

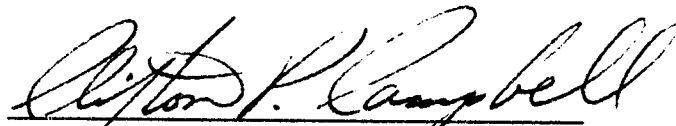
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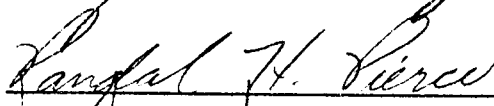
I am submitting herewith a dissertation written by Bill Ray Allender entitled "The Occupational Work Ethic of Vocational Students in East Tennessee." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Technological and Adult Education.

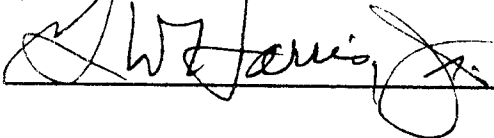


Gregory C. Petty, Major Professor

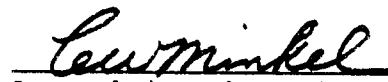
We have read this dissertation
and recommend its acceptance:







Accepted for the Council:



Associate Vice Chancellor and
Dean of the Graduate School

THE OCCUPATIONAL WORK ETHIC OF VOCATIONAL
STUDENTS IN EAST TENNESSEE

A Dissertation

Presented for the

Doctor of Education Degree

The University of Tennessee, Knoxville

Bill Ray Allender

May 1993

ACKNOWLEDGEMENTS

First, I must thank God, my Heavenly Father from whom all blessings flow.

My precious wife, Marcy, has supported me and provided the needed faith and strength to constantly encourage me in this endeavour. To my son, Ken, I regret not giving you more of my time. Thank you both for your love.

In addition, I wish to especially thank my Major Professor, Dr. Gregory C. Petty, for his encouragement, guidance, patience, and friendship during this study, and for permission to use the Occupational Work Ethic Inventory to collect data for this research. Thanks to Dr. Clifton Campbell, Dr. Randal Pierce, and Dr. George Harris, Jr., who served on my committee, for their support and suggestions for this project.

Many thanks to Dr. Mike Smith for analyzing the data on the VAX. A special thank you to Cynthia T. Davidson for the many hours of compiling responses from each OWEI survey instrument and for proofreading the document.

Final words of appreciation go to my loving mother, Virginia, who has inspired me through her endless search to obtain more knowledge. To my wife's parents, William P. and Margaret C. Dunlap, words can never express my appreciation for your love and encouragement. It has been your example of hard work, faith, and honesty that have taught me the true meaning of the work ethic.

ABSTRACT

The purpose of this study was to determine, using the Occupational Work Ethic Inventory (OWEI), if there were significant differences in the work ethic of secondary vocational students categorized by occupational training area, gender, grade level, hours worked per week, and socioeconomic status. If significant differences were found, determining how the categories of students differed for the dimensions of the work ethic represented by the four subscales of the OWEI would be another aspect of this study. The dimensions of the work ethic measured by the subscales of the OWEI were dependable, ambitious, considerate, and cooperative.

The population for this study consisted of students enrolled in secondary vocational education programs in East Tennessee. From the 35 counties designated as East Tennessee, 15 school sites located in eight counties, were randomly selected. Each school site randomly selected the occupational training classes to participate in this study. The OWEI survey was conducted over a three week period by going to each of the school sites and surveying those classes selected by the school administrators. After a brief explanation of the OWEI, students were asked to voluntarily participate in the survey by completing the survey instrument which would take less than 15 minutes to

complete. Surveys were collected from each student as they were completed.

The population sample consisted of the students within selected vocational classes which participated in the study. A total of 3,282 surveys were collected, but 54 respondents did not complete the forms and they were unusable resulting in a response rate of 99.98%.

Partial correlation coefficients for the OWEI subscales were calculated to verify the data on each level of the independent variables were appropriate for multivariate analysis. The Hotelling-Lawley Trace, a multivariate analysis of variance (MANOVA), statistical procedure was used to test each of the five null hypotheses. The null hypotheses for research questions were all rejected at the $p < .05$ level.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1
Introduction to the Problem	1
Statement of Problem	3
Purpose of the Study	4
Research Questions	4
Null Hypothesis	5
Rationale	5
Limitations	6
Terms and Definitions	7
Research Methodology	7
II. REVIEW OF RELATED LITERATURE AND RESEARCH	10
Introduction	10
Defining Work Ethics	10
Overview of Work Ethics	12
Studies Conducted on Attitudes, Values, & Work Ethic	17
National Studies and Reports	20
Transition From School to Work	26
III. METHODS AND PROCEDURES	27
Population and Sample	27
Research Design	27
Research Instrument	28
Independent Variables	29

Dependent Variables	30
Data collection Procedures	30
Data Analysis	32
IV. FINDINGS	34
Survey Responses	34
Results for Occupational Areas	34
Research Results for Gender	39
Research Results for Grade Levels	45
Research Results for Hours Worked Per Week	49
Research Results for Socio-Economic Status	54
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	59
Summary	59
Conclusions	63
Recommendations	65
REFERENCES	67
APPENDIXES	72
VITA	102

CHAPTER I

INTRODUCTION

Introduction to the Problem

Work, play, and use of leisure time is governed by a set of values. These values are an expression of individual or group choices. Each individual uses his/her values in the decision-making process. William D. Hitt stated in his book, Ethics and Leadership, "values and ethics are closely connected" (p. 5). Hitt further explained that a set of values directs individual lives and any explanation of an individual's ethics would have to include values.

A review of the literature has revealed many terms and definitions for the work ethic. Some researchers choose to identify these attributes of the affective domain as competencies, attitudes, habits, values, or principles.

Standards, operational policies, and codes of ethics (which manipulate individual reasoning and behavioral attitudes) are synthesized expressions of accepted values. In the world of work, these values are translated as the work ethic.

Recent studies (Crosby & Petrosko, 1990; Greenan, Jarwin, & Munn, 1992; Gregson, 1992; Gregson, 1991; Kraska, 1991) explored work ethics at the secondary vocational education level. These studies stemmed from demands within industry to provide students with the basic skills necessary to enter the work force. These skills include traditional

reading, writing, and computational skills with additional emphasis on higher order thinking skills of the affective domain. Gregson (1992) states, "...perception that young people entering the work force are deficient in work values and attitudes has led many business leaders to call for a renewed effort on the part of educators to teach work attitudes."

In an article of Harvard Business Review, managing editor Nan Stone states:

...despite universal complaints about the quality of current job applicants, only 5% of employers saw education and skills requirements rising. The skills more than 80% of employers worried about were not academic but social--a good work ethic, a pleasant demeanor, reliability. (p. 52)

The changing workplace has a direct effect on the curriculum of secondary voc-ed programs. Secondary vocational education must become the place where a positive work ethic is fostered. Students enrolled in current and futuristic programs must receive instruction developed to mold a positive work ethic.

... employees with and without vocational education training still need to develop their mathematical computation, communications (oral and written) and organization skills. Once good work habits and positive attitudes are combined with these skills,

employees will meet the expectations and needs of employers today and in the future (Petty, McNelley, & Searle, 1989, p. 8-9).

Vocational education can play a significant role in helping America's workforce adapt to changes in the work environment. The transition of work ethics from school to work is on the leading edge of progressive vocational training. In order to do this, information regarding differences in the perceived work ethic by socio-economic status, gender, grade level, hours worked, and occupational training is necessary to assist educators and administrators in career guidance, curriculum planning, and course selection.

Statement of Problem

The problem to be investigated in this study was the status quo of vocational education students' work ethic as determined by selected demographic variables. Research studies have been conducted to determine work attitudes, job performance and satisfaction, work commitment, attitude perception, work values and beliefs, scales and inventories, and employee motivation. Most of the researchers chose to study employer concerns and perceptions of secondary vocational education programs. A few researchers conducted studies to determine teacher and student perceptions of work values and beliefs. Other research studies dealt with the

development, status and needs of secondary vocational education curriculum for affective work attitudes.

One very important area that has been given little, if any, attention by these researchers is the comparison of work ethic perceptions of secondary vocational education students across occupational training areas, socio-economic status, genders, grade levels and hours worked per week.

Purpose of the Study

The purpose of this study is to compare the relationships between variables of socio-economic status, hours worked, gender, and grade level toward the work ethic as viewed by secondary vocational education students in various occupational training areas.

Research Questions

Research and analysis of data conducted in this study should provide insight to the following questions:

1. Does training in a particular occupational area promote better work attitudes than other occupational areas?
2. What significant relationship (if any) exists between the work ethic of genders in selected occupational training areas?
3. What is the difference (if any) of the work ethic for secondary vocational students by their grade levels?

4. What differences (if any) exist in the work ethic of those vocational students who work more hours per week than other vocational students?
5. Is there a difference between the socio-economic levels of vocational students toward the work ethic?

Null Hypotheses

- H01: There is no significant difference in the work ethic, as measured by the OWEI, among students in selected occupational areas.
- H02: There is no significant difference in the work ethic, as measured by the OWEI, among students categorized by gender.
- H03: There is no significant difference in the work ethic, as measured by the OWEI, among students categorized by grade levels.
- H04: There is no significant difference in the work ethic, as measured by the OWEI, among students categorized by the hours worked per week.
- H05: There is no significant difference in the work ethic, as measured by the OWEI, among students categorized by socio-economic status.

Rationale

In the past 25 years, the American workforce and workplace have undergone tremendous change. America's work ethic has been influenced by the tremendous technological growth and impact of the world economy. Leaders in public

and private sectors are aware of the projected shortage in human resources between now and the year 2000. This dilemma is not only a shortage of individual workers, but a shortage of workers with the basic skills of the affective domain.

The rhetoric abounds with educational reform and seeks the support of vocational education to act as the catalyst of change for tomorrow's workforce. Historically, vocational educators (i.e. David Sneed, Ruth Mary Weeks) have supported the teaching of ethical standards, as well as, cognitive skills and occupational knowledge.

Hertzberg, Mausner, and Snyderman (1959) believed the study of work attitudes was beneficial to industry, the community, and the individual. Conducting a study on the attitudes, values and beliefs of vocational high school students should provide insight for the workforce of tomorrow. Analysis of data collected in this research effort will (a) establish a base of information which can be manipulated for further study and (b) contribute to the base of knowledge and information needed to ease the transition from school to work.

Limitations

Limitations for the results of this study are:

1. The results of this study apply only to students enrolled in randomly selected secondary education vocational courses within vocational programs of specific counties of East Tennessee.

vocational courses within vocational programs of specific counties of East Tennessee.

2. The results of this study are limited by the students' responses to the items on the OWEI.
3. The work ethic characteristics examined in this study are limited to those included on the OWEI.
4. The work ethic dimensions for this study are limited to the measurements of the OWEI subscales.

Terms and Definitions

For purposes of this research project, the following terms are defined:

Work ethic. The beliefs, values and principles that guide the way individuals interpret and act upon their job rights and responsibilities (Miller & Coady, 1986).

Occupational Work Ethic Inventory (OWEI). An inventory designed to measure a worker's work ethic. This 50 item questionnaire was developed by Dr. Gregory C. Petty at the University of Tennessee-Knoxville.

Vocational education. Education preparing the individual for work which includes programs which are a part of comprehensive high schools or vocational centers.

Research Methodology

Subjects

The population of this study will be randomly selected from secondary vocational education programs located in selected counties of East Tennessee. The subjects will be

Sample

The sample size will be determined from a sampling table to insure enough subjects are included in the study to be able to make inference to the population in East Tennessee.

Instrumentation

The instrument used in this study will be the Occupational Work Ethic Inventory (OWEI) developed by Dr. Gregory C. Petty at the University of Tennessee- Knoxville.

Background information will be appropriate for the needs of this particular study. Items identified as "work ethic descriptors" will remain intact to preserve the validity and integrity of the instrument.

Permission has been granted by Dr. Petty to use the OWEI to conduct this study on the work ethic.

Methods

The researcher will contact selected vocational administrators in East Tennessee to ask for permission to allow their vocational students to participate in the study. Those who agree to participate will select occupational training areas within the secondary vocational programs of their county. The students in each of these programs will be the subjects for this study. The OWEI will be administered to each of these students on a group basis. Explanation will be given on the scope of the study and students will be given the opportunity to participate in the

study. The OWEI will be collected immediately or as soon as consent forms can be signed for permission to participate in the study.

This direct method of data collection should provide an upper percentile level of participant returns. Due to the selection of school sites and the proximity of the population of vocational programs in East Tennessee, data collection will be efficiently collected.

Data Analysis

Based on an ex post facto design this study will use the alpha level of .05 to test for significant differences. Correlation coefficients and multivariate analysis of variance will be used where appropriate to test the null hypotheses.

All statistical calculations will be performed using SAS statistical software.

CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

Introduction

This chapter provides a review of related literature and research pertaining to work ethics, attitudes, values, and habits. Chapter I provided a section on "terms and definitions"; however, a summary of definitions and meanings for the work ethic will be further explained in this chapter. Included in this chapter are summaries from sources in the literature which impact the work ethic of secondary vocational education students transition from school to the workplace.

Defining Work Ethics

In simplistic terms, work ethic is defined as a "positive attitude toward work--a belief that work itself is important and that doing a good job is essential" (Cherrington, 1980, p. 19).

Cherrington further states defining work ethic is difficult due to the diversity of opinions and "it has been defined in so many different ways" (p. 19).

In 1991, the National Council on Vocational Education (NCVE) produced a report titled, "Rediscovering Our National Vision: Building Positive Self-Esteem and a Strong Work Ethic." NCVE reported there is no popular accepted definition of work ethics. The NCVE (1991) developed a definition from "a review of current thinking related to

success in life and in the workplace" (p. then can be defined in a very simple manner (based on their value system) in which a person does his job" (pp. 8-9). The NCVE concluded the report by stating the work ethic and self-esteem as so much "... a part of the same fabric that it is almost impossible to conceive one without the other" (p. 24).

William D. Hitt (1990) supports the idea that values are synonymous to the principles of the work ethic. In his text, Ethics and Leadership, Hitt writes, "a set of values is what guides a person's life, and any description of a person's ethics would have to revolve around his or her values" (p. 5).

"The term work ethic refers to the benefits, values, and principles that guide the way individuals interpret and act upon their job rights and responsibilities within the work context at any given time" (Miller & Coady, 1986, p. 5). An enabling work ethic "is an integrated and interactive system of attitudes, values, and beliefs that empowers an individual to adapt to and initiate change in order to sustain long-term harmony with his or her work environment" (Miller & Coady, 1986, p. 6).

An explanation of the development "stages" in the enabling work ethic, provides the insight to the working values of everyday ethics. In Stage 1, "the environment assumes a dominant position relative to the individual's

approach to ethical conduct" (p. 6). Stage 2 development derives patterns of ethical conduct from "habits" formed from the "behavioral responses" of dealing with environmental influences.

Miller and Coady had two important points to make concerning this stage of development. First, "most individuals deal with day-to-day job requirements at the Stage 2 level" and secondly, "workers are expected to possess desirable work 'habits' prior to employment" (p.6).

In the final stage of development, " the individual begins to attach meaning and value to previously acquired behavioral norms and rules of conduct by deducing their underlying ethical principles" (p. 6). When a conflict of ethics occurs, Stage 3 individuals can make a decision based on (1) environmental choices, (2) habits formed from previous decisions, or (3) reach a decision with "....a new pattern of response based upon their understanding of the principles of ethical conduct in the workplace" (p. 6).

Overview of Work Ethics

The relationships individuals exhibit toward work has been the emphasis of studies and research conducted in this review of literature. Kazanas, Baker, Miller, and Hannah (1973) composed a detailed paper that reviewed and synthesized the "meaning and value of work". Furthermore, The Meaning and Value of Work has become a prophetic source of employment trends and work ethic attributes. The

following list has been extrapolated from Kazanas' summary as a futuristic concern for vocational education:

1. "... youth of America today may not be developing a meaningful and well defined 'work ethic' as was consistently apparent in older generations" (p. 56).

2. "... data seems to point to a great degree of inconsistency in the traits comprising a 'work ethic'" and it appears inconsistent "...among age and occupational categories " (p. 56).

3. "... service work (serving humans and machines) will increase" and "an increasing percentage of the work force will find employment in this area " (p. 56).

4. "With a society which is rapidly changing from a production oriented occupational structure to that of a service and information type, there will be an earlier obsolescence of specific job skills and knowledge " (p. 56)

5. "... more problems will arise as students make the transition from school to the work; thus, the responsibility of the school to provide more emphasis upon the value of work in the curriculum(s) for all students will tend to increase" (pp. 56-57).

6. "Management will become less authoritarian and encourage more participation by the workers in the decision-making process directly affecting work" (p. 57).

7. "... feelings of work dissatisfaction are not confined to a particular class or race in the American

society, and that increasing dissatisfaction among the younger and better educated workers is evidenced" (p. 57).

8. "Vocational and technical education must increase its emphasis in reducing the 'shock' in the transition from school to work and make this transition as smooth as possible for students ..." (p. 58-59).

Studies on work ethics historically begin with religious virtues and hierarchal reviews. Levitan and Johnson (1982) explain how scholars and theologians have transformed work "from a curse to a blessing and religious duty, and then to a dreary and alienating necessity" (pp. 26-27). "The forces which lead us to the workplace are much subtler than any proscriptions and religious moralisms of the work ethic. We work because it defines our place in the world, and creates a world in which we can feel both needed and useful" (Levitan & Johnson, p. 32). The work ethic of early America was overshadowed by religious virtues brought to the New World and the necessity of working to survive. Thus, a review of those Protestant principles and their effects on current work ethic thinking is necessary.

Tilgher (1930) described the views of early Christianity as those of the Jewish tradition that regarded "... work as a punishment laid on man by God because of man's original sin" (p.29). Tilgher relates that added to this negative aspect for work came the positive function: "to work is necessary not only to earn one's living, asking

alms of no man, but above all so that the goods of fortune may be shared with one's needy brothers" (p. 29). The thought that wealth could no longer be considered wicked brought with it the concept that work had a positive value. "It is the duty of the Christian brotherhood to give work to the unemployed..., but if he refuses to work, let him be cast out of the community" (Tilgher, 1930, p.30). The Apostle Paul wrote "...this we commanded you, that if any would not work, neither should he eat" (King James Version, 1611, II Thessalonians 3:10)

Hill (1992) expounds on the historical context of the work ethic recognizing Martin Luther and John Calvin as two religious leaders who influenced the Protestant work ethic in western culture (p. 20). "Motivation of persons to work hard and to reinvest in new business ventures was perceived as an outcome primarily of Calvinism." (Hill, 1992, p. 24) "The early settlers referred to America as a wilderness.... From their viewpoint, the moral life was one of hard work and determination, and they approached the task of building a new world in the wilderness as an opportunity to prove their own moral worth" (Hill, 1992, p. 26).

Others writing about the "Protestant work ethic" expressed views that not all Americans chose to believe in hard work as the virtue for success. Gutman (1988) described the work ethic in America as:

At all times in American history - when the country was still a preindustrial society, while it industrialized, and after it had become the world's leading industrial nation - quite diverse Americans, some of them more prominent and powerful than others, made it clear in their thought and behavior that the Protestant work ethic was not deeply engrained in the nation's social fabric. (p. 126)

The work ethic in today's society does not have the same attitude, value, or meaning as the working ethics found in our nation's cultural heritage (Kazanas et al, 1973; Helliwell, 1981; Stranton, 1983). Grant (1982) had this to say:

Fewer individuals today believe that hard work is the mark of a righteous person. Fewer believe that all good automatically comes to those who work hard. Taking great pride in one's work is fast becoming obsolete. Hard work and quality individual output are no longer widely viewed as synonymous with personal success. (p. 906)

The literature overwhelmingly suggests that students must be prepared for the transition from school to the workplace with emphasis placed on positive work attitudes and values (Brauchle & Petty, 1983; Crosby, 1984; Greenan, Jarwin, & Munn, 1992; Kraska, 1991; Gregson, 1991; Norton & Kurth, 1988). Former Secretary of Labor, William E. Brock,

chairman of the Secretary's Commission on Achieving Necessary Skills (SCANS) reported: "Today the United States has the worst school-to-work transition of any developed nation in the world. more than half our students leave school unprepared for productive employment" (p. 68).

Studies Conducted on Attitudes, Values, and Work Ethic

Kraska (1991) conducted research on perceptions of work and work values of first year vocational high school students. The study used an ex post facto design. Gender, ethnic group, and academic status were independent variables, with dependent variables of scores on the Meaning and Value of Work Scale. A total of 308 students were chosen from rural and metropolitan vocational centers to be the subjects in the study. A multivariate analysis of variance (MANOVA) determined that females scored significantly higher than males, black students scored higher than white, and there were no significant differences between academic status groups.

A study surveyed the attitudes and opinions of 302 gifted Black honor students in Georgia high schools (Schab, 1978) to determine if significant differences could be found between the sexes toward self-determination on the job, rewards, and work philosophy. Differences in responses were statistically tested using the "t" test of proportions. The percentage differences in the data revealed males were the dominate breadwinners, wanting more freedom in their work,

ready to unionize, wanting to surpass their parents' success toward work, would put up with poor working conditions when paid enough money, and were not as interested in marriage as females. Overall, Schab found the opinions and attitudes of gifted Black students to be "in keeping with the so-called Protestant work ethic ..." (p. 299).

Crosby and Petrosko (1990) focused on teacher and student perceptions of work attitudes. They contend ... "attitudes attained by students may be the most important outcome of T&I [Trades and Industry] instruction" (p. 41). Teachers should provide students with appropriate attitude training to complement psychomotor skills and knowledge. Students' attitudes must meet job standards and they must be able to "adjust behaviors so that they lead to positive work attitudes" (p. 41). Research about affective competencies can help improve instruction and provide students with the necessary attitudes to "succeed in the world of work" (p. 50).

Crosby and Petrosko used the Affective Work Competencies Inventory (AWIC) to measure student work attitudes. Data was analyzed using "simple descriptive statistics", multiple regression analysis, and canonical correlations. Evidence from the data analysis "showed that there were positive relationships between student self-perceptions of affective competencies and teacher ratings of the same competencies" (p. 49).

An investigation to measure the meaning and value of work between cooperative-vocational and noncooperative-academic students was conducted in a large comprehensive high school (Helliwell, 1981). The subjects for the experimental group were 121 senior vocational students. The control group consisted of 139 senior academic college preparatory students. The instruments used in this study were the "Meaning and Value of Work Scale" (MVWS) and the "Student Demographic Inventory" (SDI) both developed by H.C. Kazanas (p. 69). This quasi-experimental design used the t-test and Pearson's Product-Moment Correlation (r) at the .05 level of confidence. Although both groups had a positive relationship between their perceptions of the meaning and value of work, the cooperative-vocational students had a "broader understanding, a clearer perception of the intrinsic value of work, and a more positive overall work attitude than the academic high school seniors ..." (p. 70).

Green (1990) analyzed the perceptions of 35 high school seniors with in-depth interviewing techniques regarding their attitudes toward employment and interpretation of the work ethic. Green surveyed the entire senior high school class (138 students) in 1985 and quota sampled the 35 students for this study. Green (1990) contends that high school students who work part-time "have developed a variety

of positive interpretations of the work ethic" (p. 427).

A trade and industrial secondary education curriculum study was conducted from input provided by business, industry and labor surveys (Greenan, Jarwin, & Munn; 1992). The respondents rated "...work behaviors, instructional and supervisory conversations, teamwork, change, flexibility, adaptability, verbal reasoning, problem solving, and planning" (p. 26) as being very important entry-level skills.

National Studies and Reports

The Secretary's Commission on Achieving Necessary Skills (1991) reported in What Work Requires of Schools: A SCANS Report for America 2000 that good jobs will require people who can put knowledge to work and young people (more than half) are leaving school without the knowledge or foundation to find and hold these jobs. SCANS was asked to "examine the demands of the workplace and whether our young people are capable of meeting those demands" (p. 1).

"Two conditions that arose in the last quarter of the 20th Century have changed the terms for our young people's entry into the world of work: the globalization of commerce and the explosive growth of technology on the job" (p. 1).

SCANS research classified what they call "workplace know-how" into the two elements of "competencies and a foundation." The five competencies consist of resources,

interpersonal, information, systems, and technology. The three-part foundation consists of basic skills, thinking skills, and personal qualities. The latter foundation of personal qualities has five sub-groups that magnify the work ethic:

1. -- responsibility
2. -- self-esteem
3. -- sociability
4. -- self-management
5. -- integrity/honesty. (SCANS, 1991, pp. 4-5)

In her State of the Workforce Address, Secretary of Labor, Elizabeth Dole (1989) stated "... America's workforce is in a state of unreadiness ... unready for the new jobs, unready for the new realities, unready for the new challenges of the 90's" (p. 1). The factors that led to this situation are those found throughout the literature. Jobs demand more reading, writing and reasoning skills. Business and industry that once used raw materials and machinery have been replaced with the "service and qualities of their human resources" (p. 1). "... our workforce crisis is a challenge to education, labor, business and government" (p. 2).

Dole provided a profound warning to all Americans, particularly to those entering the workforce:

A dream has pervaded this country for over two-hundred years. A dream that is etched in our culture

and national conscience. A dream that any American could, through hard work and dedication, rise to the top and succeed in building a better life for himself and his children.

We are now in danger of losing that dream. For if you do not possess the basic skills required to survive in today's world, then you can not get into the system, you can not succeed and you will spend a lifetime on the outside looking in. (Dole, 1989, p. 3)

In 1987, the Hudson Institute produced the study Workforce 2000: Work and Workers For the Twenty-first Century which highlights the forces shaping the American economy, the scenario of the workers and their workplace in the year 2000, and challenges for improving worker's education and skills. Chapter 1 of the Hudson Institute's report explains the impact of the "powerful economic forces" that will "reshape American jobs and industries" (Johnston & Packer, p. 1) between 1987 and the year 2000. These trends have been listed as:

1. Continued integration of the world economy
2. Further shifts of production from goods to services
3. The application of advanced technologies to most industries
4. Faster gains in productivity, particularly in services
5. Disinflation or deflation in world prices

6. Increased competition in product, service and labor markets (p. 1).

The demographics of the workforce in the year 2000 seems to be the focus of many current documents encompassing the world of work. These five demographic features are (a) growth of the workforce and population will be as slow as it was in the 30's, (b) the number of young workers entering the labor market will shrink and the average age of the population and workforce will increase, (c) more women will enter the workforce, (d) a larger percentage of new workers will be from the minorities, and (e) immigrants will have the largest increase and percentage in the population and workforce. (Johnston & Packer, pp. 75-76)

The sixth challenge in Workforce 2000 deals with the education and skills of all workers. "The income-generating assets of a nation are the knowledge and skills of its workers--not its industrial plants or natural resources" (Johnston & Packer, p. 116). The "educational preparation of workers" is not the only issue and challenge on the nation's agenda, but it is "among the most important" (Johnston & Packer, p. 117).

The Commission on Workforce Quality and Labor Efficiency (1989) produced a report titled, Investing in People: A Strategy to Address America's Workforce Crisis. The Commission's report further supports the widening crisis in the skills gap, lack of proper work attitudes, and

shortage of competent American workers. "Today, demographic trends, technological change, and increased international competition already are creating shortages of skilled workers and an excess of unskilled workers, problems that are likely to worsen in the years ahead" (p. vii).

National goals should insure "that our youth graduate with the basic skills necessary to be successful in the workplace" (p. 8). "Schools should offer applied instruction, such as vocational education, that emphasizes transferable academic skills including reading, mathematics, science, communication, and problem-solving" (p. 10).

Gallup (1987) asked the public's opinion on "whether they thought courses on personal values and ethical behavior should be taught in the public schools or left to parents and churches. Forty-three percent said such courses should be taught in the schools" (p. 23). "Six of 10 Americans (62%) think that it would be possible to develop subject matter for coursework on ethics and values that would be acceptable to most of the residents of their communities" (p. 24).

Building A Quality Workforce (1988), a joint initiative of the U.S. Departments of Labor, Education and Commerce gathered information from "business and education, and community employer/school forums" (p. 2). Building a Quality Workforce strongly supports the work ethic research effort with the following statement:

The foundation of a quality workforce rests with the ability of our nation's school systems to provide the basic reading, writing and mathematical skills as well as an appreciation for the work ethic, which our young people must possess to perform effectively in the workplace. (p. 1)

Expressed concerns from businesses were as follows:

...today's jobs require skills, attitudes, and abilities generally thought of as needed at the supervisory and managerial level. Businesses, regardless of location, size, or type, consistently noted deficiencies in such areas as problem solving, self discipline, acceptance of responsibility, reliability, initiative, teamwork, and the work ethic. (U. S. Dept. of Labor, Education, & Commerce, p. 16)

America's businesses are paying a tremendous price for the deficit in worker skills and positive worker attitudes. "These skills deficiencies in the workforce are costing American business monetarily, through waste, lost productivity, increased remediation costs, reduced product quality, and ultimately a loss in competitiveness" (U. S. Dept. of Labor, Education & Commerce, p. 18).

The International Productivity Symposium III (1988) had 600 participants from 28 countries explore ways to improve productivity and expand employment opportunities. The report from this symposium was titled, Productivity &

Employment: Challenges for the 1990's. Speakers at the symposium repeatedly stated the need for a well educated workforce. "In addition to intellectual or cognitive skills, other participants called for the interpersonal and communication skills needed for teamwork on the job" (U. S. Bureau of Labor Management, 1988, p. 7).

Transition From School to Work

Throughout this review of literature, several citations have been provided to support the need for a transition of vocationally trained students to enter the workforce. One rationale for this study was to provide information on the work ethic that would provide the bridge from school training to the job. A UNESCO (1983) report titled, The Transition from Technical and Vocational Schools to Work, describes this problem as a complex international dilemma. The report concluded:

The problem of transition is perhaps one of the most complex, and at times baffling, of any faced by educators today. Even in cases where there is low unemployment, many workers, especially those entering jobs for the first time, experience difficulty in adjusting to the work. (p. 71)

CHAPTER III

METHODS AND PROCEDURES

This chapter provides an overall description of the population and sample selected for this study. The research design, the instrument used, independent and dependent variables, procedures used to collect data, and methods of analyzing the data are also described.

Population and Sample

The population for this study consisted of vocational education students enrolled in the public high schools of East Tennessee. A representative sample of 3,282 students participated in the study. Fifteen comprehensive high schools or vocational centers were selected to block sample 9th thru 12th grade vocational students.

The Tennessee Department of Economic and Community Development (1990) has designated 35 counties (see Appendix A) as East Tennessee. The fifteen school sites selected were located in eight (23%) of the counties of East Tennessee.

Research Design

The research design used in this study was ex post facto with a multivariate analysis of variance used to analyze data collected using the survey method. Instruments were taken to each site, a brief explanation given, students completed the survey, and the researcher collected the

instruments. The sampling unit was the individual student participants in vocational education classes.

Research Instrument

The Occupational Work Ethic Inventory (OWEI) developed by Dr. Gregory C. Petty in 1990 (see Appendix B) was used as the research instrument for this study. Petty's prior research on affective work competencies, the value of work, and work ethic provided an extensive base of knowledge for the development of the OWEI. "Petty (1991) developed the OWEI to provide a concise, but accurate measure of worker adherence to the work ethic" (Hill, 1992, p.56).

In the selection process, the OWEI was chosen over other assessment surveys and had the following advantages applicable to this study:

1. The concise format of the OWEI made it easy to explain to participants, simple to comprehend and streamlined the duration of participant time to fill out the instrument.
2. During the Fall of 1990, a pilot test was conducted to check the internal validity of the OWEI. The 152 participants scored a correlation alpha of .95, indicating that the instrument was highly consistent internally.
3. Subscales of the OWEI provided the differentiation of work ethic properties. These subscales are identified as: (a) dependable,

(b) ambitious, (c) considerate, and (d) cooperative.

4. Demographic information was easily modified to suit the needs of this study. In order to preserve the integrity of the instrument, no other modifications were made in the OWEI.

Independent Variables

The independent variables for this study were the occupational training areas; gender; grade; hours worked per week; and socio-economic status. Occupational training areas had 23 levels: (a) agriculture/ horticulture, (b) air conditioning/ refrigeration, (c) auto body, (d) auto mechanics/ small engine repair, (e) building trades/ masonry, (f) business technology, (g) child care, (h) computer technology, (i) cooperative education, (j) cosmetology, (k) drafting, (l) electricity/ electronics, (m) graphic arts/ printing, (n) health occupations, (o) home economics/ single living, (p) machine shop, (q) marketing, (r) sheet metal, (s) welding, (t) plumbing, (u) meat cutting/ butchering, (v) industrial technology, and (w) food management. Gender had two levels: (1) female and (2) male. Grade level had four levels: (1) 9th, (2) 10th, (3) 11th, and (4) 12th. Hours worked per week had four levels: (1) zero, (2) one to ten, (3) eleven to twenty, and (4) twenty-one or more. Socio-economic status had three levels: (1)

upper class, (2) middle class, and (3) lower class.

Dependent Variables

The dependent variables for this study consisted of the four dimensions of the work ethic represented by the subscales of the OWEI. These variables were dependable, ambitious, considerate, and cooperative.

Data Collection Procedures

Administrators (principals or vocational directors) responsible for each of the 15 school sites were contacted in person or by phone and asked to allow their vocational students to participate in the work ethic survey. A letter of intent (see Appendix C) was sent to each administrator and they were asked to provide the researcher with a letter of confirmation to conduct the study at their school(s). All of the administrators responded favorably to the request and returned letters of confirmation (see Appendix D).

Some of the vocational directors supervised more than one school site, but only returned one letter. This resulted in the total number of letters of confirmation being less than 15. The comprehensive high schools or vocational centers were scheduled to allow the researcher to directly collect the data in each vocational class using the OWEI.

After this schedule was arranged, each school had to be recontacted and requested to send letters of consent (see Appendix E) to each potential participant's parent or

guardian. The letters were to be returned within three days if the student was not going to participate in the survey. Letters of consent were requested to comply with ethical standards for research of human subjects considered minors. Research Administration Coordinator of Compliances granted permission to conduct this survey (see Appendix F).

The survey was conducted over a three-week period going to each of the school sites and surveying those classes selected by the principal or director. The OWEI took less than 15 minutes to complete, but due to the direct method of collecting the data in each class, the researcher spent the entire school day collecting data. Students in each class were given a brief explanation of the OWEI and asked to voluntarily participate in this survey by completing the survey instrument which would take them less than 15 minutes. Students ranked 50 words describing themselves as workers. Students returning the letter of consent to not participate were excused from the survey. Forty-seven letters were returned indicating those students were not to participate in the survey. Questions concerning filling out the background information or definitions for the word descriptors were provided to student participants. The instruments were randomly collected as each participant completed the survey.

Collection of data was efficient with a response rate of 99.984 percent. Less than two percent of returned

instruments were considered unacceptable due to lack of background information or ranking of descriptors.

Data Analysis

All statistical calculations were performed using SAS statistical software, version 6.07 (1989). The statistical analysis was run on a VAX Model 6000-460 serial number 0B000006.

All raw scores taken from the survey instruments were input to a database using a personal computer and Wordperfect 5.0 and 5.1 software. These raw scores were the actual data respondents circled on the survey instrument. Independent variables were coded (see Appendix G) numerically for string input into the database and saved as DOS text for ease in retrieval to the VAX system.

Tabulation of frequency counts for each level of the independent variable levels was provided as a descriptive analysis of the data. Partial correlation coefficients for the four subscales of the OWEI were calculated to assure that dependent variables were significantly correlated and that a multivariate analysis of variance was appropriate to test the null hypotheses. Results of all statistical procedures were accepted as being significant at the $p < .05$ level.

Null hypotheses were tested using a multivariate analysis of variance for each independent variable to determine whether significant differences could be shown for

the dependent variables using scores based on the responses of OWEI subscales. The Hotelling-Lawley Trace was used to determine if F test results were significantly different for each of the independent variables. Dependent variable means for each of the subscales of the OWEI were compared to determine which levels of the independent variables were the most significant.

CHAPTER IV

FINDINGS

The purpose of this study was to determine if there were differences in the work ethic of secondary vocational education students enrolled in various occupational training areas comparing the relationships between variables of gender, grade level, number of hours worked per week, and socio-economic status.

Survey Responses

A total of 3,282 Occupational Work Ethic Inventory (OWEI) surveys were collected from fifteen vocational education programs in comprehensive high schools or vocational centers located in East Tennessee. The participants returned 54 (.016%) surveys which were unusable. Less than 1% of the 3,282 survey instruments were unusable due to lack of background information or ranking of descriptors.

Research Results For Occupational Areas

The first question addressed in this study asked if training in a particular occupational area promoted a better work ethic than other occupational areas. The null hypothesis for this question was as follows:

H01: There is no significant difference in the work ethic, as measured by the OWEI, among students in selected occupational areas.

Twenty-three occupational training areas were identified in the background information item on the OWEI. Three hundred ten (9.6%) of the respondents were enrolled in the area of business technology. The lowest frequency count of 10 (0.3%) was from students in sheet metal training. Table 1 shows a frequency count of the responses by occupational training areas.

Partial correlation coefficients (see Table 2) were computed on the OWEI subscales for occupational training areas to verify use of the multivariate analysis of variance (MANOVA) to test for differences between occupational training areas. An interrelationship among the dependent variables existed with a probability level for each correlation of .0001.

The Hotelling-Lawley Trace statistical procedure was used to test the null hypothesis for each research question before testing with an analysis of variance (ANOVA). The F-value for comparing the levels of the occupational training area was 3.9913 (see Table 3). This value was significant at the .05 level so the null hypothesis (H_0) was rejected.

Testing for significant differences in the responses of the OWEI subscales was achieved by using an ANOVA (see Table 4). The occupational training areas differed for each of the following dimensions of the work ethic: (a) dependable with $F = 3.97$, (b) ambitious with $F = 4.98$,

TABLE 1. Frequency Count of Respondents by Occupational Training Area

Occupational Training Area	Frequency	Percent
AC/ refrigeration	71	2.2
Ag/ horticulture	212	6.6
Auto body	107	3.3
Auto mech/ small engines	234	7.3
Bldg trades/ masonry	193	6.0
Business technology	310	9.6
Child care	124	3.8
Computer technology	66	2.0
Cooperative education	170	5.3
Cosmetology	162	5.0
Drafting	255	7.9
Electricity/ electronics	117	3.6
Food management	83	2.6
Graphic arts/ printing	166	5.1
Health occupations	237	7.3
Home Ec/ single living	233	7.2
Industrial technology	101	3.1
Machine shop	110	3.4
Marketing	117	3.6
Meat cutting/ butchering	19	0.6
Plumbing	20	0.6
Sheet metal	10	0.3
Welding	109	3.4

TABLE 2. Partial Correlation Coefficients of the OWEI Subscales for the Level of Occupational Training Area

37

	1(a)	2	3	4
1	1.000	.773*	.769*	.776*
2		1.000	.689*	.693*
3			1.000	.728*
4				1.000

(a) The OWEI subscales were (1) dependable, (2) ambitious, (3) considerate, and (4) cooperative.

*p < .05

TABLE 3. MANOVA for Mean Scores of Respondents Classified by Occupational Training Area (O T A)

	Hotelling-Lawley Trace	df	F	PR > F
O T A	.1098	88,12794	3.9913*	.0001

*p < .05

TABLE 4. ANOVA of the OWEI Subscales for the Factor of Occupational Training Areas

Source	df	SS	F	PR > F
Dependable	22	11753.136	3.97*	.0001
Ambitious	22	8096.963	4.98*	.0001
Considerate	22	23571.180	9.25*	.0001
Cooperative	22	3177.261	3.66*	.0001

*p < .05

(c) considerate with $F = 9.25$, and (d) cooperative with $F = 3.66$. The $PR > F$ was .0001 for all dimensions of the work ethic.

The means for subscale scores by respondents from the two highest and two lowest occupational training areas are shown in Table 5. Meat cutting/ butchering students had the highest mean scores for being dependable, ambitious, and cooperative. Health occupations students had the highest mean for the subscale of considerate. The lowest mean scores for ambitious, considerate, and cooperative were students enrolled in plumbing. Machine shop students had the lowest mean on the subscale of dependable.

Research Results For Gender

Research question two addressed in this study asked if the work ethic differed among respondents categorized by gender. The null hypothesis for this question was as follows:

HO2: There is no significant difference in the work ethic, as measured by the OWEI, among students categorized by gender.

Forty-two percent of the respondents were females (see Table 6) and fifty-seven percent were males. Verification for use of the MANOVA was confirmed by testing the potential differences between the genders using partial correlation coefficients (see Table 7). High correlations supported the use of the MANOVA for further analysis.

TABLE 5. Mean Scores(a) for the OWEI Subscales and Standard Deviations for Respondents by Occupational Training Areas

Variable	n(b)	Mean Score	SD
Dependable			
Meat Cutting/ Butchering	19	94.000	8.300
Health Occupations	237	92.456	10.945
Food Management	83	86.506	13.408
Machine Shop	110	86.200	14.437
Ambitious			
Meat Cutting/ Butchering	19	67.684	7.432
Sheet Metal	10	67.200	8.509
Machine Shop	110	60.927	10.680
Plumbing	20	58.900	10.104
Considerate			
Health Occupations	237	83.042	9.170
Cosmetology	162	82.407	9.340
Machine Shop	110	73.645	13.567
Plumbing	20	70.000	11.036
Cooperative			
Meat Cutting/ Butchering	19	46.000	5.153
Cooperative Education	170	45.947	5.164
A C/ Refrigeration	71	41.437	6.335
Plumbing	20	39.200	7.201

(a) Reporting two highest and two lowest means of 23 occupational training areas.

(b) Total n= 3228 minus 2 missing values

TABLE 6. Frequency Count of Respondents by Gender(a)

Gender	Frequency	Percent
Females	1384	42.9
Males	1842	57.1

(a) Total n=3228 Frequency missing 2

TABLE 7. Partial Correlation Coefficients of the OWEI Subscales for the Level of Gender

	1(a)	2	3	4
1	1.000	.775*	.772*	.778*
2		1.000	.693*	.696*
3			1.000	.733*
4				1.000

(a) The OWEI subscales were (1) dependable, (2) ambitious, (3) considerate, and (4) cooperative.

*p < .05

TABLE 8. MANOVA for Mean Scores of Respondents Classified by Gender

	Hotelling- Lawley Trace	df	F	PR > F
Gender	.0768	8,6438	30.908*	.0001

*p < .05

The null hypothesis was statistically tested using the Hotelling-Lawley Trace (see Table 8). The F-value for comparison of genders was 30.908. This value was significant at the .05 level so the null hypothesis (H02) was rejected and the ANOVA procedure was used to determine OWEI subscale differences for the category of gender.

ANOVA results determined significant differences for each dimension of OWEI subscales (see Table 9). F-values for each item are as follows:

(a) dependable with $F = 11.62$, (b) ambitious with $F = 27.50$, (c) considerate with $F = 80.14$, and (d) cooperative with $F = 9.58$.

Mean subscale scores for respondents in the category of gender are shown in Table 10. Female respondents scored higher on the OWEI subscales of dependable, ambitious, considerate, and cooperative than their male counterparts.

TABLE 9. ANOVA of the OWEI Subscales for the Factor of Gender

Source	df	SS	F	PR > F
Dependable	2	3167.267	11.62*	.0001
Ambitious	2	4109.999	27.50*	.0001
Considerate	2	18695.187	80.14*	.0001
Cooperative	2	766.135	9.58*	.0001

*p < .05

TABLE 10. Mean Scores for the OWEI Subscales and Standard Deviations for Gender

Variable	n(a)	Mean Score	SD
Dependable			
Female	1384	90.999	11.193
Male	1842	88.999	12.027
Ambitious			
Female	1384	65.694	8.519
Male	1842	63.413	8.736
Considerate			
Female	1384	81.890	9.656
Male	1842	77.026	11.586
Cooperative			
Female	1384	44.484	6.124
Male	1842	43.499	6.467

(a) Total n= 3228 minus 2 missing values

Research Results for Grade Levels

The third research question in this study asked if the work ethic differed among respondents categorized by grade levels. The null hypothesis for this question was as follows:

H03: There is no significant difference in the work ethic, as measured by the OWEI, among students categorized by grade level.

Table 11 shows the frequency count of respondents by grade level. Freshman and senior students comprised 49.9% of this study. Sophomore and junior students made up the balance of respondents with 50.1%.

TABLE 11. Frequency Count of Respondents by Grade Level

Grade Level(a)	Frequency	Percent
9th	641	19.9
10th	730	22.6
11th	888	27.5
12th	967	30.0

(a) Total n=3228 Frequency missing 2

Partial correlation coefficients were used to verify testing with the MANOVA (see Table 12). The four OWEI subscale results were significant and supported using the MANOVA for further analysis. The null hypothesis (H03) was rejected when the F-value of 10.5674 for the Hotelling-Lawley Trace was significant at the .05 level (see Table 13).

TABLE 12. Partial Correlation Coefficients of the OWEI Subscales for Grade Levels

	1(a)	2	3	4
1	1.000	.769*	.764*	.774*
2		1.000	.692*	.690*
3			1.000	.724*
4				1.000

(a) The OWEI subscales were (1) dependable, (2) ambitious, (3) considerate, and (4) cooperative.

*p < .05

TABLE 13. MANOVA for Mean Scores of Respondents Classified by Grade Level

	Hotelling-Lawley Trace	df	F	PR > F
Grade Level	.0394	12,9653	10.5674*	.0001

*p < .05

Testing for significant differences in the responses of the OWEI subscales for the category of grade level was achieved using the ANOVA test (see table 14). Grade levels differed for each of the following dimensions of the work ethic: (a) dependable with $F = 36.43$, (b) ambitious with $F = 33.59$, (c) considerate with $F = 22.03$, and (d) cooperative with $F = 28.83$.

TABLE 14. ANOVA of the OWEI Subscales for the Factor of Grade Level

Source	df	SS	F	PR > F
Dependable	3	14518.085	36.43*	.0001
Ambitious	3	7428.387	33.59*	.0001
Considerate	3	7931.048	22.03*	.0001
Cooperative	3	3387.004	28.83*	.0001

* $p < .05$

Mean scores for the various grade levels are shown in Table 15. The OWEI subscale for the dimension of cooperative has the lowest mean scores for the four grade levels. The mean scores for dependable ranked highest across the four grade levels. Under each subscale a pattern of freshmen having a low mean score to seniors having the highest mean score was found.

TABLE 15. Mean Scores for the OWEI Subscales and Standard Deviations for Grade Levels

Variable	n(a)	Mean Score	SD
Dependable			
Freshmen	641	86.867	12.267
Sophomores	730	88.236	12.361
Juniors	888	90.528	11.344
Seniors	967	92.444	10.485
Ambitious			
Freshmen	641	62.300	8.977
Sophomores	730	63.159	8.869
Juniors	888	64.911	8.423
Seniors	967	66.232	8.243
Considerate			
Freshmen	641	76.911	11.358
Sophomores	730	78.044	11.800
Juniors	888	79.393	10.784
Seniors	967	81.126	10.148
Cooperative			
Freshmen	641	42.440	6.584
Sophomores	730	43.323	6.836
Juniors	888	44.035	6.183
Seniors	967	45.250	5.617

(a) Total n= 3228 minus 2 missing values

Research Results for Hours Worked

The fourth research question addressed in this study asked if the work ethic differed with the amount of hours a student worked per week. The null hypothesis for this question was as follows:

H04: There is no significant difference in the work ethic, as measured by the OWEI, among students categorized by the hours worked per week.

The frequency count of respondents (see Table 16) shows that 1,728 (53.6%) of students had zero hours of work. Those students working one to ten hours accounted for 10.9% of the sample, eleven to twenty hours 15.8%, and twenty-one or more hours 19.8%.

TABLE 16. Frequency Count of Respondents by Hours Worked per Week

Hours Worked	Frequency(a)	Percent
Zero	1728	53.6
1 - 10	351	10.9
11 - 20	509	15.8
21 or more	638	19.8

(a) Total n=3228 Frequency missing 2

Partial correlation coefficients results (see Table 17) were significant, verifying the use of the MANOVA statistical procedure to test for differences between subscale scores for hours worked per week. The Hotelling-Lawley Trace was used to test the null hypothesis.

The F-value calculated for comparison of hours worked using the Hotelling-Lawley Trace was 4.7656 (see Table 18). The F-value was significant at the .05 level so the null hypothesis (H04) was rejected. The ANOVA was used to analyze the subscales of the OWEI to determine how the work ethic differed with the number of hours worked per week.

The ANOVA results of significant differences in the responses of the OWEI subscales for hours worked are provided in Table 19. Hours worked differed for each of the following dimensions of the work ethic: (a) dependable with $F = 9.35$, (b) ambitious with $F = 6.08$, (c) cooperative with $F = 7.46$. The subscale of considerate had an $F = 2.09$ which was not significant.

Mean scores and standard deviations for the OWEI subscales determined (see Table 20) that the dimension of considerate for 11 to 20 hours of work per week had a higher mean than did the other categories. Dependable, ambitious, and cooperative showed an increase in mean scores in relation to more hours worked.

TABLE 17. Partial Correlation Coefficients of the OWEI Subscales for Hours Worked per Week

	1(a)	2	3	4
1	1.000	.775*	.771*	.778*
2		1.000	.699*	.697*
3			1.000	.730*
4				1.000

(a) The OWEI subscales were (1) dependable, (2) ambitious, (3) considerate, and (4) cooperative.

*p < .05

TABLE 18. MANOVA for Mean Scores of Respondents Classified by Hours Worked per Week

	Hotelling- Lawley Trace	df	F	PR > F
Hours Worked	.0178	12,9653	4.7656*	.0001

*p < .05

TABLE 19. ANOVA of the OWEI Subscales for the Factor of Hours Worked per Week

Source	df	SS	F	PR > F
Dependable	3	3819.929	9.35*	.0001
Ambitious	3	1378.766	6.08*	.0001
Considerate	3	766.681	2.09	.0001
Cooperative	3	893.902	7.46*	.0001

*p < .05

TABLE 20. Mean Scores for the OWEI Subscales and Standard Deviations for Hours Worked per Week

Variable	n(a)	Mean Score	SD
Dependable			
Zero	1728	88.890	11.739
1 - 10	351	90.108	12.495
11 - 20	509	91.204	10.845
21 or more	638	91.260	11.645
Ambitious			
Zero	1728	63.798	8.509
1 - 10	351	64.692	9.339
11 - 20	509	65.169	8.563
21 or more	638	65.213	8.923
Considerate			
Zero	1728	78.835	10.845
1 - 10	351	78.783	11.571
11 - 20	509	80.191	10.543
21 or more	638	79.193	11.716
Cooperative			
Zero	1728	43.495	6.317
1 - 10	351	43.726	6.632
11 - 20	509	44.564	6.020
21 or more	638	44.669	6.385

(a) Total n= 3228 minus 2 missing values

Research Results for Socio-Economic Status

Research question five of this study asked if the work ethic differed among respondents categorized by socio-economic status. The null hypothesis for this question was as follows:

H05: There is no significant difference in the work ethic, as measured by the OWEI, among students categorized by socio-economic status.

Three levels were determined from the background information respondents filled in on the OWEI survey instruments. The frequency count of respondents shown in Table 21 identifies the upper status having 249 (7.7%) students, the middle status having 2,361 (73.2 %) students, and the lower status having 616 (19.1 %) students.

TABLE 21. Frequency Count of Respondents by Socio-Economic Status

Status	Frequency(a)	Percent
Upper	249	7.7
Middle	2361	73.2
Lower	616	19.1

(a) Total n=3228 Frequency missing 2

Partial correlation coefficients (see Table 22) were computed on the OWEI subscales for socio-economic status to verify use of the MANOVA to test for differences between the status levels. An interrelationship among the dependent variables existed, so the MANOVA was used to test the null hypothesis.

The Hotelling-Lawley Trace statistical procedure was used to test the null hypothesis. Table 23 shows the results of the MANOVA as having a F-value of 2.5510 and $PR > F$ of .0090 for the comparison of status levels. This value was significant at the .05 level so the null hypothesis (H_0) was rejected.

Testing for significant differences in the responses of the OWEI subscales for the category of socio-economic status was achieved using the ANOVA test (see Table 24). Status levels differed for each of the following dimensions of the work ethic: (a) dependable with $F = 7.02$ and $PR > F = .0009$, (2) ambitious with $F = 8.75$ and $PR > F = .0002$, (3) considerate with $F = 4.70$ and $PR > F = .0092$, and (4) cooperative with $F = 3.92$ and $PR > F = .0200$.

TABLE 22. Partial Correlation Coefficients of the OWEI Subscales for Socio-Economic Status

	1(a)	2	3	4
1	1.000	.775*	.769*	.779*
2		1.000	.698*	.697*
3			1.000	.729*
4				1.000

(a) The OWEI subscales were (1) dependable, (2) ambitious, (3) considerate, and (4) cooperative.

*p < .05

TABLE 23. MANOVA for Mean Scores of Respondents Classified by Socio-Economic Status (SES)

	Hotelling- Lawley Trace	df	F	PR > F
SES	.0063	8,6438	2.5510*	.0090

*p < .05

TABLE 24. ANOVA of the OWEI Subscales for the Factor of Socio-Economic Status

Source	df	SS	F	PR > F
Dependable	2	1920.282	7.02*	.0009
Ambitious	2	1323.257	8.75*	.0002
Considerate	2	1146.859	4.70*	.0092
Cooperative	2	314.326	3.92*	.0200

*p < .05

Mean scores for the OWEI subscales and standard deviations for the independent variable of socio-economic status are shown in Table 25. The mean scores for upper class ranked highest for the OWEI subscales of dependable, ambitious, considerate, and cooperative. Middle class scores ranked second on the four dimensions of subscales. Lower class students ranked lowest on all four subscales.

TABLE 25. Mean Scores for the OWEI Subscales and Standard Deviations for Socio-Economic Status

Variable	n(a)	Mean Score	SD
Dependable			
Upper Class	249	91.386	10.858
Middle Class	2361	90.064	11.535
Lower Class	616	88.440	12.583
Ambitious			
Upper Class	249	66.036	8.458
Middle Class	2361	64.482	8.604
Lower Class	616	63.380	9.119
Considerate			
Upper Class	249	80.329	10.660
Middle Class	2361	79.269	10.904
Lower Class	616	78.031	11.737
Cooperative			
Upper Class	249	44.506	6.016
Middle Class	2361	44.012	6.252
Lower Class	616	43.338	6.753

(a) Total n= 3228 minus 2 missing values

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter provides a summary of the study, conclusions derived from the findings, and recommendations for future research on the work ethic.

Summary

The purpose of this study was to determine, using the OWEI, if there were significant differences in the work ethic of secondary vocational students categorized by occupational training area, gender, grade level, hours worked per week, and socio-economic status. If significant differences were found, determining how the categories of students differed for the dimensions of the work ethic represented by the four subscales of the OWEI would be another aspect of this study. The dimensions of the work ethic measured by the subscales of the OWEI were dependable, ambitious, considerate, and cooperative.

The rationale for this study was derived from an extensive review of literature that revealed studies and reports dealing with the work ethic of college students, teachers, and industrial workers, but failed to investigate the work ethic of vocational youth as they prepare to enter the workforce. This study examined vocational education students in secondary occupational programs and the effect which the demographic characteristics of gender, grade level, hours worked per week, and socio-economic status have

on the students work ethic.

Five research questions were used to guide this research. These questions examined the work ethic of vocational students as categorized by the five demographic variables. The first research question asked if students receiving training in a particular occupational area demonstrated a better work ethic than other occupational areas. The second research question asked to what extent the work ethic differed between genders. The third research question asked whether students at different grade levels differed in their work ethic. The fourth research question asked to what extent the number of hours worked per week affected the students' work ethic. The fifth research question asked if belonging to a particular socio-economic class promoted a better work ethic.

The population for this study consisted of students enrolled in secondary vocational education programs in East Tennessee. From the 35 counties designated as East Tennessee, 15 school sites located in eight counties were randomly selected. The administrators at each school site selected the occupational training classes to participate in the study.

Administrators were contacted and asked to allow vocational students to participate in this study. Students were given letters of consent to be returned if they were not to participate in the survey. The OWEI survey was

conducted over a 3 week period by going to each of the school sites and surveying those classes selected by the school administrators. After a brief explanation of the OWEI (see Appendix H), students were asked to voluntarily participate in the survey by completing the survey instrument which would take less than 15 minutes to complete. Surveys were collected from each student as they were completed.

The population sample consisted of the students within selected vocational classes which participated in the study. A total of 3,282 surveys were collected, but 54 respondents did not complete the forms and they were unusable resulting in a response rate of 99.98%. Two additional surveys had missing responses and were not used for the statistical analysis or used in answering the five research questions. The number of acceptable surveys used in this research study were 3,226.

After the OWEI surveys were collected, the data was statistically analyzed using SAS statistical software running on the VAX mainframe computer system. Frequency counts were tabulated for respondents grouped according to levels of the five independent variables. The five dependent variables were as follows: (1) occupational training area, (2) gender, (3) grade level, (4) hours worked per week, and (5) socio-economic status. Partial correlation coefficients for the OWEI subscales were

calculated to verify that the data on each level of the independent variables were appropriate for multivariate analysis. The Hotelling-Lawley Trace, a multivariate analysis of variance (MANOVA), statistical procedure was used to test each of the five null hypotheses. The null hypotheses for research questions were all rejected at the $p < .05$ level.

The results of the statistical analysis have shown these findings:

1. Students enrolled in the occupational area of meat cutting/ butchering scored significantly higher than those in other occupational groups for dependable, ambitious, and cooperative. Health occupation students scored significantly higher than other groups for the subscale of considerate.
2. Females scored significantly higher than males on the four work ethic subscales of the OWEI.
3. Senior students scored significantly higher than other grade levels on all four subscales of the OWEI.
4. Over half (53.6%) of vocational students surveyed were not employed. Those students who worked 21 or more hours per week scored significantly higher on the subscales of dependable, ambitious and cooperative than students in the other levels.

Students working 11 to 20 hours per week had a higher mean score than students in the other levels.

5. The category of socio-economic status had 73.2% of students in the middle status group, but the upper status group scored significantly higher on all four subscales and lower status students scored the lowest on all four subscales.

Conclusions

The conclusions of this study are based on the analysis of the data collected using the Occupational Work Ethic Inventory (OWEI). These conclusions are based on the limitations for this study and on the validity and reliability of the data and findings.

The work ethic of vocational students by occupational training area was significantly different. Those students in the meat cutting/ butchering class exhibited a strong work ethic, especially for the dimensions of dependable, ambitious, and cooperative. Perhaps the novelty of this being the only meat cutting/butchering class or the location of these students from a mainly rural, agrarian area supports the work ethic.

Health occupations students were the most considerate of all the occupational areas. The strong work ethic they exhibited may be due to specific training for the care of persons rather than dealing with mechanical, non-human

materials. Plumbing students had the weakest work ethic for the dimensions of ambitious, considerate, and cooperative.

Female students exhibited a stronger work ethic than the males on all four dimensions of the work ethic. This may support health occupations students (traditionally female-oriented) having a strong work ethic. Other studies have also found females to have a stronger work ethic than males (Hill, 1992; Kraska, 1991; Petty, 1983).

Student exposure to vocational training for 2 or 3 years has produced a stronger work ethic. Freshmen students had a weaker work ethic than any of the upper classes. Seniors being exposed to vocational training and instructors with an industrial background, had the strongest work ethic of the four grade levels. Other researchers concluded (Helliwell, 1981; Crosby & Petrosko, 1990) that vocational education had significantly improved student work ethic.

More than half of the students in this study were not employed. Those who were exposed to gainful employment had the strongest work ethic for being dependable, ambitious, and cooperative. As the hours of work increased, so did the work ethic. Work experience significantly supports the work ethic, as was summarized in the research of Green (1990).

Socio-economic backgrounds have a significant effect on a person's work ethic. Students in this study were ranked according to their parent's or guardian's occupation. Those in the upper status displayed a better work ethic than those

•

of middle or lower groups. Social and economic status significantly affects the work ethic.

In conclusion, all of the comments presented here are derived from the findings of this study on the work ethic of vocational high school students. These conclusions provide a foundation of information on the work ethic of secondary vocational students as to selected occupational training areas, gender, grade level, hours worked per week, and socio-economic status. Further research on the work ethic of persons enrolled in occupational training should be undertaken. The results of this research effort have provided a strong basis for further work ethic studies.

Recommendations

The following recommendations on the work ethic are based on the findings and conclusions of this study:

1. A study needs to be conducted using the OWEI on those high school students traditionally designated as non-vocational students to compare their work ethic with those of traditional vocational students.
2. Additional studies need to be conducted with vocational students and training programs to establish a database of information on the work ethic.
3. Work ethic should be explored in the middle schools to better determine if the work ethic

increases progressively in the educational system and which types of educational programs increase the individuals' work ethic.

4. Further research should replicate this study to increase the validity and reliability of these findings.

REFERENCES

REFERENCES

- Brauchle, P. E., & Petty, G. C. (1983, December). Identifying student perceptions of non-technical workskills. Presented to the Guidance Division of the American Vocational Association Convention in Anaheim, California. (ERIC Document Reproduction Service No. ED 239 038).
- Brock, W. E. (1992). A vision for education. Vocational Education Journal, 67(7), 20-22, 68.
- Cherrington, D. J. (1980). The work ethic: Working values and values that work. New York: AMACOM.
- Commission on Workforce Quality and Labor Market Efficiency. (1989, Labor Day). Investing in people: A strategy to address America's workforce crisis. (A report to the Secretary of Labor and the American people). Washington, DC: U.S. Department of Labor.
- Crosby, R. K. (1984). Developing positive attitudes in T & I and technical programs. (ERIC Document Reproduction Service No. ED 252 727).
- Crosby, R. K. & Petrosko, J.M. (1990). Teacher and student perceptions of work attitudes in trade and industrial education. Journal of Industrial Teacher Education, 28(1), 41-51.
- Dole, E. (1989, October). Secretary Elizabeth Dole: State of the workforce address. (Delivered to the state principals and teachers of the year). Washington, DC .
- Gallup, A. M. & Clark, D. L. (1987). 19th Annual gallup poll of the public's attitudes toward the public schools. Phi Delta Kappan, 69(1), 17-30.
- Grant, P. C. (1982). Why employee motivation has declined in America. Personnel Journal, 61(2), 905-909.
- Green, D. L. (1990). High school student employment in social context: Adolescents' perceptions of the role of part-time work. Adolescence, 25(98), 425-434.
- Greenan, J. P., Jarwin, F. A., & Munn, K. B. (1992). The status and needs of secondary trade and industrial education curriculum: A state and national study. Journal of Industrial Teacher Education, 29(3), 21-38.

- Gregson, J. A. (1991). Work values and attitudes instruction as viewed by secondary trade and industrial education instructors. Journal of Industrial Teacher Education, 28(4), 34-51.
- Gregson, J. A. (1992). Effective pedagogical strategies for work attitudes instruction. Journal of Industrial Teacher Education, 29(3), 60-79.
- Gutman, H. G. (1988). Work, culture and society in industrializing America, 1815-1919. In R. E. Pahl (Ed.), On work: Historical, comparative, and theoretical approaches. (pp. 125-137). New York, NY: Basil Blackwell, Inc.
- Helliwell, M. G. (1981). Cooperative education and work attitudes: A positive relationship. Journal of Cooperative Education, 28(2), 66-77.
- Hertzberg, F., Mausner, B., & Snyderman, B. B. (1959). The motivation to work (2nd ed.). New York: Wiley & Sons.
- Hill, R. B. (1992). The work ethic as determined by occupation, education, age, gender, work experience, and empowerment. (Doctor of Philosophy dissertation, University of Tennessee, 1992).
- Hitt, W. D. (1990). Ethics and leadership: Putting theory into practice. Columbus: Battle Memorial Institute.
- Johnston, W. B., & Packer, A. E. (1987, June). Workforce 2000: Work and workers for the twenty-first century. Indianapolis: Hudson Institute.
- Kazanas, H. C., Baker, G. E., Miller, F. M., & Hannah, L. D. (1973). The meaning and value of work. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education. (ERIC Document Reproduction Service No. ED 091 504).
- Kraska, M. F. (1991). Work values of high school vocational education students. (ERIC Document Reproduction Service No. ED 336 532)
- Levitan, S. A. & Johnson, C. M. (1982). Second thoughts on work. (ERIC Document Reproduction Service No. ED 219 604)
- Miller, P., & Coady, W. T. (1986). Vocational ethics: Toward the development of an enabling work ethic. (ERIC Document Reproduction Service No. ED 288 062).

- National Council on Vocational Education. (1991). Rediscovering our national vision: Building positive self-esteem and a strong work ethic. Washington, DC: National Council on Vocational Education (NCVE).
- Norton, R. E., & Kurth, P. K. (1988). Developing positive worker behaviors in vocational and technical students. The National Center for Research in Vocational Education. Columbus: Ohio State University. (ERIC Document Reproduction Service No. ED 300 594).
- Petty, G. C., McNelley, D. E., & Searle, M. A. (1989). Employer ratings of vocational education graduate effectiveness. (ERIC Document Reproduction Service No. ED 317 750).
- Petty, G. C. (1991). Development of the occupational work ethic inventory. (Unpublished paper, University of Tennessee, Knoxville).
- Petty, G. C. (1983). Affective work competencies of workers from metalworking, building and construction, and maintenance repair industries. Journal of Industrial Teacher Education, 21(1), 28-36.
- Schab, F. (1978). Work ethic of gifted black adolescents. Journal of Youth and Adolescence, 7(3), 295-299.
- Secretary's Commission on Achieving Necessary Skills. (1991). What work requires of schools: A SCANS report for America 2000. (Executive summary). Washington, DC.: U.S. Department of Labor.
- Stanton, E. S. (1983). A critical reevaluation of motivation, management, and productivity. Personnel Journal, 62(3), 208-214.
- Stone, N. (1991, March-April). Does business have any business in education? Harvard Business Review, pp. 46-48, 52, 54-55, 58, 60, 62.
- Tilgher, A. (1930). Homo faber: Work through the ages. Translated by D. C. Fisher. New York: Harcourt Brace.
- UNESCO (1988). The transition from technical and vocational schools to work. Paris, France: United Nations Educational, Scientific, and Cultural Organization.

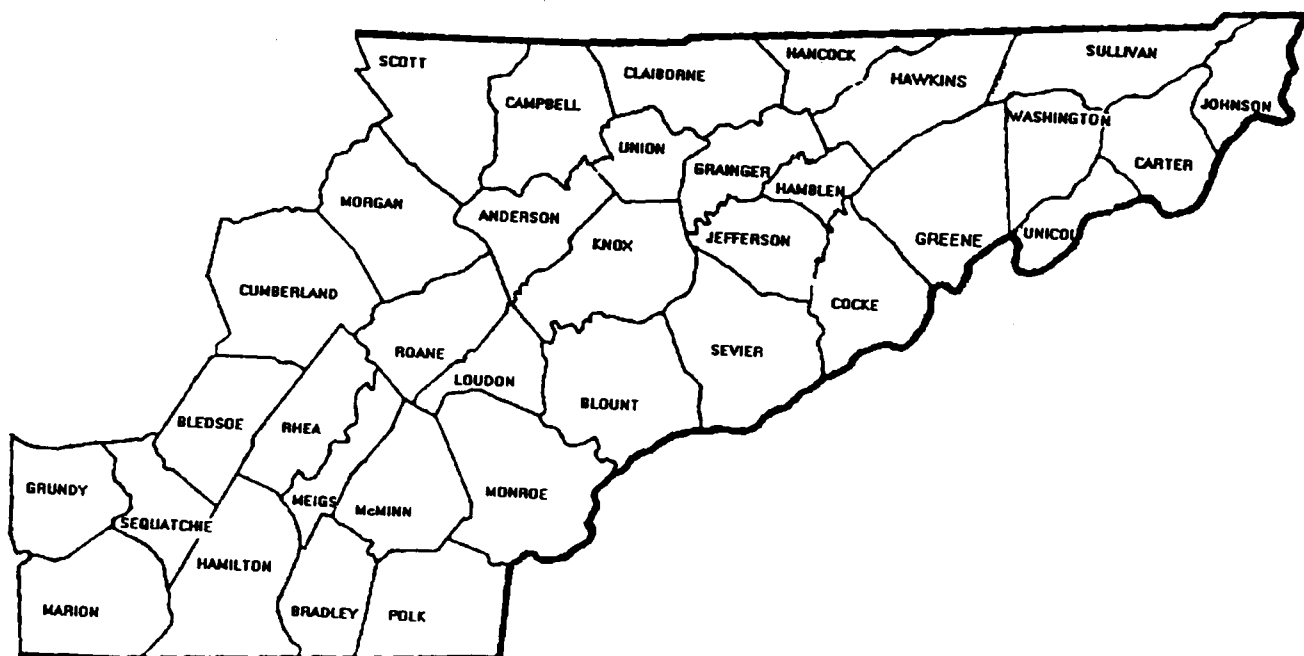
- U. S. Bureau of Labor Management. (1988, April).
Productivity & employment: Challenges for the 1990's.
(International Productivity Symposium III). Washington,
DC: U. S. Department of Labor.
- U. S. Department of Labor, Education and Commerce. (1988,
March). Building a quality workforce. Washington, DC:
U. S. Government Printing Office.

APPENDIXES

APPENDIX A
MAP OF EAST TENNESSEE

EAST TENNESSEE

(35 Counties)



Source: Tennessee Department of Economic Development
(1990). Economic growth: Manufactures,
headquarters, distributors. (p.19).
Nashville, TN.

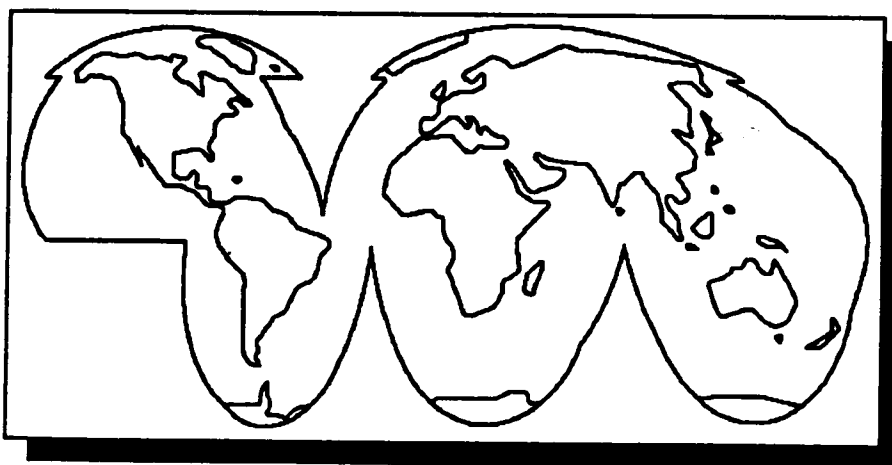
APPENDIX B
OCCUPATIONAL WORK ETHIC INVENTORY (OWEI)

OCCUPATIONAL WORK ETHIC INVENTORY

© 1993 by G. C. Petty

The purpose of this inventory is to obtain information about desirable characteristics of working individuals. Your responses will be kept strictly confidential and your name is not required on this form. It is important for you to answer each item as truthfully as possible.

Your participation in completing this inventory is voluntary. You will in no way be penalized if you choose not to participate in this survey at any time. Your responses on this inventory and your return of the form will indicate your consent to participate voluntarily.



DIRECTIONS:

For each work ethic descriptor listed below, CIRCLE THE NUMBER that most accurately describes your standards for that item. There are seven possible choices for each item:

Never Almost Never Seldom Sometimes Usually Almost Always Always
 1 2 3 4 5 6 7

THERE ARE NO RIGHT OR WRONG ANSWERS. *There also is no time limit, but you should work as rapidly as possible. Please respond to every item on the list.*

As a worker I can describe myself as:

Descriptors	Never							Always	
	1	2	3	4	5	6	7		
1. dependable	1	2	3	4	5	6	7		
2. stubborn	1	2	3	4	5	6	7		
3. following regulations	1	2	3	4	5	6	7		
4. following directions	1	2	3	4	5	6	7		
5. independent	1	2	3	4	5	6	7		
6. ambitious	1	2	3	4	5	6	7		
7. effective	1	2	3	4	5	6	7		
8. reliable	1	2	3	4	5	6	7		
9. tardy	1	2	3	4	5	6	7		
10. initiating	1	2	3	4	5	6	7		
11. perceptive	1	2	3	4	5	6	7		
12. honest	1	2	3	4	5	6	7		
13. irresponsible	1	2	3	4	5	6	7		
14. efficient	1	2	3	4	5	6	7		
15. adaptable	1	2	3	4	5	6	7		
16. careful	1	2	3	4	5	6	7		
17. appreciative	1	2	3	4	5	6	7		
18. accurate	1	2	3	4	5	6	7		
19. emotionally stable	1	2	3	4	5	6	7		
20. conscientious	1	2	3	4	5	6	7		

As a worker I can describe myself as:

Descriptors	Never							Always						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
21. depressed	1	2	3	4	5	6	7							
22. patient	1	2	3	4	5	6	7							
23. punctual	1	2	3	4	5	6	7							
24. devious	1	2	3	4	5	6	7							
25. selfish	1	2	3	4	5	6	7							
26. negligent	1	2	3	4	5	6	7							
27. persevering	1	2	3	4	5	6	7							
28. likeable	1	2	3	4	5	6	7							
29. helpful	1	2	3	4	5	6	7							
30. apathetic	1	2	3	4	5	6	7							
31. pleasant	1	2	3	4	5	6	7							
32. cooperative	1	2	3	4	5	6	7							
33. hard working	1	2	3	4	5	6	7							
34. rude	1	2	3	4	5	6	7							
35. orderly	1	2	3	4	5	6	7							
36. enthusiastic	1	2	3	4	5	6	7							
37. cheerful	1	2	3	4	5	6	7							
38. persistent	1	2	3	4	5	6	7							
39. hostile	1	2	3	4	5	6	7							
40. dedicated	1	2	3	4	5	6	7							
41. devoted	1	2	3	4	5	6	7							
42. courteous	1	2	3	4	5	6	7							
43. considerate	1	2	3	4	5	6	7							
44. careless	1	2	3	4	5	6	7							
45. productive	1	2	3	4	5	6	7							
46. well groomed	1	2	3	4	5	6	7							
47. friendly	1	2	3	4	5	6	7							
48. loyal	1	2	3	4	5	6	7							
49. resourceful	1	2	3	4	5	6	7							
50. modest	1	2	3	4	5	6	7							

(OVER PLEASE)

BACKGROUND INFORMATION**DIRECTIONS:*****DO NOT SIGN THIS FORM***

Please fill-in or circle the appropriate response for each item. Completion of this inventory acknowledges your understanding that this data will be used for research purposes only and will be kept completely confidential.

FILL-IN OR CIRCLE YOUR RESPONSE

(1) Occupational Training Area: _____

(2) Sex: female

male

(3) Grade Level: 9 10 11 12

(4) If you work, indicate the number of hours per week:

1 - 10 hours

11 - 20 hours

21 or more hours

(5) Father's Occupation: _____

(6) Mother's Occupation: _____

Thank you for your participation in this research project. Your responses will collectively benefit the transition of vocational students from school to work.

APPENDIX C
LETTER OF INTENT

January 25, 1993

Dear Vocational Director or Principal:

The transition of students from school to the workplace is a major concern in today's business, industry, and educational literature. Prominent leaders are concerned with the future of America's workforce and the work ethic our vocational youth will bring into the current job markets, however very little information is available on this issue. Your vocational school has been selected to participate in a study of the work ethic of vocational students in Tennessee.

Within the next few weeks you will be asked to allow your vocational students to complete an inventory on the occupational work ethic. The inventory is designed to gather information on the work ethic along with some demographics of each student. This inventory will be brought to each participating class and will only take a few minutes to complete.

The information collected from each student will be kept confidential (student names are not required on the questionnaire). The data collected will be used by the project staff to identify habits, attitudes, and values of vocational students from different occupational training areas. Results from this study will enhance the education and training of today's youth. Your assistance in this effort is very important.

Your students participation in this inventory is essential toward the completion of my study. Your consent to participate and student data are extremely important. I want to express my thanks for your participation and help. If you have any questions, please call me at (615) 984-4153.

Sincerely,

Bill R. Allender
Project Director
Work Ethic: From School to Work Project

APPENDIX D
LETTERS OF CONFIRMATION

DR. DON LOFTIS
Superintendent

HAMILTON COUNTY
DEPARTMENT OF EDUCATION
201 Broad Street, Chattanooga, Tennessee 37402
615/757-1700 • FAX/615/757-1777

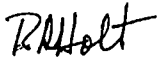
February 11, 1993

Ms. Edith M. Swathmary
Coordinator of Compliances
University of Tennessee
Office of Research Administration
404 Andy Holt Tower
Knoxville, Tennessee 37996-0140

Dear Ms. Swathmary:

I give consent for Bill R. Allender to administer the "Occupational Work Ethic Inventory" at Sequoyah and Harrison Bay Vocational Centers.

Sincerely,



R. A. "Andy" Holt
Director of Vocational Education

RAH/cjt

HANCOCK COUNTY HIGH SCHOOL

P. O. Box 659 Sneedville, Tennessee 37869

Phone 733-2252



Principal - John W. Goodman

Asst. Principal - Donnie P. Seal

Guidance Counselor - E. R. Southern Jr.

February 4, 1992

Mr. Bill Allender
977 West Hunt Rd.
Alcoa, TN 37701

Dear Sir:

You have our approval to do a Work Ethics Survey
at Hancock County High School, Vocational School. Please
contact us if we can be of further assistance.

Sincerely Yours,

A handwritten signature in cursive script that reads "Gary W. Seal".

Gary W. Seal

Special Populations Coordinator

Daffin Anderson
Principal



Assistant Principals
James D. Allen
Joe E. Fairchild
Jim Hageman

Route 7
Rogersville, TN 37857
Telephone (615) 272-6507

BILL ALLENDER
977 WEST HUNT ROAD
ALCOA, TN. 37701

DEAR BILL,

YOU HAVE OUR PERMISSION TO CONDUCT YOUR SURVEY AT OUR SCHOOL.

Yours, truly,

James D. Allen
James D. Allen
Assistant Principal
Cherokee High School

TENNESSEE HIGH SCHOOL

1112 Edgemont Avenue • Bristol Tennessee • (615) 652-9494

January 29, 1993

To Whom It May Concern:

OCCUPATIONAL WORK ETHIC INVENTORY

Bill Allender has our approval to collect research data from vocational students here at Tennessee High School.

Thank you.

Sincerely,



Ron Fink
Director of Vocational and Adult Education

RF:tr

DR. DON LOFTIS
Superintendent

HAMILTON COUNTY
DEPARTMENT OF EDUCATION
201 Broad Street, Chattanooga, Tennessee 37402
615/757-1700 • FAX/615/757-1777

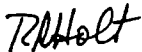
February 11, 1993

Ms. Edith M. Swathmary
Coordinator of Compliances
University of Tennessee
Office of Research Administration
404 Andy Holt Tower
Knoxville, Tennessee 37996-0140

Dear Ms. Swathmary:

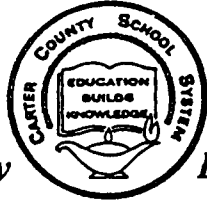
I give consent for Bill R. Allender to administer the "Occupational Work Ethic Inventory" at Sequoyah and Harrison Bay Vocational Centers.

Sincerely,



R. A. "Andy" Holt
Director of Vocational Education

RAH/cjt



Carter County

Board of Education

Ernest E. Rasar - Superintendent

Academy Street
Elizabethton, Tennessee 37643
(615) 543-3591

3/24/93

Bill Allender has permission
to do testing in the Vocational
area

Thanks,
Jim Tipton
Vocational Director

HERITAGE HIGH SCHOOL
3741 East Lamar Alexander Parkway
Maryville, Tennessee 37801-8199
(615) 984-8110



Mr. Ben Dalton, Principal
Mr. Max Coulter, Asst. Principal
Mr. Jack Renfro, Asst. Principal

February 2, 1993

Ms. Edith M. Szathmary
Coordinator of Compliances
University of Tennessee
Office of Research Administration
404 Andy Holt Tower
Knoxville, TN 37996-0140

Dear Ms. Szathmary:

I give consent for Bill R. Allender to administer the "Occupational Work Ethnic Inventory" at Heritage High School to our Vocational Students.

Sincerely,

Ben Dalton
Principal

Knox County SchoolsPermission to Conduct Research

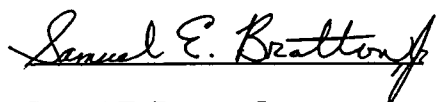
Date: February 11, 1993

Subject: Occupational Work Ethic

Researcher(s): Mr. Bill R. Allender

To: Selected High School Principals

Mr. Bill R. Allender has received permission to contact you concerning his research study entitled, "Occupational Work Ethic Inventory of Vocational Students in Tennessee." Although this study has been approved at the Central Office level, it is our policy to allow the building-level administrator the right to accept or reject a given research project for his/her school or administrative unit. If you have questions or concerns about this project, telephone me at 594-1740. Thank you for your careful consideration of this study.



Samuel E. Bratton, Jr.
Coordinator
Research and Evaluation

Project No. 310

Sullivan County Department of Education

BLOUNTVILLE, TENNESSEE 37617
 PHONE 615/323-4181

SUPERINTENDENT
 DR. JOHN B. O'DELL

ASSISTANT SUPERINTENDENTS
 GLENN ARWOOD
 LEONARD FUGATE

February 3, 1993

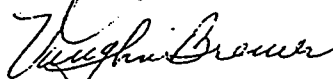
BOARD OF EDUCATION
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 CHARLES BRIDWELL
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 JIM KISS

Mr. Bill Allender
 977 West Hunt Road
 Alcoa, Tennessee 37701

Dear Mr. Allender:

You have permission to conduct a Work Ethics Research survey
 in the high schools in Sullivan County.

Sincerely,



Vaughn Brewer, Director
 Curriculum & Instruction 9-12

VB:bg

MONROE COUNTY VOCATIONAL-TECHNICAL CENTER

P.O. BOX 30220
MADISONVILLE, TENNESSEE 37354-9803
PHONE 442-3297

Bob Lovingood, Superintendent
Monroe County Schools
Madisonville, Tennessee 37354

Joe Helms, Local Director
Monroe County Vocational Education
Madisonville, Tennessee 37354

To: Bill Allender, 977 West Hunt, Alcoa, TN 37701

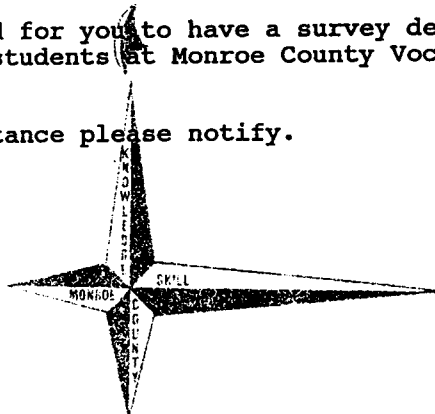
From: Joe Helms, Director-Monroe County Vocational-
Technical Center *JH*

Subject: Approving Work Ethics Survey

Date: February 4, 1993

Permission is granted for you to have a survey dealing with
work ethics for the students at Monroe County Vocational-
Technical Center.

If I can be of assistance please notify.



Allen Morgan, Superintendent

February 11, 1993



Mr. Bill R. Allender
Department of Technological and Adult Education
University of Tennessee
402 Claxton Addition
Knoxville, Tennessee 37996-3400

Dear Mr. Allender:

You are granted permission to contact appropriate building-level administrators concerning the conduct of your proposed research study entitled, "Occupational Work Ethic Inventory of Vocational Students in Tennessee." In the Knox County Schools final approval of any research study is contingent upon acceptance by the principal(s) at the site(s) where the study will be conducted.

In all research studies names of individuals, groups, or schools may not appear in the text of the study unless specific permission has been granted through this office. The principal researcher is required to furnish this office with one copy of the completed research document.

Good luck with your study. Do not hesitate to contact me if you need further assistance or clarification.

Yours truly,

Samuel E. Bratton, Jr.

Samuel E. Bratton, Jr., Coordinator
Research and Evaluation
Telephone: (615) 594-1740

xc: Dr. J. W. Phifer, Coordinator of High Schools

Project No. 310

APPENDIX E
LETTER OF CONSENT

February 22, 1993

Dear Parent or Guardian:

The transition of vocational students from school to work is a major concern of today's business, industrial and educational leaders. These leaders are concerned with the future of America's workforce and the work ethic of our vocational education students. Your child's school has been asked to voluntarily participate in the Occupational Work Ethic Inventory (OWEI), a current research project conducted through the University of Tennessee- Knoxville.

The OWEI does not ask for students to identify themselves in any manner, nor will the students be identified by the researcher. Complete confidentiality will be maintained and no specific personal information is required. The OWEI form asks students to spend less than fifteen minutes to rank fifty words describing how they are as a worker. Responses from the survey will be combined with other participating schools in East Tennessee to study the work ethic of vocational students.

Participation is voluntary and your child will in no manner be penalized if he/ she does not want to participate. If you should choose for your child to NOT participate in the OWEI research project, please return the signed rejection slip within 3 days to the child's participating school.

If you have any questions regarding this research project you may contact me at (615) 984-4153. Thank you.

Sincerely,

Bill Allender
Project Director
Occupational Work Ethic Inventory

=====detach here=====

Rejection Slip

I do not give permission for _____
student's name
to participate in the Occupational Work Ethic Inventory research
project conducted through the University of Tennessee- Knoxville.

Parent or Guardian Signature

Date

APPENDIX F
APPROVAL LETTER FROM HUMAN SUBJECTS REVIEW

THE UNIVERSITY OF TENNESSEE
KNOXVILLE



Research Administration
Compliances
Grants & Contracts
Research Advancement
404 Andy Holt Tower
Knoxville, Tennessee 37996-0140
(615) 974-3466
FAX (615) 974-2805

02/22/93

CRP # 4023 B

Title: "Occupational Work Ethic Inventory (OWEI) of Vocational Students
in TN"

Allender, Bill R.
Technological & Adult Ed.
977 West Hunt Rd
Alcoa, TN 37701

Petty, Dr. Gregory C.
Technological & Adult Ed.
429 Claxton Addn.
Campus

Your project listed above was reviewed. It qualified for expedited review and has been approved.

This approval is for a period ending one year from the date of this letter. Please make timely submission of renewal or prompt notification of project termination (see item #3 below).

Responsibilities of the investigator during the conduct of this project include the following:

1. To obtain prior approval from the Committee before instituting any changes in the project.
2. To retain signed consent forms from subjects for at least three years following completion of the project.
3. To submit a Form D to report termination, to renew approval, or to report changes in the project at 12-month or less intervals.

The Committee wishes you every success in your research endeavor.

Sincerely,

A handwritten signature in cursive script that reads "Edith M. Szathmary".

Edith M. Szathmary
Coordinator of Compliances

cc: Dr. Gregory Petty
429 Claxton Addn.

APPENDIX G
OWEI DATA COLLECTION CODES

MASTER KEY FOR OWEI DATA ON VOCATIONAL STUDENTS

**POSITIONS 1-50 = DESCRIPTOR RANKINGS

**POSITION 51 & 52 = OCCUPATIONAL TRAINING AREAS AS FOLLOWS:

01=AGRICULTURE/ HORTICULTURE
02=AIR CONDITIONING/ REFRIGERATION
03=AUTO BODY
04=AUTO MECHANICS/ SMALL ENGINE REPAIR
05=BUILDING TRADES/ MASONRY
06=BUSINESS TECHNOLOGY
07=CHILD CARE
08=COMPUTER TECHNOLOGY
09=COOPERATIVE EDUCATION
10=COSMETOLOGY
11=DRAFTING
12=ELECTRICITY/ ELECTRONICS
13=GRAPHIC ARTS/ PRINTING
14=HEALTH OCCUPATIONS
15=HOME ECONOMICS/ SINGLE LIVING
16=MACHINE SHOP
17=MARKETING
18=SHEET METAL 21=MEAT CUTTING/ BUTCHERING
19=WELDING 22=INDUSTRIAL TECHNOLOGY
20=PLUMBING 23=FOOD MANAGEMENT

**POSITION 53 = SEX AS FOLLOWS:

1=FEMALE
2=MALE

**POSITION 54 = GRADE LEVEL AS FOLLOWS:

1= 9TH
2= 10TH
3= 11TH
4= 12TH

**POSITION 55 = # OF HOURS WORKED AS FOLLOWS:

1= ZERO
2= 1 TO 10 HRS
3= 11 TO 20 HRS
4= 21 OR MORE

**POSITION 56 = SOCIO-ECONOMIC STATUS AS FOLLOWS:

1= UPPER CLASS
2= MIDDLE CLASS
3= LOWER CLASS

**POSITION 57 & 58 = SCHOOL SITE CODES AS FOLLOWS:

01=HERITAGE; 02=HARRISON BAY; 03=MONROE CO.; 04=SEQUOYAH;
05=BYINGTON-SOLWAY; 06=CARTER; 07=CHEROKEE; 08=CENTRAL;
09=NORTH; 10=EAST; 11=TN HIGH; 12=CARTER CO.; 13=HANCOCK CO.;
14=SOUTH; 15=KINGSPORT

APPENDIX H
INTRODUCTION OF OWEI TO STUDENTS

INTRODUCTION OF OWEI TO STUDENTS

Hi. My name is Bill Allender and I am conducting the Occupational Work Ethic Inventory of vocational students in East Tennessee. Your school was selected as 1 of 15 vocational schools in East Tennessee to participate in a survey on the work ethic. Participation is voluntary and confidential. This survey will only take a few minutes of your time to complete.

This survey was developed by Dr. Greg Petty at the University of Tennessee. It has been used to survey various occupations and is printed in German, French, Spanish, Japanese, and of course, English. I hope you receive a copy of the English version. It will be easier for most of you to read.

Thank you for your participation in this survey. You are helping me compile data for my doctoral dissertation. When you have completed the survey, let me know and I will pick up yours, so that I don't have them in any particular order. Thanks for your cooperation.

VITA

VITA

Bill Ray Allender was born September 28, 1947 in Lansing, Tennessee to Clyde J. Allender and Virginia M. Bonham Allender. He attended elementary and secondary schools in Illinois returning to Tennessee in 1973.

Mr. Allender served a four-year apprenticeship as a Metal Fabricator, and received his Certificate of Apprenticeship Completion from the U. S. Department of Labor, Bureau of Apprenticeships and Training in November 1969.

In 1971, Allender began his undergraduate studies at Joliet Junior College in Joliet, Illinois and graduated with an Associate of Science Degree in June 1973. Mr. Allender received his Bachelor of Science Degree in Industrial Education, cum laude at the University of Tennessee-Knoxville, in June 1980.

Allender completed his undergraduate degree while teaching in Blount county, Tennessee, as a Vocational Welding Instructor. He earned his Master of Science Degree in Education, with a major in Industrial Education and Educational Administration and Supervision in August 1985 from the University of Tennessee- Knoxville.

Mr. Allender began his doctoral studies in the Fall of 1989, at the University of Tennessee, while working as Administrative Director of Adult and Continuing Education for the Kingsport City Schools.