1986

An Analysis of Teacher Absenteeism in Secondary School Districts in the Chicago, Illinois Metropolitan Area

David Joseph Schusteff
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AN ANALYSIS OF TEACHER ABSENTEEISM IN SECONDARY SCHOOL DISTRICTS IN THE CHICAGO, ILLINOIS METROPOLITAN AREA

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in Partial Fulfillment of the Requirements
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The purpose of this study was to analyze selected school districts and their teachers to determine if relationships existed between teacher absenteeism and leave policy, absence reporting procedures, and the personal variables of sex, age, marital status, and commuting time. This study addressed the following questions: (1) What does research indicate regarding the impact of employee absenteeism? (2) What does research indicate are factors affecting employee absenteeism? (3) What are the monetary costs incurred by the selected districts for teacher absenteeism on a per teacher basis? (4) How are a district's absence reporting procedures and leave policy related to teacher absenteeism both individually and collectively? (5) What are the relationships between the personal variables and teacher absenteeism considering each personal variable separately and in combination with each other?

Data for this study were collected through administration of two author-developed questionnaires. Responses were obtained from 29 of 30 secondary school district superintendents and 1,048 of 1,450 randomly selected teachers in those districts. The resulting data were analyzed using multifactor analysis of variance for

district variables and cross-tabulation and multiple regression analysis for personal variables. The .05 level of significance was used on all statistical tests.

Significant relationships existed between teacher absenteeism and the personal variables. Significant relationships also existed between teacher absenteeism and the combined effects of sex, age, marital status, and commuting time. No significant relationships existed between teacher absenteeism and district variables of absence reporting procedures and leave policy.

Conclusions from this study were: (1) The money allocated for substitutes by a secondary school district does not accurately reflect the money actually needed for class coverage for absent teachers. (2) Neither the type of leave policy nor the type of absence reporting procedures nor any interaction between the two reduced teacher absenteeism. (3) The personal variables cannot predict absenteeism rates with any degree of certainty. (4) No linear combination of the independent variables existed that would allow prediction of the dependent variable. (5) Based on the analysis of the multiple interactions of the personal variables in all combinations, overall prediction improved, less uncertainty existed in prediction, and a larger proportion of variance in the dependent variable was accounted for by the independent variable(s).

ACKNOWLEDGEMENTS

The author wishes to acknowledge the assistance and support given him by individuals, without which this work would not have been completed.

Deep appreciation is extended to his Advisory Committee at Loyola University, headed by Dr. Max A. Bailey and assisted by Drs. Philip M. Carlin and Joan K. Smith. Dr. Jack Kavanagh is to be acknowledged for his assistance in the statistical presentation of data. Dr. Trudy Bers of Oakton Community College is to be acknowledged for her computer assistance.

Special thanks are given to the superintendents, principals, and teachers who participated in the data gathering portion of this study and especially to Dr. James G. Erickson, Superintendent of Niles Township Community High School District 219, for his encouragement and understanding throughout this project.

The author is grateful to his parents, Henry and Eleanor Schusteff, and his in-laws, Michael and Yetta Kalika, for the encouragement and desire to succeed which they instilled; to Mrs. Rea Robin for her clerical assistance; to his son Noah, who accepted the idea of sharing his father's time and energy; and especially to Sandra, his loving wife, for her organizational ability, support, encouragement, patience and unwavering belief in her husband's abilities.

VITA

David Joseph Schusteff, son of Henry and Eleanor Schusteff, was born June 5, 1948, in Chicago, Illinois.

He was graduated from Deerfield High School, Deerfield, Illinois, in June 1966. In 1971 he received a Bachelor of Science degree, majoring in biology and minoring in chemistry, from Illinois State University, and in 1980 he graduated from Roosevelt University with a Master of Arts degree in educational administration and supervision.

The author was a teacher in District 219, Skokie, Illinois, from 1971 to 1977. He served as Dean of Students in District 219 from 1977 to 1981. In 1981 he became Director of Practical Arts at Niles North High School in District 219 and has served in this capacity since that time.

He and his wife, Sandra, have one child, Noah. Their current residence is Buffalo Grove, Illinois.

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CHAPTER I

INTRODUCTION

Statement of the Problem

> School boards and citizens committees have practical reasons to investigate teacher absenteeism. Like student absenteeism, it hits them in the pocketbook. Gone are the days when the cost of a substitute teacher is deducted from the regular teacher's per diem pay. It is a bother for administrators to find someone to cover a classroom on short notice, and frequently that someone contributes little to the learning process and may actually detract from it (Bamber, 1979, p. 11).

School districts are channeling great amounts of time and money into addressing the problems of teacher absenteeism. Recent reviews of the literature regarding absenteeism indicate that absenteeism as a phenomenon is neither well understood nor accurately predicted (Breaugh, 1981). Many questions still remain to be answered by individual school districts regarding teacher absenteeism. School districts need to determine the extent and impact of teacher absenteeism and decide what measures might be effective to improve teacher attendance.

Principals seem to agree that teacher absenteeism is, at least, a minor problem. At 1977 poll of National Association of Secondary School Principals members showed that "15% consider the problem serious and another 59% say it is a minor problem at their school" (Bamber, 1979, p. 10).

J. Michael McDonald (1980), writing in Personnel, addressed the issue of the extent of employee absenteeism.

> Most absenteeism studies confirm Pareto's Law of Maldistribution; that is, a vital few account for a disproportionately large share of the problem. In a recent hospital study, for example, less than 13% of all employees accounted for over 48% of all absences (p. 33).

Absenteeism has reached the point where, on any given workday, between three and seven percent of the workforce is absent (Cruikshank, 1976). Harvey H. Shore, professor of industrial administration at the University of Connecticut, estimates the cost at $15 billion to $20 billion a year just in wages paid for days when employees are absent (Shore, 1975). "It has been suggested also that workers are more likely to 'take off ill' because of the increasing prevalence of paid sick leave" (Hedges, 1973, p. 26).

Lillie Guinell Morgan and Jeanne Brett Herman wrote in Personnel Management that "employees decide whether or not to attend work based on the deterrent and motivating consequences of being absent" (Morgan and Herman, 1976, p. 738). The employee posture is that sick leave is a right of employment and will be lost if it is not used (Harvey, 1983).

Absenteeism as used in this study refers to any and all days that a teacher is absent due to personal or family illness and emergency or personal leave used for reasons other than illness. Teacher absenteeism due to professional leave to attend seminars, conferences, or other work-related meetings was not considered in determining the absence rate for the purposes of this study.

Much of the recent interest in teacher absenteeism comes from national studies that have addressed school effectiveness issues. These studies have stressed the importance of teacher-directed

learning experiences in the overall improvement of student performance. The impact of teacher absenteeism on this point was addressed in two separate studies. Elliott and Manlove (1977) found:

1. Decreased student achievement because of cutbacks in school time.

2. Substitutes are less effective.

3. Substitute costs are skyrocketing.

4. Time allowed for teacher absence is increasing.

5. Teachers are spending more time away from their assigned classrooms (p. 270).

James Lewis Jr. focused in more closely on the issue of student achievement in an article written for the American School Board Journal (1981).

> My research indicates, for example, that there is a critical point at which the rate of teacher absenteeism begins to inhibit student learning. In one study of urban schools, my colleagues and I discovered that in schools classed as "high-achieving" or "low-achieving", the rate of teacher absenteeism made no discernible difference in the level of student achievement. But in so-called "average-achieving" schools, teacher absenteeism did make a difference. Our study of 50,000 students and 2,000 teachers showed the critical point in those schools to be 13.5; in other words, when teachers were absent more than 13 days out of the school year, student achievement suffered (p. 29).

Lewis also noted in this article that several symptoms were present in schools with what he termed the "absenteeism disease". The symptoms that Lewis identified were:

1. Lack of direction from the school board and superintendent.

2. Incomplete board policy.

3. Failure to recognize the problem.

4. Job dissatisfaction.

5. Incomplete records.

6. Lack of attendance monitoring.

7. Failure to recognize good attendance.

8. Obsolete leadership (Lewis, 1981, p. 29).

This study by Lewis was merely a compilation of variables that have been scrutinized by boards of education, superintendents, and researchers in the field of employee absenteeism since 1958. Even though Lewis identified eight symptoms of "absenteeism disease" in a school district, his study did not attempt to point out which symptom in his list was most significant.

Numerous studies exist relative to employee absenteeism in both industry and education. These studies can be grouped into six major categories according to purpose.

1. There have been studies whose purpose was to examine cost factors related to employee absenteeism (Cruikshank, 1976; Gardner, 1977; Gertsema, 1984; Harvey, 1983; Holefelder, 1983; Price, 1981).

2. There have been studies that have attempted to predict an employee's proneness to absenteeism (Anderson, 1977; Coffman, 1983; Sharples, 1973).

3. There have been studies that have attempted to identify and analyze demographic variables related to absenteeism (Bundren, 1974; Coller, 1975; Eckard, 1983; Foster, 1977; Hughes, 1973; Marchant, 1976; Nicholson et al, 1977; Sacks, 1983).

4. There have been studies done to analyze workers' values and roles (Breaugh, 1981; Frank, 1974; Gold, 1982; Koontz, 1967; Morgan and Herman, 1976; Rothman, 1981; Silva, 1973).

5. There have been studies in business and industry to determine the cause and effect relationships of employee absenteeism (Richardson, 1980; Sells, 1970; Shore, 1975; Steers and Rhodes, 1980; Walter, 1977).

6. There have been studies in educational and industrial settings that have attempted to analyze the effects of policies and/or procedures as they relate to absence behavior (Asti, 1982; Botsford, 1960; Chase, 1973; DeWitt, 1982; Edwards, 1979; Foucar, 1970; Frederick, 1982; Fusco, 1983; Gunter, 1980; Johnson, 1970; Kerchner, 1984; Lewis, 1981; Mack, 1983; Nadler, 1971; Rains, 1961; Winkler, 1980).

The preceding research studies were narrow in focus with the exception of that done by Holefelder. None of these studies attempted to show a combination of the interrelatedness of selected demographic variables on teacher absenteeism as well as an analysis of the monetary costs involved due to absenteeism. These studies were limited to individual schools, school districts, or business entities rather than to larger geographic areas.

Chrissie Bamber (1979) wrote that "it appears that stringent rules and formalized reporting procedures are not necessarily inducements to improve teacher attendance" (p. 24). If this is indeed the case, what are school districts to do in order to improve teacher attendance? An article that appeared in Personnel by Richard M. Steers and Susan R. Rhodes (1980) suggested a method to be used in the analysis of absenteeism data.

We propose an alternative approach to the problem of absenteeism

> -- that is, to consider it within a comprehensive and systematic framework that attempts to identify the major causes of absenteeism as they interact to influence such behavior (p. 60).

If indeed there is an interactive effect of the major causes of absenteeism as they influence such behavior, then it is important to identify and determine which elements, separately and in combination, are the most predictive in the identification of the absence-prone teacher. In other words, how can school district policy and procedure as well as individual teacher characteristics be analyzed to determine their effects on teacher absenteeism?

Purpose of the Study

The purpose of this study was to analyze selected secondary school districts and their teachers to determine factors that contribute to teacher absenteeism. Five questions served as the focus for this study:

1. What do available research and literature say regarding the impact of employee absenteeism?

2. What do available research and literature indicate are the factors affecting employee absenteeism?

3. What are the monetary costs incurred by the selected districts for teacher absenteeism considered on a per teacher basis?

4. What are the relationships between absence reporting procedures and absenteeism, leave policy and absenteeism, and the interaction of both absence reporting procedures and leave policy and absenteeism?

5. What are the relationships between the personal variables of sex, age, marital status, and commuting time and teacher absenteeism

considering each personal variable separately and in combination with each other?

Significance of the Study

The study contributed to the body of knowledge concerning teacher absenteeism. It provided data relative to the costs associated with teacher absenteeism in selected secondary school districts in the five county region of Illinois (Cook, DuPage, Lake, McHenry, Will) commonly referred to as Metropolitan Chicago.

It also provided an analysis of the impact of district policy and procedure in relation to teacher absenteeism. Data relative to the personal factors that contribute to teacher absenteeism were analyzed. With such data, districts can review the cost data as it relates to the allocation of funds for substitute teachers. Teacher unions and boards of education can also review the policy and procedure data relationships for the purpose of negotiating or changing leave policy and/or absence reporting procedures. In addition, those individuals responsible for decisions regarding the selection, hiring, and retention of certified staff can avail themselves of the content and implications of the study. Finally, universities can incorporate the significance of the findings into administrator preparation curricula.

Limitations and Delimitations

The limitations of this study were those inherent in using mailed questionnaires. The staff survey was further limited in that the questionnaire was randomly distributed by district administrators.

Limitations are inherent in the use of absence data as criteria as delineated by Tove Helland Hammer and Jacqueline Landau (1981).

These data are subject to criterion contamination if absences are categorized into voluntary or involuntary. This study did not attempt to classify teacher absences.

While there are other district, building, and personal variables, such as number of schools, student enrollment, size of staff, student/teacher ratio, assessed valuation of district, teacher salary schedule, administrator's leadership style, number of dependent children in the home, job satisfaction, etc., that impact on teacher absenteeism, this study was limited to determining the relationships between the district variables of absence reporting procedure and leave policy, the personal variables of sex, age, marital status, and commuting time and teacher absenteeism.

The study was delimited to public secondary school district (9-12) superintendents and teachers. It was also delimited by the fact that the study confined itself to public secondary school districts in the Illinois counties of Cook, DuPage, Lake, McHenry, and Will.

CHAPTER II

REVIEW OF THE LITERATURE AND RESEARCH

Chapter II contains a review of the literature and research in this field. It is divided into three sections: The impact of absenteeism, policies and procedures, and personal characteristics of employees related to absenteeism. In the first section, the scope of absenteeism and costs related to the absent employee are explored. The second section contains a review of the literature and research in the field of organizational policies and procedures that have been identified as having either a positive effect, negative effect, or no effect relative to employee absenteeism. The review of the literature and research in the third section examines the personal demographic factors that have been identified as having an effect on employee absenteeism.

Impact of Employee Absenteeism

Employee absenteeism is felt most severely in the financial arena. Yet, the research addressing the issue of the cost of absenteeism is sparse, at best. Then too, the studies that were available focused not only on the economic but also the noneconomic impact of employee absenteeism in business and industry, as well as education.

> Estimates have been published by the Social Security Administration for each year beginning with 1948 on cash benefits to replace the income loss associated with illness or accidents

> suffered away from work. The benefits paid by plans included in this series were recorded at $0.8 billion in 1948. By 1978, benefits paid reached $11.7 billion (Price, 1981, p. 18).

In many organizations, sick leave costs, which are part of a fringe benefit package, have become an area of increasingly significant concern. Barron H. Harvey, assistant professor of accounting and organizational behavior at Georgetown University in Washington, D.C., has identified several other costs that are associated with the abuse of paid sick leave programs in business and industry.

1. Absenteeism causes overtime, extra work for other employees, or overstaffing.
2. Overtime due to absenteeism can have a snowball effect by causing employees who worked overtime to reward themselves with a sick day (for a non-reality illness, which causes still more overtime).
3. Fringe benefit expenses continue to accrue when an employee is absent.
4. Maintaining and administering an absence control system can be costly.
5. Absenteeism (most are unscheduled with short or no notice) increases the amount of supervisory time devoted to its impact.
6. The resentment of employees who have to complete the work of an absent co-worker may lead to lowered productivity, more grievances, and turnover.
7. With absenteeism, there will be a drop in productivity and effectiveness because inexperienced personnel are performing the work of the absent employee (Harvey, 1983, pp. 374-375).

Gertsema (1984) produced a doctoral dissertation at the University of South Dakota which, in part, had the purpose of determining whether a real or imaginary formula existed for budgeting in anticipation of teacher absenteeism among the school systems of the study. Data were collected from public school superintendents and private college Deans of Academic Affairs. Gertsema found that most public schools and private colleges did not employ a particular

formula in budgeting for anticipated absences. He, therefore, concluded that no specific budgetary formula existed in the sample used for this study of anticipated teacher absenteeism.

In order to determine the monetary costs incurred by a school district due to teacher absenteeism, it is necessary to add the costs of substitute teachers, clerical assistance, record keeping, and, if present, administering an attendance improvement program to the salaries of absent teachers (Lewis, 1981).

Lewis (1982) continued to address the cost factors of teacher absenteeism in The American School Board Journal.

> The real cost of employee absenteeism, you'll find, probably is between five and ten times greater than the amount typically computed (which, for teachers, normally is based on the cost of hiring a substitute teacher). But the costs actually incurred when a teacher is absent include the absent teacher's salary, which you continue to pay during absence; the salaries of administrators who must contact, instruct, and evaluate substitute teachers; and money schools pay into various employee benefit accounts, such as retirement, disability, and workmen's compensation funds. When these costs are multiplied by the total number of days your employees are absent each year, the result is an alarmingly large chunk of your school system budget. The results of a study conducted in the school systems of Detroit, Philadelphia, and New York, for instance, showed that although the combined annual costs for substitute teachers in these school systems was approximately $65 million, the actual costs incurred by teacher absenteeism approached $500 million (p. 30).

Policies and Procedures

Numerous studies have been done in business and industry, as well as education to determine the effects of organizational policies and procedures as they relate to employee absenteeism. Organizational policies and procedures have been carefully scrutinized in an attempt to determine if practices could be altered to improve employee attendance.

In a review of absenteeism among American workers, Cruikshank (1976) found that certain companies are more likely to suffer from absenteeism than others.

> For example, companies which offer sick-leave pay are found to have higher rates of unscheduled absences for illness than companies which make no such payments. And firms which keep scant records of employee absences, and do not make an issue of such behavior when it occurs, have larger problems with no-shows than companies exerting more discipline (p. 38).

This type of policy study was not limited to American workers. Edwards and Scullion (1979) studied sick pay in two factory settings in England. The data for this study were derived from over 6,000 manual workers employed in the engineering industry. The main hypothesis tested in the study was that "absence rates had increased since the introduction of a sick pay scheme, and that this phenomenon could be directly attributed to the operation of the scheme" (p. 32). This study determined that "in both the factories examined, absence rates were higher when sick pay schemes were present than they had been before" (p. 35).

Dalton and Perry (1981) found that

> certain collective bargaining contract policies may be moderately strong correlates of organizational absence rates. It has been suggested that certain of these provisions may have the effect of making absenteeism easier or more profitable for the employees. This tendency may lead to higher absence rates for the organization (p. 430).

The focus of the study by Dalton and Perry was the relation of organizational absence rates to collective bargaining provisions that set parameters on absence behavior through control policy and contract language. The Dalton and Perry study was similar to that done by Morgan and Herman (1976) on the perceived consequences of absenteeism

by employees. The Morgan and Herman study was designed to investigate whether organizational policies and practices could be effective deterrents to absenteeism. Data for this study were gathered from 60 blue-collar employees in one department of an unionized automobile parts foundry.

> The correlations between perceptions of deterrent consequences and past and future absenteeism suggest that organizational policies regarding absenteeism are known to employees regardless of their absenteeism record. These policies, however, do not act as deterrents to absenteeism. Loss of wages was the only deterrent perceived to be both very important ... and highly likely.... The only consequence that might have acted as a deterrent is loss of benefits (p. 741).

Although it might not follow that studies relative to absenteeism in business and industry would be applicable to educational settings, the available literature and research indicate overwhelming similarities. A doctoral dissertation (Foucar, 1970) provided information to this effect. It was the purpose of the study to compare the professional personnel policies and practices that could improve the effectiveness of the educational setting. The conclusion was that the professional personnel policies and practices in industry were similar to those in education.

Donald R. Winkler (1980) prepared a study to estimate the effects of sick-leave policy variables on short-term (one-half and one day absence episodes per teacher) absenteeism among public school teachers in California and Wisconsin. Fifty-seven school observations were used in this study. These observations came from a stratified random sample of elementary schools in California and Wisconsin. Data on teacher absenteeism for the 1974-75 school year and on cumulative

sick-leave days available were obtained from the official attendance records maintained by each school. School-average absenteeism was then computed by dividing total absenteeism by the number of teachers.

> Controlling for personal and job characteristics, we find that three sick-leave policy variables influence absenteeism among school teachers in California and Wisconsin. Income protection plans, which provide insurance against the loss of pay once accumulated sick leave has been expended, result in higher short-term absenteeism. Requiring the teacher to demonstrate proof of illness leads to lower absenteeism, at least in Monday-Friday absences. Requiring the teacher to report every absence directly to the principal results in a large reduction in short-term absenteeism (p. 240).

Another study of the effect of leave policies on teacher absenteeism indicated that neither conservatism nor liberalism of personnel leave policies were significant in the relationship to teacher absenteeism (DeWitt, 1982).

The problem in a study by Fusco was to determine how many of Pennsylvania's school districts had teacher absence policies, record keeping systems, and specific practices designed to reduce teacher absence, and to determine whether there was a relationship between the policies and practices and teacher absence. A total of 315 of the 501 school districts responded to this study. No significant difference existed between the mean work absence rates of school districts that employed teacher absence policies and practices and districts that did not employ such policies and practices (Fusco, 1983).

Several research studies in education have included an examination of personal characteristics of employees in the review of policies and practices related to teacher absenteeism. Coffman found that male teachers had lower rates of absence than female teachers and

that married teachers had lower rates of absence than single, divorced, or widowed teachers. Results of this study also indicated that larger districts had higher absence rates than smaller districts; districts requiring teachers to report absences directly to the principal had lower absence rates; and districts which required proof of illness had higher rates of absence than those which did not require proof of illness (Coffman, 1983).

One of the most extensive research studies produced regarding the relationships between policies and attendance was the doctoral dissertation of Nadler (1971). The purpose of the study was to determine whether a significant difference existed in professional staff absences in Nassau County, New York, public school districts with policies of limited sick leave (a specific number of days per year payable at full salary) and unlimited sick leave (no maximum limitation on the number of days per year payable at full salary) for a three year period (1965-68).

Twelve school districts were investigated by Nadler. Six of the districts had policies that limited sick leave and six districts had policies of unlimited sick leave. The sample consisted of 1,313 teachers from the limited districts and 1,468 teachers from the unlimited districts for the three year period. Data collected from each teacher included sex, age, length of service, assignment level, marital status, and days absent.

Examination of the data revealed that the unlimited sick leave districts showed a significantly lower absence rate than the limited sick leave districts:

1. For each of the three years.
2. For the three-year period.
3. For the three-year period when staff are categorized by:

    a. Sex (male and female).
    b. Age groups 20-39, 45-49, and 50-54.
    c. Length of service groups 0-23 years of service and over 36 years.
    d. School level assignment (elementary and secondary)
    e. Marital status (single and married).
    f. Sex and school level assignment (male elementary, female elementary, and female secondary).
    g. Sex and marital status (male married, female single, and female married).

No differences were found in the other groups in these categories (Nadler, 1971, p. 3625-A).

In 1979, Sells produced his doctoral dissertation and found that the implementation of an unlimited cumulative sick leave policy was accompanied by an increase in teacher absenteeism. Sells' study also showed that teacher absenteeism "did not consistently increase or decrease through time, but was mediated by sick leave policy, age, gender, educational training level, career experience level, position classification, professional assignment and possibly other independent variables not identified by this study" (Sells, 1979, p. 3684-A).

Personal Demographic Factors

Personal demographic factors have been studied quite extensively in business and industry, as well as education to determine if relationships exist between employee absenteeism and such factors as sex, age, marital status, etc. Job satisfaction and morale have been eliminated from consideration in many absenteeism studies due to the findings of May, Watson, Silva, and Foster. A study done by the

Bureau of National Affairs found that absenteeism has less to do with job related factors than the employees personal problems (May, 1979). In his study, Watson (1981) discovered that job satisfaction was not found to be a major influence in explaining variation in time-lost absenteeism. Two studies that were completed in educational settings determined that (1) there was no relationship between the global concept of morale and teacher use of sick leave (Silva, 1973), and (2) morale among teachers in schools with high versus low teacher absenteeism did not vary in terms of teacher perceptions of teacher rapport with the principal, satisfaction with teaching, and teacher rapport among teachers (Foster, 1977).

Several studies from business and industry have identified numerous factors that have an effect on employee attendance. It has been determined that women are absent more often than men, mainly because of responsibility for the family. As family size increases, so does female absenteeism. It is usually the mother who stays home from work to care for sick children (Steers and Rhodes, 1980). "Another often overlooked factor in absenteeism is transportation problems, which include distance from home to work, reliability of the mode of transportation, and weather conditions" (Steers and Rhodes, 1980, p. 63).

Shore (1975) described high absence employees in his article that appeared in Supervisory Management.

> The "high absence" employee is typically someone who, among other things, was hospitalized at least once before the age of 21, carries a small amount of life insurance, and has had poor health in recent years.

> Often a sizeable portion of a firm's "chronic absentees" are alcoholics or other drug abusers. It's estimated that the 5 million or so alcoholics in the American labor force account for somewhere between 6 percent and 10 percent of all the absenteeism in the United States (pp. 13-14).

Shore (1975) also found that employees under 30 years of age constitute a large proportion of a company's chronic absenteeism. This group is usually involved in more episodes of absenteeism, but for shorter periods of time than are older workers.

In his study of the seasonal use of sick leave by municipal employees in San Antonio, Texas, Weaver (1970) found that females tended to take more sick leave than males. Weaver also noted that the seasonal patterns of sick leave usage were not different between males and females.

The factors of age and marital status were addressed more completely by Hedges (1973). Hedges reviewed data from the Current Population Survey of households conducted for the Bureau of Labor Statistics by the Bureau of the Census. This survey is the only source of systematic national data on job absences by industry and employee characteristics. Hedges' article in Monthly Labor Review attempted to assess the influence of various factors cited as major causes of unscheduled personal absences. The analysis was limited to wage and salary workers, excluding farm and private household workers. The literature on absence has identified types of absence prone employees, and such factors as age, sex, and marital status are thought to be related to absenteeism. With regard to age, Hedges writes:

Youth has been called a "central fact" in the highly publicized

> blue-collar blues associated with high rates of absence on assembly lines. While part-week unscheduled absence is relatively high for young workers, full-week absence is low. In March 1972, for example, part-week absence was highest among teenage workers and lowest among those age 55-64. However, full-week unscheduled absence in 1972 was least frequent for the youngest workers and increased gradually by age (p. 28).

When Hedges analyzed the data relative to marital status, she found:

> Married men had a lower rate of part-week absence than single men in March 1972, but married women had a higher rate than single women. The presence of children influences absence rates among women workers. The age group with the widest sex difference in absence rates in March 1972 (25-44) included seven-tenths of the women in the labor force who had children under 18 (p. 29).

The results from a cross-sectional survey of 1,222 blue-collar production workers in 16 organizations from four different industries showed "that young and short-service workers, especially males, have a higher than average susceptibility to avoidable or short-term absence, whereas relationships between unavoidable or longer terms of absence and personal characteristics are more variable" (Nicholson, Brown, and Chadwick-Jones, 1977, p. 326). Also, one other business and industry study from Great Britain reinforced the findings that the majority of short-term absences are among workers under 30 years old (Moody, 1971).

No fewer than 15 research studies have been done since 1961 that have considered personal characteristics of employees as independent variables to determine if relationships existed using absenteeism as the dependent variable. These studies will be reviewed in chronological order from 1961-83.

Rains (1961) found that:

1. There are no significant differences in the amounts of sick leave used by teachers according to age, experience, tenure,

distance of residence from work, or teaching fields.

2. Women teachers use significantly more sick leave than men teachers.

3. Teachers with bachelor's degrees use significantly more sick leave than teachers with master's degrees (p. 2271).

Brewster also found that "sex has been the personnel variable showing the most significant differential in absenteeism over the years, with female teachers using more sick leave than males" (Brewster, 1970, p. 2034-A).

The specific purpose of the study by Chase (1973) was to review the operation of the sick leave and personal leave policies of the public schools of Prince George's County, Maryland, during the 1971-72 school year. A computerized program was constructed in order to organize and review data. The results of the computerized program review and the review of the six schools in the study indicated the following major conclusions:

1. There is a relationship between age and absenteeism, especially for the age group between 26 and 30 years. This group indicates a greater amount of absenteeism than any other.

2. There is a relationship between longevity and absenteeism. The longevity groups with four to five years of service and with six to ten years of service indicate a greater amount of absenteeism than any other longevity group.

3. There is a relationship between sex and absenteeism. The female teachers' group reveals a greater amount of absenteeism than the male teachers' group.

4. The data obtained through the computerized program indicate that there is no obvious relationship between the academic discipline areas (subject areas) and absenteeism (p. 2197-A).

Bundren found contradictory results in a study that was limited to one school district (Clark County) in Las Vegas, Nevada. The study

indicated that "the demographic factors of age, gender, salary, length of continuous employment, and marital status lacked statistical significance for influencing the absenteeism of teachers" (p. 1895-A).

Marlin (1976) found that the variables of sex, age, and marital status were significant in relationship to teacher absenteeism. Sells (1979) found that sex was related to absenteeism, but that no direct relationship existed between age and absenteeism.

A study of the use of sick leave by 487 teachers in the Kansas City metropolitan areas that was done by John Anderson (1977) determined that sex and marital status were related to absenteeism in the following ways:

5. Women were absent more days (5.09) than men (2.84).

7. Married teachers with dependents had a higher mean absentee rate (4.2) than married teachers without dependents (4.15). Single teachers with dependents had the lowest absentee rate (2.434) (p. 7036-A).

The relationship between the sex of the employee and absenteeism was further explored in the research studies of Johnson (1979), Kirkwood (1980), and Asti (1982).

Richardson (1980) completed a study of teacher absenteeism in the Dallas Independent School District. The selected factors used by Richardson to determine if relationships existed between the factors and absenteeism were race, sex, age, marital status, children in household, years of experience, type of degree, attitude toward teaching role, commuting time, pay period, and grade level taught. Data for the study were gathered through a records search limited to the attendance records of the Dallas Independent School District. Two

survey instruments were also used to gather individual teacher data selected for the study as well as a questionnaire to determine how teachers felt about their teaching role. Richardson determined that:

> Age and absenteeism were related. The curvilinear results of the age-absentee relationship verified that older teachers had a better record of attendance than did younger teachers. Teachers over 50 years of age took the fewest number of days away from school, while teachers in their early 30's had the highest absentee records.
>
> The sex of a teacher was associated with the number of days absent from the classroom. Teacher absenteeism was higher for women than for men (p. 4374-A).

Holefelder (1983) studied the relationships of selected variables to teacher absenteeism as well. The objectives of Holefelder's study were to determine the relationships between teacher absenteeism and the selected school and personal variables of age, sex, race, size of school district, method of teacher absence reporting, assignment, degree status, and tenured versus and non-tenured status. The study was limited to nine K-12 school districts in Gloucester County, New Jersey, and included 1,404 teachers. Holefelder found significant differences:

1. Between age and teacher absenteeism. No pattern of increasing absenteeism with increasing age was discernible, however.
2. Between the sex of the teacher and teacher absence rates.
3. Between the race of the teacher and teacher absence rates.
4. Between method of reporting absence and teacher absence rates.
5. Between teacher assignment and teacher absence rates.
6. Between degree status and teacher absence rates.
7. Between teacher tenure/non-tenure and teacher absence rates (p. 341-A).

In his study "The Relationship Between Teacher Absenteeism and Selected Personal, Status, and Situational Factors", Eckard (1983) explored many of the same factors as Holefelder. Eckard's study was also of large magnitude and scope in that it involved 1,200 teachers selected randomly from the set of all public school teachers in Virginia who taught during the 1981-82 school year. Seventeen null hypotheses were set forth by Eckard in the study.

> Hypotheses which reached significance were as follows (**, and * indicate statistical significance at the .01 and .05 levels, respectively): There is no statistically significant linear relationship between teacher absenteeism and **(1) age; **(2) sex; **(3) tenure; **(4) health status; **(5) number of physicians visits during the school year; **(6) whether or not teachers missed five or more consecutive school days; **(7) absence frequency during a two-year period; **(8) number of sick-leave days accumulated; and *(9) there is no statistically significant multiple correlation between teacher absenteeism and any weighted linear combination of predictor variables. Relationship between teacher absenteeism and the following variables failed to reach statistical significance: (1) race; (2) marital status; (3) family size; (4) school size; (5) level of school taught; (6) travel distance; (7) job satisfaction; and, (8) whether or not teachers would again select teaching as a profession (p. 3553-A).

Sacks (1983) found some contradictory results to the Holefelder and Eckard studies in his doctoral dissertation "Teacher Absenteeism, Organizational Behavior, and Other Variables." Sacks' study, however, was limited to 149 elementary, junior, and senior high school teachers in one district. The purpose of the study was to investigate the relationsip between teacher absenteeism and teachers' perceptions of organizational behavior, belief systems about work, job involvement, and the selected variables of age, sex, teaching level, years of experience, marital status, number of children living at home, and travel time to work. Sacks summarized his findings as follows:

1. There was no significant relationship between teachers' perceptions of organization behavior and number of days absent.

2. There was no significant relationship between teachers' perceptions of beliefs about work and the number of days absent.

3. There was no significant relationship between teachers' perceptions of job involvement and the number of days absent.

4. There was no significant relationship between the variables: sex, marital status, teaching level, years of experience, travel time to work and the number of days absent.

5. There was a significant relationship between age and number of children living at home as related to days absent (pp. 3236-A-3237-A).

Summary of Literature and Research

Chapter II has provided a review of the literature and research relative to the topics of the impacts and costs of employee absenteeism, the relationships between absenteeism and organizational policies and procedures, and the relationships between absenteeism and personal characteristics and demographic factors of employees. Two studies from business and industry and three studies from education were reviewed relative to cost factors incurred by employers due to employee absenteeism. Four studies from business and industry and seven studies from education were reviewed relative to the effects of policies and procedures and employee absenteeism. Eight studies from business and industry and 16 studies from education were utilized relative to the personal demographic factors that influence employee absenteeism.

Factors that contribute to the total cost of absenteeism were identified in section one of the literature and research review as

including continued payment of employee benefits, administrative and supervisory costs, clerical costs, and decreased productivity.

Section two of the literature and research review identified policies and practices affecting absenteeism as paid sick leave and income protection plans, requiring proof of illness, reporting absences directly to the principal (supervisor), and the unlimited accumulation of sick leave.

Section three of the literature and research review identified the personal demographic factors affecting employee absenteeism as gender (sex), age, marital status, distance from work, race, degree status, experience, and tenure status. The sample size was the major factor in the determination of the selected factors influencing absenteeism. The studies which had large samples determined that sex, age, and marital status had the greatest influence on employee absenteeism.

CHAPTER III

RESEARCH METHODOLOGY

The purpose of this study was to analyze selected secondary school districts to determine factors that contribute to teacher absenteeism. Several sub-purposes emerged that provided focus for the study. They were to (1) review the research and literature to determine the impact of employee absenteeism, (2) review the research and literature to determine the factors affecting employee absenteeism, (3) determine the monetary costs incurred by the selected districts for teacher absenteeism considered on a per teacher basis, (4) determine the relationships between absence reporting procedures and teacher absenteeism, sick/personal/emergency leave policy and teacher absenteeism, and the interaction of absence reporting procedure and sick/personal/emergency leave policy and teacher absenteeism, and (5) determine the relationships between the personal variables of sex, age, marital status, and commuting time and teacher absenteeism considering each personal variable separately as well as in combination with each other.

Whereas the first two chapters provided the foundation and basis of this research study, this chapter introduces the research methodology utilized to accomplish the purposes of this study. That methodology consisted of instrumentation, population and sample, data collection procedure, units of analysis, and statistical analysis.

Instrumentation

Two instruments were used in the study to answer questions relative to teacher absenteeism in the selected districts (Appendix A). Each of the instruments was developed by the author in order to gather the data needed to analyze the factors affecting teacher absenteeism that had been identified in the review of the research and literature previously described in Chapter II. The two surveys were used as a method of obtaining standardized information in order to facilitate the statistical presentation and analysis of the data gathered from the selected districts and selected individuals. The information collected through the use of the two instruments was codified in order to be analyzed and reported in quantitative terms.

The survey instruments were developed after the author determined the specific nature of the information needed, how each item on the survey would contribute to meeting specific objectives of the study, and the methods of data analysis that would apply to the returned survey instruments.

Population and Sample

The population used to analyze district data for this study consisted of all secondary school districts in the Illinois counties of Cook, DuPage, Kane, Lake, McHenry, and Will. The Illinois Directory of Schools was used to identify all secondary school districts in these counties. Kane county did not have any secondary school districts and was eliminated from the population. The remaining five suburban Chicago counties had a total of 52 secondary school districts.

The sample size was selected to ensure that large group statistical analysis would be valid. Generally in correlational research it is desirable to have a minimum of 30 cases. This was the number of secondary school districts that was selected for this study. The 30 selected districts represented 58 percent of the total available population. In order to ensure valid representation of each county, 58 percent of the secondary school districts in each county were selected by simple random sampling techniques. This sampling technique yielded the secondary school districts listed in Table 1.

The population used to analyze teacher data for this study consisted of all teachers employed by the 30 selected secondary school districts for the 1983-84 school year. The total number of certified teachers employed by the selected districts was 7,251. A sample size of 1,450 was selected to facilitate the statistical analysis of sub-groups within the sample due to the high degree of heterogeneity on the factors that were identified in the research and literature as affecting teacher absenteeism. The sample size represented 20 percent of the total population. The teachers were selected by simple random sampling done by the principals at each school in each of the 30 selected secondary school districts.

Data Collection Procedure

The superintendents of each selected school district were contacted by telephone to obtain permission for their district to participate in the study. The superintendents in each of the selected districts agreed to participate in the study. Letters of transmittal (Appendix B) were sent to each superintendent and principal in each of

Table 1

Selected Secondary School Districts in the Study

Secondary School District ID Number	County	Number of Schools	Number of Teachers
1	Cook	2	281
2	Cook	4	303
3	Cook	1	52
4	Cook	2	308
5	Cook	1	179
6	Cook	2	253
7	Cook	1	296
8	Cook	2	304
9	Cook	1	131
10	Cook	1	257
11	Cook	2	302
12	Cook	3	186
13	Cook	1	58
14	Cook	1	87
15	Cook	3	480
16	Cook	5	776
17	DuPage	2	321
18	DuPage	2	263
19	DuPage	4	450
20	DuPage	2	288
21	Lake	1	120
22	Lake	1	93
23	Lake	1	90
24	Lake	1	85
25	Lake	2	309
26	Lake	1	134
27	McHenry	3	256
28	McHenry	2	110
29	Will	2	320
30	Will	1	159

the secondary school districts. The superintendents received a packet of information that contained a district survey form, copies of all other letters and data gathering instruments that would be distributed throughout their district, and a postage paid response envelope.

The principals at each of the 56 participating secondary schools received packets of information that contained letters of transmittal for teachers, teacher survey forms, and postage paid response envelopes. Instructions were given to the principals to have the teacher materials distributed in any random way to the number of teachers that had been predetermined by the author. Confidentiality and anonymity of responses were assured to all districts and teachers who chose to participate in the study as stated in each of the letters of transmittal (Appendix B).

Units of Analysis

This cross-sectional study required two units of analysis to answer the research questions. Research questions three and four required that the unit of analysis be each of the 30 selected secondary school districts. Research question five required the unit of analysis to be the selected certified teachers employed by the 30 selected districts.

Statistical Analysis

The selected secondary school districts were divided into two groups for each of the factors being analyzed at the district level. The two groups into which the districts were divided based on responses to the questions regarding leave policy were (1) districts with unlimited personal/emergency leave or whose policy allowed unused

personal leave to accumulate as sick leave, and (2) districts with limited personal/emergency leave whose policy did not allow the accumulation of unused personal leave as sick leave or whose policy did not grant its certified staff personal/emergency leave.

The two groups into which the districts were divided based on responses to questions regarding absence reporting procedures were (1) districts whose certified staff report absences to nonsupervisory personnel or answering machines, and (2) districts who require absences to be reported directly to an administrative supervisor or principal.

The means of the days absent per teacher for each district were calculated. The districts were then placed into the appropriate categories of leave policy and absence reporting procedure. Multifactor analysis of variance was used to determine whether there were significant differences, at the .05 level, due to a district's leave policy, absence reporting procedures, or a combination of leave policy and absence reporting procedure in order to answer research question four.

Teacher data were analyzed using the Statistical Package for the Social Sciences computer programs. The data were analyzed in order to determine the appropriate statistical procedures to be employed as well as to determine whether or not the data were meaningful (.05 level of significance). The statistics that were selected for this phase of the study were chi-square, lambda, the uncertainty coefficient, and eta-squared. Chi-square was selected to determine whether variables were independent or related. The latter three

statistics were selected because their values have a direct intuitive meaning. They can also be compared to other probability or proportional reduction of error statistics.

Lambda is a measure of association for crosstabulation. The maximum value of lambda is 1.0 which occurs when prediction can be made without error. The computation of symmetric lambda measures the overall improvement of prediction. The uncertainty coefficient is also designed for crosstabulation. The maximum value for the uncertainty coefficient is 1.0 which denotes the complete elimination of uncertainty in predicting the dependent variable once the independent variables are known. When eta is squared, it has an intuitive interpretation as the proportion of variance in the dependent variable explained or accounted for by the independent variable or variables. Eta-squared is sometimes referred to as the correlation ratio. The maximum value of eta-squared is 1.0. Multiple regression was also used in an attempt to produce a linear combination of independent variables (sex, age, marital status, and commuting time) that would correlate as highly as possible with the dependent variable (days absent). The multiple regression analysis was to serve two purposes. The first purpose was to predict values of the dependent variable. The second purpose of the multiple regression was to assess the importance of each independent variable in the prediction of values of the dependent variable.

The independent variables of age and commuting time were interval variables. In the case of interval variables, categories were not only ordered, but fixed distances were known between fixed and equal

units. The independent variables of sex and marital status became nominal variables. In the case of nominal variables, there was no assumption of order or distance between categories. These two variables, therefore, were recorded as dichotomies; variables with only two possible categories or values, such as sex (male or female) and marital status (married or unmarried). Due to the specific nature of dichotomies, it was possible to treat all variables as interval levels of measurement in the analysis.

The use of chi-square, eta-squared, lambda, and the uncertainty coefficient allowed research question five to be answered by determining (1) whether a relationship would exist between the independent variables and the dependent variable, (2) if there would be a sufficient amount of variance accounted for in the dependent variable by the independent variables to make predictions and conclusions, and (3) if the predictions made from the data would be meaningful with respect to accuracy and certainty.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Research questions one and two, dealing with the impact of employee absenteeism and the factors affecting teacher absenteeism as found in the literature and research, have been answered previously. This chapter presents the data that were gathered using the author-developed staff survey and district survey. These data were gathered to answer the following research questions:

3. What are the monetary costs incurred by the selected districts for teacher absenteeism considered on a per teacher basis?

4. What are the relationships between absence reporting procedures and absenteeism, leave policy and absenteeism, and the interaction of both absence reporting procedures and leave policy and absenteeism?

5. What are the relationships between the personal variables of sex, age, marital status, and commuting time and absenteeism considering each personal variable separately and in combination with each other?

Research Question Number Three

What are the monetary costs incurred by the selected districts for teacher absenteeism considered on a per teacher basis?

The district survey was completed by 29 (96.7%) of the 30 superintendents of whom it was requested. These chief administrators

in the selected secondary school districts represented the Illinois counties of Cook, DuPage, Lake, McHenry, and Will. These districts ranged in school number from one to five and varied in district student enrollment from 708 to 11,890. The districts employed between 52 and 776 teachers.

Questions 1-5, 8, and 9 on the district survey were used to determine the monetary costs to the districts for teacher absenteeism on a per teacher basis. The information obtained from these questions was used to develop the following formula:

$$\frac{\text{Substitute Expenditures + Clerk Costs}}{\text{Number of Teachers in District}} = \text{District Cost Per Teacher}$$

Table 2 identifies the monetary costs per district per teacher of the 29 selected secondary school districts. Means for the separate areas, as indicated in Table 3, were: substitute budget ($89,217.24), substitute expenditures plus clerk costs ($98,631.51), amount overexpended for substitute teachers ($9,414.27), number of teachers (233.5), and cost per teacher ($422.44). The cost per teacher for absenteeism in the 29 selected secondary school districts ranged from $82.45 to $680.10.

The 29 responding districts were compared in terms of the amount of money either over budget or under budget for costs related to substitute teacher coverage due to teacher absenteeism. Findings of this comparison revealed that 15 (51.7%) districts spent less than the amount that had been budgeted for substitute teachers during the 1983-84 school year. The figures in these districts had a range of $376.21 to $27,697.00 under budget with a mean dollar amount of

Table 2

Monetary Costs of Absenteeism per Teacher by District

District[1] ID #	Substitute Budget	Substitute Expenditures	Budget Differential[2]	Clerk Costs[3]	Cost per Teacher	Rank[4]
1	95,000	92,320.55	2,679.45-		328.54	6
2	188,000	150,046.00	37,954.00-		495.00	19
3	36,000	24,892.14	11,107.86-	1,800.00	513.31	20
4	150,000	158,748.00	8,748.00		515.42	21
5	50,800	82,435.00	31,635.00		460.53	17
6	103,170	125,696.00	22,526.00	11,230.20	541.21	23
7	95,000	143,384.00	48,384.00		484.41	18
8	155,000	154,623.79	376.21-	15,400.00	559.29	25
9	69,000	65,029.50	3,970.50-	2,496.00	515.46	22
10	90,000	105,179.00	15,179.00	8,124.40	440.87	16
11	25,000	18,000.00	7,000.00-	6,900.00	82.45	1
12	121,815	101,373.50	20,441.75-	5,400.00	574.05	26
13	17,000	14,790.00	2,210.00-		255.00	4
14	37,000	42,010.00	5,010.00	9,926.00	596.97	28
16	286,000	258,303.00	27,697.00-	6,900.00	341.76	7
17	33,000	33,587.00	587.00	2,114.00	297.51	5
18	34,000	32,838.99	1,161.01-	1,800.00	372.46	9
19	112,000	115,585.00	3,585.00	5,648.40	392.34	12
20	35,000	41,054.00	6,054.00	9,250.00	558.93	24
21	31,000	31,125.82	125.82	1,872.15	388.21	11
22	35,000	43,627.65	8,627.65	11,287.80	409.82	14
23	130,000	129,497.50	502.50-	2,520.00	411.27	15
24	120,000	101,324.00	18,676.00-	2,464.00	394.63	13

Table 2 (continued)

District[1] ID #	Substitute Budget	Substitute Expenditures	Budget Differential[2]	Clerk Costs[3]	Cost per Teacher	Rank[4]
25	198,965	235,551.00	36,586.00	25,200.00	579.45	27
26	45,000	65,699.00	20.699.00	5,280.00	246.45	3
27	42,000	41,576.56	423.44-	1,000.00	166.31	2
28	40,000	37,437.47	2,562.53-	350.00	343.52	8
29	147,550	205,930.00	58,380.00	11,700.00	680.10	29
30	65,000	59,986.56	5,013.44-		377.27	10

[1]District 15 was the only district that did not respond.

[2]A negative sign indicates "under budget".

[3]Clerk Costs reflect the percentage of the substitute clerks' salaries devoted to securing substitute teachers.

[4]Districts were ranked on cost per teacher in order from lowest to highest.

Table 3

Mean Monetary Costs of Absenteeism for Selected Districts

	Substitute Budget	Clerk Costs	Substitute Expenditures	Budget Differential	Cost Per Teacher
Total	2,587,300.00	148,663.05	2,711,650.78	273,013.83	
Mean	89,217.24	5,126.31	93,505.20	9,414.27	422.44

$9,451.71 under budget allocations for substitute teachers. Fourteen (48.3%) districts spent more than the amount that had been budgeted for substitute teachers during the same fiscal year. The figures for these districts had a range of $125.82 to $58,380.00 over budget with a mean of $19,009.03 over budget allocations for substitute teachers.

Research Question Number Four

What are the relationships between absence reporting procedures and absenteeism, leave policy and absenteeism, and the interaction of both absence reporting procedures and leave policy and absenteeism?

Data collected from the district survey were used to answer research question four. Questions 6, 7, and 10-12 were used to determine the types of absence reporting procedures and leave policy for each of the selected secondary school districts. The 29 districts were divided into two groups based on the types of absence reporting procedures to determine if a relationship existed between procedures and absenteeism for districts in the sample population. The 29 selected districts were also divided into two groups based on the types of leave policy to determine if a relationship existed between policy and absenteeism for the selected secondary school districts in the sample population. Names were assigned to these categories and defined as follows:

Nonrestrictive leave policy -- districts with unlimited personal/emergency leave or districts whose policy was to accumulate unused personal leave as sick leave.

Restrictive leave policy -- districts with limited personal/emergency leave that does not accumulate as sick leave

or districts whose policy was to now allow personal/ emergency leave.

Nonsupervisory absence reporting -- districts whose teachers reported absences through answering services/machines or to a substitute clerk.

Supervisory absence reporting -- districts whose teachers reported absences directly to an immediate supervisor or principal.

A review of the sick leave policies of each of the selected secondary school districts revealed no meaningful differences in sick leave policies. The median number of sick leave days provided at full pay each year for the teachers in the selected districts was 15 with a range from 10-18 days. The median of the maximum accumulation of sick leave days at full pay for teachers in the selected districts was 180 with a range from 150 to unlimited. Due to this phenomenon, sick leave was not considered in determining the relationship between leave policy and absenteeism. Tables 31-34 in Appendix C provide categorical listings of the 29 districts and their mean days absent per teacher. Analysis of variance for the relationship between leave policy and days absent yielded an F-ratio of 0.0617 (df = 1, 27), which was not significant at the .05 level. Analysis of variance for the relationship between absence reporting procedure and days absent yielded an F-ratio of 0.861 (df = 1, 27), which was not significant at the .05 level.

Multifactor analysis of variance was used to determine whether or not the two variables, leave policy and absence reporting procedures,

had an interactive affect on the number of days absent per teacher in the selected districts. Tables 35-38 in Appendix C provide the categorical listings of the 29 districts and their mean days absent per teacher. . These data were placed into a factorial design to measure the two types of leave policies as they interacted with the two types of absence reporting procedures. This type of analysis yielded an F-ratio of 0.238 with 1 degree of freedom between columns, rows, and columns by rows, 3 degrees of freedom between groups, and 25 degrees of freedom within groups, which was not significant at the .05 level. Table 4 provides a statistical summary of the multifactor analysis of variance for the interaction of leave policy and absence reporting procedure.

Research Question Number Five

What are the relationships between the personal variables of sex, age, marital status, and commuting time and absenteeism considering each personal variable separately as well as in combination with each other?

The staff survey was completed and returned by 1,048 (72.3%) of the 1,450 teachers who were selected at random from the 52 secondary schools represented by the 30 selected districts. This group of 1,048 teachers can be described on the basis of the independent variables of sex, age, marital status, and commuting time as presented in Table 5.

Data from the staff survey were analyzed on a total sample basis. No attempt was made to analyze the data by individual school or school district.

In many educational research problems involving prediction, it is

Table 4

Multifactor Analysis of Variance (2X2)

Summary for District Variables

Source of Variance	SS	df	MS	F	Level of Significance
Between Columns (Leave Policy)	0.272	1	0.272	0.0079	-
Between Rows (Absence Reporting Procedures)	2.755	1	2.755	0.807	-
Columns by Rows (Interaction)	0.812	1	0.812	0.238	-
Between Groups	3.839	3	1.279		
Within Groups	85.291	25	3.412		
Total	89.13	28	2.183		

SS = Sums of squares
df = degrees of freedom
MS = mean squares

Table 5

Percentage of Teacher Respondents by Independent Variable

N = 1,048

Variable	Category	Percentage
Sex	Male	56.3
	Female	43.7
Age	20-29	8.4
	30-39	34.7
	40-49	36.0
	Over 50	20.9
Marital Status	Married	73.8
	Unmarried	26.2
Commuting Time (One Way in Minutes)	1-10	30.2
	11-20	33.4
	21-30	19.8
	Over 30	16.6

desirable to determine the correlation between the behaviors that one wishes to predict and a combination of measures, each of which have been individually correlated with the predicted behavior. Multiple regression was used in this study in order to combine the predictive values of the measures of sex, age, marital status, and commuting time into a single formula in order to make an improved prediction. Table 6 shows the results of the stepwise multiple regression analysis of the independent variables (sex, age, marital status, commuting time) related to the dependent variable (days absent) for the secondary school teachers in the sample population.

Table 6

Correlation Between Four Predictors and Days Absent

Variable	Pearson r	Multiple R	R^2
Sex	.2156	.21564	.04650
Commuting Time	.1737	.27573	.07603
Age	.1462	.29549	.08732
Marital Status	.1077	.29841	.08905

The multiple regression analysis of the independent variables used in the study show an increase in the predictability of absenteeism. However, the increase in predictability (0.08277) did not allow the researcher to state that the regression equation was of value in predicting days absent from the multiple analysis of sex, age, marital status, and commuting time.

It was determined that an individual analysis of the respondents

in the study was necessary. Chi-square was selected as the statistical analysis to be used in determining if relationships existed between the independent variables taken separately and in all combinations with the dependent variable. Lambda, the uncertainty coefficient, and eta-squared were reported as measures of certainty in prediction of the dependent variable based upon the combinations of the independent variables in the study.

Sex and Absenteeism

The analysis of data for secondary school teachers in the sample population by sex yielded a positive chi-square value of 49.19753 (df = 3), which was significant at the .05 level (calculated significance = .0000). This finding indicated that a relationship existed between the number of days absent and the sex (gender) of the teacher. Female teachers were absent significantly more days than were male teachers in the sample population (Table 7).

Age and Absenteeism

The analysis of the data for secondary school teachers in the sample population by age groups (20-29, 30-39, 40-49, over 50) yielded a positive chi-square value of 37.39127 (df = 9), which was significant at the .05 level (calculated significance = .0000). This finding indicated that a relationship existed between the number of days absent and age of the teacher. The group with the greatest number of days absent was the 20-29 age group followed, in order, by the 30-39 and the 40-49 age groups. Teachers in the "over 50" age group had the fewest number of days absent in the sample population (Table 8).

Table 7

Percentage of Respondents in Category by Days Absent - Sex

N = 1,048

Days Absent	Male(%)	Female(%)
1-3	62.9	42.6
4-6	25.1	34.7
7-9	8.5	12.7
10+	3.6	10.0
Total	56.3	43.7

Lambda = .04681
Uncertainty Coefficient = .02643
Eta-squared = .0469
Significance = .0000

Table 8

Percentage of Respondents in Category by Days Absent - Age

N = 1,048

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	46.6	45.6	56.2	67.1
4-6	27.3	37.1	27.6	20.1
7-9	13.6	9.9	10.6	9.1
10+	12.5	7.4	5.6	3.7
Total	8.4	34.7	36.0	20.9

Lambda = .03209
Uncertainty Coefficient = .01475
Eta-squared = .0269
Significance = .0000

Marital Status and Absenteeism

The analysis of the data for secondary school teachers in the sample population by marital status (married, unmarried) yielded a positive chi-square value of 10.91849 (df = 3), which was significant at the .05 level (calculated significance = .0122). This finding indicated that a relationship existed between the number of days absent and the marital status of the teacher. Unmarried teachers had significantly more days absent than married teachers in the sample population (Table 9).

Commuting Time and Absenteeism

The analysis of the data for secondary school teachers in the sample population by commuting time as measured by minutes travelled one way to work (1-10, 11-20, 21-30, over 30) yielded a positive chi-square value of 29.42075 (df = 9), which was significant at the .05 level (calculated significance = .0006). This finding indicated that a relationship existed between the number of days absent and the time needed to travel one way to work. Teachers who travelled over 30 minutes one way to work were absent the greatest number of days of the groups in the sample population. The number of days absent increased as the travel time to work increased. Teachers who travelled 1-10 minutes one way to work had the fewest number of days absent in the sample population (Table 10).

Sex, Age, and Absenteeism

Data were analyzed by sex and age group combined for the secondary school teachers in the sample population. The analysis of the data for male teachers by age group yielded a positive chi-square

Table 9

Percentage of Respondents in Category by Days Absent - Marital Status

N = 1,048

Days Absent	Married(%)	Unmarried(%)
1-3	56.4	47.3
4-6	28.8	30.5
7-9	9.4	12.7
10+	5.3	9.5
Total	73.8	26.2

Lambda = .0000
Uncertainty Coefficient = .00596
Eta-squared = .0104
Significance = .0122

Table 10

Percentage of Respondents in Category by Days Absent - Commuting Time (Minutes)

N = 1,048

Days Absent	1-10(%)	11-20(%)	21-30(%)	30+(%)
1-3	59.0	55.7	54.6	40.8
4-6	28.7	29.7	26.6	32.8
7-9	7.9	10.3	11.6	13.2
10+	4.4	4.3	7.2	13.2
Total	30.2	33.4	19.8	16.6

Lambda = .00678
Uncertainty Coefficient = .01070
Eta-squared = .02478
Significance = .0006

value of 14.60036 (df = 9), which was not significant at the .05 level (calculated significance = .1025).

The analysis of the data for female teachers by age group yielded a positive chi-square value of 18.22190 (df = 9), which was significant at the .05 level (calculated significance = .0327).

These findings indicated that (1) no relationship existed between the number of days absent and the age of male teachers in the sample population (Appendix D, Table 39), and (2) a relationship existed between the number of days absent and the age of the female teachers in the sample population (Table 11). Female teachers over 50 years old were absent significantly less than female teachers in any other age group in the sample population. Days absent for female teachers in ascending order were (1) over 50 years old, (2) 40-49, (3) 30-39, and (4) 20-29.

Marital Status, Age, and Absenteeism

Data were analyzed by marital status and age group combined for the secondary school teachers in the sample population. The analysis of the data for married teachers by age group yielded a positive chi-square value of 33.67385 (df = 9), which was significant at the .05 level (calculated significance = .0001).

The analysis of the data for unmarried teachers by age group yielded a positive chi-square value of 19.81498 (df = 9), which was significant at the .05 level (calculated significance = .0191).

These findings indicated that (1) a relationship existed between the number of days absent and the age of the married teachers in the sample population, with absenteeism decreasing as age increased (Table

Table 11

Percentage of Respondents in Category by Days Absent - Sex and Age (Females)

N = 458

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	39.0	36.8	41.4	60.5
4-6	30.5	40.0	36.8	22.2
7-9	13.6	12.4	13.5	11.1
10+	16.9	10.8	8.3	6.2
Total	12.9	40.4	29.0	17.7

Lambda = .01119
Uncertainty Coefficient = .01543
Eta-squared = .0238
Significance = .0327

Table 12

Percentage of Respondents in Category by Days Absent - Marital Status and Age (Married)

N = 773

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	41.9	46.5	60.7	67.2
4-6	30.2	36.3	26.7	21.3
7-9	11.6	11.3	8.0	8.6
10+	16.3	5.9	4.7	2.9
Total	5.6	33.1	38.8	22.5

Lambda = .02346
Uncertainty Coefficient = .01736
Eta-squared = .02336
Significance = .0001

12), and (2) a relationship existed between the number of days absent and the age of the unmarried teachers in the sample population, with absenteeism decreasing as age increased (Table 13).

Commuting Time, Age, and Absenteeism

Data were analyzed by commuting time and age group combined for the secondary school teachers in the sample population. The analysis of the data for teachers who travelled 1-10 minutes one way to work by age group yielded a positive chi-square value of 14.42113 (df = 9), which was not significant at the .05 level (calculated significance = .1081).

The analysis of the data for teachers who travelled 11-20 minutes one way to work by age group yielded a positive chi-square value of 15.25007 (df = 9), which was not significant at the .05 level (calculated significance = .0843).

The analysis of the data for teachers who travelled 21-30 minutes one way to work by age group yielded a positive chi-square value of 14.63170 (df = 9), which was not significant at the .05 level (calculated significance = .1016).

The analysis of the data for teachers who travelled over 30 minutes one way to work by age group yielded a positive chi-square value of 23.26152 (df = 9), which was significant at the .05 level (calculated significance = .0056).

These findings indicated that (1) no relationships existed between the number of days absent and the age of teachers who travelled 1-10, 11-20, and 21-30 minutes one way to work (Appendix D, Tables 40-42), and (2) a relationship existed between the number of

Table 13

Percentage of Respondents in Category by Days Absent - Marital Status and Age (Unmarried)

N = 275

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	51.1	43.5	39.0	66.7
4-6	24.4	38.9	31.2	15.6
7-9	15.6	6.5	20.8	11.1
10+	8.9	11.1	9.1	6.7
Total	16.4	39.3	28.0	16.4

Lambda = .02885
Uncertainty Coefficient = .02913
Eta-squared = .0194
Significance = .0191

days absent and the age of teachers who travelled over 30 minutes one way to work, with absenteeism decreasing as age increased (Table 14).

Sex, Marital Status, and Absenteeism

Data were analyzed by sex and marital status combined for the secondary school teachers in the sample population. The analysis of the data for married teachers in the sample population by sex yielded a positive chi-square value of 44.45181 (df = 3), which was significant at the .05 level (calculated significance = .0000).

The analysis of the data for unmarried teachers in the sample population by sex yielded a positive chi-square value of 4.26792 (df = 3), which was not significant at the .05 level (calculated significance = .2339).

These findings indicated that (1) a relationship existed between the number of days absent and the sex of the married teachers in the sample population, with male teachers absent significantly fewer days than the females in the sample population (Table 15), and (2) no relationship existed between the number of days absent and the sex of the unmarried teachers in the sample population (Appendix D, Table 43).

Sex, Commuting Time, and Absenteeism

Data were analyzed by sex and commuting time combined for the secondary school teachers in the sample population. The analysis of the data for teachers who travelled 1-10 minutes one way to work by sex yielded a positive chi-square value of 32.05364 (df = 3), which was significant at the .05 level (calculated significance = .0000).

The analysis of the data for teachers who travelled 11-20 minutes one way to work by sex yielded a positive chi-square value of 9.98823

Table 14

Percentage of Respondents in Category by Days Absent - Commuting Time and Age (Over 30 minutes)

N = 174

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	20.0	37.3	42.0	60.9
4-6	13.3	40.3	34.9	17.4
7-9	20.0	11.9	13.0	13.0
10+	46.7	10.4	10.1	8.7
Total	8.6	38.5	39.7	13.2

Lambda = .04327
Uncertainty Coefficient = .04425
Eta-squared = .085
Significance = .0056

Table 15

Percentage of Respondents in Category by Days Absent - Sex and Marital Status (Married)

N = 773

Days Absent	Male(%)	Female(%)
1-3	65.0	41.3
4-6	24.4	36.7
7-9	7.3	13.2
10+	3.3	8.9
Total	63.6	36.4

Lambda = .01618
Uncertainty Coefficient = .03337
Eta-squared = .0575
Significance = .0000

(df = 3), which was significant at the .05 level (calculated significance = .0187).

The analysis of the data for teachers who travelled 21-30 minutes one way to work by sex yielded a positive chi-square value of 6.42185 (df = 3), which was not significant at the .05 level (calculated significance = .0928).

The analysis of the data for teachers who travelled over 30 minutes one way to work by sex yielded a positive chi-square value of 11.66330 (df = 3), which was significant at the .05 level (calculated significance = .0086).

These findings indicated that (1) a relationship existed between the number of days absent and the sex of the teacher who travelled 1-10 minutes one way to work, with males having significantly fewer days absent than the females in the sample population (Table 16), (2) a relationship existed between the number of days absent and the sex of the teacher who travelled 11-20 minutes one way to work, with males having significantly less days absent than females in the sample (Table 17), (3) no relationship existed between the number of days absent and the sex of the teacher who travelled 21-30 minutes one way to work (Appendix D, Table 44), and (4) a relationship existed between the number of days absent and the sex of the teacher who travelled over 30 minutes one way to work, with males having significantly lower absenteeism than females in the sample population (Table 18).

Marital Status, Commuting Time, and Absenteeism

Data were analyzed by marital status and commuting time combined for the secondary school teachers in the sample population. The

Table 16

Percentage of Respondents in Category by Days Absent - Sex and Commuting Time (1-10 Minutes)

N = 317

Days Absent	Male(%)	Female(%)
1-3	71.1	40.9
4-6	20.5	40.9
7-9	6.8	9.4
10+	1.6	8.7
Total	59.9	40.1

Lambda = .08171
Uncertainty Coefficient = .06064
Eta-squared = .1011
Significance = .0000

Table 17

Percentage of Respondents in Category by Days Absent - Sex and Commuting Time (11-20 Minutes)

N = 350

Days Absent	Male(%)	Female(%)
1-3	62.9	47.6
4-6	26.9	32.9
7-9	7.0	14.0
10+	3.2	5.5
Total	59.9	40.1

Lambda = .05329
Uncertainty Coefficient = .01643
Eta-squared = .0285
Significance = .0187

Table 18

Percentage of Respondents in Category by Days Absent - Sex and Commuting Time (Over 30 Minutes)

N = 174

Days Absent	Male(%)	Female(%)
1-3	50.5	27.4
4-6	29.7	37.0
7-9	11.9	15.1
10+	7.9	20.5
Total	58.0	42.0

Lambda = .07955
Uncertainty Coefficient = .03497
Eta-squared = .0670
Significance = .0086

analysis of the data for teachers who travelled 1-10 minutes one way to work by marital status yielded a positive chi-square value of 3.85612 (df = 3), which was not significant at the .05 level (calculated significance = .2773).

The analysis of the data for teachers who travelled 11-20 minutes one way to work by marital status yielded a positive chi-square value of 4.62866 (df = 3), which was not significant at the .05 level (calculated significance = .2011).

The analysis of the data for teachers who travelled 21-30 minutes one way to work by marital status yielded a positive chi-square value of 14.49307 (df = 3), which was significant at the .05 level (calculated significance = .0023).

The analysis of the data for teachers who travelled over 30 minutes one way to work by marital status yielded a positive chi-square value of 6.93463 (df = 3), which was not significant at the .05 level (calculated significance = .0740).

These findings indicated that (1) no relationship existed between the number of days absent and the marital status of teachers who travelled 1-10, 11-20, or over 30 minutes one way to work (Appendix D, Tables 45-47), and (2) a relationship existed between the number of days absent and the marital status of teachers who travelled 21-30 minutes one way to work, with married teachers having significantly lower absence rates than unmarried teachers in the sample population (Table 19).

Age, Sex, Marital Status, and Absenteeism

Data were analyzed by age, sex, and marital status combined for

Table 19

Percentage of Respondents in Category by Days Absent - Marital Status and Commuting Time (21-30 Minutes)

N = 207

Days Absent	Married(%)	Unmarried(%)
1-3	60.4	37.7
4-6	24.0	34.0
7-9	11.7	11.3
10+	3.9	17.0
Total	74.4	25.6

Lambda = .02041
Uncertainty Coefficient = .03795
Eta-squared = .070
Significance = .0023

the secondary school teachers in the sample population. The analysis of the data for married males by age group yielded a positive chi-square value of 10.76764 (df = 9), which was not significant at the .05 level (calculated significance = .2920).

The analysis of the data for unmarried males by age group yielded a positive chi-square value of 11.87051 (df = 9), which was not significant at the .05 level (calculated significance = .2207).

The analysis of the data for married females by age group yielded a positive chi-square value of 14.95884 (df = 9), which was not significant at the .05 level (calculated significance = .0921).

The analysis of the data for unmarried females by age group yielded a positive chi-square value of 11.50493 (df = 9), which was not significant at the .05 level (calculated significance = .2427).

These findings indicated that no relationship existed between the number of days absent and the combined factors of sex, age, and marital status for any of the teachers in the sample population (Appendix D, Tables 47-51).

Age, Sex, Commuting Time, and Absenteeism

Data were analyzed by age, sex, and commuting time combined for the secondary school teachers in the sample population. The analysis of the data for male teachers who travelled 1-10 minutes one way to work by age group yielded a positive chi-square value of 5.99277 (df = 9), which was not significant at the .05 level (calculated significance = .7406).

The analysis of the data for female teachers who travelled 1-10 minutes one way to work by age group yielded a positive chi-square

value of 14.44223 (df = 9), which was not significant at the .05 level (calculated significance = .1074).

The analysis of the data for male teachers who travelled 11-20 minutes one way to work by age group yielded a positive chi-square value of 14.25065 (df = 9), which was not significant at the .05 level (calculated significance = .1137).

The analysis of the data for female teachers who travelled 11-20 minutes one way to work by age group yielded a positive chi-square value of 7.20654 (df = 9), which was not significant at the .05 level (calculated significance = .6156).

The analysis of the data for male teachers who travelled 21-30 minutes one way to work by age group yielded a positive chi-square value of 13.32116 (df = 9), which was not significant at the .05 level (calculated significance = .1486).

The analysis of the data for female teachers who travelled 21-30 minutes one way to work by age group yielded a positive chi-square value of 16.65134 (df = 9), which was not significant at the .05 level (calculated significance = .0545).

The analysis of the data for male teachers who travelled over 30 minutes one way to work by age group yielded a positive chi-square value of 11.10701 (df = 9), which was not significant at the .05 level (calculated significance = .2684).

The analysis of the data for female teachers who travelled over 30 minutes one way to work yielded a positive chi-square value of 17.9500 (df = 9), which was significant at the .05 level (calculated significance = .0358).

These findings indicated that, with the exception of female teachers who travelled over 30 minutes one way to work, no relationships existed between the number of days absent and the combined variables of age, sex, and commuting time for all other teachers in the sample population (Appendix D, Tables 52-58). A relationship existed between the number of days absent and the age of female teachers who travelled over 30 minutes one way to work with absenteeism decreasing significantly as age increased (Table 20).

Age, Marital Status, Commuting Time, and Absenteeism

Data were analyzed by age, marital status, and commuting time combined for the secondary school teachers in the sample population. The analysis of the data for married teachers who travelled 1-10 minutes one way to work by age group yielded a positive chi-square value of 14.31908 (df = 9), which was not significant at the .05 level (calculated significance = .1114).

The analysis of the data for unmarried teachers who travelled 1-10 minutes one way to work by age group yielded a positive chi-square value of 12.72038 (df = 9), which was not significant at the .05 level (calculated significance = .1757).

The analysis of the data for married teachers who travelled 11-20 minutes one way to work by age group yielded a positive chi-square value of 16.32202 (df = 9), which was not significant at the .05 level (calculated significance = .0605).

The analysis of the data for unmarried teachers who travelled 11-20 minutes one way to work by age group yielded a positive chi-square value of 13.02859 (df = 9), which was not significant at

Table 20

Percentage of Respondents in Category by Days Absent - Age, Sex, and Commuting Time

(Females Travelling over 30 Minutes)

N = 73

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	25.0	15.6	41.7	40.0
4-6	8.3	50.0	37.5	20.0
7-9	16.7	15.6	8.3	40.0
10+	50.0	18.8	12.5	0.0
Total	16.4	43.8	12.5	6.8

Lambda = .13793
Uncertainty Coefficient = .09873
Eta-squared = .105
Significance = .0358

the .05 level (calculated significance = .1613).

The analysis of the data for married teachers who travelled 21-30 minutes one way to work by age group yielded a positive chi-square value of 10.54427 (df = 9), which was not significant at the .05 level (calculated significance = .3082).

The analysis of the data for unmarried teachers who travelled 21-30 minutes one way to work by age group yielded a positive chi-square value of 11.99463 (df = 9), which was not significant at the .05 level (calculated significance = .2136).

The analysis of the data for married teachers who travelled over 30 minutes one way to work by age group yielded a positive chi-square value of 30.39478 (df = 9), which was significant at the .05 level (calculated significance = .0004).

The analysis of the data for unmarried teachers who travelled over 30 minutes one way to work by age group yielded a positive chi-square value of 11.83695 (df = 9), which was not significant at the .05 level (calculated significance = .2227).

These findings indicated that a relationship existed between the number of days absent and the combined factors of age, marital status, and commuting time only for the married teachers who travelled over 30 minutes one way to work in the sample population. Teachers in the 20-29 age group were absent significantly more days than were teachers in any of the other age groups for married teachers who travel over 30 minutes one way to work (Table 21). No relationships existed for teachers in the other categories for the combined factors of age, marital status, and commuting time in the sample population (Appendix

Table 21

Percentage of Respondents in Category by Days Absent - Age, Marital Status, and Commuting Time (Married Teachers Travelling over 30 Minutes)

N = 126

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	18.2	44.7	45.8	65.0
4-6	18.2	36.2	33.3	15.0
7-9	0.0	12.8	10.4	10.0
10+	63.6	6.4	10.4	10.0
Total	8.7	37.3	38.1	15.9

Lambda = .06164
Uncertainty Coefficient = .07392
Eta-squared = .126
Significance = .0004

D, Tables 59-65).

Sex, Marital Status, Commuting Time, and Absenteeism

Data were analyzed by sex, marital status, and commuting time combined for the secondary school teachers in the sample population. The analysis of the data for married teachers who travelled 1-10 minutes one way to work by sex yielded a positive chi-square value of 26.85648 (df = 3), which was significant at the .05 level (calculated significance = .0000).

The analysis of the data for unmarried teachers who travelled 1-10 minutes one way to work by sex yielded a positive chi-square value of 4.08173 (df = 3), which was not significant at the .05 level (calculated significance = .2528).

The analysis of the data for married teachers who travelled 11-20 minutes one way to work by sex yielded a positive chi-square value of 11.74714 (df = 3), which was not significant at the .05 level (calculated significance = .0083).

The analysis of the data for unmarried teachers who travelled 11-20 minutes one way to work by sex yielded a positive chi-square value of 1.46207 (df = 3), which was not significant at the .05 level (calculated significance = .6911).

The analysis of the data for married teachers who travelled 21-30 minutes one way to work by sex yielded a positive chi-square value of 9.79754 (df = 3), which was significant at the .05 level (calculated significance = .0204).

The analysis of the data for unmarried teachers who travelled 21-30 minutes one way to work by sex yielded a positive chi-square

value of 5.72569 (df = 3), which was not significant at the .05 level (calculated significance = .1257).

The analysis of the data for married teachers who travelled over 30 minutes one way to work by sex yielded a positive chi-square value of 5.03472 (df = 3), which was not significant at the .05 level (calculated significance = .1693).

The analysis of the data for unmarried teachers who travelled over 30 minutes one way to work by sex yielded a positive chi-square value of 7.87302 (df = 3), which was significant at the .05 level (calculated significance = .0487).

These findings indicated that (1) a relationship existed between the number of days absent and the sex of married teachers who travelled 1-10 minutes one way to work in the sample population. Males in this group had significantly fewer days absent than did the females in the sample population (Table 22), (2) no relationship existed between the number of days absent and the sex of the unmarried teachers who traveled 1-10 minutes one way to work (Appendix D, Table 66), (3) a relationship existed between the number of days absent and the sex of the married teachers who travelled 11-20 minutes one way to work in the sample population. Males in this group had significantly fewer days absent than did the females in the sample population (Table 23), (4) no relationship existed between the number of days absent and the sex of the unmarried teachers who travelled 11-20 minutes one way to work in the sample population (Appendix D, Table 67), (5) a relationship existed between the sex of the married teachers in the sample population who travelled 21-30 minutes one way to work. Males

Table 22

Percentage of Respondents in Category by Days Absent - Sex, Marital Status, and Commuting Time (Married Travelling 1-10 Minutes)

N = 239

Days Absent	Male(%)	Female(%)
1-3	72.6	38.7
4-6	19.5	44.0
7-9	6.1	9.3
10+	1.8	8.0
Total	68.6	31.4

Lambda = .04819
Uncertainty Coefficient = .06957
Eta-squared = .112
Significance = .0000

Table 23

Percentage of Respondents in Category by Days Absent - Sex, Marital Status, and Commuting Time (Married Travelling 11-20 Minutes)

N = 254

Days Absent	Male(%)	Female(%)
1-3	62.0	40.6
4-6	27.8	40.6
7-9	7.0	14.6
10+	3.2	4.2
Total	62.2	37.8

Lambda = .01408
Uncertainty Coefficient = .02707
Eta-squared = .046
Significance = .0083

in this group had significantly fewer days absent than did the females in the sample population (Table 24), (6) no relationship existed between the number of days absent and the sex of the unmarried teachers in the sample population who travelled 21-30 minutes one way to work (Appendix D, Table 68), (7) no relationship existed between the number of days absent and the sex of the married teachers in the sample population who travelled over 30 minutes one way to work (Appendix D, Table 69), and (8) a relationship existed between the number of days absent and the sex of the unmarried teachers in the sample population who travelled over 30 minutes one way to work. Males in this group had significantly fewer days absent than the females in the sample population (Table 25).

Sex, Age, Marital Status, Commuting Time, and Absenteeism

Data were analyzed by sex, age, marital status, and commuting time combined for the secondary school teachers in the sample population. The following categories contained too few respondents to be able to apply statistical analyses when divided by sex:

1. Married teachers ages 20-29 who travelled 1-10 minutes one way to work.

2. Unmarried teachers ages 20-29 who travelled 1-10 minutes one way to work.

3. Married teachers ages 20-29 who travelled 11-20 minutes one way to work.

4. Unmarried teachers ages 20-29 who travelled 11-20 minutes one way to work.

5. Married teachers ages 20-29 who travelled 21-30 minutes one

Table 24

Percentage of Respondents in Category by Days Absent - Sex, Marital Status, and Commuting Time (Married Travelling 21-30 Minutes)

N = 154

Days Absent	Male(%)	Female(%)
1-3	68.1	49.2
4-6	23.1	25.4
7-9	7.7	17.5
10+	1.1	7.9
Total	59.1	40.9

Lambda = .06452
Uncertainty Coefficient = .03779
Eta-squared = .064
Significance = .0204

Table 25

Percentage of Respondents in Category by Days Absent - Sex, Marital Status, and Commuting Time (Unmarried Travelling Over 30 Minutes)

N = 48

Days Absent	Male(%)	Female(%)
1-3	45.5	11.5
4-6	31.8	46.2
7-9	18.2	23.1
10+	4.5	19.2
Total	45.8	54.2

Lambda = .19608
Uncertainty Coefficient = .08646
Eta-squared = .164
Significance = .0487

way to work.

6. Unmarried teachers ages 20-29 who travelled 21-30 minutes one way to work.

7. Married teachers ages 20-29 who travelled over 30 minutes one way to work.

8. Unmarried teachers ages 20-29 who travelled over 30 minutes one way to work.

9. Unmarried teachers ages 40-49 who travelled 1-10 minutes one way to work.

10. Unmarried teachers ages 40-49 who travelled 21-30 minutes one way to work.

11. Unmarried teachers over 50 years old who travelled 1-10 minutes one way to work.

12. Unmarried teachers over 50 years old who travelled 11-20 minutes one way to work.

13. Unmarried teachers over 50 years old who travelled 21-30 minutes one way to work.

14. Unmarried teachers over 50 years old who travelled over 30 minutes one way to work.

The analysis of the data for married teachers ages 30-39 who travelled 1-10 minutes one way to work by sex yielded a positive chi-square value of 8.27231 (df = 3), which was significant at the .05 level (calculated significance = .0407).

The analysis of the data for unmarried teachers ages 30-39 who travelled 1-10 minutes one way to work by sex yielded a positive chi-square value of 0.39673 (df = 3), which was not significant at the

.05 level (calculated significance = .9409).

The analysis of the data for married teachers ages 30-39 who travelled 11-20 minutes one way to work by sex yielded a positive chi-square value of 3.65576 (df = 3), which was not significant at the .05 level (calculated significance = .3011).

The analysis of the data for unmarried teachers ages 30-39 who travelled 11-20 minutes one way to work by sex yielded a positive chi-square value of 0.97222 (df = 3), which was not significant at the .05 level (calculated significance = .8080).

The analysis of the data for married teachers ages 30-39 who travelled 21-30 minutes one way to work by sex yielded a positive chi-square value of 3.71108 (df = 3), which was not significant at the .05 level (calculated significance = .2944).

The analysis of the data for unmarried teachers ages 30-39 who travelled 21-30 minutes one way to work by sex yielded a positive chi-square value of 0.10476 (df = 3), which was not significant at the .05 level (calculated significance = .9490).

The analysis of the data for married teachers ages 30-39 who travelled over 30 minutes one way to work by sex yielded a positive chi-square value of 4.59930 (df = 3), which was not significant at the .05 level (calculated significance = .2036).

The analysis of the data for unmarried teachers ages 30-39 who travelled over 30 minutes one way to work by sex yielded a positive chi-square value of 10.76923 (df = 3), which was significant at the .05 level (calculated significance = .0130).

The analysis of the data for married teachers ages 40-49 who

travelled over 1-10 minutes one way to work by sex yielded a positive chi-square value of 8.25106 (df = 3), which was significant at the .05 level (calculated significance = .0411).

The analysis of the data for married teachers ages 40-49 who travelled 11-20 minutes one way to work by sex yielded a positive chi-square value of 7.34547 (df = 3), which was not significant at the .05 level (calculated significance = .0617).

The analysis of the data for unmarried teachers ages 40-49 who travelled 11-20 minutes one way to work by sex yielded a positive chi-square value of 1.12500 (df = 3), which was not significant at the .05 level (calculated significance = .7710).

The analysis of the data for married teachers ages 40-49 who travelled 21-30 minutes one way to work by sex yielded a positive chi-square value of 12.18749 (df = 3), which was significant at the .05 level (calculated significance = .0068).

The analysis of the data for married teachers ages 40-49 who travelled over 30 minutes one way to work by sex yielded a positive chi-square value of 0.62216 (df = 3), which was not significant at the .05 level (calculated significance = .8913).

The analysis of the data for unmarried teachers ages 40-49 who travelled over 30 minutes one way to work by sex yielded a positive chi-square value of 1.16106 (df = 3), which was not significant at the .05 level (calculated significance = .7624).

The analysis of the data for married teachers over 50 years old who travelled 1-10 minutes one way to work by sex yielded a positive chi-square value of 8.20202 (df = 3), which was significant at the .05

level (calculated significance = .0420).

The analysis of the data for married teachers over 50 years old who travelled 11-20 minutes one way to work by sex yielded a positive chi-square value of 5.42380 (df = 3), which was not significant at the .05 level (calculated significance = .1433).

The analysis of the data for married teachers over 50 years old who travelled 21-30 minutes one way to work by sex yielded a positive chi-square value of 3.53974 (df = 3), which was not significant at the .05 level (calculated significance = .1704).

The analysis of the data for teachers over 50 years old who travelled over 30 minutes one way to work by sex yielded a positive chi-square value of 3.53974 (df = 3), which was not significant at the .05 level (calculated significance = .4226).

These findings indicated that no relationships existed between the number of days absent and the sex of (1) unmarried teachers in the sample population ages 30-39 who travelled 1-10 minutes one way to work (Appendix D, Table 70), (2) married teachers in the sample population ages 30-39 who travelled 11-20 minutes one way to work (Appendix D, Table 71), (3) unmarried teachers in the sample population ages 30-39 who travelled 11-20 minutes one way to work (Appendix D, Table 72), (4) married teachers in the sample population ages 30-39 who travelled 21-30 minutes one way to work (Appendix D, Table 73), (5) unmarried teachers in the sample population ages 30-39 who travelled 21-30 minutes one way to work (Appendix D, Table 74), (6) married teachers in the sample population ages 30-39, who travelled over 30 minutes one way to work (Appendix D, Table 75), (7)

married teachers in the sample population ages 40-49 who travelled 11-20 minutes one way to work (Appendix D, Table 76), (8) unmarried teachers in the sample population ages 40-49 who travelled 11-20 minutes one way to work (Appendix D, Table 77), (9) married teachers in the sample population ages 40-49 who travelled over 30 minutes one way to work (Appendix D, Table 78), (10) unmarried teachers in the sample population ages 40-49 who travelled over 30 minutes one way to work (Appendix D, Table 79), (11) married teachers in the sample population over 50 years old who travelled 11-20 minutes one way to work (Appendix D, Table 80), (12) married teachers in the sample population over 50 years old who travelled 21-30 minutes one way to work (Appendix D, Table 81), (13) married teachers in the sample population over 50 years old who travelled over 30 minutes one way to work (Appendix D, Table 82).

These findings also indicated that a relationship existed between the number of days absent and the sex of (1) married teachers in sample population ages 30-39 who travelled 1-10 minutes one way to work (Table 26), (2) unmarried teachers in the sample population ages 30-39 who travelled over 30 minutes one way to work (Table 27), (3) married teachers in the sample population ages 40-49 who travelled 1-10 minutes one way to work (Table 28), (4) married teachers in the sample population ages 40-49 who travelled 21-30 minutes one way to work (Table 29), and (5) married teachers in the sample population over 50 years old who travelled 1-10 minutes one way to work (Table 30).

Table 26

Percentage of Respondents in Category by Days Absent - Sex, Age, and Marital Status and Commuting Time (Married, Age 30-39, Travelling 1-10 Minutes)

N = 76

Days Absent	Male(%)	Female(%)
1-3	65.9	34.4
4-6	22.7	50.0
7-9	9.1	9.4
10+	2.3	6.3
Total	57.9	42.1

Lambda = .17647
Uncertainty Coefficient = .06361
Eta-squared = .109
Significance = .0407

Table 27

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Unmarried, Age 30-39, Travelling over 30 Minutes)

N = 20

Days Absent	Male(%)	Female(%)
1-3	57.1	0.0
4-6	42.9	53.8
7-9	0.0	15.4
10+	0.0	30.8
Total	35.0	65.0

Lambda = .29412
Uncertainty Coefficient = .36617
Eta-squared = .538
Significance = .0130

Table 28

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married, Age 40-49, Travelling 1-10 Minutes)

N = 85

Days Absent	Male(%)	Female(%)
1-3	71.2	36.8
4-6	21.2	47.4
7-9	4.5	5.3
10+	3.0	10.5
Total	77.6	22.4

Lambda = .04000
Uncertainty Coefficient = .06314
Eta-squared = .097
Significance = .0411

Table 29

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married, Age 40-49, Travelling 21-30 Minutes)

N = 65

Days Absent	Male(%)	Female(%)
1-3	82.5	44.0
4-6	12.5	28.0
7-9	5.0	16.0
10+	0.0	12.0
Total	61.5	38.5

Lambda = .15217
Uncertainty Coefficient = .12651
Eta-squared = .187
Significance = .0068

Table 30

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married, Over 50 Years Old, Travelling 1-10 Minutes)

N = 64

Days Absent	Male(%)	Female(%)
1-3	79.2	62.5
4-6	14.6	25.0
7-9	6.3	0.0
10+	0.0	12.5
Total	75.0	25.0

Lambda = .06250
Uncertainty Coefficient = .09886
Eta-squared = .128
Significance = .0420

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to analyze selected secondary school districts and their teachers to determine factors that contribute to teacher absenteeism. Five research questions provided a framework by which the purpose of the study was accomplished: (1) What do available research and literature say regarding the impact of employee absenteeism? (2) What do available research and literature indicate are the factors affecting employee absenteeism? (3) What are the monetary costs incurred by the selected districts for teacher absenteeism considered on a per teacher basis? (4) How are a district's absence reporting procedures and leave policy related to teacher absenteeism both individually and collectively? and (5) What are the relationships between the personal variables of sex, age, marital status, and commuting time and teacher absenteeism considering each personal variable separately and in combination with each other?

In order to accomplish the purpose of this study, the following methods and procedures were utilized:

1. The population consisted of all 52 secondary school districts and all 7,251 secondary school teachers in those districts in the Illinois counties of Cook, DuPage, Lake, McHenry, and Will during the 1983-84 school year.

2. The sample consisted of the 29 secondary school districts that responded to the District Survey and the 1,048 secondary school teachers in those districts who responded to the Staff Survey.

3. The research and literature were reviewed relative to the topics of the impact of and the factors affecting employee absenteeism.

4. The author-developed District Survey was mailed to the 30 superintendents who agreed to participate in the study. Twenty-nine superintendents returned completed questionnaires.

5. A follow-up mailing for non-respondents to the survey was completed.

6. The author-developed Staff Survey was mailed to a selected sample of the staff of each secondary school district that responded to the initial survey. Completed questionnaires were returned by 1,048 secondary school teachers in the sample population.

7. The data received from the surveys were tabulated and analyzed using multifactor analysis of variance for the district variables and crosstabulation and multiple regression analysis for the personal demographic variables.

8. Conclusions were drawn and recommendations were made.

The limitations of this study were those inherent in using mailed questionnaires. The staff survey was further limited in that the questionnaire was randomly distributed by district administrators.

While there are other district, building, and personal variables, such as number of schools, student enrollment, size of staff, student/teacher ratio, assessed valuation of district, teacher salary

schedule, administrators' leadership style, number of dependent children in the household, job satisfaction, etc., that impact on teacher absenteeism, this study was limited to determining the relationships between the district variables of absence reporting procedure and leave policy, the personal variables of sex, age, marital status, and commuting time and teacher absenteeism.

The study was delimited to public secondary school district (9-12) superintendents and teachers. It was also delimited by the fact that the study confined itself to public secondary school districts in the Illinois counties of Cook, DuPage, Lake, McHenry, and Will.

This chapter presents the conclusions and recommendations of the study resulting from the review of literature as applied to the questions addressed in the study and analysis of survey responses and demographic information.

Conclusions from Literature and Research

Several conclusions to this study evolved. They were based solely on the evidence found in the study and did not reflect the opinions of any particular individual. The conclusions reflected only the data gathered and reported.

1. The literature search indicated that noneconomic and economic factors were effected by employee absenteeism.

The noneconomic factors effected by employee absenteeism that were identified in the literature and research were increased time for the supervision of replacement or substitute workers, decreased productivity due to the use of new or inexperienced workers, and

resentment of employees whose work load increased due to the absence of co-workers.

The economic factors effected by employee absenteeism that were identified in the literature and research were cash benefits paid to replace the income loss due to reported illness or accident suffered away from work, increased overtime pay, continued accrual of fringe benefit expenses, substitute teacher salaries, and clerical assistance and record keeping associated with administering an absence control system.

2. The literature search indicated that organizational policies and practices designed to reduce employee absenteeism are consistently more effective in business and industrial settings than in educational settings.

Researchers in industry have found that companies that offer sick-leave pay have higher rates of absenteeism than those that did not have such a scheme. It was also found that the loss of wages and/or benefits were deterrents to absenteeism.

Researchers in education have found contradictory results for every aspect of organizational policies and practices designed to decrease employee absenteeism. These contradictory results indicated that no single policy or practice used in a school district had the consistent effect, over time, of reducing employee absenteeism.

3. Although the literature search indicated that the personal demographic variables of employees related to absenteeism varied from one research study to the next, the personal variables of sex, age, and marital status were found to be related to absenteeism.

All major research studies in business and industry, as well as education found that males had better attendance than females, absenteeism decreased with increasing age, and married employees had better attendance than unmarried employees.

Researchers occasionally found other variables that were related to absenteeism, including the combined effects of sex and marital status, tenure status, experience, type of degree, subject areas and/or level taught, salary, race, family size, and number of accumulated sick-leave days.

Conclusions and Recommendations from Current Study

1. The amount of money allocated for substitute teachers by a secondary school district does not accurately reflect the amount of money actually needed to supply class coverage for absent teachers.

The data represented in Tables 2 and 3 indicated large discrepancies between the amount budgeted for substitute teachers and the amount actually expended for substitute teachers.

Individual secondary school districts should approach the development of a substitute teacher budget from a historical perspective. Absenteeism costs per teacher over a period of several years should be analyzed when a district develops its substitute teacher allocations in order to avoid, as much as possible, excessive overexpenditures or underexpenditures of the substitute teacher budget.

2. Neither the type of leave policy (nonrestrictive or restrictive), nor the type of absence reporting procedures (nonsupervisory or supervisory), nor the interaction of leave policy

and absence reporting procedure had the effect of reducing teacher absenteeism.

The analysis of the data represented in Tables 31-38 in Appendix C indicated that the two types of leave policy and the two types of absence reporting procedures described in this study had no effect on the rates of teacher absenteeism. The interaction of these two variables also indicated no effect in reducing absence rates in the districts. This phenomenon appears in the literature and research as well (Dalton and Perry, 1981; Morgan and Herman, 1976).

Teacher unions and boards of education should take note of these findings when negotiating a collective bargaining agreement. While less restrictive policy and procedure may seem to be desirable from a union position and less than desirable from a board perspective, the overall effects indicated in this study should not necessitate these issues to be major concerns of either labor or management.

3. The personal demographic variables of sex, age, marital status, and commuting time cannot predict absenteeism rates with any degree of certainty.

Even though the data gathered in this study, when analyzed by sex, age, marital status, and commuting time, indicated a high level of significance (.0000, .0000, .0122, and .0006 respectively), the values of lambda, the uncertainty coefficient, and eta-squared (Appendix E) indicated that (1) prediction could not be made without a high degree of error, (2) a higher degree of uncertainty existed in predicting the dependent variable once the independent variable was known, and (3) the proportion of variance in the dependent variable

accounted for by the independent variable was not large enough to make predictions.

4. No linear combination of the independent variables (sex, age, marital status, and commuting time) existed that would allow meaningful prediction of the dependent variable (days absent).

The use of multiple regression analysis determined the order of importance of each independent variable in the prediction of values of the dependent variable. The importance of the independent variables, in descending order, was determined to be (1) sex, (2) commuting time, (3) age, and (4) marital status. The improvement of prediction, however, indicated that the multiple regression analysis of the four independent variables selected for this study would not be meaningful.

5. Based on the analysis of the multiple interactions of the personal demographic variables (sex, age, marital status, and commuting time) in all possible combinations, overall prediction improved (lambda), less uncertainty existed in prediction (uncertainty coefficient), and a larger proportion of variance in the dependent variable was accounted for by the independent variable (eta squared).

Appendix E indicates that this was the case. The use of crosstabulation to identify all possible combinations of the four independent variables increased predictability of the dependent variable.

Current labor law does not allow discrimination in hiring on the basis of sex, age, or marital status. The implications of this study could not be used for this purpose. However, those individuals responsible for the retention of certified staff should avail

themselves of the content and implications of this study. Management's objective must be the detection of absence-prone teachers so that remediation may be undertaken. School districts should keep accurate records so that absence patterns can be determined. A review of the absentee records of a school district's teachers can provide the district with pertinent information. Absence-prone teacher profiles will vary from one district to the next, thus making local research necessary in order to identify the high risk absence groups.

Recommendations for Further Study

Recommendations for further study include addressing the following concerns:

1. Replicate the study in another large geographic area in order to generalize the data to a larger population.

2. Replicate the study using elementary school districts and unit or consolidated districts as the sample in order to determine if the results would compare favorably with this study.

3. Replicate the study recording the exact number of days absent for each respondent to be better able to identify the high risk absence groups.

4. A study should be conducted that attempts to identify and organize other variables with the existing variables into a more complex model that will more effectively predict absenteeism.

5. A study should be conducted to determine if there is a relationship between teacher absenteeism and student achievement.

6. Replicate the study using individual secondary schools as the unit of analysis.

7. A historical longitudinal study should be conducted to determine if past absenteeism is a predictor of future absenteeism.

8. A study should be conducted to determine if a district's absence rates decline immediately following a change in policy and/or procedure relative to employee absenteeism.

9. A study should be conducted that would ensure valid sample sizes for the groups whose samples were too small to yield valid results in this study.

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APPENDIX A

DISTRICT SURVEY

1. Amount budgeted for substitute teachers for the 1983-84 school year.

   $_____

2. Amount expended for substitute teachers for the 1983-84 school year.

   $_____

3. Is a person employed in your high school(s) to secure substitute teachers as needed?

   _____Yes _____No

   If yes, please complete items 4 and 5. If more than one person is assigned this task, please average the data or include data for each individual assigned to the task.

4. What percentage of the substitute teacher clerk's time is spent on substitute teacher assignments?

   _____5-10 _____41-60
   _____11-20 _____61-80
   _____21-40 _____81-100

5. What is the annual salary for your substitute clerk(s)?

   $_____

6. How many personal leave days are granted each teacher per year?

   _____0 _____3
   _____1 _____more than three
   _____2

7. Do personal days either accumulate if unused or change to sick leave days?

   _____Yes _____No

8. Total number of teacher personal days used during the 1983-84 school year.

   _____

9. Total number of teacher sick leave days used during the 1983-84 school year.

   _____

10. What procedures are used for teachers to report their absences?

    _____answering service or machines
    _____direct contact with substitute clerk

_____direct contact with immediate supervisor (Dept. Chair, Div. Head, Director)
_____direct contact with Principal

11. What type of verification of illness is required for short-term sick leave days used? (1-3 days absent)

_____none required
_____note from doctor's office
_____evidence of treatment
_____invoice from doctor or treatment center

12. Please attach a copy of your district's sick leave policy for certified staff.

13. If you would like a summary of the results of this study please fill in your mailing address on the following lines.

_____

_____

_____

_____

STAFF SURVEY

I. SEX: _____MALE _____FEMALE

II. AGE:
_____20-29
_____30-39
_____40-49
_____50 years or older

III. MARITAL STATUS: _____MARRIED _____UNMARRIED

IV. COMMUTING TIME (minutes one way to work):

_____1-10
_____11-20
_____21-30
_____Over 30

V. DAYS ABSENT FROM WORK DURING THE 1983-84 SCHOOL YEAR CHARGED TO SICK LEAVE:

_____0-2 _____9-11
_____3-5 _____12 or more
_____6-8

VI. PERSONAL BUSINESS DAYS USED DURING THE 1983-84 SCHOOL YEAR:

_____0 _____3
_____1 _____4
_____2 _____5 or more

APPENDIX B

Niles Township High Schools

Niles North
9800 Lawler Avenue, Skokie, Illinois 60077
telephone 312/673-6900

November, 1984

Dear Superintendent:

I am conducting research to analyze teacher absenteeism in suburban secondary school districts in the Illinois counties of Cook, Lake, DuPage, McHenry, and Will for my doctoral dissertation at Loyola University of Chicago. Your district was selected at random for this study.

The aspects to be studied are sick leave policy, absence reporting procedures, and costs - at the district level. I hope that you or your designee can spare the time to complete the enclosed questionnaire and return it to me in the stamped envelope as quickly as possible. I have also sent copies of the staff questionnaire to each of the principals in your district in order to obtain teacher data relative to age, sex, marital status, commuting time, and number of days used for illness and personal business during the 1983-84 school year. Copies of these forms and cover letters have been included for your perusal.

If you have any questions or comments concerning this study, I would be happy to discuss them with you. I trust that the results may provide information which will be useful to your district. If you are interested, I will be happy to send you a summary of the study upon its completion if you enter your name and address in the space provided at the end of the questionnaire.

All responses will be dealt with in a confidential manner. Results will not be reported school by school nor district by district. A coding system known only to me will be used in order to match teacher data to district data.

Thank you for your efforts.

Sincerely,

David J. Schusteff
David J. Schusteff
Director of Instruction

Endorsed by:

James G. Erickson
James G. Erickson
Superintendent

DJS:rr
enc.

Niles Township High Schools

Niles North
9800 Lawler Avenue, Skokie, Illinois 60077
telephone 312/673-6900

Dear Principal:

I hope that you can spare the time to help me in a research study I am conducting for my doctoral dissertation at Loyola University of Chicago. Your district superintendent has agreed that I may ask your cooperation in distributing questionnaires to your teachers in order to complete one phase of the study that involves the analysis of teacher absenteeism as it relates to several demographic variables. Your district was one of thirty secondary school districts selected at random in suburban Cook, Lake, DuPage, McHenry, and Will counties.

I am enclosing a sufficient number of cover letters, questionnaires, and return envelopes for the number of your staff needed for significant data collection. All results will be reported in general terms — not school by school nor district by district. A coding system known only to me is being used in order to match the teacher data with the district data. You may distribute these questionnaires in any way you wish — alphabetically, department by department, etc.

Participation in this study is purely voluntary on the part of the subjects. Any attempt to coerce an employee to participate may be harmful to the study.

I would sincerely appreciate your distribution of these materials as quickly as possible. If you have any questions or comments concerning this study, I would be happy to discuss them with you.

Sincerely,

David J. Schusteff

David J. Schusteff
Director of Instruction

DJS:rr
enc.

Niles Township High Schools

Niles North
9800 Lawler Avenue, Skokie, Illinois 60077
telephone 312/673-6900

Dear Colleague:

I am in the process of writing my doctoral dissertation at Loyola University of Chicago. My topic is an Analysis of Teacher Absenteeism in Secondary School Districts in the Metropolitan Chicago Area. The purpose of this study is to draw inferences from correlations to determine if there is an identifiable "absence-prone" profile.

You and your school district have been randomly selected as participants in this study. Your participation is strictly voluntary. No one will know who has participated and who not. Results will be reported in general terms — not school by school nor district by district — and only I will know which teacher data belongs with the corresponding district data through a coding system known only to me.

DO NOT IDENTIFY YOURSELF OR YOUR SCHOOL BY NAME ON THE SURVEY INSTRUMENT! This is imperative as to avoid the possible misuse of this information for the purpose of hiring or retention for the present or future. This data will only be used to determine correlations between age, sex, marital status, commuting time, district sick leave policy, and absence reporting procedures with teacher absenteeism. Please be assured that every precaution has been and will be taken to protect the privacy of your responses.

Please use the addressed, stamped envelope to return your questionnaire. Your timely response to the following questions will be greatly appreciated.

Sincerely,

David J. Schusteff

David J. Schusteff
Director of Instruction

DJS:rr
enc.

APPENDIX C

Table 31

Districts with Nonrestrictive Leave Policies

N = 11

Mean = 6.0

District ID #	Staff Size	Substitute Days Used	Mean Days Absent Per Teacher
1	281	1,783	6.3
2	303	672	2.2
9	131	1,098	8.4
10	257	1,417	5.5
11	302	2,940	9.7
16	776	4,120	5.3
21	85	625	7.4
23	321	1,472	4.6
24	263	1,263	4.8
25	450	3,316	7.4
30	159	656	4.1

Table 32

Districts with Restrictive Leave Policies

N = 18

Mean = 6.2

District ID #	Staff Size	Substitute Days Used	Mean Days Absent Per Teacher
3	52	338	6.5
4	308	2,324	7.5
5	179	1,155	6.5
6	253	1,826	7.2
7	296	595	2.0
8	304	2,462	8.1
12	186	1,199	6.4
13	58	327	5.6
14	87	583	6.7
17	120	665	5.5
18	93	522	5.6
19	309	1,237	4.0
20	90	434	4.8
22	134	742	5.5
26	288	1,974	6.8
27	256	1,494	5.8
28	110	832	7.6
29	320	2,878	9.0

Table 33

Districts with Nonsupervisory Absence Reporting

N = 13

Mean = 6.4

District ID #	Staff Size	Substitute Days Used	Mean Days Absent Per Teacher
2	303	672	2.2
3	52	338	6.5
5	179	1,155	6.5
6	253	1,826	7.2
8	304	2,462	8.1
9	131	1,098	8.4
11	302	2,940	9.7
16	776	4,120	5.3
20	90	434	4.8
24	263	1,263	4.8
26	288	1,974	6.8
27	256	1,494	5.8
28	110	832	7.6

Table 34

Districts with Supervisory Absence Reporting

N = 16

Mean = 5.8

District ID #	Staff Size	Substitute Days Used	Mean Days Absent Per Teacher
1	281	1,783	6.3
4	308	2,324	7.5
6	253	1,826	7.2
10	257	1,417	5.5
12	186	1,199	6.4
13	58	327	5.6
14	87	583	6.7
17	120	665	5.5
18	93	522	5.6
19	309	1,237	4.0
21	85	625	7.4
22	134	742	5.5
23	321	1,427	4.6
25	450	3,316	7.4
29	320	2,878	9.0
30	159	656	4.1

Table 35

Districts with Nonrestrictive Leave Policies and Nonsupervisory Absence Reporting Procedures

N = 5

Mean = 6.1

District ID #	Mean Days Absent Per Teacher
2	2.2
9	8.4
11	9.7
16	5.3
24	4.8

Table 36

Districts with Nonrestrictive Leave Policies and Supervisory Absence Reporting Procedures

N = 6

Mean = 5.9

District ID #	Mean Days Absent Per Teacher
1	6.3
10	5.5
21	7.4
23	4.6
25	7.4
30	4.1

Table 37

Districts with Restrictive Leave Policies and Nonsupervisory Absence Reporting Procedures

N = 8

Mean = 6.7

District ID #	Mean Days Absent Per Teacher
3	6.5
5	6.5
6	7.2
8	8.1
20	4.8
26	6.8
27	5.8
28	7.6

Table 38

Districts with Restrictive Leave Policies and Supervisory Absence Reporting Procedures

N = 10

Mean = 5.8

District ID #	Mean Days Absent Per Teacher
4	7.5
7	2.0
12	6.4
13	5.6
14	6.7
17	5.5
18	5.6
19	4.0
22	5.5
29	9.0

APPENDIX D

Table 39

Percentage of Respondents in Category by Days Absent - Sex and Age (Males)

N = 590

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	62.1	54.7	64.3	71.0
4-6	20.7	34.1	22.5	18.8
7-9	13.8	7.3	9.0	8.0
10+	3.4	3.9	4.1	2.2
Total	4.9	30.3	41.4	23.4

Lambda = .01062
Uncertainty Coefficient = .01107
Eta-squared = .01326
Significance = .1025

Table 40

Percentage of Respondents in Category by Days Absent - Commuting Time and Age (1-10 Minutes)

N = 317

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	46.4	52.3	57.3	74.7
4-6	39.3	33.6	31.1	15.2
7-9	10.7	10.3	6.8	5.1
10+	3.6	3.7	4.9	5.1
Total	16.4	39.3	28.0	16.4

Lambda = .01176
Uncertainty Coefficient = .02081
Eta-squared = .0394
Significance = .1081

Table 41

Percentage of Respondents in Category by Days Absent - Commuting Time and Age (11-20 Minutes)

N = 350

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	69.2	45.6	58.7	60.7
4-6	15.4	41.2	25.4	25.0
7-9	11.5	7.0	11.9	11.9
10+	3.8	6.1	4.0	2.4
Total	7.4	32.6	36.0	24.0

Lambda = .04485
Uncertainty Coefficient = .01890
Eta-squared = .0093
Significance = .0843

Table 42

Percentage of Respondents in Category by Days Absent - Commuting Time and Age (21-30 Minutes)

N = 207

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	36.8	43.4	63.3	69.7
4-6	36.8	32.9	20.3	21.2
7-9	15.8	11.8	11.4	9.1
10+	10.5	11.8	5.1	0.0
Total	9.2	36.7	38.2	15.9

Lambda = .06306
Uncertainty Coefficient = .03415
Eta-squared = .0606
Significance = .1016

Table 43

Percentage of Respondents in Category by Days Absent - Sex and Marital Status (Unmarried)

N = 275

Days Absent	Male(%)	Female(%)
1-3	52.0	44.6
4-6	28.6	31.6
7-9	14.3	11.9
10+	5.1	11.9
Total	35.6	64.4

Lambda = .0000
Uncertainty Coefficient = .00897
Eta-squared = .0155
Significance = .2339

Table 44

Percentage of Respondents in Category by Days Absent - Sex and Commuting Time (21-30 minutes)

N = 207

Days Absent	Male(%)	Female(%)
1-3	60.2	47.9
4-6	25.7	27.7
7-9	10.6	12.8
10+	3.5	11.7
Total	54.6	45.4

Lambda = .03723
Uncertainty Coefficient = .01741
Eta-squared = .03105
Significance = .0928

Table 45

Percentage of Respondents in Category by Days Absent - Marital Status and Commuting Time (1-10 minutes)

N = 317

Days Absent	Married(%)	Unmarried(%)
1-3	61.9	50.0
4-6	27.2	33.3
7-9	7.1	10.3
10+	3.8	6.4
Total	75.4	24.6

Lambda = .0000
Uncertainty Coefficient = .00759
Eta-squared = .012
Significance = .2773

Table 46

Percentage of Respondents in Category by Days Absent - Marital Status and Commuting Time (11-20 minutes)

N = 350

Days Absent	Married(%)	Unmarried(%)
1-3	53.9	60.4
4-6	32.7	21.9
7-9	9.8	11.5
10+	3.5	6.3
Total	72.6	27.4

Lambda = .0000
Uncertainty Coefficient = .00819
Eta-squared = .013
Significance = .2011

Table 47

Percentage of Respondents in Category by Days Absent - Marital Status and Commuting Time (Over 30 minutes)

N = 174

Days Absent	Married(%)	Unmarried(%)
1-3	46.0	27.1
4-6	30.2	39.6
7-9	10.3	20.8
10+	13.5	12.5
Total	72.4	27.6

Lambda = .03974
Uncertainty Coefficient = .02142
Eta-squared = .040
Significance = .0740

Table 48

Percentage of Respondents in Category by Days Absent - Age, Sex, and Marital Status (Married Males)

N = 492

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	66.7	55.5	68.3	70.6
4-6	20.0	32.9	22.0	19.0
7-9	6.7	8.2	6.3	7.9
10+	6.7	3.4	3.4	2.4
Total	3.0	29.7	41.7	25.6

Lambda = .00654
Uncertainty Coefficient = .01011
Eta-squared = .013
Significance = .2920

Table 49

Percentage of Respondents in Category by Days Absent - Age, Sex, and Marital Status (Unmarried Males)

N = 98

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	57.1	51.5	43.6	75.0
4-6	21.4	39.4	25.6	16.7
7-9	21.4	3.0	23.1	8.3
10+	0.0	6.1	7.7	0.0
Total	14.3	33.7	39.8	12.2

Lambda = .02830
Uncertainty Coefficient = .05983
Eta-squared = .053
Significance = .2207

Table 50

Percentage of Respondents in Category by Days Absent - Age, Sex, and Marital Status (Married Females)

N = 281

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	28.6	34.5	44.2	58.3
4-6	35.7	40.9	36.8	27.1
7-9	14.3	15.5	11.6	10.4
10+	21.4	9.1	7.4	4.2
Total	10.0	39.1	33.8	17.1

Lambda = .03869
Uncertainty Coefficient = .01977
Eta-squared = .042
Significance = .0921

Table 51

Percentage of Respondents in Category by Days Absent - Age, Sex, and Marital Status (Unmarried Females)

N = 177

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	48.4	40.0	34.2	63.6
4-6	25.8	38.7	36.8	15.2
7-9	12.9	8.0	18.4	12.1
10+	12.9	13.3	10.5	9.1
Total	17.5	42.4	21.5	18.6

Lambda = .01000
Uncertainty Coefficient = .02629
Eta-squared = .015
Significance = .2427

Table 52

Percentage of Respondents in Category by Days Absent - Age, Sex, and Commuting Time (Males Travelling 1-10 Minutes)

N = 190

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	80.0	64.7	67.5	80.8
4-6	20.0	23.5	23.4	13.5
7-9	0.0	9.8	6.5	5.8
10+	0.0	2.0	2.6	0.0
Total	5.3	26.8	40.5	27.4

Lambda = .0000
Uncertainty Coefficient = .01963
Eta-squared = .024
Significance = .7406

Table 53

Percentage of Respondents in Category by Days Absent - Age, Sex, and Commuting Time (Females Travelling 1-10 Minutes)

N = 127

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	27.8	41.1	26.9	63.0
4-6	50.0	42.9	53.8	18.5
7-9	16.7	10.7	7.7	3.7
10+	5.6	5.4	11.5	14.8
Total	14.2	44.1	20.5	21.3

Lambda = .08904
Uncertainty Coefficient = .04808
Eta-squared = .067
Significance = .1074

Table 54

Percentage of Respondents in Category by Days Absent - Age, Sex, and Commuting Time (Males Travelling 11-20 Minutes)

N = 186

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	75.0	48.1	68.0	69.4
4-6	12.5	44.4	21.3	18.4
7-9	12.5	3.7	6.7	10.2
10+	0.0	3.7	4.0	2.0
Total	4.3	29.0	40.3	26.3

Lambda = .04444
Uncertainty Coefficient = .03505
Eta-squared = .029
Significance = .1137

Table 55

Percentage of Respondents in Category by Days Absent - Age, Sex, and Commuting Time (Females Travelling 11-20 Minutes)

N = 164

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	66.7	43.3	45.1	48.6
4-6	16.7	38.3	31.4	34.3
7-9	11.1	10.0	19.6	14.3
10+	5.6	8.3	3.4	2.9
Total	11.0	36.6	31.1	21.3

Lambda = .02105
Uncertainty Coefficient = .01815
Eta-squared = .012
Significance = .6156

Table 56

Percentage of Respondents in Category by Days Absent - Age, Sex, and Commuting Time (Males Travelling 21-30 Minutes)

N = 113

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	50.0	48.7	74.5	52.6
4-6	25.0	35.9	12.8	25.7
7-9	25.0	7.7	10.6	10.5
10+	0.0	7.7	2.1	0.0
Total	7.1	34.5	41.6	16.8

Lambda = .09009
Uncertainty Coefficient = .05480
Eta-squared = .036
Significance = .1486

Table 57

Percentage of Respondents in Category by Days Absent - Age, Sex, and Commuting Time (Females Travelling 21-30 Minutes)

N = 94

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	27.3	37.8	46.9	92.9
4-6	45.5	29.7	31.3	0.0
7-9	9.1	16.2	12.5	7.1
10+	18.2	16.2	9.4	0.0
Total	11.7	39.4	34.0	14.9

Lambda = .02830
Uncertainty Coefficient = .08901
Eta-squared = .132
Significance = .0545

Table 58

Percentage of Respondents in Category by Days Absent - Age, Sex, and Commuting Time (Males Travelling Over 30 Minutes)

N = 101

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	0.0	57.1	42.2	66.7
4-6	33.3	31.4	33.3	16.7
7-9	33.3	8.6	15.6	5.6
10+	33.3	2.9	8.9	11.1
Total	3.0	34.7	44.6	17.8

Lambda = .01887
Uncertainty Coefficient = .05060
Eta-squared = .081
Significance = .2684

Table 59

Percentage of Respondents in Category by Days Absent - Age, Marital Status, and Commuting Time (Married Teachers Travelling 1-10 Minutes)

N = 239

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	42.9	52.6	63.5	75.0
4-6	35.7	34.2	27.1	17.2
7-9	21.4	9.2	4.7	4.7
10+	0.0	3.9	4.7	3.1
Total	5.9	31.8	35.6	26.8

Lambda = .02449
Uncertainty Coefficient = .02609
Eta-squared = .048
Significance = .1114

Table 60

Percentage of Respondents in Category by Days Absent - Age, Marital Status, and Commuting Time (Unmarried Teachers Travelling 1-10 Minutes)

N = 78

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	50.0	57.6	27.8	73.3
4-6	42.9	32.3	50.0	6.7
7-9	0.0	12.9	16.7	6.7
10+	7.1	3.2	5.6	13.3
Total	17.9	39.7	23.1	19.2

Lambda = .05814
Uncertainty Coefficient = .08038
Eta-squared = .035
Significance = .1757

Table 61

Percentage of Respondents in Category by Days Absent - Age, Marital Status, and Commuting Time (Married Teachers Travelling 11-20 Minutes)

N = 254

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	75.0	39.2	60.8	58.5
4-6	12.5	44.3	28.4	27.7
7-9	12.5	8.9	8.8	12.3
10+	0.0	7.6	2.0	1.5
Total	3.1	31.1	40.2	25.6

Lambda = .05204
Uncertainty Coefficient = .02867
Eta-squared = .035
Significance = .0605

Table 62

Percentage of Respondents in Category by Days Absent - Age, Marital Status, and Commuting Time (Unmarried Teachers Travelling 11-20 Minutes)

N = 96

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	66.7	60.0	50.0	68.4
4-6	16.7	34.3	12.5	15.8
7-9	11.1	2.9	25.0	10.5
10+	5.6	2.9	12.5	5.3
Total	18.8	36.5	25.0	19.8

Lambda = .07071
Uncertainty Coefficient = .05513
Eta-squared = .054
Significance = .1613

Table 63

Percentage of Respondents in Category by Days Absent - Age, Marital Status, and Commuting Time (Married Teachers Travelling 21-30 Minutes)

N = 154

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	40.0	50.0	67.7	72.0
4-6	50.0	27.8	18.5	20.0
7-9	10.0	16.7	9.2	8.0
10+	0.0	5.6	4.6	0.0
Total	6.5	35.1	42.2	16.2

Lambda = .04667
Uncertainty Coefficient = .03287
Eta-squared = .042
Significance = .3082

Table 64

Percentage of Respondents in Category by Days Absent - Age, Marital Status, and Commuting Time (Unmarried Teachers Travelling 21-30 Minutes)

N = 53

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	33.3	27.3	42.9	62.5
4-6	22.2	45.5	28.6	25.0
7-9	22.2	0.0	21.4	12.5
10+	22.2	27.3	7.1	0.0
Total	17.0	41.5	26.4	15.1

Lambda = .10938
Uncertainty Coefficient = .11100
Eta-squared = .080
Significance = .2136

Table 65

Percentage of Respondents in Category by Days Absent - Age, Marital Status, and Commuting Time (Unmarried Teachers Travelling Over 30 Minutes)

N = 48

Days Absent	20-29(%)	30-39(%)	40-49(%)	50+(%)
1-3	25.0	20.0	33.3	33.3
4-6	0.0	50.0	38.1	33.3
7-9	75.0	10.0	19.0	33.3
10+	0.0	20.0	9.5	0.0
Total	8.3	41.7	43.8	6.3

Lambda = .12500
Uncertainty Coefficient = .10439
Eta-squared = .028
Significance = .2227

Table 66

Percentage of Respondents in Category by Days Absent - Sex, Marital Status, and Commuting Time (Unmarried Teachers Travelling 1-10 minutes)

N = 78

Days Absent	Male(%)	Female(%)
1-3	61.5	44.2
4-6	26.9	36.5
7-9	11.5	9.6
10+	0.0	9.6
Total	33.3	66.7

Lambda = .0000
Uncertainty Coefficient = .04096
Eta-squared = .052
Significance = .2528

Table 67

Percentage of Respondents in Category by Days Absent - Sex, Marital Status, and Commuting Time (Unmarried Teachers Travelling 11-20 minutes)

N = 96

Days Absent	Male(%)	Female(%)
1-3	67.9	57.4
4-6	21.4	22.1
7-9	7.1	13.2
10+	3.6	7.4
Total	29.2	70.8

Lambda = .0000
Uncertainty Coefficient = .00983
Eta-squared = .015
Significance = .6911

Table 68

Percentage of Respondents in Category by Days Absent - Sex, Marital Status, and Commuting Time (Unmarried Teachers Travelling 21-30 Minutes)

N = 53

Days Absent	Male(%)	Female(%)
1-3	27.3	45.2
4-6	36.4	32.3
7-9	22.7	3.2
10+	13.6	19.4
Total	41.5	58.5

Lambda = .10909
Uncertainty Coefficient = .05685
Eta-squared = .108
Significance = .1257

Table 69

Percentage of Respondents in Category by Days Absent - Sex, Marital Status, and Commuting Time (Married Teachers Travelling Over 30 Minutes)

N = 126

Days Absent	Male(%)	Female(%)
1-3	51.9	36.2
4-6	29.1	31.9
7-9	10.1	10.6
10+	8.9	21.3
Total	62.7	37.3

Lambda = .02609
Uncertainty Coefficient = .02084
Eta-squared = .040
Significance = .1693

Table 70

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Unmarried Age 30-39 Travelling 1-10 Minutes)

N = 31

Days Absent	Male(%)	Female(%)
1-3	57.1	50.0
4-6	28.6	33.3
7-9	14.3	12.5
10+	0.0	4.2
Total	22.6	77.4

Lambda = .0000
Uncertainty Coefficient = .01231
Eta-squared = .013
Significance = .9409

Table 71

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married Age 30-39 Travelling 11-20 Minutes)

N = 79

Days Absent	Male(%)	Female(%)
1-3	44.2	33.3
4-6	46.5	41.7
7-9	4.7	13.9
10+	4.7	11.1
Total	54.4	45.6

Lambda = .06250
Uncertainty Coefficient = .02561
Eta-squared = .046
Significance = .3011

Table 72

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Unmarried Age 30-39 Travelling 11-20 Minutes)

N = 35

Days Absent	Male(%)	Female(%)
1-3	63.6	58.3
4-6	36.4	33.3
7-9	0.0	4.2
10+	0.0	4.2
Total	31.4	68.6

Lambda = .0000
Uncertainty Coefficient = .02981
Eta-squared = .028
Significance = .8080

Table 73

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married Age 30-39 Travelling 21-30 Minutes)

N = 54

Days Absent	Male(%)	Female(%)
1-3	54.8	43.5
4-6	32.3	21.7
7-9	9.7	26.1
10+	3.2	8.7
Total	57.4	42.6

Lambda = .08000
Uncertainty Coefficient = .03721
Eta-squared = .069
Significance = .2944

Table 74

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Unmarried Age 30-39 Travelling 21-30 Minutes)

N = 22

Days Absent	Male(%)	Female(%)
1-3	25.0	28.6
4-6	50.0	42.9
7-9	0.0	0.0
10+	25.0	28.6
Total	36.4	63.6

Lambda = .0000
Uncertainty Coefficient = .00276
Eta-squared = .005
Significance = .9490

Table 75

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married Age 30-39 Travelling Over 30 Minutes)

N = 47

Days Absent	Male(%)	Female(%)
1-3	57.1	26.3
4-6	28.6	47.4
7-9	10.7	15.8
10+	3.6	10.5
Total	59.6	40.4

Lambda = .13333
Uncertainty Coefficient = .05460
Eta-squared = .098
Significance = .2036

Table 76

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married Age 40-49 Travelling 11-20 Minutes)

N = 102

Days Absent	Male(%)	Female(%)
1-3	68.7	45.7
4-6	22.4	40.0
7-9	6.0	14.3
10+	3.0	0.0
Total	65.7	34.3

Lambda = .01333
Uncertainty Coefficient = .04827
Eta-squared = .072
Significance = .0617

Table 77

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Unmarried Age 40-49 Travelling 11-20 Minutes)

N = 24

Days Absent	Male(%)	Female(%)
1-3	62.5	43.8
4-6	12.5	12.5
7-9	12.5	31.3
10+	12.5	12.5
Total	33.3	66.7

Lambda = .0000
Uncertainty Coefficient = .02720
Eta-squared = .047
Significance = .7710

Table 78

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married Age 40-49 Travelling Over 30 Minutes)

N = 48

Days Absent	Male(%)	Female(%)
1-3	43.8	50.0
4-6	34.4	31.3
7-9	12.5	6.3
10+	9.4	12.5
Total	66.7	33.3

Lambda = .0000
Uncertainty Coefficient = .00745
Eta-squared = .013
Significance = .8913

Table 79

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Unmarried Age 40-49 Travelling Over 30 Minutes)

N = 21

Days Absent	Male(%)	Female(%)
1-3	38.5	25.0
4-6	30.8	50.0
7-9	23.1	12.5
10+	7.7	12.5
Total	61.9	38.1

Lambda = .04762
Uncertainty Coefficient = .02881
Eta-squared = .055
Significance = .7624

Table 80

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married Over 50 Years Old, Travelling 11-20 Minutes)

N = 65

Days Absent	Male(%)	Female(%)
1-3	66.7	40.0
4-6	20.0	45.0
7-9	11.1	15.0
10+	2.2	0.0
Total	69.2	30.8

Lambda = .02128
Uncertainty Coefficient = .05345
Eta-squared = .083
Significance = .1433

Table 81

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married Over 50 Years Old, Travelling 21-30 Minutes)

N = 25

Days Absent	Male(%)	Female(%)
1-3	62.5	88.9
4-6	31.3	0.0
7-9	6.3	11.1
10+	0.0	0.0
Total	64.0	36.0

Lambda = .0000
Uncertainty Coefficient = .14620
Eta-squared = .142
Significance = .1704

Table 82

Percentage of Respondents in Category by Days Absent - Sex, Age, Marital Status, and Commuting Time (Married Over 50 Years Old, Travelling Over 30 Minutes)

N = 20

Days Absent	Male(%)	Female(%)
1-3	64.7	66.7
4-6	17.6	0.0
7-9	5.9	33.3
10+	11.8	0.0
Total	85.0	15.0

Lambda = .0000
Uncertainty Coefficient = .10269
Eta-squared = .140
Significance = .4226

APPENDIX E

Table 83

Rank Orders of Lambda, Uncertainty Coefficient, and Eta-squared for Significant (.05 Level) Data Related to Personal Demographic Variables

Category	Lambda (Rank)	Uncertainty Coefficient (Rank)	Eta (Rank)
Sex	13	18	16
Age	16	22	19
Marital Status	24	24	24
Commuting Time	23	23	20
Females by Age	22	21	21
Married Teachers by Age	18	19	22
Unmarried Teachers by Age	17	16	23
Teachers Travelling Over 30 Minutes by Age	14	11	11
Married Teachers by Sex	20	15	15
Teachers Travelling 1-10 Minutes by Sex	6	10	9
Teachers Travelling 11-20 Minutes by Sex	11	20	18
Teachers Travelling Over 30 Minutes by Sex	7	14	13
Teachers Travelling 21-30 Minutes by Marital Status	19	12	12
Female Teachers Travelling Over 30 Minutes by Age	5	4	8
Married Teachers Travelling Over 30 Minutes by Age	10	6	5
Married Teachers Travelling 1-10 Minutes by Age	12	7	6
Married Teachers Travelling 11-20 Minutes by Sex	21	17	17
Married Teachers Travelling 21-30 Minutes by Sex	8	13	14
Unmarried Teachers Travelling Over 30 Minutes by Sex	2	5	3
Married Teachers Age 30-39 Travelling 1-10 Minutes by Sex	3	8	7
Unmarried Teachers Age 30-39 Travelling Over 30 Minutes by Sex	1	1	1
Married Teachers Age 40-49 Travelling 1-10 Minutes by Sex	15	9	10
Married Teachers Age 40-49 Travelling 21-30 Minutes by Sex	4	2	2
Married Teachers Over 50 Years Old Travelling 1-10 Minutes by Sex	9	3	4

APPROVAL SHEET

The dissertation submitted by David Joseph Schusteff has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

December 6, 1985 — Date

Max A. Bailey — Director's Signature