DIFFERENCES IN WORK VALUES PERCEPTIONS OF DIVERSE DEMOGRAPHIC GROUPS

DISSERTATION

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The purpose of the study was to determine what differences in work attitudes, if any, exist in the American workforce within various demographic groups, and what implications such differences have for managers. Age, level of education, college major, race, sex, pay method, skill level and job classification were chosen to be the independent variables. Current literature indicates that a shift in values has influenced many areas in society in the last two decades. This study was an attempt to determine if the work values of the general population are related to the above eight independent variables.

The survey population consisted of three firms and two universities in the Dallas-Fort Worth Metropolitan area. One company was a non-profit hospital, another was a for profit medical conglomerate and the third was a firm in the high technology industry. The two participating universities included a state supported school and a private school. The study was a pilot study and did not replicate anything done previously in an industrial setting. Non-parametric statistics were used to analyze the data. No control group was used, since no manipulation of any variables took place.

The Survey of Work Values, developed by Smith et al., is

a validated survey instrument that measures six aspects of work values: Social Status, Activity Preference, Upward Striving, Attitude Towards Earnings, Pride in Work and Job Involvement. It consists of fifty-four sentences evaluated on a five point Likert scale and was modified to include eight additional questions concerning the independent variables for this study. The responses of the participants were evaluated through a one way analysis of variance and a regression analysis.

The study concluded that very little evidence exists to support the hypothesis that work value differences are due to the demographic variables chosen. Although some significance did occur within some of the groups, the overwhelming conclusion is that none of the eight independent variables is materially related to work value perceptions.

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CHAPTER 1

INTRODUCTION

Historically, it is believed that most countries touched by the Industrial Revolution also adopted new attitudes towards work not previously exhibited. The origin for these new values occurred in the Protestant Reformation born in Europe. European teachings exalted the virtue of honest, well-executed work, but if age or infirmity precluded persons from working, the church would provide hospitals or other charitable institutions to take care of such individuals (9, p. 36). The Protestant work ethic emphasized the responsibility of a person to provide for himself, and for his family as a basic social responsibility.

For some time, America adhered to the worldwide reputation for being hard-working and believed that this was synonymous with decency, respectability and morality. The benefits of hard work were touted to be the attainment of security, social status better than one's parents and self-reliance. Smarr and Escoll have asserted that a "work personality" was the dominant character portrayed in the work world for some time and that this portrayal was the direct result of a long educational process that involved school, family, and society (17, p. 83).

For thousands of years, agriculture was the base of all societies and was the major provider of jobs. In just two centuries, industrialization changed this (14, pp. 14-15). Older employees had been raised with the belief that work was a virtue, and a steady job with an adequate income was the foundation for a good life. The Depression reinforced the belief that money and the things it bought were equal to fulfillment in life. The economic orientation of these older workers emphasized wages, working conditions, and job security. To them, the smoke billowing from a factory chimney was a symbol of security because it meant jobs for people.

In contrast, today's younger generation often sees the smokestack as a threat to the environment which can cause harm to the welfare of all human beings and violates their social consciousness (3, p. 8). According to Kerr and Rosow, these younger workers demand more personal autonomy, want to participate more in decision-making, put more emphasis on small and self-chosen groups, accept hard work, want longer vacation periods and a blending of their work and leisure with their education, and demand consumer rights (6, p. xii). A single-minded dedication to work for work's sake appears to be lacking in the younger workforce. As a result, it is believed that a general shift in work values has occurred in the work place.

Statement of the Problem

Current literature indicates that a shift in values has influenced many areas in America in the last two decades. These changes have certainly influenced the work place. Private industry, particularly with its emphasis on higher productivity, has been impacted by value changes and increasingly refers to the lack of dedication to the work ethic as the chief reason for the decline in U.S. productivity. This study was an attempt to determine what the work values are of the general population of today.

Max Weber is the most frequently quoted authority cited when defining the traditional work ethic. His definitions of it involved the following.

1. The fulfillment of duty in worldly affairs is the highest form of moral activity that an individual can assume.

2. Acceptable living is defined as fulfilling the obligations imposed on oneself by his or her position in the world; this was referred to as a "calling."

3. Calvinism, a major influence in the shaping of the traditional definition of the work ethic, emphasized the necessity of proving one's faith through worldly activities; only activity increases the glory of God, not leisure; consequently, the waste of time is a deadly sin (15, pp. 80, 121, 157).

Weber described a committed work ethic person as one who worked hard, was not distracted from work by other activities, saved money for future needs and looked for opportunities to expand one's economic base, even if it meant

self-denial in the present. There are no instruments that measure these ideas explicitly, and the average manager of today would probably not recognize Weber's points as part of his or her own definition of the work ethic now commonly used.

This study compared the work value responses of survey groups within industry and academia. It addressed the following questions: Do differences in work values exist in the workforce today that are due to a difference in age? Do differences in work values exist based on other demographic characteristics?

Purpose of the Study

The purposes of this study are

1. To determine, if differences in the work values of respondents do occur, whether or not these differences exist due to differences in age;
2. To determine, if differences in the work values of respondents do occur, whether or not these differences exist due to other demographic variables.

Hypotheses

1. There is no statistically significant difference in the work value means of participants according to age.
2. There is no statistically significant difference in the work value means of participants according to educational level.
3. There is no statistically significant difference in the work value means of participants according to college major.

4. There is no statistically significant difference in the work value means of participants according to ethnic group.

5. There is no statistically significant difference in the work value means of participants according to sex.

6. There is no statistically significant difference in the work value means of participants according to pay method.

7. There is no statistically significant difference in the work value means of participants according to skill level.

8. There is no statistically significant difference in the work value means of participants according to job classification.

Research Methodology

The study was a pilot study, and did not replicate anything done previously in an industry setting. Non-parametric statistics were used to analyze the data. No control group was used, since no manipulation of any variables took place. A search of the literature included an examination of dissertations, journals, periodicals, books, and other secondary sources that provided background information about the past and present views of the work values. The data collected was analyzed according to the following variables: 1. age, 2. sex, 3. race, 4. educational level, 5. college major, 6. wage method, 7. job skill level (skilled/unskilled), and 8. job classification (exempt/nonexempt).

A review of the literature on work values measurements revealed that researchers have identified extrinsic and

intrinsic motivators of industriousness, but many of the measurement scales were ambiguous. Attempts have been made to remove some of the ambiguity by identifying the difference between work values and job satisfaction. Although they are related to one another, they are not one and the same thing. Most work values scales used today separate this concept from that of a person's satisfaction with his or her job.

Four measurement scales have been developed that purport to measure work values. The first scale, developed by Blood in 1969, was entitled the Pro-Protestant Ethic Scale. It consisted of eight statements, four of which represented a "Pro-Ethic" stance, and four that were in non-agreement. The participant responded to this survey on a six level Likert scale of agree/disagree statements. The scale has received criticism for its sex-biased language, however. Nevertheless, it strongly reflects Weber's traditional view of the work ethic and is considered to be the one scale that most accurately represents his views of work (1, pp. 356-7).

The Ohio Work Values Inventory (OWVI) was created by Hales and Fenner in 1975 for use in elementary schools. It has been used primarily in the analysis of work values of children. The OWVI's major purpose was to serve as a source for career planning information, so it was not seriously considered for this study (4, pp. 20-25).

The Protestant Ethic Scale (PES) was developed in 1971 by Mirels and Garrett. It contained nineteen items considered to be compatible with work values. The participant responses to this scale were also scored on a Likert scale of +3 to -3, excluding the zero (7, p. 41). Although the nineteen items were consistent with work values, the PES did not gain wide acceptance. Unfortunately for the researchers, this was probably due to timing. A more extensive survey, the Survey of Work Values (SWV) was developed by Wollack, Goodale, Wijing and Smith in the same year. Their survey included a total of fifty-four items that were evaluated by the participants. The detailed analysis of this survey has led to its being the most used tool in measuring work values. Its wide acceptance as a validated instrument and common use were the dominant reasons for it being utilized in this study.

The Survey of Work Values was different from other scales that measure values because it was limited to the construct of the secularized Protestant Work Ethic. It was designed with three aspects of the work ethic in mind, as defined by Weber: individualism, asceticism and industriousness. However, it measures work values considered to be important to the managers of today as opposed to the traditional work ethic values espoused by Weber and others. The original study was very different from that of today. At first, the SWV had three dimensions, with four subgroups,

and was measured on a six point Likert scale. It was first administered to employees at a glass manufacturing plant. The survey was then changed to six dimensions with a five point Likert scale, and administered to employees of the same company. In addition, it was also given to undergraduate students. The correlation between these two groups was .94, and no systematic displacement of these ratings occurred.

The present survey has six subscales that represent clearly defined areas of the work ethic. The participant responds to a five point Likert Scale ranging from strongly disagree to strongly agree. Each subscale contains nine items. The subscales are as follows: Social Status, Activity Preference, Upward Striving, Attitude Towards Earnings, Pride in Work and Job Involvement. Copies of the scale can be used only by permission of the creators, and the author contacted and received permission from Patricia Smith of Bowling Green State University to use the survey and its scoring methodology (16, pp. 333-335).

The first analysis of the data involved the measurement of the participants' work values. An SWV mean and standard deviation were calculated for each of the six dimensions. No norms for industry exist at this time. However, norms for university students do exist and they were compared against the SWV norms that have been established by research conducted at Bowling Green.

The second analysis involved various participant subgroups, and a determination of the differences between their means was performed in order to ascertain if statistical significance was present. To test the hypotheses, a one-way analysis of variance was performed. The SWV means, standard deviations, F values, and significance level for each dimension were calculated. Significance was tested at the .05 level. In addition, a multiple regression analysis was done in order to determine if one or more independent variables exhibited significant p values for the F test.

The survey population was limited to local university students and workers in the medical and high technology industries at all levels within the Dallas-Fort Worth Metropolitan area. It was assumed that the survey participants were representative of all U.S. geographic locations, industry types, and occupational categories.

Significance of the Study

In 1972, 22.5 million out of 85 million people in the work force were under thirty. They were considered to be affluent and better educated than their parents (12, p. 23). It has been asserted by some that the difference in values between them and their parents was great, and due mainly to the age difference and the differences in educational level. In 1952, only forty-three per cent of the labor force had high school diplomas; by 1979, seventy-six per cent had

them. Twice as many workers had some college education in 1979 as those in 1952 (18, p. 44).

These young people were pegged as part of a counterculture. They allegedly rejected the work ethic, materialism and conventional social norms. From 1968 to 1971, Yankelovich studied the attitudes of college students and found that 1. seventy-nine per cent felt a meaningful career was very important to one's life, 2. eighty-five per cent believed that businesses were entitled to make a profit, and 3. only thirty per cent wanted less emphasis on working hard. However, in 1968, sixty-nine per cent believed that hard work always paid off; in 1971, only thirty-nine per cent believed this (12, pp. 23-4).

In another study, under the direction of the U.S. Department of Labor, Pennsylvania State University surveyed 1860 male and female members of the class of 1972. Most of these students had favorable attitudes towards work, and saw it as a critical and necessary part of adult life. When asked to compare their views with the views of their parents, they saw their elders as emphasizing salary and job security. The students, however, were more concerned with the nature and purpose of work. They believed that the most important aspects of a job were intrinsic (2, p. 42).

Recent studies would indicate, however, that many still adhere to historical values. In 1977, the University of Michigan's Employment Survey found that seventy-five per

cent of all Americans would go on working even if they could live comfortably without having to work. Just eight years earlier, only sixty-seven per cent would have done so. A 1980 Gallup study showed that eighty-eight per cent of all working Americans felt that it was important to work hard and to do their best on the job. The Americans surveyed showed support for three elements of the concept known as the "unwritten work contract": people work for the resources to sustain their needs; they work for financial reasons only and have a moral imperative to do their best. The Public Agenda Foundation conducted a survey in 1982 that discovered that seventy-eight per cent of the work force agreed with the third tenet. Only seven per cent felt work was merely a "business transaction" regulating their efforts to the size of one's paycheck. Another fifteen per cent of the workers regarded work as necessary but disagreeable (17, pp.6-8).

The significance of this study centered on the identification of the level of adherence to the work values the general population has today, and what the causes of any differences were, if differences occurred. If significant differences exist, then management's task for motivating employees, and maintaining or increasing productivity necessitates the consideration of these differences in their management styles.

Past theses and research show that work values have been studied in conjunction with paranoids in comparison to non-paranoids; university students--comparing freshmen attitudes with senior attitudes; CPA's and their dedication to work; how drug use has hurt the work ethic; the work values of high school seniors as compared with their teachers; and the work values of business education students vs. office workers. No study has done a comparison of work values in industry between younger and older workers, which is the main thrust of this research. In addition, upperclass university students were also surveyed to determine if the views of potentially immediate entrants into the work force were significantly different from those already working.

Basic Assumptions

1. Sufficient information for developing a historical perspective of work values would be available in various forms in the literature.

2. The groups surveyed would be representative of all geographic locations, industry types, occupational categories, educational levels, races, and representative age categories; therefore, the findings and conclusions would be applicable to the general population.

3. The dedication to work is subject to many influences (the state of the economy, the affluence of a society, etc.); however, it was the historical emphasis and a belief

that adherence to a strong work ethic is necessary for America to be a major contributor to world leadership in business activity that served as a springboard from which to test this study's hypotheses.

Organization of the Study

The study is organized as follows: Chapter I presents a discussion of the nature of work and work values, a statement of the research problem, significance of the study and definitions. Chapter II presents a review of the literature, both past and present, in conjunction with the differing views of work values as seen by scholars, business leaders, and the general population. Work values measurements and their results are also evaluated. Chapter III reviews the design of the study: the population, the sample, the variables, and the instrument and analytic methods used. Chapter IV presents the findings, the survey response and the analytical results. Chapter V closes with conclusions and possible recommendations for further research.

CHAPTER BIBLIOGRAPHY

1. Blood, Milton R., "Work Values and Job Satisfaction," Journal of Applied Psychology, 56 (1969), 456-59.

2. "College Students and the Meaning of Work," Monthly Labor Review, 96 (November, 1973), 42.

3. Crane, Donald P., Personnel: The Management of Human Resources, Boston, Kent Publishing Company, 1982.

4. Hales, L. W. and B. J. Fenner, "Measuring the Work Values of Children: The Ohio Work Values Inventory," Measurement and Evaluation in Guidance, 8 (April, 1975), 20-25.

5. Inlow, Gail M., Values in Transition, New York, John Wiley and Sons Inc., 1972.

6. Kerr, Clark and Jerome M. Rosow, editors, Work in America: The Decade Ahead, New York, Van Nostrand Company, 1979.

7. Mirels, H. L. and J. B. Garrett, "The Protestant Ethic as a Personality Variable," Journal of Consulting and Clinical Psychology, 36 (1971), 40-44.

8. Price, Charlton R., New Directions in the World of Work, Kalamazoo, Michigan, W.E. Upjohn Institute of Employment Research, 1971.

9. Schaeffer, Francis A., How Shall We Then Live? Old Tappan, New Jersey, Fleming H. Revell Company, 1976.

10. Smarr, Erwin R. and Philip J. Escoll, "Humanism and the American Work Ethic," Today's Education, 63 (January-February, 1974), 83-5.

11. Taylor, Ronald N. and Mark Thompson, "Work Value Systems of Young Workers," Academy of Management Journal, (December, 1976), 522-36.

12. "The Young Worker and the Work Ethic," Today's Education, 62 (April, 1973), 23-5.

13. "The Youngest Workers Care the Least," Psychology Today, 12 (October, 1978), 34, 37-8.

14. Toffler, Alvin, Future Shock, New York, Bantam Books, Inc., 1970.

15. Weber, Max, The Protestant Ethic and the Spirit of Capitalism, London, George Allen & Unwin LTD, 1930.

16. Wollack, Stephen, James G. Goodale, Jan P. Wijting and Patricia Cain Smith, "Development of the Survey of Work Values," Journal of Applied Psychology, 55 (1971), 331-38.

17. Yankelovich, Daniel, "The Work Ethic is Underemployed," Psychology Today, 16 (May, 1982), 5-6, 8.

18. Young, Anne McDougall, "Trends in Educational Attainment among Workers in the 1970's," Monthly Labor Review, (July, 1980), 44-7.

19. "Young Laborers : The Work Ethic Wobbles On," Human Behavior, 7 (October, 1978), 26-7.

CHAPTER 2

A REVIEW OF THE LITERATURE

The Work Ethic

Any discussion of values must include reference to Max Weber's view of the work ethic. Early in this century, in describing it as a major economic force, Weber (34) emphasized that man in a capitalistic society was dominated by the idea that a dedication to work was necessary for the attainment of security, status and material posessions and that work was always to be preferred over leisure. Hughes, in interpreting Weber's work, saw the work ethic as an "ethic that endorsed and encouraged the life of rationally oriented business activities." (14, p. 323) Green added to this view that "No one has ever asserted that Capitalism is the direct product of Calvinism. We can, however, say that ...Calvinism was able to give it an intellectual and ethical backbone..." (11, p. xi)

Weber did believe, however, that Calvinism was a major influence on capitalism and identified some of the major tenets of the "spirit of capitalism" as follows: time is money; credit is money; money begets money, and its offspring can beget even more; he that is known to pay punctually is lord of another man's purse (34, pp. 48-9). Other

maxims that described this view of work included: "Nothing in this world is worth having or worth doing unless it means effort, pain, and difficulty; Idleness is a disgrace; The indolent mind is not empty, but full of vermin." (24, pp. 7-13) The central thesis of this work value was that work was at the core of moral life, and in a world of economic scarcity, it motivated people to be useful. It also taught that work opened the way to what was believed to be deserved wealth and status.

Weber asserted that the teachings of the Protestant work ethic emphasized the following.

1. The fulfillment of duty in worldly affairs was the highest form of moral activity that an individual could assume.
2. Acceptable living for God was not to assume monastic asceticism, but to fulfill the obligations imposed on the individual by his position in the world.
3. As a direct influence of Calvinism, it was necessary to prove one's faith through worldly activity. (34, pp. 80, 121)

Consequently, in view of this concept of work, the monastic life, which was the dominant influencer of the view of work prior to the Industrial Revolution, was considered to be devoid of value and its renunciation of the duties of this world were seen as a product of selfishness and the withdrawal from temporal obligations. This moral justification of worldly activity is considered to be one of the most important results of the Protestant Reformation.

The often quoted phrase, "God helps those who help themselves," developed from this change in attitudes towards work. It also became acceptable to teach that only activity increased the glory of God, not leisure and enjoyment. As a result, the waste of time was considered to be the deadliest of sins, and wealth was thought to be bad only if it tempted one to idleness and the sinful enjoyment of life. The acquisition of wealth was thought to be bad only if it was done with the intention of living merrily without a care in the world. The war against the temptations of the flesh was not, therefore, a struggle against rational acquisition, but against the irrational use of wealth. Utilitarian uses of wealth were considered to be willed by God for the needs of the individual and the community, and when the limitation of consumption was combined with encouraged activity, the result was an accumulation of capital through the compulsion to save (34, pp. 80-1, 115, 121, 157, 163, 171-2).

Fullerton (9) later described the Protestant work ethic as a concept that provided one with a means of discipline, a guard against sexual temptation, and a purpose for life itself. This typically included the idea that one should take pride in one's work instead of being careless, earned income is better than unearned income, and hard work will always lead to greater success (2, p. 102). A person who subscribed to this view of work was thought of as one that worked hard, was not distracted from work by other

acitvities, saved for the future and looked for opportunities to expand economically even to the extent of self-denial in the present (34).

The idea of hard work did not begin with Calvinism or the Protestant Reformation, however. No adequate history of the meaning of work has ever been written and various philosophies of work have modified its meaning over time. To the Greeks, for example, mechanical labor was reserved for the slaves because it was believed to "brutalize" the mind. Work was considered a necessary evil which the elite avoided. To the Hebrews, work was considered drudgery and a scourge of the soul. Hence, heaven was often thought to be a place of blessed idleness (20, p. 215).

In early Christianity, work had value in that it warded off evil thoughts of idleness. The church often preached that work should be pursued zealously as a "scourge for the pride of the flesh." Luther was the first to establish work as the basis of life. He asserted that it was natural to fallen man and that to maintain oneself through work was one way of serving God (20, pp. 215-16).

Calvin furthered the idea by teaching that austere, unenticing work would ease guilt, and lead to a good and pious life. This view justified the development of a type of person capable of ceaseless, methodical labor (20, p. 216). To the Calvinist, the zeal and power to do good works was a sign of God's favor, even though he could not gain salvation

through those good works. Calvinism, therefore, was an appeal to one's willpower and action. Idleness, luxury and everything that softened a person was to be shunned as a deadly sin. In contrast to Luther, however, Calvin considered it no virtue to be satisfied with one's class or the profession one was born into. It was everyone's duty to seek out a profession that brought the greatest return. As a result, initiative became a part of the concept of work and this new view freed people from the acceptance of any "caste" system (31, pp. 54, 57, 59, 61).

Locke later espoused the idea, which was totally separated from any religious overtones, that labor was the origin of individual ownership and the source of all economic value. The adoption of this view then placed work as the controlling factor in the wealth of nations, and defined an economic man as one who was motivated chiefly by money earned (20, pp. 217).

The successes of an industrious life have always been common in children's storybooks, editorials and political rhetoric. "Idle hands are the devil's tools" has been quoted by many a person trying to motivate someone towards activity, and Horatio Alger books have been written to inspire the teenage market to pursue success.

Early in our history, Ben Franklin often commented on the tenets of the work ethic in Poor Richard's Almanack (13, p. 94). He considered the following to be a list of

the ideal virtues.

1. Temperance. Eat not to dullness. Drink not to elevation.
2. Silence. Speak not but what may benefit others or yourself. Avoid trifling conversation.
3. Order. Let all your things have their place. Let each part of your business have its time.
4. Resolution. Resolve to perform what you ought. Perform, without fail, what you resolve.
5. Frugality. Make no expense but to do good to others or yourself; i.e., waste nothing.
6. Industry. Lose no time. Be always employed in something useful. Cut off all unnecessary actions.
7. Sincerity. Use no hurtful deceit. Think innocently and justly, and if you speak, speak accordingly.
8. Justice. Wrong none by doing injuries or omitting the benefits that are your duty.
9. Moderation. Avoid extremes. Forebear resenting injuries so much as you think they deserved.
10. Cleanliness. Tolerate no uncleanness in body, clothes, or habitation.
11. Tranquility. Be not disturbed at trifles or at accidents common or unavoidable.
12. Chasity. Rarely use venery but for health or offspring--never to dullness, weakness, or the injury of your own or another's reputation.
13. Humility. Imitate Jesus and Socrates. (17, p. 95)

At the time of the American Revolution, political writings were saturated with the ideal standard of public usefulness, and numerous forces replaced the emphasis once given to God by Calvin and others with other things. Economists, editors and preachers alike insisted that anything but a steady workpace would send the nation into poverty and decay. "Protestantism once spiritualized toil and turned usefulness into a sacrement" (24, p. 9), but by the nineteenth century, the work ethic showed little resemblance to

its original Protestant definition. By the middle of the century, it had become very secularized and the word "calling" was replaced with the word usefulness in everyday literature (24, pp. 9-10).

Nineteenth century Americans began to believe that it was one's social duty to produce in this world of pressing material demands. Lucy Larcom grew up in New England in the 1830s and reflected:

> Penetrated through every fiber of thought was the idea that idleness is a disgrace. It was taught with the alphabet and the spelling-bee. It was enforced by precept and example, at home and abroad. It is to be confessed that it did sometimes haunt the childish imagination almost mercilessly (16, p. 596).

The doctrine of usefulness and the fear of idleness, along with the dream of success as a result of hard work, became the tenets of early American work values. It was commonly believed that a person could improve his lot through diligence, and that he could even possibly stand before kings. As previously mentioned, literature supported such a view for mass public consumption. America was the country of the "self-made man." Constant repetition in storybooks, guides to business, and magazine articles ingrained the idea into the American public. Hard work, self-contol and persistence were the keys to success. Through labor, a person could achieve the position deserved on the economic ladder (24, pp. 11-13).

The elements that made up this past view of work values focussed on individualism, industriousness, and asceticism. Industriousness was considered to be the most important of the three (36). Published writings concerning work values appeared in many disciplines. They were referred to as an explanation in a variety of social and psychological phenomena including the welfare system (27), cognitive dissonance effects (19), attitudes toward psychoanalysis (3), personality variables (21), and others. Such a multi-disciplinary approach offered insight into the intricacies of work values and served as a foundation for this current study.

Work Values Measurement Scales

Researchers have tried to remove some of the ambiguity surrounding the term work values by clearly identifying the difference between them and job satisfaction. Wollack, Goodale, Wijting, and Smith (36) emphasize that the concept should not be confused with the idea of an individual's job satisfaction.

Four measurement scales have been developed that focus on work values considered to be prominent in today's work environment. Three of the scales--the Survey of Work Values, Blood's Pro-Protestant Ethic Scale, and the Protestant Ethic Scale developed by Mirels and Garrett--were constructed using the Protestant ethic as the base, but each has been secularized and only Blood's is closely aligned with

Weber's view of the work ethic. The other two include variables that are considered important to today's business world and that are desirable in a workforce, even though they may not have been an emphasis in the past. The fourth, the Ohio Work Values Inventory, contained several of the elements common to the other three scales.

Blood's scale (5), developed in 1969, consisted of four statements that were in agreement with Weber's work ethic and four that were in disagreement. They are as follows.

1. When the work day is finished, a person should forget his job and enjoy himself.
2. Hard work makes a man a better person.
3. The principal purpose of a man's job is to provide him with the means for enjoying his free time.
4. Wasting time is as bad as wasting money.
5. Whenever possible, a person should relax and accept life as it is, rather than always striving for unreachable goals.
6. A good indication of a man's worth is how well he does his job.
7. If all other things are equal, it is better to have a job with a lot of responsibility.
8. People who do things the "easy way" are the smart ones.

A Likert scale of six agree/disagree responses was used to arrive at a score that represented the subject's work values. The scale has been criticized for its sex-biased language, and has not been adopted by other researchers.

The Protestant Ethic Scale (21), developed in 1971, contained nineteen items. These statements were as follows.

1. Most people spend too much time in unprofitable amusements.
2. Our society would have fewer problems if people had less leisure time.

3. Money acquired easily (e.g., through gambling or speculation) is usually spent unwisely.
4. There are few satisfactions equal to the realization that one has done his best at the job.
5. The most difficult college courses usually turn out to be the most rewarding.
6. Most people who don't succeed in life are just plain lazy.
7. The self-made man is likely to be more ethical than the man born to wealth.
8. I often feel I would be more successful if I sacrificed certain pleasures.
*9. People should have more leisure time to spend in relaxation.
10. Any man who is able and willing to work hard has a good chance of succeeding.
11. People who fail at a job have usually not tried hard enough.
12. Life would have very little meaning if we never had to suffer.
*13. Hard work offers little guarantee of success.
14. The credit card is a ticket to careless spending.
*15. Life would be more meaningful if we had more leisure time.
16. The man who can approach an unpleasant task with enthusiasm is the man who gets ahead.
17. If one works hard enough he is likely to make a good life for himself.
18. I feel uneasy when there is little work for me to do.
19. A distaste for hard work usually reflects a weakness of character.

*scoring reversed

The participant responses to this scale were also scored on a Likert scale of +3 to -3, excluding the zero.

The Ohio Work Values Inventory (12) was constructed in 1975 for use mainly with elementary school children. It was primarily used to gather information for career planning, and measured eleven work values: altruism, object orientation, security, control, self-realization, independence, money, task satisfaction, solitude, ideas/data, and

prestige. Because of its original purpose, the Ohio Work Values Inventory was not seriously considered for this study.

Also in 1971, the Survey of Work Values (SWV) was developed by Wollack, Goodale, Wijing and Smith (36). The original survey had seven dimensions: pride in work, job involvement, activity preference, attitude toward earnings, social status of the job, upward striving, and the responsibility to work. It was first tested on a group of fifty-eight employees of a glass-manufacturing company in the Midwest. The test included both exempt and non-exempt workers who represented all levels of skill. The original instrument had ninty-one statements. Those retained were submitted to two groups of undergraduates, one with fifty-six persons and the other with fifty-seven. Originally, a six point Likert scale was used for scoring.

Of the ninty-one items in the original survey, forty-five were retained. The responsiblity to work dimension was eliminated, and the definition of activity preference was revised. The old forty-five statements, plus thirteen revised statements for activity preference, and seventeen new statements were submitted to two groups of undergraduate students.

The present survey instrument has six subscales as follows: Social Status, Activity Preference, Upward Striving, Attitude Towards Earnings, Pride in Work and Job

Involvement. The participant responds to a five point Likert Scale ranging from strongly disagree to strongly agree. Each subscale includes nine items that are evaluated by survey participants.

Based on a review of the literature, the SWV is the most widely used scale today in the measurement of work values. It is regarded as a valid and reliable instrument, and had norms available to potential users. It measures the work values many companies are interested in today, and its thoroughness and ability to examine several dimensions of work values are why it was chosen for this study.

Current Work Values Research

Although developed historically, the concept of work values has become of interest to researchers only in the last thirty-five years. Of the research completed to date, the major portion has focused on school students of all ages, primarily at the secondary and university levels.

Work values research completed to date has taken several forms. The personal interview, on premise administering of a survey instrument, and a mailed survey have all been used to gather data. People using the personal interview (10; 30) have normally reported their findings in essay form. These studies have not sought to quantify their results for statistical analyses. Researchers involved in the establishment of norms for various populations have

typically used survey instruments (5; 21; 36). These studies were primarily descriptive. Zytowski, in a summary of work value research, noted that

> "... a striking similarity in the clustering of values is seen among persons of the same socio-economic level, the same sex, or of similar age, supporting the socialization or enculturation concept..." of work value acquisition (38, p. 180).

In today's complex world, it is almost impossible to formulate a "correct" definition of work. Although we know more about the nature of man, it is still often assumed that work is something that goes against the nature of man (23, p. 308). The work ethic itself is often defined today as a belief that reflects a "positive attitude about work" (6, p. 19). A common view of work today includes the "conviction that work is a worthwhile activity in its own right, not merely...the means to material comfort or wealth" (18, pp. 4-5).

Searches for reasons in the decline of productivity have caused a change in work values to become suspect. Some of the mentioned signs of decay have been referred to as progress in the past, such as the demand for a shorter work week and earlier retirement. Other signs include increased absenteeism, alcoholism and drug abuse, and reliance on unemployment compensation and welfare. In addition, the negative influence of television--an addiction to much of the general population--is rarely emphasized, and very little attention is paid to the growth of legalized gambling and

government-sponsored lotteries, which foster the "something for nothing" attitude, a direct contradiction to the traditional work ethic value. Further, corruption in high places, whether in government or in business, highlights attempted nonwork routes to wealth (29, p. 34).

Toffler, as well as others, recently asserted that the alleged decline in work values is due to the fact that most people work for others today, instead of for themselves as in the past. He points out that very often, the people who supposedly are unwilling to work hard on the job are often hard at work off the job repainting their house, working in political campaigns, helping collect for charities, and doing other numerous activities (32, p. 279). This observation would call into question the idea that people are avoiding work more today than ever before.

Evidence indicates that attitudes about work have changed, however. This has emerged from two areas: systematically recorded observations and autobiographically based observations (8; 26; 28; 30; 33; 35). Cooper et al. recently discovered that discontent among hourly and clerical employees seems to be increasing, but that most employees regard their pay favorably. Their overall conclusions in the study were that employees' values are changing and that dissatisfaction is increasing (7, pp. 117-18).

Daniel Yankelovich has been studying work values of people for a number of years. One of his studies showed

that only one in four Americans view work as a source of personal fulfillment. Only thirteen per cent believed their work was truly meaningful and more important than leisure. In another study, he discovered fifty-eight per cent of all Americans in the sixties believed that hard work would pay off in personal advancement; in 1978, only forty-three per cent believed this (13, pp. 32, 235). His research also showed that eighty-eight per cent of all Americans believe that it is important to work hard and do their best on the job. Seventy-eight per cent said they were motivated to do their best regardless of pay, and seventy-five per cent would work even if they could live comfortably without it for the rest of their lives (37, p. 102). His most recent study, entitled Putting the Work Ethic to Work, done for the Public Agenda Foundation, revealed that seventy-three per cent of American employees speak favorably of work and fifty-two per cent have an inner need to do the best job they can. Only twenty-three per cent of the participants said they actually did their best on the job, however (15, p. 9).

In a 1979 study, when given the following choices--I would not work, I would work parttime, I would work fulltime --people were asked the question, "If you had the choice, and money or other factors were not a problem, which would you prefer to do?" sixty-one per cent of the men indicated they would continue working fulltime, and only ten per cent

said they would not work at all; fourteen per cent of the women indicated they would not work at all, but forty-two per cent said they would continue working fulltime (13, p. 5). Evidence of the importance of nonwork to people is also telling. A University of Michigan study showed that sixty-two per cent of those surveyed said that their main satisfaction in life does not come from work, and that between thirty-five and sixty per cent of the participants wanted to spend less time working and more time with their families, even if it meant earning less money (22, pp. 239, 268). In another study, only twenty-one per cent of the participants said that work was more important than leisure (25, p. 23).

The haunting question for American managers remains then, "Is there less commitment to work on the job?" In a study involving one thousand executives, the participants were asked what was the major contributor to lower productivity. Forty-eight per cent said that worker attitudes were. One thousand people in the general population were also asked the same question in a telephone survey, and sixty-four per cent responded that workers are not as conscientious as they used to be (13, p. 11). In adddition, Andrisani's research has shown that one's view of work has definite labor market consequences. Male youths who believed that hard work led to greater success realized it to a greater extent than did their counterparts who perceived lower payoffs for their efforts. The same was true for

women and older workers (1, chapter 4). Becker and Hills also showed that teenagers who believed little payoff would come from hard work in 1968 had lower earnings and longer periods of unemployment seven years later than youths who perceived greater payoffs due to hard work (4, pp. 60-70).

The study of work values is of interest to many disciplines, but research of this topic in industrial settings is almost non-existent, and no norms have been established. Researchers (1; 4; 7; 10) have observed "general" shifts in work values expressed by students over time, but little has been done to actually assess the working population's view. As a result of this literature review, it was determined that the work values concept in the industrial environment was in need of considerably more empirical work. It was on this basis that the following research was done.

CHAPTER BIBLIOGRAPHY

1. Andrisani, Paul J., Work Attitudes and Labor Market Experience, New York, Praeger, 1978.

2. Andrisani, Paul J. and Herbert S. Parnes, "Commitment to the Work Ethic and Success in the Labor Market: A Review of Research Findings," Chapter 2, The Work Ethic--A Critical Analysis, edited by Jack Barbash, Robert J. Lampman, Sar A. Levitan and Gus Tyler, Bloomington, Illinois, Industrial Relations Research Association Series, 1983.

3. Bakan, D., On Method, San Francisco, Jossey-Bass, 1967.

4. Becker, Brian E. and Stephen M. Hill, "Teenage Unemployment : Some Evidence of the Long-run Effects on Wages," Journal of Human Resources, XV (Summer, 1980), 354-72.

5. Blood, Milton R., "Work Values and Job Satisfaction," Journal of Applied Psychology, LIII (1969), 456-59.

6. Cherrington, David L., The Work Ethic, New York, AMACOM, 1980.

7. Cooper, M. R., B. S. Morgan, P. M. Foley and L. B. Kaplan, "Changing Employee Values: Deepening Discontent?" Harvard Business Review (January-February, 1979), 117-125.

8. Fenn, Dan H., Jr., and Daniel Yankelovich, "Responding to the Employee Voice," Harvard Business Review (May-June, 1972), 83.

9. Fullerton, K., "Calvinism and Capitalism: an Explanation of the Weber Thesis," in Protestantism and Capitalism: the Weber Thesis and its Critics, R. W. Green, editor, Boston, D. C. Heath and Company, 1959.

10. Gottlieb, D., Youth and the Meaning of Work, Springfield, National Technical Information Service, 1972.

11. Green, Robert W., editor, Protestantism and Capitalism: the Weber Thesis and its Critics, Boston, D. C. Heath and Company, 1959.

12. Hales, L. W., and B. J. Fenner, "Measuring the Work Values of Children: The Ohio Work Values Inventory," Measuremment and Evaluation in Guidance, VIII (April, 1975), 20-25.

13. Hoffman, W. Michael and Thomas J. Wyly, editors, The Work Ethic in Business, Cambridge, Oelgeschlager, Gunn and Hain, Publishers, Inc., 1981.

14. Hughes, H. S., Conscious Society, New York, Vintage Press, 1958.

15. Ideas and Trends in Personnel, Commerce Clearing House, Inc., January 27, 1984.

16. Larcom, Lucy, "Among Lowell Mill-Girls: A Reminisence," Atlantic Monthly, XXXXVIII (1881), 596.

17. Lemisch, Jesse L., Benjamin Franklin: "The Autobiography" and Other Writings, New York, New American Library, 1961.

18. Lenski, Gerhard E., The Religious Factor: A Sociological Study of Religion's Impact on Politics, Economics and Family Life, New York, Doubleday, 1961.

19. Lewis, M., "Psychological Effect of Effort," Psychological Bulletin, LXIV (1965), 183-90.

20. Mills, C. Wright, White Collar, New York, Oxford University Press, 1956.

21. Mirels, H. L. and J. B. Garrett, "The Protestant Ethic as a Personality Variable," Journal of Consulting and Clinical Psychology, XXXVI (1971), 40-44.

22. Quinn, Robert P. and Graham L. Staines, The 1977 Quality of Employment Survey, Ann Arbor, Institute for Social Research, University of Michigan, 1977.

23. Riesman, David, The Lonely Crowd, New Haven, Yale University Press, 1950.

24. Rodgers, Daniel T., The Work Ethic in Industrial America, 1850-1920, Chicago, The University of Chicago Press, 1974.

25. Rosow, Jerome, "The Workplace: A Changing Scene," VocEd (February, 1979), 23.

26. Schrank, Robert, Ten Thousand Working Days, Cambridge, MIT Press, 1978.

27. Segalman, R., "The Protestant Ethic and Social Welfare," The Journal of Social Issues, XXIIII (1965), 336-60.

28. Sheppard, Herbert and Neal Herrick, Where Have All the Robots Gone? New York, Free Press, 1972.

29. Siegel, Irving H., "Work Ethic and Productivity," Chapter 6, The Work Ethic--A Critical Analysis, edited by Jack Barbash, Robert J. Lampman, Sar A. Levitan and Gus Tyler, Bloomington, Illinois, Industrial Relations Research Association Series, 1983.

30. Terkel, L., Working, New York, Pantheon Books, 1974.

31. Tilgher, Adriano, Work: What it has Meant to Men Through the Ages, New York, Harcourt, Brace and Company, 1930.

32. Toffler, Alvin, The Third Wave, New York, Bantam Books, 1980.

33. U. S. Department of Health, Education, and Welfare, Work in America: Report of a Special Task Force to the Secretary of Health, Education, and Welfare, Cambridge, MIT Press, 1973.

34. Weber, Max, The Protestant Ethic and the Spirit of Capitalism, London, George Allen and Unwin, LTD, 1930.

35. Widick, B. J., editor, Auto Work and Its Discontents, Baltimore, Johns Hopkins, 1976.

36. Wollack, Stephen, James G. Goodale, Jan P. Wijting and Patricia Cain Smith, "Development of the Survey of Work Values," Journal of Applied Psychology, LV (1971), 331-38.

37. Yankelovich, Daniel, "Does the American Work Ethic Work? Chicago Tribune, May 16, 1982.

38. Zytowski, D. G., "The Concept of Work Values," Vocational Guidance Quarterly, XVIII (1970), 176-86.

CHAPTER 3

THE DESIGN OF THE STUDY

This study was an empirical investigation of the work values of two selected groups of participants: 1. representatives from industry that included one high technology firm and two medical firms (one a non-profit hospital and the other a for profit medical conglomerate), and 2. upper-class students (juniors and seniors) from two universities because they will enter the workforce in the near future. The procedures used are listed under the categorical headings of 1. Population, 2. Sample, 3. Variables, 4. Instrument and 5. Analytic Methods.

Population

The population of the three firms participating in the study consisted of exempt and nonexempt workers with an emphasis in all three firms resulting in white collar positions because of the kind of industries represented. All the firms were located in the Dallas-Fort Worth Metroplex, each in a different suburb, with the medical conglomerate having three different locations in three different suburbs as well. The high technology firm had approximately 1600 fulltime employees and 320 were randomly selected to participate in the survey through an intra-company questionnaire

system that was introduced with a cover letter by the staff industrial psychologist. The non-profit hospital had approximately 800 fulltime employees and 160 were randomly chosen from three shifts to complete the questionnaire on company time on one day chosen by management. The medical conglomerate had approximately 800 employees also, as a combined total of its three locations, but only approximately 600 were fulltime. One hundred and twenty-four employees were randomly selected to participate in the survey administered by the author on company premises over three days covering all three shifts of each facility.

The students were surveyed at two different universities. Faculty at both universities were very generous with their class time and allowed the author to survey the following groups: students in psychology, education and business classes were surveyed at North Texas State University, a state supported school; and students in engineering were surveyed at Southern Methodist University, a private university. Both schools were also located in the Dallas-Fort Worth Metroplex, each in a separate suburb. These academic disciplines were chosen because it was felt that they represented potential employees for the average industrial setting (as opposed to writers or musicians who often work in small groups or alone in their occupations).

Sample

All of the participants in the industrial settings were selected on a random basis. Twenty per cent of the fulltime employees were identified as potential survey participants in each company by either the author or a company representative (this selection was double checked by the author). The university students were surveyed in total in the classes in which the author was allowed to administer the survey. The sample size was applied to a table for the F test of an analysis of variance based on a significance level (alpha) of .05 (1). On the basis of the above selection, it was estimated that at least ten per cent of the employees at all three firms would respond, and one hundred per cent of the students would respond since they were a captive audience.

Variables

The dependent variables were the work value means of each of the six Survey of Work Values subscales. The independent variables included age, educational level, area of study in college, ethnic group, sex, method of earnings (hourly, salary, etc.), skill level and job classification (exempt or nonexempt). These variables were selected because of their alleged influence on people's values. Each variable was recognizable to the subjects being studied and represented classifications common to an industrial and/or university environment.

Instrument

Selection of a suitable work values measurement instrument was based on identifying an instrument that exhibited the following characteristics.

1. The measurement scales would be based on work values alone.
2. Its statements would be free from implied religiosity and sex bias in order to reduce the sample bias and be in compliance with modern views of work.
3. It would possess confirmed scale and item validity and reliability to maximize the study's validity.
4. It could be used with a Likert response scale to simplify scoring.

The instrument fulfilling all of these criteria was the Survey of Work Values (SWV). (Appendix I)

Based on common construct validity criteria (3), the SWV has been accepted by researchers as reliable and valid. Upon its initial refinement, the SWV demonstrated that the six subscales were discriminately different from each other and that they measured what they purported to measure. The SWV scales significantly differentiated between occupational groups and correlated well with background variables that were related to other measures of work values (5).

The SWV scale categories are organized into six subscales, each consisting of nine itemized statements. The categories are defined as follows:

> Social Status-the effect the job alone has on a person's standing among friends, relatives and coworkers, in his or her own eyes and/or in the eyes of others;

Activity Preference-a preference to keep oneself active and busy on the job;
Upward Striving-the desire to seek continually a higher level job and a better standard of living;
Attitude Towards Earnings-the value an individual places on making money on the job;
Pride in Work-the satisfaction and enjoyment a person feels from doing a job well;
Job Involvement-the degree to which a worker takes an active interest in coworkers and company functions, and desires to contribute to job-related decisions. (5, p. 332)

The SWV was originally worded in the masculine gender. This occurred as a result of the influence of traditional literature which emphasized masculine work. Revisions of the original wording occurred as a result of objections raised by SWV respondents. The new form correlates highly with the old one and the two are nearly identical. No ambiguity in the item statements on the new form has been detected (4).

An attachment to the instrument was designed to collect demographic and employment data from each participant. (Appendix II) These data included the age, educational level achieved, area of study in college, ethnic group, sex, how one was paid if working, skill level and job classification of each respondent.

The survey instrument was administered directly to all classes at both universities and to both the participating medical facilities by the author. It was mailed, along with a cover letter drafted by the company's staff industrial psychologist, to the sample population (N=320) randomly

selected in the high technology firm. No follow-up was necessary for the mailout since 150 respondent answer sheets (46.3%) were returned to the staff industrial psychologist, and picked up afterwards by the author. All data collection for the survey occurred in the Spring of 1984.

Analytic Methods

To answer the questions addressed by the study, the author identified the respondent's work values by determining the mean of each group, which was then used to convert the SWV subscale data into a form that allowed initial reporting and future analysis of the scale scores. The mean scale scores are presented in tabular form in the next chapter. In addition, the null hypotheses were tested to determine if there was a statistically significant difference in the categories on the basis of age, educational level, college studies, ethnic group, sex, the way one's earnings were paid, skill level or job classification. A one-way analysis of variance using the F statistic was performed for each of the independent variables. This was utilized to compare each independent variable with the grand mean and to identify means that demonstrated a statistically significant difference at the .05 level. This provided the required data to reject or retain the null hypotheses.

The analysis of variance was achieved by using the Statistical Package for the Social Sciences-x (SPSSx). (2) The

SPSSx program used to perform the analysis of the data was executed at the Computing Center located at North Texas State University in Denton, Texas.

In order to identify the influence of the independent variables individually on the work value means, a multiple regression was performed on each SWV subscale. An SPSSx program also was used to perform the test. It incorporated all eight variables in the order that they influenced the one-way analysis of variance from those that exhibited the greatest number of occurrences of significance to the least number exhibited.

CHAPTER BIBLIOGRAPHY

1. Dayton, C. Mitchell, The Design of Educational Experiments, New York, McGraw-Hill, Inc., 1970.

2. Nie, Norman H., SPSSx User's Guide, New York, McGraw-Hill, Inc., 1983.

3. Nunnally, J. C., Psychometric Theory, New York, McGraw-Hill, Inc., 1967.

4. Smith, Patricia Cain, Letter to prospective users of the Survey of Work Values, March, 1980.

5. Wollack, Stephen, James G. Goodale, Jan P. Wijting and Patricia Cain Smith, "Development of the Survey of Work Values," Journal of Applied Psychology, LV (1971), 331-38.

CHAPTER 4

FINDINGS

The findings of the study are presented in five sections. Section I summarizes the responses to the survey instrument, and the response patterns according to each subgroup: university students, medical participants, high-technology participants and total industry participants. Section II describes the Survey of Work Values (SWV) means and standard deviations for the university students only. Student norms for the SWV are provided for comparison, but no such norms exist for industry at present. In addition, the participating student means are compared with those of the industrial participants. Section III describes the results of the analysis of variance. Section IV reveals the results of the regression analyses, and Section V summarizes the findings.

Survey Response

All of the respondent data for the survey was gathered between March and May of 1984. Two universities participated in the study, representing chiefly four academic disciplines: business, engineering, education and psychology. A total of 130 students responded, with all of the students present in class on the day the survey was administered

participating. One hundred and twenty-seven of the answer sheets were usable. The first participant company to give permission for the study was a non-profit hospital in a suburb of Dallas. It had approximately 800 employees, of whom 160 were randomly selected to participate in the survey. Management agreed to the author's administering the survey on company time, on a Wednesday (believed to be the lightest work day of the week), and that all three shifts were to be surveyed on one day. The survey efforts took place from 5 AM to 6 PM on the day in question. Of the 160 randomly selected employees, 95 (59.4%) individuals actually participated in the survey (some selected were not scheduled to work on the day of the survey, others were absent due to illness or other reasons, some were involved in emergencies, etc.) representing 11.9% of the total employee population. All of the answer sheets were usable.

The second respondent firm was a large high technology firm in another suburb of Dallas. The firm employs all kinds of personnel: managers, engineers, secretaries, assemblers, technicians, etc. Six hundred of the 2200 employees worked in the manufacturing department and they were the only bargaining unit employees potentially in the survey. The company's management gave its approval to survey a random group of the entire population, but it reserved the right to withdraw the unionized workers if the Labor Relations Department did not approve. This firm has a number

of government contracts and has to account for all of its time as such. It felt that it could not justify charging taxpayers ten to fifteen minutes of time for its employees to fill out the survey, so it was requested that the study be sent through the company mail to each person randomly selected, with a cover letter introducing the project signed by the staff Industrial Psychologist. Management estimated a fifty per cent return rate (although the author was not keen on the idea of a mail survey, because other research indicates a considerably lower response rate).

The company printed its cover letter at its own expense and the author printed 440 surveys in anticipation of the number of employees to be randomly selected. The author agreed to assemble the cover letters, surveys and answer sheets for management and to address the envelopes to the survey participants. In return, the Industrial Psychologist would gather all the surveys and the author would pick them up fifteen days after the initial mailing. On the day of the assembling, the author was told that the Industrial Relations Department preferred to not include the bargaining unit in the study. This had two implications for the study: no unionized employees would participate, and the total population from which to draw the random selection was reduced to 1600 employees. Three hundred and twenty were randomly selected and 150 (46.9%) responded, which represented 9.4%

of the total population. Five of the answer sheets were not usable.

The third company agreeing to participate in the study was a for profit medical conglomerate. It consisted of three divisions in three different suburbs of the Dallas-Fort Worth Metropolitan area. All of the divisions granted permission to do the study on company premises on company time. Two divisions had the author survey two shifts and the third had the author collect data from three shifts on one day from 6 AM to 5 PM. Although the total employee population consisted of 800 people, approximately 200 of those were considered parttime and often worked weekends only, so it was decided that they would not be a part of the survey population. One hundred and twenty employees were randomly selected to participate in the survey. Ninty-six (80.0%) did actually participate, representing 16.0% of the remaining 600 person population.

Each of the four respondent groups produced diffferent percentages, representing each subgroup defined by the independent variables, as would be expected. These percentage breakdowns are displayed in Table 1.

Survey of Work Values : Subscale Means and Norms

Based on the data generated by the survey instrument, the work value means and standard deviations were calculated for the six subscale categories of the SWV for each

TABLE 1

Percentage Responses by Subgroup Within Each Participant Group

Group	Non-Prof Hospital	Medical Conglo.	High Tech Company	Univer. Students
Age				
18-29	42.1%	48.9%	13.1%	84.9%
30-39	31.6%	23.4%	33.1%	11.9%
40-49	14.7%	20.2%	31.7%	2.4%
50-59	9.5%	6.4%	21.4%	0.8%
60-70	2.1%	1.1%	0.7%	0.0%
Education Level				
No HS Degree	9.5%	7.5%	0.0%	0.0%
HS Degree	34.7%	40.4%	23.6%	1.6%
2 Years of Col.	31.6%	28.7%	30.5%	77.4%
Bachelors Deg.	14.7%	12.8%	18.1%	18.6%
Some Grad. Work	9.5%	10.6%	27.8%	2.4%
College Major				
Education	8.8%	18.6%	4.9%	15.3%
Liberal Arts	3.5%	10.2%	5.7%	8.9%
Engineering	5.3%	6.8%	39.8%	19.4%
Business	15.8%	15.3%	38.2%	38.7%
Other	66.1%	49.1%	11.4%	17.7%
Race				
Black	10.6%	13.9%	4.9%	6.4%
Oriental	4.3%	0.0%	1.4%	3.2%
White	78.7%	81.9%	88.9%	82.4%
Hispanic	6.4%	2.1%	3.4%	4.0%
Other	0.0%	2.1%	1.4%	4.0%
Sex				
Female	88.0%	88.2%	37.8%	45.5%
Male	12.0%	11.8%	62.2%	54.5%
Pay Method				
Hourly	85.6%	82.6%	34.0%	75.7%
Salary	10.0%	15.2%	65.3%	11.5%
Sal & Bon/Comm	4.4%	2.2%	0.7%	7.7%
Commission Only	0.0%	0.0%	0.0%	5.1%
Skill Level				
Unskilled	6.6%	9.9%	2.8%	24.7%
Semi-skilled	47.3%	62.6%	55.7%	57.1%
Skilled	46.1%	27.5%	41.5%	18.2%

TABLE 1-Continued

Group	Non-Prof Hospital	Medical Conglo.	High Tech Company	Univer. Students
Job Classification				
Exempt	17.8%	28.0%	65.5%	31.1%
Nonexempt	82.2%	72.0%	34.5%	68.9%

participant group. The subscale categories for the SWV are Social Status (SS), Activity Preference (AP), Upward Striving (US), Attidude Towards Earnings (AE), Pride in Work (PW) and Job Involvement (JI).

Table 2 is a list of the SWV means and standard deviations for the university participants in this study as compared to the available student norms which have been established by research conducted at Bowling Green State University (1). Student participants exhibited relatively lower means for SWV subscales AP, AE, PW and JI, while showing

TABLE 2

SWV Means & Standard Deviations for the Survey Student Population as Compared to Established Norms

	SWV Subscales					
	SS	AP	US	AE	PW	JI
Survey Parti.	24.55	34.42	31.07	23.99	37.14	34.27
Stan. Devi.	5.13	6.24	4.69	4.78	7.93	6.20
Norms	24.18	36.00	30.26	24.05	39.21	35.84
Stan. Devi.	4.67	4.70	4.90	4.67	4.68	5.03
Diff. Between Students in Study & Established Norms	+0.37	-1.58	+0.81	-0.06	-2.07	-1.57

relatively higher means for SWV subscales SS and US. However, in light of a forty-five point potential spread representing the Likert scale extremes, these are relatively small differences.

Results of the Analysis of Variance

The first major emphasis of the study was to determine which, if any, SWV means were statistically significant as a result of a relationship with the independent variables. The following hypothesis was tested for each independent variable for each of the SWV subscales:

> There is no statistically significant difference among the work ethic value means of the respondents as categorized by the variables age, educational level, college major, ethnic group, sex, pay method, skill level or job classification.

To test this hypothesis, a one-way analysis of variance was conducted. The results of the analysis of variance are presented in tabular form, with each table providing the respondent subgroup population, SWV mean, standard deviation, F value and significance level for one SWV subscale. Significance was tested at the .05 level and statistically significant differences that resulted in a rejection of the null hypothesis are highlighted. Subgroups that represented a natural hierarchy (age, education level and skill level) had the significance tested as an entire group. Those not in a natural hierarchy (college major, for example) had a

significance level calculated for each separate category in the subgroup.

Social Status

Table 3 displays the respondent data for the SWV subscale Social Status. Thirteen of the means were statistically significant. Eight of the means were greater than or equal to their total group means. Participating groups exhibiting this characteristic included 'All the Companies' based on age, men in 'All the Companies,' the medical companies based on age, blacks in the medical companies, other races and men in the high technology firm, and salaried employees and exempts in the high technology firm. Five respondent groups displayed means lower than their total group mean. These included women in 'All the Companies,' women and nonexempts in the high technology firm, hourly paid employees in the high technology firm, and students paid on a commission basis. The null hypothesis was rejected for each of these thirteen statistically significant means.

Activity Preference

Table 4 displays the respondent data for the SWV subscale Activity Preference. Twenty-three of the means were statistically significant. Thirteen of the means were greater than or equal to their total group means. Participating groups exhibiting this characteristic included "All the Companies' based on age, Business majors and whites in

TABLE 3

Results for the SWV Subscale Social Status

Independent Variable	N	$\bar{X}$	SD	F	sig. level
All Companies	328	22.40	5.64		
Age	328	22.40	5.64	3.64	.01*
18-29	104	23.57	6.22		
30-39	99	21.73	4.89		
40-49	77	21.26	5.17		
50-59	44	22.55	5.70		
60-70	4	28.75	8.06		
Education Level	327	22.39	5.64	1.26	.29
No HS Degree	15	24.60	6.16		
HS Degree	104	21.76	5.85		
2 Years of College	98	22.51	5.72		
Bachelors Degree	51	21.92	4.73		
Some Graduate Work	59	23.14	5.68		
College Major	234	22.70	5.53		
Education	21	23.14	4.33	.15	.70
Liberal Arts	15	24.60	3.25	1.90	.17
Engineering	56	22.21	5.64	.57	.45
Business	64	23.19	5.78	.68	.41
Other	78	22.17	5.85	1.09	.30
Race	328	22.40	5.64		
Black	29	24.10	5.98	2.92	.09
Oriental	6	25.50	5.09	1.85	.17
White	276	22.14	5.64	3.78	.05
Hispanic	13	21.08	3.86	.74	.39
Other	4	27.75	4.03	3.67	.06
Sex	323	22.38	5.67		
Female	214	21.77	5.76	7.68	.01*
Male	109	23.60	5.30	7.68	.01*
Pay Method	321	22.46	5.65		
Hourly	198	22.15	5.87	1.59	.21
Salary	116	22.88	5.35	.98	.32
Salary & Bonus/Comm	7	24.42	3.60	.87	.35
Commission Only	0	-	-	-	-
Skill Level	320	22.43	5.67	2.50	.08
Unskilled	19	25.21	6.27		
Semi-skilled	178	22.17	5.70		
Skilled	123	22.38	5.45		

TABLE 3-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Job Classification	323	22.45	5.65		
Exempt	134	23.11	5.52	3.15	.08
Nonexempt	189	21.98	5.70	3.15	.08
Medical Companies	184	22.62	5.67		
Age	184	22.62	5.67	4.86	.00*
18-29	85	23.91	6.28		
30-39	51	21.59	4.73		
40-49	32	20.72	3.86		
50-59	13	20.92	4.96		
60-70	3	31.33	7.57		
Education Level	184	22.64	5.67	1.05	.38
No HS Degree	15	24.60	6.16		
HS Degree	70	22.27	5.66		
2 Years of College	55	23.22	5.71		
Bachelors Degree	25	21.24	5.00		
Some Graduate Work	19	22.58	6.01		
College Major	112	22.73	5.72		
Education	15	22.40	4.44	.06	.81
Liberal Arts	8	23.75	3.15	.27	.60
Engineering	7	21.29	4.11	.48	.49
Business	18	23.83	6.94	.79	.38
Other	68	22.53	6.07	.18	.70
Race	184	22.62	5.67		
Black	22	24.86	6.21	3.96	.05*
Oriental	4	24.75	6.18	.57	.45
White	148	22.24	5.67	3.48	.06
Hispanic	8	22.00	3.02	.10	.75
Other	2	24.50	2.12	.22	.64
Sex	181	22.62	5.70		
Female	160	22.44	5.71	1.30	.26
Male	21	23.95	5.53	1.30	.26
Pay Method	178	22.76	5.67		
Hourly	149	22.81	5.81	.05	.83
Salary	23	21.78	5.19	.79	.38
Salary & Bonus/Comm	6	25.50	2.43	1.46	.23
Commission Only	0	-	-	-	-

TABLE 3-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Skill Level	179	22.74	5.67	2.59	.08
Unskilled	15	25.60	6.86		
Semi-skilled	99	22.82	5.71		
Skilled	65	21.95	5.16		
Job Classification	179	22.73	5.68		
Exempt	40	23.00	5.94	.12	.73
Nonexempt	139	22.65	5.62	.12	.73
High Tech Company	144	22.11	5.61		
Age	144	22.11	5.61	.41	.80
18-29	19	22.05	5.86		
30-39	48	21.86	5.10		
40-49	45	21.64	5.94		
50-59	31	23.23	5.93		
60-70	1	21.00	-		
Education Level	143	22.07	5.61	1.61	.19
No HS Degree	0	-	-		
HS Degree	34	20.71	6.17		
2 Years of College	43	21.60	5.68		
Bachelors Degree	26	22.58	4.45		
Some Graduate Work	40	23.40	5.57		
College Major	122	22.67	5.36		
Education	6	25.00	3.74	1.19	.28
Liberal Arts	7	25.57	3.31	2.19	.14
Engineering	49	22.35	5.84	.30	.59
Business	46	22.93	5.32	.18	.68
Other	14	20.50	4.52	2.63	.11
Race	144	22.11	5.61		
Black	7	21.71	4.79	.04	.85
Oriental	2	27.00	2.83	1.55	.22
White	128	22.02	5.62	.33	.57
Hispanic	5	19.60	4.93	1.04	.31
Other	2	31.00	1.41	5.24	.02*
Sex	142	22.08	5.64		
Female	54	19.76	5.49	6.41	.00*
Male	88	23.51	5.28	6.41	.00*

TABLE 3-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Pay Method	143	22.09	5.62		
Hourly	49	20.16	5.63	9.27	.00*
Salary	93	23.15	5.34	10.04	.00*
Salary & Bonus/Comm	1	18.00	-	.53	.47
Commission Only	0	-	-	-	-
Skill Level	141	22.05	5.65	1.36	.26
Uskilled	4	23.75	3.59		
Semi-skilled	79	21.37	5.61		
Skilled	58	22.86	5.76		
Job Classification	144	22.11	5.61		
Exempt	94	23.16	5.39	10.06	.00*
Nonexempt	50	20.14	5.54	10.66	.00*
University Students	125	24.55	5.13		
Age	125	24.55	5.13	.44	.73
18-29	106	24.73	5.08		
30-39	15	23.73	5.98		
40-49	3	22.00	3.46		
50-59	1	26.00	-		
60-70	0	-	-		
Education Level	124	24.54	5.15	.08	.97
No HS Degree	0	-	-		
HS Degree	2	25.50	4.95		
2 Years of College	95	24.43	5.10		
Bachelors Degree	24	24.92	5.65		
Some Graduate Work	3	24.33	4.93		
College Major	123	24.49	5.15		
Education	19	25.11	5.01	.32	.57
Liberal Arts	11	22.27	4.90	2.26	.14
Engineering	23	25.65	4.97	1.45	.23
Business	48	24.85	5.51	.40	.53
Other	22	23.05	4.50	2.12	.15
Race	124	24.54	5.15		
Black	8	23.00	4.04	.76	.38
Oriental	4	24.50	8.06	.00	.99
White	102	24.61	5.18	.10	.75
Hispanic	5	24.20	5.07	.02	.88
Other	5	26.00	5.34	.42	.52

TABLE 3-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Sex	122	24.50	5.13		
Female	56	23.93	5.59	1.29	.26
Male	66	24.98	4.68	1.29	.26
Pay Method	77	24.19	4.87		
Hourly	58	24.52	4.29	1.03	.31
Salary	9	24.44	5.10	.03	.87
Salary & Bonus/Comm	6	24.00	6.32	.01	.92
Commission Only	4	19.25	8.96	4.55	.04
Skill Level	76	24.17	4.90	.50	.61
Unskilled	19	24.79	5.07		
Semi-skilled	43	24.26	5.00		
Skilled	14	23.07	4.48		
Job Classification	73	24.04	4.95		
Exempt	23	24.00	6.35	.00	.96
Nonexempt	50	24.06	4.23	.00	.96

*p less than .05, null hypothesis is rejected

'All the Companies,' salaried employees in 'All the Companies,' all levels of skill and exempts in 'All the Companies,' the medical companies based on age, all educational levels in the medical companies, whites and women in the medical companies, all levels of skill in the medical companies, all educational levels among the college students, and among white students. Ten respondent groups displayed means significantly lower than their total group mean. These included all educational levels of 'All the Companies,' other college majors in 'All the Companies,' blacks and Orientals in 'All the Companies,' hourly and nonexempt employees in 'All the Companies,' Orientals and males in the medical companies, blacks in the high technology companies, and Oriental college students. The null hypothesis was rejected for each of the twenty-three statistically significant means.

Upward Striving

Table 5 displays the respondent data for the SWV subscale Upward Striving. Six of the means were statistically significant. Two of the means were greater than or equal to their total group means. Participating groups exhibiting this characteristic included men in 'All the Companies' and men in the medical companies. Four respondent groups displayed means significantly lower than their total group mean. These included all educational levels and another

TABLE 4

Results for the SWV Subscale Activity Preference

Independent Variable	N	$\bar{X}$	SD	F	sig. level
All Companies	329	38.02	5.48		
Age	329	38.05	5.47	6.15	.00*
18-29	103	36.28	7.17		
30-39	100	38.35	4.02		
40-49	78	39.49	3.85		
50-59	44	39.45	4.01		
60-70	4	32.75	12.12		
Education Level	328	38.01	5.49	5.00	.00*
No HS Degree	16	33.00	7.40		
HS Degree	101	38.53	5.80		
2 Years of College	100	37.27	5.52		
Bachelors Degree	52	38.87	4.62		
Some Graduate Work	59	38.97	4.17		
College Major	238	37.86	5.41		
Education	22	38.27	4.52	.14	.71
Liberal Arts	15	36.73	7.31	.69	.41
Engineering	56	38.50	4.48	1.04	.31
Business	64	39.14	4.33	5.02	.03*
Other	81	36.49	6.28	8.04	.01*
Race	329	38.02	5.48		
Black	29	35.14	6.61	9.19	.00*
Oriental	6	33.67	9.33	3.94	.05*
White	278	38.47	5.16	10.98	.00*
Hispanic	12	38.50	5.20	.09	.77
Other	4	35.00	4.69	1.25	.26
Sex	324	38.15	5.39		
Female	213	37.93	5.84	1.05	.31
Male	111	38.58	4.38	1.05	.31
Pay Method	323	38.12	5.42		
Hourly	200	37.38	5.89	10.24	.00*
Salary	116	39.53	4.04	12.62	.00*
Salary & Bonus/Comm	7	36.14	7.01	1.01	.32
Commission Only	0	-	-	-	-
Skill Level	327	38.05	5.43	5.81	.00*
Unskilled	19	34.16	7.65		
Semi-skilled	177	38.04	5.61		
Skilled	125	38.66	4.53		

TABLE 4-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Job Classification	324	38.13	5.37		
Exempt	135	39.12	4.74	7.95	.01*
Nonexempt	189	37.43	5.69	7.95	.01*
Medical Companies	186	37.08	6.10		
Age	186	37.08	6.10	3.58	.01*
18-29	84	35.74	7.39		
30-39	52	37.96	3.70		
40-49	32	38.84	3.82		
50-59	15	39.13	5.01		
60-70	3	30.00	13.23		
Education Level	186	37.08	6.10	4.67	.00*
No HS Degree	16	33.00	7.40		
HS Degree	69	37.99	6.26		
2 Years of College	56	35.38	6.14		
Bachelors Degree	26	38.85	4.07		
Some Graduate Work	19	39.21	4.22		
College Major	115	36.36	6.28		
Education	16	38.38	5.14	1.94	.17
Liberal Arts	8	35.50	8.26	.16	.69
Engineering	7	32.71	7.43	2.54	.11
Business	17	38.29	3.57	1.92	.17
Other	67	35.87	6.56	.98	.32
Race	186	37.08	6.10		
Black	22	34.86	7.33	3.27	.07
Oriental	4	30.50	9.95	4.80	.03*
White	151	37.60	5.69	6.23	.01*
Hispanic	7	37.00	6.43	.00	.98
Other	2	34.50	7.78	.35	.55
Sex	183	37.22	5.98		
Female	161	37.56	6.02	4.27	.04*
Male	22	34.77	5.16	4.27	.04*
Pay Method	181	37.17	6.04		
Hourly	152	36.99	6.12	.77	.38
Salary	23	38.70	5.09	1.70	.19
Salary & Bonus/Comm	6	35.67	7.55	.42	.52
Commission Only	0	-	-	-	-

TABLE 4-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Skill Level	181	37.09	6.06	3.18	.04*
Unskilled	15	33.93	7.19		
Semi-skilled	99	36.86	6.35		
Skilled	67	38.13	5.08		
Job Classification	181	37.19	5.99		
Exempt	40	37.75	6.44	.44	.51
Nonexempt	141	37.04	5.88	.44	.51
High Tech Company	143	39.32	4.20		
Age	143	39.32	4.20	.63	.64
18-29	19	38.68	5.60		
30-39	48	38.77	4.35		
40-49	46	39.93	3.85		
50-59	29	39.62	3.47		
60-70	1	41.00	-		
Education Level	142	39.31	4.21	.46	.71
No HS Degree	0	-	-		
HS Degree	32	39.72	4.50		
2 Years of College	44	39.68	3.36		
Bachelors Degree	26	38.88	5.20		
Some Graduate Work	40	38.85	4.19		
College Major	123	39.26	3.98		
Education	6	38.00	2.53	.63	.43
Liberal Arts	7	38.14	6.39	.58	.45
Engineering	49	39.33	3.25	.02	.88
Business	47	39.45	4.58	.17	.68
Other	14	39.50	3.57	.06	.81
Race	143	39.32	4.20		
Black	7	36.00	3.83	4.73	.03*
Oriental	2	40.00	4.24	.05	.82
White	127	39.50	4.23	2.16	.14
Hispanic	5	40.60	1.67	.48	.49
Other	2	35.50	2.12	1.69	.20
Sex	141	39.35	4.22		
Female	52	39.08	5.11	.36	.55
Male	89	39.52	3.62	.36	.55

TABLE 4-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Pay Method	142	39.34	4.21		
Hourly	48	38.58	4.99	2.36	.13
Salary	93	39.73	3.73	2.38	.13
Salary & Bonus/Comm	1	39.00	-	.01	.94
Commission Only	0	-	-	-	-
Skill Level	140	39.29	4.22	2.24	.11
Unskilled	4	35.00	10.46		
Semi-skilled	78	39.54	4.05		
Skilled	58	39.26	3.76		
Job Classification	143	39.32	4.20		
Exempt	95	39.69	3.70	2.26	.14
Nonexempt	48	38.58	4.99	2.26	.14
University Students	125	34.42	6.24		
Age	125	34.42	6.24	.31	.82
18-29	106	34.64	5.93		
30-39	15	33.20	8.11		
40-49	3	32.67	9.61		
50-59	1	34.00	-		
60-70	0	-	-		
Education Level	124	34.46	6.25	3.38	.02*
No HS Degree	0	-	-		
HS Degree	2	21.00	14.14		
2 Years of College	96	34.73	5.87		
Bachelors Degree	23	34.65	6.56		
Some Graduate Work	3	33.33	2.52		
College Major	124	34.47	6.24		
Education	19	34.16	7.45	.06	.82
Liberal Arts	11	37.09	5.12	2.15	.14
Engineering	24	34.50	7.52	.00	.98
Business	48	33.75	5.58	1.04	.31
Other	22	34.95	5.30	.16	.69
Race	124	34.46	6.25		
Black	7	31.14	7.10	2.11	.15
Oriental	4	25.75	12.31	8.52	.00*
White	103	35.09	5.76	6.41	.01*
Hispanic	5	33.80	5.76	.06	.81
Other	5	33.80	4.97	.06	.81

TABLE 4-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Sex	122	34.39	6.31		
Female	55	35.40	6.24	2.63	.11
Male	67	33.55	6.28	2.63	.11
Pay Method	78	33.86	6.10		
Hourly	59	33.66	6.05	.25	.62
Salary	9	36.33	4.80	1.69	.20
Salary & Bonus/Comm	6	34.67	6.53	.11	.74
Commission Only	4	30.00	8.76	1.70	.20
Skill Level	77	33.86	6.14	2.28	.11
Unskilled	19	34.11	5.91		
Semi-skilled	44	34.73	5.80		
Skilled	14	30.79	6.95		
Job Classification	74	33.93	6.24		
Exempt	23	35.30	6.00	1.63	.21
Nonexempt	51	33.31	6.30	1.63	.21

*p less than .05, null hypothesis rejected

TABLE 5

Results for the SWV Subscale Upward Striving

Independent Variable	N	$\bar{X}$	SD	F	sig. level
All Companies	325	31.96	5.23		
Age	325	31.96	5.23	1.85	.12
18-29	103	31.65	5.43		
30-39	100	32.16	5.51		
40-49	73	32.55	4.60		
50-59	46	31.78	4.94		
60-70	3	24.67	3.79		
Education Level	323	31.90	5.18	2.85	.02*
No HS Degree	12	27.17	4.35		
HS Degree	101	32.27	5.06		
2 Years of College	99	31.77	5.01		
Bachelors Degree	52	31.96	6.03		
Some Graduate Work	59	32.39	4.64		
College Major	235	32.12	5.07		
Education	22	33.05	5.54	.80	.37
Liberal Arts	15	31.33	7.16	.39	.53
Engineering	54	32.26	4.70	.05	.82
Business	65	33.03	4.68	2.91	.09
Other	79	31.18	4.96	4.21	.04*
Race	324	31.96	5.23		
Black	27	32.30	7.30	.01	.74
Oriental	6	30.17	3.31	.74	.39
White	276	31.94	5.03	.13	.72
Hispanic	12	32.00	5.19	.00	.99
Other	3	36.67	4.93	2.44	.12
Sex	320	32.02	5.23		
Female	211	31.36	5.23	10.25	.00*
Male	109	33.30	5.01	10.25	.00*
Pay Method	319	32.04	5.20		
Hourly	194	31.79	5.37	1.09	.30
Salary	118	32.56	4.88	1.89	.17
Salary & Bonus/Comm	7	30.00	5.16	1.15	.29
Commission Only	0	-	-	-	-
Skill Level	317	31.98	5.25	1.38	.25
Unskilled	15	30.33	7.81		
Semi-skilled	176	31.78	5.19		
Skilled	126	32.45	4.96		

TABLE 5-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Job Classification	319	32.04	5.18		
Exempt	137	32.38	4.76	1.03	.31
Nonexempt	182	31.79	5.48	1.03	.31
Medical Companies	182	31.16	5.27		
Age	182	31.16	5.27	1.41	.23
18-29	84	31.18	5.32		
30-39	52	31.38	5.75		
40-49	29	31.41	4.79		
50-59	15	31.00	3.70		
60-70	2	22.50	.71		
Education Level	181	31.12	5.24	1.92	.11
No HS Degree	12	27.17	4.35		
HS Degree	68	31.37	5.19		
2 Years of College	56	31.61	5.17		
Bachelors Degree	26	31.31	5.65		
Some Graduate Work	19	31.00	5.06		
College Major	114	31.54	5.16		
Education	16	33.50	5.20	2.74	.10
Liberal Arts	8	29.88	8.68	.90	.35
Engineering	6	31.83	4.17	.02	.89
Business	18	33.17	3.65	2.16	.14
Other	66	31.54	5.16	3.35	.07
Race	181	31.19	5.27		
Black	20	31.10	7.78	.01	.93
Oriental	4	29.00	2.16	.71	.40
White	149	31.26	4.87	.12	.74
Hispanic	7	30.14	6.07	.29	.59
Other	1	40.00	-	2.84	.09
Sex	179	31.25	5.26		
Female	158	30.91	5.24	5.81	.02*
Male	21	33.81	4.75	5.81	.02*
Pay Method	177	31.26	5.21		
Hourly	147	31.31	5.36	.07	.79
Salary	24	31.38	4.23	.01	.91
Salary & Bonus/Comm	6	29.67	5.57	.63	.43
Commission Only	0	-	-	-	-

TABLE 5-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Skill level	177	31.17	5.30	1.35	.24
Unskilled	11	30.09	8.86		
Semi-skilled	99	30.88	5.16		
Skilled	67	31.78	4.78		
Job Classification	176	31.28	5.20		
Exempt	42	31.36	4.04	.01	.91
Nonexempt	134	31.25	5.53	.01	.91
High Tech Company	143	32.98	5.02		
Age	143	32.98	5.02	.51	.73
18-29	19	33.74	5.58		
30-39	48	33.00	5.17		
40-49	44	33.30	4.37		
50-59	31	32.16	5.46		
60-70	1	29.00	-		
Education Level	142	32.89	4.94	1.22	.30
No HS Degree	0	-	-		
HS Degree	33	34.12	4.31		
2 Years of College	43	31.98	4.85		
Bachelors Degree	26	32.62	6.43		
Some Graduate Work	40	33.05	4.34		
College Major	121	32.68	4.93		
Education	6	31.83	6.74	.18	.67
Liberal Arts	7	33.00	5.07	.03	.86
Engineering	48	32.31	4.80	.43	.51
Business	47	32.98	5.05	.28	.59
Other	13	33.15	4.71	.14	.71
Race	143	32.98	5.02		
Black	7	35.71	4.54	2.20	.14
Oriental	2	32.50	4.95	.02	.89
White	127	32.74	5.12	2.60	.11
Hispanic	5	34.60	2.07	.54	.46
Other	2	35.00	5.66	.33	.57
Sex	141	33.00	5.05		
Female	53	32.70	5.02	.30	.58
Male	88	33.18	5.08	.30	.58

TABLE 5-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Pay Method	142	33.01	5.03		
Hourly	47	33.32	5.17	.27	.60
Salary	94	32.86	5.01	.23	.63
Salary & Bonus/Comm	1	32.00	-	.04	.84
Commission Only	0	-	-	-	-
Skill Level	140	33.00	5.02	.38	.69
Unskilled	4	31.00	4.69		
Semi-skilled	77	32.94	5.03		
Skilled	59	33.22	5.09		
Job Classification	143	32.98	5.02		
Exempt	95	32.83	4.99	.24	.62
Nonexempt	48	33.27	5.12	.24	.62
University Students	126	31.07	4.69		
Age	126	31.07	4.69	.71	.55
18-29	107	31.26	4.59		
30-39	15	29.47	5.42		
40-49	3	31.67	5.51		
50-59	1	33.00	-		
60-70	0	-	-		
Education Level	125	31.09	4.70	1.57	.20
No HS Degree	0	-	-		
HS Degree	2	28.00	5.66		
2 Years of College	96	30.98	4.74		
Bachelors Degree	24	31.13	4.43		
Some Graduate Work	3	36.33	3.51		
College Major	124	31.10	4.70		
Education	19	30.16	4.35	.91	.34
Liberal Arts	11	33.55	4.97	3.31	.07
Engineering	24	31.17	5.51	.00	.94
Business	48	30.81	4.77	.30	.58
Other	22	31.27	3.67	.03	.85
Race	125	31.09	4.70		
Black	8	32.13	6.15	.41	.52
Oriental	4	29.75	4.19	.33	.57
White	103	30.92	4.69	.72	.40
Hispanic	5	33.80	3.03	1.74	.19
Other	5	31.20	4.66	.00	.96

TABLE 5-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Sex	123	31.05	4.74		
Female	56	31.73	4.02	2.16	.14
Male	67	30.48	5.22	2.16	.14
Pay Method	78	30.87	5.18		
Hourly	59	30.69	5.34	.28	.60
Salary	9	32.89	3.22	1.55	.23
Salary & Bonus/Comm	6	31.50	5.58	.09	.76
Commission Only	4	28.00	5.83	1.30	.26
Skill Level	77	30.84	5.21	.76	.47
Unskilled	19	29.89	4.83		
Semi-skilled	44	31.48	5.02		
Skilled	14	30.14	6.31		
Job Classification	74	30.89	5.31		
Exempt	23	31.52	3.94	.47	.50
Nonexempt	51	30.61	5.83	.47	.50

*p less than .05, null hypothesis rejected

college major in 'All the Companies,' women in 'All the Companies' and women in all the medical companies. The null hypothesis was rejected for each of the six statistically significant means.

Attitude Towards Earnings

Table 6 displays the respondent data for the SWV subscale Attitude Towards Earnings. Eight of the means were statistically significant. Five of the means were greater than or equal to their total group means. Participating groups exhibiting this characteristic included 'All the Companies' based on age, other college majors and hourly employees in 'All the Companies,' hourly employees in the medical companies and college students of all ages. Three respondent groups displayed means significantly lower than their total group mean. These included all educational levels and salaried employees of 'All the Companies' and salaried employees in the medical companies. The null hypothesis was rejected for each of the eight statistically significant means.

Pride in Work

Table 7 displays the respondent data for the SWV subscale Pride in Work. Eight of the means were statistically significant. Five of the means were greater than or equal to their total group means. Participating groups exhibiting this characteristic included 'All the Companies' based on

TABLE 6

Results for the SWV Subscale Attitude Towards Earnings

Independent Variable	N	$\bar{X}$	SD	F	sig. level
All Companies	328	23.61	4.82		
Age	328	23.61	4.82	2.75	.03*
18-29	104	24.81	4.43		
30-39	99	23.09	4.59		
40-49	77	23.38	5.42		
50-59	44	22.34	4.87		
60-70	4	23.75	2.99		
Education Level	326	23.56	4.79	3.21	.01*
No HS Degree	16	25.50	3.90		
HS Degree	101	24.44	4.63		
2 Years of College	100	23.56	5.18		
Bachelors Degree	52	22.83	4.78		
Some Graduate Work	57	22.11	4.17		
College Major	235	23.14	4.88		
Education	22	22.09	4.64	1.11	.29
Liberal Arts	15	22.27	4.27	.51	.48
Engineering	54	22.31	4.52	1.99	.16
Business	63	23.27	5.54	.06	.80
Other	81	24.02	4.68	4.14	.04*
Race	327	23.61	4.82		
Black	29	24.69	3.81	1.65	.20
Oriental	6	24.50	5.43	.22	.64
White	277	23.52	4.83	.46	.50
Hispanic	12	21.67	6.30	1.99	.16
Other	3	26.00	4.58	.75	.39
Sex	323	23.65	4.84		
Female	215	23.55	4.58	.26	.61
Male	108	23.84	5.33	.26	.61
Pay Method	322	23.66	4.84		
Hourly	200	24.18	4.65	5.97	.02*
Salary	115	22.71	5.08	7.06	.01*
Salary & Bonus/Comm	7	24.71	3.99	.33	.57
Commission Only	0	-	-	-	-
Skill Level	319	23.69	4.85	.23	.79
Unskilled	18	24.28	6.06		
Semi-skilled	176	23.76	4.50		
Skilled	125	23.51	5.16		

TABLE 6-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Job Classification	322	23.63	4.85		
Exempt	133	23.05	5.03	3.36	.07
Nonexempt	189	24.05	4.68	3.36	.07
Medical Companies	186	24.21	4.47		
Age	186	24.21	4.47	1.82	.13
18-29	85	25.12	4.51		
30-39	51	23.57	4.00		
40-49	32	23.03	5.34		
50-59	15	24.07	3.33		
60-70	3	22.67	2.52		
Education Level	185	24.17	4.46	1.39	.24
No HS Degree	16	25.50	3.90		
HS Degree	67	24.34	4.41		
2 Years of College	57	24.40	5.15		
Bachelors Degree	26	23.85	3.96		
Some Graduate Work	19	22.21	2.94		
College Major	115	24.03	4.62		
Education	16	22.94	4.68	1.03	.31
Liberal Arts	8	25.25	2.60	.59	.44
Engineering	6	24.17	3.66	.01	.94
Business	18	23.22	4.66	.66	.42
Other	67	24.36	4.88	.78	.38
Race	185	24.19	4.47		
Black	22	25.00	4.21	.83	.36
Oriental	4	25.50	5.00	.35	.55
White	151	24.04	4.35	.85	.36
Hispanic	7	23.00	7.21	.51	.48
Other	1	31.00	-	2.36	.13
Sex	183	24.26	4.49		
Female	162	24.10	4.36	1.76	.19
Male	21	25.48	5.34	1.76	.19
Pay Method	181	24.29	4.49		
Hourly	151	24.66	4.46	6.56	.01*
Salary	24	21.79	4.04	8.94	.00*
Salary & Bonus/Comm	6	24.83	4.36	.08	.77
Commission Only	0	-	-	-	-

TABLE 6-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Skill Level	180	24.31	4.49	1.65	.20
Unskilled	14	23.14	5.64		
Semi-skilled	99	24.84	3.89		
Skilled	67	23.78	4.98		
Job Classification	180	24.27	4.50		
Exempt	41	23.37	4.38	2.17	.14
Nonexempt	139	24.54	4.51	2.17	.14
High Tech Company	142	22.82	5.16		
Age	142	22.82	5.16	1.04	.39
18-29	19	23.42	3.86		
30-39	48	22.58	5.13		
40-49	45	23.62	5.53		
50-59	29	21.44	5.33		
60-70	1	27.00	-		
Education Level	141	22.74	5.09	2.16	.10
No HS Degree	0	-	-		
HS Degree	34	24.62	5.10		
2 Years of College	43	22.44	5.05		
Bachelors Degree	26	21.81	5.37		
Some Graduate Work	38	22.05	4.70		
College Major	120	22.28	4.99		
Education	6	19.83	4.02	1.52	.22
Liberal Arts	7	18.86	3.02	3.56	.06
Engineering	48	22.08	4.60	.12	.73
Business	45	23.29	5.91	3.02	.08
Other	14	22.43	3.23	.02	.90
Race	142	22.82	5.16		
Black	7	23.71	2.06	.22	.64
Oriental	2	22.50	7.78	.01	.93
White	126	22.89	5.31	.18	.68
Hispanic	5	19.80	4.87	1.79	.18
Other	2	23.50	2.12	.04	.85
Sex	140	22.85	5.17		
Female	53	21.87	4.88	3.12	.08
Male	87	23.45	5.28	3.12	.08

TABLE 6-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Pay Method	141	22.87	5.16		
Hourly	49	22.67	4.97	.10	.75
Salary	91	22.96	5.31	.08	.78
Salary & Bonus/Comm	1	24.00	-	.05	.83
Commission Only	0	-	-	-	-
Skill Level	139	22.89	5.18	2.69	.07
Unskilled	4	28.25	6.55		
Semi-skilled	77	22.38	4.86		
Skilled	58	23.21	5.37		
Job Classification	142	22.82	5.16		
Exempt	92	22.90	5.32	.06	.81
Nonexempt	50	22.68	4.92	.06	.81
University Students	124	23.99	4.77		
Age	124	23.99	4.77	5.02	.01*
18-29	107	24.21	4.62		
30-39	14	21.14	4.90		
40-49	3	29.67	3.06		
50-59	0	-	-		
60-70	0	-	-		
Education Level	124	23.99	4.77	.73	.53
No HS Degree	0	-	-		
HS Degree	2	24.00	2.83		
2 Years of College	95	24.20	4.81		
Bachelors Degree	24	22.88	4.83		
Some Graduate Work	3	26.33	4.04		
College Major	122	23.88	4.73		
Education	19	25.05	5.60	1.40	.24
Liberal Arts	11	22.73	6.37	.71	.40
Engineering	24	23.29	3.92	.46	.50
Business	46	24.09	3.93	.15	.70
Other	22	23.64	5.49	.07	.79
Race	124	23.99	4.77		
Black	8	26.75	4.23	2.89	.09
Oriental	4	24.50	5.69	.05	.83
White	102	23.81	4.79	.80	.37
Hispanic	5	24.20	5.50	.01	.92
Other	5	22.60	4.16	.44	.51

TABLE 6-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Sex	122	24.02	4.81		
Female	56	23.84	5.57	.15	.70
Male	66	24.18	4.09	.15	.70
Pay Method	76	24.39	4.64		
Hourly	58	24.79	4.44	1.83	.18
Salary	9	24.56	4.42	.01	.91
Salary & Bonus/Comm	5	22.60	5.37	.80	.37
Commission Only	4	20.50	6.61	3.06	.08
Skill Level	76	24.39	4.64	.38	.69
Unskilled	19	24.26	4.83		
Semi-skilled	44	24.73	4.57		
Skilled	13	23.46	4.84		
Job Classification	74	24.38	4.70		
Exempt	23	24.26	5.83	.02	.89
Nonexempt	51	24.43	4.15	.02	.89

*p less than .05, null hypothesis rejected

age, all skill levels in 'All the Companies,' all medical companies based on age and educational level, and all skill levels in 'All the Companies.' Three respondent groups displayed lower than their total group mean. These included all educational levels in 'All the Companies,' all skill levels in the high technology company and Oriental students. The null hypothesis was rejected for each of the eight statistically significant means.

Job Involvement

Table 8 displays the respondent data for the SWV subscale Job Involvement. Five of the means were statistically significant. Three of the means were greater than or equal to their total group means. Participating groups exhibiting this characteristic included all medical companies based on age and educational level, and Hispanics in the high technology company. Two respondent groups displayed lower than their total group mean. These included all educational levels in 'All the Companies' and Oriental students. The null hypothesis was rejected for each of the five statistically significant means.

The 480 individual *F* tests for the one-way analysis of variance identified 63 independent variables with statistically significant means. The null hypothesis was rejected for each of these 63 (15.1%) independent variables, and we failed to reject the null for 417 (84.9%) of them.

TABLE 7

Results for the SWV Subscale Pride in Work

Independent Variable	N	$\bar{X}$	SD	F	sig. level
All Companies	328	39.97	6.07		
Age	328	39.97	6.07	7.03	.00*
18-29	103	38.24	8.11		
30-39	99	41.05	3.78		
40-49	76	40.83	4.08		
50-59	46	41.00	4.71		
60-70	4	29.50	15.70		
Education Level	327	39.95	6.08	3.51	.01*
No HS Degree	16	34.69	9.76		
HS Degree	102	40.30	5.68		
2 Years of College	98	39.77	6.67		
Bachelors Degree	52	40.38	5.66		
Some Graduate Work	59	40.71	3.97		
College Major	234	39.99	6.16		
Education	22	40.00	6.51	.00	.99
Liberal Arts	15	39.07	10.26	.36	.55
Engineering	55	40.84	3.31	1.36	.25
Business	64	40.66	4.62	1.03	.31
Other	78	39.03	7.54	2.90	.09
Race	327	39.97	6.07		
Black	29	38.66	8.70	1.53	.22
Oriental	6	37.00	12.57	1.48	.23
White	278	40.17	5.65	1.78	.18
Hispanic	12	40.33	3.87	.04	.84
Other	2	40.00	2.83	.00	.99
Sex	323	40.04	5.97		
Female	213	40.03	6.62	.00	.99
Male	110	40.05	4.45	.00	.99
Pay Method	322	40.02	6.09		
Hourly	198	39.73	6.75	1.19	.28
Salary	117	40.65	4.62	1.94	.16
Salary & Bonus/Comm	7	37.86	7.65	1.01	.32
Commission Only	0	-	-	-	-
Skill Level	319	39.99	6.10	6.55	.00*
Unskilled	18	36.00	10.93		
Semi-skilled	177	39.60	6.43		
Skilled	124	41.12	4.10		

TABLE 7-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Job Classification	322	40.09	5.97		
Exempt	134	40.55	4.90	1.38	.24
Nonexempt	188	39.76	6.62	1.38	.24
Medical Companies	184	39.43	7.05		
Age	184	39.43	7.05	5.50	.00*
18-29	84	38.10	8.48		
30-39	51	41.59	3.02		
40-49	31	40.35	4.19		
50-59	15	40.40	6.50		
60-70	3	25.67	16.77		
Education Level	184	39.43	7.05	2.58	.04*
No HS Degree	16	34.69	9.76		
HS Degree	68	40.19	6.18		
2 Years of College	55	38.87	8.28		
Bachelors Degree	26	41.12	4.07		
Some Graduate Work	19	40.00	5.29		
College Major	112	39.20	7.64		
Education	16	39.63	7.56	.06	.81
Liberal Arts	8	37.50	12.04	.42	.52
Engineering	6	40.33	5.05	.14	.71
Business	18	41.00	3.73	1.20	.28
Other	64	38.69	8.10	.66	.42
Race	184	39.43	7.05		
Black	23	38.26	9.59	.72	.40
Oriental	4	33.25	14.38	3.19	.08
White	149	39.75	6.44	1.55	.22
Hispanic	7	39.71	4.27	.01	.92
Other	0	-	-	-	-
Sex	181	39.56	6.88		
Female	159	39.77	6.97	1.22	.27
Male	22	38.05	6.18	1.22	.27
Pay Method	179	39.54	7.09		
Hourly	149	39.54	7.13	.00	.98
Salary	24	40.13	6.81	.19	.66
Salary & Bonus/Comm	6	37.00	8.00	.92	.34
Commission Only	0	-	-	-	-

TABLE 7-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Skill Level	178	39.52	7.11	3.42	.04*
Unskilled	14	36.29	11.51		
Semi-skilled	98	38.94	7.44		
Skilled	66	41.06	4.84		
Job Classification	178	39.63	6.94		
Exempt	40	39.70	6.75	.01	.94
Nonexempt	138	39.61	7.01	.01	.94
High Tech Company	144	40.66	4.46		
Age	144	40.66	4.46	1.06	.38
18-29	19	38.89	6.42		
30-39	48	40.48	4.41		
40-49	45	41.16	4.01		
50-59	31	41.29	3.65		
60-70	1	41.00	-		
Education Level	143	40.63	4.46	.59	.62
No HS Degree	0	-	-		
HS Degree	34	40.53	4.58		
2 Years of College	43	40.91	3.49		
Bachelors Degree	26	39.65	6.90		
Some Graduate Work	40	41.05	3.19		
College Major	122	40.72	4.28		
Education	6	41.00	2.19	.03	.87
Liberal Arts	7	40.86	8.34	.01	.93
Engineering	49	40.90	3.10	.14	.71
Business	46	40.52	4.96	.16	.69
Other	14	40.57	3.94	.02	.89
Race	144	40.66	4.46		
Black	7	39.43	4.12	.56	.46
Oriental	2	44.50	.71	1.51	.22
White	128	40.66	4.56	.00	.98
Hispanic	5	41.20	3.49	.08	.78
Other	2	40.66	4.46	.04	.83
Sex	142	40.64	4.48		
Female	54	40.80	5.48	.10	.75
Male	88	40.55	3.78	.10	.75

TABLE 7-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Pay Method	143	40.64	4.47		
Hourly	49	40.31	5.43	.41	.53
Salary	93	40.78	3.91	.29	.59
Salary & Bonus/Comm	1	43.00	-	.28	.60
Commission Only	0	-	-	-	-
Skill Level	141	40.59	4.48	3.83	.02*
Unskilled	4	35.00	10.10		
Semi-skilled	79	40.43	4.83		
Skilled	58	41.19	3.07		
Job Classification	144	40.66	4.46		
Exempt	94	40.91	3.84	.89	.35
Nonexempt	50	40.18	5.45	.89	.35
University Students	125	37.14	7.93		
Age	125	37.14	7.93	.59	.62
18-29	106	37.24	7.84		
30-39	15	37.80	8.47		
40-49	3	32.00	11.00		
50-59	1	32.00	-		
60-70	0	-	-		
Education Level	124	37.20	7.93	1.14	.34
No HS Degree	0	-	-		
HS Degree	2	27.00	21.21		
2 Years of College	95	37.29	7.76		
Bachelors Degree	24	37.63	7.81		
Some Graduate Work	3	37.67	2.31		
College Major	124	37.16	7.96		
Education	19	36.32	9.11	.25	.62
Liberal Arts	11	39.91	9.80	1.44	.23
Engineering	24	38.33	8.27	.64	.42
Business	48	35.98	7.33	1.74	.19
Other	22	37.82	7.02	.18	.67
Race	124	37.20	7.93		
Black	8	36.63	3.70	.05	.83
Oriental	4	23.50	12.45	13.59	.00*
White	102	37.59	7.83	1.37	.24
Hispanic	5	40.20	3.03	.74	.40
Other	5	38.20	5.81	.08	.78

TABLE 7-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Sex	122	37.19	8.01		
Female	56	37.63	7.95	.31	.58
Male	66	36.82	8.11	.31	.58
Pay Method	77	38.90	7.72		
Hourly	58	36.95	7.68	.01	.92
Salary	9	38.22	4.52	.30	.59
Salary & Bonus/Comm	6	35.17	10.53	.32	.57
Commission Only	4	35.75	11.64	.09	.76
Skill Level	76	36.96	7.75	.44	.64
Unskilled	19	37.11	8.63		
Semi-skilled	43	37.47	7.19		
Skilled	14	35.21	8.48		
Job Classification	73	37.11	7.85		
Exempt	23	38.83	5.49	1.62	.21
Nonexempt	50	36.32	8.65	1.62	.21

*p less than .05, null hypothesis rejected

TABLE 8

Results for the SWV Subscale Job Involvement

Independent Variable	N	$\bar{X}$	SD	F	sig. level
All Companies	331	35.02	5.27		
Age	331	35.02	5.27	2.17	.07
18-29	104	34.74	6.47		
30-39	100	35.54	3.97		
40-49	79	34.94	4.57		
50-59	44	35.36	5.09		
60-70	4	28.00	10.61		
Education Level	330	35.00	5.27	2.63	.03*
No HS Degree	16	31.19	8.17		
HS Degree	103	35.31	5.36		
2 Years of College	100	34.72	5.60		
Bachelors Degree	52	35.77	4.42		
Some Graduate Work	59	35.31	3.79		
College Major	237	34.93	5.08		
Education	21	35.29	4.76	.11	.74
Liberal Arts	15	34.33	7.29	.22	.64
Engineering	56	35.18	3.43	.17	.68
Business	64	35.09	4.55	.09	.77
Other	81	34.93	5.08	.37	.55
Race	331	35.02	5.27		
Black	29	33.43	6.93	2.84	.09
Oriental	6	34.33	5.99	.10	.75
White	279	35.14	5.13	.84	.36
Hispanic	13	36.69	4.46	1.36	.24
Other	4	34.00	1.41	.15	.70
Sex	326	35.09	5.27		
Female	215	35.12	5.45	.02	.89
Male	111	35.03	4.95	.02	.89
Pay Method	324	35.12	5.26		
Hourly	199	35.17	5.77	.04	.84
Salary	118	35.16	4.23	.01	.92
Salary & Bonus/Comm	7	33.14	6.09	1.06	.31
Commission Only	0	-	-	-	-
Skill Level	323	35.08	5.29	2.64	.07
Unskilled	19	32.58	7.80		
Semi-skilled	178	35.02	5.28		
Skilled	126	35.54	4.76		

TABLE 8-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Job Classification	325	35.17	5.16		
Exempt	137	35.39	4.49	.45	.50
Nonexempt	188	35.01	5.61	.45	.50
Medical Companies	188	35.04	5.94		
Age	188	35.04	5.94	4.07	.00*
18-29	85	34.62	6.78		
30-39	52	36.35	3.86		
40-49	33	35.27	5.33		
50-59	14	35.00	6.08		
60-70	3	23.00	4.36		
Education Level	187	35.04	5.95	2.58	.04*
No HS Degree	16	31.19	8.17		
HS Degree	69	35.67	5.61		
2 Years of College	57	34.47	6.69		
Bachelors Degree	26	35.73	2.92		
Some Graduate Work	19	36.79	4.57		
College Major	115	34.70	5.93		
Education	15	36.20	4.68	1.10	.30
Liberal Arts	8	33.75	9.13	.22	.64
Engineering	7	34.71	3.35	.00	.99
Business	18	35.72	4.31	.63	.43
Other	67	34.21	6.35	1.12	.29
Race	187	35.04	5.95		
Black	22	33.18	7.91	2.46	.12
Oriental	4	33.25	5.91	.37	.54
White	151	35.36	5.70	2.30	.13
Hispanic	8	35.38	5.21	.03	.87
Other	2	33.50	2.12	.14	.71
Sex	184	35.13	5.94		
Female	162	35.31	5.83	1.39	.24
Male	22	33.73	6.71	1.39	.24
Pay Method	181	35.20	5.94		
Hourly	151	35.24	6.20	.03	.86
Salary	24	35.79	3.95	.27	.60
Salary & Bonus/Comm	6	32.00	5.80	1.90	.17
Commission Only	0	-	-	-	-

TABLE 8-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Skill Level	182	35.10	5.97	2.36	.10
Unskilled	15	32.27	8.10		
Semi-skilled	100	34.99	5.97		
Skilled	67	35.91	5.27		
Job Classification	181	35.31	5.79		
Exempt	42	36.10	4.93	1.01	.32
Nonexempt	139	35.07	6.02	1.01	.32
High Tech Company	144	34.99	4.26		
Age	144	34.99	4.26	1.15	.33
18-29	19	35.26	4.95		
30-39	48	34.67	3.93		
40-49	46	34.70	3.98		
50-59	30	35.53	4.67		
60-70	1	43.00	-		
Education Level	143	34.95	4.24	.53	.66
No HS Degree	0	-	-		
HS Degree	34	34.59	4.79		
2 Years of College	43	35.05	3.75		
Bachelors Degree	26	35.81	5.60		
Some Graduate Work	40	34.60	3.18		
College Major	122	35.15	4.14		
Education	6	33.00	4.52	1.71	.19
Liberal Arts	7	35.00	5.07	.01	.92
Engineering	49	35.24	3.47	.05	.83
Business	46	34.85	4.14	.39	.54
Other	14	36.79	3.87	2.51	.12
Race	144	34.99	4.26		
Black	7	34.29	1.98	.20	.65
Oriental	2	36.50	7.78	.25	.62
White	128	34.87	4.36	1.01	.32
Hispanic	5	38.80	1.79	4.23	.04*
Other	2	34.99	4.26	.03	.87
Sex	142	35.04	4.27		
Female	53	34.51	4.05	1.28	.26
Male	89	35.35	4.39	1.28	.26

TABLE 8-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Pay Method	143	35.02	4.26		
Hourly	48	34.96	4.21	.02	.90
Salary	94	35.00	4.30	.01	.94
Salary & Bonus/Comm	1	40.00	-	1.38	.24
Commission Only	0	-	-	-	-
Skill Level	141	35.05	4.28	.19	.83
Unskilled	4	33.75	7.50		
Semi-skilled	78	35.06	4.27		
Skilled	59	35.12	4.12		
Job Classification	144	34.99	4.26		
Exempt	95	35.08	4.27	.13	.72
Nonexempt	49	34.82	4.28	.13	.72
University Students	126	34.27	6.20		
Age	126	34.27	6.20	.38	.77
18-29	107	34.42	6.20		
30-39	15	34.00	6.59		
40-49	3	30.67	6.66		
50-59	1	33.00	-		
60-70	0	-	-		
Education Level	125	34.31	6.21	.70	.55
No HS Degree	0	-	-		
HS Degree	2	28.00	12.73		
2 Years of College	96	34.41	6.00		
Bachelors Degree	24	34.38	6.81		
Some Graduate Work	3	35.00	5.29		
College Major	124	34.36	6.21		
Education	19	34.05	5.75	.06	.81
Liberal Arts	11	35.55	7.92	.44	.51
Engineering	24	34.13	7.19	.04	.84
Business	48	33.92	6.07	.40	.53
Other	22	35.27	5.10	.57	.45
Race	125	34.31	6.21		
Black	8	35.00	4.72	.10	.75
Oriental	4	24.50	10.15	11.16	.00*
White	103	34.37	6.04	.05	.83
Hispanic	5	38.40	2.30	2.28	.13
Other	5	35.80	4.66	.30	.59

TABLE 8-Continued

Independent Variable	N	$\bar{X}$	SD	F	sig. level
Sex	123	34.25	6.27		
Female	56	34.50	5.32	.16	.69
Male	67	34.04	7.00	.16	.69
Pay Method	78	34.09	5.98		
Hourly	59	33.61	5.90	1.57	.21
Salary	9	36.44	2.40	1.59	.21
Salary & Bonus/Comm	6	34.83	6.82	.10	.75
Commission Only	4	34.75	11.27	.05	.82
Skill Level	77	34.10	6.01	.36	.70
Unskilled	19	33.42	6.40		
Semi-skilled	44	34.61	5.88		
Skilled	14	33.43	6.21		
Job Classification	74	34.22	6.10		
Exempt	23	35.57	4.82	1.65	.20
Nonexempt	51	33.61	6.55	1.65	.20

*p less than .05, null hypothesis rejected

TABLE 9

Subscale Mean Comparison of Surveyed Industrial Workers with Participating University Students

	SS	AP	US	AE	PW	JI
Indus. Workers	22.40	38.02	31.96	23.61	39.97	35.02
Standard Devi.	5.64	5.48	5.23	4.82	6.07	5.27
Uni. Students	24.55	34.42	31.07	23.99	37.14	34.27
Standard Devi.	5.13	6.24	4.69	4.78	7.93	6.20
Differences between the means	+2.15	-3.60	-0.89	+0.38	-2.83	-0.75
Significance levels of the differences (t test)	.01*	.01*	.08	.45	.01*	.23

Additionally, Table 9 shows a comparison between the subscale means of the participating industrial workers as compared to the participating university students. Student participants exhibited relatively lower means for SWV subscales AP, US, PW, and JI, while showing relatively higher means for SWV subscales SS and AE. Attitude Towards Earnings corresponds more closely with the 18-29 age group of the industrial workers, the group with which the students would most easily identify.

A comparison of the difference between the independent means was calculated to determine if a significant difference existed. Three of the dependent variables showed a significance below the .05 level: Social Status, Activity Preference and Pride in Work. The students had a significantly higher mean than did the industrial workers for Social Status. An increase in Social Status is often

viewed as a motivator for people pursuing a college degree (it is considered to be the key to more money and/or advancement) so a higher mean in this subscale is explainable for college students about to enter the job market fulltime, since they view its attainment as a great enhancement over their present status.

The mean for the students was significantly lower for Activity Preference than for industrial workers. University students often do not work fulltime and have many extracurricular activities. Some would assert their mindset is not necessarily on work, but on the pursuit of leisure in the form of football games, Homecoming dances, intramural sports, etc. Consequently, most of the things students busy themselves with are regarded as leisure activities, not work, and their dedication to staying busy at work as measured by the instrument suffers as a result. Pride in Work also shows a significantly lower mean for the college students. Most college students who work, work in entry level, low paying positions because they want jobs that work around their class schedule and checking groceries, doing janitorial work or other menial type jobs are often the kinds of positions that best fill this need. These same kinds of jobs do little to challenge them, however; hence, it is understandable why they would not take pride in their work. This also relates to the much higher mean in Social Status for the students. No doubt, the attainment of a Bachelors

degree is viewed as an opportunity to go on to a "higher" status job.

Results of the Multiple Regression

Due to the fact that analysis of variance does not separate out the overlapping influences of the independent variables on one another, a multiple regression was done in order to more definitively determine which independent varibles significantly related to work values autonomously. Results of this analysis are presented in tablular form. Table 10 furnishes the key to the abbreviations used in labeling the independent variables. Tables 11 through 14 furnish a list of the variables included in the regression equation for each of the SWV subscales. The significance level required for inclusion of a variable in the equation was .01. Variables were entered into the equation in a "forced entry"

TABLE 10

Definitions of Variable Abbreviations Used in Tables 11 to 14

Abbreviation	Variable
EDUC	Level of Education
EDUMAJ	Education Major
LA	Liberal Arts Major
ENGR	Engineering Major
BUSI	Business Major
OTHED	Other College Major
ORI	Oriental
OTRACE	Other Race
HOUR	Paid Hourly
SALBON	Paid Salary & Bonus/Comm.
COMM	Paid Commission Only
EX	Exempt Employee
NX	Nonexempt Employee

fashion based on the results of the analysis of variance. The order of entry of the independent variables was determined by the number of significant levels demonstrated by the dependent variables in the 'All the Companies' analysis of variance results. They were as follows : level of education (5), age (4), college major (4), skill level (2), pay method (2), sex (2), race (1) and job classification (0).

'All Companies' Group Values

Table 11 displays the significant *t* values of the multiple regression for all the participating companies. The R^2 for the Social Status variable was 12.4 per cent and the *p* value for the *F* test was .0295. The R^2 for the Activity Preference variable was 22.0 per cent and the *p* value for the *F* test was .0001. The R^2 for the Upward Striving variable was 7.9 per cent and .3281 was the *p* value for the *F* test. The R^2 for the Attitude Towards Earnings variable was 14.3 per cent and the *p* value for the *F* test was .0076. The R^2 for the Pride in Work variable was 15.4 per cent and the *p* value for the *F* test was .0035. The R^2 for the Job Involvement variable was 6.5 per cent and the *p* value for the *F* test was .5488.

Four of the six dependent variables showed *F* values with significance. Social Status related to sex only. This would appear to agree with conventional wisdom and sociological assertions that societal conditioning done on the

basis of sex commonly results in men viewing themselves as extensions of their jobs, which causes their positions to be integrally entwined with their ego and self-concept, while women allegedly derive their "positive strokes" from other areas besides the job.

Activity Preference related to age only. This would tend to support the common view (and the chief impetus for this study) that staying busy on the job is indeed influenced by our age. Those falling below the group mean included individuals between 18-29 and those between 60-70. Those over 60 are often thought of as less active because they are considered old and/or because it is felt they are waiting out their retirement. Regardless of whether or not these assertions are true, very few people are ever promoted in this age group, and increased work activity is often done with a promotion in mind. Consequently, it is understandable that this age group may not be overly zealous in work activity.

Attitude Towards Earnings related to sex and level of education. As mentioned above, because men see themselves integrally entwined with their jobs (as revealed by the Social Status variable), their view of money is often tied to their egos and self-concept. In addition, at first glance, one might see this result as support for the complaint of women that they are underpaid in comparison to men for their work, but it must be remembered that this study

TABLE 11

The t Values for the 'All Companies' Group

SS		AP		US	
FEMALE	.0022	AGE	.0016	OTHED	.0553
WHITE	.0635	EX	.1068	FEMALE	.0562
ENGR	.0665	SALARY	.1986	ENGR	.1282
LATIN	.0826	LA	.2412	HOUR	.1815
AGE	.0922	OTHED	.2576	LA	.2220
BLACK	.0979	WHITE	.3278	SKILL	.3166
EX	.3387	EDUC	.3773	SALARY	.3748
SKILL	.3797	LATIN	.4272	AGE	.4056
LA	.4092	BUSI	.5207	BUSI	.5729
OTHED	.4401	FEMALE	.5318	EDUC	.6004
SALARY	.4561	SKILL	.5539	EX	.6734
BUSI	.4876	HOUR	.7370	WHITE	.7474
EDUC	.4943	ENGR	.8419	ORI	.8366
HOUR	.8485	ORI	.8592	BLACK	.8979
ORI	.9178	BLACK	.9869	LATIN	.9380

TABLE 11-Continued

The t Values for the 'All Companies' Group

AE		PW		JI	
FEMALE	.0011	AGE	.0009	AGE	.1048
EDUC	.0225	SKILL	.0199	EDUC	.1927
AGE	.0668	SALARY	.2012	OTHED	.3644
ORI	.1710	FEMALE	.2044	SKILL	.3681
SKILL	.2916	OTHED	.2193	LATIN	.4114
ENGR	.3042	EX	.2496	HOUR	.5208
EX	.3983	LA	.3497	LA	.5919
SALARY	.5206	ORI	.4103	FEMALE	.6789
OTHED	.5521	HOUR	.6490	ENGR	.6875
BLACK	.5903	EDUC	.6978	SALARY	.6946
HOUR	.7947	BUSI	.8384	ORI	.7020
BUSI	.8639	WHITE	.8561	WHITE	.7912
LA	.9160	ENGR	.8967	BUSI	.8209
LATIN	.9391	BLACK	.9549	EX	.8527
WHITE	.9672	LATIN	.9573	BLACK	.9358

measures the participants' Attitudes Towards Earnings, not what they actually make. Hence, the survey reveals that women actually value money less, probably due to the receipt of satisfaction from other areas on the job. Level of

education revealed decreasing mean averages as the level of education increased. In other words, the results would imply that as one's level of education increased, one's attached importance to money decreased. Put another way, intrinsic factors would become more important. This view is also supported by other research.

Pride in Work related to age and the level of skill. With regards to age, the participants in the 18-29 group and 60-70 group scored below the mean. The comments made in regards to Activity Preference could also apply here. However, the highest means scored were from the thirty year olds and the fifty year olds. The forty year olds came in at a close third. It appears that being satisfied with a job well done is not an important value for the very young or the very old, but is to all other age groups.

'Medical Companies' Group Values

Table 12 displays the significant *t* values of the multiple regression for two participating medical companies. The R^2 for the Social Status variable was 17.5 per cent and the *p* value for the *F* test was .2226. The R^2 for the Activity Preference variable was 32.7 per cent and .0010 was the *p* value for the *F* test. The R^2 for the Upward Striving variable was 16.7 per cent and .2696 was the *p* value for the *F* test. The R^2 for the Attitude Towards Earnings variable was 20.7 per cent and the *p* value for the *F* test was .0954.

TABLE 12

The t Values for the 'Medical Companies' Group

SS		AP		US	
AGE	.0297	EDUC	.0124	OTHED	.0130
ENGR	.0786	AGE	.0149	LA	.0281
FEMALE	.1012	SKILL	.0236	AGE	.1013
SALARY	.2100	EX	.0525	HOUR	.2349
EX	.3973	OTHED	.0662	FEMALE	.3322
ORI	.4073	FEMALE	.1425	BUSI	.5416
WHITE	.4740	SALARY	.2641	SALARY	.5722
OTHED	.5432	WHITE	.3072	ORI	.6811
LA	.5520	LA	.4280	EDUC	.6902
BLACK	.6209	BLACK	.6037	WHITE	.7168
HOUR	.6551	BUSI	.6451	ENGR	.7274
EDUC	.6762	ORI	.7076	SKILL	.7573
SKILL	.7027	ENGR	.7570	BLACK	.8985
BUSI	.8038	HOUR	.8024	EX	.9290

TABLE 12-Continued

The t Values for the 'Medical Companies' Group

AE		PW		JI	
FEMALE	.0200	AGE	.0144	EDUC	.0211
ENGR	.0631	SKILL	.0220	OTHED	.1041
EDUC	.1217	EX	.1240	SKILL	.1153
SALARY	.2493	OTHED	.2130	FEMALE	.1465
ORI	.2579	ORI	.2256	AGE	.2845
BUSI	.3381	FEMALE	.2453	HOUR	.3226
AGE	.5522	SALARY	.2583	ENGR	.3672
EX	.6076	EDUC	.3084	SALARY	.4407
SKILL	.6212	WHITE	.3581	LA	.5515
OTHED	.7031	BLACK	.3980	ORI	.6261
LA	.7540	LA	.4364	BLACK	.7019
BLACK	.7769	HOUR	.4376	EX	.7046
WHITE	.7840	BUSI	.4935	WHITE	.8679
HOUR	.8697	ENGR	.5153	BUSI	.9711

The R^2 for the Pride in Work variable was 26.9 per cent and the p value for the F test was .0115. The R^2 for the Job Involvement variable was 20.5 per cent and the p value for the F test was .0999.

Of the F values that showed significance, Activity Preference related to the level of education and skill, and age. The comments with regards to age in the 'All the Companies' group certainly apply here, but it is interesting to note that two new dependent variables also showed up in this group. Those with some graduate work show the highest means, while those who did not finish high school show the lowest. This is understandable when one realizes that graduate students working in a medical environment are often doing research and are very involved in their studies, while those without a high school degree are often those who do the most menial of jobs (housekeeping and laundry), and therefore are motivated by few factors that would encourage them to stay busy on the job.

Pride in Work related to age and level of skill. With regards to age, the comments made on the 'All the Companies' data apply here, since the means are distributed in exactly the same way. Level of skill appears here for the first time as a major influencer. As would be expected, the mean values increase as the level of skill increases.

The High Technology Company Values

Table 13 displays the significant t values of the multiple regression for the participating high technology company. The R^2 for the Social Status variable was 19.8% and the p value for the F test was .0640. The R^2 for the

TABLE 13

The t Values for the High Technology Firm

SS		AP		US	
FEMALE	.0173	EDUC	.0982	FEMALE	.0867
LATIN	.0353	ORI	.2314	LA	.2006
WHITE	.0646	WHITE	.2608	BUSI	.2190
BLACK	.1348	LATIN	.2683	OTHED	.2974
ENGR	.2748	OTHED	.3195	SKILL	.3403
SALARY	.2839	ENGR	.3841	WHITE	.4005
OTHED	.3150	BUSI	.4117	ENGR	.4759
EDUC	.3613	AGE	.4143	AGE	.6541
SKILL	.3954	SKILL	.6338	LATIN	.7169
HOUR	.4377	SALARY	.7038	HOUR	.7569
BUSI	.6225	BLACK	.7108	SALARY	.8637
LA	.6896	FEMALE	.7943	ORI	.9123
ORI	.9219	HOUR	.9780	BLACK	.9811
AGE	.9591	LA	.9855	EDUC	.9923

TABLE 13-Continued

The t Values for the High Technology Firm

AE		PW		JI	
FEMALE	.0040	AGE	.1117	OTHED	.0614
EDUC	.0610	SKILL	.1775	ORI	.2143
BUSI	.1185	ORI	.2386	LA	.2189
AGE	.1254	FEMALE	.2466	ENGR	.2192
OTHED	.2258	EDUC	.4881	BUSI	.2817
LATIN	.3448	HOUR	.6001	SALARY	.3084
ENGR	.3664	SALARY	.7158	HOUR	.3510
SKILL	.5298	BLACK	.7615	LATIN	.4576
ORI	.5515	LA	.7882	FEMALE	.4997
WHITE	.5814	BUSI	.8606	EDUC	.6039
HOUR	.8484	LATIN	.8746	AGE	.6644
SALARY	.8940	WHITE	.8801	BLACK	.6790
BLACK	.8968	EGRR	.9896	SKILL	.8480
LA	.9351	OTHED	.9972	WHITE	.9170

Activitiy Preference variable was 17.4 per cent and the *p* value for the *F* test was .1411. The R^2 for the Upward Striving variable was 8.9 per cent and the *p* value for the *F* test was .7949. The R^2 for the Attitude Towards Earnings

variable was 20.4 per cent and .0526 was the p value for the F test. The R^2 for the Pride in Work variable was 9.4 per cent and the p value for the F test was .7541. The R^2 for for the Job Involvement variable was 10.7 per cent and the p value for the F test was .6381.

No p values showed significance for this company; therefore no primary relationships can be evaluated.

University Students' Values

Table 14 displays the significant t values of the multiple regression for university students who participated in the study. The R^2 for the Social Status variable was 19.4 per cent and the p value for the F test was .5718. The R^2 for the Activity Preference variable was 23.5 per cent and the value for the p for the F test was .3413. The R^2 for

TABLE 14

The t Values for the University Students

SS		AP		US	
HOUR	.0131	SALARY	.0449	SALARY	.0421
SALARY	.0513	HOUR	.1457	FEMALE	.0711
EX	.0897	BLACK	.2252	BUSI	.0986
SALBON	.1123	SALBON	.2415	LATIN	.1132
FEMALE	.1941	AGE	.2656	LA	.2540
LATIN	.2838	FEMALE	.2748	HOUR	.2657
SKILL	.3640	SKILL	.4517	AGE	.2864
ENGR	.4251	LA	.4567	SALBON	.2903
WHITE	.4619	EX	.4629	EDUC	.3375
BLACK	.4717	LATIN	.5798	ENGR	.3705
AGE	.4849	OTHED	.6112	WHITE	.3716
BUSI	.6049	ENGR	.6945	BLACK	.4172
EDUC	.7389	BUSI	.7057	OTHED	.4771
LA	.8138	WHITE	.8253	SKILL	.5560
OTHED	.9554	EDUC	.9328	EX	.8979

TABLE 14-Continued

The t Values for the University Students

AE		PW		JI	
HOUR	.0677	AGE	.3066	AGE	.2052
EDUC	.0857	EX	.3338	WHITE	.4183
SALARY	.1184	OTHED	.4292	SALARY	.4960
EX	.2804	SALARY	.4777	BLACK	.5061
OTHED	.3148	LA	.4870	SKILL	.6400
FEMALE	.3462	HOUR	.5200	EX	.6768
SALBON	.4710	ENGR	.5761	HOUR	.7010
ENGR	.6158	LATIN	.6555	OTHED	.7042
BLACK	.6930	EDUC	.6725	EDUC	.7122
WHITE	.7418	SKILL	.7387	LA	.7276
LATIN	.7548	WHITE	.7639	FEMALE	.7321
BUSI	.7839	FEMALE	.8350	ENGR	.7349
AGE	.8286	SALBON	.8554	LATIN	.8966
SKILL	.8860	BLACK	.9466	BUSI	.9223
LA	.9011	BUSI	.9818	SALBON	.9251

the Upward Striving variable was 20.8 per cent and the p value for the F test was .4847. The R^2 for the Attitude Towards Earnings variable was 18.9 per cent and the p value for the F test was .5980. The R^2 for the Pride in Work variable was 10.9 per cent and .9520 was the p value for the F test. The R^2 for the Job Involvement variable was 13.3 per cent and the value for the p value for the F test was .8836.

No p values showed significant differences for this respondent group; therefore no primary relationships can be evalated.

Independent Variable Frequency as a Primary Source of Variance in Dependent Variables

Table 15 reveals a list of the frequency of occurrence of each independent variable as a primary source of variance in the dependent variables in Tables 11 through 14. Each

TABLE 15

Frequency of Occurrence of the Independent Variable as the Primary Source of Dependent Variable Variance

Independent Variables	Dependent Variables SS	AP	US	AE	PW	JI
Age		2			2	
Level of Skill		1			2	
Level of Education		1		1		
Sex	1			1		
TOTAL	1	4	0	2	4	0

number is the total number of times each independent variable appeared as the primary source of variance for each of the SWV subscales arrived at by the multiple regression analysis. The most frequently occurring independent variable was age. This characteristic was related to Activity Preference and Pride in Work. The level of skill was the next most dominant variable and it also related to Activity Preference and Pride in Work. Level of education was related to Activity Preference and Attitude Towards Earnings, while sex related to Social Status and Attitude Towards Earnings.

Summary of the Findings

Of the total number of surveys returned (N=471), data from 98.5 per cent were used. The returns came from three companies and two universities. The high technology firm submitted 31.8 per cent of the surveys, 40.6 per cent came from the medical companies and 27.6 per cent were obtained from the universities. The work ethic means exhibited by the

students differed somewhat from the established norms. Described in general terms, the respondent students are not as prone to activity on the job as the norm, are less concerned about the amount of money their work produces and they place a lesser value in taking part in work-related decisions. However, they place a higher value on work-related social status and have a greater desire to seek a higher level of work or better standard of living.

As determined by the analysis of variance, the four respondent groups exhibited statistically significant differences in work values within their respective groups. Respondents produced sixty-three means of a statistically significant difference from the total sample when tested at the significance level of .05. However, it should be pointed out that 417 (84.9%) of them showed no significance and this reveals the remarkable similarities that all the groups exhibited with regards to their views on work values.

A multiple regression was performed to determine the effect of the independent variables on the participant's work values. Age was determined to be the most frequently occurring source of dependent variable variance, with level of skill and education, and sex also showing a significant relationship.

CHAPTER BIBLIOGRAPHY

1. Smith, Patricia Cain, Letter to prospective users of the Survey of Work Values, March, 1980.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to determine what differences in work attitudes, if any, existed in the American workforce within various demographic groups, and what implications such differences, if existant, would have for managers. Age, level of education, college major, race, sex, pay method, skill level and job classification were chosen by the author to be the independent variables. The six dependent variables were the SWV subscales: Social Status, Activity Preference, Upward Striving, Attitude Towards Earnings, Pride in Work and Job Involvement.

The work ethic as described by Weber (2) is recognized as a significant social and economic force in the United States. The core of this concept revolves around a set of work values that have been identified by researchers from diverse disciplines. Work values previously identified for this study include the above mentioned dependent variables.

Researchers have investigated a variety of populations, including all levels of school children, university students and adults in a variety of occupations. Work values measurement scales developed to date have come in various

forms. The most used is the Survey of Work Values (SWV) (3). It is based on clearly identified work values and was developed primarily for use in adult working populations. The SWV was selected for use in this study because of its validity in quantifying work values, and to fulfill its original intent of being used in the industrial environment. The utilization of an established instrument in generating data from various populations provided for the compilation of norms, which was useful in making work values comparisons among groups.

The purpose of this study was to determine if differences exist in the work values of American workers as categorized into subgroups by age, level of education, college major, race, sex, pay method, skill level or job classification. In addition, colleges were involved in the study to determine if their upperclass students (junior and senior level) would exhibit norms that were different from those already in the workforce. Three hundred and thirty-six usable surveys were returned by the industry employees and 127 by the college students. Those usable totaled 463 (98.5%) out of 471 actually received. The responses were coded, assembled in a computer file, and statistically analyzed using the Statistical Package for the Social Sciences at North Texas State University in Denton, Texas.

Work value means were computed for each of the SWV subscales for the total group of industry respondents, the

medical companies, a high technology company and the university students. The study's students work value means were compared to the student norms established for the SWV at Bowling Green State University, and differences in the values were detected. In comparison to SWV norms, the study student group placed higher value on Social Status and Upward Striving. These same students placed a lower value on Activity Preference, Attitude Towards Earnings, Pride in Work and Job Involvement.

An analysis of variance was performed to determine if statistically significant differences existed among the means of the industry and student groups as categorized by the aforementioned independent variables. The null hypothesis was tested at the .05 level of significance. Out of 480 individual analyses of variance performed, 63 statistically significant means were detected. The null hypothesis was rejected for these 63 statistically significant means and retained for the remaining 417.

A "forced entry" multiple regression was performed to determine the degree of variance in the work values due to the effect of the same independent variables. Results of the regression indicate that age is the most frequently occurring variable related to the work values variance. Level of skill showed a relationship three times, while sex and level of education showed a relationship two times each. The other dependent variables did not contradict the

hypotheses in any significant way. It should also be noted that none of the independent variables showed any relationship to the dependent variables Upward Striving or Job Involvement.

The results of the multiple regression leave a large portion of the work values variance unexplained for each participating group. This suggests that there are many other factors, in addition to the eight independent variables examined here, that may contribute to work values variance.

Conclusions and Implications

The main thrust for this study was germinated from personal industrial experiences where the author has heard frequent complaints from companies about the "younger generation." Managers often assert, "You can't get them to come to work and when they do, they don't work. They're too busy thinking about their next coffee break or scheduling their vacation." Although such things certainly do not occupy the thoughts of younger workers constantly while on the job, the regression analysis does indicate that they are less active in terms of staying busy. However, it should be pointed out that their mean is 36.28, which is still above the fourth level of the scale responses (moderately agree) and only 1.77 below the total group mean, which is an extremely small difference in light of the possible forty-five point spread that can occur on the Likert scale.

Based on the work values data generated by the SWV instrument, it does appear that some statistically significant differences do exist in the American workforce as a whole and in the medical industry in particular. Work values of statistically significant differences occurred among women with regards to Social Status in 'All the Companies.' Age produced significant differences also in 'All the Companies' with regards to Activity Preference. Women and the level of education also showed significant differences in 'All the Companies' with regards to Attitude Towards Earnings. Age and level of skill showed a significant difference in 'All the Companies' for the Pride in Work variable.

In the medical group, age and the level of skill and education exhibited statistically significant differences for the variable Activity Preference. For the variable Pride in Work, age and level of skill showed a significant difference.

Based on the multiple regression, the high technology company and the university students had no statistically significant differences. For the university students, especially with regards to sex showing a relationship, the lack of significance is supported by the findings of Mirels and Garrett (1).

The conclusions made in this study imply that in regards to industry as a whole, sex relates to Social Status; age relates to the degree of Activity Preference; sex and

level of education relate to one's Attitude Towards Earnings; and age and skill level relate to one's satisfaction from doing a job well. In regards to the medical industry, age and the level of education and skill relate to one's Activity Preference, while age and the level of skill also relate to one's satisfaction from doing a job well. No significant relationships were detected for the high technology industry or for college students in the study.

In regards to the comparison of industrial workers and college students within this study alone, significance was determined between the group means in Social Status, Activity Preference and Pride in Work. Social Status resulted in a higher mean for the students, while Activity Preference and Pride in Work resulted in a lower mean.

In terms of the findings having applicability to industry, firms can use the above information and survey instrument in three areas: to adjust supervisory styles, to define training programs and to recruit employees. It would be possible for a firm to determine philosophically which of the dependent variables was the most important to it and to adjust its supervisory techniques in order to bring about the greatest results in that area. In addition, training programs could be designed to "improve" employees' adherence to the work values desired most by management. With regards to recruiting practices (and within the guidelines of Affirmative Action and the law), once management decided

which variables were the most important to the company, they could recruit those individuals that produced the higher means. For example, if Activity Preference was the most important dependent variable to management, and 30-49 and 60-70 year olds had an above average mean, recruiting could be tailor-made towards those age groups, assuming age was a statistically significant factor in influencing Activity Preference for the particular company in question.

While the study did show a few significant influences, the overriding implications within the different demographic groups is that there are not a great deal of differences between the means of all the groups represented. One of the surprises produced in the study was just how much similarity existed within the groups, regardless of race, college major or any other factor represented by the independent variables. With few exceptions, the overall workforce had high regard for the six subscales measured in the SWV and the means clearly weighted, for the most part, on the "agree" side of the Likert scale. In the final analysis, the statistics simply do not support the common view that there is a great deal of difference in work values among employees due to age. None of the other independent variables indicate any great differences either.

Recommendations

Based on the experience and information provided by this research, the following recommendations for further research are made.

1. Conduct work values studies by industry in order to determine if those with similar values (in regards to the six dependent variables) enter similar occupations and/or industries. Such information would be invaluable to businesses and universities alike in the career counseling of employees and students. In addition, it would help firms to determine which type of individual best serves their corporate human resource needs.

2. Initiate a longitudinal study within industry as a whole or by different kinds of industries over a five or ten year period of time to determine if the relationship of any of the independent variables changes with regards to significance and why such changes might occur. Such a study would further address the degree to which age relates to our views of work and how other societal influences, years of work experience, etc. cause our views of work to change over time.

CHAPTER BIBLIOGRAPHY

1. Mirels, H. L. and J. B. Garrett, "The Protestant Ethic as a Personality Variable," Journal of Consulting and Clinical Psychology, 36 (1971), 40-44.

2. Weber, Max, The Protestant Ethic and the Spirit of Capitalism, London, George Allen & Unwin LTD, 1930.

3. Wollack, Stephen, James G. Goodale, Jan P. Wijting and Patricia Cain Smith, "Development of the Survey of Work Values," Journal of Applied Psychology, 55 (1971), 331-38.

APPENDIX I

From Bowling Green University
Revised, Form U

THE SURVEY OF WORK VALUES

CONFIDENTIAL--These answers will be used only for analysis by groups. Individual answers will not be evaluated.

INSTRUCTIONS--This is a questionnaire concerning the way people feel about work. It is a measure of your opinions. There are no right or wrong answers. Read each statement carefully and indicate your answer on the sheet provided. Plese do not omit any statements. On the answer sheet, there are 5 letters for each statement. These letters refer to your feelings about the statement. For example, if you strongly agree with a particular statement, you will mark space E. If you moderately disagree, you will mark B, and so on.

A=Strongly Disagree
B=Moderately Disagree
C=Neither Agree or Disagree
D=Moderately Agree
E=Strongly Agree

---

1. One of the reasons that I work is to make my family respect me.

*2. A person does not deserve respect just because the person has a good job.

*3. A job with prestige is not necessarily a better job than one which does not have prestige.

4. My friends would not think much of me if I did not have a good job.

5. A job wich requires the employee to be busy during the day is better than a job which allows a lot of loafing.

*6. Most companies have suggestion boxes for their workers, but I doubt that the companies take these suggestions seriously.

APPENDIX I-Continued

10. A person should hold a second job to bring in extra money if the person can get it.

11. In choosing a job, a person ought to consider chances for advancement as well as other factors.

12. One who does a sloppy job at work should feel a little ashamed of oneself.

13. A worker should feel some responsibility to do a decent job, whether or not the supervisor is around.

14. One who has an idea about how to improve one's own job should drop a note in the company suggestion box.

15. A person should choose the job which pays the most.

*16. There is nothing wrong with doing a poor job at work if one can get away with it.

17. A good worker is interested in helping a new worker learn the job.

*18. Prestige should not be a factor in choosing a job.

19. One should always be thinking about pulling oneself up in the world and should work hard with the hope of being promoted to a higher-level job.

*20. The best job that a worker can get is one which permits the worker to do almost nothing during the day.

*21. If I were paid by the hour, I would probably turn down most offers to make extra money by working overtime.

*22. If a person likes his job, the person should be satisfied with it and should not push for a promotion to another job.

23. A person should take the job which offers the most overtime if the regular pay on the jobs is about the same.

*24. If a worker has a choice between going to the company picnic or staying home, the worker would probably be better off at home.

25. Even if a worker has a very low-level job in a company, it is still possible for the worker to make suggestions which will affect company policy.

APPENDIX I-Continued

26. The person who holds down a good job is the most respected person in the neighborhood.

*27. When an employee can get away with it, the employee should take it easy.

28. The trouble with too many people is that when they find a job in which they are interested, they don't try to get a better job.

29. A worker who takes long rest pauses is probably a poor worker.

30. A person should choose one job over another mostly because of the higher wages.

31. A worker who turns down a promotion is probably making a mistake.

32. There is nothing as satisfying as doing the best job possible.

33. Once a week, after the work day is over, a company may have their workers get together in groups for the purpose of discussing possible job changes. A good worker should remain after quitting time to participate in these discussions.

34. The only good part of most jobs is the paycheck.

*35. A promotion to a higher-level job usually means more worries and should be avoided for that reason.

36. One who feels no sense of pride in one's work is probably unhappy.

*37. If something is wrong with a job, a smart worker will mind his or her own business and let somebody else complain about it.

38. Having a good job makes a person more worthy of praise from friends and family.

39. A person would soon grow tired of loafing on a job and would probably be happier if he or she worked hard.

40. A well paying job that offers little opportunity for advancement is not a good job for me.

APPENDIX I-Continued

*41. When someone is looking for a job, money should not be the most important consideration.

*42. One is better off if one is satisfied with one's own job and is not concerned about being promoted to another job.

*43. Only a fool worries about doing a job well, since it is important only that you do your job well enough not to get fired.

*44. One should do one's own job and forget about such things as company meetings or company activities.

*45. As far as my friends are concerned, it could not make any difference if I worked regularly or only once in a while.

*46. If a person is given a choice between jobs which pay the same money, the person should choose the one which requires as little work as possible.

47. A good job is well paying.

48. One should feel a sense of pride in one's work.

49. Even though they make the same amount of money, the person who works in an office has a more impressive job than the person working as a sales clerk.

50. A person should try to stay busy all day rather than try to find ways to get out of doing work.

51. A person should take a job that pays more than some other job even if that person cannot stand other workers on the job.

52. The most important thing about a job is liking the work.

53. Doing a good job should mean as much to a worker as a good paycheck.

54. If a worker keeps himself busy on the job, the working day passes more quickly than if the worker were loafing.

*scoring reversed

APPENDIX II

PERSONAL INFORMATION:

55. What are category are you in?
    a. 18-29
    b. 30-39
    c. 40-49
    d. 50-59
    60-70

56. What educational level have you completed?
    a. did not finish high school
    b. high school degree or GED
    c. two years of college or an Associates Degree
    d. a Bachelors Degree
    e. some Graduate work

57. If you have completed at least some college, please complete this question. If not, go on to question 58.--- What was/is your major in college?
    a. Education
    b. Liberal Arts
    c. Engineering
    d. Business
    e. Other

58. To which ethnic group do you belong?
    a. Black or Negro
    b. Oriental
    c. White or Caucasian
    d. Spanish or Latin American
    e. Other

59. Whaich sex are you?
    a. female
    b. male

If you work more than twenty hours a week, please complete questions 60-62.

60. How are you paid?
    a. by the hour
    b. paid a flat salary
    c. paid a salary and bonus/ commission
    d. paid straight commission

61. What level of skill is required for your present job?
    a. unskilled (no prior experience necessary; all training received on the job)
    b. semi-skilled (some specific skills required before being hired, but also requires further training on the job)
    c. skilled (must be licensed or have worked in an industry recognized appreciceship program before being hired)

APPENDIX II-Continued

62. In what job classification are you categorized?
    a. exempt (no overtime money received for any hours worked over forty in a week, although compensatory time may be)
    b. non-exempt (paid time and a half for all hours over forty worked in one week)

BIBLIOGRAPHY

Books

Andrisani, Paul J., Work Attitudes and Labor Market Experience, New York, Praeger, 1978.

———————— and Herbert S. Parnes, "Commitment to the Work Ethic and Success in the Labor Merket: A Review of Research Findings," Chapter 2, The Work Ethic--A Critical Analysis, edited by Jack Barbash, Robert J. Lampman, Sar A. Levitan and Gus Tyler, Bloomington, Illinois, Industrial Relations Research Association Series, 1983.

Bakan, D., On Method, San Francisco, Jossey-Bass, 1967.

Cherrington, David L., The Work Ethic, New York, AMACOM, 1980.

Crane, Donald P., Personnel: The Management of Human Resources, Boston, Kent Puslishing Company, 1982.

Dayton, C. Mitchell, The Design of Educational Experiments, New York, McGraw-Hill, Inc., 1970.

Fullerton, K., "Calvinism and Capitalism: An Explanation of the Weber Thesis," in Protestantism and Capitalism: The Weber Thesis and its Critics, R. W. Green, editor, Boston, D. C. Heath and Company, 1959.

Hoffman, W. Michael and Thomas J. Wyly, editors, The Work Ethic in Business, Cambridge, Oelgeschlager, Gunn and Hain, Publishers, Inc., 1981.

Hughes, H. S., Conscious Society, New York, Vintage Press, 1958.

Inlow, Gail M., Values in Transition, New York, John Wiley and Sons, Inc., 1982.

Kerr, Clark and Jerome M. Rosow, editors, Work in America: The Decade Ahead, New York, Van Nostrand Company, 1979.

Lemisch, Jesse L., Benjamin Franklin: "The Autobiography" and Other Writings, New York, New American Library, 1961.

Lenski, Gerhard E., The Religious Factor: A Sociological Study of Religion's Impact on Politics, Economics and Family Life, New York, Doubleday, 1961.

BIBLIOGRAPHY-Continued

Nie, Norman H., SPSSx User's Guide, New York, McGraw-Hill, Inc., 1983.

Nunnally, J.C., Psychometric Theory, New York, McGraw-Hill, Inc., 1967.

Schaeffer, Francis A., How Shall We Then Live? Old Tappan, New Jersey, Fleming H. Revell Company, 1976.

Sheppard, Herbert and Neal Herrick, Where Have All the Robots Gone? New York, Free Press, 1972.

Terkel, L., Working, New York, Pantheon Books, 1974.

Tilgher, Adriano, Work: What it has Meant to Men Through the Ages, New York, Harcourt, Brace and Company, 1930.

Toffler, Alvin, Future Shock, New York, Bantam Books, Inc., 1970.

————————, The Third Wave, New York, Bantam Books, Inc., 1980.

Weber, Max, The Protestant Ethic and the Spirit of Capitalism, London, George Allen and Unwin, LTD, 1930.

Articles

Becker, Brian E. and Stephen M. Hill, "Teenage Unemployment: Some Evidence of the Long-run Effects on Wages," Journal of Human Resources, XV (Summer, 1980), 354-72.

Blood, Milton R., "Work Values and Job Satisfaction," Journal of Applied Psychology, LIII (1969), 456-9.

"College Students and the Meaning of Work," Monthly Labor Review, LXXXXVI (November, 1973), 42.

Cooper, M. R., B. S. Morgan, P. M. Foley and L. B. Kaplan, "Changing Employee Values: Deepening Discontent? Harvard Business Review (January-February, 1979), 117-25.

Fenn, Dan H., Jr., and Daniel Yankelovich, "Responding to the Employee Voice," Harvard Business Review (May-June, 1972), 83.

Hales, L. W. and B. J. Fenner, "Measuring the Work Values of Children: The Ohio Work Values Inventory," Measurement and Evaluation in Guidance, VIII (April, 1975), 20-5.

BIBLIOGRAPHY-Continued

Larcom, Lucy, "Among Lowell Mill-Girls: A Reminisence," Atlantic Monthly, XXXXVIII (1881), 596.

Lewis, M., "Psychological Effect of Effort," Psychological Bulletin, LXIV (1965), 183-90.

Mirels, H. L. and J. B. Garrett, "The Protestant Ethic as a Personality Variable," Journal of Consulting and Clinical Psychology, XXXVI (1971), 40-4.

Segalman, R., "The Protestant Ethic and Social Welfare," The Journal of Social Issues, XXIIII (1965), 336-60.

Smarr, Erwin R. and Philip J. Escoll, "Humanism and the American Work Ethic," Today's Education, LXIII (January-February, 1974), 83-5.

Siegel, Irving H., "Work Ethic and Productivity," Chapter 6, The Work Ethic--A Critical Analysis, edited by Jack Barbash, Robert J. Lampman, Sar A. Levitan and Gus Tylor, Bloomington, Illinois, Industrial Relations Research Association Series (1983).

Taylor, Ronald N. and Mark Thompson, "Work Value Systems of Young Workers," Academy of Management Journal (December, 1976), 522-36.

"The Young Worker and the Work Ethic," Today's Education, LXII (April, 1973), 23-5.

"The Youngest Workers Care the Least," Psychology Today, XII (October, 1978), 34, 37-8.

Wollack, Stephen, James G. Goodale, Jan P. Wijting and Patricia Cain Smith, "Development of the Survey of Work Values" Journal of Applied Psychology, LV (1971), 331-8.

Yankelovich, Daniel, "The Work Ethic is Underemployed," Psychology Today, XVI (May, 1982), 5-6, 8.

Young, Anne McDougall, "Trends in Educational Attainment Among Workers in the 1970's," Monthly Labor Review (July, 1980), 44-7.

"Young Laborers: The Work Ethic Wobbles On," Human Behavior, VII (October, 1978), 26-7.

Zytowski, D. G. "The Concept of Work Values," Vocational Guidance Quarterly, XVIII (1970), 176-86.

BIBLIOGRAPHY-Continued

Reports

Gottlieb, D., Youth and the Meaning of Work, Springfield, National Technical Information Service.

Ideas and Trends in Personnel, Commerce Clearing House, Inc., January 27, 1984.

Publications of Learned Organizations

Mills, C. Wright, White Collar, New York, Oxford University Press, 1956.

Price, Charlton R., New Directions in the World of Work, Kalamazoo, Michigan, W. E. Upjohn Institute of Employment Research, 1971.

Quinn, Robert P. and Graham L. Staines, The 1977 Quality of Employment Survey, Ann Arbor, Institute for Social Research, University of Michigan, 1977.

Reisman, David, The Lonely Crowd, New Haven, Yale University Press, 1950.

Rodgers, Daniel T., The Work Ethic in Industrial America, 1850-1920, Chicago, The University of Chicago Press, 1974.

Schrank, Robert, Ten Thousand Working Days, Cambridge, MIT Press, 1978.

Widick, B. J., editor, Auto Work and Its Discontents, Baltimore, Johns Hopkins, 1976.

Public Documents

U. S. Department of Health, Education and Welfare, Work in America: Report of a Special Task Force to the Secretary of Health, Education and Welfare, Cambridge, MIT Press, 1973.

Unpublished Materials

Smith, Patricia Cain, Letter to prospective users of the Survey of Work Values, March, 1980.

BIBLIOGRAPHY-Continued

Newspapers

Yankelovich, Daniel, "Does the American Work Ethic Work?" Chicago Tribune, May 16, 1982.