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THE JUDGMENTS OF SELECTED PUBLICS ON EMPHASIZING  
SPECIFIC CULTURAL WORK VALUES IN THE VOCATIONAL  
CLASSROOM: AN APPLICATION TO TRADE AND  
INDUSTRIAL CARPENTRY CLASSES  
IN OKLAHOMA

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## PREFACE

Empirical research into the rather unstructured realm of cultural work values is not an easy task. Indeed, without the willing assistance of the many involved individuals; students, teachers, parents, businessmen, and state-level vocational educators, it would have, of course, been impossible. The advice, direction, and personal assistance shown to me by my major thesis adviser, Dr. William Stevenson, and by Dr. William Frazier, Dr. Elaine Jorgenson, and Dr. Don Phillips made the idea for this study become firm reality in the form of this thesis.

The motivation to complete this study was supplied by my wife Sharon and our new son Justin. Sharon also skillfully edited, typed, and critiqued the manuscript. This study is dedicated to the memory of those Marines who were killed in action while serving as members of Delta Company, 9th Engineer Battalion, 1st Marine Division, Que Son Valley, Republic of Vietnam, May, 1968 to June, 1969.

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## CHAPTER I

### INTRODUCTION

#### The Background of the Problem

The successful industrialization of the United States and the resulting affluence for its citizenry can, in part, be attributed to the rather unique combination of America's land, labor, and capital. Further, the profitable interaction of those components was encouraged by work ethics, ideologies, which placed a high value on man working hard at his occupation. In addition to a high standard of living, one could supposedly, through work, achieve self-worth, personal fulfillment, and social status. Indeed, one's occupation and prowess in his field were synonymous with social standing, and upward mobility through hard work was a measure of the successful American. The existence of those work ethics may have been a major contributor to the competitiveness, aggressive technology, and the resulting expansion of economic wealth which assisted the United States in becoming the leader of the world in the middle of the twentieth century.

That rise to prominence was also greatly influenced by the willingness, perhaps begrudgingly at times, of the entrepreneurs and labor to redistribute a portion of their wealth for the maintenance and expansion of societal institutions, such as education. That support, however, did not come free of encumbrance. Both the local taxpayer

and business owners expected the schools to reflect their views.

Ideally that approach maintained a balance in the operation of the schools. Not only was the general society served but so was the economic institution.

However, as America moved through the Depression, World War II, and fully into the Second Industrial Revolution, the control of the economic institution moved into fewer hands and America became an employee society. The economic institutions, along with the federal government, grew to a position of power and influence over the other three traditional institutions of school, church, and family. In the 1960s problems began to arise. Besides the challenging of the base values of an industrialized society by a segment of the youth, serious personnel problems which affected production in the work place came into prominence. The new balance of power said the problems were caused by the lack of a proper work ethic and began in the early 1970s to encourage the institution of education to diffuse the ideology of career education. That concept had as one of its base tenets that work is good and that future employees, students, should be changed and taught to place a high value on work.

On another side, social scientists were generating data and theories which purported to show that the effects of work were harmful to man and society. They pointed to the same personnel problems in the work place; low morale, poor workmanship, sabotage, alcoholism, heart attacks, drug abuse, decreased production, and alienation, as proof of their stance. The social scientist said those problems were caused by the dehumanizing effects of a bureaucratized and systematized work

place and recommended the changing of the work place (Fromm, 1968; Chapman, 1972).

Researchers for career education and research/planners for the economic institution moved quickly from the ideal of teaching students to place a high value on work to the idea of identifying and encouraging the teaching of specific work values. The researchers also noted that a measure of the level of importance placed on specific values by the successful employees would provide a useful criteria for the level of emphasis the values should receive in the classroom (Thal-Larsen, 1971; Carroll, 1970; O'Toole, 1972).

#### Problem Statement

On one hand, the teaching of specific work values at specific levels of emphasis could be considered as indoctrination, which could lead to the moulding of individuals to fit into prescribed job positions in a dehumanizing work place. The effect might be harmful to society as a whole, to whom educators owe a responsibility.

On the other hand, those work values might actually be representative of a work-oriented society and their diffusion by the schools would be a legitimate transmission of cultural values. The federal government in its encouragement of this aspect of career education might actually be reflecting societal needs.

That situation poses a dilemma for educators. Due to the lack of definitiveness on either side, the issue remains in a general philosophical realm, subject to as many different interpretations as there are philosophies.

### Purpose of Study

The purpose of this study was to move the issue, of whether or not specific work values should receive prescribed levels of classroom emphasis, from the general philosophical realm to a more rational decision-making situation, and judge the worth of teaching work values in one particular situation in vocational and technical education. To fulfill that purpose, the following three procedural objectives were designed for accomplishment in 1973 in Oklahoma.

1. Collection and comparison of specific work values of (a) successful members of an occupational group, (b) vocational teachers who were training students to enter that occupation, and (c) students who were receiving the training.

2. The utilization of the scores of the successful occupational members as a judgment point for eliciting the opinions of (a) the vocational teachers, (b) the vocational students, (c) parents of the vocational students, and (d) other decision makers in vocational education on the level of emphasis, if any, those values should receive in the classroom.

3. To judge, based on the results of Objectives 1 and 2, the worth of teaching specific work values at specific levels of emphasis to the students enrolled in those particular vocational training classes in Oklahoma.

### Need for the Study

The dilemma surrounding whether or not teachers, local educational agencies, and state educational agencies should teach or encourage the

teaching of specific work values is in part a moral question. Without scientific knowledge as to the actual work values of the successful employee or documented information on existing work values of the students, the question remained in a general philosophical realm. The introduction of the specificity generated by a study of this nature allows the concerned parties not only an understanding of the reality situation but provides a base from which rational decisions can be made.

Further, the information collected, such as the scores on the work values of the employees, students, and teachers, might have uses in vocational counseling, curriculum construction, meetings with parents, and the inservice training of teachers. In addition, the understanding of the values of the employees and the diffusion of that information to the students might allow for an increase in the placement and length of initial employment of the graduated students. Work organizations tend to hire and retain employees whose values are similar to those of the workers in the organization. Also employees tend to remain longer with work forces whose values are congruent with their own values.

#### Operational and Population Definitions

Value. Qualities which are regarded as intrinsically desirable or are desirable ends or means to ends (Super, 1970).

Work Values. The intrinsic and extrinsic qualities which motivate one to work, and which identify the satisfactions one seeks in or as a result of work.

Carpentry Students. High school males, ages 14 to 21, in grades 10 through 12, who are enrolled as full-time day students in trade and industrial carpentry classes. They normally attend those classes for three-hours per day, five days per week.

Carpentry Teachers. Individuals hired by the local schools and receiving federal reimbursement via the Oklahoma State Department of Vocational and Technical Education for teaching trade and industrial carpentry classes.

Successful Carpenters. Those individuals who, based on specific criteria, were selected by building contractors as having the highest workmanship levels and being the most efficient among all their carpenters.

Building Contractors. Those individuals and firms listed in the yellow pages of the 1972 telephone directories as home builders.

Parents of Carpentry Students. Those individuals who have sons or wards enrolled in trade and industrial carpentry classes.

Vocational Educators. While that term would normally encompass all professional personnel involved in vocational and technical education, it has been operationally defined to describe one particular population: Those individuals on the professional staff of the Oklahoma State Department of Vocational and Technical Education and the Oklahoma State Department of Education who worked directly with vocational education in the public schools; and members of the professional staff of Oklahoma State University, Central State University, and Oklahoma University, who worked with vocational education or received a portion of their salary via reimbursement from the Oklahoma State Department of Vocational and Technical Education and were

included on the distribution list for that population by the Communications Center of the Oklahoma State Department of Vocational and Technical Education.

#### Assumptions Basic to the Study

Residential building contractors in the two metropolitan areas, Oklahoma City and Tulsa, and in the four next largest cities in Oklahoma were given standardized guidelines to use in the selection of the successful carpenters. It was assumed that those guidelines would cause the selection of successful carpenters and that they were applied in a manner consistent enough to insure that the sample of successful carpenters was representative of all successful carpenters in Oklahoma's metropolitan areas.

Each trade and industrial carpentry teacher in the state was furnished an address recording form and asked to list, based on the order of students' names in their grade book, the names and home addresses of the first, third, fourth, sixth, eighth, and ninth student. The numbers were arrived at via a table of random numbers, and it was assumed that the teachers conformed consistently enough to that recording order to insure the sample of students and parents were representative of the total population of students and parents.

It was assumed that all respondents were capable of and, in fact, did honestly answer all questions consistently enough to insure an accurate reflection of their values and judgments. It was further assumed that the opinionnaire, which was developed for the purpose of eliciting the judgment of the concerned parties on the amount of

emphasis the work values should receive in the classes was of sufficient validity to insure the accurate reflection of their judgment.

In addition, it was assumed that the non-respondents were not sufficiently different from the respondents. Therefore, it was assumed that the non-respondents did not bias the study to the point of invalidity.

#### Limitations of the Study

The internal validity of the study was limited by the measurement of only 15 work values. There may be additional work values, and further, those may be influenced by general societal values which were not measured. Therefore, internally, the study can only reflect those values which were specifically measured.

The external validity of the study was limited by the scope of the population measured. Further, the entire study was limited by the amount of finances available.



## CHAPTER II

### LITERATURE REVIEW

#### Scope of Review

Man's current concept of work represents the outcome of patterns of relations which have evolved out of the past (Miller and Form, 1964). Analyzing the history of man's view on work, as presented in the first section of this chapter, provides a better understanding of the current situation. This is necessary because the analysis of contemporary problems in the work place, as presented in the second section of this chapter, is confounded by differing observations, theories, research findings, and ideologies. With knowledge gleaned from that analysis, the current situation is related to the role of the school in the transmission of cultural values on work in section three. Such action narrows the scope of inquiry to a manageable size and leads, in the fourth section, to a review of research which is specifically related to the teaching of work values in the school.

#### Historical Viewpoints

According to de Camp (1963), man has spent about ninety-nine percent of his history as a hunting and food-gathering tribesman. Civilization has arisen only during the remaining one percent of the time, which amounts to about the last nine to ten thousand years. He equates civilization with man learning to organize for work and points to the

Agriculture Revolution as man's first steps toward cultural technology. The technique of agriculture began in about 8000 B.C. in Iraq and Syria and then spread to the valley of the Nile River. It was there, about three or four thousand years later, where the farming villages grew into cities and cultural inventions and innovations were successfully diffused.

One of these innovations in Egypt was the work organization. As man learned how to raise more food than he needed, other men were able to spend their time making useful items. Thus specialization arose, and through the economy, wealth was accumulated. Men undertook projects too large for a single craftsman, and it became necessary for hundreds or even thousands of men to be organized and directed toward a common goal (de Camp, 1963).

Along with organizing man for work came a system of authority. This authority system was based on rank in the work organization. That rank was derived from one's area of job specialization. Officials directed by the ruling kings became the decision-makers and the responsible parties for insuring that the goals of the organization were met (Cottrell, 1961). Contrary to popular belief, the workers who constructed Egyptian tombs were "not slaves lashed with whips" but were farmers conscripted for work during the season of the year when the farm lands were flooded. They were paid with food. The work force had a nucleus of skilled craftsmen who directed the work and performed specialized tasks (de Camp, 1963). Further, the officials were able to rise to their positions by promotion (Cottrell, 1961).

While little evidence is available on the Egyptian view of work, there are some indicators. The nucleus of skilled workers had names;

such as, "Vigorous Gang" and "Enduring Gang," They marked their work projects with these names (de Camp, 1963). That indicates a certain level of morale. However, there appeared to be an argument over the social status attached to one based on the work he performed. The writers of the time, scribes, despised any trade but their own. "Gardeners had to awaken early; builders got 'dirtier than pigs'; embalmers had 'foul-smelling hands'; and fishermen worked 'on the river and mingled with the crocodiles.'" The scribes felt their work was better because they did not get dirty, but they were upset because social stratification placed them between the craftsmen and the officials (Cottrell, 1961).

So from the first recorded history, three of the five elements which exist in current day bureaucracies were present: an authority system, job specialization, and career status via promotion (Blau and Scott, 1960). The fourth element, a body of rules and regulations, was not mentioned in the literature, but the probability is high that it did exist. The fifth, treating all employees alike, impersonal orientation, was alluded to but not specifically mentioned. Further, social stratification based on occupation and the concept of morale were present.

The height of Egyptian civilization appeared to run in time from about 2700 B.C. when the first pyramids were constructed to about 1600 B.C. when the last were constructed. Then the Egyptian civilization declined. By the early 500s B.C. to the late 400s B.C., Greece had become the center of western civilization (Davis, 1914; Cottrell, 1964; de Camp, 1963; de Camp, 1964). The Golden Age of Greece existed and such individuals as Socrates, Plato, Aristotle, and Straton lived.

According to de Camp (1964), those individuals were not the "brilliant self-actuated intellectuals" which current writings ascribe them to be. They were apparently very practical in borrowing and synthesizing the works of the Egyptians, Babylonians, and the Phoenicians. Their assimilation led de Camp (1964) to write, "The remarkable thing about the Greeks of the Golden Age is that they made so much of their borrowings so quickly."

Socrates was the teacher of Plato. Plato's dialogue, The Republic, contained definite elements on the concept of work. When Plato was in his 70s, approximately 355 B.C., he wrote two dialogues, Timaios and Kritias, which described the mythical but ideal culture of Atlantis (de Camp, 1964). Those documents, whether they reflected the Greek view, or just Plato's view, on work probably influenced many of the perceptions man has had about work since that time. Plato's teachings were greatly diffused. Over two thousand books and articles have been written about the mythical Atlantis; and scores of novels, short stories, and motion pictures have used the theme (de Camp, 1964). Further, anyone receiving a "Classical Education," up to the time of this writing, was fully presented with Plato's ideal work hierarchy. It is also noted that "Classical Educations" have traditionally been a luxury available only to the "leisure class," from which most rulers, social leaders, and political power leaders emerge (Veblen, 1899). Based on lectures and interviews with Dr. Neil Robert Luebke, Ph.D. Johns Hopkins University, Associate Professor of Philosophy; Dr. Ivan Chapman, Ph.D. University of Missouri, Associate Professor of Sociology; and Dr. Richard L. Teague, Ph.D. North Carolina State University, Assistant Professor of Sociology; all of Oklahoma State University, it

appears that positions of influence and power continue to gravitate to the offspring of the leisure class who receive the "Classical Education."

The Platonic ideology of work can be clearly reflected in an extraction from The Republic (Table I). This concept, currently referred to as Plato's Line, by placing a hierarchy on knowledge also places a hierarchy on work and identifies the more desirable types of activities.

TABLE I  
PLATO'S LINE

Concept		Meaning
intellectual world, never changing	↑ intellectual intuition thinking	The higher up the more the truth is presented. It requires more work to know, thus it is more worth knowing
visible world, always changing	perception images	

Given that hierarchy, only intellectual truth was a worthy concern for man. Items or activities dealing with the current world were unworthy considerations left to "those of lower origins," (Davis, 1914)

It is interesting to this reviewer to note the similarity of Plato's Line, which can be classified as an ideology, to currently existing models in education. Some examples are Comte's structuring of curriculum from simple to complex (Gross and Gross, 1969), Bloom's (1956) taxonomy of the cognitive domain, and Krathwohl's (1964)

taxonomy of the affective domain. These seem to follow the same basic pattern of Plato's Line.

Given the possible residual influence of Plato, it is little wonder that his student, Aristoteles of Stagyrā (Aristotle), who lived from approximately 384 B.C. to 322 B.C., reflected his views. Aristotle, at 17 years of age, joined Plato's classes, and for twenty years listened to Plato's ideals. It is written of him:

True Aristotle had the well-to-do Greek gentleman's snobbish disinclination to experiment or invent, because experimentation and invention involved manual work, and manual work was fit only for slaves and 'base mechanics.' These inferior persons should never be admitted to citizenship, said Aristotle, because 'no man can practice virtue who is living the life of a mechanic or laborer.' (de Camp, 1963)

Comments by post-, contemporary-, and neo-platonic philosophers are interesting. According to Homer, the gods hated mankind and out of spite condemned men to toil. Xenophon called work the painful price the gods charge for the goods of life. Hesiod wrote that life without work would be the height of felicity, a happiness the Golden Age knew, which perhaps the future might know; but now, alas, the gods are displeased with man and have buried food under the earth so that if man would eat, he must first dig. However, Hesiod did condemn idleness and beggary, but saw no inherent value or dignity in work (Tilgher, 1930).

To the Greeks, work was a curse. Their name for work, *ponos*, had the same root as *poena*, meaning sorrow. In current English, the word means drudgery and connotes fatigue, *travail*, and burden (Tilgher, 1930).

Truth alone is the only worthy concern for the spirit. Truth is an ideal world, existing in itself before, outside of, and independently of the spirit, secure from time and change, a world which the spirit can know but not influence.

Labor, therefore, which contaminates the mind by contact with unstable matter, is clearly an enemy. (Tilgher, 1930)

However, Archimedes of Syracuse, who lived from approximately 287 B.C. to 212 B.C., made some attempts to apply pure science in engineering. As a young man, he had studied in a school in Alexandria. The school is thought to have been initially established by followers of Aristotle. He discovered, or developed, some mathematical formulas. However, his inventions were "poor things" and of little utility (Tilgher, 1930). Yet, his intrusion into the world of work was sufficient for Plutarch to write, apparently in a defending nature, that Archimedes had "too high a spirit, . . . too profound a soul," that even if he had "done something so repudiating, so sordid and ignoble . . ." as to put forth his scientific knowledge "into the trade of engineering, and every sort of art that lends itself to mere use and profit . . ." it was not done for that purpose (de Camp, 1963). Archimedes had earlier attempted to justify his actions by saying the inventions were "for the most part mere amusements and accessories of geometry." However, it was too late; and he is recorded in history as an engineer rather than a philosopher (de Camp, 1963).

There are some paradoxes involved in this view of the Golden Age of Greece. The first is that the great scholars in dishonoring labor; such as Aristotle, wrote:

The lower sort of mankind are by nature slaves, and it is better for all inferiors that they should be under the rule of a master. The use made of slaves and of tame animals is not very different; for both by their bodies minister to the needs of life. (Davis, 1914)

Further, the slaves who sold for from \$9.00 to \$180.00 (United States currency based on value in 1900) dressed or acted little different than free craftsmen. Labor was indeed looked down upon (Davis, 1914).

Anyone who worked in the reality world was supposedly of a lower nature. Yet, Davis (1914) writes that one of the prime reasons for Athenian greatness was the fact that it was the richest and greatest commercial city of its time. Since the land around it was poor, it was a manufacturing and trade city and had for its size many market places. He notes in his chapter on commerce:

Certain it is, most 'noble and good' gentlemen delight to be considered persons of polite uncommercial leisure; equally certain it is that a good income was about as desirable in Athens as anywhere else, and many stately 'Eupatrid' who seems to spend his whole time in dignified walks, discouraging on politics or philosophy, was really keenly interested in trades, factories, or farms, of which his less nobly born stewards have the active management.

To add to this paradox is the existence of a document titled Mechanics. Historians have attributed the authorship of this book, which attempts to apply pure science to the real world via physics, to either Aristotle or his immediate student Straton. Since it was not signed nor referenced, exact authorship is unknown (de Camp, 1963).

Thus, while apparently Plato insured that labor was given no social or intrinsic value, dishonored and looked down upon, accorded the status of working animals, and entirely in opposition to the real proof of man's worth, it seems the reality of the situation was acknowledged. According to all of the authors read for this section on Greece, the great philosophers were either wealthy or lived in wealth which was supplied by a benefactor. Did they write one thing and do another?

The amount of influence the Greek philosophers' written views on work had on our current situation is perhaps impossible to estimate. Nevertheless, it is unrealistic to state that their views have not been influential.



As Greece had replaced Egypt as the cultural center of the world so then did the Romans replace the Hellenistic Greeks as leaders of the world. The transition from the Greek philosophies of Plato, Aristotle, and Straton to the Hellenistic philosophy, and perhaps the less strict views of Archimedes, was probably best made by the Roman scholar Cicero, who lived from approximately 106 B.C. to 43 B.C. (Tilgher, 1930; Webster's, 1967).

According to Tilgher (1930), Cicero copied the Greek view on work and spoke for the majority of Romans when he stated:

There are but two occupations worthy of a free man: first, agriculture; next, big business, especially if it leads to an honorable retirement into rural peace as a country gentleman. All other pursuits are vulgar and dishonoring, handcraft not less than petty trade, the hiring out of one's arms not less than usury. They chain the soul to the desires of other men, to the thirst for gain.

De Camp (1963) noted that Cicero often expressed the ideal that the essence of a true gentleman is his refusal to have anything to do with practical utility.

Cicero's comments were nonetheless a break with the Greek view on wealth as presented by Aristotle. Aristotle felt it was logical to have enough wealth to satisfy normal needs and condemned the piling up of superfluous fortunes because there was no way to keep the quest for wealth in itself, while Cicero advocated the idea of making enough wealth to retire and then perhaps seeking the truth (Tilgher, 1930).

Further, Virgil

seemed to have an intuition that labor might be something more than a prerequisite for personal well-being and national greatness, that it might be, in itself, a necessary element of a full and worthy life, without which man would not be man but a brute (Tilgher, 1930).

Another point is worth consideration. Many of the pure scientists of Greece migrated to Rome. It appears that the Romans made use of these pure scientists by applying their knowledge in engineering efforts. Likewise, they legitimized the applied sciences in government, administration, war, and the legal system. This represents a major break with the writings of Plato and Aristotle (de Camp, 1963).

According to historians, Romans contributed little to pure science, but made their contribution to mankind in the applied sciences (de Camp, 1963). They also made some definite contribution to man's view on work. Davis (1925) noted that it was possible in Rome for a successful businessman, originally born of lower origin, to enter the upper class. Here he could search for truth. Davis (1925) also observed that free craftsmen were considered of more worth, better workers than the slaves. That is a notable change from Aristotle's view.

The Romans legitimized the application of pure science to reality; justified the accumulation of wealth for retirement and upper mobility to seek the truth; recognized the value of craftsmen; and via Virgil, indicated a possible social value in labor. However, it appears their perception of work was not transmitted down through the ages as the Platonic view has been. When the west Roman empire fell, around 500, the world entered an intermediary time between the old world and the future. The center of world culture gradually shifted to Europe. The Christian religion had already begun its climb to social power and through the Middle Ages, 500 to about 1500, seemed to influence man's view on work (de Camp, 1963; Tilgher, 1930). To fully grasp the

Christian viewpoint on work and its changes, it is necessary to move back in time to the ancient Hebrews.

It is difficult to attach an exact time frame to the ancient Hebrews. Moses may have led the Israelites out of Egypt at about the time the last pyramids were constructed. This would have been approximately 1600 B.C. according to de Camp (1963), or approximately 1300 B.C. according to the Old Testament.

From about 1700 to 1300 B.C., until the teachings of Jesus Christ were well diffused across Europe, about 1100, the Hebrews had one view on work. Man was obligated to work, for it was one's duty to expiate the Original Sin committed by their forefathers in the Garden of Eden (Tilgher, 1930). The sin was expiated by work.

Then the Lord God said, 'Behold, the man has become like one of us, knowing good and evil; and now, lest he put forth his hand and take also of the tree of life, and eat, and live for ever' --therefore the Lord God sent him forth from the Garden of Eden to till the soil from which he was taken. He drove out the man . . . . Genesis, Chapter 3, 22.

. . . and called his name Noah, saying, 'out of the ground which the Lord has cursed this one shall bring us relief from our hands and from the toil of our hands.' Genesis, Chapter 5, 28.

Work was man's duty in leading the world back from sin and into divine harmony (Taylor, 1968). The Hebrews considered work a drudgery and to have value only in the effect it may have on returning the world to its paradise condition. Their prophets condemned the piling up of economic wealth because it took time away from devotion to spiritual work (Tilgher, 1930; Taylor, 1968). That view on work held constant, with some variation past the time which Jesus lived.

The teachings of Jesus on work were confused by differing interpretations. It may also be possible that he did not set down an exact

ideology on work. He preached against wealth because the getting and keeping of wealth filled the mind with care and anxiety. No time was left for the real purpose of life, service to God. Work, in itself, was somewhat ignored in his preaching (Tilgher, 1930). This reviewer noted a similarity between the Platonic ideology of not working so one could search for truth and the interpreted view of Jesus wanting man to have time to contemplate God.

The early Christians and Roman Catholics appeared to carry through with the Hebrew viewpoint on work. It was held in low esteem and had no value in itself (Tilgher, 1930). This appeared to be transmitted into the early Middle Ages, approximately 500 to 1200 (de Camp, 1963).

There were a few minor changes in man's view of work during the early portion of the Middle Ages. How much effect it had is difficult to determine. Some Christians began to accept the making of a profit if that profit was used in charity work.

Saint Augustine, 354 to 430, laid down that work was obligatory only for monks. Their work was to supply the needs of the monastery, and lay people should have enough wealth to provide for themselves and for charity work. Wealth was to be considered as trust from God. Handcraft, tilling the soil, and commerce on a small scale were endorsed by him. However, apparently his view was not fully diffused at that time (Tilgher, 1930; Taylor, 1968).

Saint Benedict, who lived from approximately 480 to 543, picked up there and began to spread the cult of work into lay society. Saint Benedict wrote, "Work, do not despair." In the Benedictine monasteries the monks alternated work with prayer. Thus the Platonic scorn of the laboring classes began to somewhat dwindle (Tilgher, 1930).

The meaning Saint Benedict attached to work is not altogether removed from the views of Plato and Jesus. Work had no value in itself, but the work considered most worthy was that of a religious and intellectual nature such as reading or copying manuscripts. Manual labor was left to lay members to whom spiritual work was forbidden. While Tilgher (1930) and Taylor (1968) see this as the beginning of the spark of industry and activity, it appears to this writer that Saint Benedict redefined work, before referring to manual labor, to include intellectual activities.

By 1100 or so, Europe had reached what historians refer to as the "High Middle Ages." This was a time of knighthood, castles, and scholastic philosophy. Yet, while most scholars took Aristotle's doctrines as truth, and most religious leaders clung to the early Christians' view on work, a new culture, based partially on work evolved (Miller and Form, 1964; de Camp, 1963; Tilgher, 1930; and Taylor, 1968). This period is considered by many writers to have been the ideal time in history when work was balanced between all other elements of society (Durkheim, 1933; Veblin, 1953; Miller and Form, 1964; Chapman, 1971). Those writers indicated that the medieval village, which was centered around the four institutions of church, guild, family, and market place, achieved a near perfect integration of all institutions. One institution did not control all others and therefore did not control society (Coulton, 1925).

The guild was the main economic organization. It was an extended family of artisans who controlled production, quality, distribution, and profits. While the guild tended to regulate the economy, it was

bounded by the other institutions; all were integrated; work was not separated from the family, nor was religion or the market place.

There is some indication that toward the end of that period, sometime during the 1200s, the guild began to gain in power. Durkheim (1933) noted that the guild became a welfare, philanthropic, and religious organization which regulated both the work and nonwork activities of its members. The guilds over time assumed the governing function of the villages (Pirenne, 1956). While the guild eventually collapsed, because it was unable to control forces beyond the village it did leave the roots for unions, vocational education, and the modern concept of workmanship (Miller and Form, 1964).

During the latter part of the High Middle Ages, the Catholic church came under pressure, both from within and without, for change (Miller and Form, 1964). Two individuals arose at this time to further influence man's view of work and the Catholic church's view of work. One was Roger Bacon, 1214 to 1292, who as an English monk spent most of his adult life lecturing at the University of Paris. Apparently he went too far in applying pure science to reality and was for the last 15 years of his life imprisoned for uttering "novelties." While his contributions to optics were later greatly renowned, his wisdom in breaking with the Aristotelian division between pure and applied science was apparently his downfall (de Camp, 1963).

The second person, Saint Thomas Aquinas, 1225 to 1274, was somewhat more prudent in his efforts. He drew up a hierarchy of the professions and trades, according to their value to society. Agriculture was listed first; handcrafts, next; and commerce, last of all. Money lending remained an outcast, since interest is not earned by work. He

envisioned society divided into guilds and corporations based on his natural and divine plan. He kept ecclesiastical work above all those mentioned and noted that every man was to remain in his class and condition and not pass from one class in society to another. It was his ideology that God created the social classes, not work (Tilgher, 1930).

While the Middle Ages saw some changes in man's view of work, there was, according to Tilgher (1930), still a "far distance to go until modern ideas, and one must first pass through the Renaissance and the Reformation." In actuality, the view of work held by the leaders of the Middle Ages was little different from that of the early Christians and the Roman and Greek empires.

The Renaissance began about 1300 in Italy, and by the end of the 1600s, had spread across the western world. It was marked by a humanistic revival of classical influences in the arts, literature, and by the beginnings of modern science (Webster's, 1967). During the middle of the Renaissance period, Martin Luther, 1483 to 1546, set the stage for Protestantism and another doctrine on work (Tilgher, 1930).

Luther's doctrine was, in the beginning, little different from previous views. Work was the curse of man. All who can should work. Idleness, beggary, lending of money at interest was unnatural. Charity should only be bestowed on those who cannot work. He had little sympathy with commerce. Profit was considered bad. One should earn no more than his living. To seek by means of work to pass from one class to another, to rise in the social hierarchy, was against God's law. God assigned everyone to his place, and he who stays in his place serves God best.

However, within the limits of one's own profession, whatever it be, work was considered as service to God. He swept away the distinction between religious and nonreligious work. All work was worthwhile. One worked for God. The phrase "calling," which before had meant a calling from God to work in the church, then became synonymous with vocation or profession. Each man was called to his work, religious or nonreligious, by God. All work had equal dignity, and no one calling was more important than another (Tilgher, 1930).

The scholars of the time were also changing. Leonardo de Vinci, 1452 to 1519, was probably the most famous of Renaissance geniuses. His abilities were applied to painting, science, and engineering. He was not rejected by the church or imprisoned as Bacon was in the Middle Ages. Yet, he was careful never to speak out against the church and kept his doubts about religion in a notebook, sharing them with no one. Apparently another famous Renaissance man, Michelangelo Buonarroti (Michelangelo), 1475 to 1564, followed the same shrewd path. By that time, the Catholic church was entangled in its own problems with the Reformation (de Camp, 1963).

Meanwhile, Protestantism moved ahead, and under Calvin's leadership, one of the most powerful doctrines on work ever known was developed. The foundation of Calvinism was predestination. God, the omnipotent, was all; and man was nothing, living only to glorify God. All things, such as election to elevated life, were already decided by God; and man could not change them by his daily activities. It is that point which Tilgher (1930) called the paradox of Calvinism.

If man cannot change his fate, why then would man want to be a good worker? Apparently Calvin felt that a man might eventually



determine if he was elected to eternal life by his own individual, intimate, incommunicable experiences. These experiences might be found in work. While he cannot win salvation by good works, nevertheless the zeal and power to do good works is a sign of God's favor, thus a potential indicator of salvation. One works to find out if he has been elected (Tilgher, 1930). To dislike work was to suggest that one's election was doubtful (Taylor, 1968). Yet, one could never be sure if he was elected; so he must continually be "in frantic activity, which will indicate to him and to other men the growing probability of his final salvation." (Tilgher, 1930) Tilgher (1930) noted that true Calvinist's souls must be always torn with burning doubt, torment, and subtle anguish.

Calvin was very caught up in the concept of rationality. This is an important concept in current day bureaucracies and is worthy of mention at this point (Chapman, 1972). Calvin looked on

natural impulses only with horror and suspicion, vices to be rooted out relentlessly. He taught that natural man is 'wholly corrupt, the pray of death. Man redeemed by grace has nothing in common with natural man: he is the antithesis of natural man. He is a force from which all natural spontaneity has been eliminated. (Tilgher, 1930)

Thus, writes Tilgher (1930), Calvin set in motion the ideology that man must subject himself and all things to cold, hard, rational discipline and disregard all human feeling and meanings. Life on earth had no meaning. It was this thread that Max Weber, 1864 to 1920, designer of our current day bureaucracy, picked up in 1904 and utilized in his ideology on work (Chapman, 1972; Miller and Form, 1964; Weber, 1958). The term Protestant Work Ethic came from Weber not Calvin or his followers, Weber will be covered in more detail later, for one

must understand the situation during the time he lived to understand his construction of the bureaucracy.

Calvin made other comments on work which set industry and modern business in motion and for the first time gave work meaning in itself. He wrote that all men, rich or poor, must work; but they must not beat after the fruits of their labor; such as wealth, possessions, and soft living. The only worthy use for profit, and here is the beginning of modern business, is to reinvest it in new ventures. When a profit was made there, it was to be reinvested again (Tilgher, 1930).

According to Taylor (1968), the importance of Calvin's views to modern times is in the idea of success. One must achieve to show his good favor from God. Calvin thusly allowed for upward mobility, an item that Luther had earlier struck down. Smigel (1963) noted that Calvin's influence had separated work and leisure. While production was most important, the rational use of leisure time was also important, and it should not be used idly. One must always be accomplishing; idleness was a threat to the protestant virtues. Smigel (1963) pointed out that this was directly opposite to the Platonic ideal that leisure, idleness for contemplation, was a virtue. Calvin appeared to see little worth in thinking about meanings, feelings, and truth. They were all preordained and work must be measured, tangible, physical activity which produces. Supposedly a person with that ideological background would feel guilty if he was not working, producing (Chapman, 1972).

The latter portion of the Renaissance also included one other scholar who broke publicly with the classical school. Francis Bacon, 1561 to 1626, criticized Aristotle's syllogism method of deduction.

While the alternative, the system of induction he offered, has some problems of its own; it did call for searching out nature and eventually led to our current day system of research. New knowledge could be generated and one no longer had to rely upon the laws of authorities (Van Dalen, 1966).

By Bacon's time, the settlement of the Americas was beginning. The settlers blended their own unique ethic. It was a mixture of the Renaissance, their individual nature, and the hardiness of the new wilderness. According to Demaris (1970), one of their first acts, which would tend to reflect the Puritan ethic, was to slaughter all available American Indians and to hang any new settlers, such as the Quakers, because they were a "cured set of heretics lately risen up in the world." Specifically on work, the Puritans' ethic had four values:

1. It is man's duty to know how to work and how to work hard.
2. Success in work is evidence of God's favor.
3. The measure of success is money and property.
4. The way to success is through industry and thrift.  
(Miller and Johnson, 1938)

The Puritan Work Ethic reflects Calvinism on the first two points. The second two tend to be somewhat new, for Calvin said to keep what wealth is needed for substance and reinvest the remainder. Just how long the Puritan Work Ethic lasted as the major ideology of Americans is not exactly known. Elements of it exist today. Miller and Form (1964) identified a Pioneer Ethic. It appeared to be, loosely, "get what you can take, and you can keep what you can hold."

During this period of American individualism, approximately 1620 to 1890, there was at least one well-known individual with an ideology

on work, Benjamin Franklin, 1706 to 1790, who diffused many philosophical statements on work; such as, "Honesty is the best policy. A penny saved is a penny earned." and so on. This reviewer was dismayed to discover that what Franklin meant, in the phrase on honesty, was it was best to "seem to be honest." According to Weber's (1930) book on the Protestant Work Ethic, Franklin was quite clear on that point in his later years. Further, the reading of B. A. Botkin's (1947) collection of New England folklore seemed to bear out Weber's observation.

To identify any one major ideology as validly influencing the views of pre-industrial America is difficult. The situation is particularly confounded by the differing views on slavery. Miller and Form (1964) indicate that the major ideology was probably variations of the Puritan Work Ethic. These were apparently tailored to fit the needs of the time and situation and were eventually displaced by capitalism during the 1860 to 1890 period of the Industrial Revolution. According to Adam Smith, the real wealth of a nation consisted of the quantity of labor it could produce. He laid down the law that any act is truly productive if it helps make raw material into something useful to man. The activity of mankind is labor; and year by year, labor creates the mass of goods which mankind consumes (Tilgher, 1930).

The acceptance and practice by America and other nations of capitalism concerned scholars around the world. Many were concentrating on the base tenet of production/consumption, but for different reasons. In 1893, Durkheim, a French scholar and leader, wrote that man no longer considered work a calling from God. He felt that man did not know why he worked and surely needed a work ethic. If one was not developed, he predicted that "anomie" (division of labor based on

operating machines in a factory) might result in society becoming "anomie" (divided geometrically in minute pieces) (Durkheim, 1933). He did not offer a work ideology but noted the need. He also noted the possibility of the drive for production, consumption, and wealth as detrimental to society and the possibility of the economic institutions becoming The Power in society. Veblin, an American, followed in 1899 with his classical Theory of the Leisure Class (Veblin, 1953). His main thesis was:

People above the line of bare subsistence, in this age and all earlier ages, do not use the surplus, which society has given them, primarily for useful purposes. They do not seek to expand their own lives, to live more wisely, intelligently, understandingly, but to impress other people with the fact that they have a surplus.

He called that action "'conspicuous consumption.' They consist in spending money, time, and effort quite uselessly in the pleasurable business of inflating the ego." Accordingly, man would work (produce) so that he could buy things (consume) that would impress others and give him the status he desired.

Tilgher (1930) picked up on the theme and wrote that in a capitalistic civilization man finds his nobility and worth in his work. His entire code of ethics is "work." He embodies the principle of activity, another name for liberty, into goodness. Evil is synonymous with laziness, passivity, and idleness. He also attacks the production/consumption function by arguing that demand, in this case, does not create supply. Supply, frantic to dispose of itself, rushes out to look up demand. Markets are created via advertising. That is a rather popular argument which is, at this writing, still an issue.

Following closely behind Durkheim and Veblin was Max Weber, a German scholar. Talcott Parsons' introduction to the 1930 American

translation of Weber's 1905 book on the Protestant Ethic, indicated there are certain similarities between Weber's and Durkheim's writings. Apparently Weber was attempting to present the work ideology that Durkheim said was so needed. Further, Weber alluded to the potential of not having a quantity of willing workers to insure the wealth of a nation, unless there was reason or purpose inherent in work. That purpose could be supplied by an ethic, but the ethic must not be of the type that would encourage man to think about human feelings and conceptual meanings, for they might become unmanageable. The legal-rational authority system in a bureaucracy requires that each role incumbent, worker, hold his judgment in abeyance for the super-ordinate, boss, and the legal rules.

Weber picked up on Calvinism which, being a rational approach, did not consider feelings and meanings. Calvinism was already widely accepted in the Western world. He then moved the Calvinistic concept of God being omnipotent, and the one to whom loyalty was owed, to the bureaucracy being the omnipotent one. He had in actuality an already established following (Weber, 1947; Weber, 1958; Chapman, 1972).

He made the transfer by distinguishing first among power, persuasion, and authority. Then, after identifying three types of authority, he selected the one that best fit his scheme.

He defined power as "the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance." An example would be an armed robber. Persuasion was defined as one person letting the arguments of another influence his decisions. It did not necessarily require that the person hold his judgment in abeyance. While, authority was defined as a situation in

which "the subordinate holds in abeyance his own critical faculties for choosing between alternatives and uses the formal criterion of the receipt of a command or signal as his basis for choice."

First, of the three types of authority identified by Weber, was traditional authority. Examples were the divine rights of kings, monarchies or other similar systems of lord and peasant relationships. He noted this was a poor system because most rulers were eventually overthrown and stability was lost. Therefore, it was not a good or fair system. Germany at that time still had many examples of traditional authority.

Second, was charismatic authority. Here a leader was validated as having his mission "inspired by divine or supernatural powers." Since leadership by individuals with this type of authority, such as Jesus, usually led to social revolution, it was also viewed undesirable because of the instability it caused. In addition, charismatic movements were short lived because there was no set of rules and regulations which allowed for a subordinate to take over the movement after the ordained leader had died.

According to his logic, traditional and charismatic authority should be replaced by a third type which would bring stability. This type is legal authority and is legitimated by a belief in the supremacy of the law. It assumes the existence of a formally established body of social norms designed to organize conduct for the national pursuit of specified goals. This is typically embodied in the rules of an organization and obedience is owed to those rules or principles and not to a person, such as a traditional or charismatic leader (Blau and Scott, 1960).

The transfer was begun with his 1905 book titled The Protestant Ethic and the Spirit of Capitalism (Weber, 1958). It was in actuality a bureaucratic ethic designed to bring some stability to the then traditionally and charismatically controlled Germany. Shortly after Germany lost World War I, he published The Theory of Social and Economic Organizations (Weber, 1947). That book specified the transfer of authority in a much more definitive nature than the first. It was from interpretation of the second text that this writer secured the specifics on authority (Blau and Scott, 1960).

The time frame of the transfer of his ideals to the United States by Talcott Parsons and the exact structuring of a bureaucracy will be covered in more detail later. It suffices at this time to point out that most work organizations in the United States today are of Weber's design. The employees are generally referred to in the literature of the followers of Weber as role incumbents or actors and are rarely validated as being thinking and feeling individuals (Blau and Scott, 1960; Chapman, 1972).

Tilgher (1930) said of this, "Workers will never be able to feel work as a reward and joy in itself." He noted that many workers would turn to sports for escape in this machine-like world. Freud stressed meaningful work as a balancing factor in an individual, providing for the "discharge of fundamental libidinal impulses. . . and binds the individual more closely to reality." (Rawson, 1961)

Veblin (1914) took a different approach in The Instinct of Workmanship. This instinct supposedly causes one to preoccupy himself with practical ingredients, ways and means, devices and contrivances, efficiency and economy, proficiency, creative work and mastery of



facts. He notes the difficulty a highly specialized worker in a bureaucracy might have in fulfilling that instinct. It might lead to frustration and poor workmanship. Anderson (1964) notes that Veblin may have been caught up in the fad, instinct psychology, of his time and thus his thesis might be incorrect.

The forecasting of problems in Weber's ethic and structuring of his work organization, and the noting of possible problems with the production/consumption aspect of capitalism led into modern industrialized America. Yet one new aspect must be added. The rise of formal work organizations added the new dimension of management. Just as workers throughout history had work ideologies, so did the managerial groups in America develop their views on work. These are most generally referred to as schools of management, but could possibly be more accurately reflected by using the phrase management philosophies (Miller and Form, 1964). In actuality they are preconceived ways of viewing workers and perhaps all of mankind. The three major management philosophies since 1900 have been legitimized by research and technology (Grusky and Miller, 1970).

The first, scientific management, appeared just after the turn of the century and was led by Frederick Winslow Taylor, who received the "Classical Education" in Philadelphia, in France, in Germany, and at Exeter Academy (Miller and Form, 1964). His approach looked on man as a biological machine.

The worker was looked down upon as just part of the machinery which kept the company operating, and he was treated like that. If he were injured or totally incapacitated, even in the line of duty, he was cast aside and replaced like a broken piece of equipment. (Miller and Form, 1964)

From Taylor came the time and motion studies, the use of incentive payment to gain additional output, and the exact defining and planning by management of all the worker's activities. According to this approach, man worked only for money (Taylor, 1911). That view of man, as a machine, is still somewhat present today (Grusky and Miller, 1970).

During the 1920s a new view gained prominence. This humanistic view was legitimized by the recognition of the nonrational character of man as presented by Marx, Freud, and Darwin. Out of the research of this area came the recognition of informal groups, the Hawthorne effect, and the halo effect. Work in this area began with James McKeen Cattell, who published his first works on psychology while at Columbia University in 1896. It was not until Hugo Munsterberg, a Professor at Harvard University, did his study on employer expectations of the psychological traits of workers in 1910 that the idea of industrial psychology arose. The development and use of psychological measuring tests for World War I also added emphasis to this new field (Miller and Form, 1964).

During the 1920s, the humanistic approach began to attack scientific management, and psychological testing began to displace time and motion study as the United States entered the Depression.

Humanistic management maintained that man worked because of the psychological fulfillment it allowed; a view considered somewhat unrealistic for that time. Over time, the validity of the psychological test came into question and the base research studies of the movement came under attack for inadequate design and lack of generalizationability (Grusky and Miller, 1970; Miller and Form, 1964). However,

elements of this movement, the psychological test, still exist in most large business and government organizations today.

The time was now ripe for a new approach to management. There were problems with factory workers and unionism and communism were on the rise. The majority of the American public during that Depression Era did not have enough purchasing power to be influential consumers.

Talcott Parsons, a Harvard sociologist, had translated Weber's book on the Protestant Ethic into English by 1930. His theory on bureaucracy was also being diffused on university campuses; but it was not translated into English until 1947. Chester I. Barnard, the President of the New Jersey Bell Telephone Company, entered into the situation in 1938 with the publication of The Functions of the Executive (Barnard, 1938). He was educated at Harvard, where he continually maintained close ties; worked for American Telephone and Telegraph; was associated with the Rockefeller Foundation, the United Nations; served as assistant to the Secretary of the Treasury; and was involved in many other high-level social and political organizations.

Barnard (1938) conceived of a work organization as a "system of consciously coordinated activities or forces of two or more persons." This was the formal beginning of the systems approach to organizations. Essential to the survival of the organization, according to Barnard (1938), is the willingness to cooperate, the ability to communicate, and the existence and acceptance of an organizational purpose. All three points involve the worker holding his judgment in abeyance; even the one on communication, for what Barnard meant was that directives should be communicated down the hierarchy and reports on the accomplishment of those directives should be sent back

(Barnard, 1938). According to Miller and Form (1964), in this concept of work, man is a portion of the system and could be referred to as systems material (Chapman, 1971). He is to be induced to contribute his cooperation (Barnard, 1938).

That managerial view fits well with Weber's bureaucracy. According to Blau and Scott (1960), Weber's conception has a clear-cut division of labor which promotes technical expertise, the jobs are structured in a pyramid-shaped authority structure, a system of rules and regulations govern official decisions, officials are impersonal and treat all clients and workers the same, and employment in the organization constitutes a career. All this occurs under a legal-rational system where authority is legitimated by a belief in the supremacy of the rules.

Three final items are required to bring this review up to modern times. The first allowed the next two to occur somewhat simultaneously.

Prior to and during World War II, a great period of invention and innovation in the development of machinery and training for its use occurred. This allowed increased agricultural production, which influenced man to again migrate to the cities to work in production. The production was also embraced by the new machinery. Interactively, all of these factors generated affluence, which led to the second item.

Affluence, the possessing of wealth by many, is the result of a successful production/consumption situation. The more man worked, the more he could buy; the more he bought, the higher the demand for his production. To further promote this situation was the entry at this time of the mass nationwide media, in particular television and its advertising of products and services. Was Tilgher's (1930) warning of

a supply seeking a demand routinized here? Was Veblin's theory of the leisure class presented in the reality of a consumer ethic? Those are difficult questions to answer.

However, the third item is not that difficult to judge. During the Depression and World War II, immense wealth began to gravitate toward the economic institutions. Along with that wealth went political and social power. The other four traditional institutions; religion, family, school, and government showed deference to the economic institution. One of the major American values is now wealth. Further, the school and religion have become bureaucratic, the government has become more bureaucratic, and the family is feeling the spin-off effects. In addition, since World War II, the control of the economic institution has, through conglomerates, been progressively held by fewer and fewer of the power elite and more and more Americans are becoming employees. Further, with the advances in computer technology, cybernation (cybernetics and automation) is making decisions for employees at all levels in the organization. During the first Industrial Revolution, it was the blue collar worker who lost control over his activities. Now, the white collar workers, in holding their judgment in abeyance for the computer, are losing control over their activities. With that movement of wealth goes the power over civilization and with it the balance of society (Levenstein, 1967; Reich, 1970; Faunce, 1968; Fromm, 1968; Read, 1966; Toffler, 1970; Chapman, 1971; Chapman, 1972; Miller and Form, 1964; Drucker, 1968; Demaris, 1970; and Lewis and Lewis, 1970). All of those authors show evidence to that point.

### Analysis of Current Problems in the Work Place

The reactions of blue collar employees to the loss of control over their work activities, via job specialization, the holding of their judgment in abeyance for managerial decision-makers, and general rules, was well documented during the latter period of American industrialization. March and Simon (1958) presented the three now classical models which describe the problem and man's reaction. These were developed by Robert K. Merton, A. W. Gouldner, and P. Selznick, and while varying in detail, are sufficiently similar to be reflected in one general model.

The model has three components. It begins with the bureaucracy which, because of its need to accomplish organizational goals, establishes systems of controls over the employees. These controls may be an "emphasis on reliability," an "increase of training in the worker's area of specialization," or an increase in the number and uses of "general and impersonal rules." Whatever these controls, their effect is to reduce man's sphere of influence and his control over his own work. The controls normally result in the second component, achieving the consequences, results, which were anticipated by those who initiated the new controls. Production, accountability, quality of service may, for an indefinite period, change to meet the expectations of the decision-makers. However, a third component, unanticipated consequences, arises. In general, the emotional, psychological, or as it is sometimes referred to, the irrational part of man tends to rebel. "If they did not trust me to do my job, why did they hire me?" He begins to loosen or sever his commitment to the organization. The rules, which were passed to bound his activities also established minimal

levels of achievement. The worker begins to strive only for that minimum level. He limits his activities only to his specialization area and narrowed realm of responsibility. Management, recognizing a decrease in accomplishment of organizational objectives, begins the cycle all over again by increasing the control mechanisms.

It appears to this reviewer that the lag time between the anticipated consequences and the unanticipated consequences may vary among different types of work organizations. In a profit-making institution, the compliance of a worker to new controls would probably be 'quick'; if not, he would cease to be a member of that organization. However, in a governmental or an educational institution, compliance with the original control might be slower, thus the lag time to the unanticipated consequence may be longer. A variation in lag time may also occur between cultures.

Those three models presuppose that management perceives the blue collar workers as machines; a view which differs only because of technology from the classical Platonic view which assumed workers were animals. It is worthwhile at this point to note that the originators of the three schools or philosophies of management presented in the first half of the twentieth century America were all associated with or received their base education in the classical areas: Taylor was educated in America and Europe and the only reason he did not attend Harvard Law School was because of a health problem; Munsterberg was a Professor at Harvard, and while he opened the humanistic investigation era of the worker, he was primarily concerned with insuring that the lower classes satisfied the desires of the "Captains of Industry"; and Barnard was educated at Harvard and throughout his life was

associated with the power elite of the nation (Miller and Form, 1964; Barnard, 1938). These points were well documented in the previously reviewed literature. Yet, it was interesting to note that serious research into the problems of the blue collar workers were not undertaken until the problems of control and the unanticipated consequences; as cited earlier, were fully observed to influence production.

Except for the systems approach of Barnard, most of the preceding review has been concerned with the work place prior to the age of cybernation and the 1940s to the 1970s period when the control of the economic institution moved into the hands of fewer and fewer power elite. In 1942, eighty percent of the gross national product of the United States was produced by over 1000 companies, while by 1972 that same percentage was produced by less than 20 companies (Chapman, 1972).

This new age is referred to as the Second Industrial Revolution by Fromm (1968) and as the Post-Industrial Society by David Bell's Committee on the Year 2000. In this time, the worker is no longer considered as a machine, but is now considered a mere cog in the machine. He does not even rate the status of being a whole machine; just a part. He is considered to be a piece of systems material. During the first Industrial Revolution man gained identity by the work he performed; such as farming, banking, teaching. However, now man identifies himself by the organization he works for; such as, Bell Laboratories; General Motors; Ling, Temco, and Vaught. (Fromm, 1968; Chapman, 1971; Chapman, 1972; Miller and Form, 1964; Thompson, 1967; and Reich, 1970).

In being a component of the "cybernation system," employees at all levels, white collar included, are relegated to holding their



judgment in abeyance for the decisions, thus control, of the system. The system can be analogously reflected in the form of electronic computers. The aspect of computer control over man's work life is on one hand ridiculous and on the other reality. For, while it is true that the earlier computer systems could only regurgitate the data which were placed into them, the current systems, cybernations, can make decisions or set the parameters for the decisions to be made.

The actual making of decisions, or the limiting of possible alternative routes a decision-maker can take, has increased the control mechanisms over employees at all levels. That action increases the goal attaining ability, anticipated consequences, of the control mechanism. That is highly functional and appears to be the approach the largest employers in America are using. While the aspect of cybernation is noteworthy, it appears to this reviewer that it is only the mechanism aspect of a system and that it is in the ideal of a system where the real emphasis rests. The unanticipated consequences caused by the irrational side of man rebelling against increased control in the work place should, if all previous sections of this analysis are valid, have also increased.

How does one measure this predicted increase and thus add credibility to the validity or invalidity of the analysis? Based on the models reviewed by March and Simon (1958), there should be an increase in unanticipated consequences. Those consequences would be dysfunctional to the organization and might be measured in the factories by production problems, in the service business by lack of quality workmanship, and in the white collar area by alienation leading to the formal development of professional unions (as blue collar workers did

some half a century earlier), and in a lack of job satisfaction among all employees. All of that could lead to the inability of the national economy to compete with other nations who have different work ideologies or are in the lag period between the anticipated and unanticipated consequences. Would the reflection of those measures supply sufficient evidence for the full evaluation of the analysis?

This reviewer notes that those measures would in no way allow the assuming of a cause and effect relationship or, because of the lack of a controlled design, allow for an empirical correlation study to be accomplished. However, it would allow for ascertaining, via personal judgment, the possible content validity of the analysis (Kerlinger, 1964).

In that vein and with that purpose in mind, contemporary data were collected. In securing that data, efforts were made to maintain closeness to problems in work and not overall societal problems. That was a difficult point to maintain because so much of society is influenced by the economic work place. However, the data in no way attempts to directly attribute all societal problems to difficulties in the work place. That ploy was used too many times in the past to pave the way for new ideologies. However, in attempting to stay within currently well-recognized methodologies for scholarly reviews of literature, some problems evolved. Bibliographical reference of information presented on television was a difficulty. Further, some sources, such as organizational jokes, may to some not be considered as worthy material for a document of this nature; but they appeared to have something to say and are, therefore, included. In addition, it was necessary for this researcher to "analyze the content" of the theme of some

of the contemporary programs and articles. The data presented below should be considered an indication of the current situation as perceived by this observer.

James Roche, former president of General Motors, (Reader's Digest, July, 1970) noted, in regard to production difficulties that "employee absenteeism in the automobile factories doubled during the 1960s, hurting production quality so badly that some of the output 'is worse than no output at all.'" Then Chrysler Vice Chairman Virgil added, "One of the biggest problems is Monday absenteeism, the fellow who works two weeks and decides to take a long weekend." He added that "Detroit's worst lemons are cars built on Monday because they are put together by inexperienced substitute workers and veterans nursing hangovers." Hailey (1971) in his novel titled Wheels indicated that cars built on Friday were just as bad because so many veteran workers left for an early weekend. He also wrote that, because of drug abuse and alcoholism on the assembly line, the quality of many of the cars built during the week was also lacking in production workmanship.

The height of assembly line problems occurred in the General Motors Chevrolet Vega Plant at Lordstown, Ohio in March, 1972. Local 1112 of the United Auto Workers struck for three weeks. It was a wildcat strike in the most modern assembly-line factory known in history. The reason given for striking was "dehumanization." The factory had been refurbished in 1970 to produce the economy car, Vega, in order to compete with the foreign imports which had taken over 15 percent of the American auto market. The plant was heralded by General Motors, the largest company in the world, as the "most modern in the world, designed to produce maximum efficiency and minimum

cost." Employees were given a mint set of 1971 coins and were told that it represented the zero-defects ideal of the plant.

Prior to the strike, workmanship had reached a point that cars arriving at the end of the line were "nothing more than a stack of parts." Bolts were driven through motor blocks, safety welds were omitted, and upholstery was cut and torn. The company replied by stiffening supervision. The situation did not improve and the strike resulted (Norman, 1972). The pinnacle was reached in July of 1972 when General Motors recalled 500,000 Vega cars for axle repair due to an engineering mistake (Newsweek, July 17, 1972). Not only were the cars assembled shoddily, they were also engineered incorrectly. Yet, this writer observed that the Vega received several awards in 1972 as the "Best American Economy Car." An organizational joke concerning the Lordstown plant was:

A young worker would constantly show up for work only four days out of the five-day work week. When his foreman asked him why he came four days a week, he said, "Because man, I cannot make enough money in three days."

The production problem was not limited to automobiles. General Electric, General Motors, and Ford-Philco in 1972 began phasing out their production of small appliances because "of their inability to produce a quality appliance and their problems in hiring or arranging for skilled maintenance personnel in their repair centers." (McQuade, 1972)

The phrase, "made in Japan," was a joke in the 1950s meaning the product would normally fall apart. However, in 1972 the Japanese manager of a large firm in Japan told an American representative of the United State's State Department that, "we would be pleased to buy

raw materials from the United States, but components, . . . well, the workmanship level of Americans, you know," (Nicholson, 1972)

In the fall of 1972, television programming of the National Broadcasting Company included a half-hour show titled "The Good Life." This prime-viewing-time program had as its theme that the "good life" was achieved by escaping American goods and services.

Joyce (1973) had profiled American workers as "just not being turned-on by their work." Boyan (1967) has documented the discontent and alienation among teachers. A 1972 survey by the Rockefeller Foundation indicated that only 39 percent of a national sampling of college students believed that "hard work would pay off," compared to 69 percent who felt that way in 1968. Also, only 36 percent said "they would not mind being bossed around on the job," as compared to 56 percent in 1968 (Nicholson, 1972).

A 1972 study by the United States Department of Health, Education, and Welfare (O'Toole, 1972) indicated that most American workers were disenchanted. That study was somewhat lacking in its design and instrumentation. However, in 1972, the United States had a balance of payments deficit of 2.9 billion dollars. This was the first deficit recorded since the late nineteenth century. It was attributed to the lack of competitiveness of American products because of their shoddy construction (Nicholson, 1972). Whether that conclusion was justifiable or not is unknown.

The popular literature seems to blame the economic problems on the worker's lack of a proper work ethic. The traditional approach to problems in the work place by management has been to reorganize, restaff, and retrain. It appears that those actions were taken by

many organizations. Some tended to follow the approach of McGregor (1957) and his Theory Y. In general, it amounts to lessening controls by allowing the employees to have inputs in the decision-making process. That approach is rather outmoded in the current systems approach. Others have attempted such tactics as a four-day work week or job enlargement (allowing a wider sphere of influence). Still others have attempted to replace the "carrot and stick" approach (reward and punishment) with a more enlightened system of self-actualized motivation. That is just a repeat of McGregor's Theory Y. While most of those changes initially seem to result in a positive effect on worker morale, the effects are mostly short term in nature. The problem tends to resurface (Rice and Mitchell, 1973; Andrews, 1973; Levinson, 1973; Ford, 1973; Wolfson and Sirota, 1973; Brady, 1973),

It appears that most efforts directed toward retraining, restaffing, and reorganization have not over the long run been successful in solving the problems of the work place. In many cases, the efforts were piecemeal. Most approaches had come out of the 1930s and had been tried before. None seemed to speak directly to changing the ideology of viewing man as a piece of systems material. Large employers, in particular, seemed mute on that point.

Workers, if they have experienced some job dissatisfaction might be receiving some reinforcement on that dissatisfaction from the mass media. The probability of some type of an interactive effect, "well, no one else in America is happy with their job either," is unknown. There is also the legacy of the activist generation of the 1960s. Their base attack on the economic and political institutions

disturbed the equilibrium of the nation and challenged the authority of the power elite.

According to Fromm (1968), in 1968 it was becoming more and more difficult to tell any difference between big business and government. Dubin (1971) documented the subordination of the four traditional institutions of government, family, school, and religion, to the fifth, big business, in a study for the Office of Naval Research. Packard (1972) investigated the effects of work on the family life of executives and concluded that, because of the demands of work and the geographical mobility caused by the work, the family style of life had been significantly altered since the 1950s. Miller and Form (1964) point out that the dominance of the economic institution occurs in all industrial societies. They also indicated that the domination is a typical sociological measure of whether a society is or is not fully industrialized.

Consider now the contemporary era in America. There are problems in the work place which affect the economic returns. Those returns, money, affect the power elite, who are the classical leisure class in America. The power elite, in their control of big business also influence the other four traditional institutions. Is that a radical view or is it an accurate analysis of the literature? The interpretation of the literature in an accurate manner is not a simple task. In the first case, the literature reviewed may not accurately reflect the real situation. Perhaps information from radical sources inadvertently dominated the reviewed literature.

It is this reviewer's contention that possibly as the leaders of the economic institution saw the failure of the piecemeal activities

of their managers in correcting the problems of the work place, they took several steps to cause the future "correction" of those problems. One of these steps could have been to influence the federal government to encourage the American educational institutions to cause upcoming employees, the students of today, to be indoctrinated with a work ideology that will insure their "fitting in the world of work."

There are two approaches to solving problems in a work organization. One is to change the situation. The other is to change the people. Via the introduction of career education in the 1970s, a new ideology was presented. Every American must play a useful part in society. On graduating from or dropping out of high school, all must either be prepared to go to work or to continue their education so as to attain a higher level job. Further, since everyone will be ready to work and historically only around 50 percent or less of all Americans are in the labor market, there will be a surplus of labor (Caplow, 1954).

The above position is not presented by this writer as fact but as pure speculation. The conclusion is too radical for this reviewer to completely accept. The idea of a ruling leisure class which controls America via a covert power structure is to this reviewer almost unbelievable. Nevertheless, the existence of the literature does make this reviewer pause and think. The presence of the career education work ideology caused directly by the influence of the power elite is a highly questionable judgment.

Since 1970 thousands of articles and books have appeared on career education. Those which this researcher reviewed, almost in total, carried the overriding theme "How can education change the



individual to insure his smooth transition into the work place?" None reviewed covered "How can education teach people to change the work place?"

In 1970 a White House Conference on Children titled "Crisis in Values" (Microfiche, ED 046 523) pointed out that certain values presented by youth in the late 1960s were not only detrimental to the economy of America but were also "filtering down to the in-school youth." They suggested (no author given) that perhaps television programming in general and special programs for the very young might instill the proper values which American family and school were no longer diffusing. The use of such programs in day care centers would be particularly beneficial. The conference concluded on the statement, "We have a lot to do before next year's conference, that of eradicating the conditions which led to this year's theme, 'Crisis in Values.'"

The political realm was not the only area which indicated an interest in values during the late 1960s and early 1970s. Carroll (1970) presented a paper before the October 1970 American Institute of Planners Annual Confer-In. He noted that "human values are significant determinants of individual and social behavior and should be considered in planning." That was quite an admission for an economically-oriented and engineering-based profession. Wallenstein (1972) pointed out to engineers that they "should stop viewing people as merely rational beings and should, in their work, recognize and utilize the irrational side of man." A similar theme was presented by the Department of Industrial Engineering and Operations Research of the University of California at Berkeley (Thal-Larsen, 1971).

A method of identifying the values of participants in a decision-making conference has been developed by Meux (1972). De Carlo brought to the forefront an ideal, which is the basic point of this section, in a paper presented to the 1966 Manpower Policy and Program Branch of the Manpower Administration in Washington, D. C. His thesis was that since the Second Industrial Revolution man was being considered more and more as just a part of the system. He emphasized that man should be recognized as being a possessor of individual traits. Otherwise problems in the system would develop. His recommendation was that the system should program-in items to suffice the needs of irrational man, such as the motivation of additional leisure in which one could consume more products (De Carlo, 1967).

Weinberg (1967) wondered if man could survive as a piece of the system and wrote "a similar focus on human behavior in the system is just now receiving attention." Two other articles, one on workers' attitudes toward change, and the attitudes of the minority class toward work also concerned values (Touraine, 1965; Katzell, 1970).

The purpose of the preceding references was to point out the rising concern of the economic institutions with values; such as the value of work to the individual. That is a theme well embedded in career education. Whether the educational institution goes where the economic institution goes or whether the concept of career education evolved out of the societal needs of these times is beside the point, Career education is clearly an ideology on work; an approach which, through controlled federal funding, has in the 1970s become a mission for the educational institutions. The question at this point: What, in reality, is the role of the American educational institutions in

their relationship to the economic institutions in particular and to society in general?

#### Role of the School

The role of the educational institutions in an industrialized society is on one hand philosophical and the other economic (Gross and Gross, 1969). While schools in an industrial society traditionally discharge the function of preparing students for work, there are differing viewpoints as to whether that is right (Miller and Form, 1964; Kneller, 1971). That question has become so immense that the structuring of the discipline of educational philosophy has actually changed to meet that issue (Rich, 1966).

Generally, prior to the 1950s, there were three schools of educational philosophy which concerned themselves with the question: "What knowledges should be in the curriculum and how should it be structured?" However, since full industrialization in the United States, four schools of philosophy have evolved. They concern themselves with the question of the role of the school in society. The four schools; perennialism, essentialism, progressivism, and reconstructionism; and their respective stances of carrying through the classical view, reflecting society as it is, understanding and fitting into an always changing society, and completely changing society, do, however, have one item in common. That is axiology, the study of values which make up an ethic; or conversely, ethics is the study of values in the realm of human conduction. An ethic is most graphically described as oughtness, "What one ought to do or ought not to do." An ethic can be

classified based on the nature of the values which make up that ethic. Accordingly, axiology asks three questions about values (Kneller, 1971).

The first concerns whether values are subjective, personal, or objective, impersonal. An objective value exists in its own right; such as beauty, truth, or goodness; and is a part of the nature of things. A subjective value reflects personal preference. An item or concept has only the worth one personally accords to it with his value judgment. Some schools of thought accept that all values are objective, others that all values are relative, others say there are values of both nature. The progressivism stance, that of pragmatically changing with the situation, would appear to select the latter view that there are some of each while leaning more toward subjective values.

Since progressivism seems to reflect the major philosophy of Americans, it would follow that the actual value given to work would be somewhat changeable (Gross and Gross, 1969). Such as, it would appear, with the trouble in the work place, that some accord work a low value. Would they endorse the career education ethic? That is difficult to answer because the drive for the career education ideology apparently came from the political institutions at the federal level. Were they reflective of the people? This reviewer could not locate a public survey which documented the opinion of society. To even think of conducting a survey would require a certain philosophical stance on the relationship of school and society. Further, the lack of definitiveness to the career education ideology would probably confound any such survey and result only in general answers.

The second area for argument in axiology is whether values are constant or ever changing. From the progressivism view that is answered quickly. However, it appears that one of the major values which Americans have held throughout their history is that of wealth. It is referred to as the economic value (Miller and Form, 1964). Since the way to wealth for an employee society is through work, it appears that they might endorse career education (Drucker, 1968). From that view, to say that career education is bad just because it is an ideology would be unwarranted. Thus, the government might have reflected the population.

The third question, which was partially answered above, is whether or not there is a hierarchy of values. In relation to work, Kneller (1971) noted a 1969 Louis Harris and Associates survey: A cross-section of 4000 Americans were asked their feelings on a wide range of attitudes and values.

The poll revealed continued preference for basic values, although the Puritan Ethic of hard work and personal success did not rank as highly as might have been expected, coming below a desire for greater tranquility and more leisure time. Given a choice between making more money and getting time off, 45 percent opted for the money.

In the relationship of work to life, it seems that the act of increasing one's wealth may be losing some of its high ranking to other elements of life.

The diffusion of career education via its teaching in the public school, becomes a moral question (Hansen, 1972). When does the teaching of the goodness of work go past the point of transmitting cultural values and become indoctrination? Or can that even occur? The moral question appears to have been brushed over quickly by educators (Hansen,

1972). Career education has been diffused at perhaps a faster rate than other concepts in education.

A portion of that speed may have been the economic aspect. Federal funds were diverted from other projects and applied directly to federally-specified development projects in career education. Federal grant projects were changed so as to insure that career education was included. Further, educational research funds were consolidated, via Public Law 92-318, under a National Institute of Education. That agency now identifies educational problems and awards grants based on solving those problems. In the past, units such as the Center for Vocational and Technical Education, Ohio State University, had been awarded monies for the purpose of identifying problems. It is also noteworthy that the first Director of the National Educational Institute was formerly an executive for a large corporation.

The idea of increased federal control in education is hardly a new concern. However, the increased input by the economic institutions via the federal government provides interesting speculation. What specifically should be the role of education in transmitting the career education ideology? Should individuals be taught to fit smoothly into a bureaucracy? Work is the American way of life. Yet, there is one aspect of the effects of work on people that does affect all of society. According to Argyris (1960)

Most human problems in organizations arise because relatively healthy people in our culture are asked to participate in work situations which coerce them to be dependent, subordinate, submissive, to use few of their more than skin-surface abilities.

There are three variables which cause the dependence and subordination: organizational structure, directive leadership, and managerial

control (Argyris, 1960). Included in those three variables are all the components of the earlier described systems approach to management in a bureaucracy. He says that humans find dependence, subordination, and submissiveness frustrating. Frustration leads to regression, aggression, and tension which in turn lead to conflict. He states that individuals will adapt to the frustration, conflict, failure, and short-time perspective by creating any one or a combination of the following informal activities:

1. Leave the situation (absenteeism and turnover).
2. Climb the organizational ladder.
3. Become defensive in their reactions to work (day dream, become aggressive, nurture grievances, feel a low sense of self worth).
4. Become apathetic, disinterested, non-ego involved in the organization and its formal goals.
5. Create informal groups to sanction the defense reactions.
6. Formalize the informal groups in the form of trade unions.
7. De-emphasize in their own minds the importance of self-growth and creativity, and emphasize the importance of money and other material rewards.
8. Accept the above described ways of behaving as being proper for their lives outside the organization.

It is on that last point, the transfer of the problems into the home and society, that two other researchers have findings. Bridges (1965) documented the displacement, over time, of personality by the work role. Chapman (1972) picked up specifically on the aspect of skin-surface interpersonal relationships. According to his approach, the idea of dealing with other people in a face-to-face relationship becomes undesirable to the individual. He refers to this as the "hell

of others," and hypothesizes that individuals in their leisure time prefer to vicariously pick up those satisfactions, normally gained from interaction, from television. That is easier than dealing with people. He further notes that as face-to-face relationships decrease so does the historical fabric of family life and society. Based on that, he predicts that the structure of society will change from the way mankind has known it throughout history to a mechanized system. The traditionally stable section of the culture, the middle class, will become less interested and involved in society.

Throughout this section, varying analyses of philosophical stances, political activities, and recent research regarding the topic have been conducted for the purpose of narrowing the scope of inquiry to a manageable research size. It is this reviewer's judgment that one of the roles of the school in an industrialized society is the preparing of students to enter the work place. However, the teaching of the career education ideology becomes a moral question. There are three reasons for that moral issue;

1. There are some problems in the current system of work which are affecting society, and the school has a responsibility to that society.
2. It is unclear whether career education as an ideology is in essence a cultural value which should be legitimately transmitted by the schools or if it was designed by the economic/political institutions as some type of indoctrination device.
3. The absence of definitive data on the elements of career education and how those elements are viewed by the involved parties has caused the issue to remain a moral question.



The introduction of specific elements of career education and then the judgment of the involved parties as to the "rightness" of the use of those elements in the teaching of students would be one step toward judging the moral issue surrounding career education. The introduction of specificity would, in part, serve to clarify whether or not the involved parties desire career education. Since the base tenet of career education may be that "work is good" and thus a value, it would be of benefit to add specificity to the realm of work values.

#### Work Value Literature

The purpose of this section is to trace the recent development stages of research in values so as to arrive at a state of the science. The scientific study of values is by no means a new field. Thomas (1967) collected 43 pages of bibliographical references. Dukes (1955), in a massive review of the literature on the psychological study of values, had 211 items in his bibliography. He noted that most psychological research up to that time had concerned the measuring of values, origin and development of values, and the influence of an individual's values on his life. The recent studies of society and values by Langman (1964) and Youmans (1971) where they, respectively, confirmed the theory that economic practices will determine the social practices of a culture and the theory that differing age groups in areas of different population densities would have different values are representative of the interest in values.

Value research in business and industry has generally concerned the problem of work satisfaction on which volumes of information have been written. An example is Centers and Bugental's (1966) study of

the intrinsic and extrinsic job motivation among different working groups. They found that white-collar workers consistently placed a greater value on intrinsic satisfactions such as fulfilling the responsibility expectations of the position than did blue collar workers who tended to measure their job satisfaction by the extrinsic sources, like financial reward. However, Locke (1968) stated that understanding of the meaning of job-satisfaction data had not really increased in the thirty years prior to his study and suggested that science did not really understand the interplay of values and job satisfaction. Blai (1970) conducted a study with 1,871 women in New England and compared their job satisfaction to work values. It was found that those who reached their mastery-achievement, social need fulfillment, and independence values had the highest job satisfaction scores. A similar study had been accomplished by Wolfe (1969) earlier with the same results. The instrumentation was not mentioned in either study. Kleibrink (1970) studied the value orientation of 684 Mexican-Americans who were trained and relocated for work in an aircraft assembly factory near Dallas. He analyzed the difference in the values of those who stayed on the job and those who returned to south Texas. Those who stayed had a slightly higher achievement value. Family roots appeared to be more important to those who returned to southern Texas. He noted the problem of a valid measuring instrument.

The educational institution appears to have increased its interest in values during recent years, Fraenkel (1971) stated that the key issue with values was not whether we taught them, because that was obvious, but the justification of teaching certain values over others. He defined a value as a concept which is reflected by man in

his judging of the merit of things. That was a follow-up to his 1968 theory (Fraenkel, 1968). Guilford and Gupta (1972) studied the adjustment of 611 grade school children to school based on their values. The instrument was the Value Inventory for Children and consisted of their interpretations of 60 pictures. Based on a test, retest design, 1970-71, they concluded that values played a part in the adjustment of children to the school situation. They could not determine how the interplay occurred. That problem was also identified repeatedly in Blackman's (1968) selected papers on values.

A new emphasis for the consideration of values in education was possibly motivated by the student unrest in high schools (Wynne, 1971) and technological change (Venn, 1963). The idea of the possibility of a new emerging value system (Gelfman, 1971) and the career education concept also brought interest in the work ethic (Hoyt et al, 1972). The entire January 1973 issue of American Vocational Journal, Volume 48, Number 1, the official publication of the American Vocational Association, addressed the work ethic, thus value, problem.

The concern over values by educators led to some immediate actions. Williams (1972) suggested the use of the concept of economic growth to teach values to students. Warren (1967) via a conference of educational leaders identified value concepts on work which could be inputs in a vocational curriculum. Huffman (1971) conducted a project dealing with changing the preceptions of disadvantaged students toward office occupations. Similar projects which concerned the value orientation of disadvantaged and other students to work were operated by Punke (1970) and Archer (1971). Few of those projects were hard-based research, but all concerned values. Attempts were made at building

models on the acquisition and development aspects of values (Wells, 1968) and on the psychological dimensions of work (Walther, 1964); but based on the authors' comments, they were of little success.

In the line of slightly more definite research in the public schools, Scriven (1971) developed a model on the valuing process to be used in teaching values. Bond (1971) conducted a content analysis of various social science curriculums in an attempt to determine the congruency among presented values. It was his finding that education was "beset with a plague of misconceptions, contradictions, inconsistencies, ambiguities, and myths,"

Gorsuch (1971) moved to a more sophisticated level of research. In 1971, he conducted a study with 1100 students and their teachers in the Nashville-Davidson County Metropolitan Public School System. The purpose was to examine how values related to the teachers' rating of their students. Instrumentation was developed for the project and information on validity was given in the report. By measuring at the first of the semester and again at the end of the semester, he found that those students whose values most closely reflected the teachers received slightly higher grades. He also concluded that the majority of all students changed their values toward those of the teacher. However, this reviewer questions the attributing of a cause and effect relationship to the situation. Many other variables could have come into play.

Brayer (1970) in the Coronado, California Unified School District conducted a relationship study of values to drug abuse with 116 eighth graders and 124 eleventh graders. Due to the nature of the study, the sample was made up of volunteers, thus limiting its generalizability.

He developed a 109-item questionnaire concerning four values. Validation was not mentioned. The analysis of data showed a significant difference in value-orientation toward authority between drug users and non-users in both grades. The users had a lower orientation toward authority.

To measure values during teacher-student relationships, Geisinger (1970) modified the Flanders' Interaction Analysis instrument. This was supposed to allow the measurement of difference in values. Validation of the instrument was covered but not in sufficient detail to allow a full evaluation by this reviewer. Coughlan (1968) developed a 45-item questionnaire and attempted to measure the work values of 192 teachers in four middle-class schools (location not given). However, he decided that the questionnaire was lacking in measuring ability.

Research directed toward occupational choice and values has been conducted at the college and university levels. Rosenberg (1957) reported on two studies.

The first was done in 1950 and involved a random sample of 2,758 students at Cornell University. These students were followed-up and 944 of the original sample were interviewed in 1952. The second study, done in 1952, concerned 4,585 randomly selected students from 11 American universities. Instrumentation was developed for the projects. Validation was not covered in depth. In regard to the first study, he noted that those graduates whose occupational values conflicted with their work were more apt to switch jobs. In the second study, he found most students desired work which allowed them

to use their "special abilities or aptitudes." However, they also indicated they might accept financial rewards in lieu of work of that nature.

Merton's (1957) theory on anticipatory socialization is of interest at this point. He suggested that a person will begin to adopt the attitudes and values appropriate to a new position in life before he actually enters that position. Underhill (1967) adds support to that theory. In a three-year follow-up of 15,850 male college graduates, he noted the interplay of the values one expressed and the values he would expect to express because of his pending occupation or promotion in that occupation. He concluded that "career choice may determine values or values may determine career choices or both processes may occur." Martin (1971), in his historical review of research on college students' values, noted that results similar to Underhill's had been found in several cases.

Brawer (1971), noting the problems he had in a value study of 1,800 entering students at three California community colleges and their 238 staff members which utilized Rokeach's Terminal and Instrumental Value Scales, had some recommendations for future studies. He proposed the clustering of values so the results could speak directly to:

1. The belief in rational or cognitive man versus the irrational man.
2. The belief in a personal God.
3. The belief in the Protestant Ethic (which he defined as the notion that one must work for a living, and give value for money received).
4. The belief in the concept of democracy.

##### 5. The belief in individuality.

However, he did not elaborate on how one might cluster the specific value concepts. Which value concept would speak to which cluster?

Hard research interest in occupational values at the public school level was evident in the late 1950s. The introduction of school counselors into the public school system during that time carried with it an increase in research data on occupational counseling and career choice. Osipow (1968) identified nine different groups of career choice theories.

Studies by Dukas (1955), Kuhlen (1952), Miller and Form (1951), Shartle (1959), and Super (1957) determined, according to Dole (1961), that values, which are a result of sex affiliation, parental influence, life development stages, and socio-economic factors, do play a significant role in occupational choice. Based on that conclusions, he conducted a cross-sectional study of values of students in the Hawaii school system. However, his use of differing instruments and the apparent inability to correlate the results of the instruments seriously confounded the study. He concluded that work values are not the complete determinants of occupational choice, however, he indicated they do play a part.

Arriving at similar results but with an additional finding was a study done by Smith and Proshansky (1967) with 1,254 teenagers in 13 public schools in New York City and Detroit. They used an open-ended questionnaire and analyzed the interpreted answers via multivariate analysis. Their conclusion was similar to Dole (1961). Work orientation is the outcome of the individual's experiences. They added, however, that the early stages of life development were perhaps

the most influential. It is of interest to note that the studies were conducted on almost different cultures several thousand miles apart.

The direct application of research on values to vocational education was undertaken by Garbin (1967) and Kapes and Lotowycà (1972). Garbin (1967) studied the problems of the student's transition to the world of work as perceived by vocational educators. Sixty-nine vocational educators were selected, non-randomly, based on their positions and professional reputations; and via an open-ended questionnaire and interviews, they responded to the problem. One of the major findings was that those graduates who "did not make a smooth transition" held poor work attitudes. It was recommended that curriculum materials be developed to impress upon the students the proper work values.

Kapes and Lotowycà (1972) investigated the changes in occupational values of 978 students in the Altoona, Pennsylvania School District. The students completed Kapes and Impellitteri's (1971) Occupational Value Inventory, a 35-item questionnaire, during their ninth-grade year and again in the tenth grade. Difference was recorded but was related more to the sexual maturation occurring to the students during this time than curriculum. He further indicated that his instrument may not have been exactly what was needed to measure the changes.

It appears that the recent study of values has evolved from an interest in general societal values, through the study of sources of values and their interplay in school settings, to specific research on work values and occupational choice and job success. The recurring findings indicate that values are learned from one's environment.



Values also influence man at work; but because of other variables, the actual manner and power of the influence is unknown.

The research studies have evolved from the simple observation level and trial and error work, through the descriptive level, and into comparison studies. While instrumentation appears to have been a constant problem, a foundation is available for one to move into more sophisticated comparison-level studies with proper instrumentation.

Ivey (1963) and Hendrix (1968) positively evaluated Super's Work Value Inventory. That inventory had been in various stages of development from 1951 until 1970 when it was field tested on a nationwide sample of seventh through twelfth grade students (Super, 1970). The Work Value Inventory appears to be a well-documented instrument.

#### Summary

Throughout recorded history, ideologies have greatly influenced man's view of work. Those ideologies have generally been transmitted by traditional institutions such as the church and the school. The ideologies have in a sense been cultural ethics and their reflection by the institutions has been a legitimate activity.

In the early 1970s, because of serious personnel problems in the work place, the federal government and the economic institution began to encourage the schools to transmit a new work ideology via the concept of career education. The rationale, according to them, was that a new work ethic was needed to correct the problems in the work place. On the other hand, social scientists have generated considerable data which purports to show that the problems in the work place

are caused by the systems of management under which most men work. To teach an ethic, such as career education, in the classroom might be a disservice to society.

The proponents of career education moved quickly from the ideal of teaching the value of work to the idea of teaching specific work values. It was often inferred that the values of successful occupational members might provide the proper level at which values should be emphasized in the classroom.

The reviewer is unsure if the students entering the labor market are lacking in the area of proper work values. How do they and their teachers compare to the successful occupational members? Also, what are the opinions of the students, their parents, teachers, and other educational leaders on the idea of teaching specific work values at specific levels of emphasis?

## CHAPTER III

### METHODOLOGY

#### Introduction

The purpose of this study was to move the issue, of whether or not specific work values should receive prescribed levels of classroom emphasis, from the general philosophical realm to a more rational decision-making situation, and judge the worth of teaching work values in one particular situation in vocational and technical education. To fulfill that purpose required the accomplishment of three procedural objectives.

The first procedural objective was the collection and comparison of the work values of (a) successful members of an occupational group, (b) vocational teachers who were training students to enter that occupation, and (c) the students who were receiving the training. The second procedural objective, by utilizing the scores of the successful occupational members as a judgment point, allowed the (a) vocational teachers, (b) their vocational students, (c) the parents of the vocational students, and (d) other decision makers in vocational education to judge the level of emphasis, if any, which those values should receive in the classroom. The third procedural objective was the analysis of the data collected via procedural objectives one and two.

### Selection of Occupational Group

The specific occupation of carpentry was selected for the following reasons:

1. This researcher, because of past experiences as a carpenter and a carpentry teacher, had previous knowledge of the interplay between the industry, educational institution, students and parents.
2. Carpenters, because of the nature of construction work, are generally employed by many different work organizations during their career. Therefore, they might receive more varying organizational experiences than do occupational groups which traditionally work for a fewer number of organizations. To measure the work values of that latter group might result in reflecting organizational values rather than occupational values.
3. The public schools' carpentry training system for high school students in Oklahoma presented a workable research population. During the time frame of this study, school year 1972-73, it consisted of 62 training programs with approximately 1,550 students involved. Further, the programs were dispersed across the state in both rural and urban, and high and low income areas. Item I in Appendix A shows the locations of the programs on an Oklahoma map.
4. The Oklahoma State Department of Vocational and Technical Education, and particularly the Division of Research, Planning, and Evaluation, and the Division of Trade and

Industrial Education (which administers the carpentry programs at the state level), consented to support the study. That assistance came in the form of allowing the use of their letterhead for correspondence and their professional assistance in critiquing the mail-out opinionnaire.

#### Phases of the Study

To comply with the three action objectives of the study, the research was divided into three corresponding phases. Two rounds of field research with statistical treatment were conducted, and one interpretation series was accomplished.

#### Instrumentation for Phase I

The first phase, the level of importance placed on specific work values by successful carpenters, carpentry students, and carpentry teachers was measured by Super's (1970) Work Value Inventory. It is a 45-item questionnaire which measures 15 work values, three items to each value. The persons completing the instrument mark their response on a five-point continuous scale where 1 means "unimportant," 2 means "of little importance," 3 means "moderately important," 4 means "important," and 5 means "very important." According to Popham (1967), that response is of the ordinal level, meaning the possible answers, dependent measures, are ranked, running from less important to more important. The salient point of a questionnaire having an ordinal ranking deals with the selection of the statistical tool used for analysis, which will be covered in more detail later.

The Work Value Inventory was field tested on a nationwide sample of public school students, seventh through twelfth grades, in the late 1960s (Super, 1970). Reliability measures if an instrument consistently yields the same results when repeated measurements are taken of the same subjects under the same condition (Van Dalen, 1966). Accordingly the reliability of the measures of the 15 values runs from .74 to .88, with 1.00 being a perfect positive score (Super, 1970; Kerlinger, 1964).

Another indicator of the accuracy of an instrument is its validity: Does it measure what it was designed to measure. There are four recognized types of validity (Kerlinger, 1964).

Construct validity, in this case, concerns the ability of the instrument to accurately reflect the concepts it is measuring. In this advanced age of psychological measurement, construct validity is normally determined by comparing one instrument to another. The Work Value Inventory's 15 values were compared to "like unto values" of four other instruments. The measures of validity ran from a low of -.59 to a high of .67, with 1.00 being perfect.

Content validity answers the question: Is the instrument measuring what it should be measuring? In other words, are the 15 values really the values which count, have meaning to a person at his work? Super's (1970) research said "yes." He further noted that only two of the values, altruism and independence (defined in the following section), were seemingly affected by "social desirability;" that is, "What I think others will think about me." The scores on altruism are inflated and the scores on independence are deflated, however, the amount is slight (Super, 1970). In addition, Super's (1957) long

involvement in research on job satisfaction gives him confidence in the content validity of the values.

Concurrent validity deals with the relationship of one type of variable to the other characteristics. In this case, the question was: Does the instrument allow the correlation of one occupational group to another, either in a positive or negative manner. It is logical that school teachers and school counselors would have similar measures, but their measures would likely differ from professional engineers. According to Super (1970), the instrument does show sameness among similar occupational groups and difference among different occupational groups.

Predictive validity concerns the ability of the instrument to predict the future of the person who completes the instrument, in regard to the influence of the variable being measured. According to Super (1970) those measurements were underway. However, at the time of this study, 1973, this researcher could not locate studies relating to the predictive ability of the instrument.

Since there are 15 value measurements involved, the question of whether there is some overlapping in the measurement arises; such as, Does the measurement of one value, in essence, also speak to another value? In regard to the independence of the values, scales, it appears that:

There is considerable overlap between the Economic Returns, Security, Surroundings, and Supervision scales; that there is considerable overlap between the Intellectual Stimulation and Creativity scales in males, but less in females; and the amount of overlap is less in early adolescence than in later adolescence (Super, 1970).

The operational definitions for the values and the item numbers on the questionnaire relating to each value follow.

1. Intellectual Stimulation . . . is associated with work which provides opportunity for independent thinking and for learning how and why things work. Item numbers 1, 23, and 38.
2. Altruism . . . is present in work which enables one to contribute to the welfare of others. Item numbers are 2, 30, and 31.
3. Economic Returns . . . is a value or goal associated with work which pays well and enables one to have the things he wants. Item numbers are 3, 22, and 39.
4. Variety . . . is associated with work that provides an opportunity to do different types of jobs. Item numbers are 4, 29, and 32.
5. Independence . . . is associated with work which permits one to work in his own way, as fast or as slowly as he wishes. Item numbers are 5, 21, and 40.
6. Prestige . . . is associated with work which gives one standing in the eyes of others and evokes respect. Item numbers are 6, 28, and 33.
7. Esthetics . . . is a value inherent in work which permits one to make beautiful things and to contribute beauty to the world. Item numbers are 7, 20, and 41.
8. Associates . . . is a value characterized by work which brings one into contact with fellow workers whom he likes. Item numbers are 8, 27, and 34.
9. Security . . . is a value associated with work which provides one with the certainty of having a job even in hard times. Item numbers are 9, 19, and 42.
10. Way of Life . . . is associated with work that permits one to live the kind of life he chooses and to be the type of person he wishes to be. Item numbers are 10, 26, and 35.
11. Supervisory Relations . . . is a value associated with work which is carried out under a supervisor who is fair and with whom one can get along. Item numbers are 11, 18, and 43.
12. Surroundings . . . is a value associated with work which is carried out under pleasant conditions, not too hot or too cold or too noisy or dirty. Item numbers are 12, 25, and 36.



13. Achievement . . . is a value associated with work which gives one a feeling of accomplishment in doing a job well. Item numbers are 13, 17, and 44.
14. Management . . . is a value associated with work which permits one to plan and lay out work for others to do. Item numbers are 14, 24, and 37.
15. Creativity . . . is a value associated with work which permits one to invent new things, design new products, or develop new ideas. Item numbers are 15, 16, and 45.

A copy of the instrument is presented in Appendix B and is identified as Item I. The score for each value is derived by adding the response on each of the three items relating to that value. Since each item can be scored from 1 to 5, the range could run from 3 to 15 for each value,

#### Populations and Conduct of Phase I

The instrument was filled out by three populations. One population was successful carpenters. This group was identified and induced to complete the questionnaire by the following procedures. The 1972 telephone directories of the Oklahoma City Standard Metropolitan Statistical Area, the Tulsa Standard Metropolitan Statistical Area, and the cities of Bartlesville in north central Oklahoma (slightly eastern), Enid in north central Oklahoma (slightly western), Lawton in south central Oklahoma, and Muskogee in eastern Oklahoma were searched under the "yellow pages" identifier of Home Builders. A map showing the locations of the cities is in Appendix A, labeled as Item II. The list of addresses compiled a 307-item mailing list. Over one-half of the population of Oklahoma resided in the areas surveyed.

This researcher was unable to determine the total number of home builders in the state, and therefore, could not determine the percentage of the total number of home builders included in the mailing list. The Oklahoma Employment and Securities Agency, which normally collects information of that nature, was unable to supply that data. It appeared that the seasonability of construction work and the erratic solvency of construction companies made the collection of data haphazard at best. However, it appeared to this researcher that the covering of the six major population areas of the state would allow for the representation of the home builders in the major growth areas.

Each home builder on the mailing list was contacted via letter and asked to identify his two best carpenters based on the following criteria. The carpenters should have over five years in the trade, possess the elements of workmanship worth paying for, and be of the type he desires to hire others like. A copy of the letter is labeled Specimen I, in Appendix C. The builder was asked to present to those two best carpenters two envelopes and their contents, which were included in the correspondence to the builders. Each envelope was a self-addressed, postage-paid return envelope. It consisted of an explanation letter to the carpenter and the Work Value Inventory. A copy of the letter is Specimen II of Appendix C. The carpenters were asked to complete the instrument and return via the envelope.

It appeared logical that only the home builders most interested in future employees would pass the envelopes along to the carpenters. Further, only those carpenters, receiving the envelopes, who were concerned about future tradesmen would respond (Kerlinger, 1964). Therefore, it seemed that the technique of securing responses departed from

a general population response in that the responses were screened in a two-phase situation where only those most interested responded.

The second population, that of carpentry teachers was arrived at via the 1972-73 Personnel Directory as published by the Oklahoma State Department of Vocational and Technical Education. Sixty-two programs in trade and industrial carpentry were identified. Each carpentry teacher was contacted via letter. A copy of the letter is Specimen III of Appendix C. The communication included, besides the letter which explained the research, a copy of the Work Value Inventory for his completion and a student address recording form; a copy is Item II of Appendix B.

Each teacher was requested to select, based on the order of students' names in their grade book, the first, third, fourth, sixth, eighth, and ninth student, record and return. Those numbers were arrived at by the table of random numbers (Popham, 1967) with the possible range being the number of students per day, 30. The programs operate with two three-hour sessions per day, usually with no more than 15 students per session. When the teachers returned their completed Work Value Inventory and the students' addresses, those addresses were then randomly assigned by their number to three groups. The table of random numbers (Popham, 1967) was used to assign the six numbered students to three groups.

Those being recorded as numbers four and eight were designated to complete the Work Value Inventory and were contacted via letter, Specimen IV, Appendix C. Those designated numbers one and nine were used for the mailing list of parents in Phase II, and those numbered three and six were used as the student population in Phase II.

Classification of Samples and Return Rate  
on Phase I

In Phase I representatives of the three populations completed the Work Value Inventory during the first three months of 1973. The information related to these response rates is presented in Table II.

In regard to the sample of successful carpenters, the response rate was low but was judged acceptable. Since 307 home builders were asked to identify their two best carpenters and pass along to them the Work Value Inventory, the actual number of carpenters receiving the Work Value Inventory in their hands is unknown. This was a non-random sample purporting to reflect the successful carpenters in the largest population areas in Oklahoma.

TABLE II  
SAMPLING AND RETURN RATE SCHEDULE FOR THE THREE GROUPS  
COMPLETING THE WORK VALUE INVENTORY

Sample Groups	Sample Size	Number Responding	Percentage Responding
Successful Carpenters	614	90	15
Carpentry Teachers	62	44	71
Carpentry Students	94	69	73

In regard to the sample of carpentry teachers, the initial return rate for the Work Value Inventory was considered insufficient and a follow-up letter was sent to all non-respondents. A copy of the letter is Specimen V, Appendix C. The final response rate, as shown in Table II, was judged acceptable and the sample was considered.

reflective of the population. The teachers also returned 47 student address recording forms.

As noted earlier, the student address recording form contained spaces for six names and their home addresses and the names were divided into three groups via random assignment. One of those groups comprised the sample of students who completed the Work Value Inventory in this phase. The return rate, as shown in Table II, was considered reflective of the approximately 1,550 high school males, grades 10 through 12, who were receiving training for three-hours per day, five days per week, in trade and industrial carpentry classes in Oklahoma during the first two months of 1973.

#### Relationship of Phase I to Phase II

Phase I, in addition to collecting the measurements of successful carpenters, trade and industrial carpentry teachers, and students in the carpentry classes, set up the base judgment data, level of importance of the measured work values of successful carpenters, for Phase II. This first phase also established a random selection of carpentry students and parents of carpentry students to be used as samples of population for Phase II.

#### Instrumentation for Phase II

In order to measure the opinions of the involved parties on how much emphasis each value should receive in the classroom, thus completing Procedural Objective 2, an instrument was constructed. Each of the 15 values was defined and the level of importance given to that value by the successful carpenters was shown. That level was

calculated by running a line-item average on the carpenters' scores. The respondents were directed to read the description of each value, note the level of importance given it by the carpenters, and indicate their opinion on the amount of emphasis high school students training to be carpenters should receive. They marked their opinion on a continuous 11-point scale running from 1, less emphasis, to 11, more emphasis. They were also informed that their marking near the center of the scale would indicate that the value should be emphasized at about the same level at which the carpenters rated that value. A copy of the opinionnaire is Item III of Appendix B.

The instrument received a measure of content validity in being critiqued by professional researchers on the staff of the Division of Research, Planning, and Evaluation of the Oklahoma State Department of Vocational and Technical Education, and by the members of this researcher's thesis advisory committee. Throughout that critique, several changes were made. Eventually the instrument was field tested with convenience groups, which included eight secretaries and librarians employed by the Oklahoma State Department of Vocational and Technical Education, five graduate students at Oklahoma State University, and various business people near this writer's residence. Each person completing the instrument was informally interviewed and minor changes in the instrument were made. The response scale of the instrument was classified, based on Popham's (1967) discussion of scales, to be of the ordinal level. Ordinal scales place entities in a clearly defined rank order, but the distance between the intervals on the scale is unknown and not necessarily equal (Van Dalen, 1966).

## Populations and Conduct of Phase II

Four populations were involved. All trade and industrial carpentry teachers, 62, were contacted by mail and asked to complete the opinionnaire. A copy of the cover letter is Specimen VI in Appendix C. A second group of the randomly selected students, as identified in Phase I, were mailed the opinionnaire. A copy of their cover letter is Specimen VII of Appendix C. The opinionnaires were also mailed to the parents of the third group of students who had been randomly selected in Phase I. The mail-outs to the parents included two opinionnaires, one for each parent. A copy of the cover letter is Specimen VIII of Appendix C. Another population was added in Phase II. This was made up of the professional staff of the Oklahoma State Department of Vocational and Technical Education, those members of the staff of the Oklahoma State Department of Education who worked with vocational education, and members of the professional staff of Oklahoma State University, Oklahoma University, and Central State University who worked with vocational education or received a portion of their salary via reimbursement from the Oklahoma State Department of Vocational and Technical Education. This group for convenience was labeled, vocational educators, and the mailing list was derived from a "distribution list" of personnel maintained by the Communications Center of the Oklahoma State Department of Vocational and Technical Education. A copy of the cover letter to the 87 persons identified on the distribution list is Specimen IX in Appendix C. All mail-outs were accomplished during late March, 1973. An arbitrary cut-off date of 1 May 1973 was established.

Classification of Samples and Return Rate  
on Phase II

Table III, below, identifies the samples and return rates.

TABLE III  
SAMPLING AND RETURN RATE SCHEDULE FOR THE FOUR GROUPS  
COMPLETING THE OPINIONNAIRE IN PHASE II

Sample Groups	Sample Size	Number Responding	Percentage Responding
Carpentry Teachers	62	47	75
Carpentry Students	91	53	58
Parents of Carpentry Students	184	69	37
Vocational Educators	87	64	73

The return rate of carpentry teachers was adequate to be considered as representative of the population. While the return rate for carpentry students was somewhat low, it was because of random selection and assignment considered to be reflective of the population. In regard to the parents of carpentry students, while the return rate was low, the actual number was comparative to the other samples and considered to be reflective of the population from which it was drawn.

Concerning the sample of vocational educators, it was of interest to this researcher to note that all responses from this group were usable. In every other group, there were from one to four unusable responses. On one hand, it could be said that this group was of a higher educational level thus better equipped to complete the instrument. However, on the other hand, it could be a function of that population's experience with measuring instruments. If it was a



function of their experience with measuring instruments, the question arises as to whether they completed the instrument based on their judgment of the data presented or whether they completed the instrument based on their knowledges of and experiences with measuring instruments. However, this researcher did accept the return responses as representative of the true opinions of the population.

#### Statistical Treatment for Phases I and II

Phases I and II spoke, respectively, to Procedural Objectives 1 and 2 of the study. Phase I, by recording the level of importance on each measured value by the successful carpenters, set up the base data for Phase II. Procedural Objective 1 also established the need for comparing the scores of the carpenters to those of the carpentry teachers and carpentry students.

In Phase I, the level of importance on each value for each group was calculated by generating an average score. The total sum of the responses of a group on one value was divided by the total number of responses. That was done for each group on each value. The standard deviation of the scores of each group on each item was calculated. The standard deviation, as the square root of variance, allows a visual comparison on the amount of variability between the groups. As a measure of dispersion, it also tends to reflect some of the parameters of the groups measured. While those two descriptive measures, the average score and the standard deviation, allowed a certain amount of comparison among the three groups who completed the Work Value Inventory, there was the additional need of being much more specific on the existence of the exact difference.

That was accomplished by matching the characteristics of the data to the underlying assumptions of a statistical test which would measure for difference among three groups. The measuring scale was of the ordinal level and according to Dayton (1970) allowed the use of a parametric statistic.

The existence of three groups among which the determination of a difference was desired and the existence of an ordinal-level measuring scale suggested the use of a multiple t-test. One of the most commonly utilized techniques of that nature is a one-way analysis of variance (Kerlinger, 1964), which according to Popham (1967) is "nothing more than a clever statistical method of testing for significant difference between the means of two or more groups."

In the past, the one-way analysis of variance was generally considered to be an acceptable statistic only for experimental level studies where all the involved groups were randomly selected (Kerlinger, 1964; Garrett, 1958). More recently, the statistic has come into common use for measuring the difference among the responses of groups on the same measuring instrument. It appears to be legitimate if the researcher, in the latter case, does not attempt to attribute some type of a cause and effect relationship (Dixon, 1971; Dayton, 1970). The base rationale of the statistic rests in the ratio of the variance within groups to the variance between groups. All variance within the group in relation to the mean is considered to be error variance. All variance between the means of the different groups is considered to be true variance. The ratio of those two results adjusted by their means causes the measurement of actual variance.

The data collected in regard to Procedural Objective 2, during Phase II, was statistically treated in the same manner as the data in Phase I. The only difference between Phases I and II in the descriptive reflection of the line-item averages and the one-way analysis was that three groups were included in Phase I and four groups were included in Phase II.

Homogeneity of variance, an underlying assumption of the one-way analysis of variance, was checked on each run of data. This was accomplished by dividing the smallest subgroup variance into the largest subgroup variance and checking the ratio for homogeneity with the F table. All groups on all runs were homogeneous.

When a significant difference was found, then a need to determine the location of the difference arose. Several further tests can be utilized; however, due to the nearly equal Ns of the samples, this researcher elected to use Duncan's Multiple Range Test for Nearly Equal Ns (Bruning and Kintz, 1968). That procedure allowed each group to be compared to each other group based on the already generated data. It performs that function by giving a measure of the actual amount of variance which must exist between the means of the different groups before they can be considered as significantly different.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF THE DATA

#### Introduction

The purpose of this study was to move the issue of whether or not specific work values should receive prescribed levels of classroom emphasis, from the general philosophical realm to a more rational decision-making situation, and to judge the worth of teaching work values in one particular situation in vocational and technical education. That purpose was accomplished by conducting two phases of field research and one phase of interpreting the results of those two phases. The results of the two phases of field research are presented in this chapter. In addition, brief written summaries capsule the results of the data and address the meaning of the results.

#### Presentation and Analysis of the Data

##### Collected in Phase I

Procedural Objective 1 of this study was the administering of an instrument to measure the work values of (a) successful members of an occupational group, (b) vocational teachers who were training students to enter that occupation, and (c) the students who were receiving the training. The comparison of those responses would reflect the amount of congruency among the groups on the level of importance they placed on the values measured. That objective was fulfilled by administering

Super's (1970) Work Value Inventory to samples of successful carpenters, trade and industrial carpentry teachers, and students in trade and industrial classes. The data were collected in Oklahoma during January through April, 1973.

The mean scores on each value (possible range 3-15) for each group, along with the standard deviations are presented in Table IV. An overview of the scores indicated that all of the values measured were of importance to all groups. In a visual comparison, the successful carpenters had the lowest scores among the groups on 14 of the 15 values. On intellectual stimulation, the successful carpenters' scores fell between the other two groups. The teachers had the highest scores on six values; intellectual stimulation, independence, esthetics, management, achievement, and creativity. The students had the highest scores on nine values; altruism, economic returns, variety, prestige, associates, security, way of life, supervisory relations, and surroundings. The students scored lowest of the groups on intellectual stimulation.

To all three groups, the values way of life, achievement, and supervisory relations, in receiving the highest scores, appeared to be the most important of the 15 values. The value of management received the lowest ranking of all the values by the groups.

The standard deviations of the groups indicated the teachers were less variable, closer together on their markings on the values, than the carpenters. The students were more variable than the other groups.

The results of the statistical comparison among the groups are presented in Table V. Sums of squares and mean squares are presented in Appendix D. In using the .05 level as the acceptable significance

TABLE IV

AVERAGE SCORES AND STANDARD DEVIATIONS OF STUDENTS, TEACHERS,  
AND SUCCESSFUL CARPENTERS ON EACH VALUE IN  
THE WORK VALUE INVENTORY

Value	Students		Teachers		Carpenters	
	Average	S. D.	Average	S. D.	Average	S. D.
Intellectual Stimulation	12.2463	2.0757	12.7954	1.6364	12.5666	1.6763
Altruism	12.6086	2.0666	12.3636	1.6437	11.4333	1.8484
Economic Returns	13.4347	1.9887	12.6163	1.4472	12.1000	1.9662
Variety	11.4782	2.4710	10.9772	2.0740	10.2333	2.6182
Independence	11.5942	1.8811	11.9772	1.9823	11.3333	2.6774
Prestige	12.0724	2.4752	11.3863	2.0024	10.4666	1.9556
Esthetics	11.5652	2.2366	11.9772	1.9106	11.0666	1.9932
Associates	11.7681	2.1223	11.0681	1.6621	10.8000	1.6906
Security	13.5652	1.7445	11.9545	2.3323	10.0666	2.8553
Way of Life	13.9130	1.3255	13.0454	1.9642	12.1000	1.9141
Supervisory Relations	13.5797	1.5377	13.1363	1.7062	12.0000	1.7222
Surroundings	12.2028	1.8753	11.8636	1.8374	10.3000	1.8016
Achievement	13.5507	1.4706	13.7727	1.2549	12.8666	2.0234
Management	10.2463	2.6701	10.5000	1.9229	9.6333	1.9855
Creativity	12.0434	1.1431	12.3409	1.3799	11.7000	2.0633

point, there were four values where the groups were not significantly different ( $p > .05$ ).

TABLE V

THE RESULTS OF A ONE-WAY ANALYSIS OF VARIANCE AMONG THE SCORES OF STUDENTS, TEACHERS, AND CARPENTERS FOR EACH ITEM IN THE WORK VALUE INVENTORY WITH 2/200 DEGREES OF FREEDOM

Value	F	p
Intellectual Stimulation	.3261	> .50
Altruism	8.4482	< .0005
Economic Returns	9.2303	< .0005
Variety	5.1810	< .01
Independence	1.1721	> .25
Prestige	10.9549	< .0005
Esthetics	3.0980	< .05
Associates	5.5043	< .01
Security	41.4495	< .0005
Way of Life	21.1375	< .0005
Supervisory Relations	17.5585	< .0005
Surroundings	23.7934	< .0005
Achievement	5.3641	< .01
Management	2.7255	> .10
Creativity	2.3551	> .05

All placed about the same level of importance on work which provides opportunity for independent thinking and for learning how and why things work, intellectual stimulation. The same was true for independence, work which permits one to work in his own way, as fast or as slowly as he wishes; management, work which permits one to plan and lay out work for others to do; and creativity, work which permits one to invent new things, design new products, or develop new ideas.

On the other eleven values, there were significant differences among the groups. The location of the differences is shown in Table VI.

Table VI shows that on prestige, work which gives one standing in the eyes of others and evokes respect, there was a clear ranking among the groups with the students being significantly higher than the teachers, who were significantly higher than the carpenters. The same was true for: associates, work which brings one into contact with fellow workers whom he likes; security, work which provides one with the certainty of having a job even in hard times; and way of life, work that permits one to live the kind of life he chooses and to be the type of person he wishes to be.

On the value of altruism, work which enables one to contribute to the welfare of others, the students and teachers, who were not significantly different, ranked it significantly higher than did the carpenters. Table VI indicates the same was true for: variety, work which provides an opportunity to do different types of jobs; supervisory relations, work which is carried out under a supervisor who is fair and with whom one can get along; surroundings, work which is carried out under pleasant conditions, not too hot or too cold or too noisy or dirty; and achievement, work which gives one a feeling of accomplishment in doing a job well.

The teachers were significantly higher than students or carpenters on esthetics, work which permits one to make beautiful things and to contribute beauty to the world. The students were significantly higher than the carpenters and teachers on the value of economic returns, work which pays well and enables one to have the things he wants.



TABLE VI

DUNCAN'S MULTIPLE-RANGE TEST FOR LOCATION OF VARIANCE AMONG  
STUDENTS, TEACHERS, AND CARPENTERS ON THE WORK VALUES  
WHERE SIGNIFICANT DIFFERENCE WAS FOUND

Value	Group VS Group	p	Group Scoring Highest
ALTRUISM	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	> .05	N/A
ECONOMIC RETURNS	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	> .05	N/A
	Students VS Teachers	< .05	Students
VARIETY	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	> .05	N/A
PRESTIGE	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	< .05	Students
ESTHETICS	Students VS Carpenters	> .05	N/A
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	> .05	N/A
ASSOCIATES	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	< .05	Students
SECURITY	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	< .05	Students
WAY OF LIFE	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	< .05	Students
SUPERVISORY RELATIONS	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	> .05	N/A
SURROUNDINGS	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	> .05	N/A
ACHIEVEMENT	Students VS Carpenters	< .05	Students
	Teachers VS Carpenters	< .05	Teachers
	Students VS Teachers	> .05	N/A

### Summary of Data in Phase I

The mean scores indicated that all values measured were of importance to all groups. The successful carpenters had the lowest mean scores on 14 of the 15 values. On intellectual stimulation, the successful carpenters' scores fell between the other two groups. The carpentry teachers had the highest mean scores on six values; intellectual stimulation, independence, esthetics, management, achievement, and creativity. The carpentry students had the highest mean scores on nine values; altruism, economic returns, variety, prestige, associates security, way of life, supervisory relations, and surroundings. The students had the lowest mean score of the groups on intellectual stimulation.

To all three groups, the values way of life, achievement, and supervisory relations, in receiving the highest mean scores, appeared to be the most important of the 15 values. The value of management received the lowest ranking of all the values by the groups.

There was no significant difference among the groups on the four values; intellectual stimulation, independence, management, and creativity. There was significant difference among all groups on the four values; prestige, associates, security, and way of life, with the carpentry students significantly higher than the carpentry teachers, who were significantly higher than the successful carpenters. On the five values of altruism, variety, supervisory relations, surroundings, and achievement, the carpentry students and teachers, who were not significantly different, were significantly higher than the successful carpenters.

The carpentry teachers were significantly higher than the others on the value of esthetics. The carpentry students were significantly higher than the others on economic returns.

In most cases, the students or students and teachers were higher on the values than were the successful carpenters. To reflect in the classroom the level of importance the carpenters placed on the values would require a depressing of the students' levels of importance.

#### Presentation and Analysis of the Data

##### Collected in Phase II

Procedural Objective 2 of this study was: The utilization of the scores of the successful occupational members as a judgment point for eliciting the opinions of (a) the vocational teachers, (b) their vocational students, (c) parents of the vocational students, and (d) other decision makers in vocational education on the level of emphasis, if any, those values should receive in the classroom. That was accomplished by using the carpenters scores as the judgment point, and the data are presented in this section.

The mean responses (possible range 1-11) on each value, along with the standard deviations for each group are presented in Table VII. A comparison of the average scores of the groups on each value indicates some polar positions between the students and the vocational educators and teachers. Of the four groups, on the values of intellectual stimulation, economic returns, independence, associates, way of life, and supervisory relations, the students' scores were the highest of the four and the vocational educators and teachers were the lowest. The reverse is shown on the values of altruism, variety,

TABLE VII

AVERAGE SCORES AND STANDARD DEVIATIONS OF STUDENTS, PARENTS, TEACHERS,  
AND VOCATIONAL EDUCATORS ON THE AMOUNT OF CLASSROOM EMPHASIS WHICH  
SHOULD BE GIVEN TO EACH VALUE IN THE WORK VALUE INVENTORY

Value	Students		Parents		Teachers		Educators	
	Average	S. D.	Average	S. D.	Average	S. D.	Average	S. D.
Intellectual Stimulation	7.6603	1.9408	7.6231	1.8872	7.5319	1.9764	7.2343	2.3076
Altruism	6.1509	2.1136	6.5797	1.7523	6.7234	1.9748	7.0781	2.1624
Economic Returns	8.0377	1.6751	7.9130	2.0632	7.8936	2.1491	7.1562	2.3314
Variety	6.6415	2.0948	7.1304	1.9771	7.5319	2.0731	7.1250	2.1269
Independence	6.1698	2.0450	6.1594	2.1117	5.7234	2.2135	5.8906	2.3442
Prestige	6.2264	2.2329	6.3478	2.1061	7.1063	2.1082	7.1718	2.4724
Esthetics	6.5849	2.0515	6.6956	2.2314	7.4468	1.8859	7.0781	2.3924
Associates	6.9056	1.9241	6.3913	2.0089	6.8085	1.7148	6.8750	2.1343
Security	7.5283	1.9670	7.6811	2.2589	7.8723	2.2805	6.9375	2.4680
Way of Life	8.2830	2.0322	7.9565	2.2389	7.9361	2.0684	7.4062	2.8380
Supervisory Relations	8.8490	1.8438	8.1159	1.9594	8.1702	2.1801	7.5468	2.6302
Surroundings	5.4905	1.9076	5.7681	1.7751	6.3829	2.0382	6.3593	2.1259
Achievement	8.5849	1.8442	8.6231	2.0870	8.5106	2.0416	8.0781	2.6744
Management	6.5283	1.7931	6.6956	2.2835	7.2978	1.8405	7.1093	2.3238
Creativity	7.3207	2.1192	7.2463	2.1855	7.6595	2.0775	7.3593	2.3594

prestige, surroundings, management, and creativity, where the teachers and vocational educators ranked these the highest and the students ranked them the lowest. The parents tended not to set any parameters with their scores, and generally they fell within the range established by the other groups.

It was the judgment of all groups that all values should be emphasized in the classroom at about the same level or higher than the level of importance given each value by the carpenters. All groups consistently gave the highest level of emphasis to the values of achievement, supervisory relations, way of life, and economic returns. They consistently gave the lowest ratings to the values of surroundings, independence, and associates.

As indicated by the standard deviation scores, the students, parents, and teachers were less variable than the educators. However, the variance within the groups was large. That is born out by Table VIII where the results of the analysis of variance among the groups are shown.

On only one item, supervisory relations, was there a significant difference above the .05 level. The location of that variance is shown in Table IX. Sums of squares and means squares are presented in Appendix E.

The students desired more emphasis on supervisory relations than did vocational educators, parents, or teachers. The meaning of that result is unclear. The students may be speaking to other elements of society in their response to that item. Perhaps they feel a need to be treated better by other parties.

TABLE VIII

THE RESULTS OF ONE-WAY ANALYSIS OF VARIANCE AMONG THE SCORES  
OF STUDENTS, PARENTS, TEACHERS, AND VOCATIONAL EDUCATORS  
ON THE AMOUNT OF CLASSROOM EMPHASIS WHICH SHOULD BE  
GIVEN TO EACH MEASURED WORK VALUE WITH  
3/229 DEGREES OF FREEDOM

Value	F	p
Intellectual Stimulation	.5576	>.50
Altruism	1.8395	>.10
Economic Returns	2.2860	>.05
Variety	1.5640	>.10
Independence	.5340	>.50
Prestige	2.4744	>.05
Esthetics	1.1330	>.25
Associates	.9597	>.25
Security	1.8891	>.10
Way of Life	1.4250	>.10
Supervisory Relations	3.4410	<.025
Surroundings	2.5613	>.05
Achievement	.8241	>.25
Management	1.5326	>.10
Creativity	.3759	>.75

TABLE IX

DUNCAN'S MULTIPLE-RANGE TEST FOR LOCATION OF VARIANCE AMONG STUDENTS,  
PARENTS, TEACHERS, AND VOCATIONAL EDUCATORS ON THE AMOUNT OF  
CLASSROOM EMPHASIS WHICH SHOULD BE GIVEN TO THE WORK  
VALUE OF SUPERVISORY RELATIONS

Group VS Group	p	Group Scoring Highest
Students VS Educators	<.05	Students
Students VS Parents	<.05	Students
Students VS Teachers	<.05	Students
Teachers VS Parents	>.05	N/A
Teachers VS Educators	>.05	N/A
Parents VS Educators	>.05	N/A

### Summary of Data in Phase II

A survey of the data analyzed for Phase II indicates the following: A visual comparison of the average scores on the level of emphasis by the samples of carpentry students, parents of carpentry students, carpentry teachers, and vocational educators showed some differences, but were not significant. Of the four samples, on the values of intellectual stimulation, economic returns, independence, associates, way of life, and supervisory relations, the carpentry students' scores set the top parameter, while the scores of the carpentry teachers and vocational educators set the low parameter. The reverse occurred on the values of altruism, variety, prestige, surroundings, management, and creativity, where the samples of carpentry teachers and vocational educators set the upper parameter and the sample of carpentry students set the lower parameter. The parents scores tended to fall within the parameters set by the other groups. All groups judged that all the values should be emphasized at a level about equal to or greater than the level of importance placed on those values by the successful carpenters. In only one instance did the groups differ significantly on the level at which a value should be emphasized. That value was supervisory relations and the students were significantly higher than the educators, parents, or teachers.

The almost total congruency of all groups could have been caused by the opinionnaire. The listing of the carpenters' scores on each value may have had a leveling effect on the responses and caused a regression toward the mean. If that occurred, an error of central tendency arose. On the other hand, the opinionnaire may have

accurately reflected the situation. The values measured and the level of importance accorded each might be constant work values which cross several occupational lines in our work-oriented society.



## CHAPTER V

### SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The purpose of this study was to move the issue, of whether or not specific work values should receive prescribed levels of classroom emphasis, from the general philosophical realm to a more rational decision making situation, and judge the worth of teaching work values in one particular situation in vocational and technical education. To fulfill that purpose, the following three procedural objectives were designed for accomplishment.

Procedural Objective 1 was the administering of an instrument to measure the work values of (a) successful members of an occupational group, (b) vocational teachers who were training students to enter that occupation, and (c) the students who were receiving the training. Procedural Objective 2 was the utilization of the scores of the successful occupational members as a judgment point for eliciting the opinions of (a) the vocational teachers, (b) their vocational students, (c) parents of the vocational students, and (d) other decision makers in vocational education on the level of emphasis, if any, those values should receive in the classroom. Procedural Objective 3 was to derive from Objectives 1 and 2, findings, conclusions, and recommendations on

the teaching of the specific work values at specific levels in vocational classes in Oklahoma.

That purpose and its related objectives grew out of a review of the following situation concerning the concept of career education. On one side, the federal government is encouraging educators to diffuse the work ideology of career education, which has a base tenet that "work is good." On the other side, social scientists are generating data and theories which purport to show that the effects of work are harmful to man and society. Both sides point to the same current problems in the work place; low morale, poor workmanship, sabotage, alcoholism, heart attacks, drug abuse, decreased production, and alienation, as proof of their stance.

The proponents of career education say the problems are caused by the lack of a work ethic; and that future workers, students, should be taught an ethic. In essence, they propose to change the person. Social scientists say the problems are caused by the dehumanizing effects of a bureaucratized and systematized work place. They want to change the work place.

The researchers in career education and the researchers for the economic institutions moved quickly from the ideal of placing a high value on work to the idea of identifying and encouraging the teaching of specific work values. The question facing educators is a moral issue. On one hand, the teaching of specific work values could be considered as indoctrination and could eventually be harmful to society, to whom they have a responsibility. On the other hand, those work values might actually be representative of a work-oriented society;

and their diffusion by the schools would be a legitimate transmission of cultural values.

That situation poses a dilemma for educators. Due to the lack of definitiveness on either side, the issue remains in a general philosophical realm, subject to as many different interpretations as there are philosophies. The purpose of this study and the required procedural objectives spoke directly to that issue.

Phase I of this study fulfilled Objective 1. Super's (1970) Work Value Inventory was administered to samples of (a) successful carpenters, (b) trade and industrial carpentry teachers, and (c) students in trade and industrial carpentry classes. The data were statistically analyzed by the one-way analysis of variance technique.

Phase II of this study fulfilled Objective 2. Samples of (a) carpentry students, (b) parents of carpentry students, (c) carpentry teachers, and (d) other vocational educators at the state level were given the successful carpenters' scores on the work values as a judgment point and asked their opinion on how much emphasis, if any, those values should receive in the classroom. The data were analyzed by the one-way analysis of variance technique.

This chapter fulfills Objective 3, which was to derive, based on the results of Objectives 1 and 2, findings, conclusions, and recommendations on the teaching of the specific work values at specific levels in trade and industrial carpentry classes in Oklahoma. Those findings, conclusions, and recommendations are presented in the following sections. An implication section is then included and speaks to the educational significance of this study.

### Findings

1. The sample of successful carpenters had lower raw scores on 14 of the 15 work values than did the samples of carpentry students and carpentry teachers.

2. On the work value of intellectual stimulation, the raw scores of the successful carpenters ranked between the carpentry students, who had the lowest raw scores, and the carpentry teachers, who had the highest.

3. The sample of carpentry teachers had higher raw scores on the six work values of intellectual stimulation, independence, esthetics, achievement, management, and creativity than did the samples of successful carpenters and carpentry students.

4. The sample of carpentry students had higher raw scores on the nine work values of altruism, economic returns, variety, prestige, associates, security, way of life, supervisory relations, and surroundings than did the samples of successful carpenters and carpentry teachers.

5. The samples of successful carpenters, carpentry teachers, and carpentry students, in total, ranked the work values of way of life, achievement, and supervisory relations as more important than the other values and the work value of management as the least important value.

6. On the four work values of intellectual stimulation, independence, management, and creativity, there was no significant difference among the samples of successful carpenters, carpentry teachers, and carpentry students.

7. On the four work values of prestige, associates, security, and way of life, there was significant difference among all samples with

the carpentry students rating them higher than the carpentry teachers, who rated them higher than the successful carpenters.

8. On the five values of altruism, variety, supervisory relations, surroundings, and achievement, the samples of carpentry students and carpentry teachers, while not being significantly different between themselves, were significantly different, higher, on their scores than the successful carpenters.

9. The sample of carpentry teachers was significantly different, higher, on their scores on the work value of esthetics than were the samples of successful carpenters and carpentry students.

10. The sample of carpentry students was significantly different, higher, on their scores on the work value of economic returns than were the samples of successful carpenters and carpentry teachers.

11. In regard to the amount of emphasis each value should receive in the classroom, the samples of carpentry students, parents of carpentry students, carpentry teachers, and vocational educators judged that all of the measured work values should be emphasized at about the same level or higher than the level of importance given each value by the successful carpenters.

12. The judgments of the samples of carpentry students, parents of carpentry students, carpentry teachers, and vocational educators were significantly different on only the work value of supervisory relations, where the students were significantly higher than the other samples.

13. A descriptive comparison of the average scores on the level of emphasis by the samples of carpentry students, parents of carpentry students, carpentry teachers, and vocational educators showed some differences, but were not significant. Of the four samples, on the

values of intellectual stimulation, economic returns, independence, associates, way of life, and supervisory relations, the carpentry students' scores set the top parameter, while the scores of the carpentry teachers and vocational educators set the low parameter. The reverse occurred on the values of altruism, variety, prestige, surroundings, management, and creativity, where the samples of carpentry teachers and vocational educators set the upper parameter and the sample of carpentry students set the lower parameter. The parents tended not to set any upper or lower ranges but fell within the parameters established by the other groups.

#### Conclusions

1. Based on the data analyzed for Objective 1, it appears that the carpentry students place a higher level of importance on the work values measured than did the successful carpenters and tended to be more in agreement with the teachers than with the carpenters. Yet, all groups considered all values important.

2. Based on the data analyzed for Objective 2, it appears that the carpentry students, parents of carpentry students, carpentry teachers, and vocational educators endorse the teaching of the measured work values at a level of emphasis about equal to or somewhat higher than the level of importance accorded those values by successful carpenters. The parents scores fell within the ranges established by the other groups.

3. Based on the above two conclusions, it is the judgment of this researcher that, while the teaching of the specific work values has been endorsed by the concerned parties, there would be little worth in

doing so because the students already possess higher measures than do the successful carpenters. The teachers may already be unintentionally transmitting the values.

4. The low scores on management may have been a function of the population measured.

#### Recommendations

1. The findings and conclusions of this study should be distributed to decision makers in vocational education. Those involved in teacher selection should be apprised of the work values of the population of teachers. It may be of use in teacher selection.

2. The data concerning the measures of the work values should be made available to those involved in the counseling of students who are considering entering the carpentry classes.

3. When the students enter the reality world of work, their values may cause them to expect higher returns and satisfactions than are actually available. That might lead to frustration. The students should be made aware of the difference in values and become prepared to cope with the situation.

4. If a study of this nature is undertaken in a similar occupational area, it would appear wise to develop an alternative method for locating the successful members of that occupation. Also, the format of the opinionnaire, before further use, should be field checked on several extremely different populations to determine if it will differentiate between groups.

5. This researcher, during the conduct of the study and particularly during the analysis of the data, made two observations that could

be worthy of further research. The first was that the scores on the Work Value Inventory may, in some cases, be a function of age. The second was that the scores may, in other cases, be a function of the organization where one is employed. A cross-sectional comparison study would speak to those observations.

### Implications

The students who were surveyed in this study possess considerably higher work value scores than the successful occupational members. Besides showing evidence against the myth that youth do not want to work, it also allows for the development of some propositions. Vocational and technical education may be doing a better job in preparing youth for work than some believe. The data collected in this study at least indicate a small crack in the foundation of the argument that the lack of proper work values held by youth is in part responsible for the current problems in the workplace.

Because of the lower scores on work values by the successful occupational members, one can speculate that it is the experiences in the work place which cause a lower dedication to work. Man may enter the work place expecting his needs to be met, but given the reality of the situation he gradually changes.

While the role of vocational and technical education in the latter situation is somewhat unclear, there are some things which could be done. If the students were informed of the problems and frustrations they are apt to encounter, they may then be better equipped to cope with those situations when they arise. Also, if they were taught how to cause change, they might be able to eventually change some of the



situations. Meaningful change could possibly result in higher productivity and increased job satisfaction.

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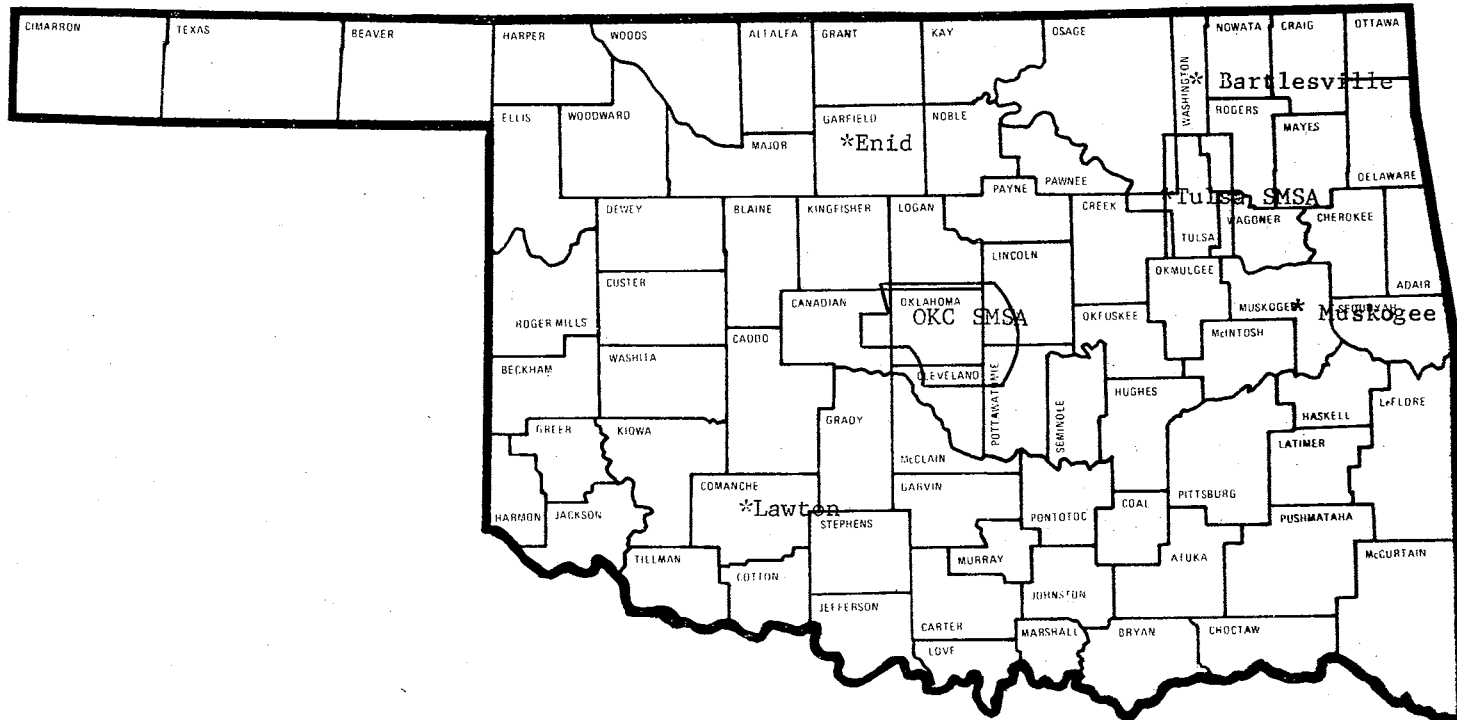
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APPENDIX A



ITEM II

THE LOCATION OF THE SIX POPULATION AREAS WHERE SUCCESSFUL CARPENTERS WERE SURVEYED





APPENDIX B

The statements below represent values which people consider important in their work. These are satisfactions which people often seek in their jobs or as a result of their jobs. They are not all considered equally important; some are very important to some people but of little importance to others. Read each statement carefully and indicate how important it is for you.

- 5 means "Very Important"
- 4 means "Important"
- 3 means "Moderately Important"
- 2 means "Of Little Importance"
- 1 means "Unimportant"

(MARK a number by each item to show your answer)

Work in which you . . .

	VERY IMPORTANT	MODERATELY IMPORTANT	OF LITTLE IMPORTANCE	UNIMPORTANT	
1. have to keep solving new problems . . . . .	5	4	3	2	1
2. help others . . . . .	5	4	3	2	1
3. can get a raise . . . . .	5	4	3	2	1
4. look forward to changes in your job . . . . .	5	4	3	2	1
5. have freedom in your own area . . . . .	5	4	3	2	1
6. gain prestige in your field . . . . .	5	4	3	2	1
7. need to have artistic ability . . . . .	5	4	3	2	1
8. are one of the gang . . . . .	5	4	3	2	1
9. know your job will last . . . . .	5	4	3	2	1
10. can be the kind of person you would like to be . . . . .	5	4	3	2	1
11. have a boss who gives you a square deal . . . . .	5	4	3	2	1
12. like the setting in which your job is done . . . . .	5	4	3	2	1
13. get the feeling of having done a good day's work . . . . .	5	4	3	2	1
14. have authority over others . . . . .	5	4	3	2	1
15. try out new ideas and suggestions . . . . .	5	4	3	2	1
16. create something new . . . . .	5	4	3	2	1
17. know by the results when you've done a good job . . . . .	5	4	3	2	1
18. have a boss who is reasonable . . . . .	5	4	3	2	1
19. are sure of always having a job . . . . .	5	4	3	2	1
20. add beauty to the world . . . . .	5	4	3	2	1
21. make your own decisions . . . . .	5	4	3	2	1
22. have pay increases that keep up with the cost of living . . . . .	5	4	3	2	1
23. are mentally challenged . . . . .	5	4	3	2	1
24. use leadership abilities . . . . .	5	4	3	2	1
25. have adequate lounge, toilet, and other facilities . . . . .	5	4	3	2	1
26. have a way of life, while not on the job, that you like . . . . .	5	4	3	2	1
27. form friendships with your fellow employees . . . . .	5	4	3	2	1
28. know that others consider your work important . . . . .	5	4	3	2	1
29. do not do the same thing all the time . . . . .	5	4	3	2	1
30. feel you have helped another person . . . . .	5	4	3	2	1
31. add to the well-being of other people . . . . .	5	4	3	2	1
32. do many different things . . . . .	5	4	3	2	1
33. are looked up to by others . . . . .	5	4	3	2	1
34. have good contacts with fellow workers . . . . .	5	4	3	2	1
35. lead the kind of life you most enjoy . . . . .	5	4	3	2	1
36. have a good, well organized, place to work . . . . .	5	4	3	2	1
37. plan and organize the work of others . . . . .	5	4	3	2	1
38. need to be mentally alert . . . . .	5	4	3	2	1
39. are paid enough to live right . . . . .	5	4	3	2	1
40. are your own boss . . . . .	5	4	3	2	1
41. make attractive products . . . . .	5	4	3	2	1
42. are sure of another job in the company if your present job ends . . . . .	5	4	3	2	1
43. have a supervisor who is considerate . . . . .	5	4	3	2	1
44. see the results of your efforts . . . . .	5	4	3	2	1
45. contribute new ideas . . . . .	5	4	3	2	1

## RANDOM SELECTION OF STUDENTS

Home Address of:

Student #1.

Student #3.

Student #4.

Student #6.

Student #8.

Student #9.

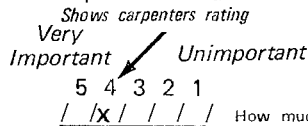
OPINIONNAIRE ON WORK-VALUES EMPHASIS

The statements below present descriptions of values which people often have concerning their work. Successful carpenters in Oklahoma were asked to rate the importance of these values on a 5-point scale running from unimportant (1) to very important (5). The result of their rating on each of the fifteen values is included below with each description.

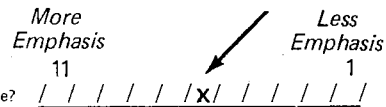
We are attempting to determine the "level of emphasis," if any, that high school students enrolled in carpentry training classes should receive on each of these values. Therefore, we are asking you to: (a) Read the description of each value, (b) Note the level of importance given it by carpenters, and (c) Indicate your opinion on the amount of emphasis high school students training to be carpenters should receive. Show your opinion by marking an X on the 11-point scale located to the right of each question. The 11-point scale runs from "less emphasis" (1) to "more emphasis" (11). An X near the middle would indicate that the value should be emphasized at about the same level as rated by the carpenters.

EXAMPLE

- a. The value of TIMELINESS relates to "one's awareness of the clock as a guide to work activities, such as; getting to work on time and being on time for meetings and appointments." The carpenters rated this

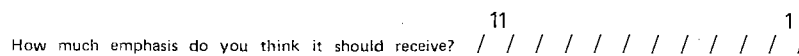
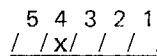


SHOW YOUR OPINION BY PLACING AN X ON THESE SCALES; such as



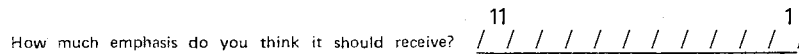
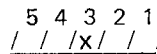
1. The value of INTELLECTUAL STIMULATION is associated with "work which provides opportunity for independent thinking and for learning how and why things work."

The carpenters rated this



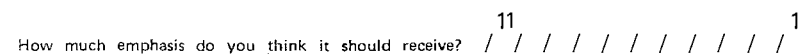
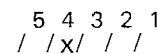
2. The value of ALTRUISM concerns "work which enables one to contribute to the welfare of others."

The carpenters rated this



3. The value of ECONOMIC RETURNS is associated with "work which pays well and enables one to have the things he wants."

The carpenters rated this



4. The value of VARIETY is associated with "work that provides an opportunity to do different types of jobs." The carpenters rated this
- 5 4 3 2 1  
 / / /X/ / / How much emphasis do you think it should receive? 11 / / / / / / / / / / / / / / / 1
5. The value of INDEPENDENCE associated with "work which permits one to work in his own way, as fast or as slowly as he wishes." The carpenters rated this
- 5 4 3 2 1  
 / / /X/ / / How much emphasis do you think it should receive? 11 / / / / / / / / / / / / / / / 1
6. The value of PRESTIGE is associated with "work which gives one standing in the eyes of others and evokes respect." The carpenters rated this
- 5 4 3 2 1  
 / / /X/ / / How much emphasis do you think it should receive? 11 / / / / / / / / / / / / / / / 1
7. The value of ESTHETIC is associated in "work which permits one to make beautiful things and to contribute beauty to the world." The carpenters rated this
- 5 4 3 2 1  
 / / /X/ / / How much emphasis do you think it should receive? 11 / / / / / / / / / / / / / / / 1
8. The value of ASSOCIATES is characterized by "work which brings one into contact with fellow workers whom he likes." The carpenters rated this
- 5 4 3 2 1  
 / / /X/ / / How much emphasis do you think it should receive? 11 / / / / / / / / / / / / / / / 1
9. The value of SECURITY is associated with "work which provides one with the certainty of having a job even in hard times." The carpenters rated this
- 5 4 3 2 1  
 / / /X/ / / How much emphasis do you think it should receive? 11 / / / / / / / / / / / / / / / 1
10. The value of WAY OF LIFE is associated with the kind of work that "permits one to live the kind of life he chooses and to be the type of person he wishes to be." The carpenters rated this
- 5 4 3 2 1  
 / / /X/ / / How much emphasis do you think it should receive? 11 / / / / / / / / / / / / / / / 1
11. The value of SUPERVISORY RELATIONS is associated with "work which is carried out under a supervisor who is fair and with whom one can get along." The carpenters rated this
- 5 4 3 2 1  
 / / /X/ / / How much emphasis do you think it should receive? 11 / / / / / / / / / / / / / / / 1





APPENDIX C

MISSOURI STATE DEPARTMENT OF  
AGRICULTURE  
1913



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

Building Contractors  
State of Oklahoma

The Oklahoma State Department of Vocational and Technical Education is attempting to improve the workmanship level of young men who will soon be entering the building construction labor market. We currently have carpentry training programs in 63 local high schools and Area Vocational-Technical Schools which involve some 1,576 students in grades 10 through 12. We think there is a very real need to assist them in becoming well-rounded employees who take pride in their work and, in addition, receive personal satisfaction from their jobs.

However, this is easier to say than it is to do. Therefore, we are requesting your assistance in a feasibility study on work attitudes. It will require some effort and time on your part. If you desire to have better young employees in the future, please do the following:

1. Select the two best carpenters who work for you or perform subcontracting work--they should have over five years in the trade, be of the type you would desire to hire others like, and have the workmanship and skill levels that you do not mind paying for;
2. Give them the two enclosed envelopes and ask them to complete and post within two days.

The return addressed postage paid envelopes contain an explanation letter and a 45-item questionnaire which will measure 15 work attitudes. It requires from 8 to 12 minutes for completion. Please inspect; you will note that there are no wrong or right answers and that no confidential information is requested. We do not even ask for the name.

Vocational education for the real world of work is a two-way street. Individuals in business and education must work together for the betterment of the individual, our society, and the nation. Thank you very much. If I can ever be of any assistance to you, please contact me.

Sincerely,

W. G. Ward  
Division of Research, Planning,  
and Evaluation

Enclosure

SPECIMEN I





OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

Successful Carpenters  
State of Oklahoma

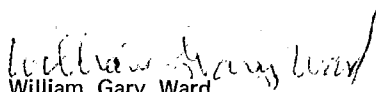
Dear Sir:

The Oklahoma State Department of Vocational and Technical Education and its 63 vocational carpentry training programs are asking for your cooperation in conducting a feasibility study on teaching workmanship values. We are currently training some 1,576 high school students in grades 10 through 12 to become carpenters at the job entry level.

We feel it is now time to investigate vital elements of the training program, especially that of workmanship. Thusly, we need a gauge, a measure so to speak, of the current work values. Enclosed is a questionnaire which is supposed to measure some of these work values. There are no right or wrong answers. Would you please be good enough to complete the questionnaire and assist vocational education in your state. Please be candid in your responses. It will require from 8 to 10 minutes of your time and will be greatly appreciated. If you would, please complete the questionnaire, place it in the self-addressed return envelope and post to us within two days. No stamps are required.

Thank you very much for your time and effort. We certainly appreciate it.

Sincerely,

  
William Gary Ward  
Division of Research, Planning,  
and Evaluation

Enclosures

GW/XJX-01/12



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

January 30, 1973

Trade and Industrial Carpentry Teachers  
High Schools  
State of Oklahoma

Dear Sir:

The words, work ethic, and work attitude are receiving much attention from consumer groups, government leaders, and the popular medias. Some are saying that the lack of a solid value towards work is responsible for the workmanship level in American goods and services. Further, some psychologists and sociologists are saying that many workers are no longer receiving personal satisfaction from their work and that the lack of job satisfaction is contributing to alcoholism, drug addiction, job hopping, etc.

As a former carpentry teacher and currently as a member of the research division of the Oklahoma State Department of Vocational and Technical Education, I conducted a lengthy review of research findings and, in my opinion, both views may contain a piece of the truth. Yet, it was obvious that while many complained about the lack of work ethic that few are ready to do anything.

Therefore, I propose that we conduct a feasibility study on the collection of work values from successful carpenters and then disseminate these to you for use in your teaching. I do not know if this is the right approach or not or even if we need it, but the final decision on its worth will be made by you, your students, and parents. The details and reasons for each phase of study are listed below. Please read them and decide if you want to be involved. I estimate it will require between one and two hours of your time over the next two months.

Phase I - Validation of a work value questionnaire and collection of home addresses of students. Enclosed is a questionnaire that is supposed to measure a portion of one's work ethic. I do not know how accurate it is; therefore, if you would complete it (requires 8 to 12 minutes), I will check it statistically for reliability and validity. Also include the names and home addresses of six of your students. Please select the names in the following manner; go to your grade book and select, in order that the names are written down, the first, third, fourth, sixth, eighth, and ninth students. A form is enclosed to write the names and addresses on. The names must be selected in the order I listed or it will foul up the study. Put the completed questionnaire and addresses in the enclosed self-addressed envelope and post.

SPECIMEN III

Trade and Industrial Carpentry Teachers  
Page 2  
January 30, 1973

Phase II - After I have checked the questionnaire and made whatever changes are necessary to insure its accuracy, I will mail copies to several building contractors in the state and ask them to have their two best carpenters complete them. That should give us a measure of the successful carpenters' work values. I will also send the questionnaire to two of your students. That should give us a general idea of where we are at.

Phase III - Upon return and analysis of the questionnaires, I will construct a description of the carpenters' work values and mail copies to you, two of your students, and two of the parents. I will ask, "Do you think these values should be taught in the classroom?"

I will then compile the answers; generate a yes or no decision. This procedure is similar to one used by some states to collect information on new or different manipulative skills. I think it might work on work attitudes and I think we need to find out. Another factor to consider is that while I think I use to do a pretty good job on teaching work attitudes within the geographic area I was teaching, I now realize that many of my students moved to other areas to work and that the work attitudes may have been different. Also, I know you are busy. If you do not think you can spare the time, or if you do not think this is the right approach to take, would you please indicate so in a note, sign it, and return it to me in the envelope. Otherwise, would you please take a few minutes of your time right now to complete the questionnaire, please be candid, and list the addresses.

Thank you very much for your time and effort. I took your names out of the directory, and if they are wrong, please correct.

Sincerely,



William Gary Ward  
Division of Research, Planning,  
and Evaluation

Enclosures

WW/XCI-03/12



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

March 5, 1973

Trade and Industry  
Carpentry Students  
State of Oklahoma

Dear Young Man:

Would you please take a few minutes of your time tonight to complete the attached questionnaire. It is not a test. There are no right or wrong answers. It generally takes 8 to 12 minutes for completion.

Your answers will be used as part of a state-wide research study. Please be candid and honest in your answers, tell it like you feel it. Return the completed questionnaire as soon as possible. An already addressed postage paid envelope is enclosed for your use.

Thank you very much for your time and help. If I can ever repay this favor, let me know.

Sincerely,

W. G. Ward  
Division of Research, Planning,  
and Evaluation

Attachment

WW/XLP-01/12



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

Carpentry Teachers  
State of Oklahoma

Sir:

Carpentry training for the reality of the construction labor market is a two way street. It requires the builders and you, the teacher, working together for the benefit of the student and society. I have been able to secure the cooperation of a sizable number of home builders, BUT I have yet to receive a response from you. I think the input of each and every carpentry teacher is needed to insure a proper feasibility study.

Please perform one of the following two alternatives: (1) complete the questionnaire for validation purposes, and list the addresses of six students (students and parents have the right to be involved); (2) or, please write me a note explaining why you will not cooperate (it is important in a feasibility to know why a small number of non-respondents are different from their professional group).

If I have crossed you in the mail, my apologies, if not, please take a few minutes to comply. I cannot keep those builders holding for a long period of time; they are ready to go. I fought very hard, as a former carpentry teacher, to have this project run in your area. Other divisions who wanted it are still interested in taking it over, but with your help we can move smoothly into Phase 2.

Sincerely,

W. G. Ward  
Division of Research, Planning,  
and Evaluation

WW/XCS-04/12



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

Trade and Industrial  
Carpentry Teachers  
State of Oklahoma

Dear Sir:

Enclosed is the final and most important round of our study of successful carpenters work-values. Please complete and return it as soon as possible. Be sure and read the directions, as it is more difficult to complete than the other questionnaires, but will require about the same amount of time. If you want a copy of the final report, which should be very interesting, please write your name on the last page of the questionnaire or if you desire contact me under separate cover.

Thank you very much for your time and cooperation. We think the results of this research may open some new and interesting areas which relate to workmanship and job attitudes. If I can ever be of assistance to you, please let us know.

Sincerely,

W. G. Ward  
Division of Research, Planning  
and Evaluation

WGW/XLY-03/10



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

Trade and Industrial  
Carpentry Students  
State of Oklahoma

Dear Young Man:

We asking for your opinion on whether or not specific work-values should be taught in carpentry classes. We think that you, as a student in a T&I carpentry program, should have an input in this important decision. For too long we have ignored the student's opinions on course content.

Enclosed is an opinionnaire which two students from each carpentry class in the state are being asked to complete. Read the directions at the top of the opinionnaire very carefully. Study the examples thoroughly and make sure you understand how to fill out the answers.

Would you please take the time RIGHT NOW to complete the opinionnaire. Then place the completed opinionnaire in the self-addressed envelope which is enclosed. No stamps are required.

Thank you very much for your time and effort. If we can ever be of assistance to you, please do not hesitate to contact us.

Sincerely,

W. G. Ward  
Division of Research, Planning  
and Evaluation

WGW/XLY-02/10



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1615 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

Parents of Trade and Industrial  
Carpentry Students  
State of Oklahoma

Dear Parents:


We are conducting a state-wide research project on work-values in the carpentry trade. Since your son is currently a student in a carpentry class, we think YOUR opinion is of great importance in this research. For too long parents have been left out of research studies.

Enclosed is an opinionnaire. We are asking that you take a few minutes of your time RIGHT NOW and complete this important paper. Please read the directions and study the examples, it will assist you in accurately completing the opinionnaire. Then place the completed opinionnaire in the self-addressed envelope which is enclosed, no stamps are required.

We hope that you will find the time to assist us in our continuing efforts to improve education in Oklahoma. Two copies of the opinionnaire are included; however, if one parent is unavailable, we would still highly value receiving one completed instrument.

Thank you very much for your time and effort. If we can ever be of assistance to you, please do not hesitate to contact us.

Sincerely,

  
W. G. Ward  
Division of Research, Planning  
and Evaluation

WGW/XLY-01/10





OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

April 16, 1973

## MEMORANDUM

TO: Vocational Educators

FROM: W. G. Ward, Graduate Research Assistant, Division of Research,  
Planning, and Evaluation *WGU*

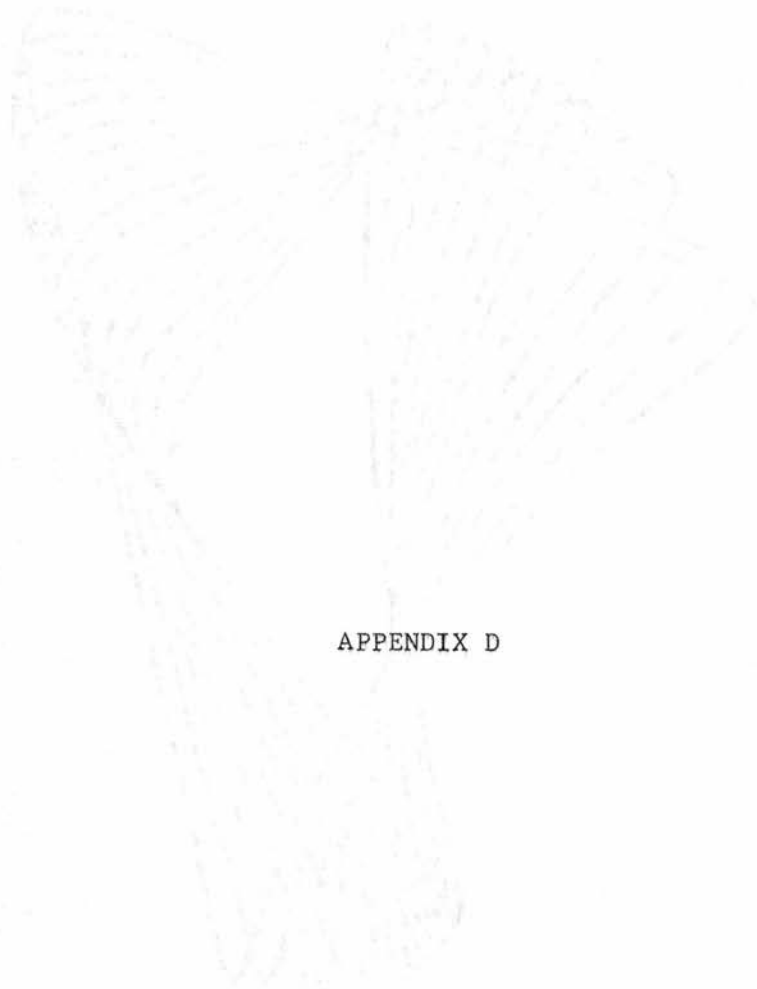
SUBJECT: Completion of Attached Opinionnaire

Earlier this year in a pilot study, successful carpenters in the state were surveyed for their work values. We are now attempting to determine if these values should receive emphasis in the Trade and Industrial Carpentry Training Programs in the state. These programs are designed to prepare high school students to enter the carpentry trade.

Your judgment, as a professional educator, would be highly respected in this matter. We trust you will take a few moments of your valuable time to complete the attached opinionnaire. Your prompt response would be greatly appreciated. If you are at the State Department, please return the opinionnaire through the office mail to Gary Ward in Research. Otherwise, a self-addressed and pre-postage paid envelop has been provided for your convenience.

Thank you very much for your time and assistance. Please contact me if I can ever be of service to you.

GW/XDG-03/12



APPENDIX D

STATE OF OREGON

DEPARTMENT OF REVENUE

1999-2000 BUDGET

TABLE X

ONE-WAY ANALYSIS OF VARIANCE AMONG THE SCORES OF STUDENTS,  
TEACHERS, AND CARPENTERS ON ALL ITEMS IN THE  
WORK VALUE INVENTORY

Value	Source of Variance	d.f.	Sums of Squares	Means Squares	F	p
Intellectual Stimulation	Between	2	8.6683	4.3341	.3261	>.50
	Within	200	2658.0708	13.2903		
	Total	202	2666.7390			
Altruism	Between	2	60.0420	30.0210	8.4482	<.0005
	Within	200	710.7167	3.5535		
	Total	202	770.7587			
Economic Returns	Between	2	69.7332	34.8666	9.2303	<.0005
	Within	200	755.4885	3.7774		
	Total	202	825.2217			
Variety	Between	2	62.7053	31.3526	5.1810	<.01
	Within	200	1210.2947	6.0514		
	Total	202	1273.0000			
Independence	Between	2	12.3850	6.1925	1.1721	>.25
	Within	200	1047.6150	5.2830		
	Total	202	1060.0000			
Prestige	Between	2	101.8917	50.9458	10.9549	<.0005
	Within	200	930.1000	4.6505		
	Total	202	1031.9917			
Esthetics	Between	2	26.3184	13.1592	3.0980	<.05
	Within	200	849.5339	4.2476		
	Total	202	875.8523			
Associates	Between	2	37.4013	18.7006	5.5043	<.01
	Within	200	679.4854	3.3974		
	Total	202	716.8867			
Security	Between	2	483.5343	241.7671	41.4495	<.0005
	Within	200	1166.4657	5.8328		
	Total	202	1650.0000			
Way of Life	Between	2	129.2516	64.6258	21.1375	<.0005
	Within	200	611.4874	3.0574		
	Total	202	740.7390			

TABLE X (Continued)

Value	Source of Variance	d.f.	Sums of Squares	Means Squares	F	p
Supervisory Relations	Between	2	104.4696	52.2348	17.5585	<.0005
	Within	200	594.9935	2.9749		
	Total	202	699.4631			
Surroundings	Between	2	160.1872	80.0936	23.7934	<.0005
	Within	200	673.2414	3.3662		
	Total	202	833.4286			
Achievement	Between	2	31.0663	15.5331	5.3641	<.01
	Within	200	579.1598	2.8957		
	Total	202	610.2261			
Management	Between	2	27.1111	13.5555	2.7255	>.10
	Within	200	994.7116	4.9735		
	Total	202	1021.8227			
Creativity	Between	2	12.9450	6.4725	2.3551	>.05
	Within	200	549.6560	2.7482		
	Total	202	562.6010			

APPENDIX E

TABLE XI

ONE-WAY ANALYSIS OF VARIANCE OF THE SCORES OF STUDENTS, PARENTS,  
TEACHERS, AND VOCATIONAL EDUCATORS ON THE AMOUNT OF CLASSROOM  
EMPHASIS WHICH SHOULD BE GIVEN TO ALL VALUES ON THE  
WORK VALUE INVENTORY

Value	Source of Variance	d.f.	Sums of Squares	Means Squares	F	p
Intellectual Stimulation	Between	3	6.9641	2.3213	.5576	>.50
	Within	229	953.2763	4.1624		
	Total	232	960.2404			
Altruism	Between	3	22.2405	7.4135	1.8395	>.10
	Within	229	922.9012	4.0301		
	Total	232	945.1417			
Economic Returns	Between	3	29.6572	9.8857	2.2860	>.05
	Within	229	990.3085	4.3244		
	Total	232	1019.9657			
Variety	Between	3	20.0127	6.6709	1.5640	>.10
	Within	229	976.7170	4.2651		
	Total	232	996.7297			
Independence	Between	3	7.6432	2.5477	.5340	>.50
	Within	229	1092.3568	4.7701		
	Total	232	1100.0000			
Prestige	Between	3	37.4572	12.4857	2.4744	>.05
	Within	229	1155.5128	5.0459		
	Total	232	1192.9700			
Esthetics	Between	3	16.0565	5.3521	1.1330	>.25
	Within	229	1081.7032	4.7235		
	Total	232	1097.7597			
Associates	Between	3	11.1809	3.7269	.9597	>.25
	Within	229	889.2398	3.8831		
	Total	232	900.4207			
Security	Between	3	28.9858	9.6619	1.8891	>.10
	Within	229	1171.1773	4.1143		
	Total	232	1200.1631			
Way of Life	Between	3	23.5201	7.8400	1.4250	>.10
	Within	229	1259.8705	5.5016		
	Total	232	1283.3906			

TABLE XI (Continued)

Value	Source of Variance	d.f.	Sums of Squares	Means Squares	F	p
Supervisory Relations	Between	3	49.2425	16.4141	3.4410	<.025
	Within	229	1092.3627	4.7701		
	Total	232	1141.6052			
Surroundings	Between	3	29.6069	9.8689	2.5613	>.05
	Within	229	882.3760	3.8531		
	Total	232	911.9829			
Achievement	Between	3	12.0429	4.0143	.8241	>.25
	Within	229	1115.4250	4.8708		
	Total	232	1127.4679			
Management	Between	3	20.4371	6.8123	1.5326	>.10
	Within	229	1017.8805	4.4448		
	Total	232	1038.3176			
Creativity	Between	3	5.1175	1.7058	.3759	>.75
	Within	229	1107.6464	4.5368		
	Total	232	1112.7640			

VITA

William Gary Ward

Candidate for the Degree of

Doctor of Education

**Thesis:** THE JUDGMENTS OF SELECTED PUBLICS ON EMPHASIZING SPECIFIC CULTURAL WORK VALUES IN THE VOCATIONAL CLASSROOM: AN APPLICATION TO TRADE AND INDUSTRIAL CARPENTRY CLASSES IN OKLAHOMA

**Major Field:** Vocational-Technical and Career Education

**Biographical:**

**Personal Data:** Born in Brinkman, Oklahoma, November 10, 1942, the son of Mr. and Mrs. J. W. Ward,

**Education:** Graduated from Sayre High School, Sayre, Oklahoma, in May, 1960; received the Associate of Arts degree from Sayre Junior College, Sayre, Oklahoma, in May, 1962; received the Bachelor of Science degree from Oklahoma State University, Stillwater, Oklahoma, in May, 1964; with a major in Trade and Industrial Education; received a Master of Science degree in Trade and Industrial Education from Oklahoma State University in July, 1970; completed requirements for the Doctor of Education degree at Oklahoma State University in July, 1973.

**Professional Experience:** Teacher of Trade and Industrial Vocational Carpentry at Choctaw High School, Choctaw, Oklahoma, from August, 1964 to June, 1966; Commissioned Officer in the United States Marine Corps with active duty from September, 1966 to October, 1969; graduate research assistant with the Division of Research, Planning, and Evaluation of the Oklahoma State Department of Vocational and Technical Education at Stillwater, Oklahoma, from June, 1970 to July, 1973.