IDENTIFICATION OF PREDICTORS

OF HIGH SCHOOL STUDENTS' ABSENTEEISM

by

JANET MOORE TEAGUE

(Under the direction of Dr. Roger Hill)

ABSTRACT

This study was conducted to assess whether the selected variables of age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in the free or reduced lunch program predict absenteeism for high school students. The population for this study was students enrolled in a low achieving, low-income high school located in a metropolitan school system. School records for 296 students provided the data for the seven independent variables as well as total absences for the school year. A stepwise multiple regression analysis determined which combination of variables provided the most significant predictors of student absenteeism. None of the variables were statistically significant at the $p <. 05$ level. However, participation in the free or reduced lunch program and gender did deserve further analysis at .061 and .091 respectively. Regression analyses were performed using participation in the free or reduced lunch program and gender. With a R^2 of .010 for participation in the free or reduced lunch program and a R^2 of .008 for gender, no statistical significance was indicated.

Although no significant outliers were present, the large number of absences was questionable. Therefore, a stepwise regression analysis was performed using all variables but only participants with 50 or less absences. At .080 for R^2 and .036 for adjusted R^2 no combination of variables could be considered predictors of absenteeism for students with less than 50 absences. Correlation coefficients were then considered. Gender indicated statistical significant at the $p<.05$ level with a p value of .005. A regression analysis for gender of students with less than 50 absences was performed. With a R^2 of .024, gender was not statistically significant.

A leave-one-out regression analysis indicated that participation in the free or reduced lunch program and gender had the greatest impact on absenteeism.

INDEX WORDS: Absenteeism, Student Absences, Regression Analysis, Work Ethic

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DEDICATION

It is my honor to dedicate this dissertation to my loving and supportive family:

To my mother, Martha Moore, and my father, the late Ira Moore, who stressed the importance of education and taught me that with patience, kindness, and honesty you can never go wrong;

to my loving husband, Jeff Teague, who supported me every step of the way and never doubted my ability to complete this degree—now he can tell everyone that I am a doctor;

and, to my pride and joy, Eric and Stuart Lyle, I hope that through my example you have learned that you can accomplish your dreams and goals regardless of what the world might do to hold you back.

In Loving Memory of Walter "Sandy" Lyle

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TABLE OF CONTENTS

Page

LIST OF TABLES

Page

TABLES

CHAPTER 1

INTRODUCTION

Context of the Problem

The old adage, "an honest day's work for an honest day's pay" may no longer be the unquestioned basis for the American work ethic. A changing American work environment, from the industrial to information age, has sparked a change in the work ethic of today's employees (Applebaum, 1998; Bernstein, 1997; Cherrington, 1980; Schleuning, 1990). 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). Farmers in colonial America found a strong relationship between hard work and bountiful harvests that provided part of the foundation for the American work ethic. The working-class majority throughout the first two centuries of American history shared this belief in hard work as a way of life. Not until the introduction of technology and the information age did significant numbers of people begin to question their belief in hard work as the only road to success, and begin to demand workers' right to leisure time to pursue enjoyable activities (Applebaum; Ciulla, 2000).

The Protestant Work Ethic (PWE), a term coined by Max Weber (1992), reflected the notion that hard work is a virtue and a means to better oneself. Although the PWE established part of the foundation of today's American work ethic, modern belief systems have changed to include personal ethic that recognizes the importance of time away from

the workplace for leisure, entertainment, and personal growth (Applebaum, 1998; Ford, 1993). One reason cited for the increased interest in time away from work traces back to the Industrial Revolution, during which time workers lost control over the products they produced and over the amount of leisure time available to spend with family and friends (Bernstein, 1997; Schleuning, 1990). Employers demanded diligent attention to work and long hours on the job. Strict, crude work environments stripped employees of their dignity and self-worth. Mass production, mechanization, and division of labor created a sense of loss of employee empowerment and of a lack of workers' control over the production process. Workers began to realize that hard work was a benefit to owners of the factories and not to workers themselves. They yearned for more respect, autonomy, self-fulfillment, and leisure time. Workers began to engage in slowdowns, work restrictions, and strikes. With continuous strife in the workplace, absenteeism increased. Although belief in hard work continued to be a driving force for many workers, some people found other interests to pursue and began to focus energy on aspects of life outside the workplace such as leisure activities and continuing education (Applebaum; Ciulla, 2000; Schleuning).

Applebaum (1998) cited the entrance of women into the workforce as another influence on the changing attendance patterns in the workplace. Because women who entered the workforce continued to carry responsibilities of home and family, they brought a different perspective to the work environment than men (Hill, 1996a). The demands of family and home sometimes caused women to leave work early, to arrive at work late, to be absent from work, and to make adjustments to coordinate home and work responsibilities (Applebaum). The necessity for employers to make adjustments to

accommodate women's dual roles at work and at home influenced many changes in the workplace such as flexible hours and on-site child care facilities (Eriksson, 1998).

Employee attendance patterns affect the ability to maintain production goals, the costs of production, and the morale of other employees who must continuously cover for absent peers (Evans & Palmer, 1997; Pitone, 1986; Rhodes & Steers, 1990; Steers & Rhodes, 1978). Employees are hired to perform specific tasks and duties for a company and are expected to be present each day to assist in the daily company operations. Employees who display good attendance possess an important work ethic attribute employers seek. Dedication to the job and loyalty to the employer are two work ethic attributes that reflect an employee's dependability. Promptness to work and regular attendance at work contribute to employee dependability. Dependable employees establish and maintain acceptable attendance habits that are beneficial to themselves as well as to their employers.

According to Linnehan (1996), school attendance habits affect work attendance habits. "Given that in-school outcomes have been shown to have positive effects on postsecondary work experiences, the in-school behavior of school attendance could lead to the out-of-school behavior of work attendance" (p. 76). Positive attendance habits established in school will serve students well into their future (U. S. Department of Education, 1996a).

One strategy for instilling work ethic such as dependability in employees involves incorporating the teaching of work ethic in secondary and postsecondary career and technology programs (Gregson, 1994; Henderson, 1979; Miller & Coady, 1986; Schmidt, Finch, & Moore, 1997; Wells, 1998). Work ethic taught through employability

skills units and activities in career and technology courses emphasize the importance of a positive work attitude as reflected in good attendance habits. Encouraging good attendance habits proves beneficial to students because they are able to stay abreast of their lessons, to achieve an adequate education, and to establish work ethic for the future (DeKalb, 1999; Porwoll, 1977).

Although the literature on work ethic is plentiful, little research exists focusing on student attendance as an indicator of work ethic. Student absenteeism is increasing. In 1975 the U.S. Department of Education reported the normal rate of absenteeism was about four to five percent (Porwoll, 1977). In 1992 the rate had increased to ten percent (U.S. Department of Education, 1996a). Study of absenteeism from school is important if students' attendance habits are to be improved.

A number of factors that impact student absenteeism were identified in previous studies: age, gender, grade level, diploma program, rank in class, number of parents in the home, and socioeconomic status (Brown, 1999; Kleine, 1994; Porwoll, 1977; Rood, 1989). These studies attempted to find common characteristics of absent students. Porwoll listed several characteristics of students with high absentee rates. He identified older students (girls in grades 9 through 11, boys in grade 12), students living with one parent, students in the general program of study, and students with lower class ranks. Rood found absenteeism usually increased through high school years with girls having higher absentee rates than boys have during the first three years of high school. He also found that students with higher grade point averages have better attendance; students in college preparatory programs are present more often than those in general, vocational, or business programs; and students from one-parent families have poorer attendance than

those from traditional two-parent families. Kleine found a correlation between absenteeism and socioeconomic status, increase in students' ages, fatherless homes, low-income families, and female students. Brown concluded that there was a consistent relationship between absenteeism and age, students living with one parent, and students' academic level. Understanding of the absent student based upon common characteristics can assist educators in the development of strategies to address the increasing problem of absenteeism.

A study to identify common characteristics or predictors of high school students' absenteeism can provide career and technology educators with beneficial information for addressing issues related to attendance in their courses. Student absenteeism creates a burden for all learning environments, including career and technology courses. Skills taught in career and technology programs build upon each other. When a student is absent, he/she must make up the assignments missed before attempting the current assignment. The instructor is placed in a position of working with students who are behind in the assignments while at the same time continuing to provide instruction to all students. Absenteeism has a negative impact on the success of career and technology programs. Students who are absent from class continue to fall behind in assignments, while the instructor attempts to cover the required curriculum for all students. Career and technology educators, in preparing students for the workplace, should address appropriate work ethic attributes and emphasize the importance of good attendance at school and in the workplace.

Purpose of the Study

The purpose of this causal-comparative study was to analyze characteristics of high school students to provide predictors of absenteeism from school. Results of this study may contribute to the development of work ethic instruction to be included in career and technology programs.

Research Question

What combination of age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in the free or reduced lunch program provides the best model for predicting rates of absenteeism for high school students?

Theoretical Framework

Several theories and models of absenteeism from work exist (Chadwick-Jones, Nicholson, & Brown, 1982; Hill & Trist, 1953; Steers & Rhodes, 1978). Considerable disagreement exists among researchers concerning several aspects of employee absenteeism. Issues of disagreement included (a) the major causes of absenteeism, (b) how to classify and measure absenteeism, (c) strategies that will reduce absenteeism, and (d) whether efforts should be made to reduce absenteeism at all (Rhodes & Steers, 1990). However, agreement was observed for the following four propositions:

1. Absenteeism is pervasive throughout organizations of different types, among different groups of people, and in different countries.
2. Absenteeism is expensive for both organizations and individuals.
3. Absenteeism is influenced by a constellation of interrelated factors.
4. Absenteeism is associated with a number of important consequences, both positive and negative. (Rhodes & Steers, p. 2)

No consensus theory of employee absenteeism was identified. However, researchers have provided theoretical foundations for understanding the influences on employee absenteeism. Embedded in these employee absenteeism theories were various aspects of motivational and social theories.

Operationally defined, *motivation* is "the inner force that drives individuals to accomplish personal and organizational goals" (Lindner, 1998, p. 2). Herzberg, Mausner and Snyderman (1959) categorized employee motivation into two factors: motivators or intrinsic factors (such as achievement and recognition) and hygiene or extrinsic factors (such as pay and job security). Herzberg et al. argued that motivator or intrinsic factors produce job satisfaction, while hygiene or extrinsic factors produce job dissatisfaction. Rhodes and Steers (1990) referred to job dissatisfaction models as pain avoidance models, because they emphasized withdrawal from negative work environments as motivation for absenteeism. Steers and Rhodes' (1978) based their absentee model upon two variables: an employee's desire or motivation to attend and the employee's ability to attend. They argued that job dissatisfaction or motivation constitutes only part of the influences for absenteeism, and models that focused primarily on job dissatisfaction are incomplete. Most job dissatisfaction models assumed that employees are always free to choose whether or not to attend work. A variety of uncontrollable situations such as poor health, transportation problems, and family responsibilities may interfere with an employee's decision to attend work. Steers and Rhodes' conceptual model that incorporated both voluntary and involuntary absences was based upon a review of 104 studies of absenteeism. The fundamental premise of this conceptual model suggested that, assuming an employee has the ability to attend, motivation is the primary influence

on attendance. An employee's response to the job situation combined with various internal and external pressures to attend determines attendance motivation.

Although motivation theories provided a framework to identify causes of absenteeism, these theories ignore the influence of the social environment of the workplace on absenteeism. Adjustment-to-work theories explain individual motivation to work while introducing the social aspect of absences (Chadwick-Jones et al., 1982; Hill & Trist, 1953). In these theories, social norms played an important role in establishing acceptable levels of absenteeism. Efforts to address absenteeism cannot ignore the social norms of the work environment, nor can these efforts exclude the individual's motivation to follow these norms.

As proposed by Hill and Trist (1953), absences are behaviors that employees use to withdraw from stressful work situations. In this model, described as organizational socialization, individuals become aware of the absence culture of the company by internalizing reaction to withdrawal behavior. Hill and Trist's model described three phases of adjustment through which an employee must progress. The *induction crisis* is the first phase new employees face. The preferred mode of withdrawal in this phase is job turnover due mainly to the lack of knowledge about absence norms for the company. Unsanctioned absences and observation of other's reactions to these absences characterized the *differential transit* phase. Employees learn the prevailing absence culture to the point they can operate it more comfortably. In the final phase, *settled connection*, sanctioned absences replace unsanctioned absences and the levels of absences decline. However, if sanctioned absences are insufficient, accidents in the workplace may become a means of withdrawal from conflict and stress. "Accidents will

be considered as a means of withdrawal from the work situation through which the individual may take up the role of absentee in a way acceptable both to himself and to his employing organization" (Hill & Trist, 1962, p. 3).

The theory developed by Chadwick-Jones et al. (1982) focused upon the social culture of the organization to explain employee absenteeism. They defined absence behavior as a social phenomenon that has workplace norms or rules of absences. These norms or rules govern when employees can be absent, the occasions acceptable for being absent, the duration of the absence, and whether or not co-workers and management will accept the absence. Chadwick-Jones et al. based their absence theory upon the assumptions of interdependency of members of work organizations and of social exchange between employers and the employees.

> Exchanges may be conceived as between individuals and work groups, or between work groups and management, but it will not be realistic to conceive of the exchange as between "the individual" and "the organization" while disregarding the social conditions and rules. In summary, then, the group is in the equation—on one or both sides—and the explanation we use must recognize it. (p. 10)

Employee's perceptions and understanding of absences include how much absence is reasonable and which absences are justified. An employee's desire and ability to attend work influence the absentee rate and define reasonable absences for the individual (Steers & Rhodes, 1978). The organization's social culture of attendance defines acceptable absences for all employees (Chadwick-Jones et al., 1982; Hill & Trist, 1953).

Both motivational factors and social factors can affect an individual's drive to accomplish goals (Lindner, 1998). Motivational factors influence the student's desire to attend school. The social environment of the school determines acceptable and unacceptable absences. School attendance policies govern students' absences, the occasions acceptable for absences, and appropriate duration of the absence. In this study, age and gender are motivational factors that may contribute to a student's attendance habits. Diploma program, grade level, rank in class, number of parents in the home, and socioeconomic status are social factors that may contribute to a student's attendance habits.

Significance of the Study

Improving school attendance is a challenge for administrators and teachers. "On any given weekday, thousands of metro kids hole up inside apartments and houses, turn on the television and just don't go to school" (Ghezzi, 2002, p. A1). In an effort to improve student learning, some school districts address improvement of school attendance through policies and incentives. Career and technology educators have the responsibility to become leaders in this effort to instill good attendance habits. They must emphasize the importance of attendance at school and at work. The career and technology curriculum must address all aspects of work ethic: interpersonal skills, initiative, and dependability (Hill & Petty, 1995). Dependability factors that stress the importance of attendance in school and the necessity of good attendance in the work environment are a vital part of any career and technology program. Several researchers have emphasized the necessity for career and technology educators to incorporate the teaching of affective work ethic attributes in their programs (Gregson, 1994; Henderson, 1979; Miller &

Coady, 1986; Schmidt et al., 1997; Wells, 1998). Identification of predictors of high school students' absenteeism can benefit career and technology educators by informing the profession about one aspect of dependability, and this can contribute to work ethic instruction.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Loyalty, commitment, and dependability are three attributes that denote a positive work ethic. Finding employees with these attributes may not be an easy task in today's changing work environment. Two major events that influenced today's changing work place were the shift of the American economy from a manufacturing base to a service-sector economy and the development of an affluent standard of living after World War II (Gini & Sullivan, 1987). With advanced technology and economic change came a restructuring of job descriptions and a loss in job security that resulted in continuous career changes (Naylor, 1988). According to Miller and Coady (1986), workers preparing for the technological workplace must realize one cannot assume that all organizations maintain the same set of values and work ethic may be under the influence of a variety of sources other than the employer. Miller and Coady also contended that the employer might no longer be the single source that guides values in the work environment. Many extrinsic as well as intrinsic forces contributed to the changing work ethic of today's employees. Workers in today's society do not always place loyalty and commitment to the organization at the top of their list of priorities. The decline in job security gave birth to the attitude that workers must become less attached to employers and look out for themselves to ensure that they remain employable in the constantly changing economy (Meyer & Allen, 1997). The increase in the standard of living also contributed to the attitude change toward loyalty and commitment. Employees may choose to invest their

time and energy with family and friends in leisure activities at the expense of commitment and loyalty to an organization (Meyer & Allen).

Historical Context of Work Ethic and Impact on Absenteeism

Miller and Coady (1986) formally defined work ethic as "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" (p. 6). Wells (1998) simply stated a definition of work ethic as "values and attitudes that guide behavior in the workplace" (p. 47). Throughout American history, the term w*ork ethic* assumed a variety of definitions that described the attitude of employees through changing times. Applebaum (1998) categorized the development of American work ethic into three historical eras: the Colonial period, the nineteenth century, and the twentieth century.

Attitudes During The Colonial Period

The Puritan influence during the Colonial period was evident in the Northeastern United States through family-centered, self-sufficient businesses. The American attitude toward hard work and the belief that everyone must participate in it quickly separated the Puritans from their European relatives (Applebaum, 1998). Craftspeople and farmers created products with little division of labor. During the Colonial period work was task oriented and not necessarily time oriented. Although work was difficult and involved long hours, it gave people a positive sense of place in the community and a sense of pride in their accomplishments. The belief that labor was for the glory of God and not for the gains that result from the labor was the basis for the Puritan work ethic. "Diligence was seen as a possible signal of salvation and was revered service to family and community"

(Berstein, 1997, p. 20). According to Schleuning (1990), the change toward the convergence of Protestant individualism and the emerging capitalist system created a conflict between the PWE and the Catholic influence on attitude toward work.

> Under Catholicism, good works here on earth were intimately connected with salvation . . . For Catholics, work also implied a whole constellation of social ethics and responsibilities. What you did was watched by others and evaluated by the church. For Protestants, however, there were no such curbs or restrictions; faith alone could guarantee one's admission into heaven. The true believer whose salvation was predestined theoretically needed to do nothing. (Schleuning, p. 33).

Idleness and fanciful play was considered sinful. Leisure time was spent in worthwhile pursuits such as education, religious events such as church services and weddings, and family gatherings (Cherrington, 1980). Absenteeism from work was reluctantly tolerated if there was a valid excuse; however, no excuse was appropriate for tardiness. Punctuality was upheld as a highly esteemed virtue that was a reflection of good character. Dignity and honor were obtained through hard work. Cherrington identified eight attributes of the PWE:

1. People have a normal and religious obligation to fill their lives with a heavy physical toil. For some, this means that hard work, effort and drudgery are to be valued for their own sake; physical pleasures and enjoyments are to be shunned; and an ascetic existence of methodical rigor is the only acceptable way to live.
2. Men and women are expected to spend long hours at work, with little or no time for personal recreation and leisure.

3. A worker should have a dependable attendance record, with low absenteeism and tardiness.
4. Workers should be highly productive and produce a large quantity of goods or service.
5. Workers should take pride in their work and do their jobs well.
6. Employees should have feelings of commitment and loyalty to their profession, their company, and their work.
7. Workers should be achievement-oriented and constantly strive for promotions and advancement. High-status jobs with prestige and the respect of others are important indicators of a 'good' person.
8. People should acquire wealth through honest labour [sic] and retain it through thrift and wise investments. Frugality is desirable; extravagance and waste should be avoided. (p. 20)

The PWE established the foundation for American work ethic philosophy that continues to have an influence upon the attitude toward work in present times (Ford, 1993). Applebaum (1998) identified some of the values of the PWE that survived throughout the centuries as being individualism, self-sufficiency, independence, thrift, hard work, planning ahead, and respect for property and the natural environment.

Attitudes During the Nineteenth Century

Many changes in the work environment were created by the Industrial Revolution. America quickly became one of the leading industrial producers on earth. Factories were the primary means of producing goods during this period. The introduction of machines made the production of goods less time-consuming, but workers soon lost both control of

the products and their time with family and friends (Schleuning, 1990). According to Bernstein (1997), hard work took on a new meaning. Labor became systematic, measured, and controlled by the time clock. Under the watchful eyes of foremen, punctuality and steadiness became the norm in order to keep expensive machinery profitable. Initially workers accepted the new system of manufacturing because it promised a life of abundance and economic advancement. However, workers soon realized that the promised economic improvements were not distributing wealth equally.

> Where work had previously been integrated with family life and such survival activities as gardening and the care of animals and crops, people were now forced into the rigid structure of the factory with its close supervision, its machines, and its required blocks of time away from home and community. The shift from subsistence living to wage labor was traumatic, as it tore economic and aesthetic control from the hands of the craftspersons. (Schleuning, p. 32)

The work ethic of the owners of the businesses differed greatly from that of the employees. Employers required diligent attention to work and used various methods of discipline such as fines and dismissal if workers were absent from work or did not perform as demanded by management. Workers believed in honest labor and envisioned hard, diligent work as a means for personal advancement and as beneficial for the economy. However, they resisted the strict discipline of the factory supervisors. As a result of this conflict, employees reported to work irregularly, engaged in slowdowns, work restrictions, and strikes, and moved from job to job. The average worker in the factories was employed less than a year (Applebaum, 1998). Upheavals and strife from the labor force plagued the latter years of the 1800's. Workers began to doubt the belief

that hard work would provide the assurance of prosperity. They also began to doubt that hard work would bring economic and social success (Cherrington, 1980; Hill, 1996a). Manual laborers yearned for more respect, autonomy, self-fulfillment, and leisure (Applebaum).

Attitudes During the Twentieth Century

Mass production, mechanization, and division of labor continued to monopolize the workplace during the first several decades of the twentieth century. Hard work was still considered a virtue, but it was not necessarily the answer to the American dream of wealth and prosperity. Workers became disillusioned with the work environment and the limited job opportunities. Schleuning (1990) supplied two major reasons for the growing lack of job satisfaction as the loss of a sense of empowerment (of not being in charge of one's own actions) and the loss of the sense of the whole (of ways in which the parts relate to one another). Workers no longer had control over their actions and were at the mercy of machines. The division of labor practices allowed the workers no control of the production process. Employees desired jobs that offered challenge and autonomy. During the 1960s, the anti-authoritarian values of the baby boomers sparked the change from work ethic to worth ethic (Bernstein, 1997). Empowerment in work became the norm with employees' demands for the opportunity to learn, improve, and advance in the area of career development.

Some improvements were made in the workplace as a result of organized labor and union demands to improve working conditions. However, not until the 1970's and the introduction of computers were drastic changes made in the American workplace. Because technology constantly changed working conditions, workers were forced to

become more flexible and to continuously learn new skills in order to prepare for these changes (Applebaum, 1998). Although many jobs in the information age required higher levels of education and training, many manual labor jobs still existed that could be obtained with entry-level skills. Workers could select from an array of careers and occupations with various degrees of skill requirements. With these changes in the work environment came a change in workers' attitude toward hard work as the means to obtain a better life. Leisure time and personal activities with family and friends became as important as work. As stated by Ciulla (2000), leisure is simply doing something that is pleasurable and enjoyable for the sake of doing it—for the intrinsic rewards the activity provides. For employees who had intrinsically meaningful work, there was little difference between work and leisure. However, for an increasing number of American workers, there was no intrinsic pleasure to be obtained from work. Work was no longer viewed as the center of life and a new American work ethic evolved (Applebaum). The belief that work was not all there was to life became evident in the growth of leisure activities and the industries that supported these activities. The technological development and the increasing availability of recreational items made leisure activities affordable to more Americans. These pleasures were no longer the privilege of only the wealthy. This realignment of priorities was evident in the increase in demand for paid vacations and paid holidays. According to Levitan and Johnson (1983), before 1940, paid vacation was a privilege primarily reserved for management. However by 1970, the average full-time employee (factory and office workers) received two full weeks of annual, paid vacation. Between 1940 and 1980, the number of annual paid holidays increased from an average of two to nine days. The twentieth-century American worker's

interest in life enrichment activities altered the priority of work activities, changed work ethic, and increased the demand for paid leave time to provide more leisure time.

Applebaum (1998) identified other ethics that became important to Americans workers: leisure, life, education, and caring. Leisure ethic and life ethic turned workers' attention toward more enjoyable activities that would require more personal time leaving less time for work. Workers asked for shorter workdays, flexible scheduling, and more time from work to provide more time for personal endeavors. More and more workers 55 and older dropped out of the workforce and chose the leisure of retirement over employment. The demand for continuous education to stay abreast of changing technology placed importance on an American education ethic. Older workers returned to school for advanced degrees and technological certification that would help them to remain employable and would open up new career opportunities for them. A growing need to care for children, the elderly, the disabled, and the handicapped gave birth to the caring ethic. Workers began to alter their work ethic to make room in their lives for these new ethics that demanded an increasing amount of time. The intertwining of life enrichment activities and work responsibilities changed attitudes toward commitment and loyalty to employers. The importance of working hard diminished as the importance of enjoying the fruits of labor increased (Cherrington, 1980).

Other intrinsic motivators such as service to others and pride in one's work began to surface to the top of the list of workers' priorities replacing hard work as most important. As a result of a 1975 study that surveyed 3,053 workers in 53 companies, Cherrington (1980) identified the top five work-related outcomes that employees listed as most desirable: (a) feeling pride and craftsmanship in work, (b) getting more money or a

larger pay increase, (c) feeling more worthwhile, (d) being recognized and gaining the respect of others, and (e) being of service to others. Only one of these top five most-desirable outcomes concerned monetary gain. Intrinsic motivators such as pride and a sense of accomplishment were more important than extrinsic rewards.

In a more recent study, Eriksson (1998) distributed a questionnaire to access attitudes toward work to a random sample of workers and received 1,928 responses. Eriksson's study distinguished between absolute centrality, work as evaluated in absolute terms without relating it to anything else, and relative centrality, work as seen in relation to other important aspects of life, such as family and leisure. Defined in absolute terms, work is a central feature in most people's lives because work is not only a means for support, but it also establishes a fixed routine that provides a purpose for existence. Work contributes to personal development as well as societal advancements. One respondent to the questionnaire stated that families benefit from having two working adults. Another respondent mentioned that the ability to relate to work allows workers to make better use of leisure time. Interaction and contact with other workers was listed as another motivation for working.

However, when work is defined in relation to other factors (being healthy, spending time with family and friends, having an interesting job, making money, pursuing meaningful leisure activities, having a good place to live, being able to make an active contribution to society, and being able to enjoy good food and drink), more than 50 percent of the respondents did not consider work as one of the most important things in life (Eriksson, 1998). In response to the question, *What do you value most: the time you spend at work, the time you are not working, or do you value both equally*, almost 50 per

cent placed greater value on the time when they were not working. More than half of the respondents agreed with the statement: *I do not let my work interfere with the rest of my life*.

The continuous change in work attitudes makes it difficult to predict how Americans will react to work and how they will balance work with leisure in the twenty-first century. Applebaum's (1998) definition of work ethic reflected this constant change in workers' attitudes and provided the flexibility that has become an important aspect of the American workplace. "Work ethic is multidimensional, a dynamic concept that changes over time and that varies according to occupation, management, ideology, ethnic perspective, class position, and level of income" (p. 214).

Attributes of Work Ethic

Attributes of work ethic can be characterized into three areas: interpersonal skills, initiative, and dependability (Hill, 1996a; Hill & Petty, 1995). Interpersonal skills are those characteristics that are used while associating with other people. These skills determine how a worker cooperates with peers and managers in the organization as well as with business associates outside the company such as customers and vendors. Manners, attitude, personal appearance, and behavior are aspects that determine interpersonal skills. An employee's drive and the effort put into doing the job determine his/her initiative. Reliability, honesty, promptness, and attendance patterns reflect an employee's dependability (Hill).

Although peoples' attitudes toward work ethic have changed over the centuries, the qualities and characteristics that are considered desirable work ethic attributes have remained somewhat constant. Just the same, the attributes that are viewed as undesirable

have altered little. Employers in today's work environment are still looking for employees who exhibit positive, beneficial attitudes toward work and who still maintain appropriate work ethic (Sullivan, 1999).

Desirable Attributes of Work Ethic

In a 1995 study, Hill and Petty surveyed 1,151 workers from public and private industries to identify habits, values, and attitudes that should be included as components in vocational curriculum development. Petty (1995) developed the Occupational Work Ethic Inventory (OWEI), the instrument used in the 1995 study, as part of a research project at the University of Tennessee (Knoxville) in 1991. The OWEI contains 50 descriptors of occupational work ethic that respondents used to evaluate their personal attitudes, values, and habits. Hill and Petty identified four aspects representative of work ethic: working well with others, striving for advancement/success, being dependable, and acceptance of duty. Workers were asked to respond to the stem: *At work I can describe myself as:* on a Lickert-type rating scale of 1 to 7. Participants' response patterns were analyzed to derive desirable factors of work ethic. The "working well with others" factors identified positive aspects of work ethic as: friendly, courteous, pleasant, considerate, likable, cooperative, helpful, appreciative, patient, emotionally stable, and well groomed. Hill and Petty listed following directions, dependable, punctual, and honest as desirable factors for being dependable. Positive attributes were also identified for striving for advancement/success: resourceful, productive, initiating, enthusiastic, perceptive, dedicated, persistent, efficient, ambitious, devoted, persevering, independent, and orderly. Most authors agreed that key desirable attributes of work ethic were dependability, punctuality, honesty, integrity, and loyalty (Cherrington, 1980; Furnham, 1990; Hill,

1996a, Hill & Petty; Petty). Sullivan (1999) agreed and added such desirable characteristics as self-esteem, proper dress, positive attitude, courtesy, and flexibility. However, dependability was the most desirable attribute employers seek in employees (Hill).

Attributes of Work Ethic for the Twenty-First Century

The personal computer in the workplace in the early 1970's added to the rapidly changing nature of work. With constant changes, came a change in the attributes that employers desire in prospective employees. In 1991 the Secretary's Commission on Achieving Necessary Skills (SCANS) published its Report for America 2000 that defined the changing skills essential for workers to develop in order to be successful in the twenty-first century. The report not only listed basic skills such as reading, writing, mathematics, and communication, but also identified important interpersonal skills such as working on teams and working with people from ethnically diverse backgrounds.

The Commission spent one year interviewing people in every aspect of the work environment including business owners, managers, union officials, and workers. The basic message learned from this research was that workers must be creative thinkers and responsible problem solvers. High school students must develop new foundation skills and a new set of competencies to be successful in the workplace. Thinking skills such as making decisions, problem solving, reasoning, and creativity are becoming required attributes of work ethic. Employees must become comfortable working with technology as well as in complex inter-relations systems. Both environments will require skills as a member of a team and will necessitate continuous learning. (SCANS, 1991)

Desirable personal qualities identified by SCANS (1991) for workers entering the workforce in the twenty-first century were responsibility, social ineptness, integrity and honesty, self-esteem, and self-management. Workers must display a high level of effort and perseverance toward attainment of goals. Employees must demonstrate understanding, adaptability, empathy, friendliness, and politeness in group and team settings. Belief in one's self worth, maintenance of a positive self-image, and exhibiting self-control are equally advantageous work ethic traits. Honesty and integrity, that enable workers to choose the ethical course of action in the constantly changing workplace, continued to be a vital trait for all employees to possess.

One method of assessing essential personal qualities such as responsibility, integrity, honesty, and self-management is through attendance habits. Continuous absences may not only reflect questionable personal qualities, but may also impact group and team performance. The success of businesses in the twenty-first century will depend upon employees who possess these essential skills and employees who exhibit appropriate attendance habits.

Work Ethic, Gender, and Absenteeism

The role of American women in the workforce changed dramatically from colonial period to present time. According to Applebaum (1998), demands on men in the work environment were not as severe as demands on women. The traditional work ethic forced upon women declared that women "could only succeed in the masculine job world by giving up their commitment to their families and dedicating their lives to job advancement, on the premise that it was impossible to be successful in both the economic and family spheres" (p. 193). Women entering the workforce did not have the luxury of

separating spheres of work and home as was granted to men. The demands of family and home forced women to leave work early, to arrive at work late, to be absent from work, and to make other necessary adjustments to meet home and work responsibilities.

Applebaum (1998) investigated the role of women during the three centuries of America's existence. Colonial women were expected to devote their energies to caring for their children and their husbands through homemaking. The work ethic for women during this period in American history revolved around a feminine, domestic world separate from the work world of men. Production for the market and production for the family distinguished the division of labor between men and women. For example, even though agriculture and gardening were technically similar, agriculture was primarily production for market and profit; therefore, it was predominately a man's occupation. Whereas, gardening was deemed as female work because it was production for family welfare. Expectations for women were based upon a family ethic and a nurturing ethic that included a communal ethic that involved caring for neighbors who were sick or had difficulty supporting themselves and their families.

During the nineteenth century, women began seeking employment outside the home. Women faced the dilemma of how to fulfill their responsibilities to their families and at the same time meet the demands of the workplace. Women viewed their work outside the home as a way of providing themselves with a sense of public identity and self-worth. Most women found employment in the following occupations: domestic service, sewing trades, clerical work, nursing, teaching, and textile work (Applebaum, 1998). The importance of hard work underscored the work ethic of women whether they chose to seek employment outside the home or whether they elected to devote their

energies to homemaking. In the twentieth century, women continued to seek employment in the workplace and continued to be limited to traditional female positions. However, by 1950, educated women began breaking the rules by seeking employment in men's professions such as law and medicine. To succeed in the predominately male world, women had to work harder, demonstrate determination, maintain a cooperative attitude, and stay focused upon their goals. Even though men began to assume a few domestic responsibilities, women who chose to work still maintained the major responsibility of the home (Applebaum).

The increase of women in the workforce can be contributed to two major causes: economic needs and the desire for independence and self-development (Maccoby & Terzi, 1981). An increase in single mothers made it necessary for more women to obtain employment. Also, the need to maintain an acceptable standard of living caused many wives to enter the workforce. Some women sought employment due to the desire to contribute directly to the family income or to obtain the goal of maintaining their own income separate from their husbands'. Regardless of the motivation that encouraged women to work, the increase in women in the workforce made an impact on the workplace. For example, the need of women employees to continue to care for home and family generated the flexible scheduling concept that became commonplace in numerous American organizations (Eriksson, 1998).

Eriksson's (1998) findings supported this change in endorsement of work ethic as a result of women entering the workplace. More women than men indicated a desire to keep their work separate from the rest of their lives. Findings in Eriksson's study conflicted with those of previous studies by indicating a stronger commitment to work by

men over women. Her study also revealed that professional men were more work oriented than professional women. However, asked to list the important factors in life, a greater number of women than men considered an interesting job to be one of the top three factors (Eriksson, 1998).

Applebaum (1998) characterized the female work attitudes as focusing upon cooperative decision-making, nurturing relationships, and communicating with others. He observed that women are more likely than men to seek advice, to be less opinionated, to listen to others, and to be less authoritarian in relation to other adults. The male-dominated workplace centered around ambition, competition, aggression, and power seeking which stressed authoritarian decision making, hierarchy, dominant and subordinate relationships, and formalized systems of communication (Applebaum).

Rowe and Snizek (1995) analyzed data from 12 national samples contained in the General Social Survey conducted from 1973 through 1990. The purpose of this study was to determine if women's work values are more strongly influenced by non-work factors than men's work values, and to determine if women's work values will more closely resemble men's work values as women become more entrenched in the work environment. The findings of this study revealed little support for the research questions. Men were slightly more likely than women to favor short working hours and job security, and women were slightly more likely than men to favor a chance for advancement, high income, and the feeling of accomplishment.

Petty and Hill (1995) conducted a study of more than 200 industries and compared 2,220 men and women's responses in four work ethic subscales of the Occupational Work Ethic Inventory (OWEI): dependable, ambitious, considerate, and

cooperative. The purpose of this study was to determine if there was a significant difference between work ethic of men and women and if occupational type had an influence on any difference. Petty and Hill determined that women differed from men in the areas of dependability, ambition, and consideration, and concluded that women respondents had a higher work ethic than men respondents. Because women bring different perspectives to the work environment than men, any study of work ethic should include potential gender differences (Hill, 1996b).

Work Ethic as Reflected by Employees' Absenteeism

Employees who are absent from work have a direct effect upon the ability to maintain production goals, upon the costs of production, and upon the morale of other employees who must continuously cover for absent peers (Pitone, 1986; Rhodes & Steers, 1990). Identifying and understanding attitudes and behaviors reflected in absences from work provide a basis for efforts to improve attendance and to increase productivity. Changing attitudes about time for work, time for leisure activities, and time for personal desires are indications of an employee's work ethic reflected in attendance patterns. The conflict of interest between employers and employees concerning dedication to work and commitment to the organization is the source of many disputes and grievances. A study of employees' attendance patterns and factors that influence absenteeism is important for designing strategies to encourage dependability, reliability, and loyalty in workers.

Factors Influencing Absences from Work

As defined by Levine (2000), an absence from work refers to "time an employee is not on the job during scheduled [sic] working hours, except for a granted leave of absence, holiday, or vacation time" (p. 1). Pitone (1986) categorized employee absences

into the following groups: (a) scheduled absences—absences arranged in advanced, (b) excused absences—unscheduled absences supported with a valid reason, (c) unexcused absences—unscheduled absences that is unacceptable to the organization, (d) occasional absences—infrequently occurring absences, and (e) chronic absences—habitually occurring absences. Absences could be classified in one or two of these categories (i.e. an employee may have extended absences from work due to a major illness that would be classified as excused but could also be considered chronic).

Researchers identified a variety of causes for absences from the workplace ranging from personal illness to personal work ethic (Pitone, 1986; Steer & Rhodes, 1978). Pitone's study identified 64% of employees' absences in four areas: illness of employee (20.8%), other personal problems (19.4%), deterioration of work ethic (14.0%), and boredom and lack of job satisfaction (10.8%). Factors that influence employee absenteeism can be categorized as follows: (a) the influence of the personal characteristics of the employees themselves—length of service, age, gender, personality, employee attitudes, values, and expectations and past absence behavior, (b) the influence of the organization's policies and practices, or lack of them—work design, stress, frequency of job moves, and work group norms and culture, and (c) the influence of factors external to the organization—economic and market conditions, accidents, travel and transportation problems, and family responsibilities (Evans & Palmer, 1997; Rhodes & Steers, 1990). Steers and Rhodes (1978) also offered simpler categories: employees' ability to attend work and employees' motivation to attend work.

Vallance (1995) suggested some employee absences are a result of organizational policies and practices. Poor working conditions, lack of job security, non-established

company goals and values, and lack of appropriate management and leadership styles add to the increasing rate of absenteeism (Clark & Lattel, 1993; Parker, 1995; Vallance). Clark and Lattel detailed further organizational influences in the workplace that have an impact on absenteeism of employees. Physical setting of the company such as poor lighting and poor air quality, lack of resources needed to properly perform the job, and inefficient equipment are factors affecting higher rates of absenteeism. Level of stress in an organization, a worker's lack of confidence, low employee morale, and a lack of feeling ownership in the company are some psychological factors that can also increase absenteeism. Employers must consider all factors that influence workers to stay out of work in order to help improve work attendance (Clark & Lattel).

A 1994 CCH Unscheduled Absence Survey by CCH Inc., Riverwoods, Illinois, (Sarudi, 2000; "Putting the Brakes," 2000) randomly polled 305 human resources executives in the following industries: health care, retail, finance and banking, manufacturing, and government. The survey revealed more than ever workers are absent from work to combat stress or simply to take a day off because they feel they are entitled to time off from work. Stress and entitlement mentalities accounted for 19% each of unscheduled absences as indicated by the respondents of the survey. Personal illness and family issues tied at 21% each as the two most common reasons for unscheduled absences. Personal needs followed with 20% of the responses. Unscheduled absences for health care workers rose 121% in 1999—the highest increase among the industries surveyed ("Putting the Brakes").

Increases in Employees' Absenteeism

Annually the cost of unscheduled absenteeism has risen as high as $602 per employee in direct and indirect costs, such as lower production, overtime pay, and decline in morale among workers who are asked to cover for their absent peers (Sarudi, 2000). Stress of working long hours is blamed as a major reason for rising costs. According to the International Labour Organization, Americans are working 1,966 more hours annually than their counterparts in other countries. Since 1995, stress has increased 316% as a reason for absenteeism ("Putting on the Brakes," 2000).

Taylor (1999) reported the absentee rate of workers in British industries increased rapidly due to workplace stress. White-collar workers suffered stress related to working in high-tech equipped offices and to the fear of being downsized. Results of a survey completed by the Confederation of British Industry indicated absenteeism is rising among white-collar workers while it declined among manual workers. British workers were absent an average of 7.8 sick days in 1999 suggesting 187 million days lost at an estimated cost of 10.5 billion Great Britain pounds (Taylor, 2000). Canada also reported recent increases in absentee rates. According to a study entitled, *Work Absent Rates*, full-time employees took an average of 7.8 days off in 1998, up from 7.4 in 1997 ("Absenteeism Rises," 1999).

Pitone (1986) claimed American organizations spend $26 billion annually due to absent and tardy employees. These costs can be identified as (a) *non-productive costs* caused by disrupted service, substitution, downtime, backlogs, increased overtime, and replacement personnel, (b) *related costs* such as delays or losses in production and service, missed deadlines, shortfalls on quotas, and resentment and other morale

problems, and (c) *customer service costs* that affect customer relations if service is not provided on time which results in customer dissatisfaction. Employers must continuously evaluate the costs of absenteeism to the organization and constantly strive to create methods to encourage employees to be present at work every day.

Profile of the Absent Employee

Recent trends in absenteeism indicate (a) the higher the rate of pay and the greater the length of service of the employee, the fewer days the employee is absent, (b) as an organization grows, the rates of absenteeism increases, (c) women are absent more frequently than men, (d) single employees are absent more frequently than married employees, (e) younger employees are absent more frequently than older employees, but the latter are absent for longer periods of time, and (f) unionized organizations have higher absenteeism rates than non-union organizations (Federal Aviation Administration, 1998).

Rhodes and Steers (1990) proposed that teenage workers consistently have the highest rate of absenteeism. They suggested the relative importance of non-work activities in their lives, the generally menial nature of their jobs, and the absence of family responsibilities account for teens' absenteeism. Other findings by Rhodes and Steers indicated that women are absent from work more often than men at the rate of 6.3% annually for women and 3.7% annually for men. Union members are more likely to be absent than non-union workers. One interesting observation by Rhodes and Steers was

workers are less likely to be absent during a recession due to fear of losing their jobs and, during a layoff situation, workers with poor attendance tend to be the first to be released from their jobs.

Strategies to Improve Employees' Attendance

Employees must be treated decently, justly, and fairly by the organization for the business to prosper. Well-treated employees will become loyal, reliable, productive workers. It is to the benefit of a company to provide a safe, clean work environment and to make efforts to meet the needs of the employees; thereby, avoiding constant rehiring and retraining costs (Vallance, 1995). Although these responsibilities of employers are essential, employees have a responsibility to employers.

> An employee's absence from work deprives his employer of the central reason for the contract of employment, i.e.: the employee's services. Unless an employer is willing to abdicate his responsibility and his right to manage and direct his business affairs, he must act responsibly and responsively to such problems. What he is or is not entitled to do has not always been clear, however. (Goloff, 1999, p. 1)

The Americans with Disabilities Act (ADA) and the Family and Medical Leave Act (FMLA) protect employees whose illness or disability is considered serious enough to limit a major life activity. Employers must follow government guidelines when working with an employee's absences that are protected by these laws. However, limited as they may be, employers are entitled to certain rights and protections (Knudsen, 1996). An employer has the right to require a doctor's examination to see if the employee is able to work. The employee is responsible for informing the employer of any health condition

that interferes with his/her work. An employee who accepted a job can be expected to be available to work, as the job requires, unless the employee qualifies for a job accommodation (under ADA) or a medical leave of absence (under FMLA). Even if a company is covered by ADA and FMLA, an employee's health conditions or reasons for absences might not qualify for special consideration under the law (Knudsen).

Pitone (1986) suggested some company policies might actually encourage absenteeism rather than attendance from employees. A policy not clearly stated or not consistently enforced is ineffective. Company sick leave programs may encourage absenteeism because employees feel they are granted a certain number of annual sick days; therefore, they are entitled to take them. Also, poor communication through performance evaluations or personal discussions with a returning employee may encourage absenteeism. After an employee returns from being absent, the language used by the supervisor may give the employee the impression that the absence was acceptable. For example, rather that stating the importance of the employee being at work, the supervisor may sympathize with the employee and give the impression that he/she agrees that the absence was deserved.

The 1999 CCH Unscheduled Absence Survey by CCH Inc., Riverwoods, Illinois, examined a variety of work-life programs and asked respondents to rank their effectiveness in controlling unscheduled absences ("Putting on the Brakes," 2000). The top programs chosen were provisions for childcare, leave for school functions, flexible scheduling, emergency childcare, compressed workweek, and on-site childcare. Of the companies surveyed 58% provided flexible scheduling, 29% offered a compressed workweek, 26 % authorized leave for school functions, 18% offered emergency child

care, and on-site childcare and childcare referral were each available in 16% of the companies. Other initiatives for improving attendance were buy-back programs and no-fault systems. In the buy-back program employees were given a bank of hours to be used for sick leave, vacation, and personal time. Employees were compensated monetarily for unused leave time. The no-fault program limited the number of unscheduled absences allowed, regardless of circumstance. No disciplinary action was taken against the employee unless he/she exceeded the allowed number. The no-fault approach is consistent for all employees; however, the program is inflexible and does not accommodate for special circumstances.

"The golden rule for controlling absences; therefore, is know thine enemy" (Evans & Palmer, 1997, p. 1). Not only must the employer know the number of workers' absences, but also what they look like: short- or long-term, age- or gender-related, departmental or individual occurrences, common days of the week or month for absences. One hard-line suggestion to fight absenteeism is to pursue sick-time abusers without mercy and to eliminate them without recourse (Pascal, 1998). Pascal suggested two approaches to curtail absenteeism. The easy, cost-effective solution in a non-union environment is to simply sit with abusers and tell them that their services are no longer needed. The more difficult, time-consuming approach is to document absenteeism for all employees in the organization. Once an average absentee rate is established, then focus upon the extremes, take remedial action, give documented warnings, and follow with termination. Regardless of the approach, an ideal attendance policy should be fair and consistently applied, should be rewarded, should be easily understood and administered, and should be financially sound (Parker, 1995).

Work Ethic as Reflected by Students' Absenteeism

Attitudes and behaviors that reflect work ethic such as dependability, commitment, and loyalty can become evident through a person's attendance habits. These attendance habits are sometimes established during adolescence and continue into adulthood. Good attendance patterns or unacceptable absenteeism patterns formulated during the middle school and/or high school years continue into the employment years (Linnehan, 1996). Attendance at school is important not only because it is a part of having a good work ethic, but also for maintaining acceptable achievement levels. Students must be present at school to stay abreast of the lessons and to achieve an adequate education for the future. School administrators continuously strive to establish policies that will encourage good attendance at school. Identifying the predictors of student absenteeism is an important step in creating strategies to use to inspire students to develop a positive attitude toward attendance as well as a positive work ethic.

Factors Influencing Absences from School

A study conducted by Porwoll (1977) for the Educational Research Service in Arlington, Virginia, identified factors that relate to student absenteeism. He classified these factors into the following groups: students' personal and family life, students' social and economic environment, school atmosphere, and general environmental influences. Personal factors that affected school attendance included illness, accident, lack of motivation, poor self-image, learning disabilities, disregard for the seriousness of unexcused absences, and physical, mental, and emotional handicaps. Family influences such as marital problems, erosion of parental control, and unfavorable parental opinion toward education contributed to students' absences from school. Social and economic

reasons for missing school included religious or ethnic holidays, peer pressure, drug and alcohol use, need to seek employment, household or family duties, recreational activities, family vacations, and race and ethnic group status (Porwoll).

In-school, personnel factors were identified as unsatisfactory relations between the school staff and the student and his/her parents, personal conflicts with teachers, ineffective teaching, inadequate or poor staff direction and supervision, staff attitude toward attendance, and ineffective attendance monitoring program. Other in-school factors included poor learning environment, inadequate program selection, inappropriate curriculum, little variety in class schedule, and the lack of students' ability to personally identify with school assignments. An inadequate means of transportation, inclement weather, a strong competition from community events and other outside forces, and the lack of business, governmental, medical, and personal services offered at convenient out-of-school hours were listed as environmental influences that affected students' attendance habits (Porwoll, 1977).

Although Porwoll's extensive list of reasons for students' absenteeism was identified over 20 years ago, these factors are still major influences on absenteeism in today's high schools. In 1994, Kleine reported to the annual meeting of the American Education Research Association in New Orleans, Louisiana, the outcome of a two-year pilot program that was implemented to reduce student absenteeism in a medium-sized city school. Factors identified through Kleine's study as causes for absences from school included inadequate or inappropriate school curriculum, poor relationships with teachers and school staff, family attitudes toward education, peer pressures, social values, economic circumstances, age, and health. Another recent study conducted for the Scottish

Council for Research in Education by Malcolm (1996) explored the links between school attendance, truancy, and performance. Data was gathered through interviews with teachers and through questionnaires distributed to students. Secondary-school students reported major reasons for their absences from school as boredom with the school curriculum and the benefit of employment for earning their own money. In a report for the United States Department of Education, the Office of Educational Research and Improvement, DeKalb (1999) also sited boredom and loss of interest in school as major causes for absenteeism. She identified irrelevant courses, suspension, and bad relationships with teachers as factors students' stated for absenteeism. Teachers, however, believed that students' absences were mainly a result of students' personal problems with family and peers.

Dougherty (1999) traced causes of absenteeism to (a) an unsupportive school environment, (b) lack of community support, (c) chaotic family life, (d) personal deficits, (e) weather and transportation, and (f) poor health. Teachers and administrators often overlooked their influence upon student absences. Students found school more rewarding if teachers and administrators gave frequent praise, interacted positively with students, minimized reprimands, and provided opportunities for students to be successful. Personal illnesses, a death in the family, and family emergencies have always been acceptable reasons for student absences. However, common reasons for absences in today's society include vacation, good weather, hair appointments, "senior skip day," and avoidance of scheduled tests. Increased absences, whether legitimate or not, cause the average daily attendance to drop, student achievement to decline, and teacher workload for makeup assignments to increase.

Increases in Students' Absenteeism

Regardless of the reason for student absenteeism, the percent of students who miss school on a regular basis continues to increase. Porwoll (1977) sited statistics by the United States Department of Health, Education, and Welfare from 1975 that reported the normal rate of absenteeism was about four to five percent (seven to nine days in a 180-day school year). Rood (1989) noted that across the United States on any given day, some 2.5 million students are absent from school. On the average Monday, urban high schools typically report an absence rate of 30%, and it was not uncommon for many high school students to miss from 20 to 90 days of school in an academic year. By 1992, the United States Department of Education reported that nationwide, the absentee rate had increased to about ten percent (18 days in a 180-day school year) (Kleine, 1994). The *Manual to Combat Truancy*, prepared by the United States Department of Education (1996a), reported that although no national data on the extent of truancy exists, unexcused absences from school can number in the thousands each day in some cities. For example, in Pittsburgh approximately 3,500 students or 12% of the pupil population was absent daily and about 70% of these absences were unexcused. Likewise, Philadelphia reported 2,500 unexcused daily absences; Milwaukee reported 4,000 unexcused absences on any given day. In her 1999 report, DeKalb stated that absentee rates reached as high as 30% in some cities. She cited the following cities as examples that are fighting extremely high absenteeism: in New York City about 150,000 out of 1,000,000 students were absent daily, in Los Angeles, 10% of the students were absent each day, and in Detroit forty public school attendance officers investigated 66,440 truancies during the 1994-1995 school year.

The United States Department of Education, National Center for Education Statistics (1996b) emphasized the importance of improving the absentee rate of America's students.

> An important aspect of students' access to education is the amount of time actually spent in the classroom. Students, who are absent from school, arrive late, or cut class, forgo opportunities to learn. Furthermore, students who disrupt classes by being late or frequently absent interfere with other students' opportunities to learn. And, maybe most importantly, the habits of consistent and on-time attendance are habits that will serve young people well in their future work lives. (p. 1)

Profile of the Absent Student

Many researchers have attempted to identify characteristics of students who have a tendency to be absent from school (Brown, 1999; Kleine, 1994; Porwoll, 1977; Rood, 1989). The profile of students who have poor attendance habits has not changed greatly over the decades. Porwoll (1977) reported the following identifying factors of students with high absentee rates: older students (girls in grades 9 through 11 and boys in grade 12), black students, students living with one parent, students in the general program of study, students with lower class ranks, students with lower IQ scores, students not participating in school activities, students claiming no religion, and students with poor personality ratings from teachers. Rood (1989) identified characteristics of absent students: (a) absenteeism usually increases through high school, (b) girls have higher absentee rates than boys during the first three years of high school, (c) minority students are more likely to be absent than whites, (d) students with higher grade point averages

have better attendance, (e) students in college preparatory programs are present more often than those in general, vocational, or business programs, (f) students from one-parent families have poorer attendance than those from traditional two-parent families, and (g) students who participate in a variety of co-curricular activities will generally have better attendance than non participants.

Kleine (1994) examined the outcomes of the Chronic Absenteeism Pilot (CAP) project designed to combine community agencies, school personnel, parents, and students to provide student-centered services to chronically absent students and their families. She cited studies that found correlation between absenteeism and other factors such as home background, socioeconomic status, lack of parental interest, and the increase in students' ages. Students from homes without a father, with many children in the family, or with incomes below the average family income had a tendency to be absent from school. Females constituted a significant portion (42%) of the chronically absent students in Kleine' study. Also, students who enrolled in work-study programs appeared to have a high rate of absenteeism (48%). She reported that the proportion of absenteeism of Caucasian and African-American students reflected the ethnic composition of the school system. Therefore, no correlation between ethnicity and absenteeism was evidenced in the study.

The 1996 report by the United States Department of Education National Center for Education Statistics stated absentee rates were highest in central city schools and lowest in rural schools. Absentee rates generally increased with rates of student poverty as measured by the number of students eligible for free or reduced-price lunches (1996b). Schools with more than 40% of their students eligible for free or reduced-price lunches

had a higher absentee rate (10%) than schools with lower numbers of eligible students (7 to 8%). Brown (1999), in his study of the history of student absenteeism through records obtained from the Toronto Board of Education, 1850-1997, concluded that there was a consistent relationship between age and average absenteeism. He also reported that students living in a two-parent home were significantly less likely to have high rates of absenteeism. Brown further stated that factors having a significant influence on the absentee rate of ninth grade students were post-secondary plans, hours spent on homework, part-time employment, the language spoken at home, the type of high school attended, and the student's academic level. Unlike Kleine (1994), Brown reported that gender was a minor influence on absenteeism from school.

Strategies to Improve Students' Attendance

Unexcused absences and truancy from school are initial indicators that a student is giving up on his/her education or that he/she is beginning to lose his/her way. Not only is absenteeism detrimental to students' achievement, promotion, graduation, self-esteem, and employment potential, but truant students are also at a higher risk of dropping out of school and of becoming involved in crime (DeKalb, 1999; Garry, 1996; U. S. Department of Education, 1996a). Students who dropout of school are more likely to be unemployed and on welfare than high school graduates (Office of Juvenile Justice and Delinquency Prevention, 2000; U. S. Department of Education).

Many programs designed to improve school attendance habits, in an effort to prevent school dropouts and adolescent crime, have been implemented by local school administrators and central office personnel, parents and community organizations, local and state governments, as well as the United States Department of Education (1996a).

These programs range from simple attendance policies enforced at the school level to coordinated effort between schools, community groups, and government agencies. An effort by the federal government to aid in prevention of school dropouts and in reduction of juvenile crime was announced at a National Education Association meeting on July 3, 1996. This program provided $10 million in grants to develop innovative programs to address truancy for 25 school districts. In 1996, the White House sent the *Manual to Combat Truancy* to all of the nation's school districts as part of an anti-truancy initiative (U. S. Department of Education).

Statistics indicated a correlation between increases in truancy rates and increases in daytime crimes such as burglaries and vandalism (DeKalb, 1999; U. S. Department of Education, 1996a). In Tulsa County, Oklahoma, one hard-line approach to break the "truant-to criminal evolution" involved taking truants and their parents to court. During the first three years of the program's implementation, 600 cases were prosecuted resulting in 300 convictions in which a parent was fined and mandated to attend counseling. This successful program was instrumental in reducing the district's dropout rate by 45% (DeKalb). Several programs were implemented nationwide that coordinated efforts between the school system, the local police department, and the courts. Four successful programs were located in Houston, Texas; Milwaukee, Wisconsin; Rohnert Park, California; and Oklahoma City, Oklahoma (Houston Independent School District, 1997; U. S. Department of Education, 1996a). The common thread among these four programs was the involvement of police officers to locate truants. In the case of Houston, Texas, deputies visited the homes of truants in the evening to discuss absences with parents and the student. The attendance rate in the Houston school district increased

under the program from 91% to 93.6% during the 1996-97 school year (Houston Independent School District).

The Milwaukee, Wisconsin program, *Truancy Abatement and Burglary Suppression* (TABS) encouraged local police officers to pick up truant students and take them to a Boys and Girls' Club for counseling. Parents were notified and allowed the opportunity to curtail their student's truancy. Any parent who did not support regular school attendance of their student was referred to the district attorney. A 30-day follow-up survey of the students who went through the TABS program reflected that 64% of these truant students remained in school. Milwaukee also reported a 33% decrease in daytime burglaries. In Rohnert Park, California, *The Stop, Cite, and Return Program*, and in Oklahoma City, Oklahoma, *Truancy Habits Reduced Increasing Valuable Education* (THRIVE), similar results were obtained. Rohnert Park had a 75% decrease in daytime burglary; whereas, Oklahoma City reported a 33% decrease (U. S. Department of Education, 1996a).

Other less radical, successful approaches to improve attendance provided tutoring services to students, counseling programs for students as well as parents, participation in community services projects, appearance before a peer panel, and attendance monitoring via computer programs (U. S. Department of Education, 1996a). The U. S. Department of Education offered the following suggestions for deterring truancy: involve parents in all truancy prevention activities, ensure that students face firm sanctions for truancy, create meaningful incentives for parental responsibility, establish ongoing truancy prevention programs in schools, and involve local law enforcement in truancy reduction efforts.

Many schools have developed attendance programs to reward good attendance. These programs have involved a variety of extrinsic rewards, such as final exam exemption, to encourage students to be at school each day. Sturgeon and Beer (1990) collected attendance data from 1976 to 1989 for a rural high school district in north central Kansas. An attendance reward, exemption from taking semester tests, was implemented in 1980 to decrease the absenteeism. Students who meet the following requirements were exempt from semester tests: (a) students with an "A" average and three or fewer days of excused absences for the semester, (b) students with a "B" average and two or fewer days of excused absences for the semester, (c) students with a "C" average and one or fewer days of excused absences for the semester, and (d) students with perfect attendance for the semester. During the 1976-1977 school year, the total enrollment of 214 students accumulated 1,493 days absent. During the 1989-1990 school year, the total enrollment of 134 students accumulated 259 days absent. Sturgeon and Beer concluded that rewarding these students for attending school significantly improved the attendance rate. "There is no guarantee of learning, but offering incentives for students to attend school is a step in a constructive direction" (Sturgeon & Beer, p. 762).

Ingram's (2000) study reviewed public school programs that used extrinsic incentives to increase attendance, decrease dropout rates, and increase academic achievement. Extrinsic incentives were designed to increase student achievement, self-worth, retention, and intrinsic motivation. For incentives to be successful, they must establish definite patterns of change in behavior, connect with student's interests, and reflect consistent standards of implementation. Educators do not universally support incentives in education, because many believe that extrinsic rewards undermine the

individuals' intrinsic motivation. Some educators contend that extrinsic rewards lead to a dependence on acceptance, approval, and reinforcement from others. Supporters of extrinsic incentives argue that external rewards can increase performance at school and work. Ingram concluded that extrinsic rewards could either enhance or reduce interest in an activity depending on how rewards are used. Despite the controversy, incentive programs can serve a valuable function by providing additional sources of motivation and support for students.

Reward programs are not the only approach to addressing the issue of absenteeism. Another method designed to improve students' school attendance is the development of classroom activities that emphasize the importance of good attendance habits and the effect absenteeism has upon performance and achievement. Career and technology educators' efforts to improve school attendance focused upon stressing the importance of attendance, teaching desirable work ethic, and instilling positive attitudes. In a study conducted by Schmidt et al. (1997), curricular activities and teacher characteristics were identified as beneficial to successfully instill school-to-work ethic in high school students. Activities centered on providing workplace experiences for students through school activities, workplace representatives' involvement in the curriculum and instruction, and students' experiences in organized workplaces. Essential teacher characteristics were identified as demonstrating positive attitudes toward work, modeling professional appearance and conduct, understanding and meeting students' needs, and establishing and maintaining relationships with people in the workplace. Also important for a successful program were commitment to teaching, knowledgeable and competency

in teaching field, use of creative and innovative teaching methods, and being adaptable and open to change (Schmidt, et al.).

Henderson (1979) stated the importance of teaching work ethic and reinforcing positive attitudes by using indirect methods. Modeling responsible conduct and displaying appropriate dress and grooming were effective methods of encouraging students to develop a desirable work ethic. Teamwork, cooperation, dependability, and responsibility can be learned through role-playing, case studies, and cooperative learning activities. Henderson stressed the importance of teacher reinforcement of good public relations, decision-making skills, dependability, and effective employer-employee relations. Wells (1998) also stated the effectiveness of indirect methods of teaching work ethic, but added direct and self-evaluations methods as equally important. Direct-teaching methods helped introduce students to concepts of workplace culture and to differences in values and behaviors as influenced by various settings (i.e. in school, with peers, or in a work environment). Self-evaluation of work behavior allowed students an opportunity to internalize appropriate and inappropriate behavior in the workplace and to evaluate their own behavior in these terms (Wells).

Miller and Coady (1986) outlined strategies for developing a positive work ethic and desirable work behavior through a three-stage process. In Stage One, student conduct was determined by active, external enforcement of rules and regulations that was reinforced by consequences (reward or punishment). Through this stage the student learned what behavior was expected in a given situation. Throughout Stage Two, student behavior was guided by norms that have been incorporated into a repertoire of behavior over a period of time. The student responded to ethical conflict by reviewing past

experiences and identifying rules of conduct learned through these experiences. In Stage Three, students began to attach meaning and value to behavioral norms and rules of conduct. Students were free to choose to act in accordance with rules and regulations imposed by others, to respond with previously learned patterns of behavior, or to develop a new pattern of responses based upon their understanding of the principles of ethical conduct in the work environment. Teaching work ethic was best construed as the development of an enabling work ethic through "the ability to recognize ethical problems and issues within the work context, ethical reasoning skills, the ability to resolve ethical conflicts within oneself and with others in the work environment, and the ability to successfully implement ethical decisions" (Miller & Coady, p. 8). Similar strategies would be most effective in encouraging good attendance habits.

Gregson (1994) researched a problem-based approach for incorporating employability skills, such as attitude and responsibility, into the career and technology education curriculum. He conducted a qualitative case study with 63 trade and industrial students and their employability skills instructor. Through the use of cooperative learning, problem solving, and dialogue among the students and the instructor, the six-week curriculum focused upon how to get and how to keep a job. The Behavior Event Interview (BEI) instrument was used to record thoughts and behaviors of students and the instructor during discussions of case studies presented in written form and through interactive videos. Gregson also collected information through observation and through documents such as questionnaires, assignments, and examinations. A flexible curriculum allowed the instructor to present case studies relevant to the students' personal experiences in the workplace. Although students expressed dislike for the written

assignments, all students eventually became actively involved in class discussions and acknowledged the benefits of discussing work-related problems with other students. One drawback of posing and discussing problematic case studies was the considerable time required to cover the curriculum in a student-centered classroom. However, the instructor noted that the trade-off between student involvement and class time was worth the benefits students received. By reflecting upon work values and attitudes and by promoting critical thinking skills, students were better prepared to enter the rapidly changing work place (Gregson).

These instructional methods designed to instill affective work ethic in students and to encourage school attendance are aimed at preparing students to be successful in the workplace. Students who do not develop good attendance habits will have difficulty obtaining the academic success necessary to become successful employees. Career and technology educators should become leaders in developing programs that address work ethic and appropriate attendance habits. Career and technology programs should include methods of teaching affective work ethic attributes and addressing the importance of attendance to enable students to be successful both in school and at work.

School Attendance and Career Success

No studies were found that specifically examined the relationship between high school attendance and postsecondary job attendance. “Given that in-school outcomes have been shown to have positive effects on postsecondary work experiences, the in-school behavior of school attendance could lead to the out-of-school behavior of work attendance” (Linnehan, 1996, p. 76). Linnehan examined the effectiveness of a career academy program based upon successful transition from school to work including

attendance as a variable. His study of data collected from academy alumni differed from previous research on school-to-work transition programs that measured the effectiveness of the program using only academic measures such as grades, graduation rates, and high school credits earned. Linnehan's study of the Philadelphia Business Academy, a school within a school designed to prepare students for employment in such diverse fields as law, aeronautics, business, electronics, tourism, and finance, measured the effectiveness of the program using outcomes relevant to employment, such as job performance and work attendance. The General Model of Work Outcomes developed by Hotchkiss (1984) provided the theoretical framework for his study. This model is a general representation of the mechanism in which schooling and background variables affect post-high school outcomes. The General Model of Work Outcomes implies that control variables such as ethnicity, gender, and socioeconomic status have an effect on "school process variables," curriculum, and course work taken while in high school. These school process variables have a direct influence on in-school outcomes, such as grades and attendance, and will have an indirect effect on the postsecondary outcomes, such as attendance and job performance. Linnehan's survey instrument contained three questions concerning work attendance and two questions concerning school attendance. Participants were asked to indicate the number of absences from work for the past 3 months, 6 months, and 12 months. They were also asked to indicate the number of absences from school during their last year of junior high school and their last year of high school. The participants included 253 alumni of the Philadelphia High School Business Academy, 275 employees from six large organizations in the Philadelphia metropolitan area, and 310 job applicants from the same six organizations. The employees and job applicants were approximately

the same age as academy graduates, ages 19 to 23, and held or were seeking positions that did not require college degrees. School attendance was found to have a direct impact on postsecondary work performance and attendance. Results of the study indicated that the career academy program's positive impact on high school attendance had a positive impact on work attendance.

The Oregon State Department of Education (2000) described strategies necessary to develop students' sense of connection to the school environment to improve attendance, motivation, and post-high school success. These strategies were organized around four types of experiences designed to help students connect with the school environment.

1. *Belonging* strategies included creating schools within schools, promoting positive peer relations, building connections to the community, and providing special help for highly mobile students.
2. *Competence* strategies included holding high expectations for students and providing opportunities for authentic learning and assessment.
3. *Empowerment* strategies included providing opportunities for students to work together and promoting meaningful participation in policy and decision-making.
4. *Usefulness* strategies involved organizing service-learning projects.

The critical link between students' relation to school environment, attendance, attitude, motivation, academic performance, and post-high school success could be connected by incorporation of these four strategies into the school curriculum. The Oregon guide also discussed the importance of connections beyond the school day such as co-curricular activities, extended-day programs, and summer learning programs.

Efforts to help students feel they belong to the school environment improved the students' self-efficacy and made the transition from school to work an easier, successful entry (Cobb County School District, 2002a).

Summary

Because absenteeism affects the performance of employee production and of student academic achievement, increasing absenteeism at work and school was a concern for employers and educators, (DeKalb, 1999; Pitone, 1986; Rhodes & Steers, 1990; Rood, 1989; Sarudi, 2000; Taylor, 2000; U. S. Department of Education, 1996a, 1996b). The review of literature revealed similar influences between employee and student absenteeism. Motivation to attend work or school and the social norm of the organization that governed absenteeism affected employees' and students' attendance habits (Chadwick-Jones et al., 1982; DeKalb, 1999; Dougherty, 1999; Hill & Trist, 1953; Kleine, 1994; Malcolm, 1996; Porwoll, 1977; Rhodes & Steers, 1990; Steers & Rhodes, 1978). Employee absenteeism was influenced by personal characteristics of the employee, organizational policies and practices, and external factors such as economic conditions and family responsibilities (Evans & Palmer, 1997; Rhodes & Steers). Student absenteeism was influenced by personal and family factors, social and economic conditions, school atmosphere, and general environmental conditions such as weather and transportation (DeKalb; Dougherty; Kleine; Malcolm; Porwoll).

The review of literature also identified several similar characteristics of the absent employee and student. Age, gender, economic status, career level, and home environment were presented as characteristics or predictors of employee absenteeism (Federal Aviation Administration, 1998; Rhodes & Steers, 1990). Similar characteristics such as

age, gender, economic conditions, career path, and family situation were presented as predictors of student absenteeism (Brown, 1999; Kleine, 1994; Porwoll, 1977; Rood, 1989; U. S. Department of Education, 1996b). Academic achievement and grade level were also cited as possible predictors of school attendance (Brown; DeKalb, 1999; Dougherty, 1999; Kleine; Porwoll). These seven characteristics of student absenteeism (age, gender, grade level, career path, academic achievement, family situation, and economic conditions) were chosen for further analysis in this study and were identified as age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in the free or reduced lunch program.

CHAPTER 3

METHOD

Participants

The participants selected for this study were high school students enrolled for the entire 2001-2002 school year in a metropolitan school system in the southeastern United States. The county in which the school system was located was an urban community of approximately 608,000 residents. At the time of this study, the county had a total employment of more than 288,300 persons with a median income of $57,361 (Cobb County School District, 2002a). Many national firms were represented in the county as were a growing number of international businesses.

The school district was among the largest three school systems in the state and the 28th largest in the United States. As of January 2002, the student population for the county was approximately 96,000 with an average growth of 2,700 students per year. The total high school enrollment for the 2001-2002 school year was approximately 23,000. This enrollment figure included ninth through twelfth grade students enrolled in the county's 14 high schools (Cobb County School District, 2002a).

The school selected for this study was located in the southwest portion of the county. As the oldest high school in the county, it was established as a community school in 1881 with a stable, homogeneous student body. The ethnic makeup of the student body during the 2001-2002 school year was 46% African American, 29% Caucasian, 15%

Hispanic, 8% Asian, and 2% other/mixed. For the 2001-2002 school year, the transient rate was 43% (Cobb County School District, 2002b).

The economic status of the community was determined in the number of students who received free or reduced lunches. During the 2001-2002 school year, 568 (33.9%) students received free or reduced lunches (Cobb County School District, 2002b). This figure might not be a true indicator of the students who were eligible to receive free or reduced lunch because the five elementary and two middle schools in the community reported from 78 to 99% of their students receiving free or reduced lunch.

During the 2000-2001 school year, students averaged 888 on the Scholastic Assessment Test (SAT). The average on the verbal portion of the SAT was 448. The average on the math portion was 400. Percent of students passing the Georgia High School Graduation Tests (GHSHT) for the 2001-2002 year were: writing, 85%; language arts, 90%; math, 81%; social studies, 69%, and science, 57% (Georgia Department of Education, 2002).

The school's enrollment information for the 2001-2002 school year is shown in Table 1 (Cobb County School District, 2002b).

Table 1

Enrollment for the 2001-2002 School Year

	Gender		Grade level			
Total	Male	Female	9	10	11	12
1674	872	802	571	410	366	327
%	52	48	34	24	22	20

Of the 1674 students enrolled on May 30, 2002, only 1358 students were enrolled for the entire school year. Students who were not enrolled for the entire school year were not included. The size of the sample population was determined from the *Table for Determining Sample Size from a Given Population* (Research Division of National Education Association, 1960) that indicated 296 participants as the sample size for a population of 1358. A report was printed from the school database that provided age, gender, grade level, diploma program, class rank, number of parents in the home, participation in free or reduced lunch program, number of absences for the year, and date of enrollment. No student names or student identification numbers were printed in the report. Students who entered school after the first day of school were eliminated from the list. Using a table of random numbers, the number seven was selected as the deciding factor for choosing participants. Every seventh student listed in the report was selected as a participant in this study until 296 participants were chosen.

Research Design

The research design for this study was causal-comparative. Causal-comparative research is advantageous for educational research because it does not involve the manipulation of independent variables. This research method is considered *ex post facto* research because possible causes can be studied after they have presumable exerted their effect on other variables (Gall, Borg, and Gall, 1996).

Variables

The independent variables for this study were age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in the free or reduced lunch program. These variables were identified in previous studies as factors that

have an influence on absences from school. Table 2 lists the independent variables used in the study along with the coded measurements for each.

Table 2

Variables and their measurement for the regression analysis

Variable	Measurement
Age	Actual age 14 though 22 was used
Gender	0=Male; 1=Female
Grade level	A *k-1 dummy* coding was created with 4 levels: 9th grade was coded 1, 0, 0 respectively for each category; 10th grade was coded 0, 1, 0; 11th grade was coded 0, 0, 1; and 12th grade was coded 0, 0, 0.
Diploma program	A *k-1 dummy* coding was created with 6 levels: Dual was coded 1, 0, 0, 0, 0 respectively for each category; Dual with distinction was coded 0, 1, 0, 0, 0; College Prep was coded 0, 0, 1, 0, 0; College prep with distinction was coded 0, 0, 0, 1, 0; Technical was coded 0, 0, 0, 0, 1; Special Education was coded 0, 0, 0, 0, 0.
Rank in class	A percentage was calculated by dividing the student's given rank in class by the number of students enrolled in his/her class (nrank).
Number of parents in the home	1=One parent/guardian living in the home; 2=Two parents/guardians living in the home
Participation in the free or reduced lunch program	0=No participation; 1=Participation
Absences	Total number of days absent during the entire school year (180 days) were used

Diploma program and grade level were coded using a k-1 dummy code. A dummy code was necessary because categorical predictor variables cannot be meaningfully interpreted if entered directly into a regression model (Stockburger, 1998; J. Wisenbaker, personal communication, July 26, 2002). A categorical variable with *k* levels is constructed into *k*-1 variables that contain the same information as the single categorical variable. The newly constructed variables are dichotomous variables and can be directly entered into the regression model. Therefore, five dichotomous variables (dp1, dp2, dp3, dp4, and dp5) were constructed to represent the six levels of diploma programs (college preparatory, college preparatory with distinctions, technical, technical with distinctions, college preparatory with a technical endorsement, and special education), and three dichotomous variables (ng1, ng2, and ng3) were constructed to represent the four grade levels (grades 9, 10, 11, and 12). These additional variables were constructed for data analysis only. These constructed variables did not increase the number of independent variables in the study.

For the continuous variables (age and absences), actual numeric values were used. Rank in class was determined by dividing a student's rank by the number of students enrolled in his/her grade level.

The dependent variable for this study was the number of days a student was absent from school during the 2001-2002 school year. An absence was indicated in the school database if a student missed more than half the school day. Therefore, an absence could mean that the student was not at school at all for the day, came to school after 11:40 a.m., or checked out from school before 11:40 a.m.

Data Collection Procedures

An application to conduct research was submitted to the county board of education. With the consent of the high school principal, the county board of education granted approval for the data to be collected from the school's student database providing student confidentiality was maintained. The county's letter of approval was submitted to the University of Georgia with an Application for Approval of Research with Human Research Participants. With approvals from the county board of education (Appendix A) and the University of Georgia Institutional Review Board (Appendix B), a report was printed from the school's database. This report provided age, gender, grade level, diploma program, class rank, number of parents in the home, participation in free or reduced lunch, and number of absences, and date of enrollment for the 2001-2002 school year.

Data Analysis

A stepwise multiple regression analysis was used to determine which variables could be combined to provide the most significant predictors on student absenteeism. A leave-one-out regression analysis was also performed to determine the effect each independent variable had upon student absenteeism (Huberty & Petoskey, 1999). Frequency counts were computed for all independent variables and for the dependent variable. Descriptive statistics, standard mean, standard deviation, minimum, and maximum, were provided. All statistical calculations were performed using *The Statistical Package for the Social Sciences* (SPSS) version 10.0.7 for Windows.

CHAPTER 4

RESULTS

The purpose of this causal-comparative study was to analyze characteristics of high school students to provide predictors of absenteeism from school. Results of this study may contribute to the development of a work ethic instruction to be included in career and technology education programs.

Independent Variables

Age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in free or reduced lunches were analyzed as possible predictors of high school students' absenteeism. The variable, number of parents in the home, was adjusted to include parents and legal guardians. This adjustment was necessary because the database field that reflected the number of parents in the home did not distinguish between biological parents, legal guardians, and stepparents.

Participants

Although 1674 students were enrolled on May 30, 2002, only 1358 students had been enrolled for the entire school year. The population for this study consisted of only those students enrolled for the entire school year. Therefore, the size of the sample population was determined based on 1358. The 296 participants were randomly selected from the list of students enrolled for the entire school year. All records from the student database were complete; therefore, all 296 participants were used in the data analysis.

Research Question

What combination of age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in the free or reduced lunch program provides the best model for predicting rates of absenteeism for high school students?

Statistical Summary for Independent Variables

Table 3 provides descriptive statistics for all variables. Table 4 provides frequency counts for age.

Table 3

Component Descriptors

Variable	Mean	Minimum	Maximum	Std. deviation
Age	16.47	14	22	1.40
Gender	.50	0	1	.50
Grade Level	10.42	9	12	1.09
Parents in Home	1.74	1	2	.44
Free/reduced lunch	.23	0	1	.42
Class rank	.45	.00	1.03	.30
Diploma Program	1.83	1	6	1.43
Absences	15.97	0	89	15.81

Table 4

Frequency Table for Age

Age	Frequency	Percent
14	16	5.4
15	62	20.9
16	82	27.7
17	65	22.0
18	57	19.3
19	9	3.0
20	2	.7
22	3	1.0
Total	296	100.0

Students who enter high school at age 6 would be ages 15 to 19 in the spring of their ninth to twelfth grade years. Twenty-one participants (7.1%) were not in this normal 9th to 12th grade age range: 16 participants (5.4%) were age 14, 2 participants (.7%) were age 20, and 3 participants (1.0%) were age 22. Ages of most participants (92.9%) were within the range of 15 to 19 years of age.

Gender in the data set was evenly distributed with 148 males and 148 females which was a close reflection of the gender distribution of the school's student enrollment. The gender distribution of the school's enrollment was 872 males (52%) and 802 females (48%).

The grade level distribution for the school's student enrollment was: 9th grade, 571 (34%); 10th grade, 410 (24%); 11th grade, 366 (22%); and 12th grade, 327 (20%). The grade level distribution of the participants varied slightly: 9th grade, 77 (26%); 10th grade, 80 (27%); 11th grade, 76 (25.7%), and 12th grade, 63 (21.3%).

A majority of participants (70.3%) were enrolled in the dual diploma program. The dual diploma program consists of a college prep diploma with a technical endorsement. To receive a technical endorsement on a college prep diploma, a student must successful complete four technical classes. Since the school was on a 4 x 4 block schedule, students could receive 32 semester units during four years of high school. A minimum of 21 semester hours was required for high school graduation. With the flexibility of the 11 courses above graduation requirements, students were encouraged by administrators, counselors, and advisors to take advantage of this opportunity. Therefore, most students in the school participated in the dual diploma program.

A majority of the participants (74.0%) lived in a home with two adults present. The percent of the school's student enrollment that lived in a home with two adults present was 73.6%.

The distribution of students who received free or reduced lunch was similar to that of the entire student enrollment. The percentage of the study's participants who received free or reduced lunch (23.0%) was 3% less than the percentage of the school's student enrollment who received free or reduced lunch (26%).

Participant absences for the 2001-2002 school year ranged from 0 to 89 (Appendix C). Two hundred and nine (209) participants reported 20 or less absences that accounted for 70.6% of the total absences. Therefore, 87 participants reported 21 to 89

absences that accounted for 29.4% of the total absences. Appendix C provides the frequency counts for absences.

Summary of Data Analysis

A stepwise regression analysis was used to determine which variables could be combined to provide the best predictors of student absenteeism. The independent variables were age, gender, number of parents in the home, participation in free or reduced lunch program, grade level (ng1, ng2, ng3), diploma program (dp1, dp2, dp3, dp4, dp5), and class rank (nrank). A test of normality was performed using SPSS. A normal probability plot (Appendix D) was virtually linear that indicated the condition of normality was satisfied.

Because R^2 is expected to get larger as variables are added to the equation, the regression model will predict the data better if it has more components. The adjusted R^2 value corrects for this increase by considering the number of independent variables in the model. "Rather than reporting an R^2 value, what is sometimes and more appropriately reported is an adjusted R^2 value" (Huberty, 1994, p. 354). R^2 and adjusted R^2 values were determined using all independent variables and were reported in Table 5.

Table 5

R^2 and adjusted R^2 Using All Independent Variables

N	R^2	Adj. R^2	Std. Error
296	.042	-.002	15.83

With shared variances of .042 and -.002 for R^2 and adjusted R^2 respectively, no combination of the independent variables could be considered predictors of absenteeism

for high school students. Correlation coefficients were considered for further analysis. Table 6 presents the correlation coefficients for each independent variable. The correlation coefficient matrix for all variables is presented in Table 7.

Table 6

Correlation Coefficients for the Independent Variables

Variable		Standardized coefficients	t	Sig
Age		-.041	-.379	.451
Gender		-.102	-1.694	.091
Parents in Home		.002	.029	.977
Class rank (nrank)		-.050	-.750	.454
Free/reduced lunch		.113	1.882	.061
Grade level	ng1	-.124	-.976	.330
	ng2	-.006	-.054	.957
	ng3	-.076	-.824	.410
Diploma program	dp1	.225	1.035	.301
	dp2	.093	.950	.343
	dp3	.212	1.309	.192
	dp4	.032	.337	.736
	dp5	.201	1.465	.144

n=296

Table 7

Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13
1 Age														
2 Gender		-.121												
3 Class rank		.287	-.151											
4 Parents in home		-.050	-.116	-.088										
5 Free/reduced lunch		-.009	.016	.109	.-.170									
6 Grade level	ng1	-.601	.039	-.129	-.017	.079								
7	ng2	-.198	.076	-.058	.101	-.043	-.361							
8	ng3	.225	.093	.142	-.075	-.008	-.349	-.358						
9 Diploma program	dp1	-.228	-.030	-.174	.103	-.084	-.137	-.363	.162					
10	dp2	.167	.020	-.129	.060	-.097	-.105	-.108	-.104	-.272				
11	dp3	.063	.050	.118	-.065	.120	.065	-.215	.045	-.599	-.069			
12	dp4	.004	.042	-.128	-.051	-.041	.044	-.101	-.098	-.256	-.030	-.065		
13	dp5	.025	-.048	.195	-.115	.029	.197	-.162	-.155	-.477	-.055	-.121	-.052	
Absences		-.001	-.089	-.019	.001	.099	-.046	-.055	-.036	-.018	.014	.034	-.052	.047

None of the independent variables were statistically significant. As a matter of interest, R^2 and adjusted R^2 values were determined for participation in the free or reduced lunch program and gender. A shared variance of 1% for participation in the free or reduced lunch program and less than 1% (.008) for gender verified that no statistical significance was indicated.

Although Table 11, *Frequency Counts for Absences*, (Appendix C), did not indicate any observance of outliers, several observances of high absences for the 180-day school years were reported. A cutoff level above 50 absences was arbitrarily selected as excessive absences. This cutoff eliminated 4.7% of the participants who had more than 50 absences. A stepwise regression analysis was performed to determine if any combination of the independent variables predicted absences for students with less than 50 absences for the year.

With shared variances of .080 and .036 for R^2 and adjusted R^2 respectively, no combination of the independent variables can be considered predictors of absenteeism for high school students. Correlation coefficients were considered for further analysis. Table 8 presents the correlation coefficients for each independent variable for observances with less than 50 absences for the school year. The correlation coefficient matrix for students with less than 50 absences for the school year is presented in Table 9.

Table 8

Correlation Coefficients for the Independent Variables for Students with less than 50 Absences

		Standardized coefficients	t	F Sig.
Age		-.056	-.514	.608
Gender		-.172	-2.864	.005
Parents in home		.015	.249	.803
Class rank (nrank)		-.035	-.534	.594
Free/reduced lunch		.047	.779	.437
Grade level	ng1	-.192	-1.513	.132
	ng2	-.050	-.455	.649
	ng3	-.157	-1.716	.087
Diploma program	dp1	.207	.963	.336
	dp2	.044	.457	.648
	dp3	.310	1.910	.057
	dp4	.042	.435	.664
	dp5	.225	4.659	.098

n=268

Table 9

Correlation Matrix for Students with less than 50 Absences for the School Year

			1	2	3	4	5	6	7	8	9	10	11	12	13
1	Age														
2	Gender		-.128												
3	Class rank		.299	-.139											
4	Parents in home		-.042	-.126	-.080										
5	Free/reduced lunch		.025	.012	.100	-.188									
6	Grade level	ng1	-.601	.036	-.137	-.034	.048								
7		ng2	-.203	.109	-.065	.099	-.034	-.359							
8		ng3	.230	-.110	.146	-.044	-.002	-.349	-.352						
9	Diploma program	dp1	-.230	-.036	-.177	.118	-.089	-.130	-.364	.158					
10		dp2	.155	.001	-.112	.052	-.092	-.102	-.103	-.100	-.258				
11		dp3	.062	.054	.115	-.068	.130	.065	-.218	.048	-.605	-.068			
12		dp4	.004	.044	-.133	.052	-.040	.044	-.103	-.100	-.258	-.029	-.068		
13		dp5	.025	-.035	.190	-.129	.012	.183	-.160	-.154	-.471	-.053	-.125	-.053	
Absences			.033	-.154	.014	.021	.049	-.054	.032	-.067	-.103	.012	.130	-.038	.077

A regression analysis for gender of students with less than 50 absences for the school year was determined. With a shared variance (R^2) of 2.4% gender was not statistically significant. A final analysis was performed to verify these results. An F-test was calculated to compare R^2 of all variables with R^2 of gender for students' with less than 50 absences. Using an R^2 of .080 and a *p*-value of 13 for all variables and an R^2 of .024 and a *p*-value of 1 for gender, $F_{12, 268} = 1.36$. No statistical significance was found.

None of the independent variables were statistically significant from the stepwise regression analyses. To determine which variable(s) most impacted absenteeism, a leave-one-out (*p*-1) analysis was performed. Each independent variable was deleted to determine the R^2_{adj} value based on the remaining six variables. "The variable that, when deleted, causes the largest drop in the R^2_{adj} is considered the most important" (Huberty & Petoskey, 1999, p. 27). Table 10 reports the results of the leave-one-out analysis. The results indicated that gender and participation in free and reduced lunch program had the greatest impact on absenteeism.

Table 10

Results of p-1 Variable Analysis

Variable deleted	R^2	R^2_{adj}
Age	.041	.001
Gender	.032	-.009
Class rank	.040	-.001
Parents in home	.042	.001
Free/reduced lunch	.030	-.011
Grade level	.032	-.002
Diploma program	.029	.002

n=296

Summary of Results

Examination of the use of age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in the free or reduced lunch program in a model to predict student absences indicated no statistical significance. Participation in the free or reduced lunch program and gender were analyzed separately, but indicated no statistical significance.

Due to the high number of absences that were reported in the study, a multiple regression analysis was performed on students with less than 50 absences during the school year. Gender indicated a .005 significant value; however, a regression analysis and an F-test on gender of students with less than 50 absences during the school year showed

no statistical significance. The leave-one-out analysis indicated gender and participation in free and reduced lunch program as having the greatest impact on R^2_{adj}.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this causal-comparative study was to analyze characteristics of high school students to provide predictors of absenteeism from school. Results of this study may contribute to the development of a work ethic instruction to be included in career and technology programs.

Variables identified as possible predictors of absenteeism were age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in the school's free or reduced lunch program. These variables were identified in previous studies as factors that have an influence on absences from school (Brown, 1999; Kleine, 1994; Porwoll, 1977; Rood, 1989). Porwoll listed several identifying factors of students with high absentee rates that included older students (girls in grades 9 through 11, boys in grade 12), students living with one parent, students in the general program of study, students with lower class ranks, and students not participating in school activities. Rood found absenteeism usually increases through high school years—girls have higher absentee rates than boys have during the first three years of high school. He also found that students with higher grade point averages have better attendance; students in college preparatory programs are present more often than those in general, vocational, or business programs; and students from one-parent families have poorer attendance than those from traditional two-parent families. Kleine found a correlation between

absenteeism and increases in students' ages, female students, homes without a father, and families with incomes below the average income. Brown concluded that there was a consistent relationship between absenteeism and age, students living with one parent, students' post-secondary plans, and students' academic level.

The rationale for this study was rooted in the literature that reported increases in employee and student absenteeism (DeKalb, 1999; Kleine, 1994; Pitone, 1986; Porwoll, 1977; Rood, 1989; Sarudi, 2000; Taylor, 1999, 2000; "Putting on the Brakes", 2000; U. S. Department of Education, 1996a, 1996b). Attitudes and behaviors that reflect work ethic such as dependability, commitment, and loyalty can become evident through a person's attendance habits. Employees who are absent from work have a direct effect upon the ability to maintain production goals, upon the costs of production, and upon the morale of other employees who must continuously cover for absent peers (Pitone). Attendance at school is important not only for establishing good work ethic, but also for maintaining acceptable achievement levels. Students must be present at school to stay abreast of the lessons and to achieve an adequate education for the future (U. S. Department of Education, 1996a).

This study was important in that identification of predictors of high school students' absenteeism can be beneficial to educators targeting students who have poor school attendance. Career and technology educators have a responsibility to become leaders in this effort to instill good work ethic and positive attendance habits in high school students (Gregson, 1994; Henderson, 1979; Miller & Coady, 1986; Schmidt et al., 1997; Wells, 1998). Dependability factors that stress the importance of attendance in

school and the necessity of good attendance in the work environment are a vital part of any career and technology program.

The following research question guided this study: What combination of age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in the free or reduced lunch program provides the best model for predicting rates of absenteeism for high school students?

The population for this study was students enrolled in a low achieving, low-income high school located in a metropolitan school district in the southeastern United States. The school district was among the largest three school systems in Georgia and the 28th largest in the United States. The school's performance on required standardized high graduation tests was among the bottom three of the 14 high schools in the county. Average Scholastic Assessment Test (SAT) scores for the same school year were 888. Approximately 26% of the students in the high school received either free or reduced lunches (Cobb County School District, 2002a).

Of the 1674 students enrolled on May 30, 2002, only 1358 students had been enrolled for the entire school year. Students who were not enrolled for the entire school year were not included in the study. The population for this study consisted of 296 participants from the 1358 students who were enrolled for the entire school year, not the entire student body.

Data for this study were collected at the end of the school year from the school's student database program. A report was printed that included the following information for all 296 participants: total number of absences for the school year, age, gender, grade level, class rank, diploma program, number of parents in the home, participation in free

or reduced lunch program, and date of enrollment. Data was collected without identifying students by name or by student identification number.

All statistical calculations were performed using The Statistical Package for the Social Sciences (SPSS) version 10.0.7 for Windows. A stepwise multiple regression analysis was used to determine which variables could be combined to provide the most significant predictors of student absenteeism. Frequency counts were provided for all variables. Descriptive statistics, standard mean, standard deviation, minimum, and maximum, were provided. A stepwise multiple regression analysis for students with less than 50 absences was also calculated. A leave-one-out analysis was performed to determine which variable(s) most impacted R^2_{adj}.

Conclusions

Age, gender, grade level, diploma program, rank in class, number of parents in the home, and participation in the free or reduced lunch program were analyzed to provide the best model for predicting rates of absenteeism for high school students.

Descriptive data for the participants closely resembled those of the entire school population. Average age of the participants was 16.47 years with 92.9% of the participants within the range of 15 to 19 years of age. Gender of participants was evenly distributed which was a close reflection of the school's enrollment: 52% males and 48% females. The grade level distribution for the school's student enrollment was closely reflected in the grade level distribution of the participants. A majority of the participants (70.3%) were enrolled in the dual diploma program that also reflects the school-wide enrollment. The percent of the school's student enrollment living in a home with two adults present was 73.6%; the percent of participants was 74.0%. The percentage of the

study's participants who received free or reduced lunch (23.0%) was 3% less than the percentage of the school's student enrollment receiving free or reduced lunch (26%).

A stepwise regression analysis was performed that included all variables and all 296 participants. No statistical significance was indicated. Correlation coefficients were then considered. None of the variables were statistically significant. Further regression analyses were performed using participation in the free or reduced lunch program and gender. No statistical significance was indicated.

Although no significant outliers were present, the large number of absences was considered questionable. Therefore, a stepwise regression analysis was performed using all variables but only participants with 50 or less absences. At .080 for R^2 and .036 for adjusted R^2 no combination of variables could be considered predictors of absenteeism. Correlation coefficients were then considered. A regression analysis for gender of students with less than 50 absences was performed. No statistical significance was found. A final analysis was performed to verify these results. An F-test was calculated to compare R^2 of all variables with R^2 of gender for students' with less than 50 absences. No statistical significance was indicated. No further analyses were performed.

The seven independent variables in this study were identified in previous research as characteristics of students who are absent from school. Although these variables proved significant in previous studies, statistical significance was not indicated in this study. A look at the social norm governing absences in the school studied might provide some insight into the results of this study. An attendance policy was not established by the school district at the time of this study. The last system-wide attendance policy for this system was discontinued in the early 1980s (T. Watson, personal communication,

October 10, 2002). This attendance policy denied a student credit for classes after the student had accumulated 15 unexcused absences for the quarter. The 15 maximum absences did not include excused absences. Therefore, a student could have 15 or more excused absences without losing credit under this policy. Issues that arose concerning enforcement of this attendance policy lead to the discontinuation of the policy. The school district allowed local schools to establish attendance policies. The high school in this study did not have an attendance policy in effect at the time of this study. High rates of absenteeism were considered a problem by the administration and faculty, but were not addressed through an established attendance policy. The social norm governing attendance did not provide clear guidelines for acceptable levels and reasons for student absences. An average of 15.97 days absent and a maximum of 89 absences for one student were indications of the school's relaxed attitude toward absenteeism. Administrators and teachers were annoyed by excessive absences, but rarely addressed individual student's absentee problems. Students were allowed to make up work missed during absences including suspensions; therefore, there was no academic penalty for being absent.

Various cultural, societal, and procedural differences between this study and previous studies might contribute to the differences in the results. Porwoll's study took place in 1977 at which time the normal annual rate of absenteeism was 4% to 5%. Although the National Association of Secondary School Principals considered absenteeism the number one problem in 1975, the absentee rate was significantly lower than rates reported in the 1900s (10%). Cultural and societal differences should be considered when comparing the results of Porwoll's study with this study. The student

population in Porwoll's study was homogeneous and relatively stable. The student population in this study was culturally diversified, and although the sample studied was enrolled in school for the entire year, the school reported a transient rate of 43%.

Klein (1994) and Rood (1989) studied absenteeism as it was affected by attendance policies. Klein's study focused upon a two-year pilot program established to provide coordinated, integrated, and student-centered services to chronically absent youth and their families. Rood's study examined characteristics of the absent student and absenteeism trends in schools that enforced attendance policies. No attendance policy was established for the high school in this study. Brown's (1999) study was an extensive case study that looked at absenteeism from several aspects. During the 1996-1997 school year, he studied attendance records of 75,000 students registered in the Toronto, Canada school district. This study was limited to 296 participants who represented a population of 1358 students who had been enrolled for the entire school year. The total school enrollment at the time of the study was 1674; therefore, 316 students were eliminated from this study.

These design and procedural differences among these studies might explain the differences in results between previous studies and this study. However, as with most studies, other factors might have contributed to the difference in results. Because this study involved data retrieved from the school's database that did not identify the individual participants, it was impossible to look at other possible predictors without compromising participants' rights to confidentiality. For example, participation in extra-curricular activities was identified in previous studies as having an effect on school attendance. The only method of obtaining data concerning participation in extra-

curricular activities from this high school was to identify each participant and question coaches, activity sponsors, and teachers about each student's extra-curricular activities.

Another possible issue that might have influenced outcomes in this study is the role work plays in the life of high school students, especially students in a low socioeconomic environment. Students who need to work to help their families or to support themselves may choose to be absent from school in order to go to work. A school with loose social norms for attendance creates an environment where students might choose work over school. Students may receive mixed messages concerning the importance of school attendance. Although school programs, especially career and technology programs, emphasized the importance of developing a good work ethic toward attendance, students were not penalized for being absent. Students could choose work over school, make up their school assignments, and at the same time, earn the money they needed to help support themselves and their families.

Recommendations for Further Study

The lack of statistical significance from this study does not conclude that there are no characteristics that predict student absenteeism. Research issues that should be addressed include changes in work ethic, responsibility of career and technology educators to instill work ethic in students, attendance and academic success, attendance and work productivity, and school attendance and career success.

Student absenteeism is a growing concern for educators; employee absenteeism is a growing concern for employers. Students' work ethic, loyalty to school, and desire for personal time away from school affect academic achievement. Employees' in work ethic, decreasing employee loyalty to employers, and workers' demand for time away from

work are important issues that impact the success of a business. Students' attitudes toward attendance are likely to be carried into the workplace. Educators and employers must develop programs, policies, and incentives to encourage daily attendance. Career and technology educators play a vital role in establishing these programs, in emphasizing the importance of being in attendance every day, and in influencing students to establish good attendance habits.

Although the results of this study did not indicate strong predictors of high school students' absenteeism, it did identify gender and socioeconomic status (as reflected in participation in free and reduced lunch programs) as possible predictors. Further studies of predictors of absenteeism should investigate gender and socioeconomic status as predictors of absenteeism. Studies should also be expanded to include high schools from middle and high socioeconomic communities to compare the total number of absences during a school year, and to compare student absences among schools with different socioeconomic background. Other variables such as ethnic background, participation in extra-curricular activities, and participation in work-based learning programs should be added to these studies.

Further studies should address absenteeism from school as a predicator of absenteeism from work. A longitudinal study that followed high school students through their first few years of full-time employment could provide further evidence that attendance habits established in school do continue into the workforce. Knowing if high school attendance habits are a strong predicator of future work attendance habits would be beneficial to educators, especially career and technology educators, for developing

programs to stress to students the importance of establishing good daily attendance habits.

Studies that address reasons for absences from school and work could provide insight into the problem of increasing absences. Both quantitative and qualitative studies should be considered. Quantitative studies could identify and classify reasons for absenteeism using instruments such as questionnaires, surveys, and motivational tests. Qualitative studies would be useful by identifying and interviewing students and employees who have good attendance habits as well as those who have poor attendance habits. These students and employees might provide beneficial information for identifying reasons of absences that could be used by educators and employers to develop programs and policies to address absenteeism.

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Appendix A

Appendix A

APPROVAL LETTER FROM COBB COUNTY SCHOOLS

cobb
county
public
schools

BOARD OF EDUCATION

Curt Johnston, *Chairman*
Gordon O'Neill, *Vice-Chairman*
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Laura Searcy
Johnny Johnson
Teresa Plenge

SUPERINTENDENT

Joseph J. Redden

May 2, 2002

Ms. Janet Teague
252 Shiloh Hills Dr.
Kennesaw, GA 30144

Dear Ms. Teague,

Your application to conduct research at Osborne High School has been approved. If you have any questions, please call the Research, Evaluation, and Student Assessment Office at 770-426-3407.

Sincerely,

Dr. Judith A. Jones

Dr. Judith A. Jones, Director
Research, Evaluation, Student Assessment

Post Office Box 1088 • Marietta, Georgia 30061 • Telephone: (770) 426-3300

Appendix B

Appendix B

APPROVAL FORM FROM THE UNIVERSITY OF GEORGIA

INSTITUTIONAL REVIEW BOARD

The University of Georgia

Office of The Vice President for Research
DHHS Assurance ID No. : M1047

Institutional Review Board
Human Subjects Office
606A Graduate Studies Research Center
Athens, Georgia 30602-7411
(706) 542-6514; 542-3199
Fax No. (706) 542-5638

APPROVAL FORM

Date Proposal Received: 2002-05-09 **Project Number:** H2002-10854-0

Name	Title	Dept/Phone	Address	Email
Ms. Janet Moore Teague	MI	Occupational Studies Rivers Crossing +4809	252 Shiloh Hills Drive Kennesaw GA 30144 (770) 516-2112	janetmlyle@cobbk12.org
Dr. Roger B. Hill	CO	Occupational Studies 209 Rivers Crossing 542-4100		

Title of Study: Development of a Prediction Model of High School Students' Absenteeism

45 CFR 46 Category: Expedite 7

Modifications Required for Approval and Date Completed: 2002-06-17
Clarified procedures.

ONLY APPROVED FOR BLIND DATA.

Approved : 2002-06-17 Begin date : 2002-06-17 Expiration date : 2002-09-16

NOTE: Any research conducted before the approval date or after the end data collection date shown above is not covered by IRB approval, and cannot be retroactively approved.

Number Assigned by Sponsored Programs: **Funding Agency:**

Form 310 Provided: No

Your human subjects study has been approved as indicated under IRB action above.

Please be aware that it is your responsibility to inform the IRB . . .
. . . of any adverse events or unanticipated risks to the subjects or others within 24 to 72 hours; . .
. . . of any significant changes or additions to your study and obtain approval of them before they are put into effect; . . .
. . . that you need to extend the approval period beyond the expiration date shown above; . . .
. . . that you have completed your data collection as approved, within the approval period shown above, so that your file may be closed.

For additional information regarding your responsibilities as an investigtor refer to the IRB Guidelines.
For your convenience in obtaining approval of changes, extending the approval period, or closing your file, we are providing you with a blue Researcher Request form. Detach this blue form, complete it as appropriate, sign and date it, then return it to the IRB office. Keep this original approval form for your records.

Copy:
Dr. Clifton L. Smith
Dr. Robert C. Wicklein

Christina A. Joseph, Ph.D.
Chairperson, Institutional Review Board

Appendix C

Appendix C

TABLE 11: FREQUENCY COUNTS FOR ABSENCES

Absences	Frequency	Percent
0	18	6.1
1	11	3.7
2	20	6.8
3	17	5.7
4	12	4.1
5	7	2.4
6	14	4.7
7	9	3.0
8	14	4.7
9	11	3.7
11	13	4.4
12	8	2.7
13	13	4.4
14	8	2.7
15	4	1.4
16	5	1.7
17	7	2.4
18	4	1.4

Table 11 (continued)

Absences	Frequency	Percent
19	4	1.4
20	4	1.4
21	4	1.4
22	4	1.4
23	5	1.7
24	2	.7
25	6	2.0
26	6	2.0
28	4	1.4
29	7	2.4
30	4	1.4
31	5	1.7
32	4	1.4
33	4	1.4
34	1	.3
35	2	.7
36	1	.3
37	2	.7
38	2	.7
40	1	.3

Table 11 (continued)

Absences	Frequency	Percent
41	1	.3
42	1	.3
43	3	1.0
44	1	.3
46	1	.3
48	1	.3
49	1	.3
51	2	.7
52	1	.3
53	1	.3
54	1	.3
61	1	.3
63	2	.7
66	1	.3
69	1	.3
74	1	.3
75	1	.3
76	1	.3
89	1	.3
Total	296	100.0

Appendix D

Appendix D

PROBABILITY CHART