act of 1991, a 21-member nonpartisan commission was formed (Kunde 1D). Its purpose was to study the way in which corporations filled available jobs, trained employees for advancement, and awarded or compensated employees for a job well done. The Glass Ceiling Commission also has the authority to give the Frances Perkins-Elizabeth Hanford Dole Award to companies which promote diversity in their management and decision-making levels in business (United States 1082).

On August 8, 1991, then Secretary of Labor, Lynn Martin announced that the "glass ceiling" in corporate America was lower than originally expected (Rasmussen 8). Between August 1991 and the termination of the Glass Ceiling Commission in November 1995, the Commission scheduled four hearings. The cities selected for these hearings include Los Angeles, Dallas, New York City, and a small Midwest town. These hearings will enable the Commission to learn more about the problem and how different companies along with help from their communities intend to rectify the "glass

ceiling" (Fortier B1). In January 1995, after these hearings, the Commission, under the direction of Miller, plans to make its recommendations to Congress, which could rectify the "glass ceiling" (Kunde 1D).

Besides the federal government incorporating laws and studying the "glass ceiling," other researchers discovered fascinating statistics about the problem. One columnist's results covered a time span from 1970 to 1990. Marmer-Soloman noted that female lawyers increased from 7,500 to 180,000 during this time span, while female engineers increased from 7,404 to 174,000. During this period, the percentage of women in the work force, who had children under 18 years old, went from 28 percent to 68 percent. In combination with other minority groups in management positions, women had quadrupled during this twenty-year time span (96).

Linda Levine, a labor economic specialist for Congress, compared the percentage of how many male and female executives would feel comfortable working for a woman. Levine found in 1965 that 27 percent of male executives and 47 percent of female executives believed they could work for a woman. However, in 1985, the percentage of male executives who felt they would feel

comfortable working for a woman increased to 47 percent, while the percentage of female executives dropped to 40 percent (14).

Lethenthal and Hebert borrowed statistics from Baron and Baum's articles in 1977 and 1987, respectively. In 1977, 18 percent of all managers were women, while in 1987, 37 percent of all managers were women (259). However, other studies narrowed the scope of companies or managerial positions in their studies. Korn/Ferry International released its study of the top 1000 companies in the United States in 1990 which compared the percentage of top women executives from 1979 and 1989. It found women held a little less than 3 percent of executive positions in 1979 and barely less than 5 percent in 1989 (Stuart 72). Furthermore, the DOL's Office of Federal Contract Compliance Programs (OFCCP) released a report in 1993 which analyzed a random sample of 94 Fortune 1000 companies. It found only 6.6 percent of the 4,500 executives to be women (Miller 7). According to Miller, the survey conducted by the OFCCP and surveys done by the DOL's Women's Bureau in 1991 and 1992 showed women increased their numbers for entering in the workforce, but they

are still looking through the "glass ceiling" at the executive positions (7).

Probably, the "glass ceiling" occurred from many years of people believing that women are not as serious as men in the work force. Women do not fit into the old-boys network, nor express the "proper" characteristics of a leader.

A Catalyst study in 1990 concluded that white male managers preferred relating to other white male employees. This helped to create an informal networking system (Pierson-Cunningham 21). The informal communication between managers and employees comprised the old-boys network (Levine i). The DOL believes "decision makers tend to promote individuals they are comfortable with [sic]. A level of trust and respect has to be developed" (United States 3).

Despite not fitting into the exclusive old-boys club, people believe women would neglect their job for various reasons (Gearon 28). They believe women would leave the work force because of maternity. This leads to the "mommy track" which is the lack of flexible

hours to raise a family. Thus, management does not help women to develop their leadership skills (Schwartz 111).

According to Miller, mothers and some fathers in management are being penalized for taking the "mommy track." Different ways parents are penalized ranges from lacking flex time, not being able to use their sick time when they want, and receiving a demotion in pay and rank because they have a family (Vallancourt 11).

Besides the frustrations of exclusion to the old-boys club and penalization for being a family person, women work in a world of double standards. According to Mary Mattis, Vice President of Catalyst, "women are perceived as either too aggressive or not aggressive enough. It makes it difficult for them to get it just right" (Stuart 74). Kathy Doyle Thomas, Vice President of Marketing for Half Price Books, noted "that behavior that's discounted when coming from a man often is considered objectionable in a woman" (78). Corporate America never considers a female manager hard-nose, inconsistent, or overworked. Instead, she is a bitch, flighty, or weak (78).

With the problems associated with the "glass ceiling," some women give in to the notion that they lack commitment in management and quit. Based upon Sylvia Ann Hewlett, "A Lesser Life--The Myth of Women's Liberation in America," Saltzman noted:

> Some women are simply ditching the race to the executive suite because the closer they move to the top, the less certain they become that the pinnacle of the men's world is the worthiest of goals. (42)

Although some women ditched their climb to the executive offices, other women should not have potential employers decide what kind of career goals they should have. According to Mattis discrimination exists in job interviews. Male managers believe a female employee would leave her career to start a family (Stuart 72). Even though the intentional discrimination of gender bias may not be apparent in entry and mid-level management, some proponents of the "glass ceiling" believe it exists in upper management. Carolyn Kenner-Varner, human resources consultant for Rohm and Haas Co., said, "there are fewer women at that level, so fewer men are used to working with them" (Stuart 78). Since there are not many women in upper

levels of management, many people are not aware of discrimination existing in upper management. Stephanie Allen, President of Athena Group, commented, "we live in a culture in which it exists, so we just accept it. Women see no gender bias in the company, but often there are no women at the top" (Stuart 78).

Unfortunately, "glass ceiling" activists reason that many managers feel that if a woman receives high standing of authority it must be luck. Ann Morrison, co-author of Breaking the Glass Ceiling (along with Randall White and Ellen Van Velsor), states "a female's performance can be attributed to luck. A male's performance, however, it's because of skill" (Marmer-Solomon 101).

Despite the hardships women suffer in Corporate America, some authorities realize the "glass ceiling" must be shattered in order for the United States to be profitable in the future. According to Jack MacAllister, chairman of U.S. West:

> the world we live in is far too competitive to pass up available resources...In my opinion, the only way to be competitive is to use all of the talent you can muster, no matter how it is packaged. (Miller 8)

Besides, Secretary of Labor, Robert Reich acknowledges that in order for the United States to be successful in the future, businesses must look upon their employees as their most valuable asset (Miller 6).

The "glass ceiling" marks the plateau in which many women can not go beyond (Miller 7). In the type of positions associated with plateau, women usually fill staff positions rather than line positions. "Women and minority managers more often are found in staff rather than line positions; the latter are considered to be superior springboards into the upper reaches of the organizational structure" (Tallent). Furthermore, if women continue to specialize in one area of business instead of participating in job rotation, they will remain at the same level of management (Levine 5). As early as 1990, senior managers who participated in a Catalyst study stated line experience is a requirement for advancement, even though they believe it is a risk to offer a woman a line position (Pierson-Cunningham 21).

Besides corporations offering prospective key employees a rotation of assignments, these employees also benefit from a fine mentoring program and other

educational programs offered to a young executive. The usual recipients of this attention in the work force are the white males. Women are normally excluded from advancement programs in Corporate America (Miller 7-8). In addition to women being excluded from advancement programs, they are overlooked in the recruitment practice of word of mouth networking (Miller 7). Butler believed anytime the recruiting team does not show cultural diversity in their decisions it promotes systemic bias (Stuart 72).

According to Leventhal and Hebert, women who tried to move beyond the barriers of the "glass ceiling" as presented by the DOL showed more masculine managerial characteristics. These traits are more "acceptable" in the working community (260).

Besides trying to overcome what co-workers believe to be appropriate characteristics of a manager, women must also deal with rational bias. Researchers based this bias upon how managers tend to justify their decision to discriminate against an employee in reference as to how this action will effect their careers (Larwood 10). According to Morrison and Von Glinow, "rational bias illustrates why discrimination

can continue to occur despite substantial regulations against it" (202).

However, if a woman overcomes many of these biases and attitudes, she runs into the bitch factor. According to Peggy Noonan, author of **What I Saw at the Revolution**, if a woman stands up for her rights in the workforce, eventually she will be perceived as difficult (Dowd 80).

Recently, the "glass ceiling" has received publicity primarily from feminist groups and the United States government which support the belief that a "glass ceiling" does exist in corporate America. However, during the past decade, researchers focused upon different methods which tested the credibility of the "glass ceiling" being present in corporations.

In January 1987, Madeline E. Heilman, Michael C. Simon, and David P. Repper from New York University concluded an experiment. The study had 76 female and 64 male participants ranging in age from 18 to 22 years. The study tested three independent variables which included the sex of the subject, an assignment method of either merit-based or sex-based preferential selection, and the task outcome (63-64).

The procedure for the Heilman et al's study consisted of the subject meeting one of two male experimenters and waiting for the confederate of the opposite sex of the participant who posed as another student. The experimenter would then administer a Spatial Communication Skills Inventory test (SCSI) to the subject and the confederate. The experimenter would then quickly score the SCSI. The experimenter manipulated the SCSI scores for the different assignment methods in this study. For the merit method assignments, the subject would be told he/she out-scored the confederate on the SCSI test. On the contrary, when the experimenter desired to use the sex-based preferential selection method, he would tell the subject that the confederate out-scored the subject, but he wanted to administer the experiment a little different that day. He would assign the subject to be the leader for this test. As the leader, the subject had ten seconds to decide how to instruct the confederate to draw a complex geometric shape in a one way communication project. The subject then had two minutes to describe the shape to the confederate. The participants had their backs to each other to eliminate

any eye contact or other non verbal language between them. After the two minutes, the experimenter scored the geometric figure, and gave the participants two brief questionnaires concerning their thoughts about their role in the experiment and about the one way communication task. Then the participants were debriefed and allowed to ask the experimenter any questions about the task (64).

Heilman et al's study mentioned the critical factor of their research was not the sex of the subjects, but the degree of confidence the subjects had in their ability to be the leader for the tasks. They mentioned that if a male was placed in a traditional female role, the male subject would feel just as uncomfortable as the female subject being placed in a non-traditional female role. Heilman et al stated that when a person has doubts about his/her competence, the person would experience harmful repercussions to his/her self perceptions and evaluations (67-68).

Besides studies that investigated the effect of intentionally favoring women in the work force, in January 1988, Laurie Larwood, Eugene Szwajkowski, and Suzanna Rose focused their study on rational bias.

This study consisted of 293 subjects, 143 males and 150 females, who were students from two introductory management courses at a major Midwestern university. The researchers' hypothesis tested three variables. Managers would discriminate against a subordinate of the opposite sex or a racial group, if their supervisor did not belong to either group. Also managers would discriminate against a subordinate, if their supervisor favored discrimination or had no opinion about this issue (13-14).

The subjects in the Larwood study participated in a computer simulated questionnaire. In the instructions, subjects received an opportunity to change or erase their answers after answering the questionnaire. They were guaranteed confidentiality in their responses in hope that none of the subjects would delete their responses after the completion of the questionnaire. In the computer simulated questionnaire, the subjects were supervisors to two computer generated subordinates and were supervised by the department head. In the Larwood study, the researchers were concerned with discrimination against a person's race as well as a person's gender. They

made the subject a supervisor in one of six following conditions: white male-white female, black male-black female, white male-black male, white female-black female, white male-black female, and white female-black male. The final question asked the subject to decide which subordinate he/she would have work with the client (16-17).

From the manner in which the subjects responded to their questionnaires, Larwood et al could determine how much bias college students believe is in the workforce. They found their subjects preferred whites and men. Men were favored, because they had the capacity to affect clients in a positive way with their decision making ability. However, women worked with people better and were more creative with their proposals. Larwood et al found white females were preferred over black males and white males over black females (19).

The Larwood study provides a guide to determine whether rational bias is present in management. The researchers believe the personal beliefs of a higher-ranked manager affects the lower-ranked manager's preference in making personnel decisions. If the higher-ranked manager discriminates against

subordinates, the lower-ranked manager would follow in the superior's preferences (24).

Although the Larwood study showed rational bias was obvious in college students, in May 1988, Cecily C. Neil and William E. Snizek concluded that a person's gender had little to do with that person's job satisfaction. Neil and Snizek chose a large Australian government organization of about 7,000 members to be the focus of their study. From this organization, they excluded all part-time help as well as workers under 21 years of age. They decided to include all 335 eligible female employees. A control group of 168 male employees was randomly chosen to correspond with the job classification of the female employees. If a job classification was solely male or female, Neil and Snizek excluded those job classifications from the control group. The representative group of 298 male employees was a random sample of fifteen percent of all male employees in major job classifications (205-06).

Neil and Snizek distributed their questionnaire to their subjects through the company as part of the company's questionnaire about sex discrimination at the work place. Neil and Snizek's questionnaire covered

three items for a job satisfaction index: "overall liking of the job, amount of time satisfied with job, and enjoyment of job compared to similar jobs in the Australian work force" (206). With the use of Cronbach's alpha, the reliabilities of the items for the job satisfaction index was .84 for female employees and .81 for male employees. The next section of Neil and Snizek's questionnaire examined their subjects' perceptions of different job characteristics. These characteristics included "job security, quality of personal work relations, job autonomy, job status, and opportunity to use abilities" (206). The last section of the questionnaire asked the subjects to rate the importance of the job characteristics mentioned in the previous section of the survey (206).

In general, Neil and Snizek found out female employees believed good personal relations at the work place to be an important job characteristic. While the male employees in both groups placed emphasis on job autonomy, job status, and the opportunity to use their abilities. They also found male and female employees were more satisfied with their job in the research areas of the company compared to the employees who work

in the administration (209). Neil and Snizek's data showed gender had little to no effect as being a moderating factor of job satisfaction (209). They concluded that the factors which influence an employee's job satisfaction continues to influence those factors despite the gender of the employee (214).

Besides experimenters trying to link a person's gender to job satisfaction, other experimenters focused on subjects' behavior towards a traditional verses a non-traditional female supervisor. In February 1990, Gloria Leventhal and Helene Herbert's study on how students performed a test when administered by a traditional or non-traditional female experimenter was published. Their subjects volunteered to participate in a study on anagram solving. Their subjects consisted of twenty male and twenty female students (260).

Leventhal and Herbert used two 23 year-old Caucasian women to be their experimenters. The experimenters greeted the subjects in either a traditional or non-traditional manner. When the experimenters utilized the traditional role, they remained seated when the subject entered the room.

They greeted the subject with a simple hello and stated their first name. They asked the subject to be seated by them. They explained the nature of the experiment in a happy tone of voice, and they remained reassuring to the subject. Often in the traditional role, the experimenters would not maintain constant eye contact. However, in the non-traditional role, the experimenters greeted the subject by standing up, shaking the subject's hand, and announcing their full name. They motioned to the subject to sit down across the table from them. They maintained good eye contact and were serious in the manner in which the directions to the experiment were presented (261).

The subjects had one minute to solve an anagram in each of the following categories: miscellaneous, fashion, and sports. Each subject was given a score between one and sixty determined by the number of seconds it took to complete the puzzle. If the subject could not solve the puzzle, the subject received a score of sixty seconds. After the anagram puzzles, the subject had to recall the order in which the clues were given to them as well as a guess as to how long it took them to solve the puzzles. Then the subject was asked

to fill out questionnaires on how they perceived the experimenter as well as how their attitudes towards women related to themselves (261).

Leventhal and Herbert found that both the male and female subjects felt threatened by the non-traditional experimenter. The male subjects believed they did worse on the anagram test no matter what kind of role the experimenter played. On the other hand, the female subjects believed they performed better when the experimenter used the traditional manager role than the non-traditional manager role. Their results indicate that female managers should treat their female subordinates in a traditional female manner. They also found that subordinates tend to lose their self-confidence when they do not receive feedback from their manager, and the subordinates do not lose their self-confidence when their manager is using a traditional or non-traditional role for the manager's sex (263-64).

Leventhal continued her research on the "glass ceiling". In June 1991, Leventhal along with Victoria L. Garcia released their results of the ways in which female managers perceived themselves and were perceived by their subordinates. Their hypothesis focused on the

perception female managers and their subordinates had towards female managers. Leventhal and Garcia felt female managers would be perceived as having more masculine traits. They further hypothesized that managers' perceived gender roles are based upon the nature of the positions as well as the subordinates' gender and attitude. The subordinates' job satisfaction is based upon their gender and their attitudes towards their managers. However, managers' job satisfaction corresponds with their relationship with their subordinates and their own identity. Leventhal and Garcia believe that managers and employees experience with their jobs would affect their perceptions (837).

For this study, Leventhal and Garcia distributed 150 questionnaire packets to female managers and subordinates of female managers. Thirty-eight manager packets were returned to the experimenters. The ages of these subjects ranged from 21 to 54 years with a median age of 32.5 years. Their experience on the job varied from 1 to 17 years with a median of 3 years. However, sixty-six subordinates of female managers returned their packets. Out of the sixty-six employee

packets that were returned, there were nineteen males and forty-seven females who responded to the questionnaire. The employees ranged in age from 18 to 69 years with a median of 27.5 years. Their experienced ranged from 1 to 11 years with a median of 2 years work experience (837).

Leventhal and Garcia asked their subjects to respond to a Likert scale on twenty-five statements. This part of the questionnaire measured the subjects' attitudes towards women. For this scale, a rating of 75 meant the subject had non-traditional or feminist views while a zero rating meant the subject had traditional or masculine views. Then the subjects, who were employees of a female manager, were asked to rate their managers on sixty statements about their characteristics. The female managers were also asked to rate themselves on the same sixty statements. All subjects were given the opportunity to rate their bosses or employees on ten statements about how they interact with the subjects. The subjects had to rate ten statements about their satisfaction with their jobs (837-38).

Leventhal and Garcia's results showed female bosses were perceived by their subordinates to have more masculine traits than feminine traits. Furthermore, female managers in male dominated jobs rated low in feminine characteristics, while female managers in jobs mostly held by females rated high in masculine characteristics (839-40).

Leventhal and Garcia also found that the longer employees maintained their present job, the employees viewed their bosses to be more feminine. Since most of the employees who returned the questionnaires were at their present position for less than two years, they believed their female bosses possessed more masculine characteristics (840).

Female managers perceived themselves to have more masculine than feminine characteristics. However, when the female managers were divided into two groups: those who worked in primarily male fields verses those who worked in primarily female fields, the female managers' perception of themselves was varied. Female managers who worked in male dominated jobs thought of themselves

to be more masculine, while female managers who worked in female fields rated themselves to be more feminine (840-41).

Leventhal and Garcia discovered that male employees with non-traditional attitudes were more satisfied with their female boss than the traditional minded male employee. On the other hand, traditional thinking female employees had greater satisfaction with their female manager than non-traditional minded females (841). Furthermore, the data collected in this study showed the more the employees were satisfied with their managers, the more they were satisfied with their jobs (843).

Leventhal and Garcia determined that female managers had greater satisfaction with female than male employees (842). Female managers showed similar correlation between satisfaction with their employees and job satisfaction (843).

In an empirical study published in February 1994, Gary N. Powell and D. Anthony Butterfield released their results on whether or not a "glass ceiling" influenced women from receiving promotions in the federal government. They hypothesized that the

irrelevant variable of a job applicant's gender directly and indirectly influences the decision process for promotions into upper management. This decision process favors male applicants over female applicants (71).

Powell and Butterfield obtained permission from the federal government of the United States to study their records from 1987 to 1992 regarding promotions into the Senior Executive Service (SES) for a large, cabinet-level department. Usually, grades 13 to 15 are thought as the prime grades for promotion into the SES.

When there is an opening in the SES, a position announcement is distributed among all employees, not just the employees within the department. On the announcement, the position criteria is listed. For all SES positions, there are six general requirements. Then the position specific requirements are listed. After employees apply for the SES positions, their current supervisors are asked to rate the applicants on how well they could do at the position. The applicant's last work appraisal is also given to the personnel office. The department personnel office, where the vacancy is located, screens out those

applicants who did not meet the minimum requirements for the open position. After the initial screening is complete, the selecting official has a review panel of one to three senior employees to rate the applicants. The review panel rates the applicants as highly qualified, moderately qualified, or qualified. In general, only the highly qualified applicants are referred to the selecting official for final selection (72-73).

In the particular department which Powell and Butterfield studied from January 1987 to February 1992, there were 32 open positions. The review panels considered 438 applicants for the 32 positions. From these 438 applicants, the review panel referred 258 applicants. The total number of applicants for these 32 positions was not available. Out of the 438 applicants presented to the review panels, 387 applicants were male and 51 applicants were female. Their average work experience for the government was 22 years, and their mean age was 47 years old. For the highest level of education, sixty-seven percent obtained a master's degree. Out of the remaining thirty-three percent, thirty percent had a bachelor's

degree, and three percent had less than a bachelor's degree. The highest level for the applicants ranged from current SES employees (15 percent), grade 15 (65 percent), grade 14 (16 percent), and grade 13 or less (4 percent). The average number of years at the highest level was six years. From the 258 applicants selected for final review by the selecting official, 215 were male and 43 were female (73).

Powell and Butterfield noted that for the thirty-two available positions, twenty-three male applicants and nine female applicants were selected (77). Their hypothesis for their study was rejected. Female applicants were favored percentage wise going into the final selection (80). However, since Powell and Butterfield's study was of the Senior Executive Service of the United States federal government, women were probably initially favored due to the U.S. government's interest in equal rights (81). They stated performance appraisals and being affiliated with the hiring department had positive effects on being hired for the job (82).

The studies covered in this thesis all describe different theories which contribute to the "glass

ceiling." These theories covered the lack of confidence in women superiors, the different degrees of gender discrimination, and the rational bias.

In the Heilman et al study, the effects of preferential and merit-base selection theories were tested. The preferential selection implied a person received his/her position based upon some irrelevant characteristic that had nothing to do with job performance. Women who were placed in a position based on preferential selection had doubts about their leadership abilities; however, women who received their promotions based on merit selection received confidence from their employer for doing the job well (62). However, the merit-base selection theory can be a cause of the "glass ceiling." Mattis stated, "women are promoted based on performance, rather than potential, so it can take longer to advance in staff positions" (Stuart 79). Women reached the "glass ceiling" in some areas by only receiving merit based promotions, instead of employers recognizing women's potential and promoting them.

Probably one of the most commonly tested theories is the rational bias theory. In the Larwood et al

study, rational bias was described as discrimination against women which originated from women's superiors who felt they would receive a bigger reward from discriminating against women (9). Furthermore, they stated by naming this bias rational, it does not reflect its actions as being correct. Rather, it showed its actions as being tied into the economic well being of the aggressor party or the company (11).

In Neil and Snizek's study, they focused on how gender relates to job satisfaction. In the process of doing this, they tried to determine if gender discrimination was present in the workforce. They commented on Barron and Norris' study, "employers often tend 'to confuse properties of jobs with characteristics of job holders,' thereby allocating different work to males and females, even when both hold the same positions" (204). Furthermore, inequalities at work attributed to gender differences were part of a hierarchical system already in place at many companies. The lack of control in hierarchical systems in companies caused women to expect less of themselves at work (205).

Another form of gender discrimination, as discussed in Leventhal and Herbert's study, was the attitude towards traditional and non-traditional role managers. Even though their subjects felt more comfortable with an easy-going friendly traditional female role manager, their subjects felt they completed their tasks better with the non-traditional female role manager (260).

In further examination of gender discrimination with traditional and non-traditional role managers, Leventhal and Garcia classified this discrimination as part of the situational-center theory. This theory states that a company's hierarchical system along with other work force related factors inhibit women to move beyond the "glass ceiling" (835). Leventhal and Garcia also developed the person-center theory. This theory states women do not have the appropriate social skills to become a successful manager (835).

Many times, forms of gender discrimination were not a conscious effort to discriminate against women. Unconsciously, managers used gender discrimination to prevent selection of a job candidate that was dis-similar to the personnel in the area with the job

opening. Thus, the ideal candidate would be of the same gender as the employer (Powell and Butterfield 70). In Powell and Butterfield's study, they mentioned the Strober's patriarchal theory. This theory states men desire that women maintain a dependency on men, so men place limitations on women's mobility up the corporate ladder (70). Another theory mentioned in Powell and Butterfield's study was Kanter's theory of sex discrimination. This theory focuses on the masses and their quest for social certainty. Hence, if more women enter into the work force, then, more women will be promoted into upper management (70).

Statement of Hypothesis

Although the "glass ceiling" consists of many issues besides gender bias, this thesis will focus on the existence of gender bias in the corporate organization. Therefore, it is hypothesized that people, both male and female, in the corporate sector favor men over women in decision making roles.

Chapter III

RESEARCH METHODOLOGY

The research questionnaires found in Appendix B were based upon a questionnaire which appeared in a 1988 Sex Roles article by Larwood et al. Participants received a copy of the questionnaire by mail and were urged to return their completed questionnaire in a self addressed stamped envelope. Later, the data was analyzed by utilizing univariate and bivariate statistics.

Versions "a" and "b" of the questionnaire were mailed to office managers at businesses and corporations in the Maryland Heights and West Port areas of St. Louis County. These individuals were chosen to participate in this study by comparing an address list that appeared in the 1990 St. Louis edition of Sorkins' Directory of Business and Government to the 1994 edition of The Greater St. Louis phone book. The questionnaire packet mailed to participants included a cover letter, version "a" or "b" of the questionnaire, and a return envelope.

Subjects

A total of 53 respondents were included in this study. There were 24 respondents to Questionnaire A and 29 respondents to Questionnaire B.

The combined sample of Questionnaire A and Questionnaire B consisted of 20 (37.74%) males and 33 (62.26%) females. Their ages ranged from 25 to 75 years. Their mean age was 43.23 years. The respondents years of experience ranged from 5 to 54 years. Their average years of managerial experience was 12.81 years.

The Questionnaire A sample included 7 (29.17%) males and 17 (70.83%) females. Their ages ranged from 25 to 60 years. Their mean age was 44.21 years. These respondents' years of managerial experience ranged from 5 to 30 years. Their average years of managerial experience was 11.21 years.

The Questionnaire B sample included 13 (44.83%) males and 16 (55.17%) females. Their ages ranged from 25 to 75 years. Their mean age was 42.41 years. The respondents' years of managerial experience ranged from 5 to 54 years. Their average years of managerial experience was 14.14.

Instrument

The two versions of the questionnaire (Appendix B) administered to the respondents included three sections: general information about the respondents, respondents' attitudes on rational bias, and in general, if respondents believe rational bias exists at their work places. In the first section of both versions of the questionnaires, respondents were asked to write down their ages and years of managerial experience. This section also asked for the respondents to circle their gender. The second section of the questionnaires required respondents to use a likert scale to rate their perceptions of rational bias. In Questionnaire A, respondents were asked to rate women against men, while, Questionnaire B had respondents rating men against women. The third section required respondents to state whether they believed rational bias existed at their place of employment. This section enabled the participants to state opinions on how rational bias could be eliminated at their places of employment if it existed.

Nominal, ordinal, and interval scales were used to measure the variables of the questionnaires. By using

these scales, statistics dealing with frequency, percentage, mode, median, range, mean, standard deviation, and variance were also utilized in measuring the questionnaires. Besides using scales and statistics to measure the variables, Questionnaire A and Questionnaire B measured the construct validity between the two questionnaires.

Procedure

Respondents received a questionnaire packet in the mail shortly after February 6, 1995. Since the questionnaire packets were addressed to the office managers at businesses and corporations, most likely the respondents answered their questionnaires in their offices. In the enclosed cover letter (Appendix A), respondents were informed that the questionnaire would take approximately five to ten minutes to answer. Also, respondents learned the questionnaire was part of a requirement for completing a culminating project for an MBA at Lindenwood College. Participants were informed that question four through eighteen were based upon a Larwood et al study. They knew questions one through three, nineteen, and twenty were for general

information purposes only. Their personal identities were to be kept confidential.

Appendix C comprised a file in which data from the questionnaires were stored. The data were broken down into a chart with respondents' numbers on the vertical axis and questions' numbers on the horizontal axis. Each question represented a separate record in which individual response files were to be stored. Questions one and three dealt with the respondents' age and years of experience, so there were no predetermined values for these records. Question two asked for the respondents' gender (M = male and F = female). Question four through eighteen required the participants to evaluate their current work situation on different issues pertaining to gender bias (likert scale followed each question. It was numbered one through seven allowing respondents to choose the degree of bias present at their company). Question nineteen asked the respondents if they believed rational bias existed at their company (Y = yes and N = no). Question twenty required only the respondents who answered yes to question nineteen to say how they believed rational bias could be eliminated from the

work force (respondents had a choice of three remedies for rational bias or to include their own thought on the subject).

Data analysis

The design of the questionnaires was used to determine if rational bias existed in businesses and corporations in the 63043 and 63146 zip codes in St. Louis County. Questions one through three were used to determine the makeup of the subjects. Question nineteen required the respondents' opinion on if rational bias existed, and question twenty wanted respondents to state their opinion on how rational bias could be corrected. Questions four through eighteen were based upon Larwood et al's questionnaire. In Questionnaire A, a Likert scale was used to rate the possible responses of one through seven. When subjects were asked to compare women to men in question five through eleven, one meant women were definitely more capable than men, while seven meant women were definitely less capable than men. Questionnaire B used the same form of the Likert scale as the other questionnaire, however, in questions five through

eleven, subjects were asked to rate men verses women. In this questionnaire, seven meant men were definitely more capable than women, while one meant men were definitely less capable than women.

Each response was tabulated as either a response to a question in Questionnaire A or Questionnaire B. Later, the responses to both questionnaires were combined to form the total tabulation for each question. Questions one through nineteen were measured for mean, mode, median, range, variance, and standard deviation. Since respondents were required to answer question twenty if they answered yes to question nineteen, a percentage measurement was taken from this question.

All univariate and bivariate statistical analyses were done at a 95 percent confidence level or a .05 level of significance. The univariate statistical analysis tests used were the univariate hypothesis test utilizing the z-distribution and the chi square test. The bivariate analysis tests used included the chi square test for cross-tabulation tables and the t-test for comparing two means.

Chapter IV

RESULTS

The original sample size of the population was intended to be 150 participants. However, due to the postal service returning 24 original questionnaire packets with the explanations of forwarding order expired or occupant no longer at this address, the intended sample size of the population was reduced to 126 participants. Of the remaining 126 participants, 74 participants (58.73%) returned their questionnaires. However, only 53 of the 74 questionnaires satisfied the preconditions of the study. One questionnaire was dismissed, because the respondent neglected to answer two questions prior to question 20, which did not meet the preconditions discussed in the cover letter. The preconditions unknown to the participants included the testing areas of Maryland Heights and Westport, the participants must be at least 25 years-old, and the participants must have at least 5 years of managerial experience. Two questionnaires were discarded, because the postmark indicated the questionnaires came from an area outside of St. Louis. Eighteen questionnaires

were dismissed from this study, because the respondents all had less than five years of managerial experience.

Tables 2 through 7 reveal the tabulations of each question. The data is divided into Questionnaire A, Questionnaire B, and a grand total of the combined questionnaires. Tables 8 through 17 illustrate different statistical calculations on the data collected in the questionnaires. Tables 8, 13, and 15 compared statistical computations from the Larwood et al's study to this study.

Table 2

RESPONDENTS' AGE

	AGE																														
	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6	7	7
	5	6	7	8	9	0	1	2	3	7	8	9	0	2	3	5	6	7	8	9	0	1	2	5	6	7	8	9	0	0	5
Questionnaire A	2	0	1	0	1	1	1	0	0	1	1	1	0	0	1	0	0	2	2	0	2	1	1	2	0	1	1	1	1	0	0
Questionnaire B	1	1	0	2	0	2	0	3	1	0	1	1	3	1	0	2	2	1	1	1	1	0	0	0	1	0	1	0	1	1	1
Total	3	1	1	2	1	3	1	3	1	1	2	2	3	1	1	2	2	3	3	1	3	1	1	2	1	1	2	1	2	1	1

Table 3

RESPONDENTS' GENDER

	Male	Female
Questionnaire A	7	17
Questionnaire B	13	16
Total	20	33

Table 4

RESPONDENTS' WORK EXPERIENCE

	YEARS OF WORK EXPERIENCE																
	5	6	7	8	9	10	12	14	15	16	17	20	21	25	30	39	54
Questionnaire A	4	2	2	3	2	2	3	1	0	1	0	2	0	1	1	0	0
Questionnaire B	7	1	2	1	4	2	0	0	3	0	1	3	1	1	1	1	1
Total	11	3	4	4	6	4	3	1	3	1	1	5	1	2	2	1	1

Table 5

Questions 4 through 18

	Respondents' Options						
	1	2	3	4	5	6	7
Question 4							
Questionnaire A	0	1	6	7	8	1	1
Questionnaire B	0	2	6	8	8	5	1
Total	0	3	12	15	16	6	2
Question 5							
Questionnaire A	0	1	2	6	11	4	0
Questionnaire B	0	0	2	12	8	6	1
Total	0	1	4	18	19	10	1
Question 6							
Questionnaire A	0	1	3	9	9	2	0
Questionnaire B	0	2	2	13	8	4	0
Total	0	3	5	22	17	6	0
Question 7							
Questionnaire A	0	1	0	6	10	7	0
Questionnaire B	0	1	3	3	11	9	2
Total	0	2	3	9	22	16	2
Question 8							
Questionnaire A	0	5	5	6	4	3	1
Questionnaire B	1	2	3	15	6	1	1
Total	1	7	8	21	10	4	2
Question 9							
Questionnaire A	0	3	10	6	4	1	0
Questionnaire B	1	4	9	11	3	0	1
Total	1	7	19	17	7	1	1
Question 10							
Questionnaire A	0	1	1	4	14	3	1
Questionnaire B	1	0	1	7	14	5	1
Total	1	1	1	11	28	8	2
Question 11							
Questionnaire A	0	3	11	7	3	0	0
Questionnaire B	2	2	10	11	3	1	0
Total	2	5	21	18	6	1	0

Question 12							
Questionnaire A	1	4	8	6	4	1	0
Questionnaire B	0	6	6	11	4	1	1
Total	1	10	14	17	8	2	1
Question 13							
Questionnaire A	0	5	8	5	5	1	0
Questionnaire B	2	7	12	6	2	0	0
Total	2	12	20	11	7	1	0
Question 14							
Questionnaire A	0	1	10	7	5	1	0
Questionnaire B	0	0	13	8	5	3	0
Total	0	1	23	15	10	4	0
Question 15							
Questionnaire A	0	6	9	7	2	0	0
Questionnaire B	1	7	10	6	5	0	0
Total	1	13	19	13	7	0	0
Question 16							
Questionnaire A	1	3	2	1	5	5	7
Questionnaire B	0	1	4	0	10	5	9
Total	1	4	6	1	15	10	16
Question 17							
Questionnaire A	1	3	6	1	7	2	4
Questionnaire B	2	3	4	7	7	3	3
Total	3	6	10	8	14	5	7
Question 18							
Questionnaire A	4	10	5	3	1	1	0
Questionnaire B	4	8	7	6	2	1	1
Total	8	18	12	9	3	2	1

Questions 4 through 18 were based from a Larwood et al's questionnaire.
SOURCE: Sex Roles. "Sex and Race Discrimination Resulting from Manager-Client Relationships: Applying the Rational Bias Theory of Managerial Discrimination," by Laurie Larwood et al (1988).

Table 6

Do you believe businesses have a gender bias problem?

	Yes	No
Questionnaire A	21	3
Questionnaire B	18	11
Total	39	14

Table 7

How do you feel businesses should resolve the gender bias problem?

	A	B	C	D	AB	AC	AD	BC	BD	CD
Questionnaire A	0	8	2	7	1	0	0	2	1	0
Questionnaire B	1	9	3	5	0	0	0	1	1	0
Total	1	17	5	12	1	0	0	3	2	0

Response options: a. maintain the status quo, b. establish an education program about gender bias, c. have the overall percentage of males and females at a company reflect that same percentage at all levels of management, d. other (please specify). Some respondents chose more than one answere for this question.

Table 8

MEAN

		QUESTIONNAIRE A	QUESTIONNAIRE B	COMBINED A & B	LARWOOD ET AL STUDY
Q	1	44.21	42.41	43.23	---
U	2	---	---	---	---
E	3	11.21	14.14	12.81	---
S	4	4.21	4.28	4.25	3.51
T	5	4.63	4.72	4.68	2.76
I	6	4.33	4.34	4.34	3.10
O	7	4.92	5.03	4.98	3.21
N	8	3.92	4.24	4.09	3.28
	9	3.59	3.52	3.55	3.51
N	10	4.83	4.79	4.81	3.12
U	11	3.42	3.48	3.45	3.69
M	12	3.79	3.69	3.74	3.18
B	13	3.54	3.07	3.28	2.92
E	14	3.79	3.93	3.87	3.96
R	15	3.21	3.41	3.23	3.10
	16	5.04	5.41	5.25	4.48
	17	4.46	4.21	4.32	3.54
	18	2.58	3.03	2.83	2.19
	19	---	---	---	---
	20	---	---	---	---

SOURCE: Sex Roles, "Sex and Race Discrimination Resulting from Manager-Client Relationships: Applying the Rational Bias Theory of Managerial Discrimination," by Laurie Larwood et al (1988).

Table 9

MEDIAN

		QUESTIONNAIRE A	QUESTIONNAIRE B	COMBINED A & B
Q	1	47, 48	40	45
U	2	FEMALE	FEMALE	FEMALE
E	3	9	9	9
S	4	4	4	4
T	5	5	5	5
I	6	4	4	4
O	7	5	5	5
N	8	4	4	4
	9	3	4	3
N	10	5	5	5
U	11	3	4	3
M	12	3	4	4
B	13	3	3	3
E	14	4	4	4
R	15	3	3	3
	16	5, 6	5	5
	17	5	4	4
	18	2	3	2
	19	YES	YES	YES
	20	---	---	---

Table 10

MODE

	QUESTIONNAIRE A	QUESTIONNAIRE B	COMBINED A & B
Q 1	25, 47, 48, 50, 55	32, 40	25, 30, 32, 40, 47, 48, 50
U E S 2	FEMALE	FEMALE	FEMALE
T 3	5	5	5
I 4	5	4, 5	5
O 5	5	4	5
N 6	4	4	4
7	5	5	5
N 8	4	4	4
U 9	3	4	3
M 10	5	5	5
B 11	3	4	3
E 12	3	4	4
R 13	3	3	3
14	3	3	3
15	3	3	3
16	7	5	7
17	5	4, 5	5
18	2	2	2
19	YES	YES	YES
20	B	B	B

Table 11

RANGE

		QUESTIONNAIRE A	QUESTIONNAIRE B	COMBINED A & B
Q	1	25-60	25-75	25-75
U	2	MALE-FEMALE	MALE-FEMALE	MALE-FEMALE
E	3	5-30	5-54	5-54
S	4	2-7	2-6	2-7
T	5	2-6	3-7	2-7
I	6	2-6	2-6	2-6
O	7	2-6	2-7	2-7
N	8	2-7	1-7	1-7
	9	2-6	1-7	1-7
N	10	2-7	1-7	1-7
U	11	2-5	1-6	1-6
M	12	1-6	2-7	1-7
B	13	2-6	1-5	1-6
E	14	2-6	3-6	2-6
R	15	2-5	1-5	1-5
	16	1-7	2-7	1-7
	17	1-7	1-7	1-7
	18	1-6	1-7	1-7
	19	NO-YES	NO-YES	NO-YES
	20	B-D*	A-D*	A-D*

* At times, respondents included more than one response to this question. Some respondents who answer no to question 19 still responded to question 20.

Table 12

VARIANCE

		QUESTIONNAIRE A	QUESTIONNAIRE B	COMBINED A & B
Q	1	126.85	161.11	145.91
U	2	.22*	.26*	.24*
E	3	44.26	130.98	92.27
S	4	1.30	1.50	1.34
T	5	1.03	.99	.99
I	6	.93	1.09	1.00
O	7	.95	1.46	1.21
N	8	2.17	1.44	1.72
	9	1.12	1.19	1.25
N	10	1.01	1.24	1.12
U	11	.78	1.26	1.02
M	12	1.59	1.58	1.54
B	13	1.39	1.05	1.26
E	14	.95	1.07	1.00
R	15	.87	1.29	1.06
	16	3.69	2.18	2.84
	17	3.29	2.77	2.97
	18	1.64	2.25	1.99
	19	.11**	.24**	.20**
	---	---	---	

20

* In this question, male respondents were coded as 1, and female respondents as 0.

** In this question, yes responses were coded as 1, and no as 0.

Table 13

STANDARD DEVIATION

		QUESTIONNAIRE A	QUESTIONNAIRE B	COMBINED A & B	LARWOOD ET AL STUDY
Q	1	11.26	12.69	12.08	---
U	2	.47*	.51*	.49*	---
E	3	6.65	11.44	9.61	---
S	4	1.14	1.22	1.16	1.38
T	5	1.01	.99	.99	1.15
I	6	.96	1.04	1.00	1.33
O	7	.97	1.21	1.10	1.29
N	8	1.47	1.20	1.31	1.16
	9	1.06	1.09	1.12	1.28
N	10	1.00	1.11	1.06	1.30
U	11	.88	1.12	1.01	1.19
M	12	1.26	1.26	1.24	1.69
B	13	1.18	1.02	1.12	1.10
E	14	.97	1.03	1.00	1.20
R	15	.93	1.14	1.03	1.15
	16	1.92	1.48	1.69	1.89
	17	1.81	1.66	1.72	1.71
	18	1.28	1.50	1.41	.90
	19	.33**	.49**	.45**	---
	20	---	---	---	---

* In this question, male respondents were coded as 1, and female as 0.

** In this question, yes responses were coded as 1, and no as 0.

Table 14

HYPOTHESIS TESTING

	QUESTIONNAIRE A*	QUESTIONNAIRE B**	COMBINED A & B ***
Q 1	---	---	---
U 2	---	---	---
E 3	---	---	---
S 4	.91	1.22	1.55
T 5	3.00	4.00	4.86
I 6	1.65	1.79	2.43
O 7	4.60	4.68	6.53
N 8	- .27	1.09	.50
9	-1.91	-2.40	-3.00
N 10	4.15	3.76	5.40
U 11	-3.22	-2.48	-3.93
M 12	- .81	-1.35	-1.53
B 13	-1.92	-4.89	-4.80
E 14	-1.05	- .37	- .93
R 15	-4.16	-2.81	-5.50
16	2.67	5.22	5.43
17	1.24	.68	1.33
18	-5.46	-3.46	-6.16
19	---	---	---
20	---	---	---

* At .05 level of significance with 23 degrees of freedom, t equals 2.069.

** At .05 level of significance with 28 degrees of freedom, t equals 2.048.

*** At .05 level of significance, Z equals 1.96.

Table 15

t-TEST FOR COMPARING TWO MEANS

		QUESTIONNAIRE A/ QUESTIONNAIRE B*	COMBINED QUESTIONNAIRES A & B/ LARWOOD ET AL STUDY**
Q	1	---	---
U	2	---	---
E	3	---	---
S	4	- .21	.24
T	5	- .32	.75
I	6	- .04	.42
O	7	- .34	.62
N	8	- .86	.81
	9	.23	.19
N	10	.13	.58
U	11	- .21	- .35
M	12	.28	.47
B	13	1.47	1.41
E	14	- .50	- .50
R	15	- .67	.76
	16	- .77	.73
	17	.51	.95
	18	-1.13	1.29
	19	---	---
	20	---	---

* At .05 level of significance with 51 degrees of freedom, t's value is between 2.021 and 2.000.

** At .05 level of significance with 300 degrees of freedom, t's value is between 1.980 and 1.960.

Table 16

CHI SQUARE TEST ON THE PERCEPTION OF RATIONAL BIAS

	O1	prob.	E1	(O1-E1)	(O1-E1)2/E1
Questionnaire A					
Yes	21	.5	12	9	6.75
No	3	.5	12	-9	6.75
Total	24	1.0	24	0	X2=13.50
Questionnaire B					
Yes	18	.5	14.5	3.5	.84 No
11 .5	14.5	-3.5		.84	
Total	29	1.0	29.0	0.0	X2= 1.68
Combined Questionnaires					
Yes	39	.5	26.5	12.5	5.89 No
14 .5	26.5	-12.5		5.89	
Total	53	1.0	53.0	0.0	X2=11.78

* At .05 level of significance with one degree of freedom, chi square equals 3.841.

Table 17

CROSS TABULATION OF GENDER TO PERCEPTION OF GENDER BIAS

	MEN	WOMEN	TOTAL
YES	10(17.7170)	29(24.2830)	39
NO	10(5.2830)	4(8.7170)	14
TOTAL	20	33	53

X2=10.62

* At .05 level of significance with one degree of freedom, chi square equals 3.841.

Chapter 5

DISCUSSION

By using the t and Z hypothesis test for univariate statistics, the null hypothesis for questions four through eighteen was set at 4. This meant there were no differences between the two option extremes. At .05 level of significance with 23 degrees of freedom, t-critical equals 2.07. At .05 level of significance with 28 degrees of freedom, t-critical equals 2.05. At .05 level of significance, Z-critical equals 1.96. The t and z critical values represent the upper limit in which data from the null hypothesis can be accepted or rejected. If the t or z observed value was less than the t or z critical value, then the null hypothesis was accepted. However, if the t or z observed value was greater than the t or z critical value, then the null hypothesis was rejected.

Question 4: Business people do not have a predisposition that results in discrimination. Questionnaire A has a mean of 4.21. Its t-statistic equals .91. Since .91 < 2.07, the null hypothesis is accepted. Questionnaire B has a mean of 4.28. Its t-

statistic equals 1.22. Since 1.22 < 2.05, the null hypothesis is accepted. Overall, the sample population has a mean of 4.25. Its Z-statistic equals 1.55. Since 1.55 < 1.96, the null hypothesis is accepted. All the hypotheses tests indicate that business people do not have a predisposition that results in discrimination.

Question 5: Business people believe women are equally as capable as men at making important decision. Questionnaire A has a mean of 4.63. The t-statistic equals 3.00. Since 3.00 > 2.07, the null hypothesis is rejected. Questionnaire B has a mean of 4.72. Its t-statistic equals 4.00. Since 4.00 > 2.05, the null hypothesis is rejected. Overall, the sample population has a mean of 4.69. Its Z-statistic equals 4.86. Since 4.86 > 1.96, the null hypothesis is rejected. With a mean of greater than 4.00, the hypotheses tests imply that business people believe women are less capable than men at making important decisions.

Question 6: Business people believe women are equally as capable as men at impressing clients. Questionnaire A has a mean of 4.33. Its t-statistic equals 1.65. Since 1.65 < 2.07, the null hypothesis is

accepted. Questionnaire B has a mean of 4.34. Its t-statistic equals 1.79. Since 1.79 < 2.05, the null hypothesis is accepted. Overall, the sample population has a mean of 4.34. Its Z-statistic equals 2.43. Since 2.43 > 1.96, the null hypothesis is rejected. Even though individually both questionnaires accepted the null hypotheses, overall, the sample population stated business people believe men are more capable than women at impressing clients.

Question 7: Business people believe women are just as capable as men at successfully taking risks. Questionnaire A has a mean of 4.92. Its t-statistic equals 4.60. Since 4.60 > 2.07, the null hypothesis is rejected. Questionnaire B has a mean of 5.03. Its t-statistic equals 4.68. Since 4.68 > 2.05, the null hypothesis is rejected. Overall, the sample population has a mean of 4.98. Its Z-statistic equals 6.53. Since 6.53 > 1.96, the null hypothesis is rejected. All the hypotheses tests suggest that business people believe women are less capable than men at successfully taking risks.

Question 8: Business people believe women are equally as capable as men at working with numbers.

Questionnaire A has a mean of 3.92. Its t-statistic equals -.27. Since /-.27/ < 2.069, the null hypothesis is accepted. Questionnaire B has a mean of 4.24. Its t-statistic equals 1.09. Since 1.09 < 2.05, the null hypothesis is accepted. Overall, the sample population has a mean of 4.09. Its Z-statistic equals .50. Since .50 < 1.96, the null hypothesis is accepted. All of the hypotheses tests indicate that men and women believe to be equally capable at working with numbers.

Question 9: Business people believe women are just as capable as men at working with people. Questionnaire A has a mean of 3.59. Its t-statistic equals -1.91. Since /-1.91/ < 2.069, the null hypothesis is accepted. Questionnaire B has a mean of 3.52. Its t-statistic equals -2.40. Since /-2.40/ > 2.05, the null hypothesis is rejected. Overall, the sample population has a mean of 3.55. Its Z-statistic equals -3.00. Since /-3.00/ > 1.96, the null hypothesis is rejected. Although respondents to Questionnaire A accepted the null hypothesis, respondents to Questionnaire B and the overall sample population believe that business people believe women are more capable than men at working with people.

Question 10: Business people believe women are equally as capable as men at making difficult decisions. Questionnaire A has a mean of 4.83. Its t-statistic equals 4.15. Since 4.15 > 2.07, the null hypothesis is rejected. Questionnaire B has a mean of 4.79. Its t-statistic equals 3.76. Since 3.76 > 2.05, the null hypothesis is rejected. Overall, the sample population has a mean of 4.81. Its Z-statistic equals 5.40. Since 5.40 > 1.96, the null hypothesis is rejected. Overall, the hypotheses tests indicate that business people believe women are less capable than men at making difficult decisions.

Question 11: Business people believe women are just as capable as men at being creative. Questionnaire A has a mean of 3.42. Its t-statistic equals -3.22. Since /-3.22/ > 2.069, the null hypothesis is rejected. Questionnaire B has a mean of 3.48. Its t-statistic equals -2.48. Since /-2.48/ > 2.05, the null hypothesis is rejected. Overall, the sample population has a mean of 3.45. Its Z-statistic equals -3.93. Since /-3.93/ > 1.96, the null hypothesis is rejected. The hypotheses tests imply

that business people believe women are more capable than men at being creative.

Question 12: People at the top of organizations are equally as biased against women as people at the bottom. Questionnaire A has a mean of 3.79. Its t-statistic equals -.81. Since /-.81/ < 2.07, the null hypothesis is accepted. Questionnaire B has a mean of 3.69. Its t-statistic equals -1.35. Since /-1.35/ < 2.05, the null hypothesis is accepted. Overall, the sample population has a mean of 3.74. Its Z-statistic equals -1.53. Since /-1.53/ < 1.96, the null hypothesis is accepted. The hypotheses tests suggest people at the top of organizations are equally as biased against women as people at the bottom.

Question 13: In working with a client, business people sometimes subordinate their own preferences to those of the client. Questionnaire A has a mean of 3.54. Its t-statistic equals -1.92. Since /-1.92/ < 2.07, the null hypothesis is accepted. Questionnaire B has a mean of 3.07. Its t-statistic equals -4.89. Since /-4.89/ > 2.05, the null hypothesis is rejected. Overall, the sample population has a mean of 3.28. Its Z-statistic equals -4.80. Since /-4.80/ > 1.96, the

null hypothesis is rejected. Although respondents to Questionnaire A accepted the null hypothesis, respondents to Questionnaire B and the overall sample population stated in working with a client, business people do not subordinate their own preferences to those of the client.

Question 14: In working with a client, business people can sometimes shape the client's preferences to suit themselves. Questionnaire A has a mean of 3.79. Its t-statistic equals -1.05. Since /-1.05/ < 2.07, the null hypothesis is accepted. Questionnaire B has a mean of 3.93. Its t-statistic equals -.37. Since /-.37/ < 2.05, the null hypothesis is accepted. Overall, the sample population has a mean of 3.87. Its Z-statistic equals -.93. Since /-.93/ < 1.96, the null hypothesis is accepted. According to the hypotheses tests, the respondents believe business people can sometimes shape the client's preferences to suit themselves.

Question 15: Clients are sometimes influenced by their feelings, desires, and emotions. Questionnaire A has a mean of 3.21. Its t-statistic equals -4.16. Since /-4.16/ > 2.07, the null hypothesis is rejected.

Questionnaire B has a mean of 3.41. Its t-statistic equals -2.81. Since /-2.81/ > 2.05, the null hypothesis is rejected. Overall, the sample population has a mean of 3.23. Its Z-statistic equals-5.50. Since /-5.50/ > 1.96, the null hypothesis is rejected. The hypotheses tests indicate that clients are influenced by their feelings, desires, and emotions.

Question 16: If people at the top engage in discrimination, sometimes, there is little that an employee can do besides go along. Questionnaire A has a mean of 5.04. Its t-statistic equals 2.67. Since 2.67 > 2.07, the null hypothesis is rejected. Questionnaire B has a mean of 5.41. Its t-statistic equals 5.22. Since 5.22 > 2.05, the null hypothesis is rejected. Overall, the sample population has a mean of 5.25. Its Z-statistic equals 5.43. Since 5.43 > 1.96, the null hypothesis is rejected. Since the null hypotheses are rejected by the hypotheses tests, the sample population believes if people at the top engage in discrimination, there is something an employee can do besides go along.

Question 17: If a client is biased against women, sometimes, there is little that someone trying to sell

to the client can do besides go along. Questionnaire A has a mean of 4.46. Its t-statistic equals 1.24. Since 1.24 < 2.07, the null hypothesis is accepted. Questionnaire B has a mean of 4.21. Its t-statistic equals .68. Since .68 < 2.048, the null hypothesis is accepted. Overall, the sample population has a mean of 4.32. Its Z-statistic equals 1.33. Since 1.33 < 1.96, the null hypothesis is accepted. The hypotheses tests imply that if a client is biased against women, sometimes, there is little that someone trying to sell to the client can do besides go along.

Question 18: In evaluation decision alternatives, business people sometimes choose the alternative with the most positive affect on profits. Questionnaire A has a mean of 2.58. Its t-statistic equals -5.46. Since /-5.46/ > 2.07, the null hypothesis is rejected. Questionnaire B has a mean of 3.30. Its t-statistic equals -3.46. Since /-3.46/ > 2.05, the null hypothesis is rejected. Overall, the sample population has a mean of 2.83. Its Z-statistic equals -6.16. Since /-6.16/ > 1.96, the null hypothesis is rejected. According to the hypotheses tests, in evaluation

decision alternatives, business people choose the alternative with the most positive affect on profits.

The t-test for comparing two means suggests that in questions four through eighteen; the respondents to Questionnaire A have similar beliefs to the respondents to Questionnaire B. All comparisons range between 2.00 and -2.00. For this comparison at .05 level of significance with 51 degrees of freedom, t-critical's value is between 2.02 and 2.00. Also, the sample population has similar beliefs to the participants of the Larwood et al study. The t-statistics for questions four through eighteen are between 1.96 and -1.96. For this comparison at .05 level of significance with 300 degrees of freedom, t-critical's value is between 1.96 and 1.98.

In a chi square test on the perception of rational bias, chi square critical is 3.84 at .05 level of significance with one degree of freedom. Respondents to Questionnaire A imply there is a rational bias problem, because chi square observed is 13.50 which is greater than 3.84. However, respondents to Questionnaire B indicate there is not a rational bias problem, because chi square observed is 1.69 which is

less than 3.84. Overall, the sample population suggests there is a rational bias problem, because chi square observed is 11.79 which is greater than 3.841.

In a cross tabulation of gender to perception of rational bias, chi square critical is set a 3.84 at .05 level of significance with one degree of freedom. Chi square observed is 10.62. The null hypothesis is rejected. Perception of rational bias does not appear independent of the respondents' gender.

Of the respondents who answered how they would correct the gender bias problem, 41.46 percent stated they establish an education program about gender bias. Less than 3 percent wanted to maintain the status quo. 12.2 percent believed that having the overall percentage of males and females at a company reflect that same percentage at all levels of management. 29.27 percent of the respondents answered "D" (other) to the question. These respondents believed it will take time and an education program to correct the glass ceiling. Less than 12 percent of the respondents combined answer B/ establish an education program about gender bias with another answer, such as restructuring

the corporation or adding thoughts to the gender bias problem.

Summary

The sample population believes men are more capable than women at making important decisions, impressing clients, successfully taking risks, and making difficult decisions. Also, the sample population feels women are more capable than men at working with people and being creative. However, the sample population believes men and women are equal at working with numbers. They feel business people change their preferences to match those of their clients. Also, they believe clients are influenced by their feelings, desires, and emotions. The sample population perceives business people will choose the alternative with the most positive affect on profits. Finally, if people at the top of an organization discriminate against their subordinates, the sample population believes an employee can do something about the discrimination.

There is a perception of a gender bias problem in businesses and corporations in the Maryland Heights/

West Port area. However, this perception of the gender bias problem is dependent upon gender. Since the perception of gender bias does not appear independent of the respondents' gender, the hypothesis of people, both male and female, in the corporate sector, favor men over women in decision making roles is rejected. The majority of female respondents believe there is a gender bias problem in the corporate sector, while only half of the male respondents believe there is a gender bias problem in the corporate sector.

Limitations

In the cross tabulation of gender to the perception of rational bias, another female who believes rational bias is not a problem should have been found to give the test a more accurate result. With the current respondents, only four females believed rational bias was not a problem.

A more equal return of male and female respondents' questionnaires was needed. If this occurred, the results might prove that both genders believe a gender bias problem exists in the corporate sector.

A larger sample size might show the results of this study to be more conclusive, because it might incorporate a more equal return on male and female respondents' questionnaires. Also, a larger sample size would most likely add to the validity of the cross tabulation of gender to the perception of rational bias.

Suggestions for Future Research

There are four suggestions for future research. Since the "glass ceiling" encompasses many different biases, future studies might include all the different biases as variables. Also, future studies might include differentiating the races in the study. Future studies might include a larger sample of the population. These studies might include a different sample of the population. This could range on the local level as including all businesses and corporation located in the St. Louis Metropolitan Area, or use a different metropolitan region in the United States. Furthermore, future studies may encompass testing different professions in a community.

APPENDIX A

RATIONAL BIAS THEORY TEST

February 1995

Dear Sir or Madam:

REFERENCE: Survey for Culminating Project for an MBA from Lindenwood College, St. Charles, MO.

This questionnaire will take approximately five to ten minutes to complete. This questionnaire is exclusively for research purposes and personal identity will be kept confidential. Questions one through three, nineteen and twenty are for general information. Questions four through eighteen are from a Laurie Larwood et al's article which appeared in the Jan.-Feb. 1988 issue of Sex Roles.

Be sure to answer all the questions as an incomplete answer will negate the entire questionnaire.

Sincerely,

Kelly A. Levengood

APPENDIX B

The information collected in the following questionnaire is confidential. As a participant of this questionnaire, you are not required to disclose your name or place of employment.

1. Your age ___.

2. Your gender (please circle one) male or female.

3. Number of years of managerial experience ___.

Questionnaire A

4. What proportion of business people have a predisposition that results in discrimination?

ALL NONE
1 2 3 4 5 6 7

5. Business people believe women are ___ capable than men at making important decisions.

DEFINITELY MORE DEFINITELY LESS
1 2 3 4 5 6 7

6. Business people believe women are ___ capable than men at impressing clients.

DEFINITELY MORE DEFINITELY LESS
1 2 3 4 5 6 7

7. Business people believe women are ___ capable than men at successfully taking risks.

DEFINITELY MORE DEFINITELY LESS
1 2 3 4 5 6 7

8. Business people believe women are ___ capable than men at working with numbers.

DEFINITELY MORE DEFINITELY LESS
1 2 3 4 5 6 7

9. Business people believe women are ___ capable than men at working with people.

DEFINITELY MORE DEFINITELY LESS
1 2 3 4 5 6 7

10. Business people believe women are ___ capable than men at making difficult decisions.

DEFINITELY MORE DEFINITELY LESS
1 2 3 4 5 6 7

11. Business people believe women are ___ capable than men at being creative.

DEFINITELY MORE DEFINITELY LESS
1 2 3 4 5 6 7

12. People at the top of organizations are ___ biased against women than people at the bottom.

MUCH MORE MUCH LESS 1
2 3 4 5 6 7

13. In working with a client, business people subordinate their own preferences to those of the client.

ALWAYS						NEVER
1	2	3	4	5	6	7

14. In working with a client, business people can shape the client's preferences to suit themselves.

ALWAYS						NEVER
1	2	3	4	5	6	7

15. Clients are influenced by their feelings, desires, and emotions.

COMPLETELY						NOT AT ALL
1	2	3	4	5	6	7

16. If people at the top engage in discrimination, there is little that an employee can do besides go along.

STRONGLY AGREE						STRONGLY DISAGREE
1	2	3	4	5	6	7

17. If a client is biased against women, there is little that someone trying to sell to the client can do besides go along.

STRONGLY AGREE						STRONGLY DISAGREE
1	2	3	4	5	6	7

18. In evaluating decision alternatives, business people choose the alternative with the most positive effect on profits.

ALWAYS						NEVER
1	2	3	4	5	6	7

19. Do you believe businesses have a gender bias problem? YES/NO
If you said yes, proceed to question 20.

20. How do you feel businesses should resolve the gender bias problem?
    a. maintain the status quo
    b. establish an education program about gender bias
    c. have the overall percentage of males and females at a company reflect that same percentage at all levels of management
    d. other (please specify) _____

Questionnaire B

4. What proportion of business people have a predisposition that results in discrimination?

ALL						NONE
1	2	3	4	5	6	7

5. Business people believe men are ___ capable than women at making important decisions.

DEFINITELY MORE					DEFINITELY LESS	
7	6	5	4	3	2	1

6. Business people believe men are ___ capable than women at impressing clients.

DEFINITELY MORE					DEFINITELY LESS	
7	6	5	4	3	2	1

7. Business people believe men are ___ capable than women at successfully taking risks.

DEFINITELY MORE					DEFINITELY LESS	
7	6	5	4	3	2	1

8. Business people believe men are ___ capable than women at working with numbers.

DEFINITELY MORE					DEFINITELY LESS	
7	6	5	4	3	2	1

9. Business people believe men are ___ capable than women at working with people.

DEFINITELY MORE					DEFINITELY LESS	
7	6	5	4	3	2	1

10. Business people belive men are ___ capable than women at making difficult decisions.

DEFINITELY MORE					DEFINITELY LESS	
7	6	5	4	3	2	1

11. Business people believe men are ___ capable than women at being creative.

DEFINITELY MORE					DEFINITELY LESS	
7	6	5	4	3	2	1

12. People at the top of organizations are ___ biased against women than people at the bottom.

MUCH MORE					MUCH LESS	
1	2	3	4	5	6	7

13. In working with a client, business people subordinate their own preferences to those of the client.

ALWAYS						NEVER
1	2	3	4	5	6	7

14. In working with a client, business people can shape the client's preferences to suit themselves.

ALWAYS						NEVER
1	2	3	4	5	6	7

15. Clients are influenced by their feelings, desires, and emotions.

COMPLETELY						NOT AT ALL
1	2	3	4	5	6	7

16. If people at the top engage in discrimination, there is little that an employee can do besides go along.

STRONGLY AGREE				STRONGLY DISAGREE		
1	2	3	4	5	6	7

17. If a client is biased against women, there is little that someone trying to sell to the client can do besides go along.

STRONGLY AGREE				STRONGLY DISAGREE		
1	2	3	4	5	6	7

18. In evaluating decision alternatives, business people choose the alternative with the most positive effect on profits.

STRONGLY AGREE				STRONGLY DISAGREE		
1	2	3	4	5	6	7

19. Do you believe businesses have a gender bias problem? YES/NO
If you said yes, proceed to question 20.

20. How do you feel businesses should rectify the gender bias problem
    a. maintain the status quo
    b. establish an education program about gender bias
    c. have the overall percentage of males and females at a company reflect that same percentage in all levels of management
    d. other (please specify) _____

APPENDIX C

QUESTIONNAIRE RESPONSES

RESPONDANT NUMBER	QUESTION NUMBER																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	55	F	12	4	5	6	5	2	4	4	2	1	5	4	3	1	3	1	Y	B
2	48	M	20	3	3	5	6	3	3	6	3	6	2	4	3	5	5	2	Y	B
3	50	F	7	4	5	5	6	4	3	6	3	2	3	4	5	7	6	2	Y	C
4	27	F	7	4	5	4	6	3	3	5	2	4	4	4	4	7	6	4	Y	B
5	51	M	25	5	5	4	5	4	4	5	4	3	2	5	3	6	3	2	Y	D
6	43	F	12	3	5	5	5	4	3	5	4	2	2	2	2	2	2	1	Y	C/B
7	29	F	8	3	4	2	5	2	2	5	4	4	2	3	2	5	2	2	Y	A/B
8	48	F	16	4	4	4	4	3	3	5	2	5	3	5	4	7	7	2	Y	D
9	59	F	10	5	5	6	6	2	6	3	3	3	3	3	3	3	3	1	Y	B
10	38	F	8	4	5	5	4	3	2	5	3	5	3	3	2	7	5	2	Y	B
11	31	F	9	3	6	5	5	6	3	4	3	3	3	3	3	4	5	2	Y	B/C
12	57	F	9	5	6	5	6	7	5	7	3	3	5	3	4	6	5	3	Y	B
13	58	F	10	6	5	3	5	6	5	5	3	3	5	3	4	7	7	3	Y	B
14	60	M	30	3	4	3	5	5	3	5	3	2	5	4	2	6	2	2	Y	B/D
15	47	M	20	5	3	4	2	2	3	2	4	4	5	5	4	6	1	4	N	
16	37	F	5	5	6	4	5	6	2	5	4	4	6	4	4	7	7	6	Y	D
17	47	M	6	2	4	4	4	4	4	5	5	4	4	6	3	7	7	3	Y	D
18	39	F	14	5	5	4	5	4	3	4	4	3	2	5	2	6	4	5	Y	D
19	25	M	6	5	4	3	4	5	4	5	4	5	4	5	3	5	3	3	N	
20	50	F	12	7	6	5	6	5	5	6	5	3	3	3	2	2	3	2	Y	C
21	52	F	8	5	5	4	4	3	4	5	3	3	4	4	3	5	5	2	Y	D
22	30	F	5	4	2	5	6	2	3	5	5	2	3	3	4	3	5	4	Y	D
23	55	F	5	4	4	4	4	4	4	4	3	4	4	3	3	2	3	1	Y	B
24	25	M	5	3	5	5	5	5	5	5	3	5	3	3	3	5	5	3	N	
25	32	F	9	6	4	5	5	3	3	4	4	2	3	4	4	7	6	2	N	
26	38	F	7	6	4	3	4	4	3	5	3	5	3	3	4	3	4	3	N	
27	75	M	54	6	4	5	7	4	2	7	2	2	3	3	1	7	4	1	N	
28	32	F	9	3	6	2	6	4	2	5	3	2	4	3	3	2	2	4	Y	B
29	48	M	15	3	4	4	6	4	3	5	3	4	2	3	3	7	1	3	N	A
30	70	M	39	6	3	4	3	5	2	3	1	7	3	4	2	6	5	7	N	
31	45	M	17	5	4	4	5	4	4	5	4	5	4	4	5	6	4	1	N	
32	39	M	5	5	4	3	5	4	3	4	3	3	3	3	3	5	5	3	Y	D
33	40	M	15	4	4	4	5	4	3	4	3	4	2	4	4	6	6	1	N	C
34	49	F	15	4	6	6	6	6	5	5	5	6	2	3	5	5	3	4	Y	B
35	47	M	25	5	4	4	3	4	5	5	6	4	2	3	2	3	4	4	Y	B
36	58	P	20	2	5	4	5	2	3	6	3	4	3	5	3	3	2	2	Y	B
37	28	F	6	3	5	5	6	4	4	5	4	2	4	5	2	5	7	4	Y	B
38	30	F	7	3	5	5	5	4	4	5	3	3	2	6	3	7	3	2	Y	B

39	46	F	10	5	6	6	6	3	3	6	2	4	2	5	3	7	5	5	Y	B/D
40	40	F	21	4	6	5	5	5	4	5	5	4	5	5	4	5	5	3	Y	B
41	33	F	5	4	5	5	6	5	3	6	4	3	3	4	3	5	4	4	Y	B
42	40	F	9	5	6	5	6	5	4	4	4	4	4	4	5	6	5	6	Y	B/C
43	28	F	5	2	5	4	5	4	3	5	3	5	3	4	5	6	4	2	Y	D
44	46	F	5	4	3	4	5	4	4	6	4	4	4	4	4	5	4	4	Y	C
45	32	M	10	6	4	4	4	4	4	4	4	5	3	3	4	7	7	3	N	
46	26	F	5	4	5	4	3	7	1	4	3	4	3	3	2	7	5	2	Y	C
47	60	M	20	5	4	4	5	2	5	5	3	4	3	3	3	5	2	2	N	
48	50	F	30	4	4	2	2	1	2	1	1	3	5	6	2	7	6	2	N	
49	30	M	5	4	4	4	4	4	4	4	4	3	2	5	2	5	1	5	Y	D
50	56	M	9	5	7	6	7	3	7	5	4	3	1	6	5	7	7	1	Y	B
51	42	M	20	4	6	6	6	5	4	6	4	2	4	3	2	5	5	3	Y	D
52	45	M	8	3	5	4	6	4	4	5	4	2	3	3	3	3	3	3	Y	D
53	25	F	5	3	5	5	5	5	4	5	5	4	1	3	3	5	3	2	N	

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