Educational Research Service, Inc.

RESEARCH BRIEF

EMPLOYEE ABSENTEEISM:
A Summary of Research

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Study Conducted and Reported by: Paul J. Porwoll

Price of publication: $20.00 To ERS subscribers: single copy mailed routinely as part of the subscription; additional copies, half price.
Stock #217-00028

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ACKNOWLEDGMENTS

ERS gratefully acknowledges the contributions made by three important reviews of the research on employee absenteeism in business and industry and one important review of teacher absenteeism conducted in the 1950s that were used extensively in the preparation of this Research Brief. These were especially helpful in the development of this study:

- "Employee Absenteeism: A Review of the Literature," by Paul M. Muchinsky. Published in the June 1977 issue of the *Journal of Vocational Behavior*, pp. 316-340.
- "Organizational, Work, and Personal Factors in Employee Turnover and Absenteeism," by Lyman W. Porter and Richard M. Steers. Published in the August 1973 issue of *Psychological Bulletin*, pp. 151-176.
- *Summary Tables of Studies of Employee Absenteeism*, Technical Report No. 13, by Susan R. Rhodes and Richard M. Steers. Published by the Graduate School of Management, University of Oregon, January 1978, under contract from the Office of Naval Research.
- *Teacher Absences and Cost of Substitute Services*, Research Memo 1960-35, by Beatrice Crump Lee. Published by the National Education Association, Research Division, November 1960.

In addition, ERS gratefully acknowledges permission to use excerpts from the following:

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"Toward A Conceptualization of Absence Behavior of Personnel in Organizations," by R. Oliver Gibson. Published in the June 1966 issue of *Administrative Science Quarterly*, p. 119. Copyright 1966 by Cornell University, Ithaca, New York.

Absence data from the following BNA Bulletins to Management:

PPF Special Report: The Employment Picture--First Quarter, 1974, March 14, 1974, p. 2.

BNA's Quarterly Report on the Employment Outlook: Absenteeism and Turnover, March 27, 1975, p. 4; First Quarter 1976, p. 2; February 24, 1977, p. 2.

BNA's Quarterly Report on the Employment Outlook: Job Absence and Turnover, March 9, 1978, p. 2.

BNA's Quarterly Report on Job Absence and Turnover, March 15, 1979, pp. 2, 4.

FOREWORD

Staff absenteeism among educational personnel poses hard problems for effective school administration. Unlike many other occupations, teaching requires that classrooms be staffed at all times, either by the regular teacher or a substitute teacher, to prevent disruption of the learning process, and to maintain pupil supervision. From an instructional viewpoint, teacher absenteeism exacts a heavy strain on the continuity of student learning, with the value of substitute teachers under constant question. From a financial standpoint, teacher absenteeism is expensive, since the salaries of both the regular and substitute teachers must be paid when a regular teacher is absent. Absences by support personnel may not directly involve the instructional program for students, but they may have a decided impact on a school system's budget as well as affect essential operations of the school system.

This Research Brief provides a comprehensive review of research on employee absenteeism that has been conducted among both educational and noneducational personnel. Although the report focuses on the absenteeism of educational employees, comparatively little research has been reported on this topic in the published educational literature. Unpublished doctoral dissertations have been searched and have yielded several studies whose results are reported throughout this Research Brief. Because of the limited amount of research pertaining to absenteeism among school employees that is available, this report also includes a review of the abundant literature on employee absenteeism available from business, private industry, and government service. The findings of this research are included here so that school boards and their management teams will have the opportunity to draw upon the experience of as many sources as possible in their efforts to solve problems pertaining to staff absenteeism.

Included in this Research Brief are current status and trend data on employee absence plus an analysis of major factors influencing employee absenteeism, such as the relationship between absenteeism and personal, organizational, and time-place factors and how absenteeism affects job satisfaction and turnover. Recommendations from the literature for controlling employee absenteeism are provided and the costs associated with staff absenteeism are discussed. At the end of the study, conclusions are drawn from the existing information on employee absenteeism in education, business, industry, and government service for consideration by school policy makers.

We hope that this Research Brief will be helpful to school boards, their management teams, and others concerned with the problems of employee absenteeism in the schools.

Glen Robinson
Director of Research
Educational Research Service

INTRODUCTION

Employee absenteeism has been a constant, nagging problem for many business and industrial organizations. It is widespread--more than 83 million workers lost more than 433 million work days in 1975 alone. [164:3]* In May 1978, workers lost 90 million weekly hours. [401:50] It is costly, with estimates running into the tens of billions of dollars. The literature on employee absenteeism in business and industry is immense and reflects a serious concern for finding both causes and solutions for excessive time away from the job.

However, absenteeism among educational personnel, especially among teachers, who comprise more than half of all school staff and whose presence in the classroom is essential for normal school operations, has not engendered nearly the amount of scholarly and popular inquiry as that found in business and industry. Is this because absenteeism is not a problem among educational personnel? Or is it because few local school systems or state agencies have attempted to study the phenomenon, to see if it really is a problem, and to report their findings to a wide audience?

References cited in the text are noted by numbers within brackets. The number before the colon indicates the entry number within the bibliography beginning on page 151; the number following the colon indicates the page within the entry. Where no colon appears the citation refers to the entire entry. Multiple citations are separated by semicolons.

Although little published data are available on staff absenteeism in education, the information that does exist, from studies conducted in New York City, Newark, New Jersey, suburban Philadelphia, and the states of Pennsylvania and Illinois, suggests that employee absenteeism in education is a definite problem, perhaps as big a problem as it is outside education. The Academy for Educational Development noted in a 1977 report submitted to the State Board of Education on teacher absenteeism in Illinois: "Teacher absenteeism as a phenomenon has the potential to be a serious problem for the State of Illinois. The State Board of Education is well advised, as are local districts, to acknowledge the strong possibility that teacher absenteeism as a problem will be aggravated rather than alleviated in the years ahead." [57:5]

Possible Causes of Employee Absenteeism

The causes of employee absenteeism are often diverse and highly interrelated, involving personal, attitudinal, and organizational factors. Personal illness accounts for the majority of paid leave taken in most organizations. How much of this sick leave is used as intended, for actual illness, and how much is abused, for feigned illness, is open to speculation, since few organizations require documented proof of illness. Many feel that a substantial amount of sick leave is used for reasons other than illness, especially short-term absences of a day or two.

What are some of the other reasons commonly associated with employee absenteeism? Employees may use sick leave for family illness, personal business, or emergencies if their organization does not provide time off specifically for these purposes. In fact, some persons in industry believe that, in contrast to blue-collar workers who must schedule personal business for the weekend, white-collar professionals derive a certain amount of job satisfaction from being *absent while on the job* (e.g., attending to personal errands during the work day, spending time talking to co-workers, taking a longer lunch period than normal). [427:17]

Robinson (1974) suggested that repetitive, meaningless, and unchallenging work; trouble with co-workers; transportation problems; readjustment problems after unemployment; and a feeling that one's own absence has no effect on another's work are all major factors leading to employee absenteeism. [360:24-25] Smardon (1974) stated that employee absenteeism can be "contagious," that bad attendance habits of co-workers may influence the overall employee absence rate. "Few people *consciously* gear their behavior according to that of others," he said, "but it seems to be human nature to try to get away with what everyone else gets away with." [384:13] Some see the rising affluence of the American worker, the "summertime blues," job dissatisfaction, a "don't care" attitude, underemployment, the "two-job syndrome," smoking, and drug abuse as further indicators of employee absenteeism. [88; 9:5; 379:27; 427]

It is estimated that about five to 10 percent of workers in all occupational groups experience problems with alcohol. "From what is known about those who become alcoholic," Russell (1979) noted, "there is nothing to suggest that education does not produce its share." [59:506] Alcoholism exerts a marked influence on employee absence, as data from the National Council on Alcoholism point out: "Alcoholic employes are absent from work from two to four times as often as nonalcoholic employes, sickness and accident benefits paid out for alcoholic workers are three times greater than for the average nonalcoholic employe, work grievances are filed two to four times more often, and on-the-job accidents are two to four times higher for alcoholics than for nonalcoholic employes." [14:49] Few organizations have confronted the problem of the alcoholic employee. Cramer (1979) wrote in the *American School Board Journal* that "this waste continues because school boards, with few exceptions, have failed to confront or even recognize the problem of alcoholic school employes." [14:49]

Others hypothesize that increases in industries or occupations with high absence rates, in the proportion of women in the workforce, in the number of organizations providing paid sick leave, and a decrease in the average age of employees all contribute to increased time away from the job. [221:25]

Some of the factors associated with teacher absenteeism in particular were listed in a 1970 study conducted by the Philadelphia Suburban and South Penn school study councils. These included poor morale, problems in the educational program, endemic illness in the community, low salary scales, poor working conditions, heightened emotional stress, and inadequate staffing. [79:40] In a speech presented at the 1978 convention of the American Association of School Personnel Administrators, Capitan and Morris related a number of causes of teacher absenteeism that were given as concerns by school personnel administrators:

- "lenient leave policies which have occurred through the negotiations process"
- "greater problems at school and less devotion to duty"
- "younger and less dedicated teachers"
- "severe weather conditions"
- "lower morale due to the desegregation process"
- "sick days are more acceptable to society than before"

- "professional outlook toward responsibility to students is slipping"
- "pressures of teaching"
- "because we began granting personal leave days"
- "lack of professionalism." [9:5]

Descriptive Models of Employee Absenteeism

How do these different factors ultimately work to influence an employee in the final decision either to attend work or to be absent from work? Although this question cannot be answered with complete certainty, Gibson (1966) and Steers and Rhodes (1978) have developed models which attempt to provide additional insight into the causes of employee absenteeism.

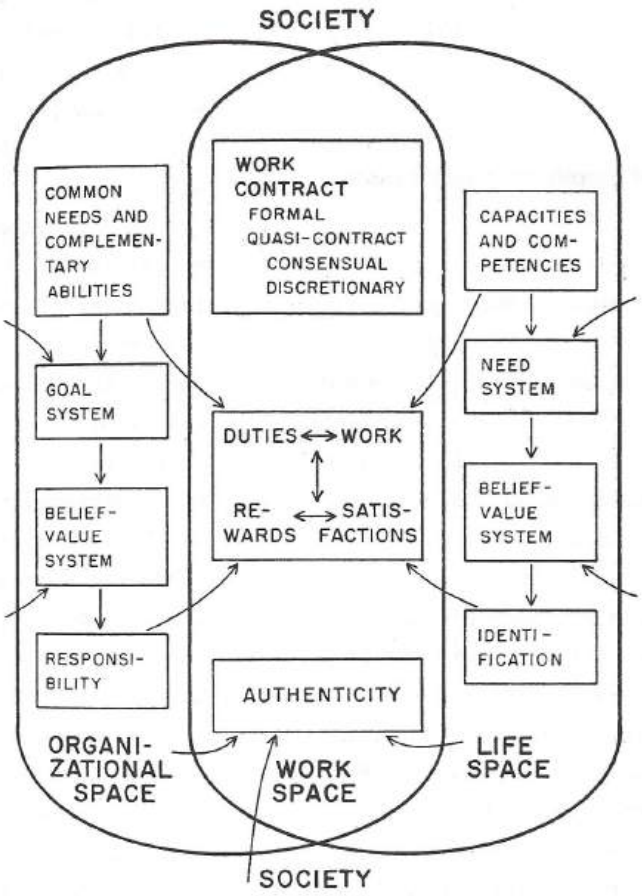
As shown in Figure 1, Gibson's early representation focuses on three concepts that are involved in the employee's basic "work or not to work" question: (1) the life space of an individual, which is needs-oriented; (2) the organizational space of the employer, which is goal-oriented; and (3) the work space, which links the individual employee to the organization by means of a formal or informal contract. [26] Based on an extensive review of the research on employee absenteeism, the Steers and Rhodes model suggests that employee attendance is affected by both an employee's *motivation* and *ability* to attend work. (See Figure 2.) The six motivational influences include the job situation, satisfaction with the job situation, employee values and job expectations, personal employee characteristics, pressures to attend work, and attendance motivation. These six influences, combined with the ability to attend, act on the final attendance/absence decision.

These influences may originate from the individual employee or from the work environment; while some are under the employee's control, others are not. Certain factors may stimulate attendance for some employees but not others. Some of the variables seem to be directly related to attendance (e.g., a very satisfied employee probably would want to attend work strongly); other variables, such as personal health, appear to act as a "gatekeeper function" and are not directly related to attendance (e.g., a very healthy employee may not necessarily attend work because other factors may have a greater effect on the attendance decision). [394:401-402]

While these models attempt to clarify the relationships that exist between employee absenteeism and its many causes, they also highlight the complexity of the problem. In this Research Brief, ERS attempts to provide a comprehensive review of the research literature on employee absenteeism. Although focusing on the absenteeism of educational personnel, this study also draws on the wealth of available information on employee absenteeism outside education--in business, industry, and government service. The major sections of this Research Brief provide:

- current and trend data on employee absence
- a review of the research on the causes of employee absenteeism, including personal factors, organizational factors, time-place factors, and the relationships between absenteeism and job satisfaction and absenteeism and turnover.
- costs of employee absenteeism
- measures for controlling employee absenteeism.

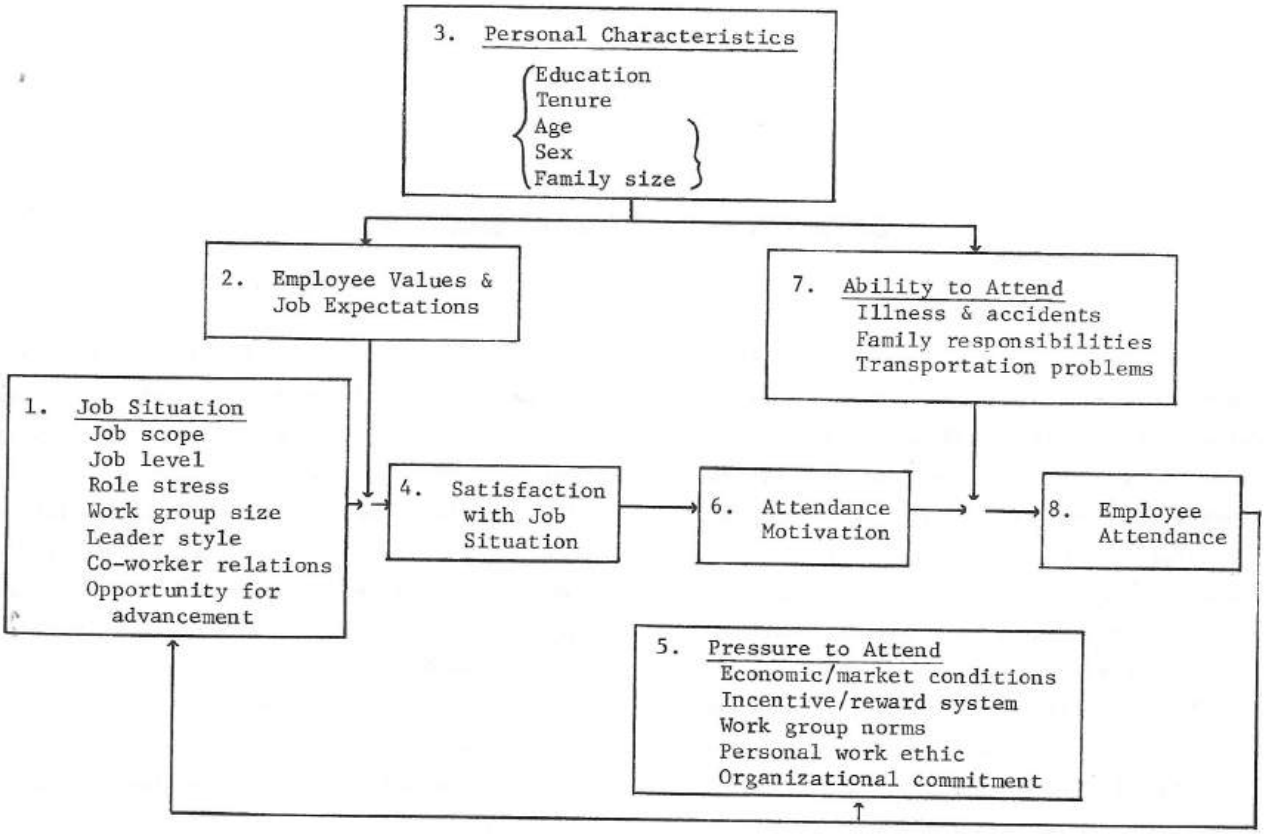
FIGURE 1.--Schematic Representation of Contractual Relationships Between the Individual and the Organization



Note: The arrows represent presumed relationships. No attempt has been made to represent feedback relationships.

SOURCE: R. Oliver Gibson. "Toward a Conceptualization of Absence Behavior in Organizations," *Administrative Science Quarterly*, 11 (June 1966), p. 119. Reprinted by permission of the *Administrative Science Quarterly*. Copyright 1966, Cornell University.

FIGURE 2.--Major Influences on Employee Attendance



SOURCE: Richard M. Steers and Susan R. Rhodes. "Major Influences on Employee Attendance: A Process Model," *Journal of Applied Psychology*, 63 (August 1978), p. 393. Copyright 1978 by the American Psychological Association. Reprinted by permission.

DATA ON EMPLOYEE ABSENCE

This section of the review presents actual data on employee absence. Any discussion of absenteeism must be prefaced with questions like: "Just how big a problem is employee absenteeism to industry and education?" "My school system has a teacher absence rate of five percent. Is this good or bad?" To understand the significance of absence data, it is necessary first to define the measures used to record absences. Then, absence data for educational and noneducational personnel can be studied. The discussion below follows this outline and includes such categories as sick leave and other types of paid leave offered by local school systems, leave without pay, patterns of absenteeism, and the use of substitute teachers.

Measures of Absence

In his review of the literature on employee absenteeism, Muchinsky (1977) related that "the single, most vexing problem associated with absenteeism as a meaningful concept involves the metric or measure of absenteeism." [308:317] An initial problem involves the difference in meaning between "absence" and "absenteeism." *Webster's New Twentieth Century Dictionary of the English Language*, 2d ed. (1976) defined *absence* as "a state of being away or not present," and *absenteeism* as "absence from duty, work, or station; especially, such absence when deliberate or habitual." Some have said that the term "absenteeism" has a pejorative connotation and that absence due to legitimate illness should be separated from "deviant problem absence." [427:101] However, most studies in this field tend not to differentiate the meaning of these terms. Since this study focuses on *absenteeism*, as defined by Webster to encompass all time away from work, this term will be used throughout this Research Brief, except in discussions of absence measures or data.

Actual measures of absence have assumed many shapes--Gaudet (1963) reported finding at least 41 different absence measures. [190] However, organizations frequently have used some of the same measures. If any of these measures can be termed "standard," then those employed by the Bureau of Labor Statistics (BLS) must be included. BLS uses three measures of absence in its studies derived from the *Current Population Survey*. The *incidence rate* measures the number of absences per 100 employees during a given period of time [222:17]:

$$\text{Incidence rate} = \frac{\text{Number of workers absent}}{\text{Total employed}} \times 100$$

For example, if Organization A employs 250 employees and 15 employees were absent during a week, then A's incidence rate for the week would be [303:26]:

$$\text{Incidence rate} = \frac{15}{250} \times 100 = 6.0\%$$

That is, for every 100 employees, 6.0 were absent during this week.

The *inactivity rate* measures the percent of time "scheduled" or "usually worked" lost due to absence; it is often called "the absence rate" [222:17]:

$$\text{Inactivity rate} = \frac{\text{Number of hours absent}}{\text{Number of hours usually worked}} \times 100$$

Thus, if all 250 employees of Organization A worked 40 hours a week with no overtime and each of the 15 absent employees was off the job for three days (24 hours), then A's inactivity rate for the week would be:

$$\text{Inactivity rate} = \frac{15 \times 24}{250 \times 40} = \frac{360}{10{,}000} = 3.6\%$$

That is, 3.6 percent of the hours usually worked in that week were lost due to absence.

The *severity rate* measures the average (mean) time that an absent employee loses during a given period of time. Hedges (1977) said that severity rates can be given in absolutes ("number of hours lost") or as a percentage ("number of hours lost by absent workers as a percent of hours usually worked by those workers"). The percentage version has the following basic formula [222:18]:

$$\text{Severity rate} = \frac{\text{Average number of hours lost by absent workers}}{\text{Average number of hours usually worked by absent workers}} \times 100$$

The severity rate for Organization A for the week above would be:

$$\text{Severity rate} = \frac{15 \times 24}{15 \times 40} \times 100 = \frac{360}{600} \times 100 = 60\%$$

That is, absent workers lost 60 percent of the time that they were scheduled to work during the week.

A *Personnel Policies Forum* survey conducted by the Bureau of National Affairs (BNA) in 1974 found that about 40 percent of responding companies were computing some type of absence rate regularly. (This figure is similar to BLS findings in a 1971 feasibility study but down from 82 percent of companies surveyed in 1960 by BNA [303:26; 148:3; 54:57].) However, 54 percent of responding manufacturing companies measured job absence on a regular basis, compared to 27 percent of nonmanufacturing businesses, and 17 percent of nonbusiness organizations (including educational institutions). Three-fourths of those companies that had a regular program for generating absence data used a formula derived from one suggested by the Department of Labor, and used by BNA in its surveys on job absence [303:26]:

$$\text{Absence rate} = \frac{\text{Number of Worker Days Lost Through Job Absences During Month}}{\text{(Average Number of Employees)} \times \text{(Number of Workdays)}} \times 100$$

For Organization A, the absence rate computed from this formula for a one-month period (21 work days) based on four weeks of the absence behavior described above would be:

$$\text{Absence rate} = \frac{15 \times 3 \times 4}{250 \times 21} \times 100 = \frac{180}{5{,}250} \times 100 = 3.4\%$$

As described in the literature, some of the more common ways for measuring absence are:

- Average number of days absent per employee = $\frac{\text{Number of employee-days of absence}}{\text{Number of employees}}$ [147:2-3; 54:55-56]
- Average number of days lost per absence = $\frac{\text{Number of employee-days lost through absence}}{\text{Number of absences}}$ [147:2-3; 54:55-56]
- Absences computed as a cost = Cost of absence per department, division, etc. [147:2-3; 54:55-56]
- Average frequency rate = $\frac{\text{(Number of employees absent 1 or more times)} \times \text{(Average number of times employees were absent)}}{\text{Number of employees}}$ [190:23; 54:56]

Researchers at the National Center for Health Statistics (NCHS), a division of the U.S. Public Health Service, periodically conduct the *Health Interview Survey*, which collects national data on four types of disability days (restricted activity days, bed disability days, work-loss days, and school-loss days). Of concern here are "work-loss days," defined as:

> a day on which a person did not work at his job or business for at least half of his normal workday because of a specific illness or injury. The number of days lost from work is determined only for persons 17 years of age and over who

> reported that at any time during the 2-week period covered by the interview they either worked at or had a job or business. [164:48-49]

This definition does not include work-loss days due to pregnancy or absences for reasons other than personal illness and injury, such as family illness, child care, or health examinations. [427:118-119] Part-day absences are counted by NCHS, but not by the Bureau of National Affairs in its definition of employee absence, as discussed below. Absence data from *Health Interview Surveys* are discussed throughout this Research Brief, and six tables from the 1975 survey can be found in the Appendix beginning on page 145.

Miner (1977) described a recurring problem with comparing data from absence measures: "The basic difficulty employers have faced is that what is counted as job absence in one company may differ considerably from what is counted in another company, even though the formula used for computing the rate is exactly the same." [303:26] One company may count absences of less than a full workday as a complete day's absence; another company may not. (A 1974 *Personnel Policies Forum* survey reported that over half of the responding companies did not include part-day absences in these computations on a regular basis.) One company may count each day of a long-term absence; another company may count only the first few days--within two, three, four, or five.

There may be wide differences in absence rates, Miner said, when long-term absences are included in one measurement and not another. For example, a company that submitted to BNA two sets of figures reported that its 1973 monthly average job absence rate was 3.15 percent when only the first four days were counted in long-term absences and 6.31 percent when the full length of the absence was included. For BNA surveys, job absence is defined as any *unscheduled* absence, whether or not it is excused or paid. Long-term absences are not counted after the fourth day, nor are scheduled absences for vacation, holidays, or leave, or part-day absences. Other rules covering BNA absence surveys include:

- Absences for jury duty would not be counted, as long as the employee had advance notice and arranged ahead of time for jury duty leave.
- Absences for disciplinary time off would be counted if an employee was given no advance notice of the layoff but not if it was scheduled ahead of time.
- Absences due to death in the family would be counted.
- Excused absence for other personal reasons would not be counted at all if it was arranged ahead of time, and counted for the first 4 days only if the absence was unplanned. [303:27]

Steers and Rhodes (1978) stated that "a major weakness inherent in much of the current research on absenteeism is the failure to account for (and partial out) involuntary absenteeism in the study of voluntary absenteeism." [394:400] The National Education Association (NEA) reportedly has expressed similar concerns about data on teacher absence. According to an article appearing in the April 1979 issue of *The Executive Educator*, NEA contended that most statistics on teacher absence are misleading, since there is no differentiation given between "excused absences" (including absences for professional meetings, inservice training, etc.) and legitimate absences for illness and other reasons. [31:12] However, NEA also stated (in the March 26, 1979, issue of *NEA Now*) that it considers teacher absenteeism "an issue no matter how you look at it":

> When local associations can document exceptionally low use of sick leave by teachers, they should tout it in newsletter stories and news releases to the public. Conversely, if teacher-leaders note a rise in the incidence of teachers using sick leave for reasons other than illness, they should point to working conditions as the probable cause. [2]

Comparatively few studies have investigated the reliability of these various absence measures, Muchinsky (1977) stated. Among those measures for which reliability has been measured are:

1. absence frequency (total number of times absent)
2. absence severeity (total number of days absent)
3. attitudinal absences (frequency of one-day absences)
4. medical absences (frequency of absences of three days or more)
5. other reasons (number of days missed during a week for reasons besides holidays, rest days, and certified sickness)
6. worst day absences (difference between the number of employees absent on any week's "best" and "worst" days)
7. time lost (number of days missed during a week for any reason other than leave)
8. lateness (number of times employees were late during a week)
9. Blue Monday absences (number of employees absent on a Monday less those absent on a Friday for any week). [308:317-318; 240; 141; 411; 362; 172; 275]

The findings of these studies highlight a basic problem associated with measures of absence. While some indices were considered somewhat reliable, others were considered totally unreliable. In more than 70 studies examining the absenteeism issue, Muchinsky related, most researchers did not compute or report the reliability of the measure used. The six studies noted above are the only ones that addressed the *reliability* of absence measures; no known studies have addressed directly the *validity* of these measures. Nonetheless, of all these measures, absence frequency appears to be the most reliable, Muchinsky stated, and the finding is supported by Johns (1978). [252]

However, Rhea (1962) addressed both of these questions as they relate to measuring *attitudes* toward absenteeism. He attempted to determine the possibility of building valid and reliable instruments to measure attitudes toward absenteeism by using a forced-choice technique. The sample consisted of 501 university students. Two forms were devised using scale values, one obtained from the method of successive intervals and the other from the median method. Results indicated that it was possible to construct an adequately reliable and valid forced-choice instrument to measure attitudes toward absenteeism. Both of these forms were found to be equally "transparent," i.e., their answers could be faked, and that each of these forms could be falsified. [355]

In addition to the extreme variability of reliability, many studies did not even describe the absence measure that was used. As Muchinsky cautioned, this lack of information has created difficulties in attempts to draw comparisons from one study to another. "More than any other consideration," he stated, "the methodological 'hodgepodge' surrounding absenteeism indices plagues the evaluation and interpretation of absenteeism research." [308:317-320]

Extent of Absence

According to Gaudet (1963), a "reasonable level" of absence should be about three percent of available work time, but the "attainable minimum" level may approach two percent or less. [190:46-47] Johnson and Peterson (1975) said that monthly absence greater than five or six percent should be a matter of serious concern to organizational management. [255] Recent national absence data tend to verify these estimates.

The U.S. Bureau of Labor Statistics periodically publishes data on annual average absences for the nation's nonfarm full-time workers. Absence data from 1967 to 1974, as summarized by Hedges (1975) and shown below, were presented in two parts: the absence rate ("number per 100 workers absent in an average week") for full-week

and part-week absences. [223:37] These data cannot be combined because of different universes. [222:22]

	1967	1968	1969	1970	1971	1972	1973	1974
Absent the entire week	2.2	2.3	2.4	2.5	2.4	2.3	2.3	2.4
Absent part of the week	3.9	4.1	4.1	4.2	4.3	4.3	4.4	4.2

From 1973 to 1978, BLS annual average absence data have been collected each May through a supplement to the *Current Population Survey*. These data report absences for all reasons (except scheduled vacations, holidays, strikes, and bad weather) for nonfarm wage and salary workers with one job who normally are employed full time. No distinction is made between part-week and full-week absences [401:50]:

	May 1973	May 1974	May 1975	May 1976	May 1977	May 1978
Incidence rate (percent of workers with an absence)	6.5%	6.2%	6.1%	6.4%	6.5%	6.6%
Inactivity rate (percent of usual hours lost)	3.5	3.3	3.4	3.5	3.5	3.5
Severity rate (percent of usual hours lost by absent workers)	55	56	58	56	56	55

The National Center for Health Statistics has published data on *work-loss days* per currently employed persons for selected years over a 10-year period. Taken from *Health Interview Surveys* conducted from July 1965-June 1966 to 1975, the average number of work days lost has declined 10.3 percent during this period:

July 1965-June 1966	5.8 days	
1968	5.4	
1971	5.1	
1975	5.2	[164:16]

The Bureau of National Affairs publishes quarterly data on job absences based on a survey conducted among personnel executives on BNA's *Personnel Policies Forum* and a panel of members of the American Society for Personnel Administration. Definitions and qualifications of the absence measure used by BNA can be found on pages 7-8. As shown in Table 1, median monthly average absence rates for all responding companies from 1973 to 1978 declined to 2.9 percent from 4.0 percent. This represents a 27.5 percent decrease over the past five years.

Absence rates for the United States were nearly the same as those for Canada and Australia during similar time periods, but much lower than absence rates reported in Western European countries. In May 1978, the proportion of full-time Canadian workers absent per week was 6.4 percent, compared to 6.6 percent for American workers. In October 1976, the proportion of usual hours lost by Australian workers was 4.0 percent, compared to 3.5 percent for American workers in May of that year. However, absence data for 1972 and 1973 were much higher in Western Europe. Ten percent of scheduled work time was lost in The Netherlands, 11 percent in West Germany, and 15 percent in Italy. [401:49]

These national data can be compared with teacher absence data reported in studies conducted at the state and local levels, although caution should be exercised in interpreting data using varying definitions of absence. Teachers in Illinois had a median absence rate (no definition given) of 3.1 percent in 1971-72, 3.5 percent in 1973-74, and 3.6 percent in 1975-76. This

TABLE 1.--Median Monthly Average Absence Rates, All Companies, 1973-78

Year	Absence Rate	Total Reporting Companies[1]
1973	4.0%	58
1974	3.4	168
1975	3.0	391
1976	3.0	312
1977	2.8	352
1978	2.9	282

[1]Data for 1976, 1977, and 1978 are for Fourth Quarter, not entire year.

SOURCES: BNA Bulletins to Management, published by the Bureau of National Affairs, Washington, D.C. Copyright by the Bureau of National Affairs. Used with permission.

PPF Special Report: The Employment Picture--First Quarter, 1974, March 14, 1974, p. 2.

BNA's Quarterly Report on the Employment Outlook: Absenteeism and Turnover, March 27, 1975, p. 4; First Quarter, 1976, p. 2; February 24, 1977, p. 2.

BNA's Quarterly Report on the Employment Outlook: Job Absence and Turnover, March 9, 1978, p. 2.

BNA's Quarterly Report on Job Absence and Turnover, March 15, 1979, pp. 2, 4.

represents a 16.1 percent increase from 1971-72 to 1975-76. [57:9]

Fifty Pennsylvania school systems participated in a study of teacher absence conducted by the Philadelphia Suburban and South Penn School Study Councils for school year 1968-69. The mean rate of absence ("percent of total teacher days/year lost to absence") for the "average district" for all leave, paid and unpaid, was 3.26 percent; for all paid leave, 3.01 percent. The mean index ("days of absence/teacher/year") was 6.07 days for all leave, paid and unpaid; 5.62 days for all paid leave. [79:44] Almost a decade later, in 1978, the Pennsylvania School Boards Association (PSBA) published the results of a teacher absence study involving 135 of the 504 school systems (26.8 percent) in the state. An absentee was defined as "any employee who is absent for *any* reason from his scheduled place of work." (Emphasis in the original.) Absences of more than 30 days were not included in the study's tabulations. For school year 1977-78, the PSBA found that the mean annual absence rate in reporting school systems was 4.757 percent; the median absence rate was 4.605 percent. During this period, the "average" teacher was absent 8.2 days. [78:16-18]

Some large local school systems have collected and analyzed data on teacher absence. In Dade County (Miami), Florida, instructional staff used an average of 7.42 days of sick leave per person in 1969-70 compared to 7.35 days in 1968-69. In 1969-70, instructional personnel averaged 8.68 days of leave, for all reasons. During this school year, an average of 4.34 percent of the instructional staff was absent each day. [66:27, 32]

In the late 1960s, teacher absenteeism in New York City increased 50 percent. According to data from a sample of 79 schools, the school system's Bureau of Educational Research reported that an average of 7.5 percent of the teachers were absent daily during 1968-69, compared with an average absence rate of 6.4 percent in 1967-68 and five percent in 1966-67. [72; 84:111] Although average absence data for the entire school system were not reported, teacher absence rates in New York City for discretionary absences by school level (including those for self-treated illness, personal business, and "non-attendance" days) ranged from 3.6 percent to 4.8 percent in 1971-72 and from 3.3 percent to 4.8 percent in 1972-73. Total absence rates ranged from 4.6 percent to 6.9 percent in 1971-72 and from 5.1 percent to 6.4 percent in 1972-73. [80:10]

In the Chicago (Illinois) Public Schools, the median teacher absence rate (no definition given) was 8.5 percent in 1971-72, 8.3 percent

in 1973-74, and 7.9 percent in 1975-76, or a 7.1 percent decrease from 1971-72 to 1975-76. [57:9]

In 1971-72, professional staff absence (no definition given) in the Newark (New Jersey) School District was 6.8 percent. Two years later, after an Attendance Improvement Plan was developed and implemented, the teacher absence rate declined to 5.5 percent, for a decrease of 19 percent. A smaller school system, Ewing Township (New Jersey), with an enrollment of 5,200 pupils, also participated in this attendance improvement project. From 1971-72 to 1973-74, its professional staff absence rate dropped to 2.2 percent from 3.3 percent, a 33 percent decrease in two years. [81:8-9] Based on data from these two pilot school systems, other school systems in New Jersey, and from illness absence studies in the private sector, the authors of the Newark-Ewing study concluded that:

- Private sector rates of illness absence fall in the 2-4% range (days of illness absence divided by days of work x 100).
- A New Jersey School Boards Association urban district study indicated that 66% of districts exceed this 2-4% rate.
- Those urban districts that provide illness absence protection beyond the ten-day state minimum experienced the highest rates of absence with one exception. [81:6]

Paid Leave Provisions

Paid leave for such reasons as personal illness or other causes is typically an integral part of a school system's package of fringe benefits for teachers and other employees. These "fringe" benefits comprise a major cash outlay for most school systems. However, some persons have suggested that inadequate provisions for other types of paid leave may be among the underlying causes of sick leave abuse. [221:29; 66:4] School administrators studying staff absence on a local level may find it useful to compare leave provisions in their school system with trends and data on different types of leave offered by other school systems nationwide.

Sick leave is the most widely offered fringe benefit for public school teachers, with virtually every school system in the country providing at least some paid leave for personal illness. In school years 1930-31 and 1940-41, three-fourths of urban school systems surveyed reportedly gave teachers some amount of paid sick leave. By 1950-51 this figure had risen to 95 percent. [35:15] In 1977-78 ERS reported that 97.2 percent of school systems enrolling 300 or more pupils that responded to its biennial *National Survey of Fringe Benefits in Public Schools* reportedly offered teachers days off with pay for personal illness. [21:15]

The number of sick leave days per year provided by large school systems (25,000 or more pupils) has remained constant over the past two decades. With one exception [35:16], data from six surveys conducted either by ERS or the former NEA Research Division have shown that large systems provided teachers a median of 10 sick leave days per year from 1961-62 to 1977-78. [38:3; 67:2; 60:30; 20:11; 21:15] School systems with enrollments of 300 or more pupils also provided a median of 10 sick leave days per year in 1975-76 and 1977-78. [20:11; 21:15]

The median number of cumulative sick leave days allowed per year by large school systems (25,000 or more pupils) increased from approximately 90 days in 1961-62 to 130 days in 1975-76, but decreased to 120 days in 1977-78. [38:3; 67:3; 35:17; 20:11; 21:15] Where 2 in 10 large systems provided *unlimited* sick leave accumulation in 1961-62, almost 6 in 10 reportedly placed no limit on sick leave accumulation in 1977-78. Nearly half of the school systems enrolling 300 or more pupils provided unlimited sick leave accumulation in 1975-76 and 1977-78. [38:3; 20:11; 21:15]

More than 40 percent of all school systems (300 or more pupils) responding to the ERS *National Survey of Fringe Benefits in Public Schools* for 1977-78 indicated that one or more supplements to sick leave were provided teachers in that school year. Supplements generally were provided more by larger school systems than by smaller systems, and included:

Supplement	Percent of All Responding School Systems Providing Supplement
Additional days at partial pay	19.3%
Additional days without pay	18.5
Income protection insurance	17.4
Sick leave bank	12.1
Advance leave with pay	4.2
Other	2.6

[21:15]

More than one-third of all school systems responding to the ERS 1977-78 survey on fringe benefits reported that unused sick leave may be credited either partially (19.5 percent) or fully (15.3 percent) towards retirement service. [21:16]

Personal/emergency leave was provided by 91.5 percent of school systems responding to the ERS survey on fringe benefits for teachers in 1975-76. The median number provided was two; 60.6 percent of responding systems provided either two or three days of personal/emergency leave that year and another 13.5 percent offered six days or more (but not unlimited). One-third of the school systems that granted personal/emergency leave charged these days to sick leave. [20:12]

In the 1977-78 ERS survey, 96.3 percent of responding school systems indicated that teachers were provided personal/emergency leave. The median number provided was three days, with 56.6 percent providing two or three days of personal/emergency leave that year and another 18.5 percent providing five or six days. One-third of the school systems that granted personal/emergency leave charged either all (26.7 percent) or part (6.3 percent) of these days to sick leave. [21:16]

Sabbatical leave for teachers was provided in approximately 60 percent of responding school systems in 1975-76 and 1977-78, according to data from ERS fringe benefit surveys. However, the size of the school system had a direct effect on whether or not sabbatical leave was provided. Almost twice as many large systems (25,000 or more pupils) offered sabbatical leave for teachers during these school years as very small systems (300 to 2,499 pupils). Where sabbatical leave was offered, the amount of time granted was usually two semesters or one calendar year. [20:13; 21:18]

Salary provisions relating to sabbatical leave did not change from 1975-76 to 1977-78, with the majority of school systems providing half salary to teachers on sabbatical leave. In 1977-78, 93.3 percent of the school systems that provided sabbatical leave specified that a teacher had to serve a minimum number of years before becoming eligible to use sabbatical leave. The median number of years of service required was seven. [20:13; 21:18]

Shown in Table 2 are *leave provisions other than sick leave, personal/emergency leave, and sabbatical leave* that were provided teachers in 1977-78. Jury leave was offered most frequently, by 85.0 percent of the responding school systems. Approximately three-fourths of school systems reported providing professional leave (including leave to serve as an officer or committee member in a professional organization), military leave, parental leave (including maternity, paternity, and adoptive leave), and family leave (including leave for marriage, graduation, bereavement, and care for ill family members). Over half of the responding systems reported providing religious leave and civic leave (other than for jury duty). More of the larger school systems granted other types of leave than smaller school systems. These other leave provisions were provided as personal/emergency leave, sick leave, leave without pay, or as a combination of these leave categories. [21:17]

TABLE 2.--Other Leave Provisions for Teachers in Reporting School Systems, by Enrollment Group, 1977-78

	Enrollment Group				
	25,000 or More	10,000 to 24,999	2,500 to 9,999	300 to 2,499	Total-All Reporting Systems
A. TYPE OF LEAVE PROVIDED*					
Jury	94.0%	90.6%	83.9%	72.4%	85.0%
Professional	84.6	78.0	77.0	66.0	76.2
Military	93.3	85.0	72.4	53.2	75.3
Parental	86.6	78.4	76.7	60.1	75.2
Family	86.6	76.0	75.8	63.1	74.8
Religious	72.5	66.6	59.0	36.5	58.6
Civic	65.1	54.7	51.2	36.5	51.3
Number Responding	149	287	322	203	961

*Data shown are the percents of all respondents in each category (column) reporting the type of leave identified in the row heading; these data may sum to more than 100.0 percent because some respondents reported more than one type of other leave.

B. DETAILS OF OTHER LEAVE PROVISIONS

	Provided as:				
Type of Leave	Personal and/or Emergency Leave	Sick Leave	Leave Without Pay	Other-wise Provided*	Total--All Providing
Jury	223	10	46	538	817
Percent of Total	27.3%	1.2%	5.6%	65.9%	100.0%
Professional	168	6	110	448	732
Percent of Total	23.0	0.8	15.0	61.2	100.0
Military	127	4	296	297	724
Percent of Total	17.5	0.6	40.9	41.0	100.0
Parental	204	190	218	111	723
Percent of Total	28.2	26.3	30.2	15.4	100.0
Family	323	215	50	131	719
Percent of Total	44.9	29.9	7.0	18.2	100.0
Religious	388	36	51	88	563
Percent of Total	68.9	6.4	9.1	15.6	100.0
Civic	195	8	163	127	493
Percent of Total	39.6	1.6	33.1	25.8	100.0

*Includes systems reporting that leave is covered by more than one of the provisions specified.

SOURCE: *Fringe Benefits for Teachers in Public Schools, 1977-78.* Part 3 of National Survey of Fringe Benefits in Public Schools. Arlington, Virginia: Educational Research Service, 1979, p. 17.

Leave Without Pay

Little research has been conducted to date on the extent to which leave without pay is taken by employees in business or education. Hedges reported that in 1972 less than 40 percent of all unscheduled absences of an entire week or more were paid. Other data from the *Current Population Survey* indicated that among the major industrial groups analyzed, this proportion ranged from 14 to 72 percent; among occupational groups, from 18 to 70 percent. Hedges advised that a higher than average absence rate, coupled with a low proportion of paid absence for an industrial or occupational group, may indicate a "management problem." Among the causes of unpaid absence, she cited job dissatisfaction, mandatory overtime, rigid work schedules, or inadequate vacation leave or personal leave for emergencies. [221:29]

Two studies conducted a decade ago examined the question of leave without pay for teachers. In 50 Pennsylvania school systems for school year 1968-69, teachers in the "average district" took 0.45 days of leave without pay and lost 0.24 percent of total teacher days for the year due to absence without pay. [79:44] There was no difference in the amount of leave without pay taken according to the size of the school system (classified by less than 200 teachers or 200 or more teachers). [79:49]

The Dade County (Miami), Florida, public schools published data on leave usage for instructional personnel for school year 1969-70. The average staff member used 0.93 days of leave without pay. Of the personnel using leave without pay, the average person used 6.86 days. Highest usage was among elementary and junior high school staff members. (See Table 3.) Moreover, leave without pay generally was used more by staff members whose earnings were below the average salary paid to all personnel. [66:10] The authors of the report stated that leave without pay probably was used for a number of reasons: prior use of all sick leave or leave for emergencies or religious purposes, extension of time off at the beginning or end of the summer, or personal reasons. [66:4]

TABLE 3.--Average Number of Days of Leave Without Pay Taken by Instructional Staff Members in the Dade County, Florida, Public Schools, by Grade Level Taught, 1969-70

Grade Level	Average Number of Days Taken	
	For All Personnel	For Personnel Using Leave Without Pay
Elementary	1.02	6.89
Junior High	1.00	7.40
Senior High	0.75	6.50
Other	0.43	4.26
TOTAL	0.93	6.86

SOURCE: *Sick Leave for Instructional Personnel, 1969-70.* Research Report vol. 18, no. 2, 1970-71. Miami, Florida: Dade County Public Schools, Department of Administrative Research, October 1970, p. 19.

Patterns of Absence

How important are data on frequency and duration of absence in assessing an organization's attendance problem? Is there evidence to support the contention that a few employees may be directly responsible for much of the absence that occurs within an entire organization, whether a factory, business entity, service group, or school system? The answer is a qualified "yes," according to the available research.

It should be noted that variables other than absence frequency and duration also may play an important role in determining absence patterns. These may include personal factors (e.g., age, sex, marital status), organizational factors

(e.g., industry, organization size), time-place factors (e.g., day of the week, month of the year), job satisfaction, and personnel policies. These variables are examined in detail later in this Research Brief. Data on absence frequency and duration, which provide a starting point for identifying patterns of absence, are presented below.

In a study of employee absence in three metal working companies, Fox and Scott (1944) were among the first to find that a relatively small number of workers caused most of the absence in the organizations studied. [181] Plummer (1960) and Steinmetz and Schoderbek (1967) reported that a survey conducted by the New York Telephone Company concluded that 10 percent of its employees were responsible for 45 percent of all absences, and that one-third of the workers accounted for four-fifths of the absences. [338; 395:14] According to Yolles, Carone, and Krinsky (1975), 10 percent of workers cause 90 percent of all absenteeism. [427]

However, Garrison and Muchinsky (1977) reached somewhat different conclusions. They studied absence proneness among 195 employees working in the accounting department of a large public utility. Two uncorrelated measures of absence (paid and unpaid) were used for each person in the study and data were recorded for 21 consecutive months (seven quarters). They concluded that a core of employees was responsible for the great majority of absenteeism in any one quarter. Taking the average per quarter, 17 percent of the employees were responsible for 90 percent of paid absences and 31 percent of the employees were responsible for 90 percent of the unpaid absences. Yet this core changed from quarter to quarter, since over the full 21-month period, 50 percent of the employees were responsible for 90 percent of paid absences and 58 percent of the employees caused 90 percent of unpaid absences. Therefore, it was found that the distribution of the absence data over the entire 21 months did not differ from chance expectancy. [188]

In describing the results of a survey of employee absence in the federal government, Campbell (1970) said that the most significant indication of sick leave abuse was that nearly 75 percent of all sick leave taken was for one day or less. "Many one-day leaves are not due to incapacitating illness," he stated. "In other words, this one-day sick leave behavior is often sick leave abuse." [132:44] Moreover, the 1966 survey "revealed some patterns of high and low sick leave use that deserve attention":

- In 10 agencies where males used a high amount of sick leave (greater than the total average days used), females also used a high amount of their sick leave. Conversely, in five agencies where males used a low amount of sick leave (less than the total average days used), female sick leave use also was low.
- For males and females in every age category, agencies with high and low employee usage of sick leave tended to remain the same over time. That is, in four out of five times, agencies maintained the same relative standings as high or low users of sick leave.
- In 19 agencies that had both a main office and field offices, high sick leave use in the main office was correlated with high sick leave use in the agencies' field offices. The same pattern occurred for low sick leave use. [132:43]

Similar data on patterns of absence have been reported for public school personnel. In a study of absence of instructional personnel in the Dade County (Miami), Florida, public schools during the 1940s and 1950s, 69.1 percent of the 207 teachers surveyed took from one to five days in their longest leave. Another 23.2 percent took from six to 10 days. [37:5] In Rochester, New York, during school year 1959-60,

approximately half of the teachers who were absent due to illness were absent only once, with one-fourth absent twice. Males had the highest proportion of one-time absences, 63.5 percent. [37:15]

Gibson and Lafornara (1972) studied absence data over a 30-year period in an inner-suburban school system located in a Northeastern metropolitan area of the United States. The sample consisted of approximately 70 percent instructional staff, 26 percent support staff, and four percent administrative staff. As illustrated in Table 4, frequency of total absence increased during this period. In 1938-39, 11 percent of the employees were absent four or more times, compared to 22 percent in 1948-49, 30 percent in 1958-59, and 61 percent in 1968-69. Duration of total absence also increased, from 56 percent of the sample in 1938-39 who were absent less than three days to 72 percent of the sample in 1968-69 who were absent five days or more.

However, the duration of individual absences, as shown in Table 5, decreased during this 30-year period. Where 64 percent of the employees' first absence in 1938-39 was from one to two days duration, 83 percent of the absence was from one to two days in 1968-69. For employees' second absence in 1938-39, 12 percent were for 10 days or longer, compared with one percent in 1968-69. Similar results were found for the duration of individual employees' third absence.

In the New York City Community School District 7, the percent of teacher days absent varied greatly among the 22 schools in the district in the late 1960s and early 1970s:

		School year		
		1969-70	1970-71	1971-72
Mean		6.6%	6.4%	6.6%
Range:	Low	4.9	4.3	4.0
	High	9.1	8.9	11.9

[84:114]

Data for teacher absence in Newark, New Jersey, indicated that 15 percent of all teachers used 15 or more days of sick leave for short-term absence in 1971-72. There was a wide variation on a school-by-school basis of the percent of the teaching staff with this high incidental absence. The total range varied from five to 32 percent of the school's teachers. [54:113] In 1972-73, half of all total absences due to illness were taken by 20 percent of the teachers; more than 80 percent of the absences were for five days or less, compared with a median of 44 percent in business. [54:125, 129]

At Alsip School District 126 in Worth, Illinois (suburban Chicago), it was reported that about 25 percent of the teachers were either ill a great deal or were never ill. The remaining 50 percent of the staff was seen to have increased the average number of sick leave days taken annually from five or six to eight or nine. Absences were noted on Mondays, Fridays, and days before holidays. After an absence reduction program was initiated, including absence monitoring and follow-up conferences by principals, recognition of perfect attendance, payment for unused sick leave at retirement, and use of absence records in decisions on reduction-in-force, average teacher absence declined from nine days to six. [3]

Use of Substitute Teachers

The impact of teacher absence on the classroom environment invariably is linked to the use and effectiveness of substitute teachers. On the one hand, some perceive substitutes as virtual baby sitters, who provide little continuity of instruction when the regular teacher is absent. In a study involving more than 18,000 classroom observations in 112 suburban school systems located throughout the country, Olson (1971)

TABLE 4.--Frequency and Duration of Total Absence of School Personnel in a Metropolitan School System, 1938-39 to 1968-69

Frequency of Total Absence

	1938-39			1948-49			1958-59			1968-69		
Frequency	N	C %	Cu %	N	C %	Cu %	N	C %	Cu %	N	C %	Cu %
0	127	36%	36%	93	23%	23%	59	12%	12%	30	4%	4%
1	99	28	64	96	23	46	109	22	34	79	10	14
2	58	16	80	70	17	63	105	21	55	95	12	26
3	30	9	89	62	15	78	78	15	70	107	13	39
4 or more	40	11	100	90	22	100	149	30	100	489	61	100
	354	100		411	100		500	100		800	100	

Duration of Total Absence

	1938-39			1948-49			1958-59			1968-69		
Days	N	C %	Cu %	N	C %	Cu %	N	C %	Cu %	N	C %	Cu %
0	127	36%	36%	93	23%	23%	59	12%	12%	29	4%	4%
1 - 2	71	20	56	79	19	42	91	18	30	97	12	16
3 - 4	54	15	71	71	17	59	101	20	50	98	12	28
5 - 9	54	15	86	100	24	83	131	26	76	284	35	63
10 or more	48	14	100	68	17	100	118	24	100	292	37	100
	354	100		411	100		500	100		800	100	

SOURCE: R. Oliver Gibson and Paul Lafornara. "Collective Legitimacy and Organizational Attachment: A Longitudinal Case Study of School Personnel Absences." Paper presented at the annual meeting of the American Educational Research Association, April 1972, p. 10 in ED 063 674.

found that the effectiveness of substitute teachers was far below that of regular teachers, specialists, student teachers, and teacher aides. [50] On the other hand, many substitutes contend that they frequently are not given adequate advance notice; enough information on their assignment, their students, or their school; support from the administration; status afforded the regular teacher; necessary orientation or inservice assistance; or assignments in their field of training. [53:3]

To determine existing practice regarding the use of substitute teachers, ERS surveyed a national sample of school systems in January 1977. The results of this study, titled *Practices and Procedures in the Use of Substitute Teachers*, were based on 488 replies that were received. Major topics relating to substitute teacher use were analyzed, and are highlighted below. [53:vii-viii] (Substitute teacher cost is discussed on pages 105-111.) For a more comprehensive treatment of substitute teacher use, including examples of substitute teacher policies, procedures, and guidelines utilized by local school systems, readers are urged to consult the complete ERS Report. [53]

TABLE 5.--Percent Distribution of All Absence Durations of School Personnel in a Metropolitan School System, 1938-39 to 1968-69

Days Duration	1938-39	1948-49	1958-59	1968-69
First Absence				
1 - 2	64%	74%	74%	83%
3 - 4	21	14	14	8
5 - 9	8	8	7	6
10 or more	6	4	5	3
Second Absence				
1 - 2	54	77	77	82
3 - 4	19	10	12	12
5 - 9	16	8	8	5
10 or more	12	5	3	1
Third Absence				
1 - 2	47	66	77	76
3 - 4	17	14	11	12
5 - 9	20	13	7	10
10 or more	16	7	5	2

SOURCE: R. Oliver Gibson and Paul Lafornara. "Collective Legitimacy and Organizational Attachment: A Longitudinal Case Study of School Personnel Absences." Paper presented at the annual meeting of the American Educational Research Association, April 1972, p. 11 in ED 063 674.

1. Substitute program organization

- 50.2 percent of all responding school systems centrally controlled and assigned their substitute teachers; 22.8 percent maintained a decentralized system at the building level; and 27.0 percent used features common to both.

- Over 90 percent of the large school systems (25,000 or more pupils) and medium school systems (10,000 to 24,999 pupils) and over 60 percent of the small school systems (2,500 to 9,999 pupils) took applications for substitute employment and administered their substitute teacher programs at the central office level, most often by directors of personnel. Employment applications and substitute teacher programs were administered in very small school systems (300 to 2,499 pupils) by the superintendent and building principal.

- Substitute teacher rosters were maintained in a central roster for the entire school system in 68.4 percent of all responding systems, in a roster at each individual school in 19.9 percent of the systems, or in a combination of both in 11.7 percent of the systems. 92.2 percent of all responding school systems kept the names of both short-term and long-term substitutes on the same roster.

2. Application procedures

- 58.6 percent of all responding school systems required that substitute teachers hold the same minimum academic degree and teacher certification as regular teachers. The average percent of substitutes holding the same minimum academic degree as regular teachers was 81.1 percent; for teacher certification, 78.5 percent.

- 52.0 percent of all responding school systems sometimes gave special consideration to their substitute teachers if they applied for a regular teaching position; 37.3 percent usually gave special consideration; 10.7 percent did not give any special consideration.

3. Absence procedures for regular teachers

- Regular teachers most frequently requested a substitute from the building principal for both planned (in 71.8 percent of responding school systems) and unexpected (in 66.8 percent of responding school systems) absences.

- School systems advised regular teachers to give an average of 3.4 days notice for a planned absence and 3.1 hours for an unexpected absence. 59.0 percent of all responding school systems preferred that a regular teacher notify the school system between 2:00 p.m. and 6:00 p.m. of the day preceding an unexpected absence; 53.4 percent, between 7:00 a.m. and 7:30 a.m. on the day of the absence.

- Items that school ssystems required regular teachers to make available to substitute teachers included: lesson plans (97.5 percent); seating charts (83.0 percent); copies of textbooks (78.7 percent); list of schedules, events, rules, etc. (68.6 percent); supplies, materials, and equipment (64.7 percent); appropriate keys (49.6 percent); and a list of personal student information, e.g., disciplinary, emotional, or medical problems (30.5 percent).

4. Selection procedures

- 74.6 percent of all responding school systems selected substitute teachers for duty primarily on the basis of their past performance as a substitute.

- Substitute teachers in 75.7 percent of all responding school systems were required to notify their school systems of their unavailability at the time they are called for assignment.

5. Evaluation procedures

- 39.2 percent of all responding school systems formally evaluated the performance of their substitute teachers. The building principal performed the evaluation in 94.7 percent of the school systems. Substitute teachers were evaluated most often after each assignment (in 38.8 percent of all responding school systems).

6. Dismissal procedures

- In 93.1 percent of all responding school systems, substitute teachers with poor performance records could be removed from their school system's roster without a complicated procedure.

- In 91.9 percent of all responding school systems, there was no specific limit to the number of times in which a substitute teacher could refuse an assignment and still be kept on active file. Of the school systems with specific limits, 47.4 percent removed a substitute's name from the roster after the third refusal.

7. Size of substitute teacher forces

- Large school systems (25,000 or more pupils) kept an average of 805 names of substitute teachers on active file in 1976-77; medium school systems (10,000 to 24,999 pupils), 197; small school systems (2,500 to 9,999 pupils), 108; and very small school systems (300 to 2,499 pupils), 34.

- For every 100 regular teachers employed by all responding school systems, the median system had 26 substitute teachers on active file; the mean for all systems was 35 substitute teachers.

- There were an estimated 736,696 substitute teachers nationwide on the rosters of school systems enrolling 300 or more pupils.

- Large school systems (25,000 or more pupils) employed an average of 143 substitute teachers during a typical day in 1976-77; medium school systems (10,000 to 24,999 pupils), 34; small school systems (2,500 to 9,999 pupils), 13; and very small school systems (300 to 2,499 pupils), 3.

- 36.3 percent of all responding school systems employed from 10 to 20 percent of their total available substitute teachers during a typical day in 1976-77; 28.9 percent employed less than 10 percent; 19.7 percent employed from 20 to 30 percent.

- School systems employed an average of 4.3 percent of substitute teachers during a typical day in 1976-77 as compared with the number of total regular teachers.

- 57.4 percent of all responding school systems had an adequate supply of substitute teachers in 1976-77. Surpluses occurred more often in the medium school systems (10,000 to 24,999 pupils)--26.6 percent--and large school systems (25,000 or more pupils)--24.4 percent. Shortages occurred more often in the very small school systems (300 to 2,499 pupils)--31.9 percent--and the small school systems (2,500 to 9,999 pupils)--20.2 percent.

8. Orientation and inservice programs available to substitute teachers

- Orientation programs for substitute teachers were provided by 42.4 percent of all responding school systems and in-service programs by 22.0 percent.

9. Collective negotiation agreements covering substitute teachers

- Substitute teachers in 95.3 percent of all responding school systems were not covered by any type of collective negotiation agreement.
- In 78.9 percent of all responding school systems that negotiated with some employee group, substitute teachers were not covered by any type of collective negotiation agreement.

10. Alternatives to the use of substitute teachers

- 26.9 percent of all responding school systems used alternative methods for replacing absent teachers either in addition to or in place of substitute teachers. Most often regular teachers were used during their planning or free periods.

MAJOR FACTORS INFLUENCING EMPLOYEE ABSENTEEISM

Why are some employees absent more frequently than others? What impact do variables such as age, job satisfaction, satisfaction with co-workers, day of the week, or turnover have on employee absenteeism? Little? None? A great deal? The answers to these questions help employers understand elements behind the absence-attendance decision, but more importantly, should be weighed carefully in management decisions aimed at reducing employee absenteeism.

Some of the factors thought to affect employee absenteeism have been described briefly in the Introduction to this Research Brief. This section summarizes the available research literature on employee absenteeism in education, business, industry, and government. This research includes both formal experimental and survey research, as well as other studies on absenteeism and sick leave use conducted by local school systems. Readers should be aware that many of the studies included focus on the absenteeism of blue-collar industrial workers and white-collar clerical employees. Therefore, caution should be exercised in drawing conclusions from research on these populations that relate directly to professional educational personnel, such as teachers.

The research on employee absenteeism in this section is presented in five parts. First, the relationship between absenteeism and *personal* factors is examined. Nine major variables are included in this part, among them age, sex, race, and marital status. Second, how *job satisfaction* influences employee absenteeism is discussed. The third part investigates the relationship between absenteeism and *organizational* factors. Thirteen variables are included as organization-wide factors, eight as work environment factors, and four as factors particular to education. The fourth part is concerned with the relationship between employee absenteeism and *time-place* factors, such as day of the week, month of the year, and travel distance to work. Lastly, studies relating to the absenteeism-*turnover* relationship are summarized. Following each part is a summary table that lists the research findings discussed in the text.

The Relationship Between Employee Absenteeism and Personal Factors

Behavioral scientists have identified and studied a number of personal characteristics that relate to employee absenteeism. The literature in this area, which is summarized below, includes such factors as:

- age
- sex
- race
- marital status
- family size
- education level
- occupation/job level
- tenure/years of employment experience
- stress and anxiety
- other personal factors.

AGE

Numerous studies in both industry and education have focused on age. Five studies conducted by the federal government concluded that a significant relationship existed between age and absenteeism. Campbell reported that of 81,307 federal employees surveyed by the Civil Service Commission in 1961, employees 60 years and older had the highest absence rate (an average of 10.9 days), while the 42-47 age group had the lowest rate (an average of 7.8 days). [132] Trend data reported from *Health Interview Surveys* conducted by the National Center for Health Statistics have shown a shift in the absence rate according to age from the mid-1960s to the mid-1970s. As shown below, a positive relationship existed between age and absenteeism in July 1965-June 1966, 1978, and 1971, although in the last two years the average absence rate in the 65 years and over category was less than that of the 45-64 years category. However, in 1975, this relationship was curvilinear, with the average rate for 65 years and over lower than the 17-24 years category. [164:16] For more detailed data from the 1975 survey, see Table A on page 145.

Work-Loss Days

Age	July 1965-June 1966	1968	1971	1975
17-24 years	4.1	4.8	4.2	4.6
25-44 years	5.4	4.9	4.7	5.1
45-64 years	6.8	6.3	6.1	5.8
65 years and over	8.3	5.8	5.5	4.3

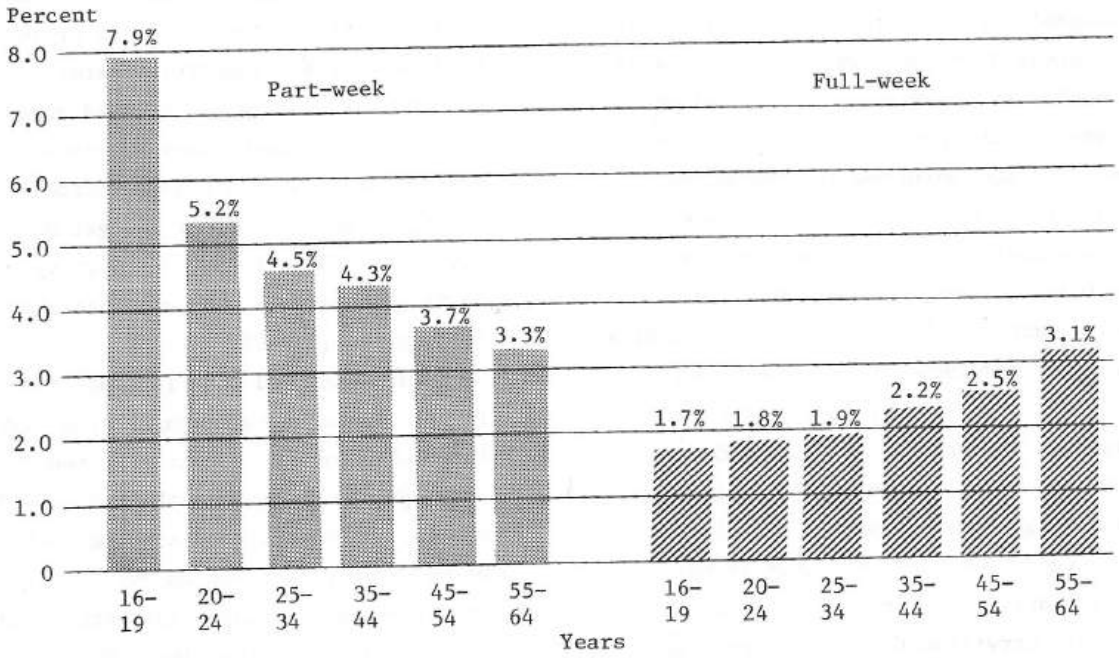
Hedges (1973) summarized data from a national sample of nonfarm workers collected from the 1972 *Current Population Survey* that was analyzed by the Bureau of Labor Statistics. As shown in Figure 3, part-week absences in 1972 decreased continuously with each age group, i.e., 7.9 percent of 16-19 year-old workers were absent in an average week (the highest rate), while 3.3 percent of workers 55-64 years old were absent. The reverse was true for full-week absences, with older workers absent more often than younger workers. Workers 55-64 years old had an absence rate of 3.7 percent, compared to a rate of 1.4 percent for 16-19 year-olds. [221:28-29]

Hedges (1977) also discussed the results of the first national BLS survey on employee absence that quantified time lost. As presented in Table 6, incidence and inactivity rates for men were highest for teenagers, declined gradually through the 35-44 age group, then increased. However, women from 25-34 had higher incidence and inactivity rates than either younger or older women. From May 1973 to 1976, time lost by workers from 20-44 years of age was less than that for workers 45 or over. [222:21-22]

Reporting BLS data for May 1978, Taylor (1979) concluded that generally a curvilinear relationship existed between age and absenteeism, although sex influenced the pattern of these absences. The proportion of time lost for men remained steady from age 25-54, the prime working years, but were highest for workers in the 16-24 and 55 and over categories. However, women 25-34 years old had a higher absence rate than women in the 16-24 years-old or 45-54 years-old categories. As with men, women 55 and over had increasing absence rates until retirement. Moreover, the average length of absence increased with age. Men lost more hours to illness than women in May 1978 in all six age categories except the "65 years and over" grouping. [401:51-52]

Jackson (1944) found that a curvilinear relationship existed between age and absenteeism in a sample of machine shop workers, that is, younger and older workers had higher absence rates than middle-aged workers. [251] Age was not a factor in the absenteeism of factory workers studied by Schenet (1945) [368] or of female clerical workers studied by Naylor and Vincent (1959). [311] Kahne and her associates (1957) reported that the absence frequency rate (average number of absences per 100 scheduled work days) declined from 1.7 days for employees under

FIGURE 3.--Unscheduled Absences of Employees, by Age, March 1972



SOURCE: Janice Neipert Hedges. "Absence from Work--A Look at Some National Data," *Monthly Labor Review*, 96 (July 1973), p. 29.

TABLE 6.--Absence Rates for Full-Time Nonfarm Wage and Salary Workers, by Age, Sex, and Reason, May 1976 and Average May 1973-76

Age and Sex	Incidence Rate						Inactivity Rate					
	Total		Illness and Injury		Personal and Civic		Total		Illness and Injury		Personal and Civic	
	1976	1973-76	1976	1973-76	1976	1973-76	1976	1973-76	1976	1973-76	1976	1973-76
MEN												
Total, 16 years and over	5.2	5.2	3.3	3.3	1.9	2.0	3.0	3.0	2.1	2.1	.9	1.0
16 to 24 years	5.9	6.2	3.2	3.1	2.8	3.1	2.9	3.0	1.7	1.6	1.3	1.4
16 to 19 years	6.6	7.4	3.0	3.1	3.7	4.3	3.3	3.6	1.4	1.7	1.9	2.0
20 to 24 years	5.7	5.9	3.2	3.1	2.5	2.8	2.9	2.9	1.7	1.6	1.1	1.3
25 to 54 years	4.8	4.8	3.1	3.0	1.7	1.8	2.8	2.7	1.9	1.9	.9	.9
25 to 34 years	4.8	4.7	3.0	2.8	1.8	2.0	2.6	2.5	1.7	1.5	.9	1.0
35 to 44 years	4.4	4.5	2.8	2.9	1.6	1.6	2.6	2.6	1.9	1.9	.8	.7
45 to 54 years	5.2	5.2	3.5	3.5	1.7	1.7	3.2	3.3	2.3	2.5	.9	.8
55 years and over	6.3	6.3	4.5	4.6	1.7	1.7	4.0	4.4	3.4	3.6	.7	.8
WOMEN												
Total, 16 years and over	8.6	8.2	5.1	5.0	3.4	3.2	4.4	4.3	2.8	2.8	1.6	1.5
16 to 24 years	8.2	8.3	4.8	5.1	3.4	3.3	3.7	3.7	2.1	2.2	1.6	1.5
16 to 19 years	7.9	8.9	4.1	5.3	3.8	3.6	3.1	3.9	1.5	2.3	1.7	1.7
20 to 24 years	8.3	8.1	5.0	5.0	3.3	3.2	3.8	3.6	2.2	2.1	1.6	1.5
25 to 54 years	8.8	8.4	5.2	5.0	3.6	3.4	4.6	4.5	3.0	2.9	1.6	1.6
25 to 34 years	9.7	9.1	5.6	5.1	4.1	4.0	5.3	4.7	3.1	2.7	2.2	2.0
35 to 44 years	8.0	8.2	5.0	5.2	3.0	3.0	3.8	4.4	2.6	3.1	1.1	1.3
45 to 54 years	8.2	7.6	4.9	4.8	3.3	2.8	4.5	4.3	3.1	3.1	1.4	1.3
55 years and over	8.1	7.5	5.2	4.9	2.9	2.6	4.6	4.3	3.4	3.2	1.3	1.2

NOTE: Averages are unweighted. Because of rounding, detail may not equal totals.

SOURCE: Janice Neipert Hedges. "Absence from Work--Measuring the Hours Lost," *Monthly Labor Review*, 100 (October 1977), p. 22.

35, to 1.1 days for workers 35-44, 0.8 days for workers 45-54, and 0.7 days for workers 55 and older. However, this order was reversed when the severity rate (average length of time lost per absence) was computed, with workers 55 and older absent 4.8 days, workers 45-54 absent 3.5 days, workers 35-44 absent 3.3 days, and workers under 35 absent 2.4 days. [256] Baumgartel and Sobol (1959) [104] reported a positive relationship between age and absenteeism for a sample of male and female white- and blue-collar workers, and de la Mare and Sergean (1961) [160] and Cooper and Payne (1965) [149] reported similar findings for industrial workers and construction workers, respectively.

Isambert-Jamati (1962) reported that a curvilinear relationship existed between age and absenteeism of two samples of French industrial workers--4,352 males and 3,697 females. [247] In a sample of 88 female factory workers, Sellett (1964) found that age and absenteeism were not related when total days absent were measured, but were

negatively related when frequency was used as the measure of absence. [373] Hill (1967) concluded that age and absenteeism (as measured by total number of sickness absences) were positively related in a study of 100 British production workers, but were negatively related when frequency was employed as the absence measure. [232]

Weaver (1970) found that younger municipal employees in San Antonio, Texas, used more sick leave from January 1967 to November 1969 than older employees. [418] Martin (1971) examined the age-absenteeism issue by studying male and female British light engineering employees. When uncertified absence was measured, age was found to be a negative predictor of absence. When certified absence was used as the absence measure, age was reported to have a positive relationship with absence. [418] Weaver and Holmes (1972) found a positive relationship between age and the absence of 286 female government employees studied. [419] Raouf (1973) reported that 20-25 year-olds had the highest absence rate, followed by 25-30 year-olds, in a survey of workers in industrial Windsor, Ontario. [347] In a study of 1,200 civil service employees at Ohio University, Sharples (1973) concluded that both higher absence men and women were younger workers. [375]

Flanagan, Strauss, and Ulman (1974) reported no correlation between age and absence among industrial workers studied. [176] In a sample of 20 black, female, hard-core unemployed white-collar employees, Beatty and Beatty (1975) found that, in two different periods of time, age and absence were both positively related and not related at all. [105] Goble (1976) found that older workers in a Delmarva processing plant had more absences attributable to family illness, excused absence, and total absence than younger workers. However, younger workers had more unexcused absences. [200] In a study of 303 female hourly-paid workers in a food processing plant, Nicholson and Goodge (1976) reported that younger workers had significantly higher levels of casual and unsanctioned absence than older workers, and a slightly higher level of absence immediately before, during, or after a holiday. Of all the personal variables they examined, age was the most important predictor of absence. [317]

Garrison and Muchinsky (1977) found a positive relationship between age and paid absences for 195 employees working in the accounting department of a large public utility, but a negative relationship between age and unpaid absences for the same group. [187] Bernardin (1977) reported a negative correlation between age and the absence of 109 male white-collar sales employees. [112] Nicholson, Brown, and Chadwick-Jones (1977) examined the relationship between age and different absence types (avoidable and unavoidable) for male and female employees as shown in 28 published studies. They found that:

1. Avoidable absence frequently is *inversely* related to age and is more distinct for male than female employees.

2. Although direct correlations between age and unavoidable absence are prevalent for male samples, other relationships such as inverse, curvilinear, and zero also occur.

3. For female workers, results from these studies are more conflicting and ambiguous for both absence types. For male workers, the results indicate a fairly distinct trend of "fewer but longer" absences as age increases. [319:320]

In their own research of 1,222 blue-collar production workers, they found that age was negatively related to avoidable or short-term absence, especially among male workers. [319:319]

Ilgen and Hollenback (1977) reported a negative relationship between the age and absence of 166 female clerical workers for total and uncertified absence, but no significant relationship was found when certified absence was measured. [243] Johns (1978) found that age and absenteeism were negatively related for both measures used (frequency and time lost), in a study of 208 operative workers in a manufacturing plant. [252]

In 1960 the former NEA Research Division published information on 21 studies of teacher absence. In Dade County (Miami), Florida, from 1944-45 to 1957-58, teachers 20-29 years of age and teachers age 50 and older used the highest percent of their sick leave (55 percent); teachers 30-49 years old used the lowest (48-51 percent). Older teachers took more long leave than younger teachers. [37: 5-6] In 16 school districts in Southern California, for 1952-53 and 1955-56, teachers 56-60 years old used the greatest average amount of sick leave, 5.4 days; the 31-35 year-old group used the smallest average amount, 3.6 days. [71; 37:4] A 1955-56 Akron, Ohio, study reported that the teacher absence rate increased steadily for each age group, with the exception of the 30-39 group, which was lower than the 20-29 group. [37:16] The results of a St. Louis, Missouri, study in 1955-56 indicated that absence rates increased through each age group, with the exception of the 41-50 group, which was lower than the 31-40 group. [37:14]

In a more recent study, teachers 60 years old or more in Newark, New Jersey, had an absence rate of 10.3 percent for illness in 1971-72, compared with the median rate for all teachers of 6.8 percent. [54:104] However, Coller (1975) found that absenteeism was not significantly related to age in a survey of teachers in the Livonia, Michigan, school district [12]; Bundren (1974) reported the same finding for teachers in Clark County (Las Vegas), Nevada. [8] Marchant (1976) found a significant positive relationship between the absence rate and age in a sample of 286 elementary school teachers in Richmond, Virginia. [42]

Marlin (1976) concluded that teacher absence in a semi-rural school system was higher in the 31-35 age category than for age groups of 21-25, 26-30, 36-45, and 46 and over. [43] Results of a study by the Dade County (Miami), Florida, public schools, for the first half of school year 1977-78, indicated that teachers from 31-40 years of age were absent the most, followed by teachers from 41-50, 30 and under, and 51 and over. [1:13] However, neither Bridges and Hallinan (1978) [7] nor Redmond (1978) [56] reported correlations between age and absenteeism of teachers in California, Wisconsin, or Iowa schools.

In summary, age has been shown to influence the rate of employee absence, although the results have been mixed. While some studies have indicated a steady increase of absence from younger to older workers (i.e., a positive relationship), others have found the existence of a curvilinear relationship, in which older or younger employees were absent more than middle-aged workers, a negative relationship, or no relationship at all. In general, it appears that for *sickness* absence, the older the employee, the higher the absence; but for *total* or *uncertified* absence, the younger the employee, the higher the absence.

SEX

The available research indicates that female employees have higher rates of absence than males, although men seem to be absent for longer periods of time than women. According to data from the *Health Interview Survey*, conducted by the National Center for Health Statistics, male workers were absent more than female workers in July 1965-June 1966 (5.9 days vs. 5.6 days). However, females had more work-loss days in 1968 (5.9 days vs. 5.2 days for males), 1971 (5.5 days vs. 4.9 days for males. [164:16] For more detailed data according to sex and age and work-loss days for 1975, see Table A on page 145.

Hedges (1973, 1975) reported that data contained in BLS *Current Population Surveys* indicated that the absence rate for females was approximately twice that for males, in part-week absences in 1972 and 1974. Females also were absent significantly more often than males for full-week absences in 1967, 1972, and 1974. [221; 223] Hedges (1977) and Taylor (1979) found that the incidence of absence and the proportion of available time lost

was much higher for females than males in May 1976 and May 1978. But where time lost by absent workers was measured, female workers lost a smaller proportion of their usual weekly hours than males. [222:21; 401:51]

	Females		Males	
	May 1978	May 1976	May 1978	May 1976
Incidence rate	8.6%	8.3%	5.4%	5.3%
Inactivity rate	4.3	4.3	3.1	3.0
Severity rate	No data	53	No data	60

(For definitions of these categories, see pages 6-7.)

Schenet (1945) [368] and Covner (1950) [153] reported that females were absent more than males in studies of factory and office workers. This same correlation also was reported in research by Kilbridge (1961) [265], Isambert-Jamati (1962) [247], and Flanagan, Strauss, and Ulman (1974). [176]

Mixed results were found in three studies. Kerr, Koppelmeier, and Sullivan (1951) indicated that female production workers were absent more than males for total absences and certified absences, but that males were absent more than females for uncertified absence. [262] Garrison and Muchinsky (1977) found that female white-collar workers had significantly more paid absences than males, yet there was no correlation between sex and unpaid absence. [187] Johns (1978) reported that women manufacturing workers studied had a significantly higher frequency of absence than men, but that there was no relationship between sex and time lost. However, he concluded from regression analysis that sex was the single best predictor of absence among job satisfaction, six personal characteristics variables, two leadership style variables, and six job content variables examined. [252]

The results of a 1966 Civil Service Commission study of over 81,000 federal employees indicated that, on the average, females used 9.6 days and males, 7.9 days. [132:43] In a study by Weaver (1970), female city employees in San Antonio, Texas, took more sick leave than males in every month but July. [418] Raouf (1973) found that approximately 80 percent of the companies he surveyed in Windsor, Ontario, indicated that female employees had significantly higher absence rates than males. [347] Sharples (1973) described a number of common characteristics found in experimental groups of civil service employees at Ohio University:

Characteristic	High Absence Group Associated with the Characteristic	
	Female	Male
youth	x	x
lower wages	x	x
fewer years spent on the job	x	
more education	x	
high percent are married	x	x
more illness in the immediate family	x	x
fewer work nights or rotating shifts	x	x
more whose husbands work full-time	x	
live farther from their job	x	x
fewer home owners	x	x

[375]

In a study of workers at a Delmarva processing plant, Goble (1976) reported that the demographic factors of sex and age seemed more important than education or marital status when correlated with absenteeism. In all categories of absence, females were absent more often than males. [200]

The 1960 NEA Research Memo, titled *Teacher Absences and Cost of Substitute Service*, outlined seven studies conducted by local school systems which found that females were absent more than males. In an analysis of absence records in 16 Southern California school systems in school years 1952-53 and 1955-56, female certificated employees

took an average of 4.77 days of sick leave vs. 2.59 days for male teachers. [71; 37:3] A study of teacher absence rates in the St. Louis, Missouri, public schools in school year 1955-56 reported that: 80 percent of female and 64.3 percent of male teachers were absent during that year; female teachers had an average of 7.6 days of absence per absent teacher compared with 5.5 days for male teachers; and females had an average of 6.3 days of absence per teacher in the group compared with 3.6 days for males. [37:13] Male teachers in Akron, Ohio, were absent 3.1 days in 1955-56, and females, 7.1 days; in 1956-57, the absence rate increased for males (3.5 days) and decreased for females (5.8 days). [37:16]

A study of teacher absence for personal illness in Cincinnati, Ohio, in school year 1958-59 showed that the average absence rate was 3.4 percent for all teachers--4.0 percent for females vs. 1.8 percent for males. [37:17] For teachers and nurses in the Wichita, Kansas, school district in 1959-60, males were absent, on the average, 2.7 days; single females, 5.1 days; and married females, 5.4 days. The highest number of days of absence (5.8 days) occurred for married females at the elementary school level and single females at the intermediate school level. [37:11] A Rochester, New York, study conducted in 1959-60 found the same pattern of absences that existed among male, single female, and married female teachers in Wichita. [37:15] In the Chicago, Illinois, school district, 27 percent of the male and 37 percent of the female teachers took at least one day of sick leave in February 1960. [37:8]

The Philadelphia Suburban School Study Council and the South Penn School Study Council conducted a survey on teacher absenteeism covering school years 1968-69 and 1969-70. Fifty-six Pennsylvania school systems in five study councils participated in the study. The results found that women were absent more than men in the "average" district. Female teachers averaged 6.95 days of leave, with pay and without pay, in 1968-69 and male teachers, 4.54 days. Females also had a higher mean rate of absence--on the average, females were absent 3.73 percent of the total work days, compared to a rate of 1.92 percent for males. [79:43] Data from the Newark, New Jersey, public schools indicated that in 1971-72, male teachers had an absence rate of 6.5 percent, compared to 7.0 percent for females. The median rate for the system for all teachers was 6.8 percent. [54:104]

In a survey of Dade County (Miami), Florida, elementary school teachers, Manganiello (1972) found no significant difference in absences attributed to the sick leave of male and female teachers as indicated by their payroll records. [40] Likewise, Bundren (1974) found no correlation between gender and teacher absenteeism in Clark County (Las Vegas), Nevada. [8] Coller (1975) found that male teachers in Livonia, Michigan, tended to have lower absence records than female teachers. [12]

Female teachers were absent significantly more than male teachers, according to Marlin's 1976 study of 425 teachers in a semi-rural school system. [43] Marchant's 1976 study of elementary school teachers in Richmond, Virginia, found no correlation between absence and sex. [42] In a sample of Central Ohio public and parochial school teachers, Douglas (1976) reported that sex was not a generalized representative of nine regression variables that were found to be a predictor of absenteeism. [15] Likewise, Bridges and Hallinan (1978) concluded that sex had no effect on teacher absenteeism in 57 California and Wisconsin elementary schools. [7]

The Pennsylvania School Boards Association found that male teachers were absent significantly more often than female teachers in school year 1977-78--5.16 percent for females vs. 4.19 percent for males. [78:20] In a study of employee absence in the Dade County, Florida, public schools for 1977-78, female teachers took approximately 70 percent of their sick and personal leave, where male teachers took about 30 percent. [1:12]

Redmond (1978) found that of 10 demographic variables studied, only gender was significantly related to the absence of professional personnel in the Fort Madison (Iowa) Community School District, i.e., women were absent more frequently than men. [56] In conjunction with his study of the effects of stress on absence (see page 40), Sylwester (1979) reported absence rates by sex for a sample of 335 Oregon elementary and secondary school teachers and administrators. Male educators were absent an average of 3.6 days in school year 1977-78, compared to 5.4 days for female educators. The average number of days absent for the total group was 4.7 days. [74:19]

Although research findings appear to link sex and absenteeism, care should be taken in interpreting these findings. The U.S. Department of Labor, which has published major studies on employee absenteeism, warns that other factors may influence the sex-absenteeism relationship, such as age, marital status, and occupation. Occupation is especially critical to this relationship. Traditionally more females have been new hires in the lower skilled, lower pay positions, two factors regularly associated with relatively high rates of absence.

Similar groups of employees should be compared when analyzing sex and absence. [221:28; 222:21; 309:59] Fewer women are employed in high salary positions usually associated with lower absence. "Sex differences in absence rates narrow when comparisons are made within a particular occupation group," observed Janice Hedges (1973), a BLS economist, "even though within the group men tend to occupy the better paying jobs." [22:28] Isambert-Jamati (1962) found that, even if they have several children to raise, highly-trained women in responsible positions are absent infrequently. [247] The Women's Bureau of the Department of Labor also found that women may lose more time from work due to short-term illness, but men are more likely to be out for longer periods of time. Thus, any financial loss associated with male and female absence tends to be the same. [309:59]

RACE

Nine studies were identified that examined the effect of an employee's race or ethnic background on attendance, seven reporting that nonwhites were absent more than whites.

Findings from four *Health Interview Surveys*, conducted by the National Center for Health Statistics, reported that white workers lost fewer work days then nonwhite workers. In July 1965-June 1966, white employees lost an average of 5.7 days, compared to 6.8 days for nonwhite employees. In 1968, whites lost 5.1 days; nonwhites, 8.1 days. In 1971, white workers lost 4.8 days; nonwhites, 7.5 days. In 1975, white workers lost 5.0 days and nonwhite workers lost 6.9 days. [164:16] As shown in Table B on page 146, black males between the ages of 17 and 24 were absent more than twice as often as white males in the same age category in 1975.

The Research Division of the St. Louis, Missouri, school district reported that, on the average, black teachers were absent more than white teachers in 1955-56 for personal illness and for a greater number of days:

	Black	White	Total
Percent of group absent	81.1%	73.4%	75.9%
Average days of absence per teacher absent	7.6	7.4	...
Average days of absence per teacher in the group	6.7	5.4	5.6 [37:13]

In the school year 1971-72, white teachers were absent due to illness more than black teachers in the Newark, New Jersey, public schools--a 7.1 percent absence rate for whites vs. a 6.3 percent rate for blacks. Puerto Rican teachers had an absence rate of 5.9 percent; Hispanic teachers, 5.3 percent; and "other" teachers, 6.4 percent; but these data were based on less than 50 cases. The median rate was 6.8 percent. [54:104] Nonwhite industrial workers studied by Flanagan, Strauss, and Ulman (1974) were absent

more often than white workers. [176] Marlin (1976) indicated that the mean absence rate for black teachers was higher than for white teachers in a semi-rural school system. [43] However, Marchant (1976) found no correlation between race and attendance in Richmond, Virginia, schools. [42]

As in the case of the sex of employees, it should be recognized that other factors such as occupation level, marital status, and age may influence the relationship between race and absenteeism.

MARITAL STATUS

Research has not consistently found a relationship between absence and an employee's marital status. Jackson (1944) reported that married men with several dependents had a steadier attendance record than either single men or married men with no children. [251] Shepherd and Walker (1958) found that single males were absent the most among iron and steel workers studied. [377] In a March 1972 Bureau of Labor Statistics study, married males were found to have a lower part-week absence rate than single males, but married females had a higher rate than single females:

Marital Status	Males	Females
Single	4.6%	4.9%
Married, spouse present	3.1	6.8
Married, spouse separated	3.9	8.6
Widowed	3.7	5.8
Divorced	2.5	5.4

[221:29]

Taylor (1979) reported from BLS data that men who were never married had higher absence rates than married men in May 1978; the reverse was true for women during this period. (See Table 7.) Married women also had a higher percent of time lost for both illness and injury and miscellaneous reasons than single women. "Family duties may be one factor causing their higher absence rates," Taylor noted, "although absences due to childcare activities and other family-related responsibilities could be expected to appear as miscellaneous reasons." [401:51]

Research by Sharples (1973) on Ohio classified civil service personnel found that both the high absence male and high absence female categories studied contained a higher percent of married employees than the low absence groups for males and females. [375] Goble (1976) reported that, of the processing plant workers he studied, single workers were absent more than married workers. [200] Marital status was found to be a significant negative predictor of absence without pay, but not with pay, in a study of accounting workers by Garrison and Muchinsky (1977). [187] Studies that reported no significant correlation between marital status and absence include those conducted by Naylor and Vincent (1959) [311], Martin (1971) [296], Waters and Roach (1971, 1973) [417; 416], Nicholson and Goodge (1976) [317], and Johns (1978) [252].

A study conducted in the Wichita, Kansas, public schools for school years 1959-60 reported that 34.6 percent of the male teachers, 25.3 percent of the single female teachers, and 16.5 percent of the married female teachers had a perfect attendance record. While more married females than single females were absent less than five days, more single females were absent 15 days or more. [37:11] In the St. Louis, Missouri, public schools, fewer single than married teachers were absent for personal illness in 1955-56. Those who were absent were absent for a longer period of time:

	Married	Single	Total
Percent of group absent	77.7%	74.8%	75.9%
Average days of absence per teacher absent	6.9	8.0	...
Average days of absence per teacher in the group	5.3	6.0	5.6

[37:13-14]

TABLE 7.--Absence Rates for Full-Time Nonfarm Wage and Salary Workers, by Marital Status, Sex, and Age, May 1978

Sex and Marital Status	Number of Workers (in thousands)	Incidence Rate (percent of workers absent)			Inactivity Rate (percent of aggregate time lost)		
		Total	Illness and Injury	Miscellaneous Reasons	Total	Illness and Injury	Miscellaneous Reasons
Both sexes[1]	60,153	6.6	4.1	2.5	3.5	2.3	1.2
Men[1]	37,464	5.4	3.4	1.9	3.1	2.1	1.0
Married, spouse present:							
16 years and over	27,589	5.0	3.3	1.7	3.0	2.1	.9
16 to 24 years	2,361	6.4	3.8	2.6	3.2	1.9	1.3
25 to 54 years	20,804	4.6	3.1	1.6	2.7	1.9	.8
55 years and over	4,425	6.0	4.3	1.7	4.0	3.1	.9
Never married	6,970	6.4	3.7	2.7	3.2	1.8	1.3
Women[1]	22,689	8.6	5.1	3.5	4.3	2.8	1.6
Married, spouse present:							
16 years and over	12,401	8.9	5.0	3.8	4.6	2.8	1.7
16 to 24 years	1,768	10.4	5.8	4.5	4.9	2.7	2.2
25 to 54 years	9,173	8.5	4.8	3.8	4.4	2.7	1.7
55 years and over	1,461	9.4	5.8	3.6	5.5	3.8	1.7
Never married	5,259	8.2	5.1	3.1	3.7	2.3	1.4

[1]Includes separated, widowed, and divorced persons, not shown separately.

NOTE: Because of rounding, detail may not equal totals.

SOURCE: Daniel E. Taylor. "Absent Workers and Lost Work Hours, May 1978," *Monthly Labor Review*, 102 (August 1979) p. 51.

Coller (1975) found that married teachers tended to have lower absence records than single teachers in the Livonia, Michigan, public schools. [12] However, Marlin (1976) reported that the mean absence rate for married teachers was higher than for unmarried teachers in a semi-rural school system. [43] No correlation was found between marital status and teacher absence in Marchant's 1976 study in Richmond, Virginia [42], Bundren's 1974 study in Clark County (Las Vegas), Nevada [8], Bridges and Hallinan's 1978 study in California and Wisconsin [7], or Redmond's 1978 study in Iowa. [56]

FAMILY SIZE

Research indicates that the relationship between family size and employee absence is, at best, mixed. Noland (1945) found a positive relationship between absenteeism and family size in a sample of industrial workers. [322] Naylor and Vincent (1959) [311], Isambert-Jamati (1962) [247], and Beatty and Beatty (1975) [105] affirmed this finding for different samples. Shepherd and Walker (1958) reported that male iron and steel workers with two dependents were absent minimally; absences of men with more than two dependents progressively increased. [377] The Bureau of Labor Statistics stated that the presence of children influenced absence rates among female workers. For March 1972, the age group with the widest sex difference (25-44 years of age) included seven-tenths of the females in the labor force with children under 18. [221:29]

Nicholson and Goodge (1976) found that women with large families in their sample tended to have higher levels of casual absence, but this association was weak. The relationship for absence-holiday was the largest, which indicated that school holiday periods serve to take these women away from their work more easily, when their domestic responsibilities are more important, than at other times. However, this "domestic responsibility" variable could not be separated from age, the other main biographical predictor of absence. [317] Garrison and Muchinsky (1977) found no correlation between paid and unpaid absences and the number of children in the families of their sample of accounting workers. [187] Ilgen and Hollenback (1977) found that family size was positively correlated with unexcused absence, but not with sick leave or total absence. [243] In a study of 208 manufacturing operatives, Johns (1978) reported that the number of dependents had no correlation to either absence frequency or time lost. [252]

Manganiello (1972) reported that there was no significant difference in the absence frequencies of female teachers who had children and female teachers without children, as indicated by their payroll records. [40] In a study of professional personnel in an Iowa school system, Redmond (1978) also reported that no relationship existed between family status and absenteeism over a four-year period. [56]

These findings would seem to indicate, Steers and Rhodes (1978) concluded, that family responsibilities, coupled with a general decline in absence among females through their work career, place constraints on attendance behavior for some employees. [394:400-401]

EDUCATION LEVEL

No consistent relationship seems to exist between absence and education level. Noland (1945) reported that absenteeism among a sample of industrial workers was inversely related to workers' education level. However, neither the absence measure used nor the range of education was described. [322; 308:320] Raouf (1973) found that in the companies he surveyed in Windsor, Ontario, employees without high school diplomas generally had the highest rate of absence. [347] Sharples (1973) found that high absence females in his study of classified civil service personnel in Ohio had more formal education than low absence females. [375] Goble (1976) reported

that processing plant workers in Delmarva with more than eight years of education appeared to have more absences of all types than workers with less education. [200]

Citing data from the *Current Population Survey* of the Bureau of Labor Statistics, Taylor (1979) reported that a negative relationship existed between education level and absenteeism in the American workforce in May 1978. The incidence rate (percent of workers absent) was highest for workers who completed elementary school (8.3 percent), followed by high school graduates (6.6 percent), and college graduates (4.1 percent). The inactivity rate (percent of aggregate time lost) for workers with an elementary school education was 4.9 percent; for high school graduates, 3.5 percent; and for college graduates, 2.1 percent. [401:52]

However, in samples of female employees, neither Waters and Roach (1971, 1973) [417; 416] nor Weaver and Holmes (1972) [419] reported any relationship between education and absence. Johns (1978) also failed to find any relationship between these variables for male and female manufacturing workers. [252]

In studies relating to educational personnel, research by the Chicago, Illinois, public schools for February 1960 indicated that absenteeism decreased as the amount of education increased. Teachers with a bachelor's degree on the average took 0.78 days of sick leave; teachers with a master's degree, 0.73 days; teachers with a master's degree plus 30 hours, 0.67 days; and teachers with a doctor's degree, 0.12 hours. The report cautioned that the type of school, age, and sex may have complicated these findings. [37:8] "Academic degree" was one of nine variables that Douglas (1976) found to be predictors of absenteeism when added in a stepwise regression. [15] However, there was no correlation between education level and absenteeism of professional personnel in the Fort Madison (Iowa) Community School District, according to Redmond (1978). [56]

OCCUPATION/JOB LEVEL

The research evidence points to a consistent relationship between the type of job employees hold and their rates of absence. That is, employees in lower-level jobs typically are absent more than employees in higher-level jobs. Gooding (1970) blamed high absence rates on assembly lines to mandatory overtime, poor working conditions, or boredom with the job, and sometimes to the increasing complexity of life. [205] Moreover, a Bureau of Labor Statistics feasibility study stated that high absence rates went beyond the assembly line. Two-fifths of the companies surveyed considered unscheduled absence among production workers a "very serious" or "moderate" problem; less than one-seventh of these companies described absences among office workers this way. [221:28]

Data from BLS *Current Population Surveys* indicated that in 1967 and 1972, managerial employees were absent from work the least amount of time among eight occupational groups, and operatives and laborers, the most amount of time, whether for part-week or full-week absences. The rate of absence of "education" employees (including personnel employed at elementary and secondary schools, colleges and universities, libraries, and educational services; approximately 47 percent of employees in this classification are reported to be teachers [57:17]) was near the average for all occupations. Shown below are the occupational groups that had the highest and lowest absence rates, part-week and full-week, in 1967 and 1972:

	Part-Week			
Year	Highest		Lowest	
1967	Operatives	5.2%	Managerial	1.8%
	Laborers	5.2	Sales	3.1
			Craftsmen	3.1
	All Occupations			3.9
	Education			3.8
1972	Operatives	5.6	Managerial	2.3
	Laborers	5.3		
	Service except private households	5.2		
	All Occupations			4.3
	Education			4.4

Year	Full-Week Highest		Lowest	
1967	Operatives	2.7%	Managerial	1.4%
	Service, except private households	2.5	Professional	1.8
			Clerical	1.8
	All Occupations			2.1
	Education			2.3
1972	Operatives	3.1	Managerial	1.5
	Service, except private households	2.8	Professional	1.7
	Laborers	2.7		
	All Occupations			2.3
	Education			1.9

[221:28]

Blue-collar workers had significantly higher incidence and inactivity rates than white-collar workers during the periods May 1973-76, May 1976, and May 1978, according to more recent BLS statistics. (See Table 8.) In the white-collar category, clerical workers had the highest incidence rates in May 1978 (7.0 percent), more than double that of the lowest subgroup, managers (3.4 percent). The absence rates for professional and technical employees in May 1978 were at the average for white-collar employees, but much less than the rates for workers in all occupations. In the blue-collar category, nontransport operatives had the highest absence rates for May 1978; and craft workers, the lowest rates. The incidence rate for laborers decreased 12.7 percent from May 1976 to May 1978, and the inactivity rate declined 22.2 percent during the same period. Absence rates for service workers were higher than those for workers in all occupations. The rates of absence for the highest absence subgroup (nontransport operatives) ran about three times the rate for the lowest absence subgroup (managers). [222:21; 401:51]

TABLE 8.--Absence Rates for Full-Time Nonfarm Wage and Salary Workers, by Occupation, Average May 1973-76, May 1976, and May 1978

Occupation	Incidence Rate (percent of workers absent)			Inactivity Rate (percent of aggregate time lost)		
	1978	1976	1973-76	1978	1976	1973-76
Total	6.6%	6.4%	6.3%	3.5%	3.5%	3.4%
White Collar	5.6	5.3	5.2	2.8	2.6	2.7
Professional and technical	5.5	5.1	5.2	2.8	2.6	2.7
Managerial	3.4	3.2	3.1	2.1	1.8	1.8
Sales	5.5	4.6	5.2	3.0	2.4	2.8
Clerical	7.0	6.9	6.4	3.2	3.2	3.1
Blue Collar	7.4	7.6	7.5	4.4	4.4	4.3
Craft Workers	5.7	6.1	5.7	3.4	3.7	3.3
Operatives except transport	9.7	9.5	9.6	5.6	5.3	5.3
Transport operatives	6.8	6.0	6.0	4.6	3.9	3.7
Laborers	6.9	7.9	8.3	3.5	4.5	4.7
Service	8.5	7.6	7.5	4.3	4.2	4.2

NOTE: Because of rounding, detail may not equal totals.

SOURCES: Janice Neipert Hedges. "Absence from Work--Measuring the Hours Lost," *Monthly Labor Review*, 100 (October 1977), p. 21.

Daniel E. Taylor. "Absent Workers and Lost Work Hours, May 1978," *Monthly Labor Review*, 102 (August 1979), p. 51.

According to data collected by the National Center for Health Statistics from the *Health Interview Survey*, farmers and farm managers and nonfarm managers and administrators lost the least average number of workdays in 1975--2.7 days and 3.7 days, respectively, compared to an average of 5.2 days lost for employees in all occupational categories. Occupational groups with the highest average number of work-loss days were nonfarm laborers (6.6 days), service workers except private household (6.5 days), and operatives and kindred workers (6.5 days). [164:13] A detailed presentation of these data, including breakdowns by sex and age, can be found in Table C on page 147.

Heneghan and Ginsburg (1970) found that in 1966-67, New York City employees averaged 7.0 paid sick days per employee. Managers averaged 8.4 paid sick days; engineers and skilled tradesmen, 8.8 days; inspectors, 9.0 days; clerical workers, 11.1 days; and health services personnel (excluding physicians), 11.7 days. [224:48]

Data from Dade County (Miami), Florida, for the first half of the 1977-78 school year indicated that classroom teachers used 83.7 percent of their earned sick leave and personal leave, followed by:

- support staff 78.8%
- administrative staff 77.1
- school-level professional support staff 73.1
- 12-month nonschool-level professional support staff 70.8
- 10-month nonschool-level professional support staff 69.5

[1:6]

Two earlier studies reported by the NEA Research Division compared absence rates by occupational group. In the Cincinnati, Ohio, school district in 1958-59, wide variations occurred in average time absent per employee among different classified jobs. Stenographers/secretaries had the fewest average days absent per employee (4.5 days), with bath attendants (13.9 days), painters (12.8 days), carpenters (12.0 days), and janitors (9.9 days) having the most days of absence. [37:18] A similar finding was reported by the Chicago, Illinois, public schools for January and February 1960. Truant officers and window washers took the most average days sick leave per month (1.39 days), and administrators, the least (.30 days). The average of all groups was 0.91 days; all teaching groups except elementary teachers (which averaged 0.96 days) were below this figure. [37:8]

Experimental research supports these national and local data. Baumgartel and Sobol (1959) concluded that, for the white- and blue-collar males and females they studied, job level negatively affected absenteeism. [104] Negative results also were produced in studies by Isambert-Jamati (1962) [247], Waters and Roach (1971, 1973) [417; 416], and Hrebiniak and Roteman (1973). [238] Ferguson (1973) found that among Australian workers studied, there was a higher proportion of neurotic absentees in telegraphists than in clerks, and in clerks than mechanics, in every state capital. [175] Only Garrison and Muchinsky's 1977 study reported that there was no significant relationship between job level and absence, whether paid or unpaid. [187]

In conclusion, Steers and Rhodes (1978) noted that, from the limited research available, employees who have higher-level jobs appear to be more satisfied and less likely to be absent than employees in lower-level positions. However, they caution that it is possible that the more challenging nature of higher-level jobs leads to increased job satisfaction, which then leads to attendance. [394:394]

TENURE/YEARS OF EMPLOYMENT EXPERIENCE

Studies focusing on the relationship of tenture and years of employment experience to absenteeism have produced conflicting results. Jackson (1944) found a negative relationship between absenteeism and tenure among machine shop workers. [251] Brodman and Hellman (1947)

indicated that for mail order employees in their sample, the length of employment (less than or greater than one year) had no effect on the frequency of short-term medical absences. However, employees who had been with the company for more than a year were late 73 percent more than employees who had been with the company for less than one year. [122]

A negative correlation existed between tenure and absence of white-collar males in a study by Metzner and Mann (1953), but there was no relationship between these variables for blue-collar males. [302] Hill and Trist (1955) reported that no relationship existed between tenure and the absence rate of factory workers in a longitudinal study. [231] Kahne and her associates (1957) found that the longer the period of service in an organization, the lower the absence frequency, regardless of age. [256] Baumgartel and Sobol (1959) reported conflicting results from their study of white- and blue-collar workers. While a curvilinear relationship was found between tenure and absenteeism among male blue-collar workers, a positive relationship existed in the sample of female blue-collar and male and female white-collar workers studied. [104]

Martin (1971) concluded that, for the British light engineering workers studied, a positive relationship between tenure and absence was found for males; however, no significant correlation was noted for females. [296] A negative relationship was reported for 160 female clerical workers in a study by Waters and Roach (1971). [417] In a 1973 replication of this study, they also found a negative relationship between these variables for a group of 90 female clerical workers, but no relationship for a group of 62 female clerical workers. [416] Weaver and Holmes (1972) reported a zero correlation between absence and the tenure of 286 female government employees. [419]

However, Raouf (1973) noted that the highest absence rates begin after the first six months of employment and end after the third year on the job. Little absence was found in the early days of employment in his sample of workers in Windsor, Ontario. [347] Sharples (1973) indicated that, in his study of classified civil service personnel employed at Ohio University, high absence females spent fewer years on the job than low absence females. [375]

Goble (1976) concluded that workers with more than three months of tenure were inclined to be more satisfied with pay than shorter tenured workers, but they had more absenteeism due to family and personal illness. [200] Nicholson and Goodge (1976) indicated that younger, short-service female food processing employees were most likely to have high levels of casual and unsanctioned absence. Two measures of sickness absence were found to increase with longer service among the oldest group and decrease with longer service among the youngest group. [317]

After the effects of pay and age were partialled out, a negative relationship between tenure and absence was found in Bernardin's 1977 study of 109 male white-collar sales workers. [112] Garrison and Muchinsky (1977) found that a significant positive relationship existed between tenure and the paid absences of 195 accounting workers; however, a significant negative relationship was found between tenure and unpaid absences. In discussing this finding, Garrison and Muchinsky stated that employees with more tenure usually were eligible for more paid absences and employees with less tenure normally took more unpaid absences. "Thus the organizational policy regarding paid absences accounts, in part, for the significant correlations between tenure and the two absenteeism measures," they concluded. [187:226]

Nicholson, Brown, and Chadwick-Jones (1977) found in their study of 1,222 blue-collar workers that a negative relationship existed between tenure and absence frequency, but that this relationship was more stable and reliable for age than for tenure. In fact, after age was partialled out, the significant relationships between tenure and absence were no longer

statistically significant. [319:319, 325] Johns (1978) indicated that, in his study of 208 operative workers in a manufacturing plant, tenure was negatively related to both absence frequency and time lost. [252]

Studies also have been conducted to measure the impact of tenure and years of employment experience on the absence rates of educational personnel. Gibson and Lafornara (1972) reported that in a 30-year longitudinal study of teacher absenteeism in a single school system from 1938-39 to 1968-69, "newcomers" (teachers with up to 10 years of service) were absent more often than "continuing" teachers (those with 10 or more years of service). Newcomers were seen as the bearers of a "creeping legitimacy," whereby absence norms shifted from illness to other reasons as newcomers entered the school system and influenced the absence patterns of continuing personnel. [27]

Stallings (1959) reported little difference in the use of sick leave by permanent and probationary teachers in 16 Southern California school systems. For the 1955-56 school year, permanent teachers used about a half a day more than probationary teachers, on the average. [71; 37:3] An examination of sick leave days taken by teachers in Chicago, Illinois, in February 1960 showed that the amount of sick leave taken generally increased with experience. Teachers with one to two years of experience averaged about one-half day of sick leave during this month; teachers with four years and with 8-20 years of experience averaged approximately three-fourths of a day; teachers with 21-35 years of experience averaged over four-fifths of a day; and teachers with 36 or more years of experience averaged about one day of sick leave. [37:7]

In his sample of Dade County (Miami), Florida, elementary school teachers, Manganiello (1972) reported that there was no significant difference in the frequency of sick leave absence in terms of length of service as indicated by teacher payroll records. [40] Tenure teachers in Newark, New Jersey, had a 7.2 percent absence rate due to illness in 1971-72, compared to a 6.1 percent rate for nontenure teachers. Teachers with 25 or more years of service had a 10.2 percent absence rate. The median rate for that year was 6.8 percent. [54:104]

The Office of Education Performance Review of the State of New York published a report in January 1974 titled *Teacher Absenteeism in New York City and the Cost-Effectiveness of Substitute Teachers*. Teachers' seniority and medical certificate absence (i.e., evaluation by a school medical officer for absences in excess of 20 consecutive school days) were compared for school year 1972-73. As presented on page 39, Title I schools for all levels had a greater percentage of teachers with less than five years experience than Non-Title I schools. The rate of medical certificate absence was 18.8 percent higher, on the average, in Non-Title I schools than in Title I schools. On the other hand, discretionary absence rates averaged 19.4 percent greater in Title I schools than in Non-Title I schools; therefore, total average absence was 5.4 percent more in Title I schools compared to Non-Title I schools. [80:15]

In his sample of teachers in Livonia, Michigan, Coller (1975) found that teacher absenteeism was significantly related to years of teaching experience in a curvilinear fashion. Teachers with 2-4 and 23-25 years of teaching experience tended to have low absence records. [12] Marlin (1976) reported that the mean rate of absenteeism for tenure teachers was slightly higher than for nontenure teachers in a semi-rural school system. [43] Douglas (1976) reported that "years of teaching experience" was one of nine variables that was found to be a predictor of teacher absenteeism when added in a stepwise regression, and one of five variables included in a "predictive profile" of likely high-absence teachers. [15]

Type of School	Percentage of Teachers with 5 or More Years of Experience		Medical Certificate Absence Rate	
	Title I	Non-Title I	Title I	Non-Title I
Elementary	57.9%	78.3%	1.6%	2.3%
Intermediate and Junior High School	60.7	79.3	1.1	1.7
Academic High School	75.7	82.2	1.4	1.5
Vocational High School	88.7	90.9	2.2	2.1

[80:15]

In 1977-78, teacher absenteeism in Dade County, Florida, was influenced by employees' years of experience. Teachers with 1-3 and 8-10 years of experience used an average of approximately 15 percent of their holiday and nonholiday sick and personal leave. Teachers with 4-7 years of experience used slightly more than 20 percent of this leave, and teachers with 11 or more years of experience, about 45 percent. [1:12]

In contrast, teacher absenteeism was not found to be significantly related to length of continuous employment in Clark County (Las Vegas), Nevada, according to Bundren (1974) [8], nor to previous educational experience, according to Marchant (1976). [42] Redmond (1978) concluded that neither the amount of teaching experience in the district nor total teaching experience was significantly related to the absenteeism of professional personnel in the Fort Madison (Iowa) Community School District. [56]

STRESS AND ANXIETY

There is consistent evidence to support the contention that employee absenteeism may increase with stress and anxiety. Jackson (1944) reported that among the immediate causes of absence found in a sample of machine shop workers were poor work habits, personal maladjustment, dissatisfaction, irresponsibility, and outside difficulties. [251] Brodman (1945) found that maladjusted employees were frequently absent from the job. [121] Sinha (1963) reported that the industrial workers in a study sample who had high levels of anxiety also had high rates of absence, i.e., a positive relationship existed between anxiety and absenteeism. [382] Cummings and Manring (1977) concluded that feelings of alientation, including dimensions such as powerlessness, normlessness, and meaninglessness, may result in reduced effort and performance among workers and increased tardiness to work. [157] Bernardin (1977) reported that a positive relationship existed between anxiety and absenteeism in a sample of 109 male white-collar sales employees. [112]

For a group of Dade County (Miami), Florida, elementary school teachers, Manganiello (1972) found no significant difference in the absence frequencies attributed to the sick leave use of teachers who scored high vs. those who scored low on Bill's *Index of Adjustment*. [40] Carranza (1974) studied the effects of life changes, as measured by the *Schedule of Recent Experiences* (SRE), on the performance of 110 high school teachers. A significant positive relationship was found between SRE scores and teacher absence due to illness. A negative correlation was reported between teacher performance units earned and illness due to absence, and frequency and duration of absence. Therefore, it was concluded that a significant relationship existed between life changes and teacher performance variables. [11]

Douglas (1976) studied the impact of social-psychological correlates on teacher absenteeism in Central Ohio. He concluded that his findings confirmed much of the research in this area, conducted among a variety of populations, which has shown that much of the absence reported as

"physical illness" results, in fact, from personal and environmental stress. Specifically, three variables relating to stress and anxiety were found to be predictors of absenteeism when added in a stepwise regression: psychasthenia (the inability to reduce doubts about uncertainties or phobias, even though one knows they are irrational); *Cornell Index* score (measures a person's psychological-personal makeup); and hypochondriasis. Moreover, two other stress/anxiety variables (intrapersonal psychopathology and organizational stress) were found to constitute a sort of "predictive profile" of a teacher most likely to be excessively absent. [15]

How stress affects absence has been shown by Holmes and Rahe (1967), as measured by their *Social Readjustment Scale*. They found that large life changes in people's lives that occur during a short period of time increase the chance of illness. For example, the death of a spouse is ranked first among life changes on the scale with a mean value of 100 points; divorce is ranked second (73 points); marital separation, third at 65 points, etc. A major life crisis exists when a person scores 300 or more points; 79 percent of the people studied by Holmes and Rahe who scored at this range had a major health change. A moderate life crisis occurs when a person scores 200-299 points, and 51 percent of people experiencing such changes had appreciable health change. A mild life crisis occurs with a score of 150-199 points, with 37 percent of the persons surveyed having a major change in health. [233; 74:18]

Sylwester (1979) used the Holmes-Rahe scale to measure the impact of stress on the absences of 335 teachers and administrators in small to moderate Oregon school systems. He found that the group of educators who experienced the most change in their lives before the start of school year 1977 were absent 1.7 more school days during school year 1977-78 than educators who had experienced the least amount of change:

Holmes-Rahe Score	Educators Studied		
	Avg. Days Absent	Number	Percent
Major crisis (300+)	5.9	61	18%
Moderate/ mild crisis (150-299)	4.6	148	44
No crisis (0-149)	4.2	126	38
TOTAL	4.7	335	100

[74:19]

Despite the assumption that pervades the literature on employee absenteeism, namely, that *all* absenteeism harms the functioning of an organization, Steers and Rhodes (1978) [394] and Staw and Oldham (1978) [390] have suggested that an opposing proposition may be more valid. Could *some* absenteeism actually be healthy for organizations, since this might permit a temporary retreat from work-related stress? The possible ramifications for teachers, who rank stress as a major job liability and who, at times, take "mental health days" to cope with stressful job situations, should not be ignored.

OTHER PERSONAL FACTORS

Personal debt was found to be positively related to the absenteeism of a sample of industrial workers studied by Stockford (1944) [399], yet *financial responsibility* was unrelated to the absence frequency of 32 British male operatives (Buck and Shimmin, 1959). [124] Castle (1956) reported that a positive relationship existed between *accident frequency* and the absenteeism of a group of industrial workers. [138]

A number of studies have found that a strong *personal work ethic*, i.e., a belief that work occupies an important place in one's life, influences the propensity for employees to come to work. [394:399; 174; 204; 243; 371] Steers (1977) [392] and Smith (1977) [387] have shown than when an employee is *committed to the organization's goals and objectives* and is willing to work toward achieving them increased attendance will result. But if an employee's commitment lies outside the job (e.g., with sports, family, or hobbies), there is less internal pressure for that employee to attend work, as Morgan and Herman (1976) found. [307; 394:399-400]

Steers (1977) found that whereas organizational commitment was negatively related to the absence of research scientists and engineers, it had no effect on the absence of hospital employees studied. [392] Manganiello (1972) failed to find any significant difference between professional commitment and absence frequency attributed to the sick leave taken by elementary school teachers in Dade County (Miami), Florida. [40] Moreover, where Hackman and Lawler (1971) [209] reported a negative relationship between *job involvement* and absenteeism among telephone operators, installers, and repairmen, Vroom (1962) [413] and Siegel and Ruh (1973) [381] found no correlation between these two variables for samples of blue-collar workers.

Prior relevant job training was found to be negatively correlated with absence in studies by Stockford (1944) [399] and Weaver and Holmes (1972) [419]. Jackson (1944) reported that the absence rate among machine shop workers was less for those with *fewer previous jobs*. [251]

Additional responsibilities had no effect on the absenteeism of professional personnel in an Iowa school system studied by Redmond (1978). [56] Kauffman (1978) studied the effect of absenteeism on certain personality characteristics of 100 nurses in the Los Angeles, California, area. Half of the women were placed in a high absenteeism group and half in a low absenteeism group. No significant difference was reported between nurses with high absenteeism and nurses with low absenteeism in levels of *alcohol abuse* or *achievement potential*. Mixed results were found in levels of *self-esteem*. In the areas of social presence and self-acceptance, statistically significant differences were found between the two sample groups; however, there were no significant differences in the remaining areas of self-esteem. [258]

Summary of studies relating to employee absenteeism and personal factors.--Presented in Table 9 is a profile of the studies discussed in this section of the Research Brief that deal with the relationship between absenteeism and personal variables. *Consistent* associations have been found between absenteeism and employee sex (women absent more frequently than men, men absent for longer duration than women), race (nonwhites absent more than whites), lower-level occupations/jobs, and increased stress and anxiety. However, it should be pointed out that other intervening factors also may influence the sex-absenteeism and race-absenteeism relationships, such as age, marital status, and occupation.

Research findings have been *inconclusive* on the relationship between absenteeism and tenure/years of employment experience, marital status, family size, education level, and age. However, it appears that older employees may have higher sickness rates and younger employees may have higher absence rates for total or uncertified absences.

TABLE 9.--Summary of Studies on the Relationship Between Employee Absenteeism and Personal Factors

Study	Relationship
AGE	
I. Education (p. 27)	
Lee/NEA (1960)	
Dade Co., Fla. (1944-45 to 1957-58)	Curvilinear
Akron, Ohio (1955-56)	Positive
St. Louis, Mo. (1955-56)	Positive
Stallings/So. California (1959)	Positive
Greater Newark C. of C. (1974)	Positive
Bundren (1974)	Zero
Coller (1975)	Zero
Marchant (1976)	Positive
Marlin (1976)	Curvilinear
Dade Co., Fla. (1978)	Curvilinear
Bridges & Hallinan (1978)	Zero
Redmond (1978)	Zero
II. Non-Education (pp. 23-26)	
Jackson (1944)	Curvilinear
Schenet (1945)	Zero
Kahne & Others (1957)	Negative (frequency) Positive (severity)
Naylor & Vincent (1959)	Zero
Baumgartel & Sobol (1959)	Positive
de la Mare & Sergean (1961)	Positive
Isambert-Jamati (1962)	Curvilinear
Sellett (1964)	Zero (total) Negative (frequency)
Cooper & Payne (1965)	Positive
Hill (1967)	Positive (sickness) Negative (frequency)
Weaver (1970)	Negative
Campbell (1970)	Curvilinear
Martin (1971)	Negative (uncertified) Positive (certified)
Weaver & Holmes (1972)	Positive
Raouf (1973)	Negative
Sharples (1973)	Negative
Hedges/BLS (1973)	Negative (part-week) Positive (full-week)

TABLE 9 *(Continued)*

Study	Relationship
Flanagan (1974)	Zero
Goble (1976)	Positive (family illness, excused, total) Negative (unexcused)
Garrison & Muchinsky (1977)	Positive (paid) Negative (unpaid)
Bernardin (1977)	Negative
Nicholson, Brown, & Chadwick-Jones (1977)	Negative (avoidable)
Ilgen & Hollenback (1977)	Negative (uncertified, total) Zero (certified)
Hedges/BLS (1977)	Curvilinear (males & females)
Johns (1978)	Negative (frequency, time lost)
NCHS (1978)	Positive (July 1965-June 1966, 1968, 1971) Curvilinear (1975)
Taylor/BLS (1979)	Curvilinear (males & females)
SEX	
I. Education (pp. 28-30)	
Lee/NEA (1960)	
St. Louis, Mo. (1955-56)	Female > Male
Akron, Ohio (1955-56, 1956-57)	Female > Male
Cincinnati, Ohio (1958-59)	Female > Male
Wichita, Kan. (1959-60)	Female > Male
Rochester, N.Y. (1959-60)	Female > Male
Stallings/So. California (1959)	Female > Male
Chicago, Ill. (1960)	Female > Male
Philadelphia-So. Penn. S.S.C. (1970)	Female > Male
Manganiello (1972)	Zero
Greater Newark C. of C. (1974)	Female > Male
Bundren (1974)	Zero
Coller (1975)	Female > Male
Marlin (1976)	Female > Male
Marchant (1976)	Zero
Douglas (1976)	Zero
Pa. School Boards Assn. (1978)	Female > Male
Dade Co., Fla. (1978)	Female > Male
Bridges & Hallinan (1978)	Zero
Redmond (1978)	Female > Male
Sylwester (1979)	Female > Male

(Continued)

TABLE 9 *(Continued)*

Study	Relationship
II. Non-Education (pp. 27-28)	
Schenet (1945)	Female > Male
Covner (1950)	Female > Male
Kerr, Koppelmeier, & Sullivan (1951)	Female > Male (total, certified) Male > Female (uncertified)
Kilbridge (1961)	Female > Male
Isambert-Jamati (1962)	Female > Male
Campbell (1970)	Female > Male
Weaver (1970)	Female > Male
Raouf (1973)	Female > Male
Hedges/BLS (1973)	Female > Male
Flanagan, Strauss, & Ulman (1974)	Female > Male
Hedges/BLS (1975)	Female > Male
Goble (1976)	Female > Male
Hedges/BLS (1977)	Female > Male (incidence, inactivity) Male > Female (severity)
Garrison & Muchinsky (1977)	Female > Male (paid) Zero (unpaid)
NCHS (1978)	Male > Female (July 1965-June 1966) Female > Male (1968, 1971, 1975)
Johns (1978)	Female > Male (frequency) Zero (time lost)
Taylors/BLS (1979)	Female > Male (incidence, inactivity) Male > Female (severity)
RACE	
I. Education (pp. 30-31)	
Lee/NEA (1960)	
St. Louis, Mo. (1955-56)	Nonwhite > White
Greater Newark C. of C. (1974)	White > Nonwhite
Marlin (1976)	Nonwhite > White
Marchant (1976)	Zero
II. Non-Education (p. 30)	
Flanagan, Strauss, & Ulman (1974)	Nonwhite > White
NCHS (1978)	Nonwhite > White (July 1965-June 1966, 1968, 1971, 1975)

TABLE 9 *(Continued)*

Study	Relationship
MARITAL STATUS	
I. Education (pp. 31, 33)	
Lee/NEA (1960)	
St. Louis, Mo. (1955-56)	Single > Married
Wichita, Kan. (1959-60)	Married > Single (short-term, female) Single > Married (long-term, female)
Bundren (1974)	Zero
Coller (1975)	Single > Married
Marlin (1976)	Married > Single
Marchant (1976)	Zero
Bridges & Hallinan (1978)	Zero
Redmond (1978)	Zero
II. Non-Education (pp. 31-32)	
Jackson (1944)	Single, Married without Children > Married with Children (males)
Shepherd & Walker (1958)	Single > Married
Naylor & Vincent (1959)	Zero
Martin (1971)	Zero
Waters & Roach (1971)	Zero
Waters & Roach (1973)	Zero
Hedges/BLS (1973)	Single > Married (males) Married > Single (females)
Sharples (1973)	Married > Single
Goble (1976)	Single > Married
Nicholson & Goodge (1976)	Zero
Garrison & Muchinsky (1977)	Zero (paid) Single > Married (unpaid)
Johns (1978)	Zero (frequency, time lost)
Taylor/BLS (1979)	Never Married > Married (males) Married > Never Married (females)
FAMILY SIZE	
I. Education (p. 33)	
Manganiello (1972)	Zero
Redmond (1978)	Zero
II. Non-Education (p. 33)	
Noland (1945)	Positive
Shepherd & Walker (1958)	Positive

(Continued)

TABLE 9 *(Continued)*

Study	Relationship
Naylor & Vincent (1959)	Positive
Isambert-Jamati (1962)	Positive
Hedges/BLS (1973)	Positive
Beatty & Beatty (1975)	Positive
Nicholson & Goodge (1976)	Positive
Garrison & Muchinsky (1977)	Zero (paid, unpaid)
Ilgen & Hollenback (1977)	Positive (unexcused) Zero (sick leave, total)
Johns (1978)	Zero (frequency, time lost)
EDUCATION LEVEL	
I. Education (p. 34)	
Lee/NEA (1960)	
Chicago, Ill. (1960)	Negative
Douglas (1976)	See text
Redmond (1978)	Zero
II. Non-Education (pp. 33-34)	
Noland (1945)	Negative
Waters & Roach (1971)	Zero
Weaver & Holmes (1972)	Zero
Waters & Roach (1973)	Zero
Raouf (1973)	Negative
Sharples (1973)	Positive
Goble (1976)	Positive
Johns (1978)	Zero (frequency, time lost)
Taylor/BLS (1979)	Negative
OCCUPATION/JOB LEVEL	
I. Education (p. 36)	
Lee/NEA (1960)	
Cincinnati, Ohio (1958-59)	See text
Chicago, Ill. (1960)	Negative
Dade Co., Fla. (1978)	Curvilinear
II. Non-Education (pp. 34-36)	
Baumgartel & Sobol (1959)	Negative
Isambert-Jamati (1962)	Negative

TABLE 9 *(Continued)*

Study	Relationship
Heneghan & Ginsburg (1970)	Negative
Waters & Roach (1971)	Negative
Waters & Roach (1973)	Negative
Hrebiniak & Roteman (1973)	Negative
Ferguson (1973)	See text
Hedges/BLS (1973)	Negative
Hedges/BLS (1977)	Negative
Garrison & Muchinsky (1977)	Zero (paid, unpaid)
NCHS (1978)	Negative
Taylor/BLS (1979)	Negative
TENURE/YEARS OF EMPLOYMENT EXPERIENCE	
I. Education (pp. 38-39)	
Lee/NEA (1960)	
Stallings/So. California (1959)	Zero
Chicago, Ill. (1960)	Positive
Manganiello (1972)	Zero
Gibson & Lafornara (1972)	Negative
Greater Newark C. of C. (1974)	Positive
New York State O.E.P.R. (1974)	See text
Bundren (1974)	Zero
Coller (1975)	Curvilinear
Douglas (1976)	See text
Marchant (1976)	Zero
Marlin (1976)	Positive
Dade Co., Fla. (1978)	Positive
Redmond (1978)	Zero (years in district, total years)
II. Non-Education (pp. 36-38)	
Jackson (1944)	Negative
Brodman & Hellman (1947)	Zero (absence) Positive (lateness)
Metzner & Mann (1953)	Negative (white-collar males) Zero (blue-collar males)
Hill & Trist (1955)	Zero
Kahne & Others (1957)	Negative

(Continued)

TABLE 9 *(Continued)*

Study	Relationship
Baumgartel & Sobol (1959)	Curvilinear (blue-collar males) Positive (blue-collar females, white-collar males & females)
Martin (1971)	Positive (males) Zero (females)
Waters & Roach (1971)	Negative
Weaver & Holmes (1972)	Zero
Waters & Roach (1973)	Negative (1st group) Zero (2d group)
Raouf (1973)	Positive
Sharples (1973)	Negative
Goble (1976)	Positive
Nicholson & Goodge (1976)	Negative (casual, unsanctioned)
Nicholson, Brown, Chadwick-Jones (1977)	Negative (see text)
Garrison & Muchinsky (1977)	Positive (paid) Negative (unpaid)
Bernardin (1977)	Negative (see text)
Johns (1978)	Negative (frequency, time lost)
STRESS AND ANXIETY	
I. Education (pp. 39-40)	
Manganiello (1972)	Zero
Carranza (1974)	Positive
Douglas (1976)	See text
Sylwester (1979)	Positive
II. Non-Education (p. 39)	
Jackson (1944)	Positive
Brodman (1945)	Positive
Sinha (1963)	Positive
Cummings & Manring (1977)	Positive
Bernardin (1977)	Positive
OTHER PERSONAL FACTORS	
Accident Frequency (p. 40)	
Castle (1956)	Positive
Achievement Potential (p. 41)	
Kauffman (1978)	Zero

TABLE 9 *(Continued)*

Study	Relationship
Additional Responsibilities (p. 41)	
Redmond (1978)	Zero
Alcohol Abuse (p. 41)	
Kauffman (1978)	Zero
Commitment to Organizational Goals & Objectives (p. 41)	
Manganiello (1972)	Zero
Morgan & Herman (1976)	Negative
Steers (1977)	Negative (research scientists & engineers) Zero (hospital employees)
Smith (1977)	Negative
Financial Responsibility (p. 40)	
Buck & Shimmin (1959)	Zero
Job Involvement (p. 41)	
Vroom (1962)	Zero
Hackman & Lawler (1971)	Negative
Siegel & Ruh (1973)	Zero
Number of Previous Jobs (p. 41)	
Jackson (1944)	Positive
Personal Debt (p. 40)	
Stockford (1944)	Positive
Personal Work Ethic (p. 41)	
See text	Negative
Prior Relevant Job Training (p. 41)	
Stockford (1944)	Negative
Weaver & Holmes (1972)	Negative
Self-Esteem (p. 41)	
Kauffman (1978)	Mixed

The Relationship Between Employee Absenteeism and Job Satisfaction

There is a large body of existing literature dealing with the effect of job satisfaction on employee absenteeism, Ilgen and Hollenback (1977) noted in their study of these two variables. "Although most of the research is correlational," they stated, "the general model assumes that employees approach (attend) jobs perceived to lead to satisfaction and avoid (are absent from) jobs perceived to lead to dissatisfaction." [243:148] Reviews analyzing the job satisfaction-absenteeism relationship include those by Brayfield and Crockett (1955) [120], Herzberg (1957) [227], Vroom (1964) [414], Gibson (1966) [26], Porter and Steers (1973) [341], and Muchinsky (1977)[308].

The earliest known study in this area, according to Muchinsky (1977), was conducted by Kornhauser and Sharp in 1932. No statistical analyses were included in their results, which focused on a sample of female factory workers, but they concluded that the "unfavorableness of job attitudes is slightly correlated with lost time." [269:402; 308:322] Likewise, Noland (1945) found that a negative relationship existed between overall job satisfaction and the absence rate among a sample of industrial workers, although again no statistical procedures were presented. [322] In a study of 25 groups of retail sales personnel, Giese and Ruter (1949) also found a negative relationship between job satisfaction and absenteeism. [196] Kerr, Koppelmeier, and Sullivan (1951) noted that the job satisfaction of employees in manufacturing departments was negatively related to unexcused absenteeism, but positively related with total absenteeism. [262]

When frequency of absence was used in their study, Metzner and Mann (1953) reported a negative correlation between overall job satisfaction and the absence of blue- and white-collar workers. When absence was measured by a count of actual days lost, no relationship was found between these two factors. They contended that these findings would most likely appear when absence indices are used which increase the weighting factors of persons who have irregular attendance patterns and decrease the weighting factors of absences caused by illness. [302; 308:322-323] Job satisfaction was negatively related to absenteeism in studies by van Zelst and Kerr in 1953 (for manufacturing workers) [412], Fleishman, Harris, and Burtt in 1955 (for production workers) [177], Lundquist in 1958 (for Swedish factory workers) [287], Talacchi in 1960 (for office workers) [400], and Harding and Bottenberg in 1961 (for airmen) [215]. However, Vroom (1962) reported that job satisfaction was unrelated to the absenteeism of 489 Canadian blue-collar males studied. [413]

In his book *Organizational Psychology*, Bass (1965) wrote that certain work groups typically are absent more frequently than others. In particular, he noted that job dissatisfaction traditionally has been related to the absenteeism of "lower-skilled" employees, but not of more highly-skilled white-collar workers or women. A possible explanation for this find, he explained, is that "high status white-collar employees have more freedom to use other forms of withdrawal when dissatisfied, like taking extra long coffee breaks or three hour lunch periods." [101:37] Hackman and Lawler (1971) reported that no correlation existed between general job satisfaction and absenteeism among 208 telephone operators, installers, and repairmen. [209] Waters and Roach (1971) found a negative relationship between overall job satisfaction and absenteeism among 160 female clerical workers. [417] Their 1973 replication of this study produced the same results. [416]

Stecker (1972) reported that absence behavior was not strongly related to attitudes, as measured by two satisfaction variables. [391] Need satisfaction was found to be negatively related to the absenteeism of retail liquor store managers in Hrebiniak and Roteman's 1973 study. [238] Also in 1973, Sharples reported that the job satisfaction of classified civil service

employees as measured by the *Job Descriptive Index*, developed by Smith, Kendall, and Hulin [388], was negatively related to absenteeism. [375] The same result was found in Newman's 1974 study of nursing home employees. [313]

Dittrich and Carrel (1976) found no relationship between general job satisfaction and absenteeism among 19 groups of governmental clerical employees. [165] Nicholson, Brown, and Chadwick-Jones (1976) collected data on 1,222 male and female blue-collar production workers in 16 separate organizations and four different job technologies to examine the relationship between absence and job satisfaction. Three absence measures (time lost, frequency, and attitudinal indexes) were used, as were five job satisfaction scales (in a modified version of the *Job Descriptive Index*). Results indicated that in most cases absence from work and job dissatisfaction were unrelated. Since this lack of a relationship was not attributable to extraneous influences, the researchers concluded that the popular belief that job dissatisfaction is a major cause of absence was not supported empirically. [318]

Ilgen and Hollenback (1977) found that, for the most part, job satisfaction was unrelated to the absenteeism of a sample of 164 clerical workers at Purdue University. [243] The results of a study by Garrison and Muchinsky (1977) involving 174 accounting department workers produced mixed results. Overall job satisfaction, as measured by the *Job Descriptive Index*, was found to be a significant negative predictor of absenteeism without pay, but it had no relationship to absenteeism with pay. [187] Nicholson, Wall, and Lischeron (1977) reported that general job satisfaction was negatively correlated with the absenteeism of 95 British blue-collar males. [320] Johns (1978) indicated that overall job satisfaction was negatively related to the absence frequency of 208 operative level manufacturing employees; however, there was no correlation between satisfaction and time lost. [252]

In contrast to the wealth of research conducted on job satisfaction and absenteeism in business and industry, only two studies have investigated this relationship as it affects educational personnel. Since five of the nine minor hypotheses relating to morale were confirmed, Slick (1974) found an inverse relationship between teacher absence frequency and the perceived level of teacher morale in a sample of 1,536 teachers in Pennsylvania. [68] Douglas (1976) reported that job satisfaction was found to be a significant predictor of absenteeism in a study of 154 teachers in Central Ohio. [15]

SUMMARY OF STUDIES RELATING TO EMPLOYEE ABSENTEEISM AND JOB SATISFACTION

Research conducted in the 1970s supports the contention of Ilgen and Hollenback (1977) that the research in the area of employee absenteeism and job satisfaction has produced inconclusive results. [243:148] However, when all the available research is analyzed, findings that reported a negative relationship between job satisfaction and absenteeism outnumber findings that reported no correlation between these variables by a margin of two to one. (See Table 10 on page 52.)

The Relationship Between Employee Absenteeism and Organizational Factors

Factors associated with certain organizations and certain jobs may influence heavily the amount of absence taken by employees, who spend a great part of each day among co-workers or alone, in classrooms, offices, factories, or other settings. The research summarized below is divided into four sections. *Organization-wide factors* include variables such as:

TABLE 10.--Summary of Studies on the Relationship Between Employee Absenteeism and Job Satisfaction

Study	Relationship
JOB SATISFACTION	
I. Education (p. 51)	
Slick (1974)	Negative
Douglas (1976)	See text
II. Non-Education (pp. 50-51)	
Kornhauser & Sharp (1932)	Negative
Noland (1945)	Negative
Giese & Ruter (1949)	Negative
Kerr, Koppelmeier, & Sullivan (1951)	Negative (unexcused) Positive (total)
Metzner & Mann (1953)	Negative (frequency) Zero (days lost)
van Zelst & Kerr (1953)	Negative
Fleishman, Harris, & Burtt (1955)	Negative
Lundquist (1958)	Negative
Talacchi (1960)	Negative
Harding & Bottenberg (1961)	Negative
Vroom (1962)	Zero
Hackman & Lawler (1971)	Zero
Waters & Roach (1971)	Negative
Stecker (1972)	Zero
Waters & Roach (1973)	Negative
Hrebiniak & Roteman (1973)	Negative
Sharples (1973)	Negative
Newman (1974)	Negative
Dittrich & Carrel (1976)	Zero
Nicholson, Brown, & Chadwick-Jones (1976)	Zero
Nicholson, Wall, & Lischeron (1977)	Negative
Ilgen & Hollenback (1977)	Zero
Garrison & Muchinsky (1977)	Zero (paid) Negative (unpaid)
Johns (1978)	Negative (frequency) Zero (time lost)

- industry
- organization size
- personnel policies
- satisfaction with organizational policies and practices
- employee control and participation
- satisfaction with promotion
- salary level/wage rate
- satisfaction with pay
- organizational climate
- availability of overtime work
- shiftwork
- bargaining and union activity
- employment status.

Work environment factors encompass:

- work unit size
- satisfaction with the work itself
- group cohesion/satisfaction with co-workers
- satisfaction with the supervisor
- employer-employee feedback
- job autonomy and responsibility
- task factors
- satisfaction with the sense of achievement.

Studies examining *factors particular to education* that are analyzed in this section of the Research Brief are:

- level of teaching
- grade organization
- type of student taught
- type of school.

Other organizational factors that have been studied for their possible effects on employee absenteeism also are discussed briefly. Table 16 beginning on page 77 presents a summary of the studies examined in this section for easy reference.

ORGANIZATION-WIDE FACTORS

Industry.--Research evidence points to a consistent relationship between employee absenteeism and the type of industry in which workers are employed. Generally speaking, goods-producing workers are absent more than service workers, with the exception of employees in public administration. According to data from the Bureau of Labor Statistics, part-week unscheduled absences were highest in 1972 and 1974 in medical and hospital services (5.3 percent in 1972 and 5.2 percent in 1974), durable (4.7 percent in both years) and nondurable (4.8 percent in both years) manufacturing goods industries, and manufacturing as a whole (4.7 percent in 1972 and 4.8 percent in 1974). Public administration also had a high rate of part-week absence in 1972 (4.8 percent) and 1974 (4.4 percent). The wholesale trade industry showed the least amount of part-week absence in 1972 and 1974 (3.0 percent in both years).

In 1972, full-week absence was highest in railroads and other transportation industries (3.1 percent) and mining (3.0 percent), followed by all manufacturing industries and nondurable manufacturing goods industries (2.7 percent for each), and durable manufacturing goods industries, medical and hospital services, and transportation and public utilities (2.6 percent for each). In 1974, industries with the highest absence rates were railroads and other transportation industries (3.2 percent), transportation and public utilities (2.8 percent), mining (2.8 percent), and medical and hospital services (2.8 percent). The absence rate for educational services was below the average for all industries both in 1972 (1.9 percent vs. 2.3 percent) and 1974 (2.1 percent vs. 2.4 percent). [223:38]

Shown in Table 11 are national BLS data from *Current Population Surveys* on employee absenteeism from May 1973-76, May 1976, and May 1978, for

TABLE 11.--Absence Rates for Full-Time Nonfarm Wage and Salary Workers, by Industry, Average May 1973-76, May 1976, and May 1978

Industry	Incidence Rate (percent of workers absent)			Inactivity Rate (percent of aggregate time lost)		
	1978	1976	1973-76	1978	1976	1973-76
All industries.....	6.6%[1]	6.4%	6.3%	3.5%[1]	3.5%	3.5%
Goods producing industries.....	6.9	6.9	7.0	4.0	3.9	3.9
Mining.....	5.8	8.4	7.3	5.1	5.2	4.2
Construction.....	5.4	6.1	6.1	3.1	3.5	3.4
Manufacturing.....	7.3	7.0	7.1	4.1	3.9	4.0
Durable.....	7.5	7.1	7.1	4.2	4.0	4.0
Nondurable.....	6.9	6.8	7.2	3.9	3.7	3.9
Service producing industries.....	6.4[1]	6.2	5.9	3.3[1]	3.2	3.2
Transportation and utilities.....	6.9	6.6	5.9	4.6	3.8	3.7
Transportation....	...	5.8	6.1	...	3.9	4.0
Utilities.....	...	7.3	5.7	...	3.7	3.2
Trade.....	5.5	5.3	5.3	2.7	2.8	2.8
Retail.....	6.1	5.3	5.6	3.0	2.9	3.0
Wholesale.....	3.8	5.3	4.3	1.9	2.5	2.3
Finance, insurance, and real estate.....	5.2	5.1	4.9	2.8	2.8	2.6
Services.....	7.1	6.6	6.3	3.4	3.4	3.2
Professional.....	7.3	6.8	6.5	3.4	3.5	3.3
Education.....	6.7	7.0	6.0	3.0	3.6	3.1
Medical.....	8.7	7.2	7.7	4.2	3.9	4.0
Other professional...	6.0	5.3	5.1	2.7	2.7	2.4
Miscellaneous services.....	6.4	5.9	5.7	3.4	3.3	3.2
Public administration...	6.7	7.2	7.1	3.2	3.6	3.8
Federal.....	...	7.1	7.7	...	3.6	4.1
Postal.....	...	7.2	8.5	...	4.2	5.1
Other.....	...	7.1	7.3	...	3.3	3.7
State.....	...	8.0	7.4	...	3.2	3.6
Local.....	...	7.1	6.0	...	3.7	3.5

[1]The totals for all industries and service-producing industries include forestry and fisheries not shown separately.

NOTE: Averages are unweighted. Because of rounding, detail may not equal totals.

SOURCES: Janice Neipert Hedges. "Absence from Work--Measuring the Hours Lost," *Monthly Labor Review*, 100 (October 1977), p. 19.

Daniel E. Taylor. "Absent Workers and Lost Work Hours, May 1978," *Monthly Labor Review*, 102 (August 1979), p. 50.

three major occupational categories. In the goods producing industries, every category except "construction" consistently exceeded the average for all industries in all three periods. Of particular concern were high rates of absence in manufacturing, since the more than 17 million workers that were represented in the May 1976 survey accounted for one-third of all hours lost due to absence. Moreover, the annual level of absence per manufacturing worker, based on May 1976 data, was 10.3 days, compared to 9.0 days in 1947, based on data for the second quarter. [222:19]

The average absence rate for service producing industries was slightly lower than the all industry total in May 1976 and May 1978. Employees in finance, insurance, and real estate had the lowest incidence rate in 1976. Wholesale trade workers had the lowest incidence rate in 1978 and the lowest inactivity rates in 1976 and 1978. In the education sub-category, the incidence rate for 1973-76 was near the average for service producing industries, but higher than the average in May 1976 and May 1978. For the 1973-76 period, the average inactivity rate for employees in education was near the average for service producing industries, was much higher in May 1976, but lower in May 1978. [222:19; 401:50]

In the public administration category, state government workers had the highest incidence rate (8.0 percent) in May 1976, while postal workers had the highest average rate of 8.5 percent for 1973-76. Postal workers also had the highest average inactivity rates in this category for both periods. The average incidence rate for public administration employees declined 6.9 percent from May 1976 to May 1978; the average inactivity rate dropped 11.1 percent. [222:19; 401:50]

Industry absence data compiled by the Bureau of National Affairs show that manufacturing companies had the largest decline (-20.0 percent) in their median monthly average absence rates from 1974 to 1978 among five types of organizations surveyed. (See Table 12.) Nonmanufacturing firms (-14.3 percent) and nonbusiness organizations (-6.7 percent) also showed decreases in average absence rates during this period. However, increases in average absence rates from 1975 to 1978 were reported for financial institutions (15.0 percent) and health care institutions (12.5 percent).

The most recent data from the National Center for Health Statistics on work-loss days according to industry are taken from the 1975 *Health Interview Survey*. Of the industries classified, three groups had a work-loss average greater than the average for all industries (5.2 days): public administration (7.1 days), manufacturing (6.1 days), and transportation and public utilities (6.1 days). Five industry groups had averages lower than the all-industry average: agriculture (3.7 days); finance, insurance, and real estate (3.9 days); construction (4.6 days); wholesale and retail trade (4.7 days); and services and miscellaneous (4.8 days). [164:13] See Table E on page 149 for more detailed data on work-loss days classified by industry.

Organization size.--Recent data computed from BNA survey responses and other services consistently have indicated that large organizations have higher average rates of absence than small organizations. With one exception, this trend has held true in each year from 1973 to 1977. (Table 13.) This relationship remained the same in 1978, when BNA data were classified into five categories. [113:2]:

Size of Organization	Median Absence Rate, 1978	Total Reporting Companies*
Less than 250 employees	2.5%	60
250-499 employees	2.8	76
500-599 employees	3.1	63
1,000-2,499 employees	3.2	57
2,500 or more employees	3.3	27

*For Fourth Quarter 1978 only, not entire year.

TABLE 12.--Median Monthly Average Absence Rates, by Type of Company, 1974-78

Type of Company	Year 1974	1975	1976[1]	1977[1]	1978[1]	Percent Change, 1978 over 1974
Manufacturing						
Absence Rate	4.0%	3.3%	3.2%	3.1%	3.2%	-20.0%
Number of Respondents	112	288	216	241	187	
Nonmanufacturing						
Absence Rate	2.8%	2.0%	2.4%	2.3%	2.4%	-14.3
Number of Respondents	33	78	69	74	65	
Finance						
Absence Rate	NR	2.0%	2.2%	2.2%	2.3%	+15.0[2]
Number of Respondents		51	52	49	43	
Nonbusiness						
Absence Rate	3.0%	2.4%	2.9%	2.4%	2.8%	- 6.7
Number of Respondents	23	25	27	37	31	
Health Care						
Absence Rate	NR	2.4%	2.9%	2.7%	2.7%	+12.5[2]
Number of Respondents		16	17	21	16	
All Companies	3.4%	3.0%	3.0%	2.8%	2.9%	
	168	391	312	352	282	

[1] Data for "Number of Respondents" are for Fourth Quarter, not entire year.

[2] Percent Change, 1978 over 1975.

NR = Not Reported

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BNA's Quarterly Report on the Employment Outlook: Absenteeism and Turnover, March 27, 1975, p. 4; First Quarter 1976, p. 2; February 24, 1977, p. 2.

BNA's Quarterly Report on the Employment Outlook: Job Absence and Turnover, March 9, 1978, p. 2.

BNA's Quarterly Report on Job Absence and Turnover, March 15, 1979, pp. 2, 4.

TABLE 13.--Median Monthly Average Absence Rates, by Size of Company, 1973-77

Year	Large		Small	
	Absence Rate	Total Reporting Companies[1]	Absence Rate	Total Reporting Companies[1]
1973	3.9%	21	4.2%	37
1974	3.7	58	3.2	110
1975	3.5	95	2.9	296
1976	3.3	78	2.8	234
1977	3.1	94	2.7	258

Large companies = 1,000 or more employees
Small companies = less than 1,000 employees

[1]Data for 1976 and 1977 are for Fourth Quarter, not entire year.

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PPF Special Report: The Employment Picture--First Quarter, 1974, March 14, 1974, p. 2.

BNA's Quarterly Report on the Employment Outlook: Absenteeism and Turnover, March 27, 1975, p. 4; First Quarter 1976, p. 2; February 24, 1977, p. 2.

BNA's Quarterly Report on the Employment Outlook: Job Absence and Turnover, March 9, 1978, p. 2.

Ingham (1970) investigated eight British firms of various size to examine the relationship between organization size and absenteeism. He found that organization size was positively related to employee absenteeism, but had no relationship to turnover. Therefore, he speculated that workers in large organizations find more impersonality and bureaucratization than in smaller organizations, which reduces their identification with the organization and results in increased absenteeism for those in larger organizations. [246] In "Profile of an Absentee," Raouf (1973) reported that company size had no significant relationship to the absence rates of workers in Windsor, Ontario. [347] However, Kovach (1976) found organization size to be positively correlated with absence rates. [270]

Gibson (1968) studied employee absence from one high school and eight elementary schools in the Boston metropolitan area for 1948-49 and 1958-59. These schools ranged in size from a staff of 13 to a staff of 118. He found that staff absence was associated with school system size in a curvilinear relationship, first increasing, then turning and decreasing. No evidence or rationale was given for the location of the turning point. In addition, Gibson reported that "absence will be more variable in small systems than in large systems." [25:5]

A study on teacher absenteeism produced by the Philadelphia Suburban School Study Council and the South Penn School Study Council found that for school year 1968-69, school systems with more than 200 teachers had a higher degree of total absence and use of sick and personal leave than systems with less than 200 teachers. When these school systems were divided into eight groups according to size of teaching staffs, absence rates varied markedly but no significant pattern could be identified. Five systems with less than 100 teachers had a mean index (days of absence per teacher per year) of 5.54 days and a mean rate of absence (percent of total teacher days per year lost to absence) of 2.95 percent for total leave, paid and unpaid, for all teachers. Six systems with between 250 and 300 teachers had a mean index of 5.52 days and a mean rate of 2.95

percent. [79:48] Bundren (1974) reported that, in Clark County (Las Vegas), Nevada, size of faculty was not a significant predictor of teacher absenteeism. [8]

For Illinois school systems from 1971-72 to 1975-76, teacher absence increased steadily as the size of the school system increased. Median absence rates in 1975-76 ranged from a low of 2.9 percent in school systems with an average daily attendance of below 300 to 6.5 percent in school systems with an ADA of 25,000 and above. Teacher absence data in all size categories increased during this period, some by a quarter to a third of 1971-72 levels, except for the largest category which declined to 6.5 percent in 1975-76 from 8.4 percent in 1971-72, or 22.6 percent. [57:9] Data on teacher absence in Illinois public schools by the day of the week according to school system size can be found in Table 17 on page 91.

Size of School System	Number of Districts	Mean Work Absence Rate
Small (less than 200 employees)	91	4.576%
Large (200 employees or more)	44	4.683

[78:23]

Personnel policies.--A study of 56 Pennsylvania school systems conducted by the Philadelphia Suburban School Study Council and the South Penn School Study Council for school year 1968-69 included an extensive analysis of the relationship between teacher absenteeism and the existence of several types of personnel policies, or supplemental remuneration. The results of the analysis for nine areas summarized below indicate a general relationship between lenient personnel policies and employee absenteeism.

1. Teacher Absenteeism and Additional Sick Leave

   - During 1968-69, seventeen districts that granted additional sick leave over and above the State mandates had a mean Index [days of absence per teacher per year] of 5.05 days (mean Rate [percent of total teacher days lost to absence] of 2.80 percent) for sick leave with pay, all teachers.
   - Thirty-three districts that did not grant additional sick leave had a mean Index of 4.73 days (mean Rate of 2.53 percent) for the same leave category.

Size of School System	Median Percentage 1971-72	1973-74	1975-76	Percent Change 1971-72 to 1975-76
Below 300 ADA	2.2%	2.3%	2.9%	+31.8%
300 - 599	2.8	2.9	3.0	+ 7.1
600 - 1,199 ADA	3.0	3.2	3.2	+ 6.7
1,200 - 2,499 ADA	3.3	3.7	3.8	+15.2
2,500 - 4,999 ADA	3.8	4.1	4.6	+21.1
5,000 - 9,999 ADA	4.5	4.4	5.6	+24.4
10,000 - 24,999 ADA	4.7	4.8	4.9	+ 4.3
25,000 & Above ADA	8.4	8.3	6.5	-22.6
Statewide	3.1	3.5	3.6	+16.1

[57:9]

Marchant (1976) found that there was no significant correlation between school size and the absence rates of his sample of Richmond, Virginia, elementary school teachers. [42] From data presented by the Pennsylvania School Boards Association and reported in a statewide study of teacher absence for 1977-78, it appears that small school systems had virtually the same absence rate as large systems:

- In the typical district with 215 teachers this difference in absenteeism could amount to nearly 44 additional days of sick leave which, at a substitute's per diem of $30, would cost the district $1,320 for the school year. [79:52]

2. Teacher Absenteeism and Proof of Illness

- Thirty-eight districts that required teachers to submit proof of illness upon return from sick leave during 1968-69 had a mean Index of 4.99 days (mean Rate of 2.65 percent) for sick leave with pay, all teachers.
- On the other hand, 12 districts that did not require proof of illness had a mean Index of 4.62 days (mean Rate of 2.49 percent). [79:53]

3. Teacher Absenteeism and Reporting Practices

The districts were grouped according to three types of practices whereby teachers *report-in* to their districts that they are ill and unable to work. The purpose of this grouping was to determine if the type of reporting practice may have any bearing on extent of absenteeism.

- Five districts required teachers to report-in to an answering service during 1968-69, and had a mean Index of 5.79 days (mean Rate of 3.01 percent) for sick leave with pay, all teachers.
- Where teachers were required to call their building principals, the mean Index for 32 districts was 4.54 days (mean Rate of 2.46 percent) for the same leave category.
- The third practice, that of calling district personnel other than answering services or principals, was employed in 11 districts which had a mean Index of 5.15 days (mean Rate of 2.68 percent). [79:54]

A study by the Pennsylvania School Boards Association for school year 1977-78 confirmed this pattern. In ranking the effectiveness of different reporting procedures, the procedures that were matched with the absence rates for teachers in the sample were, in order of their effectiveness:

Contact	Mean Work Absence Rate
Building Principal	4.508%
Central Office Administrator	4.648
Building Secretary	4.778
Central Office Secretary	4.985
Answering Service (District-Operated)	5.209
Answering Service (Contracted)	5.629
Other Department Supervisor	6.486 [78:29]

4. Teacher Absenteeism and Personal Leave

Personal or emergency leaves are not strictly specified in the *School Laws* but are left largely to the discretion of local Boards. As a result, a great many variations are found in personal-leave policies among the districts, especially regarding the number of days allotted teachers each year, acceptable reasons for use of the leave, and days on which personal leave is prohibited.

- During 1968-69, eight districts with policies that granted teachers one day of personal leave per year had a mean Index of 0.35 days (mean Rate of 0.18 percent) for personal leave with pay, all teachers.
- The mean Index for 21 districts that granted teachers two personal days per year was 0.72 days, more than double the mean Index for districts that granted one day. [79:54]

5. Teacher Absenteeism and Submittal of Reasons for Personal Leave
   - Twelve districts did not require teachers to submit reasons for each use of personal leave during 1968-69 and had a mean Index of 0.84 days (mean Rate of 0.45 percent) for personal leave with pay, all teachers.
   - However, 32 districts required submittal of a reason for each use of personal leave and had a mean Index of 0.49 days (mean Rate of 0.24 percent).
   - Whereas male teachers generally utilized less sick leave than female teachers in all the districts, the male teachers averaged more personal leave than female teachers only in those districts where no questions were asked concerning the purposes for which the personal leave was taken. [79:55]
6. Teacher Absenteeism and Cumulation of Unused Personal Leave
   - Five districts permitted the cumulation of unused personal leave by teachers for use in succeeding school years and had a mean Index of 0.53 days (mean Rate of 0.28 percent) for personal leave with pay, all teachers.
   - The 45 districts that did not authorize cumulation of unused personal leave had a mean Index of 0.57 days (mean Rate of 0.30 percent) for the same leave category. [79:58]
7. Teacher Absenteeism and Maternity Leave
   - Seventeen districts that granted maternity leave during 1968-69 had a mean Index of 6.37 days (mean Rate of 3.51 percent) for total leave, pay and no pay, female teachers.
   - Meantime, 31 districts without policies for maternity leave had a mean Index of 7.22 days (mean Rate of 3.90 percent). [79:55]
8. Teacher Absenteeism and Additional Bereavement Leave
   - Fourteen districts granted funeral leave on the death of a friend while 36 districts did not grant such leave. Both groups of districts had identical mean Indexes of 0.21 days (mean Rates of 0.11 percent) for bereavement leave with pay, all teachers.
   - Fifteen districts granted additional days of bereavement leave beyond the State mandates and had a mean Index of 0.26 days (mean Rate of 0.14 percent) for bereavement leave with pay, all teachers. The 35 districts that did not exceed State mandates had a mean Index of 0.20 days (mean Rate of 0.10 percent). [79:55]
9. Teacher Absenteeism and Severance Pay
   - In 1968-69, severance pay to teachers upon retirement was granted by 21 districts which had a mean Index of 6.09 days (mean Rate of 3.27 percent) for total leave, pay and no pay, all teachers.
   - Twenty-nine districts did not grant severance pay and had a mean Index of 5.43 days (mean Rate of 2.92 percent).
   - Four districts that plan to enact policies for severance pay during 1970-71 had a mean Index of 6.28 days (mean Rate of 3.40 percent) for total leave, pay and no pay, all teachers in 1968-69. [79:58]

One study examined the effects of personnel practices in Japanese- and American-managed firms based in the United States, and whether or not any differences found led to different employee attitudes and behavior as measured by job satisfaction and employee attendance. The central objective of this three-year study by Pascale (1978) was to ascertain if Japanese employment practices

in industrial organizations, widely discussed in the business literature, were applicable outside Japan. "Japanese-managed" firms were defined as those which were headed by a Japanese national, had two or three Japanese senior managers in key staff positions (e.g., accounting, planning, industrial engineering), had American managers in line positions from senior management to foremen and supervisors, and had an American workforce. Pascale reported that attendance, tardiness, and turnover were not significantly different between American workers employed in 13 Japanese-managed and 14 American-managed firms in the U.S. that were matched on an industry-by-industry basis. [328]

Satisfaction with organizational policies and practices.--Four studies have examined the effect of this variable on employee absenteeism for non-educational personnel. There was no significant relationship between satisfaction with organizational policies and practices and the absenteeism of white-collar females studied by Metzner and Mann (1953) [302] nor with female clerical workers studied by Waters and Roach (1971, 1973) [417; 416]. However, Metzner and Mann found a negative relationship between satisfaction with company policies and practices and the absenteeism of white-collar males. [302] In an industrial study conducted in Britain, Nicholson, Wall, and Lischeron (1977) reported only a slight negative relationship between satisfaction with the firm and casual absence and propensity to leave, although they found the strongest negative relationship between satisfaction with the work itself and these withdrawal factors. [320]

Employee control and participation.--How employee control and participation in the work environment affects absenteeism was investigated in two studies. Fried, Westman, and Davis (1972) examined the degree of employee control among 40 groups of male factory workers and how the presence or absence of such control related to absenteeism. They found that a negative relationship existed between (a) employee control over the work pace and absenteeism and (b) employee control over corrections and adjustments and absenteeism. Absenteeism was not affected by either employee control over the flow of materials or control of the machine. [183]

Nicholson, Wall, and Lischeron (1977) examined the impact of employee participation in decisionmaking on the absenteeism of 95 British blue-collar males. Three levels of employee influence were used: local (e.g., control over pace and quality of work, earnings, and machine maintenance), medium (e.g., control over hiring and promotions, buying of materials, and work methods), and distant (e.g., control over capital expenditure, manpower distribution, and distribution of profits). Subjects were asked the degree to which they had actual (existing) influence over items associated with these levels or whether they should have (desired) influence over them. Results indicated that a negative relationship was found between existing influence at the local level, as perceived by employees, and absenteeism. No other relationship was reported to be a significant predictor of absenteeism, whether existing influence at the medium or distant levels or desired influence at any of these three levels. [320]

Satisfaction with promotion.--Employee satisfaction with promotion and advancement seems to be inconsistently related to absence rates. Metzner and Mann (1953) reported a negative relationship between satisfaction with promotion and the absence of white-collar males studied [302], as did Patchen (1960) [329], Goble (1976) [200], and Smith (1977) [387] in their studies. However, more studies reported no relationship between satisfaction with advancement and absenteeism--Metzner and Mann (1953) for white-collar females [302], Waters and Roach (1971, 1973) [417; 416], Hackman and Lawler (1971) [209],

Newman (1974) [313], Nicholson, Brown, and Chadwick-Jones (1976) [318], and Garrison and Muchinsky (1977) [187]. Nicholson, Wall, and Lischeron (1977) found a slight negative correlation between satisfaction with promotion and casual absence and the propensity to leave in a group of British blue-collar workers, but this association was much weaker than that found between satisfaction with the work itself and the absence and leaving variables. [320]

Adams (1976) studied the relationship between absenteeism in high school and absenteeism in industry for three categories of factory workers (nonskilled, semi-skilled, and skilled) in Salem County, New Jersey. From the data he concluded that there was no relationship between the promotions of nonskilled and semi-skilled workers and their high school absence records. Adams did find a significant relationship between high school absence of students who became skilled workers and lack of promotion. When on-the-job absence was studied, all workers had fewer promotions because of their absence.

Moreover, high school absence was found to relate significantly to job absence; however, Adams cautioned that the predictive validity between these two variables was limited and must be considered with other factors. Adams recommended that programs should be established which would inform the parents of vocational students about the possible long-term effects of poor attendance when considered with other background factors. [93]

Schroeder (1977) reported that satisfaction with promotion, as measured by the *Job Descriptive Index*, was not related to the absence frequency of New Orleans, Louisiana, teachers under study. [64]

Salary level/wage rate.--The existing research appears to indicate that there is no consistent pattern of findings between an organization's salary level or wage rate and the level of employee absence. In an early study, Jackson (1944) concluded that employees who made more money and were upgraded in their jobs had a better attendance rate than lower paid workers who had been downgraded. [251] Lundquist (1958) found that a negative relationship between wage rate and absence existed among eight groups of Swedish factory workers. [287] Similar results were reported by Fried, Westman, and Davis (1972) for male factory workers [183], Bernardin (1977) for male white-collar sales personnel [112], and Beatty and Beatty (1975) for black, female, hardcore unemployed clerical workers. [105]

Three noneducation studies came to different conclusions. Shepherd and Walker (1958) reported that higher-wage iron and steel workers were absent more than lower-wage workers. [377] Baumgartel and Sobol (1959) found no relationship between wage rate and the absence of male and female white-collar and female blue-collar workers, after the effects of age and seniority were partialled out. [104] Nor did Weaver and Holmes (1972) report any significant correlation between wage rate and the absence of 286 female government employees they studied. [419]

Weaver (1970) reported that for municipal employees in San Antonio, Texas, from January 1967 through November 1969, "generally, the interpretation is that the higher the employee's salary level, the less sick leave he is likely to take." [418:676] When the mean of mean number of minutes of sick leave taken by these employees in each of six salary categories was calculated for this period, there were three distinct levels of sick leave usage based on employee salary level. The highest average monthly number of minutes of sick leave was taken by employees in the $300-399 salary category (27.48 minutes). Four salary categories comprised the mid-range of sick leave use: 15.48 minutes of sick leave were taken by employees in the $400-499 salary category; 17.31 minutes, for the $600-699 category; 18.29 minutes, for the under $300 category; and 19.71 minutes, for the $500-599 category. The lowest average monthly number of minutes of sick leave was taken by employees in the highest salary group, $700 per month or more (4.04 minutes).

Data from the 1971 *Health Interview Survey*, conducted by the National Center for Health Statistics, indicated that family income negatively affected employee absenteeism. Employees with a family income of less than $3,000 a year lost 9.4 work days compared to employees with a family income of more than $15,000, who lost four days to absence. [427:120] Results from the 1975 survey also indicated that family income was negatively related to employee absenteeism, regardless of sex. For both sexes, employees with a family income of less than $3,000 were absent an average of 8.7 days; for males, 7.2 days; and females, 10.1 days. For both sexes, employees with a family income of $15,000 or more had an average of 4.2 work-loss days; for males, 3.8 days; and females, 4.8 days. [164:8] As shown in Table D on page 148, high absence groups were identified as 45-64 year-old males with a family income of less than $5,000 and 25-44 year-old females with a family income of less than $3,000. [164:31]

Three studies dealt specifically with this issue as it relates to teachers. Bundren (1974) reported that for Clark County (Las Vegas), Nevada, teachers, salary level was not a significant predictor of absenteeism. [8] The same finding was reported for professional personnel in the Fort Madison (Iowa) Community School District (Redmond, 1978). [56] The results of a Dade County (Miami), Florida, study confirmed the existence of three distinct levels of sick leave use based on salary level, as did Weaver's study, but reversed their direction. The Office of Management and Budget for the county's public schools found that during the first half of school year 1977-78, 10-month teachers who were paid:

- under $11,000 took about 5 percent of their nonholiday sick leave
- from $11,001-13,000 took about 20 percent of their nonholiday sick leave
- from $13,001-15,000 took about 15 percent of their nonholiday sick leave
- from $15,001-17,000 took about 20 percent of their nonholiday sick leave
- over $17,000 took about 35 percent of their nonholiday sick leave. [1:13]

For school year 1968-69, the Philadelphia Suburban School Study Council and the South Penn School Study Council analyzed the relationships among the drawing power (minimum salaries paid to a beginning teacher with a B.A. degree) and the keeping power (median salaries) of the salary schedules in 44 Pennsylvania school systems and teacher absence. They concluded that for:

1. Minimum salaries and absenteeism (drawing power)
   - Thirty-one districts with minimum salaries of $5,800 or more in 1968-69 had a mean Index [days of absence per teacher per year] of 6.45 days (mean Rate [percent of total teacher days per year lost to absence] of 3.45 percent) for total leave, pay and no pay, all teachers.
   - Thirteen districts with minimum salaries less than $5,800 had a mean Index of 5.65 days (mean Rate of 3.04 percent) for total leave, pay and no pay, all teachers. [79:48]
2. Median salaries and absenteeism (keeping power)
   - Twenty-nine districts with median salaries that ranged from $7,000 to $7,999 had a mean Index of 6.20 days (mean Rate of 3.32 percent) for total leave, pay and no pay, all teachers.
   - Meanwhile, 15 districts with median salaries that ranged from $8,000 to $8,999 had a mean Index of 6.22 days (mean Rate of 3.32 percent) for the same leave category. [79:49]

In related research, absence rates decreased when an employee pay system was changed from hourly to salary, according to Glaser (1976) [197]; however, Hulme and Bevin (1975) [239] reported opposite findings.

Satisfaction with pay.--Although employees typically rank salary wants among their top job concerns, whether rank-or-file, professional, or managerial, there is no consistent evidence to support the contention that satisfaction with pay exerts a strong influence on employee absenteeism.

Metzner and Mann (1953) found conflicting results in their study of white-collar workers. Although a negative relationship existed between satisfaction with pay and absenteeism among males, no significant relationship was found between these two variables among females. [302] Patchen (1960) studied the effects of satisfaction with pay on the absence of 487 oil refinery workers. He found a negative correlation between these variables. [329] Dittrich and Carrel (1976) [165] and Smith (1977) [387] also found a negative relationship between satisfaction with pay and absenteeism. Goble (1976) reported the same finding for a sample of Delmarva processing plant workers. [200] Satisfaction with pay was found to have only a slight negative relationship to both casual absence and the propensity to leave in a study of 95 British steelworkers by Nicholson, Wall, and Lischeron (1977). However, this association was much smaller than the relationship found between satisfaction with the work itself and the factors of absence and leaving. [320]

Seven studies found in the noneducation literature indicated that no relationship existed between satisfaction with pay and absenteeism:

- Lundquist (1958), who studied eight groups of Swedish factory workers [287];
- Hackman and Lawler (1971), who studied telephone company employees [209];
- Waters and Roch (1971) and their replication (1973), which involved a sample of female clerical employees [417; 416];
- Newman (1974), who studied a sample of nursing home employees [313];
- Nicholson, Brown, and Chadwick-Jones (1976), who studied 1,222 British blue-collar workers [318]; and
- Garrison and Muchinsky (1977), who studied a sample of accounting department employees. [187]

Three studies have examined the effect of satisfaction with pay and teacher absenteeism. Slick (1974) reported a negative relationship between the absence frequency of 1,536 Pennsylvania teachers and satisfaction with salary. [68] Likewise, Schroeder (1977) [64] and Bridges and Hallinan (1978) [7] found significant negative relationships between satisfaction with pay and teacher absenteeism for samples in New Orleans, Louisiana, and California and Wisconsin, respectively.

Organizational climate.--Slick (1974) investigated a number of organizational climate factors hypothesized to influence teacher absence frequency. Over 1,500 teachers in six school systems in Southeastern Pennsylvania school systems comprised the sample. No relationship was found between absence frequency and community pressure. A positive relationship existed between absence frequency and the perceived level of hindrance. Negative correlations were found between absence frequency and perceived levels of teacher load, teacher status, school facilities and services, and community support for education. [68] None of the eight subtests of the *Organizational Climate Description Questionnaire* was found to have a relationship to the absenteeism of Richmond, Virginia, elementary school teachers in Marchant's 1976 study. These subtests included the following organizational climate components: disengagement, hindrance, esprit, intimacy, aloofness, production emphasis, thrust, and consideration. [42]

Availability of overtime work.--Some research appears to indicate that the availability of overtime work which offers premium pay may reward absenteeism, not attendance. Gowler (1969) [206]

and Martin (1971) [296] both reported that the availability of overtime work among male and female employees was positively associated with absenteeism. However, studies by Buck and Shimmin (1959) [124] and Flanagan, Strauss, and Ulman (1974) [176] found no such relationship. Thus, it is possible for an employee to be absent during regular working hours, perhaps paid sick leave, and make up this time later by working overtime. Such a reward would act completely opposite to its intention. However, the four studies in this area used weak measures of absence or very small samples, according to Steers and Rhodes (1978), and so the true influence of overtime availability on absenteeism "must remain in the realm of conjecture pending further study." [394:398]

Shiftwork.--Three studies have investigated the relationship between shiftwork and employee absence. Shepherd and Walker (1956) found that in a large iron and steel works, three-fourths of single shift absences taken without permission occurred on the morning shift. Absences taken with permission were distributed more evenly over each of the three shifts. Shepherd and Walker concluded that casual absences on the morning shift largely were due to the workers' early morning start. [378]

Pocock, Sergean, and Taylor (1972) studied the absence records of 782 shift workers in a British food manufacturing plant before and after a continuous seven-day work schedule was changed to a rapidly rotating schedule. When absence data from the 12 months before the change and the 12 months after the change were compared, certified sickness absence increased 36 percent, uncertified sickness absence increased 29 percent, and absence for reasons other than sickness declined 2 percent. In contrast, certified sickness of insured workers of that region of England increased 8 percent. [340]

In a study of female hourly-paid workers in a food processing plant, Nicholson and Goodge (1976) found that the attendance of full-time production workers was more susceptible to variations in work shifts than that of part-time workers. There was no significant difference in absence or lateness between permanent part-time morning, afternoon or night shifts, but a significant difference did occur between the average absence levels of the full-time (rotating) morning and afternoon shifts. In addition, part-time workers had consistently lower levels of casual and unsanctioned absence than full-time workers. However, there was no difference in their levels of absence due to sickness. [317]

Bargaining and union activity.--Research consistently indicates that bargaining and union activity has a negative impact on employee attendance. Citing data collected from the May 1978 *Current Population Survey* of the Bureau of Labor Statistics, Taylor (1979) reported that the average incidence and inactivity rates for union employees were higher than those for nonunion workers, in every industrial category [401:52]:

	Incidence Rate		Inactivity Rate	
	Union	Nonunion	Union	Nonunion
Total	7.6%	6.1%	4.3%	3.2%
Manufacturing	8.5	6.6	4.9	3.6
Transportation and Utilities	7.8	5.7	5.4	3.8
Trade	6.7	5.3	3.3	2.6
Services	7.3	7.0	3.5	3.3
Public administration	7.9	5.9	3.8	2.8

Results of a statewide study of teacher absenteeism in Illinois conducted by the Academy for Educational Development (1977) showed that teachers in school systems without negotiated agreements had a lower rate of absence than teachers in school systems with bargained contracts. School systems without contracts had a median teacher absence rate of 3.0 percent in 1975-76, compared to 3.6 percent for systems with contracts but no affiliation, 3.9 percent for systems with NEA-affiliated contracts, and 5.0 percent for systems with AFT-affiliated contracts. This ranking remained the same in school

years 1971-72 and 1973-74. However, teacher absence rates for school systems without contracts increased 11.1 percent from 1971-72 to 1975-76, compared to an increase of 9.1 percent for systems with contracts but no affiliation and 2.6 percent for systems with NEA-affiliated contracts, and a decrease of 5.7 percent for AFT-affiliated contracts, from 5.3 percent to 5.0 percent. [57:9] For data on teacher absence in Illinois by day of the week classified according to school systems with or without teacher contracts, see Table 17 on page 91.

Bundren (1974) found that in the Clark County (Las Vegas), Nevada, school system, the absence rate of both continuously employed and newly hired teachers increased significantly after collective bargaining legislation was enacted in that state. Neither situational nor demographic factors, discussed elsewhere in this Research Brief, were found to be significantly related to teacher absenteeism. [8]

Redmond (1978) reported similar findings for professional personnel in the Fort Madison Community School District (Iowa) over a four-year period. He reported that a significant positive relationship existed between days missed for sick leave and the beginning of collective bargaining. Significant relationships also were found between the beginning of use of a master contract and frequency and duration of sick leave used. Of 10 demographic variables studied, only gender influenced employee absence rates. [56]

Employment status.--Studies by Behrend (1951, 1953) [109; 108] and Crowther (1957) [156] reported that a negative relationship existed between general changes in unemployment levels within a given geographic region and absenteeism. As layoffs became imminent, i.e., when an employee's own employer began to lay off workers, absenteeism decreased even more. [394:397] However, when individual employees knew that they were going to be laid off, their absence rates were significantly higher than workers who were not laid off (Owens 1966). [327]

However, Hershey (1972) reported opposite findings. No significant changes in absenteeism or lateness were found during a three-month period when 100 employees knew that they would or would not be laid off. [226] Using data from *Current Population Surveys*, Hedges (1973) compared monthly unemployment rates and part-week worker absence nationwide for the period 1967 to 1972 and found no relationship between the two variables. [221:25-26]

WORK ENVIRONMENT FACTORS

Work unit size.--"Previous research in business organizations shows that the organizational characteristic most consistently related to absenteeism is subunit size," stated Bridges and Hallinan (1978). [7:25] There also are indications of similar findings in education.

The following studies reported that a positive relationship existed between work unit size and employee absenteeism:

- Covner (1950), who studied 38 groups of plant and office workers [153];
- Acton Society Trust (1953), which studied 91 groups of factory workers [383];
- Hewitt and Parfitt (1953), who studied 18 groups of factory workers [230];
- Argyle, Gardner, and Cioffi (1958), who studied workers in 86 production departments [99];
- Revans (1958), who studied groups of blue-collar workers from five studies [352];
- Baumgartel and Sobol (1959), who studied 11 groups of blue- and white-collar workers [104];
- Indik and Seashore (1961), who studied groups of factory workers [245]; and
- Indik (1965), who studied 32 groups of delivery drivers. [244]

However, Kerr, Koppelmeier, and Sullivan (1951) reported that they found no relationship between work unit size and the absenteeism of production workers studied. [262] Nor did Metzner and Mann (1953) find a correlation between work unit size and the absences of the white-collar men and women or blue-collar men they examined. [302]

One of Gibson's conclusions in his 1968 study of staff absence in Boston, Massachusetts, area schools was that: "In small systems as compared with large systems, absence is more a function of the total social system while in large systems, absence is more associated with the characteristics of the subsystem work group." [25:5] According to Bridges and Hallinan (1978), subunit size and work system interdependence had direct, independent effects on the absenteeism of teachers in 57 California and Wisconsin elementary schools. Subunit size was positively associated with absenteeism and work system interdependence was negatively related to absenteeism. [7]

In the Chicago, Illinois, public schools, staff absenteeism in elementary schools was lowest in the smallest schools in 1959-60, but no other consistent relationship seemed to occur. Data for February 1960 indicated that the lowest average amount of sick leave taken was for elementary schools with a staff of less than 10 (0.56 days). Elementary schools in eight larger staff size categories all had sick leave days taken between 0.89 and 0.72 days. These data are shown below for the elementary level; at the high school level, an irregular pattern of absences was found:

Elementary School

Size of staff	Number of schools	Average sick leave taken (days)
Under 10.....	10	.56
10-14.....	42	.73
15-19.....	76	.78
20-24.....	75	.77
25-29.....	69	.80
30-34.....	42	.89
35-39.....	21	.85
40-44.....	18	.77
45 and over.....	25	.72
Total.....	378	.79

High School

Size of staff	Number of schools	Average sick leave taken (days)
Under 40.....	8	.62
40-59.....	11	.86
60-79.....	13	.52
80-99.....	9	.71
100-119.....	6	.65
120 and over.....	6	.54
Total.....	53	.65

[37:9]

Satisfaction with the work itself.--Nearly 30 years of research consistently supports the contention that dissatisfaction with the work itself is a major determinant of employee absenteeism. While Kerr, Koppelmeier, and Sullivan (1951) found a positive relationship between satisfaction with work and the absenteeism of factory workers studied when absence was measured by total days absent, they reported a negative correlation for the same sample when uncertified or unauthorized absence was used as the measure of absence. [262] Metzner and Mann (1953) also reported divergent results. They concluded that satisfaction with work and absenteeism were negatively related for blue-collar males in their sample, but the same variables were not related for white-collar males and females. [302] Negative relationships between satisfaction with the work itself and absenteeism were found in studies of factory workers (Lundquist, 1958) [287] and delivery drivers (Indik, 1965) [244].

Waters and Roach (1971) found a negative relationship between satisfaction with work and absenteeism among 160 female clerical workers. [417] The same results were produced in their 1973 replication of this study. [416] Similar negative correlations between these variables likewise were reported by Newman (1974) in a study of male and female nursing home employees [313], Dittrich and Carrel (1976) in a study of government clerical employees [165], and Smith (1977) in a study of managers. [387] Goble (1976) concluded that workers in a Delmarva processing plant who were most dissatisfied with

work, as measured by the *Job Descriptive Index*, had more excused absences, absences for personal illness, and total absences than more satisfied workers. [200] Nicholson, Brown, and Chadwick-Jones (1976) reported no significant relationship between satisfaction with the work itself and the absenteeism of 1,222 British blue-collar workers they studied. [318]

Using the *Worker Opinion Survey*, a version of the *Job Descriptive Index* modified for British blue-collar workers, Nicholson, Wall, and Lischeron (1977) found that dissatisfaction with the work itself was the chief predictor of both casual absence and the propensity to leave among 95 male steelworkers in Northern England. Dissatisfaction with the work itself had a far greater impact than any of the other areas they studied, which included satisfaction with co-workers, pay, promotion, the firm, and the immediate supervisor. [320]

Garrison and Muchinsky (1977) reported mixed findings in their study of 174 accounting department workers. Whereas satisfaction with work was a significant negative predictor of absenteeism without pay, there was no correlation between satisfaction with work and absenteeism with pay. [187] Johns (1978) also reported varying results depending on the absence measure used. When satisfaction with the work itself and absence frequency were examined, a negative relationship between these variables was found. However, no relationship existed between work satisfaction and time lost. [252]

In a sample of 1,536 Pennsylvania teachers, Slick (1974) found that no significant relationship existed between absence frequency and satisfaction with teaching. [68] Schroeder (1977) reported that there was no relationship between satisfaction with the work itself and the absence frequency of teachers in a metropolitan New Orleans, Louisiana, school system. [64] Foster (1977) noted that teacher morale in selected New York City schools with high and low rates of teacher absenteeism did not vary in terms of teacher perception of his or her satisfaction with teaching. In a related area, Foster found that the ratios of teacher absenteeism in the schools with high vs. low absenteeism were not significantly affected by the percentage of teachers filing school level grievances. [18]

Group cohesion/satisfaction with co-workers.--Findings on the relationship between group cohesion and employee absenteeism suggest that there consistently has been a lack of correlation between these two factors. Price (1972) contended that the most widely used definition of *cohesiveness* is "the attraction of membership in a group for its members." Measuring cohesion is accomplished by determining how much employees like their co-workers. The most carefully constructed measure of this variable, according to Price, is the Satisfaction with Co-Workers scale of the *Job Descriptive Index*. [346; 388; 7:30]

Mann and Baumgartel (1952) reported that a sense of group belongingness, group spirit, group pride, or group solidarity among workers was negatively related to absence rates. [293] Metzner and Mann (1953) reported a significant negative relationship between satisfaction with co-workers and the absenteeism of white- and blue-collar males, but not of white-collar females. [302] Gibson (1966) concluded that the more isolated one employee is from other employees, the easier absence can be legitimized. It is especially easy when the staff member values social contacts at work and when work identification is low. [26:132] Highly cohesive groups see coming to work as helping one's co-workers; thus, attendance, rather than absenteeism, can be expected (Whyte, 1969 [425] and Lawler, 1971 [280]).

Using the *Job Descriptive Index*, Waters and Roach (1971) found a negative correlation between satisfaction with co-workers and absenteeism in a sample of female clerical workers. [417] However, in a 1973 replication of this study, they found no relationship between satisfaction with co-workers and absenteeism. [416] In a survey of 64 college undergraduates,

Lamberth and Padd (1972) found that as the attitudinal similarity between the subjects and their hypothetical co-worker increased, so did their willingness to attend work. [274]

Workers least satisfied with their co-workers appeared to have more absences related to family illness than workers who were more acceptable to others, Goble (1976) reported. [200] Nicholson, Wall, and Lischeron (1977) reported that satisfaction with co-workers was negatively related to both the casual absence and propensity to leave of a group of British blue-collar workers, but not nearly as much as satisfaction with the work itself. [320]

In addition to studies by Lundquist (1958) [287] and Nicholson, Brown, and Chadwick-Jones (1976) [318], seven other studies failed to find any significant relationship between satisfaction with co-workers and absence rates:

- Newman (1974), who used the *GM Faces Scale* for a sample of nursing home employees [313];
- Slick (1974), who used the *Purdue Teacher Opinionaire* and the *Organizational Climate Description Questionnaire* for a sample of 1,536 teachers in six Southeastern Pennsylvania school systems [68];
- Garrison and Muchinsky (1977), who used the *JDI-Co-Workers* scale for a sample of employees working in the accounting department of a large public utility [187];
- Foster (1977), who used the *Purdue Teacher Opinionaire* for a sample of New York City elementary teachers [18];
- Schroeder (1977), who used the *JDI-Co-Workers* scale for a sample of New Orleans, Louisiana, area teachers [64];
- Bridges and Hallinan (1978), who used the *JDI-Co-Workers* scale for a sample of California and Wisconsin elementary school teachers [7]; and
- Kauffman (1978), who used the *FIRO-B* questionnaire, the *California Psychological Inventory*, a demographic questionnaire, and personal interviews for a sample of 100 nurses in the Los Angeles, California, area. [258]

Satisfaction with the supervisor.--How workers feel about their supervisors may have an important impact on job satisfaction, but little effect on employee absenteeism. [394:395] In describing a case study of management concern about the absenteeism of its manufacturing plant workers, Covner (1950) reported that when an attitude survey was conducted, the unfavorable attitude of workers toward management was the strongest predictor of absenteeism. [153] Mann and Baumgartel (1952) indicated that, among plant workers, low absenteeism was noted "where workers reported that the foreman (a) creates an atmosphere which contributes to free and easy discussion of work problems, (b) has time to talk to his men about personal problems, (c) holds group discussions with his men, (d) can be counted to 'go to bat' or 'stand up' for his men." [293; 216:536]

Metzner and Mann (1953) concluded that satisfaction with supervision was negatively related to the absence of white- and blue-collar males studied, but had no effect on the absence of white-collar females examined. [302] Gerstenfeld (1969) reported in a study of female production workers that there was "a strong relationship between the worker's attitude toward [her] immediate supervisor and [her] absences. Those workers who feel that their boss is frequently unfair are generally the same workers with poor records of attendance." [195:56-57; 216:536] Smith (1977) found a negative correlation between satisfaction with supervision and the absenteeism of 27 groups of managers. [387]

Campbell (1970) contended that when subordinates see their supervisor using his or her sick

leave liberally, they may do the same thing. This kind of supervisor cannot realistically criticize employees for abusing their sick leave, which only serves to compound the problem. [132:44] Johns (1978) investigated three factors relating to the influence of the supervisor on the absenteeism of 208 operative employees in a manufacturing plant. Satisfaction with supervision was found to be negatively related to absence frequency, but unrelated to time lost. Consideration, one of the leadership style variables analyzed, was negatively related to both absence frequency and time lost. Initiating structure, the other leadership style factor, was negatively related to time lost, but unrelated to absence frequency. [252]

However, most of the research contradicts the belief that satisfaction with supervision exerts an appreciable impact on absenteeism. For example, Lundquist (1958) [287], Hackman and Lawler (1971) [209], Waters and Roach (1971, 1973) [417; 416], Newman (1974) [313], and Nicholson, Brown, and Chadwick-Jones (1976) [318] all reported that no significant relationship existed between satisfaction with supervision and the absenteeism of workers studied. As Argyle, Gardner, and Cioffi (1958) concluded for production department workers [99], Bernardin (1976) also found no correlation between supervisory style and absenteeism in a sample of 501 police officers in a major city. [111]

In a study of accounting department workers, Garrison and Muchinsky (1977) found no correlation between *JDI-Supervision* and either paid or unpaid absences. [187] Satisfaction with the immediate supervisor, as measured by the *Worker Opinion Survey*, was found to have a negative relationship to both casual absence and propensity to leave in a study of 95 British steelworkers by Nicholson, Wall, and Lischeron (1977). However, this effect was much weaker than the one found between satisfaction with the work itself and the absence and leaving variables. [320]

Schroeder (1977) reported no significant relationship between 12 patterns of the principal's managerial behavior and the absence rate of 96 teachers in eight schools randomly selected from a total population of 3,800 teachers in a school system located in metropolitan New Orleans, Louisiana. (These 12 patterns of the principal's managerial behavior included: representation, demand reconciliation, tolerance of uncertainty, persuasiveness, initiating structure, tolerance of freedom, role assumption, consideration, production emphasis, predictive accuracy, integration, and superior orientation.) In addition, satisfaction with supervision, as measured by the *Job Descriptive Index*, was found to have no relationship to teacher absence frequency. [64]

In a study of more than 1,500 Pennsylvania teachers, Slick (1974) found that teacher absence frequency was not significantly related to the level of rapport with the principal or the perceived level of aloofness, production emphasis, thrust, or consideration on the part of the principal. [68]

A related issue--that student absence may be caused by teacher absence--was observed in a 1974 report by the New York State Office of Performance Evaluation Review on teacher absenteeism in New York City. [80:19] However, no empirical data were offered in support of this conclusion.

Employer-employee feedback.--Feedback was reported to make no difference in absenteeism levels, according to the findings of Hackman and Lawler (1971), for a sample of 208 telephone operators, installers, and repairmen. [209] Similarly, neither Hackman and Oldham (1976) [210] nor Johns (1978) [252] found any correlation between feedback and absenteeism in later research.

Job autonomy and responsibility.--Research to date has not produced any consistent directions relating to the association between job autonomy and responsibility and employee absenteeism. Turner and Lawrence (1965) reported a negative correlation between autonomy and absenteeism for a group of blue-collar workers [410]; Hackman and Lawler (1971) for a sample of

telephone operators, installers, and repairmen [209]; Fried, Westman, and Davis (1972) for a sample of factory workers [183]; and Hackman and Oldham (1976) for a sample of white-collar, blue-collar, and professional employees in industrial and service organizations. [210] While Baumgartel and Sobol (1959) also found a negative correlation between autonomy and absenteeism among blue-collar males, they reported that no significant relationship between these two variables existed for either male or female white-collar workers. [104]

Baumgartel and Sobol (1959) reported divergent results between responsibility and absenteeism, depending on the absence measure used and the sex and occupation of the workers studied. A negative relationship existed between responsibility and absenteeism when measured by absence frequency and total days absent for male blue-collar workers. A positive relationship was found for male white-collar workers when absenteeism was measured by frequency. No correlation was reported between these variables for male white-collar workers (absence measured by total number of days absent) or female white-collar employees (absence measured by total days absent and frequency of absence). [104] In their studies of female clerical workers in 1971 and 1973, Waters and Roach reported no significant relationship between satisfaction with responsibility and absenteeism. [417; 416] Job autonomy was negatively related to absence frequency, but unrelated to time lost, in a study of 208 manufacturing operatives (Johns, 1978). [252]

In a study of suburban elementary school teachers, Leczinsky (1972) reported that no significant relationship existed between perceived work autonomy and frequency of illness absence. When test variables were used to measure the strength of the autonomy-absence relationship, the organizational structure variable was the only one that had any major impact. A positive relationship between autonomy and absence was noted for teachers in self-contained classrooms; a negative relationship between autonomy and absence was found for team teachers. [36]

Task factors.--One study reported a positive link between absenteeism and task repetitiveness among male and female production workers (Kilbridge, 1961). [265] In a study of 208 telephone operators, installers, and repairmen, Hackman and Lawler (1971) found a negative relationship between task identity and absenteeism. For the variables variety and absenteeism, the relationship was negative for employees rated high on higher order need strength but nonexistent for all other workers. [209] Hackman and Oldham (1976) found no correlation between task identity and the absenteeism of 658 white-collar, blue-collar, and professional employees in industrial and service companies. However, a negative relationship between variety and absenteeism did exist for their sample. [210]

In a study of how organization size related to job satisfaction, absenteeism, and turnover, Kovach (1976) found that satisfaction from task sources correlated negatively with absenteeism. [270] Johns (1978) concluded that job variety was unrelated to either the frequency of absence or time lost of 208 manufacturing operatives; identity was found to be negatively related to absence frequency, but had no correlation with time lost. [252]

Satisfaction with the sense of achievement.--Waters and Roach found a negative relationship between satisfaction with the sense of achievement and absenteeism of 160 female clerical workers in their 1971 study [417] and for one group of 90 female clerical workers in their 1973 replication of this research. [416] However, Hackman and Lawler (1971) concluded that no such relationship existed for their sample of telephone workers [209], a finding also noted by Waters and Roach (1973) for a group consisting of 62 female clerical employees. [416]

FACTORS PARTICULAR TO EDUCATION

Level of teaching.--In almost every case, research has found that elementary teachers have higher rates of absence than secondary teachers. Stallings (1959) reported that, in 16 Southern California school systems in school year 1955-56, elementary level male teachers took an average of 3.02 days of sick leave, and elementary level female teachers, 4.95 days. At the high school level, male teachers averaged 2.66 days of sick leave, and female teachers, 4.35 days. [71; 37:4] For that same school year, there was virtually no difference between grade level and absence in Akron, Ohio. Elementary school teachers, with an average of 10.5 days of absence, were absent slightly more often than secondary school teachers, who averaged 10.3 days. [37:16]

However, junior high school teachers in the Minneapolis, Minnesota, public schools in 1958-59 had the highest percent of absence for personal illness--80.3 percent of the total absences of junior high school teachers were for personal illness, compared to 79.2 percent for special school and class teachers, 75.1 percent for high school teachers, and 74.5 percent for elementary school teachers. Elementary school teachers had the highest percent of absences for personal leave, followed by teachers in junior high schools, high schools, and special schools and classes. When all days of teacher absence were included, 55.9 percent occurred in elementary schools, 15.9 percent in junior high schools, 21.9 percent in high schools, and 6.3 percent in special schools and classes. [37:12] Data from both the Wichita, Kansas, and Houston, Texas, public schools for school year 1959-60 also found that high school teachers were absent less than elementary teachers. [37:10, 18]

Studies over the last decade have confirmed these earlier findings. "In general during 1968-69, absenteeism by teachers was highest in elementary schools, less in extent among junior high and middle schools, and lowest in terms of Indexes and Rates of Absence in senior high schools," concluded the authors of a 1970 study of teacher absenteeism in Pennsylvania. [79:58] The Department of Administrative Research of the Dade County (Miami), Florida, public schools reported absence data on instructional personnel (including classroom and other teachers, librarians, guidance counselors, assistant principals, and elementary and junior high school principals) for 1969-70. Elementary school personnel and junior high school personnel used an average of 7.81 days per person and 7.24 days per person, respectively. Senior high school personnel used an average of 6.82 days per person. [66:15] Elementary school personnel (14.79 percent) and junior high school personnel (14.41 percent) also had the highest percentage of personnel who used all their accrued sick leave during 1969-70, followed by senior high school personnel (10.26 percent). [66:16] More leave without pay was taken by elementary school personnel (an average of 1.02 days per person) and junior high school personnel (1.00 days) than by senior high school personnel (0.75 days). [66:19]

In a study of teacher absence in Illinois, the Academy for Educational Development (1977) found that teachers in elementary school systems had a higher absence rate than teachers in secondary or unit school systems during the period 1971-72 to 1975-76, but the absence rate for teachers in both secondary and unit school systems increased more than the rate for teachers in elementary school systems [57:9]:

Type of School System	Median Percentage 1971-72	1973-74	1975-76	Percent Change 1971-72 to 1975-76
Elementary	3.5%	3.7%	3.8%	+ 8.6%
Secondary	2.8	2.9	3.3	+17.9
Unit	2.8	3.4	3.4	+21.4
Statewide	3.1	3.5	3.6	+16.1

For data on teacher absence in Illinois by the day of the week classified according to the type of school system, see Table 17 on page 91.

Bundren's 1974 study of Clark County (Las Vegas), Nevada, public school teachers, Coller's 1975 study of Livonia, Michigan, teachers [8], and Marlin's 1976 research involving teachers in a semi-rural school system [43] found that elementary school teachers were absent more often than secondary teachers. However, Bundren reported no significant difference between teachers' grade level assignment and absenteeism. [8] Marlin also stated that primary level teachers were absent the most. [43]

According to a study conducted by the Pennsylvania School Boards Association for school year 1977-78, elementary school teachers had approximately the same absence rate as secondary school teachers (4.804 percent vs. 4.719 percent) and about the same average number of days absent per teacher (8.3 days for elementary school teachers vs. 8.1 days for secondary school teachers). [78:15-16, 18] Capitan and Morris (1978) reported that a study conducted in the Akron, Ohio, schools found that elementary teachers had a higher rate of absence than either junior or senior high school teachers. [9:6-7] Redmond (1978) found no relationship between grade level taught and absenteeism in the Fort Madison (Iowa) Community School District over a four-year period. [56]

Sylwester (1979) reported absence data on a sample of 335 elementary and secondary school teachers and administrators in Oregon, classified by level of teaching, as part of a study examining the relationship between stress and absence.

(See page 40.) As shown below, elementary school educators were absent almost two days more than secondary school educators during school year 1977-78. Sex exerted a major influence on these results, as female educators in elementary schools were absent the most number of days, followed by female secondary educators, male elementary educators, and male secondary educators.

Grade Level	Sex Male	Female	Total
Elementary			
Days absent	4.4	5.8	5.4
Number in sample	56	138	194
Secondary			
Days Absent	3.0	4.6	3.7
Number in sample	80	61	141
Total			
Days Absent	3.6	5.4	4.7
Number in sample	136	199	335

[74:19]

Grade organization.--One study investigated the relationship between teacher absence and the school's grade organization. During 1968-69, the Philadelphia Suburban School Study Council and the South Penn School Study Council found that seven different grade organization plans existed among the 56 school systems that participated in their study. As shown in Table 14, the 25 systems using a 6-3-3 plan averaged 6.45 days of absence (an average absence rate of 3.49 percent) for total leave for all teachers, paid and unpaid. The 10 systems using a 6-6 grade plan had lower absence figures--an average of about 5.87 days absent and an average absence rate of 3.13 percent. [79:58]

TABLE 14.--Teacher Absenteeism and Grade Organization Plan, 1968-69

Grade Plan	No. of School Systems	Avg. Size Staff	Total Leave --- Female and Male Teachers: Elementary Teachers Mean Index	Elementary Teachers Mean Rate	Jr. H. (Mid) Teachers Mean Index	Jr. H. (Mid) Teachers Mean Rate	Intermediate Teachers Mean Index	Intermediate Teachers Mean Rate	High School Teachers Mean Index	High School Teachers Mean Rate	Total Staff Mean Index	Total Staff Mean Rate
6-3-3	25	291	7.32	3.95	5.72	3.08	-	-	5.69	3.07	6.45	3.49
6-6	10	101	6.24	3.33	←	←	5.47	2.88	→	→	5.87	3.13
4-4-4	2	116	6.90	3.66	6.24	3.30	-	-	5.09	2.70	6.02	3.19
6-2-4	4	198	6.28	3.15	5.30	2.83	-	-	4.52	2.41	5.48	2.92
5-3-4	3	206	5.55	2.96	6.55	3.50	-	-	5.82	3.11	5.91	3.16
6-2-2-2	2	250	6.71	3.56	10.01	5.29	5.46	2.89	6.32	3.34	6.86	3.64
5-3-2-2	1	437	6.04	3.25	5.03	2.71	5.45	2.93	5.88	3.16	5.63	3.02

Index = Days of absence/teacher/year.
Rate = Percent of total teacher days/year lost to absence.
Mean = Mathematical average.

SOURCE: *Teacher Absenteeism and Related Policies for Supplemental Remuneration.* Produced by the Philadelphia Suburban School Study Council--Groups A, B, C, & E and the South Penn School Study Council--Group D. Philadelphia, Pennsylvania: The Graduate School of Education, University of Pennsylvania, 1970, p. 60.

Type of student taught.--The results of two studies indicate that a connection may exist between the type of student a teacher instructs and the teacher's attendance rate. Marlin (1976) reported that in a semi-rural school system under study, teachers who taught disadvantaged students were absent significantly more than teachers who taught regular students. [43] In a New York City community school district, Foster (1977) found that teacher absenteeism was significantly affected by the presence of black and Hispanic students, as reflected in the percentages of these two types of students to the total population in the schools studied. [18] However, a study by Bundren (1974) reported no significant relationship between students' academic ability level and teacher absenteeism in Clark County (Las Vegas), Nevada. [8]

Type of school.--Some correlation may be found between the type of school in which a teacher works and his or her absence rate. The Office of Education Performance Review of the State of New York reported that the discretionary absence rate for New York City teachers in Title I elementary schools was 29 percent higher than in non-Title I elementary schools during the 1972-73 school year. (See Table 15.) As the report concluded: "This leads to the inference that where the educational need is greatest, teacher absenteeism is highest, especially discretionary absence." [80:2]

Douglas (1976) attempted to relate various social-psychological factors, generally considered to be sources of teacher stress, to work attendance and the excessive use of sick leave. Twenty-seven predictor variables were analyzed by stepwise multiple regression using the Wherry program *MULREG*. He discovered that "inner-city vs. suburban school" was one of nine variables found to be predictors of absenteeism when added in stepwise regression. [15]

TABLE 15.--New York City Teacher Rate of Absence, 1972-73 School Year--All Levels

School Level	Title I		Non-Title I	
	Discretionary	Total	Discretionary	Total
Elementary	4.9%	6.5%	3.8%	6.1%
Intermediate and Junior High School	4.9	6.1	4.2	5.8
Academic High School	3.9	5.4	3.4	5.0
Vocational High School	3.4	5.6	3.2	5.4
Deaf and Special Education Schools	...	...	4.2	5.8
Teenage Centers	...	...	4.0	5.5

SOURCE: *Teacher Absenteeism in New York City and the Cost-Effectiveness of Substitute Teachers.* Albany, New York: State of New York, Office of Education Performance Review, January 1974, p. 14.

OTHER ORGANIZATIONAL FACTORS

Redick (1972) examined *role conflict, role ambiguity, and role stress* as they related to certain characteristics of 103 public school counselors in nine school systems in Franklin County, Ohio. She found no significant relationship among any of these three factors and absenteeism. [55] However, Douglas (1976) reported that role conflict was one of nine variables found to be a predictor of teacher absenteeism when used in a stepwise regression. [15]

Additional workoad was one of five variables that formed a "predictive profile" of an absent-prone teacher in a study by Douglas (1976). [15] The *motivating potential* of a job was negatively related to the absence frequency of 208 manufacturing operatives, according to a study by Johns (1978), but it was unrelated to time lost. [252] Indik (1965) reported that as the *number of different job titles in an organization* increased so did the absence rate of delivery drivers under study. [244]

Shepherd and Walker (1957) examined the relationship between absence and the *physical work environment* in an engineering firm and two iron and steel works. They found that men engaged in heavier physical work were absent more often than men with lighter physical work. Dust, heat, or fumes did not affect absence. [376] However, Poulton (1972) investigated the limits within which a working environment should be kept, including factors such as heat, cold, light, glare, noise, vibration, motion, acceleration, and compression. When limits to the work environment are surpassed, Poulton stated, it is likely that efficiency will decrease and that workers will become more susceptible to accidents and will be absent more often than when these limits are maintained. [342]

Rousseau (1978) explored the *relationship between work and nonwork experiences* in a survey of 139 employees in an electronics company and a broadcasting firm. Among the findings reported was that absenteeism and stress were more highly related to the nonwork area than the work area. She noted that people are involved in activities outside the job when absent from work and "thus, as employees move between the domains of work and nonwork, they carry with them the influences of these spheres of activity, making the boundary between the two a fuzzy one when origins of individual responses are considered." [365:517]

Although common sense would predict a strong negative correlation between employee absenteeism and *job performance*, empirical data have not supported this simple relationship. [390:542] A review published by the New York State Office of Education Performance Review (1974) on teacher absenteeism and substitute teacher use in New York City stated that: "There is no consistent relationship between a teacher's absence rate and his general performance rating." However, for the school year under study (1971-72), only about 0.5 percent of New York City teachers (276 out of nearly 58,000) were rated "unsatisfactory." [80:9]

As discussed previously on page 40, Staw and Oldham (1978) questioned the wisdom of treating absenteeism in absolute terms. They said that an organization should find the level of absenteeism that is most effective for similar types of organizations. Moreover, absence variables should be examined from both managerial and individual perspectives--a direction that departs from standard absenteeism research. "Like organizational turnover, absenteeism may not be a criterion which should optimally be reduced to zero, because it may have a complex relationship with other individual-level variables such as task performance," Staw and Oldham noted. [390:541] In a study of 348 employees in five organizations, they concluded that psychological compatability with the job affected the relationship between absenteeism and job performance. [390]

Summary of studies relating to employee absenteeism and organizational factors.--Shown in Table 16 is a profile of the research conducted in education and outside education on the relationship between absenteeism and organization factors. Of the 13 *organization-wide factors* examined, four were reported to have a *consistent* association with absenteeism: industry (employees in goods-producing industries absent more than service workers), large organization size, lenient personnel policies relating to absenteeism and leave usage, and bargaining and union activity. *Inconsistent* results were found between employee absenteeism and six variables: salary level/wage rate, satisfaction with pay, satisfaction with promotion, availability of overtime work, shiftwork, and employment status. A rather consistent *lack* of correlation between absenteeism and satisfaction with organizational policies and practices, employee control and participation, and organizational climate, was reported in the studies reviewed.

Of the eight *work environment factors*, two were found to have a *consistent* relationship to employee absenteeism (large work unit size and dissatisfaction with the work itself); three produced *inconsistent* results (job autonomy and responsibility, task factors, and satisfaction with the sense of achievement). Variables consistently *unrelated* to employee absenteeism were: group cohesion/satisfaction with co-workers, satisfaction with the supervisor, and employer-employee feedback.

Each of the four *factors particular to education* were found to have a *consistent* correlation to teacher absenteeism: level of teaching (elementary teachers absent more than secondary teachers), grade organization, type of student taught (disadvantaged and minority), and type of school (Title I and inner-city).

TABLE 16.--Summary of Studies on the Relationship Between Employee Absenteeism and Organizational Factors

Study	Relationship
ORGANIZATION-WIDE FACTORS	
INDUSTRY	
I. Education	
Not Applicable	
II. Non-Education (pp. 53-55)	
BNA (1974-79)	See text
Hedges/BLS (1975)	See text
Hedges/BLS (1977)	See text
NCHS (1978)	See text
Taylor/BLS (1979)	See text
ORGANIZATION SIZE	
I. Education (pp. 57-58)	
Gibson (1968)	Curvilinear
Philadelphia-So. Penn S.S.C. (1970)	Positive (2 size categories) Zero (8 size categories)
Bundren (1974)	Zero
Marchant (1976)	Zero
Academy for Educational Development (1977)	Positive
Pa. School Boards Assn. (1978)	Zero
II. Non-Education (pp. 55-57)	
Ingham (1970)	Positive
Raouf (1973)	Zero
BNA (1973-78)	Positive (5 years)
Kovach (1976)	Positive
PERSONNEL POLICIES	
I. Education (pp. 58-60)	
Philadelphia-So. Penn S.S.C. (1970)	
Additional Sick Leave Provided	Positive
Proof of Illness Required	Positive
Reporting Absence to Building Principal Required	Negative
Personal Leave Provided	Positive
Submittal of Reasons for Personal Leave Required	Negative

(Continued)

TABLE 16 *(Continued)*

Study	Relationship
Cumulation of Unused Personal Leave Provided	Zero
Maternity Leave Provided	Negative
Bereavement Leave Provided	Zero
Additional Bereavement Leave Provided	Positive
Severance Pay Provided	Positive
Pa. School Boards Assn. (1978)	
Reporting Absence to Building Principal Required	Negative
II. Non-Education (pp.60-61)	
Pascale (1978)	
Existence of Foreign Employment Practices in American-Based Companies	Zero
SATISFACTION WITH ORGANIZATIONAL POLICIES AND PRACTICES	
I. Education	
None	
II. Non-Education (p. 61)	
Metzner & Mann (1953)	Negative (white-collar males) Zero (white-collar females)
Waters & Roach (1971)	Zero
Waters & Roach (1973)	Zero
Nicholson, Wall, & Lischeron (1977)	Zero
EMPLOYEE CONTROL AND PARTICIPATION	
I. Education	
None	
II. Non-Education (p. 61)	
Fried, Westman & Davis (1972)	
Control over Work Pace or Corrections and Adjustments	Negative
Control over the Flow of Materials or over the Machine	Zero
Nicholson, Wall, & Lischeron (1977)	
Existing Influence at the Local Level	Negative
Existing Influence at the Medium or Distant Levels	Zero

TABLE 16 *(Continued)*

Study	Relationship
Desired Influence at the Local, Medium, or Distant Levels	Zero
SATISFACTION WITH PROMOTION	
I. Education (Promotion) (p. 62)	
Adams (1976)	Zero (high school absence of non-skilled and semi-skilled workers) Negative (high school absence of skilled workers) Negative (job absence of all workers)
Schroeder (1977)	Zero
II. Non-Education (Satisfaction with Promotion) (pp. 61-62)	
Metzner & Mann (1953)	Negative (males) Zero (females)
Patchen (1960)	Negative
Hackman & Lawler (1971)	Zero
Waters & Roach (1971)	Zero
Waters & Roach (1973)	Zero
Newman (1974)	Zero
Goble (1976)	Negative
Nicholson, Brown, & Chadwick-Jones (1976)	Zero
Nicholson, Wall, & Lischeron (1977)	Zero
Smith (1977)	Negative
Garrison & Muchinsky (1977)	Zero (paid, unpaid)
SALARY LEVEL/WAGE RATE	
I. Education (p. 63)	
Philadelphia-So. Penn S.S.C. (1970)	
Minimum Salaries	Positive
Median Salaries	Zero
Bundren (1974)	Zero
Redmond (1978)	Zero
Dade Co., Fla. (1978)	Positive
II. Non-Education (pp. 62-63)	
Jackson (1944)	Negative
Lundquist (1958)	Negative
Shepherd & Walker (1958)	Positive

(Continued)

TABLE 16 *(Continued)*

Study	Relationship
Baumgartel & Sobol (1959)	Zero
Weaver (1970)	Negative
Fried, Westman, & Davis (1972)	Negative
Weaver & Holmes (1972)	Zero
Beatty & Beatty (1975)	Negative
Hulme & Bevin (1975)	Positive (see text)
NCHS, cited in Yolles, Carone, & Krinsky (1975)	Negative
Glaser (1976)	Negative (see text)
Bernardin (1977)	Negative
NCHS (1978)	Negative
SATISFACTION WITH PAY	
I. Education (p. 64)	
Slick (1974)	Negative
Schroeder (1977)	Negative
Bridges & Hallinan (1978)	Negative
II. Non-Education (p. 64)	
Metzner & Mann (1953)	Negative (males) Zero (females)
Lundquist (1958)	Zero
Patchen (1960)	Negative
Hackman & Lawler (1971)	Zero
Waters & Roach (1971)	Zero
Waters & Roach (1973)	Zero
Newman (1974)	Zero
Dittrich & Carrel (1976)	Negative
Goble (1976)	Negative
Nicholson, Brown, & Chadwick-Jones (1976)	Zero
Nicholson, Wall, & Lischeron (1977)	Zero
Smith (1977)	Negative
Garrison & Muchinsky (1977)	Zero (paid, unpaid)
ORGANIZATIONAL CLIMATE	
I. Education (p. 64)	
Slick (1974)	
Community Pressure	Zero
Perceived Level of Hindrance	Positive

TABLE 16 *(Continued)*

Study	Relationship
Perceived Level of Teacher Load and Teacher Status	Negative
Perceived Level of School Facilities and Services	Negative
Perceived Level of Community Support for Education	Negative
Marchant (1976)	Zero (in each of eight subtests)
II. Non-Education	
None	
AVAILABILITY OF OVERTIME WORK	
I. Education	
None	
II. Non-Education (pp. 64-65)	
Buck & Shimmin (1959)	Zero
Gowler (1969)	Positive
Martin (1971)	Positive (males, females)
Flanagan, Strauss, & Ulman (1974)	Zero
SHIFTWORK	
I. Education	
Not Applicable	
II. Non-Education (p. 65)	
Shepherd & Walker (1956)	See text
Pocock, Sergean, & Taylor (1972)	Positive (certified sickness, uncertified sickness); Negative (other than sickness)
Nicholson & Goodge (1976)	Zero (part-time workers); Positive (full-time workers)
BARGAINING AND UNION ACTIVITY	
I. Education (pp. 65-66)	
Bundren (1974)	Positive
Academy for Educational Development (1977)	Positive
Redmond (1978)	Positive

(Continued)

TABLE 16 *(Continued)*

Study	Relationship
II. Non-Education (p. 65)	
Taylor/BLS (1979)	Positive
EMPLOYMENT STATUS	
I. Education	
None	
II. Non-Education (p. 66)	
Behrend (1951)	Negative
Behrend (1953)	Negative
Crowther (1957)	Negative
Owens (1966)	Positive
Hershey (1972)	Zero
Hedges/BLS (1973)	Zero
WORK ENVIRONMENT FACTORS	
WORK UNIT SIZE	
I. Education (p. 67)	
Lee/NEA (1960)	
Chicago, Ill. (1960)	{ Zero (elementary schools) { Curvilinear (high schools)
Bridges & Hallinan (1978)	
Work Unit Size	Positive
Work System Interdependence	Negative
II. Non-Education (pp. 66-67)	
Covner (1950)	Positive (factory workers, white-collar workers)
Kerr, Koppelmeier, & Sullivan (1951)	Zero
Acton Society Trust (1953)	Positive
Hewitt & Parfitt (1953)	Positive
Metzner & Mann (1953)	Zero (white- and blue-collar workers)
Argyle, Gardner, & Cioffi (1958)	Positive
Revans (1958)	Positive
Baumgartel & Sobol (1959)	Positive (white- and blue-collar workers)
Indik & Seashore (1961)	Positive
Indik (1965)	Positive

TABLE 16 *(Continued)*

Study	Relationship
SATISFACTION WITH THE WORK ITSELF	
I. Education (p. 68)	
Slick (1974)	Zero
Foster (1977)	Zero
Schroeder (1977)	Zero
II. Non-Education (pp. 67-68)	
Kerr, Koppelmeier, & Sullivan (1951)	Positive (total) Negative (uncertified)
Metzner & Mann (1953)	Negative (blue-collar males) Zero (white-collar males and females)
Lundquist (1958)	Negative
Indik (1965)	Negative
Waters & Roach (1971)	Negative
Waters & Roach (1973)	Negative
Newman (1974)	Negative
Goble (1976)	Negative
Nicholson, Brown, & Chadwick-Jones (1976)	Zero
Nicholson, Wall, & Lischeron (1977)	Negative
Dittrich & Carrel (1976)	Negative
Smith (1977)	Negative
Garrison & Muchinsky (1977)	Zero (paid) Negative (unpaid)
Johns (1978)	Negative (frequency) Zero (time lost)
GROUP COHESION/SATISFACTION WITH CO-WORKERS	
I. Education (p. 69)	
Slick (1974)	Zero
Foster (1977)	Zero
Schroeder (1977)	Zero
Bridges & Hallinan (1978)	Zero
II. Non-Education (pp. 68-69)	
Mann & Baumgartel (1952)	Negative
Metzner & Mann (1953)	Negative (white- and blue-collar males) Zero (white-collar females)
Lundquist (1958)	Zero
Waters & Roach (1971)	Negative
Lamberth & Padd (1972)	Negative

(Continued)

TABLE 16 *(Continued)*

Study	Relationship
Waters & Roach (1973)	Zero
Newman (1974)	Zero
Goble (1976)	Negative
Nicholson, Brown, & Chadwick-Jones (1976)	Zero
Nicholson, Wall, & Lischeron (1977)	Zero
Garrison & Muchinsky (1977)	Zero (paid, unpaid)
Kauffman (1978)	Zero
SATISFACTION WITH THE SUPERVISOR	
I. Education (p. 70)	
Slick (1974)	Zero
Schroeder (1977)	
Satisfaction with Supervision	Zero
Patterns of Managerial Behavior	Zero
II. Non-Education (pp. 69-70)	
Covner (1950)	Negative
Mann & Baumgartel (1952)	Negative
Metzner & Mann (1953)	Negative (white- and blue-collar males) Zero (white-collar females)
Argyle, Gardner, & Cioffi (1958)	Zero
Lundquist (1958)	Zero
Gerstenfeld (1969)	Negative
Hackman & Lawler (1971)	Zero
Waters & Roach (1971)	Zero
Waters & Roach (1973)	Zero
Newman (1974)	Zero
Bernardin (1976)	Zero
Nicholson, Brown, & Chadwick-Jones (1976)	Zero
Nicholson, Wall, & Lischeron (1977)	Zero
Smith (1977)	Negative
Garrison & Muchinsky (1977)	Zero (paid, unpaid)
Johns (1978)	
Satisfaction with Supervision	Negative (frequency) Zero (time lost)
Leadership Style	
Consideration	Negative (frequency, time lost)
Initiating Structure	Zero (frequency) Negative (time lost)

TABLE 16 *(Continued)*

Study	Relationship
EMPLOYER-EMPLOYEE FEEDBACK	
I. Education	
None	
II. Non-Education (p. 70)	
Hackman & Lawler (1971)	Zero
Hackman & Oldham (1976)	Zero
Johns (1978)	Zero (frequency, time lost)
JOB AUTONOMY AND RESPONSIBILITY	
I. Education (p. 71)	
Leczinsky (1972)	Zero
II. Non-Education (pp. 70-71)	
Baumgartel & Sobol (1959) (autonomy)	Negative (blue-collar males) Zero (white-collar males and females)
Baumgartel & Sobol (1959) (responsibility)	Negative (blue-collar males) Positive (white-collar males) Zero (white-collar males and females)
Turner & Lawrence (1965)	Negative
Hackman & Lawler (1971)	Negative
Waters & Roach (1971)	Zero
Fried, Westman, & Davis (1972)	Negative
Waters & Roach (1973)	Zero
Hackman & Oldham (1976)	Negative
Johns (1978)	Negative (frequency) Zero (time lost)
TASK FACTORS	
I. Education	
None	
II. Non-Education (p. 71)	
Kilbridge (1961)	Positive
Hackman & Lawler (1971)	
Task Identity	Negative
Variety	Negative (high order needs) Zero (low and medium order needs)

(Continued)

TABLE 16 *(Continued)*

Study	Relationship
Hackman & Oldham (1976)	
Task Identity	Zero
Variety	Negative
Kovach (1976) (satisfaction)	Negative
Johns (1978)	
Task Identity	{ Negative (frequency) Zero (time lost)
Variety	Zero (frequency, time lost)
SATISFACTION WITH THE SENSE OF ACHIEVEMENT	
I. Education	
None	
II. Non-Education (p. 71)	
Hackman & Lawler (1971)	Zero
Waters & Roach (1971)	Negative
Waters & Roach (1973)	{ Negative (1st group) Zero (2d group)
FACTORS PARTICULAR TO EDUCATION	
LEVEL OF TEACHING (pp. 72-73)	
Lee/NEA (1960)	
Akron, Ohio (1955-56)	Zero
Minneapolis, Minn. (1958-59)	{ Junior High > Senior High > Elementary (personal illness) Elementary > Junior High > Senior High (personal leave, total)
Wichita, Kan. (1959-60)	Elementary > Secondary
Houston, Tex. (1959-60)	Elementary > Secondary
Stallings/So. California (1959)	Elementary > Secondary
Philadelphia-So. Penn S.S.C. (1970)	Elementary > Junior High > Senior High
Dade Co., Fla. (1970)	Elementary > Junior High > Senior High
Bundren (1974)	{ Elementary > Secondary Zero (grade level assignment)
Coller (1975)	Elementary > Secondary
Marlin (1976)	Elementary > Secondary
Academy for Educational Development (1977)	Elementary > Secondary
Pa. School Boards Assn. (1978)	Zero

TABLE 16 *(Continued)*

Study	Relationship
Capitan & Morris (1978)	Elementary > Secondary
Redmond (1978)	Zero
Sylwester (1979)	Elementary > Secondary (male, female, total)
GRADE ORGANIZATION (pp. 73-74)	
Philadelphia-So. Penn S.S.C. (1970)	6-3-3 > 6-6
TYPE OF STUDENT TAUGHT (p. 74)	
Bundren (1974)	Zero (student academic ability level)
Marlin (1976)	Teachers of disadvantaged > teachers of regular students
Foster (1977)	Teachers of black/Hispanic students > teachers of other students
TYPE OF SCHOOL (pp. 74-75)	
New York State O.E.P.R. (1974)	Title I schools > non-Title I schools
Douglas (1976)	See text
OTHER ORGANIZATIONAL FACTORS	
Additional Workload (p. 75)	
Slick (1974)	Negative
Douglas (1976)	See text
Job Performance (p. 76)	
New York State O.E.P.R. (1974)	Zero
Staw and Oldham (1978)	See text
Motivating Potential (p. 75)	
Johns (1978)	{ Negative (frequency) Zero (time lost)
Number of Different Job Titles in a Company (p. 75)	
Indik (1965)	Positive

(Continued)

TABLE 16 *(Continued)*

Study	Relationship
Physical Work Environment (p. 75)	
Shepherd & Walker (1957)	
Heavy Physical Work	Positive
Dust, Heat, Fumes	Zero
Poulton (1972)	Positive
Role Conflict, Role Ambiguity, & Role Stress (p. 75)	
Redick (1972)	Zero
Douglas (1976)	See text
Work and Nonwork Experiences (p. 75)	
Rousseau (1978)	Nonwork > work

The Relationship Between Employee Absenteeism and Time-Place Factors

Factors involving time (day of the week and month of the year) and place (geographic region, place of residence, and travel to work) have been examined for possible relationships to employee absenteeism. Studies that have been conducted in these areas are summarized in this section.

DAY OF THE WEEK

The general consensus regarding absenteeism and day of the week is that the highest rates of absence occur on Monday and Friday, the days preceding and following the weekend. However, other days of the week also may account for abnormally high absence, such as days before and after a holiday or vacation. It also has been suggested that high Tuesday absence may result from watching too much Monday night football on television. On the other hand, some believe that paydays traditionally are days of good attendance. In the only industry study located in a search of the literature, Raouf (1973) confirmed the widely held belief that Mondays and Fridays produce the highest absence rates in a study of workers in Windsor, Ontario. [347]

The Indianapolis, Indiana, public schools found that more absences in 1955-56 occurred on Monday than on any other day of the week, with an average of 65.50 teachers absent per day, followed by Friday (62.21 absences per day), Wednesday (58.78 absences per day), Tuesday (58.05 absences per day), and Thursday (57.36 absences per day). [37:10] Research in the Akron, Ohio, public schools indicated that, while absences were fairly uniform across all five days, mixed findings were noted from 1955-56 to 1956-57 in the average number of substitute teachers employed:

	1955-56		1956-57	
	Percent	Rank	Percent	Rank
Monday	19.7%	3	19.1%	5
Tuesday	20.6	1	20.2	3
Wednesday	19.5	5	20.6	2
Thursday	19.6	4	19.3	4
Friday	20.6	1	20.8	1

[37:17]

1 = highest rate
5 = lowest rate

In the Phoenix, Arizona, Union High Schools and College System, the number of days of teacher absence in 1956-57 was highest for Tuesday and Wednesday, with Friday having the lowest. [37:2] For school year 1959-60, data from Houston, Texas, found that most elementary school teachers were absent on Monday or Friday (or the last day of the week), except when these were paydays. [37:19]

In examining teacher absenteeism for New York City teachers for school year 1971-72, the Office of Education Performance Review of the State of New York concluded that: "The most striking variation in teacher absence rates is among days of the week." [80:12] As shown in Figure 4, teacher discretionary absence rates were, on the average, 21 percent higher for Mondays and Fridays than for the other three days. Monday had the highest rate of discretionary absence (5.2 percent) and Thursday, the lowest (4.0 percent).

Bundren (1974) found the situational factor of day of the week to be a nonsignificant variable affecting the absenteeism of teachers in Clark County (Las Vegas), Nevada. However, a consistent pattern of high absence was found on days preceding and following weekends. [8] Marlin (1976) concluded in his analysis of absenteeism and use of sick leave for teachers in a semi-rural school system that the mean absence rate for Friday was higher than for the other days of the week. [43] The Pennsylvania School Boards Association made the same conclusion in its study of teacher absences in Pennsylvania in school year 1977-78. Friday was ranked first (highest) with a rate of teacher absence of 5.547 percent; Monday was second, with a rate of 5.109 percent; Thursday was third, with a rate of 4.564 percent; Wednesday was fourth, with a rate of 4.408 percent; and Tuesday was ranked fifth (lowest), with an absence rate of 4.386 percent. [78:22] Capitan and Morris (1978) reported that 54 percent of school systems that computed absence on a daily basis and that responsed to a nationwide random sample indicated that absence frequency was highest on Mondays and Fridays. [9]

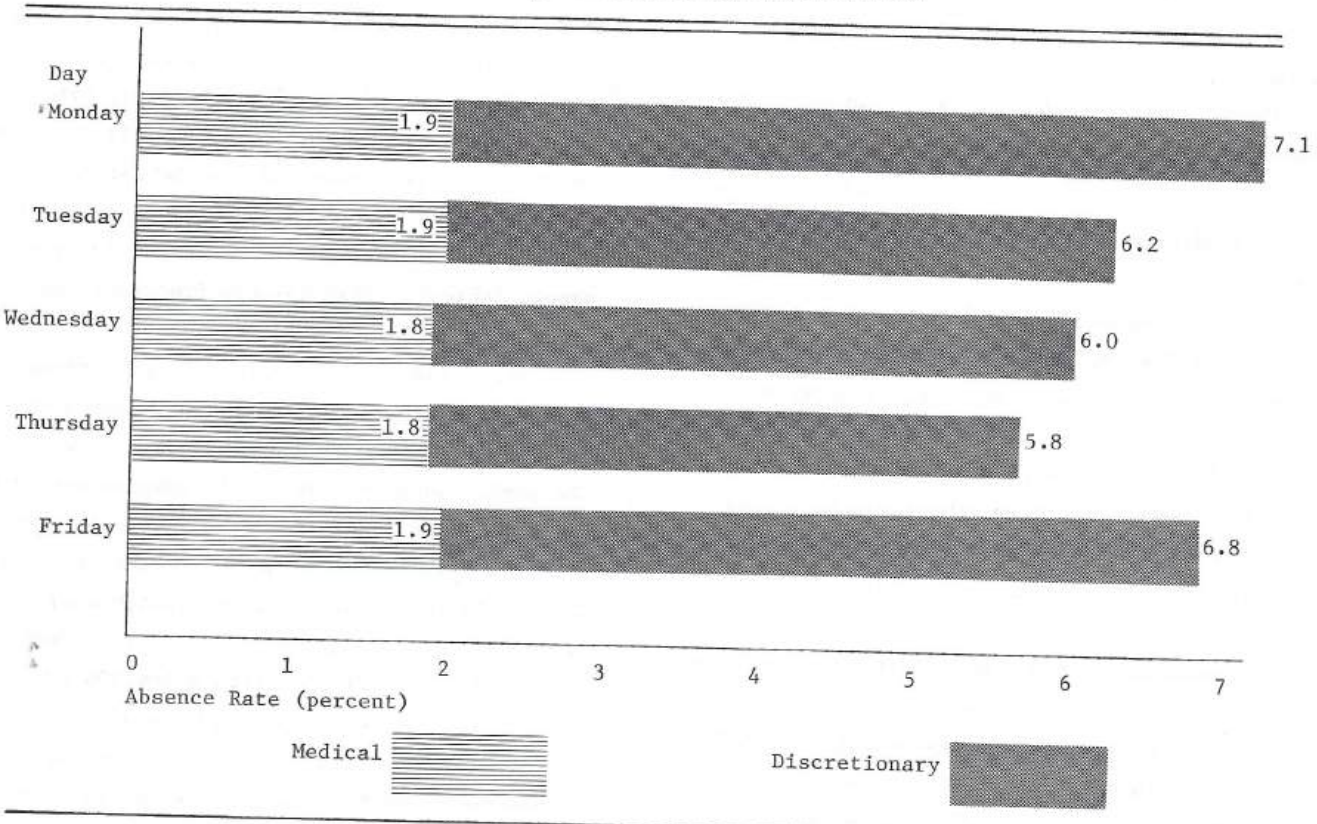
The Academy for Educational Development (1977) provided extensive data on teacher absence in Illinois in school year 1975-76 by the day of the week. Seventeen of the 24 comparisons made indicated that Monday and Friday were the days with the highest percentage of teacher absence. Categories that deviated from a pattern of highest absence on Monday and Friday were: regions 2, 3, and 6; school districts below 300 ADA, 1,200-2,499 ADA, and 2,500-4,999 ADA; and districts with contracts with their teachers associations but with no affiliation to either IEA-NEA or IFT-AFT. (See Table 17 on page 91.)

MONTH OF THE YEAR

As with day of the week, the month of year also influences the amount of absence an employee takes from the job. Particularly high rates of absence have been noted in the winter months of December, January, and February, and also in the spring months of March, April, and May.

From an analysis of monthly absence data from 1976 to 1978 by the Bureau of National Affairs, taken from 12 BNA quarerly reports on job absence, the months with the highest median absence rate for all responding companies were January, February, March, and October. Months with the lowest median absence rates were June, July, and November.

FIGURE 4.--Rate of Teacher Absence by Day of the Week for All New York City Schools, School Year 1971-72



SOURCE: *Teacher Absenteeism and the Cost-Effectiveness of Substitute Teachers.* Albany, New York: State of New York, Office of Education Performance Review, January 1974, p. 13.

Stallings (1959) found that in 16 Southern California school systems, March was the month with the highest number of teacher absences due to illness in school year 1955-56. The greatest average length of each absence was in June, 2.4 days. [71; 37:4] In the Indianapolis, Indiana, public schools, the month with the highest average of teachers absent per day in 1955-56 was February, with 95.7 teachers absent per day, followed by:

January	71.3 teachers absent per day
March	68.4
November	62.0
May	59.5
April	55.8
October	52.2
December	47.0
June	41.1
September	30.6

[37:10]

In 1955-56, paid absences for personal illness for teachers in the St. Louis, Missouri, public schools were highest in May (13.3 percent), February (13.2 percent), and December (12.3 percent). Months with average absence were January (11.7 percent), March (11.1 percent), and October (10.5 percent). Months with the least amount of absence were April (8.7 percent), June (7.7 percent), November (6.4 percent), and September (5.1 percent). [37:14] Teachers in Phoenix, Arizona, in 1956-57 were absent most often in February, May, March, and January, and least often in September. [37:2] For school year 1959-60, total teacher absences in Hillsborough County (Tampa), Florida, numbered 772 in April, nearly twice the

TABLE 17.--Rank Order of Percentage of Teacher Absences in Illinois, by Day of the Week, 1975-76

District Categories	Districts Reporting Number	Districts Reporting Percent	Rank (From Highest Percentage to Lowest)				
1. Total Sample	252	86%	Fri.	Mon.	Wed.	Thu.	Tue.
2. Sample - Less Chicago	251	86	Fri.	Mon.	Thu.	Tue. &	Wed.
3. Chicago	1	100	Mon.	Fri.	Wed.	Tue.	Thu.
Type							
4. Elementary Districts	103	82	Fri.	Mon.	Thu.	Tue.	Wed.
5. Secondary Districts	35	92	Fri.	Mon.	Tue.	Wed. &	Thu.
6. Unit Districts	114	89	Mon.	Fri.	Wed.	Thu.	Tue.
Geographic Region**							
7. Region #1	90	89	Mon.	Fri.	Wed.	Thu.	Tue.
8. Region #2	35	80	*Fri.	Wed.	Mon.	Tue.	Thu.
9. Region #3	31	79	*Fri.	Thu.	Mon.	Wed.	Tue.
10. Region #4	40	98	Fri.	Mon.	Thu.	Wed.	Tue.
11. Region #5	26	90	Fri.	Mon.	Tue.	Thu.	Wed.
12. Region #6	30	80	*Fri.	Wed.	Mon.	Tue.	Thu.
Size by ADA							
13. Below 300 ADA	41	76	*Fri.	Thu.	Mon.	Tue. &	Wed.
14. 300 - 599 ADA	49	89	Fri.	Mon.	Thu.	Tue.	Wed.
15. 600 - 1,199 ADA	61	87	Fri.	Mon.	Tue.	Wed.	Thu.
16. 1,200 - 2,499 ADA	48	86	*Fri.	Wed.	Thu.	Mon.	Tue.
17. 2,500 - 4,999 ADA	23	92	*Fri.	Thu.	Mon.	Tue.	Wed.
18. 5,000 - 9,999 ADA	15	88	Fri.	Mon.	Wed.	Tue.	Thu.
19. 10,000 - 24,999 ADA	13	100	Fri.	Mon.	Tues. &	Thu.	Wed.
20. 25,000 & above ADA	2	100	Mon.	Fri.	Wed.	Tue.	Thu.
Union Affiliation							
21. Districts with Contracts IEA-NEA	92	88	Fri.	Mon. &	Thu.	Wed.	Tue.
22. Districts with Contracts IFT-AFT	17	94	Mon.	Fri.	Wed.	Thu.	Tue.
23. Districts with Contracts No Affiliation	4	100	*Fri.	Tue.	Thu.	Wed.	Mon.
24. Districts without Contracts	139	84	Fri.	Mon. &	Wed.	Tue.	Thu.

Includes weeks of February 28-March 4 and March 7-11.

*Rankings that deviated from Mon.-Fri. highest absence pattern.

**For geographic region classifications, see Table 18 on page 95.

SOURCE: *Report on Teacher Absenteeism in the Public Schools of Illinois to State Board of Education, Illinois Office of Education.* Indianapolis, Indiana: The Academy for Educational Development, Public Policy Division, July 1977, p. 15.

number taken in the next highest month, March (412 days). May (282.5 days) and October (279.5 days) also were high absence months. Lowest absence months were September (46.5 days) and August (93 days). [37:7] Data from Houston, Texas, for school year 1959-60 indicated that secondary school teachers were absent the most in February and early March. [37:19]

A joint business-educator effort called the Attendance Improvement Plan was initiated in Newark, New Jersey, to reduce teacher absenteeism in the early 1970s. Data on the first year of the AIP (1972-73) reported that "high incidental absence occurs in two periods of the year--January and April." [54:131] However, Bundren (1974) found no significant relationship between time of the year and teacher absenteeism in Clark County (Las Vegas), Nevada. [8] In Marlin's 1976 study, the mean absence rate for May was higher than for all other months of employment for 10-month teachers in a semi-rural school system. [43] An analysis of staff absence during the first half of school year 1977-78 in the Dade County (Miami), Florida, public schools indicated the following among five employee categories:

1. Classroom Teachers:
(Includes only teachers in direct instruction)

   a. The average length of sick leave for ten month classroom teachers was higher during non-holiday periods (1.64 days/pay period) than during holiday periods - Thanksgiving (1.60 days) and Christmas/New Years (1.50 days).

   b. The percent of ten month classroom teachers who took personal leave was higher during non-holiday periods (6.47%), than during holiday periods--Thanksgiving (4.99%) and Christmas (2.41%). However, the average length of leave was relatively stable (1.16, 1.30, and 1.20, respectively).

2. Administrative Staff:
(Officials, managers, consultants, supervisors, coordinators, and principals)

   a. The percentage of administrative staff who took sick leave did not vary significantly between holiday and non-holiday periods.

   b. The percentage of administrative staff taking personal leave was stable during non-holiday periods (5.61%) and Thanksgiving (5.68%), but tripled during the Christmas/New Years period (19.62%), probably attributable to a shutdown of facilities during that period to conserve energy.

3. School-Level Professional Support Staff:
(Assistant principals, counselors, and media specialists)

   a. Ten month school-level professional support staff took sick leave at approximately the same rate during non-holiday periods (20.62%) and Thanksgiving (21.18%) but at a lower percentage (11.50%) during Christmas.

   b. Ten month school-level professional support staff used fewer personal leave days during the Christmas/New Years period than during non-holiday periods and the period including Thanksgiving.

4. Non-School-Level Professional Support Staff:
(10-month: visiting teachers, psychologists, educational specialists;
12-month: auditors, buyers, analysts, specialists, accountants, programmers, etc.)

   a. The percentage of ten month non-school level professional support staff who took sick leave was higher during non-holiday periods (20.73%) than during holiday periods (Thanksgiving 17.84%, Christmas/New Years 11.56%). The length of leave taken was 1.60 days for both non-holiday periods and the period including Christmas/New Years, but increased to 1.65 days during the period including Thanksgiving holidays

   b. The percentage of ten month non-school-level professional support staff who took personal leave was higher during non-holiday periods (7.17%) than during holiday periods (Thanksgiving 6.03%, Christmas/New Years 3.22%).

   c. The percentage of twelve month non-school-level professional support staff who took sick leave was higher during the Thanksgiving period (19.88%) than during non-holiday periods (16.26) or Christmas/New Years 14.75%).

d. Twelve month non-school-level professional support employees who took personal leave during the Christmas/New Years period (18.60%) nearly tripled those in the non-holiday period (6.42%) and was over four times the Thanksgiving percentage (4.82%). This was probably attributable to a shutdown of facilities during this period to conserve energy.

5. Support Staff:
(Technicians, clerical, service workers, crafts workers, laborers)

a. The percentage of support staff who took sick leave during the Christmas/New Years period (10.91%) was approximately half of that during other periods (non-holiday periods 20.89%, Thanksgiving 21.94%).

b. The percentage of support staff who took personal leave during the Christmas/New Years period (13.73%) tripled that of the non-holiday periods (4.56%) and the period including Thanksgiving (4.47%); probably attributable to a shutdown of facilities during this period to conserve energy. [1:3-6]

Unlike many other studies, a study on teacher absence in Pennsylvania for school year 1977-78 found that the mean work absence rate increased steadily in each month, from September to May. These data are shown graphically in Figure 5.

Two additional studies were located that drew a correlation between employee absenteeism and month of the year. Weaver (1970) found that in his study of municipal employees in San Antonio, Texas, the highest mean number of minutes of sick leave taken from January 1967 to November 1969 were in the cold-weather months of January, December, February, and November. The least amount of sick leave was taken during July, June, April, and August. [418:676] Raouf (1973) reported similar findings among workers in Windsor, Ontario. December and January were months in which the highest absence rates were recorded; July and August had the lowest rates. [347]

GEOGRAPHIC REGION

Miner (1977) reported recent absence data by geographic region collected by the Bureau of National Affairs. Using data from the February 24, 1977 BNA quarterly report, she reported that regional differences occurred in average absence rates, based on the four major U.S. Census regions, for calendar year 1976. Higher absence rates were found in the Northeast and North Central areas (approximately 3.0 percent) than in the South or West (slightly more than 2.5 percent). [303:29-30] By 1978 these regional differences had changed somewhat, with the North Central and South having the highest absence rates (3.1 percent and 3.0 percent, respectively), followed by the Northeast and West (2.7 percent each). [113:2]

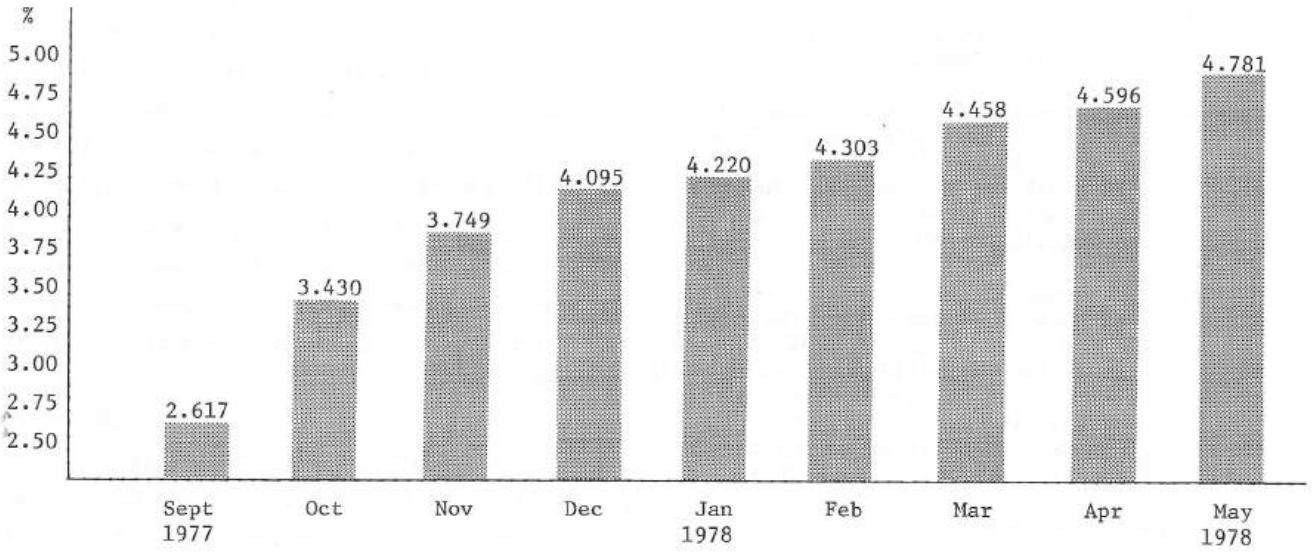
According to data from the *Health Interview Survey*, the National Center for Health Statistics found that employees in the South had the highest average number of days lost from work in July 1965-June 1966, 1968, and 1971. However, in 1975, workers in the West and Northeast lost more work days than those in the South:

	Work-Loss Days			
Census Regions	July 1965-June 1966	1968	1971	1975
Northeast	5.1	5.5	5.2	5.3
North Central	5.7	5.1	4.8	4.7
South	6.4	5.9	5.5	5.1
West	6.0	5.2	4.8	6.1

[164:16]

From the period July 1965-June 1966, the average number of work-loss days increased 1.7 percent in the West and 3.9 percent in the Northeast, but decreased 17.5 percent in the North Central region and 20.3 percent in the South. For more detailed information on work-loss days in 1975, classified by sex, age, and geographic region, see Table F on page 150.

FIGURE 5.--Months of the School Term: Mean Work Absence Rate for All Districts Surveyed in Pennsylvania, 1977-78



SOURCE: *Teacher Absenteeism: Professional Staff Absence Study.* Harrisburg, Pennsylvania: Pennsylvania School Boards Association, October 1978, p. 24. Used with permission.

In a study of absence records among Australian workers, Ferguson (1973) found that the neurotic absence rate in each occupation studied was greater in Sydney than in the other state capitals. [175]

A study by the Academy for Educational Development (1977) conducted for the State of Illinois also provided absence data by geographic region. The state was divided into six regions. (Teacher absence by day of the week for each of these regions is presented in Table 17 on page 91.) As presented in Table 18, median teacher absence rates increased substantially in each of these six regions from 1971-72 to 1975-76.

PLACE OF RESIDENCE

Employees' place of residence appears to have a substantial impact on work absence rates. In an early study, Jackson (1944) reported that racial groups that were more settled in a community were absent less often than those that were newly settled. [251] Results of the *Health Interview Survey* of the National Center for Health Statistics over a recent 10-year period indicated that employees living in a Standard Metropolitan Statistical Area (SMSA) lost more work days, on the average, than workers living outside an SMSA.

TABLE 18.--Teacher Absence Rates in Illinois, by Geographic Region, 1971-72 to 1975-76, and Percent Change in Absence Rates, 1971-72 to 1975-76

Region	Median Percentage			Percent Change
	1971-72	1973-74	1975-76	1971-72 to 1975-76
1 (Northeast)	4.0%	4.1%	4.3%	+ 7.5%
2 (Northwest)	2.7	2.9	3.0	+11.1
3 (West-Central)	2.6	3.0	2.8	+ 7.8
4 (East-Central)	2.9	3.2	3.4	+17.2
5 (Southwest)	2.5	2.5	2.8	+12.0
6 (Southeast)	2.7	3.3	3.3	+22.2
Statewide	3.1	3.5	3.6	+16.1

SOURCE: *Report on Teacher Absenteeism in the Public Schools of Illinois to State Board of Education, Illinois Office of Education.* Indianapolis, Indiana: The Academy for Educational Development, Public Policy Division, July 1977, p. 9.

This relationship held for three of the four years the survey was conducted:

	Work-Loss Days			
Place of Residence	July 1965-June 1966	1968	1971	1975
SMSA	5.5	5.6	5.3	5.3
Outside SMSA:				
Nonfarm	6.2	5.2	4.9	5.0
Farm	7.3	4.8	4.5	3.6

[164:16]

More detailed data on work-loss days in 1975, classified according to place of residence, are included in Table F on page 150.

Two studies related absenteeism to school system residence. Data from Newark, New Jersey, for school year 1971-72 showed that teachers residing in Newark had an absence rate due to illness of 6.3 percent, below the median rate of 6.8 percent. Teachers living in New Jersey, but not in Newark, had an absence rate of 7.1 percent; teachers living elsewhere had a rate of 9.5 percent. [54:104] Coller (1975) reported that the teachers studied in Livonia, Michigan, who lived in the school system where they taught tended to have lower absence records than teachers not living within the boundaries of the school system. [12]

TRAVEL DISTANCE TO WORK

Research evidence indicates that the distance employees travel to their jobs relates consistently to absence from work. Stockford (1944) [399] and Jackson (1944) [251] found positive correlations between travel distance to work and the absence rate of industrial workers studied. Knox (1961) [268], Isambert-Jamati (1962) (for female industrial workers) [247], and Martin (1971) [296] reported similar findings. Smith (1977) found a positive relationship between absence and weather conditions that hinder traffic. [387]

Sharples (1973) compared various characteristics among high and low absence classified civil service workers by sex. He found that high absence females lived farther from their jobs than did low absence females; the same result was true for high absence males vs. low absence males. [375] In a study of teachers in 57 California and Wisconsin elementary schools, Bridges and Hallinan (1978) concluded that travel time to work was positively associated with absenteeism. [7] Yet Isambert-Jamati (1962) (for male industrial workers) [247], Hill (1967) [232], and

Nicholson and Goodge (1976) [317] reported no relationship between absence and travel distance to work.

Summary of studies relating to employee absenteeism and time-place factors.--Shown in Table 19 is a profile of the studies discussed in this part of the Research Brief. Each of the time-place factors included here have been found to relate consistently to employee absenteeism. High rates of absence have been reported for Mondays and Fridays, winter and spring months, the South, residence outside the school system or inside a Standard Metropolitan Statistical Area, and increased travel distance to work.

TABLE 19.--Summary of Studies on the Relationship Between Employee Absenteeism and Time-Place Factors

Study	Relationship (Highest)
DAY OF THE WEEK	
I. Education (pp. 88-91)	
Lee/NEA (1960)	
Indianapolis, Ind. (1955-56)	Monday, Friday
Akron, Ohio	Friday, Tuesday (1955-56) Friday, Wednesday (1956-57)
Phoenix, Ariz. (1956-57)	Tuesday, Wednesday
Houston, Tex. (1959-60)	Monday, Friday
New York State O.E.P.R. (1974)	Monday, Friday (discretionary) No difference (medical)
Bundren (1974)	Monday, Friday
Marlin (1976)	Friday
Academy for Educational Development (1977)	Monday, Friday (in 17 of 24 comparisons)
Pa. School Boards Assn. (1978)	Friday, Monday
Capitan & Morris (1978)	Monday, Friday
II. Non-Education (p. 88)	
Raouf (1973)	Monday & Friday
MONTH OF THE YEAR	
I. Education (pp. 90, 92-94)	
Lee/NEA (1960)	
Indianapolis, Ind. (1955-56)	Feb., Jan., Mar., Nov.
St. Louis, Mo. (1955-56)	May, Feb., Dec.
Phoenix, Ariz. (1956-57)	Feb., May, Mar., Jan.
Stallings/So. California (1959)	Mar., June
Hillsborough Co., Fla. (1959-60)	Apr., Mar., May, Oct.

TABLE 19 *(Continued)*

Study	Relationship (Highest)
Houston, Tex. (1959-60)	Feb., Mar.
Greater Newark C. of C. (1974)	Jan., Apr.
Bundren (1974)	No difference
Marlin (1976)	May
Pa. School Boards Assn. (1978)	May, Apr., Mar., Feb.
Dade Co., Fla. (1978)	See text
II. Non-Education (pp. 89, 93)	
Weaver (1970)	Jan., Dec., Feb., Nov.
Raouf (1973)	Dec., Jan.
BNA (1976-78)	Jan., Feb., Mar., Oct.
GEOGRAPHIC REGION	
I. Education (pp. 94-95)	
Academy for Educational Development (1977)	N.E. Illinois > rest of the state
II. Non-Education (pp. 93-94)	
Ferguson (1973)	Sydney > state capitals
Miner/BNA (1977)	Northeast, North Central
NCHS (1978)	South, West (July 1965-June 1966) South, Northeast (1968, 1971) West, Northeast (1975)
BNA (1979)	North Central, South
PLACE OF RESIDENCE	
I. Education (p. 95)	
Greater Newark C. of C. (1974)	outside school system > within school system
Coller (1975)	outside school system > within school system
II. Non-Education (pp. 94-95)	
Jackson (1944)	less settled > more settled
NCHS (1978)	outside SMSA > SMSA (July 1965-June 1966) SMSA > outside SMSA (1968, 1971, 1975)

(Continued)

TABLE 19 *(Continued)*

Study	Relationship (Highest)
TRAVEL DISTANCE TO WORK	
I. Education (p. 95)	
Bridges & Hallinan (1978)	Positive
II. Non-Education (pp. 95-96)	
Stockford (1944)	Positive
Jackson (1944)	Positive
Knox (1961)	Positive
Isambert-Jamati (1962)	Positive (females) Zero (males)
Hill (1967)	Zero
Martin (1971)	Positive
Sharples (1973)	Positive (males, females)
Nicholson & Goodge (1976)	Zero
Smith (1977)	Positive (weather conditions)

The Relationship Between Employee Absenteeism and Turnover

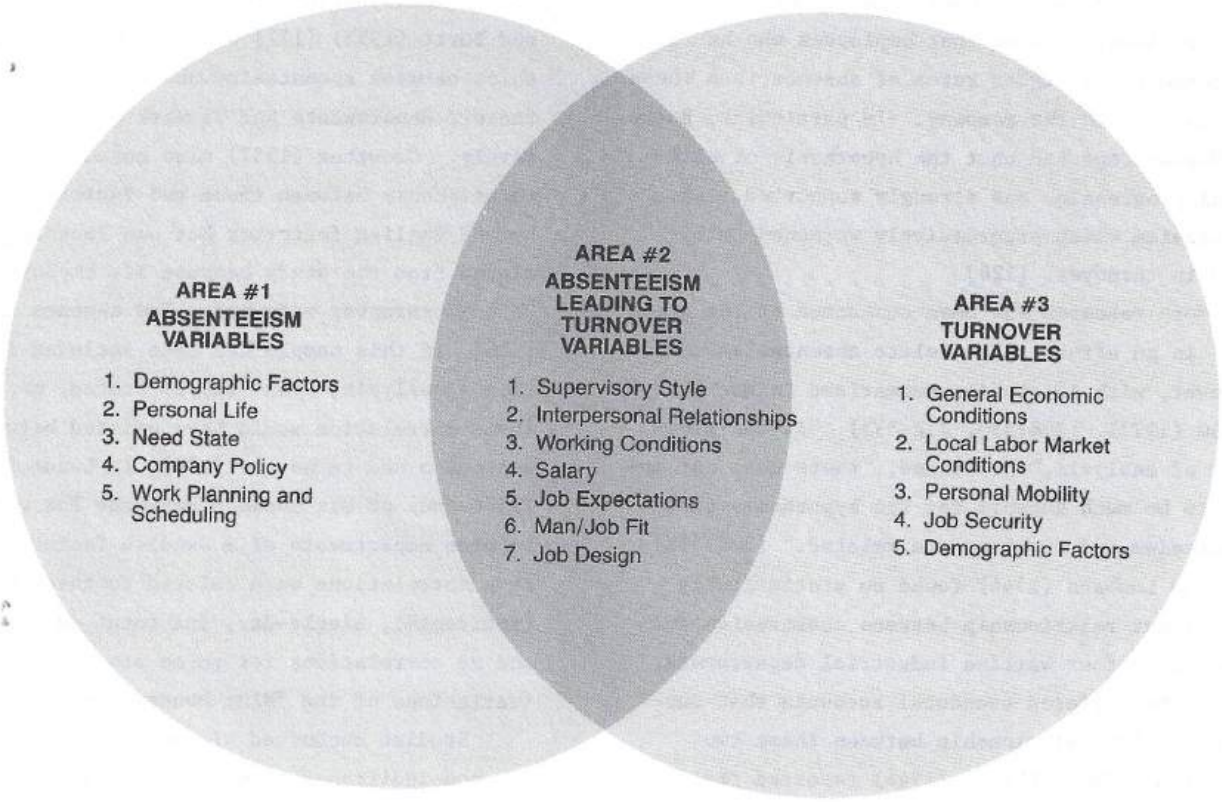
Researchers who have conducted studies on the relationship between employee absenteeism and turnover have followed one of three assumptions [308:331]: (1) that a continuum of withdrawal behavior exists and it progresses from absenteeism to turnover, with absenteeism an early sign of turnover [227]; (2) that absenteeism is one kind of withdrawal behavior that is an alternative to turnover [231; 357]; and (3) that both of these withdrawal behaviors, whether related or not, have the same causes. [295]

Recent research by Beehr and Gupta (1978), whose sample included 651 employees from all levels of five organizations, has concluded that four forms of employee withdrawal (psychological withdrawal, lateness, absenteeism, and turnover) were positively related to one another, with low to moderate strength. "Not only does an organization with employee problems need to concern itself with the employees' lack of involvement," they advised, "but it has to contend with the problems of high absenteeism, turnover, and lateness at the same time." [106:77]

As shown in Figure 6, Hawk (1976) illustrated the interrelationship among the variables associated with absenteeism, turnover, and absenteeism leading to turnover. The major variables in this diagram are related to five general areas: the job itself, the work environment, individual characteristics, special or unique situations, and conditions that are both outside the job and outside the individual. [220:294]

Muchinsky (1977) reviewed a number of studies conducted in business and industry that have examined the relationship between absenteeism and turnover for both individuals and groups. [308:329-333] The discussion in this section of the Research Brief is drawn mainly from his article.

FIGURE 6.--Absenteeism/Turnover Typology



SOURCE: Donald L. Hawk. "Absenteeism and Turnover," *Personnel Journal*, 55 (June 1976), p. 294. Copyright June 1976 by *Personnel Journal*. Reprinted with permission.

Seven studies have investigated the effect of absenteeism on the turnover of *individual* workers, with the results showing "clear evidence" that these two variables are related at the individual level of analysis. [308:330-332] Van Zelst and Kerr (1953), who studied manufacturing workers [412], and Hill and Trist (1955), who studied industrial workers [231], both reported that a positive relationship existed between absenteeism and turnover. The results of the Van Zelst and Kerr study should be interpreted with some caution, Muchinsky noted, because self-report measures were used for both variables. White (1960) found mixed results in a study of absenteeism and turnover among factory workers, depending on how absenteeism was defined. No correlation was discovered between leavers and stayers when total days absent were measured, but a positive relationship was noted for these two groups when the number of times absent was measured. [423] A significant positive relationship between turnover and absenteeism among psychiatric aides was reported by Melbin in 1961. [301] In Ronan's 1963 analysis of a sample of industrial apprentices, workers who left the program in one company were absent significantly more than a sample of apprentices who stayed in the program. [362] Revans (1964) noted that the absence rate

for student nurses who had left a hospital was higher than for those nurses who remained. [353] Burke and Wilcox (1972) examined the absenteeism of telephone operators over a number of three-month periods, finding that employees who had left the company had higher rates of absence than those who stayed with the company. In particular, Burke and Wilcox reported that the hypothesis of withdrawal progression was strongly supported, i.e., absenteeism which progressively worsened culminated in turnover. [126]

More research has been conducted at the *group* level in an effort to correlate absenteeism and turnover, with 15 studies summarized in Muchinsky's review (1977). [308:330, 332-333] "At the group level of analysis," he stated, "there does not appear to be much support for the hypothesis that absenteeism and turnover are related." [308:333] Mayo and Lombard (1944) found no statistically significant relationship between absenteeism and turnover in four wartime industrial departments, though they offered anecdotal accounts that supported a high relationship between these two variables. [300] Clarke (1946) reported that in multiple sections of one plant a positive relationship between absenteeism and turnover existed, but no significance tests were applied to the data. [145] No correlation existed between these two variables in studies by Kerr (1947) for a sample of 23 electronics departments [261] and Giese and Ruter (1949) for a sample of 25 mail order house departments. [196]

Kerr, Koppelmeier, and Sullivan (1951) reported that, when they used six absence measures in 29 manufacturing departments, turnover and absenteeism were unrelated to four measures and were negatively related to two measures (unexcused absence rate and vacation absence rate). The relationship of vacation absence rate to turnover can be explained due to the fact that employees must accrue vacation leave by attending work for a considerable period of time. [262; 308:332] Two studies conducted in the 1950s found no correlation between absenteeism and turnover: those of the Acton Society Trust (1953), that used a sample of 91 factories [383] and Argyle, Gardner, and Cioffi (1958), who used a sample of 98 work groups. [99]

Sawatsky (1951) [366] and Fleishman, Harris, and Burtt (1955) [177] reported positive relationships between absenteeism and turnover for 29 factory departments and 75 work groups, respectively. Crowther (1957) also noted a positive relationship between these two factors in a number of English factories but one factory was excluded from the study because its employees had "a high turnover rate and a low absence rate." [156] If this sample had been included in Crowther's analysis, Lyons (1972) stated, no significant correlation would have existed between absenteeism and turnover. [288] In Lundquist's 1958 study of six absence measures for workers in nine departments of a Swedish factory, positive correlations were related to three measures (incidental, single-day, and total days absence) and no correlations for three other measures (variations of the "Blue-Monday" index). [287]

Studies conducted since the 1950s confirm the nonsignificant findings between turnover and absenteeism of groups summarized in the above studies. Georgopoulos, Indik, and Seashore (1960) found no relationship between turnover and absenteeism in a sample of 32 delivery company stations [194], nor did Yusuk (1961) for a group of 19 manufacturing departments [430], nor Georgopoulos and Mann (1962) for eight hospital nursing personnel departments [193]. Burke and Wilcox (1972) found that turnover was unrelated to the total absence of 14 telephone operator offices, but was positively related to incidental absence. [126]

When employees decide to quit their jobs, their absence rates increase, the research shows. Stallings (1959) found that teachers who were not re-employed used their sick leave much more liberally during their last year of employment than re-employed teachers. In his study of teachers in 16 Southern California school systems, nonretained teachers averaged 6.3 days of absence per year, compared to 3.9 days for retained teachers.

[71:60-63] Nicholson, Brown, and Chadwick-Jones (1977) [319:321] identified three studies in this area: Martin (1971), who reported "leavers" tended to have higher absence rates than matched groups of "stayers" [296]; Burke and Wilcox (1972), who found that individual absence tended to increase just prior to quitting [126]; and Taylor (1967), who related that group turnover and absence tended to be positively related over time. [402]

Although it is beyond the scope of this Research Brief to review the numerous studies that have examined the relationship between turnover and various factors, it may be useful to discuss briefly the findings from a comprehensive study by Porter and Steers (1973). As shown in Table 20, a summary of their work, Porter and Steers reviewed the effect of five major types of variables on employee turnover: job satisfaction, organization-wide factors, immediate work environment factors, job content factors, and personal factors. The variables having a consistent relationship to turnover were: job satisfaction, satisfaction with pay and promotions, satisfaction with supervisory relations, satisfactory peer group interactions, satisfaction with job content, job autonomy and responsibility, role clarity, age, tenure, and congruence of job with occupational interests.

Factors having consistent *positive* associations with turnover included: work unit size, task repetitiveness, "extreme" personality characteristics, and family responsibilities. Variables with an *inconclusive* relationship to turnover or factors which were *studied too infrequently* to allow a definitive statement about their association to turnover were: organization size, receipt of recognition and feedback, supervisory experience, and family size.

Porter and Steers concluded that absenteeism and turnover behaviors can be distinguished according to three important dimensions:

1. Negative consequences for the individual that are associated with absenteeism normally are much less than those associated with turnover.
2. Absenteeism is more likely to be a spontaneous and easy decision for an employee to reach, while it can be assumed that the act of termination can be considered more carefully over a period of time.
3. At times, absenteeism may represent a substitute behavior for turnover, especially where alternative employment is unavailable. [341:173]

Of the 22 tested relationships in the studies reviewed by Porter and Steers where data on both absenteeism and turnover were available for the same samples, only six reported significant relationships in the same direction between both withdrawal types and the factors studied. The rest found that certain factors were significantly related to one form of withdrawal but not another. These findings suggest, Porter and Steers explained, that some important differences may exist between the causes of absenteeism and turnover. [341:173] Likewise, Lyons (1972) found little empirical support for the assumption that common correlates exist for both absenteeism and turnover. [288]

SUMMARY OF STUDIES RELATING TO EMPLOYEE ABSENTEEISM AND TURNOVER

Research clearly indicates that employee absenteeism is related *consistently* to the increased turnover of individuals. However, there appears to be an *inconsistent* relationship between absenteeism and the turnover of groups. See Table 21 for a profile of studies on the absenteeism-turnover association.

TABLE 20.--Number and Percent of Correlations Between Turnover and Organizational, Work, and Personal Factors Found in Studies Reviewed by Porter and Steers

Independent Variable	No. of Studies Reviewed	Number and Percent of Correlations		
		Negative	Zero	Positive
Job Satisfaction	15	15 (94%)	1 (6%)	...
Organization-Wide Factors				
Satisfaction with pay and promotions	10	9 (82%)	2 (18%)	...
Organization size	1	...	1 (100%)	...
Immediate Work Environment Factors				
Satisfaction with supervisory relations	7	6[a] (86%)	1 (14%)	...
Receipt of recognition and feedback	2	2 (100%)	...	...
Supervisory experience	1	1 (100%)	...	...
Work unit size	4	...	1 (25%)	3 (75%)
Satisfactory peer group interactions	6	4 (67%)	2 (33%)	...
Job Content Factors				
Satisfaction with job content	9	8 (89%)	1 (11%)	...
Task repetitiveness	5	...	1 (25%)	4 (75%)
Job autonomy and responsibility	4	4 (100%)	...	...
Role clarity	4	4 (100%)	...	...
Personal Factors				
Age	9	9 (82%)	1 (9%)	1 (9%)
Tenure	4	4 (100%)	...	...
Congruence of job with occupational interests	3	3 (100%)	...	...
"Extreme" personality characteristics (e.g., aggression, anxiety, emotional stability)	5	...	...	5 (100%)
Family size	2	1 (50%)	...	1 (50%)
Family responsibilities	5	...	...	5 (100%)

[a] Two relationships were curvilinear.

SOURCE: Lyman W. Porter and Richard M. Steers. "Organizational, Work, and Personal Factors in Employee Turnover and Absenteeism," *Psychological Bulletin*, 80 (August 1973), pp. 154-168.

TABLE 21.--Summary of Studies on the Relationship Between Employee Absenteeism and Turnover

Study	Relationship
TURNOVER OF INDIVIDUALS	
I. Education (pp. 100-101)	
Stallings (1959)	Positive
II. Non-Education (pp. 99-100)	
van Zelst & Kerr (1953)	Positive
Hill & Trist (1955)	Positive
White (1960)	Zero (total) Positive (frequency)
Melbin (1961)	Positive
Ronan (1963)	Positive
Revans (1964)	Positive
Burke & Wilcox (1972)	Positive
Beehr & Gupta (1978)	Positive
TURNOVER OF GROUPS	
I. Education	
None	
II. Non-Education (p. 100)	
Mayo & Lombard (1944)	Zero
Clarke (1946)	Positive
Kerr (1947)	Zero
Giese & Ruter (1949)	Zero
Kerr, Koppelmeier, & Sullivan (1951)	Zero (4 measures) Negative (2 measures)
Sawatsky (1951)	Positive
Acton Society Trust (1953)	Zero
Fleishman, Harris, & Burtt (1955)	Positive
Crowther (1957)	Postive (see text)
Argyle, Gardner, & Cioffi (1958)	Zero
Lundquist (1958)	Positive (3 measures) Zero (3 measures)
Georgopoulos, Indik, & Seashore (1960)	Zero
Yusuk (1961)	Zero
Georgopoulos & Mann (1962)	Zero
Taylor (1967)	Positive
Martin (1971)	Positive
Burke & Wilcox (1972)	Zero (total) Positive (incidental)

COST OF EMPLOYEE ABSENTEEISM

While the exact cost of employee absenteeism is unknown, estimates have put the aggregate loss in wages and salaries to American workers as high as $20 billion a year. When industry adds $10 billion for sick pay and another $5 billion for fringe benefits, it is no surprise that absenteeism has been called "a monumental headache for U.S. industry." [359:1]

Recent data released by the U.S. Bureau of Labor Statistics has confirmed the high cost of absenteeism in America. BLS reported that about one percent of the total compensation paid by U.S. employers in 1976 was for paid sick leave. This amounted to six cents for every hour paid. Furthermore, BLS estimated that for 1978 the aggregate cost of paid sick leave was $7 billion, or $116 for every employee in the country. [401: 49, 53] A 1974 Prentice-Hall survey reported that the average cost of employee absence to the employer, industry-wide, was $146 per person. [222:20; 335:562] (Since these per-person cost figures were calculated by using different bases, trends cannot be computed from these data.)

Organizations that have an average employee absence rate of four percent actually carry one extra employee for every 25 to take care of average absence, Smardon (1974) noted. Costs to the organization for this extra employee, at $6.00 per hour plus fringe benefits, would be $16,000 a year. [384:13] *U.S. News and World Report* (1972) stated that, as the absence rate increases one percent in an organization of 1,000 employees, the resulting yearly cost is an estimated $150,000. [85] A computer analysis conducted at the University of Nebraska showed that a one percent increase in employee absenteeism could cut business profits by four percent. [359:1]

Mirvis and Lawler (1977) measured the financial impact of the attitudes of 160 tellers in a midwestern bank. Results from their study indicated that, from a 0.5 standard deviation increase in job satisfaction, expected cost-savings of $17,664 in absenteeism, turnover, and performance could be realized. Conversely, absences for nonmanagerial personnel were estimated to be approximately $66 per day per employee, including salary, fringe benefits, cost of replacement, and loss of profit. [304]

Even the cost of absence in Congress has been estimated. An unenforced 1856 law requires members of Congress to forfeit their salary for each day they are absent, excluding absences for personal or family illness. If this law were enforced strictly, said the Foundation for the Study of Presidential and Congressional Terms, Senate members could have incurred penalties of $277,601 and members of the House of Representatives, $1,402,253, for a total of almost $1.7 million for the first session of the Ninety-fifth Congress alone. Absences were defined as days on which members of Congress were not present for any vote. "Some or many of these absences were undoubtedly legitimate," the Foundation added, "and they would have lowered the total amount of salary that would have been docked."[279]

According to Sylwester (1979), the financial impact of change-related stress can have a decided impact on a school system's budget. As he found for a sample of Oregon educators (see page 40), those experiencing a major life crisis, as measured by the *Holmes-Rahe Social Readjustment Rating Scale*, were absent on the average two days more than educators who were not affected by life changes.

> The increase of teacher absences as Holmes-Rahe scores rise would translate into ten extra absences in a twenty teacher school during a school year. Multiply these two days by $125 (the average salary for teacher and substitute -- on the supposition that the class is generally in a holding state on such days), and $1250 of the school's operating budget* is moved from meeting the educational needs students have to the personal recupterative needs teachers have because of stressful changes that have occurred in their lives. Add to this out-of-budget cost the reduced effectiveness of educators who come to school on days when they should really stay home, the impact of many school-related stressors not specifically covered in the Holmes-Rahe Scale, the added effort required to work with those students who themselves are experiencing stress, and the real cost of the stress educators experience rises alarmingly as a hidden budget item.

*To compute the district-wide cost of the stress investigated in this study, multiply $62.50 x the number of teachers in the district. [74:19-20]

In 1977 Educational Research Service conducted a national survey of school systems with an enrollment of 300 or more pupils relating to practices and procedures in using substitute teachers. Responding school systems reported spending from approximately $750 for substitute teachers' salaries in 1975-76 up to $12 million. (Table 22) As school system size increased, so did total substitute costs, as one would expect. The median substitute salary cost for large school systems (25,000 or more pupils) was $486,955; for medium systems (10,000 to 24,999 pupils), $138,430; for small systems (2,500 to 9,999 pupils), $48,526; and for very small systems (300 to 2,499 pupils), $10,590.

The ERS survey also found that school systems indicated that the median amount paid to substitute teachers was 1.6 percent of the total amount paid regular teachers in 1975-76. This figure was relatively stable across all four enrollment size categories. Sixty-four percent of the respondents indicated that the total amount paid for substitute teachers' salaries was less than 1.8 percent of the total amount paid regular teachers. At the low end, one small school system reported spending approximately 0.1 percent of the amount paid regular teachers for substitutes ($3,000 vs. $2 million). At the high end, one medium school system reportedly paid substitute teachers approximately 13.2 percent of that paid regular teachers ($988,333 vs. $7,460,165). [53:36, 38]

Data on the cost of substitute teachers' salaries per teacher in school systems enrolling 10,000 or more pupils for school year 1975-76 were generated from two ERS national surveys. (Table 23) The median cost of substitute teachers' salaries per teacher was $242.60 in large school systems (25,000 or more pupils) and $206.71 in medium systems (10,000 to 24,999 pupils). Median cost of substitute teachers' salaries per teacher for school systems with an enrollment of 10,000 or more pupils was $223.82 in school year 1975-76. These substitute cost figures ranged from a low of $41.89 per teacher to a high of $847.31 per teacher. Data from the late 1950s collected by the NEA Research Division for 27 large school systems showed that the average cost per teacher for substitute service was approximately $100.00. [37:21] As a rough measure of change over a 20-year period, this cost has doubled.

Data on minimum and maximum scheduled daily pay rates for substitute teachers nationwide are included in Part 1 of the annual ERS *National Survey of Salaries and Wages in Public Schools*. As shown in Table 24, both median minimum and maximum scheduled daily pay rates for substitutes have increased during the three-year period 1976-77 to 1978-79 in each of the four enrollment groups.

TABLE 22.--Approximate Cost of Substitute Teachers' Salaries, 1975-76

Cost	Enrollment Group				
	Large (25,000 or more)	Medium (10,000 to 24,999)	Small (2,500 to 9,999)	Very Small (300 to 2,499)	Total (300 or more)
Less than $5,000	...	...	1	24	25
	...	...	0.9%	27.6%	5.9%
$5,000 to 9,999	...	...	...	27	27
	...	...	...	31.0	6.3
10,000 to 49,999	...	4	58	36	98
	...	3.2%	50.9	41.4	22.9
50,000 to 99,999	...	27	42	...	69
	...	21.8	36.8	...	16.1
100,000 to 199,999	4	59	12	...	75
	3.9%	47.6	10.5	...	17.5
200,000 to 299,999	17	24	1	...	42
	16.5	19.3	0.9	...	9.8
300,000 to 399,999	16	9	...	...	25
	15.5	7.3	...	...	5.9
400,000 to 499,999	17	...	...	...	17
	16.5	...	...	...	4.0
500,000 to 999,999	30	1	...	...	31
	29.1	0.8	...	...	7.2
1,000,000 or more	19	...	...	...	19
	18.5	...	...	...	4.4
TOTAL REPORTING SYSTEMS	103	124	114	87	428
	100.0	100.0	100.0	100.0	100.0
Mean	$842,670	$165,619	$ 56,394	$ 8,000	$267,907
Median	486,955	138,430	48,526	10,590	94,353
Range: Low	110,000	32,000	3,000	750	750
High	12,000,000	988,333	210,000	36,763	12,000,000

SOURCE: *Practices and Procedures in the Use of Substitute Teachers.* Arlington, Virginia: Educational Research Service, 1977, p. 35.

TABLE 23.--Cost of Substitute Teachers' Salaries per Teacher, 1975-76

Cost	Enrollment Group		
	Large (25,000 or more)	Medium (10,000 to 24,999)	Total (10,000 or more)
Less than $100.00	3 3.5%	3 4.0%	6 3.7%
$100.00 to 149.99	5 5.8	9 11.8	14 8.6
150.00 to 199.99	21 24.1	27 35.5	48 29.5
200.00 to 249.99	17 19.5	16 21.1	33 20.2
250.00 to 299.99	17 19.5	4 5.3	21 12.9
300.00 to 349.99	11 12.6	7 9.2	18 11.0
350.00 to 399.99	4 4.6	9 11.8	13 8.0
400.00 or more	9 10.4	1 1.3	10 6.1
TOTAL REPORTING SYSTEMS	87 100.0	76 100.0	163 100.0
Mean	$264.83	$221.24	$244.50
Median	242.60	206.71	223.82
Range: Low	61.64	41.89	41.89
High	847.31	414.23	847.31

SOURCES: Substitute Teacher Cost Data: Survey instrument used in data collection for ERS Report, *Practices and Procedures in the Use of Substitute Teachers*. Arlington, Virginia: Educational Research Service, 1977.

Teacher Staffing Data: *Salaries Paid Professional Personnel in Public Schools, 1975-76*. Part II of National Survey of Salaries and Wages in Public Schools. Arlington, Virginia: Educational Research Service, 1976.

TABLE 24.--Medians and Ranges of Minimum and Maximum Scheduled Daily Pay Rates for Substitute Teachers and Number of School Systems Responding to ERS National Surveys, by Enrollment Group, 1976-77 to 1978-79

	Scheduled Daily Pay Rates					
	Minimum			Maximum		
	1976-77	1977-78	1978-79	1976-77	1977-78	1978-79
1. LARGE (25,000 or more pupils)						
MEDIAN	$25.00	$26.00	$28.00	$30.00	$30.00	$35.00
RANGE: LOW	14.40	14.40	16.81	17.00	18.00	19.04
HIGH	51.68	53.25	54.00	80.43	88.70	97.64
N =	149	160	134	146	158	133
2. MEDIUM (10,000 to 24,999 pupils)						
MEDIAN	26.00	28.00	30.00	30.00	32.00	35.00
RANGE: LOW	10.00	10.00	15.00	17.00	15.00	17.00
HIGH	50.78	52.63	56.05	71.12	83.38	95.00
N =	286	3.5	287	282	313	286
3. SMALL (2,500 to 9,999 pupils)						
MEDIAN	25.00	26.00	29.00	29.00	30.00	32.00
RANGE: LOW	12.00	13.00	13.00	15.00	15.00	17.00
HIGH	43.00	49.00	52.15	87.78	92.38	94.00
N =	359	389	391	358	385	392
4. VERY SMALL (300 to 2,499 pupils)						
MEDIAN	25.00	25.00	27.00	25.00	27.50	30.00
RANGE: LOW	12.00	12.00	14.00	12.00	15.00	15.00
HIGH	35.00	38.96	40.00	45.50	75.00	90.00
N =	203	258	252	213	258	251
5. TOTAL (300 or more pupils)						
MEDIAN	25.00	26.00	28.25	29.00	30.00	31.50
RANGE: LOW	10.00	10.00	13.00	12.00	15.00	15.00
HIGH	51.68	53.25	56.05	87.78	92.38	97.64
N =	997	1,122	1,064	999	1,114	1,062

SOURCES: *Scheduled Salaries for Professional Personnel in Public Schools.* Part 1 of National Survey of Salaries and Wages in Public Schools. Arlington, Virginia: Educational Research Service,
1976-77 (1977), p. 25
1977-78 (1978), p. 29
1978-79 (1979), p. 32.

In 1978-79, the minimum scheduled daily pay rate for substitute teachers was more than $50.00 in some systems, with the maximum daily pay rate approaching $100.00. However, the difference between median minimum and maximum scheduled rates was three to four dollars.

The smallest change among the four enrollment groups from 1976-77 to 1978-79 occurred in the very small school systems (300 to 2,499 pupils) --an increase of eight percent in median minimum scheduled daily pay rates for substitute teachers. The largest change (a 20 percent increase) also occurred in the very small systems--the median maximum scheduled pay rate. Median minimum scheduled daily pay rates for substitutes in school systems enrolling 300 or more pupils have increased 13 percent, and maximum pay rates, 8.6 percent.

Minimum and maximum scheduled daily pay rates for substitute teachers in the 50 largest school systems for 1978-79 are shown in Table 25. The lowest minimum rate among these 50 systems was scheduled in New Castle County (Wilmington), Delaware ($16.81) and the highest maximum rate was scheduled in New York City ($78.50).

Cost of teacher absence and substitute service has been estimated at the state level by Illinois and Pennsylvania. The Academy for Educational Development (1977) estimated that the expenditure for substitute teachers in Illinois for school year 1975-76 was $31,618,689. Expenditures for Chicago alone amounted to 38 percent of this total ($11,988,834). Median expenditures for substitutes for the sample in this study increased 36.0 percent from 1971-72 to 1975-76, or from $5,282 to $7,186. Mean expenditures increased by nearly the same percent (36.3 percent). [57:7-8]

Total expenditures for substitutes in school systems in the sample, excluding Chicago, rose from $3,978,057 in 1971-72 to $5,370,508 in 1975-76, or 35.0 percent. Total expenditures for teachers' salaries, excluding Chicago, during this period increased 10.3 percent, from $289,954,366 to $319,920,568. Therefore, the estimated expenditure for substitute teachers in the sample, excluding Chicago, was 1.4 percent of the total spent on teachers' salaries in 1971-72 and 1.7 percent of that spent on teachers' salaries in 1975-76. [57:5-8] The 1.7 percent figure in 1975-76 in Illinois representing salaries paid substitute teachers compared to salaries paid to regular teachers is exactly the same mean figure that ERS reported for all school systems responding to its survey on substitute teachers in 1975-76. [53:38]

The Pennsylvania School Boards Association (1978) estimated that the actual cost of substitute teachers in the 135 school systems it studied was $6.4 million in 1977-78, based on a substitute employment rate of 90 percent. Projected to all 504 school systems in the state, the authors noted, the potential cost of filling *all* vacancies with substitutes would be more than $30 million. If 90 percent of these vacancies were filled, costs of teacher absenteeism would be $27 million. [78:35-36] If the salaries for absent teachers were added to the cost of substitute teachers, they estimated that Pennsylvania school systems spent more than $88 million a year for total professional salaries directly attributable to teacher absence. In 1977-78, this cost was 4.5 percent of that paid for teachers' salaries. "To put this cost into perspective," they explained, "this $88.0 million cost of substitutes accounts for a greater percent of the total budget than any one of the following budgetary line items: health services, food services, student activities, community services, or capital outlay." [78:36]

Data also are available on the impact of substitute teacher costs in some local school systems. For school year 1969-70, the Dade County (Miami), Florida, public schools reported the following estimates of cost resulting from absences of instructional personnel:

- average number of absences per day 581.2
- estimated number of substitute teachers hired per day 432.0

TABLE 25.--Minimum and Maximum Scheduled Daily Pay Rates for Substitute Teachers in the 50 Largest School Systems in the United States, 1978-79

Rank	School System	Enrollment Fall 1978	Scheduled Daily Pay Rate for Substitute Teachers	
			Minimum	Maximum
1	New York, NY	1,037,578	$40.00	$78.50
2	Los Angeles, CA	555,768	53.25	77.35
3	Chicago, IL	493,200	42.00	44.00
4	Dade County, FL (Miami)	233,000	31.18	36.28
5	Philadelphia, PA	212,426	23.00	49.72
6	Detroit, MI	212,112	39.06	49.61
7	Houston, TX	201,960	28.00	38.50
8	Hawaii (entire state)	164,323	37.06[1]	43.49[1]
9	Baltimore City, MD	141,127	18.00	22.00
10	Broward County, FL (Ft. Lauderdale)	134,000	30.17[2]	35.91[2]
11	Prince George's County, MD (Upper Marlboro)	133,613	25.00	30.50
12	Dallas, TX	131,005	26.00	30.00
13	Fairfax County, VA (Fairfax)	126,463	23.72	30.04
14	San Diego, CA	115,478	37.70	47.70
15	Memphis, TN	113,823	30.00	64.90
16	Washington, DC	112,299	35.00	35.00
17	Hillsborough County, FL (Tampa)	111,552	18.23	27.54
18	Jefferson County, KY (Louisville)	109,291	31.00	41.00
19	Baltimore County, MD (Towson)	108,268	19.00	24.00
20	Montgomery County, MD (Rockville)	107,427	36.23	48.67
21	Duval County, FL (Jacksonville)	105,420	29.00	37.00
22	Cleveland, OH	102,641	34.00[1]	48.00[1]
23	Milwaukee, WI	96,592	43.50	50.00
24	Pinellas County, FL (Clearwater)	89,942	22.00	27.50
25	Clark County, NV (Las Vegas)	86,200	37.05	43.05
26	Orleans Parish, LA (New Orleans)	86,056	25.00	40.00
27	DeKalb County, GA (Decatur)	84,790	ND	ND
28	Columbus, OH	82,652	33.00	39.00
29	Orange County, FL (Orlando)	82,650	20.00	29.00
30	Jefferson County, CO (Lakewood)	80,951	28.00	34.00
31	Albuquerque, NM	80,476	30.00	36.00
32	Charlotte-Mecklenburg County, NC (Charlotte)	77,641	30.00	30.00
33	Atlanta, GA	75,500	30.20	30.20
34	Anne Arundel County, MD (Annapolis)	74,341	22.00	27.50
35	St. Louis, MO	74,085	32.00	44.50
36	Metropolitan School System, Nashville, TN	73,824	24.00	27.00
37	Indianapolis, IN	71,162	25.00	45.00
38	Jefferson Parish, LA (Gretna)	70,174	18.00	30.00
39	Palm Beach County, FL (West Palm Beach)	70,155	22.50[1]	32.50[1]
40	Boston, MA	69,241	36.56	36.56
41	East Baton Rouge Parish, LA (Baton Rouge)	68,501	25.00	25.00
42	Fort Worth, TX	68,209	27.00	30.00
43	Denver, CO	65,727	44.35	55.45
44	Mobile County, AL (Mobile)	65,000	20.40	20.40
45	Newark, NJ	64,915	42.37[1]	42.37[1]
46	New Castle County, DE (Wilmington)	63,558	16.81	27.32
47	San Antonio, TX	63,209	20.00[1]	20.00[1]
48	San Francisco, CA	61,734	44.00	44.00

TABLE 25 *(Continued)*

Rank	School System	Enrollment Fall 1978	Scheduled Daily Pay Rate for Substitute Teachers Minimum	Maximum
49	El Paso, TX	61,052	$24.00	$28.00
50	Granite, UT (Salt Lake City)	59,536	24.00	30.40

ND = No data for 1978-79, 1977-78, or 1976-77.

[1]Data for 1977-78.

[2]Data for 1976-77.

SOURCES: *Scheduled Salaries for Professional Personnel in Public Schools.* Part 1 of National Survey of Salaries and Wages in Public Schools. Arlington, Virginia: Educational Research Service,
1978-79 (1979), pp. 50-123
1977-78 (1978), pp. 48-123
1976-77 (1977), pp. 40-111.

"Percent of Enrollment Changes Fall 1971 to Fall 1978, and Per Pupil Expenditure for Current Operations, 1978-79, in the 50 Largest School Systems," *ERS Bulletin,* 6 (April 1979), p. 4.

- substitute employment rate (in Pennsylvania for 1977-78, the rate was 90 percent--see p. 109.) 83.4%
- estimated costs of substitutes per day $10,000
- estimated annual cost of hiring substitutes $1,840,000
- estimated gain from number of days of leave without pay $550,000
- net annual cost to the Board from absences $1,290,000

[66:33]

The Office of Education Performance Review (1974) reported that New York City spent $71.5 million on substitute teacher costs in 1971-72, or nine percent of the city's total cost for teachers' salaries. In contrast, substitute teacher costs for upstate New York were $36.1 million, or 2½ percent of the total cost for teachers' salaries. [80:19] Later, union and school system spokespersons put the costs for New York City substitutes at $25 million. [70] Data from the ERS survey on substitute teachers from New York City, which was received too late to be included in that study, indicated that in 1975-76, the Board of Education spent $21.3 million on substitute teachers' salaries, or 2.4 percent of that spent on regular teachers' salaries. [53:2]

As noted previously, the Chicago, Illinois, public schools spent an estimated $11,988,834 on substitute teachers' salaries in 1975-76 (38 percent of that spent in the entire state). Hentschke (1978) reported a similar figure for Chicago. [30:35] Capitan and Morris (1978) indicated that the Akron, Ohio, school system reduced its professional staff absence rate to 4.56 days per employee in 1976-77 from 6.35 days in 1973-74. "This translates into over $136,442 or a sick leave savings of approximately $68,220 per year," they said. [9:8] The Tulsa, Oklahoma, public schools reportedly spent $3,300 a day for substitute teachers in 1977-78. [76]

As shown in Table 26, Clark (1971) presented an example of how costs related to absenteeism and turnover can be computed for an individual organization. [144:65]

TABLE 26.--Computing Absenteeism and Turnover Costs for an Individual Organization

How a sample organization's absenteeism is calculated

Total sick days paid previous 12 months	3,200	Based on 400-employee organization with average of 8 days' absence per employee (8 x 400)
Average daily pay multiplied by total sick days	x $30	Based on average daily pay of $30
This is organization's annual cost	$96,000	($30 x 3200)
Total accrued 5-year expense	$480,000	(5 x $96,000)

Chart above shows that a 400-employee organization annual absenteeism cost is $96,000. For a 800-employee organization the figure would be $192,000. These totals do not include lost production, overtime costs, etc., which could easily double the final expense.

Cost of a sample organization's turnover

Total number of employees separated in past 12 months	104	Based on 400-employee organization with 26% turnover rate--1969 National rate (26% of 400 is 104)
Average cost of employee separation	x $750	(National average)
Annual cost of turnover	$78,800	
Total accrued 5-year turnover expenses	$390,000	

A 400-employee organization's turnover cost is $78,800 per year. For an 800-employee organization, the yearly drain exceeds $150,000. Use charts to figure your organization's turnover costs.

Record your own organization's absentee expense

Total sick days paid previous 12 months		
Average daily pay multiplied by total sick days	x	
THIS IS YOUR ANNUAL ABSENTEE COST		
THIS IS YOUR 5-YEAR PROJECTION ABSENTEE COST		(5x annual cost)

Record your organization's turnover expenses

Total number of your employees separated in past 12 months		
Multiply cost per employee separation	x $750	(National average)
THIS IS YOUR ANNUAL TURNOVER COST		
THIS IS YOUR PROJECTED 5-YEAR TURNOVER COST		(5x annual cost)

SOURCE: Adapted from William Clark. "How to Cut Absenteeism and Turnover, *Administrative Management*, 32 (March 1971), p. 65. Copyright 1971 by Geyer-McAllister Publications, Inc., New York, New York. Used with permission.

In discussing the cost aspects of employee absenteeism in education, one nonmonetary "cost" also should be included: the effect of teacher absenteeism on student achievement. Some perceive a cause and effect relationship existing between these two factors. Although more research certainly is needed before definitive conclusions can be drawn, the little empirical evidence that is available fails to substantiate this belief. Foster (1977) reported that no discernible effects on the average class means of combined reading and mathematics achievement test scores were found in New York City schools studied with high versus low teacher absenteeism. [18] Husén, Saha, and Noonan (1978), consultants for the World Bank, reported that two of 32 examined studies on teacher training and student achievement in less developed countries included a measure of teacher absenteeism and punctuality. Neither of these studies, conducted in Thailand and Mexico, found a relationship between this variable and achievement among primary school pupils. [32:33]

CONTROLLING EMPLOYEE ABSENTEEISM

How can school administrators who perceive a problem of teacher and support staff absenteeism effectively implement policies and procedures for controlling this behavior? Management's foremost priority must be to recognize that an absenteeism problem actually exists and actively to seek a solution for it. [77; 9:7-8]

Kuzmits (1977) noted that each organization, a unique entity, must develop its own absenteeism-control program. When problems such as staff absenteeism arise, "many managers seek a cure for an organizational ill before really understanding the malady confronting them." [273:74] Kuzmits advised that: "Faced with what is thought to be an absenteeism problem, a manager should start by asking questions, not seeking quick cures." [273:74] Allen and Higgins (1979) identified four stages of change that are fundamental to curbing the absenteeism "culture":

- analyze the problem and set objectives
- introduce the program briefly to the organization's employees and secure involvement among top- and lower-level managers
- implement the program on four levels--individual, group/work team, organization, and leadership
- evaluate the program and make any necessary modifications for its extension or renewal. [96:34-35]

The planning required for a successful absence control program for school employees is illustrated by the Greater Newark (New Jersey) Chamber of Commerce (1975), which conducted a major study of teacher absenteeism in cooperation with the Newark and Ewing Township Public Schools. Among the procedures developed by these school systems was their own system for data collection. The Chamber of Commerce recommended that "five first steps" need to be taken by superintendents initiating a program for attendance improvement:

- First, an analysis of staff absence should be prepared. It is suggested that the School Monthly Attendance Summary be used for this purpose. A single past year and the current year are adequate. As records are gathered and summarized, look for natural management and administrative grouping and absence rates: i.e., individual school, special teacher groupings, tenure and non-tenure, etc. Individual cases which exceed annual days provided should be reviewed.

  Preparing this analysis on the School Monthly Attendance Summary assures that the basic data gathered can be used for ongoing records.

  An analysis of this data should be prepared for use by the administrative staff.

- Next a superintendent's staff meeting uses this data as the bench mark to prepare district operating guidelines. Identify the problem, the causes, and the probable steps that can be taken to reduce excessive illness absence. Prepare a written set of guidelines which will be used to administer the Attendance Improvement Program. Consult with other New Jersey Superintendents who have initiated their own AIP. . . .

- Third, consult with your medical director, attorney, and labor relations specialist for their assistance. Consult with this Chamber study team if you want to draw on the resources of your business community, but are unsure how to proceed.

- Next, lay out the timing for implementation. Ask that modern methods be used to regularly gather, summarize, and use this data. Be clear and keep simple the records you as Superintendent need monthly. Insist that existing data collecting systems be used wherever possible. Of course exercise the opportunities to apply the principles of work simplification. Do not destroy any existing individual records procedures. Generally avoid mechanization until you know what your experience will be. Use the summarization on a regular basis at monthly staff meetings.

- Last, be the plan's exponent, sell it, and initiate the plan using and insisting that careful managerial control be maintained so that the positive nature of the plan occurs. Advising association teacher leaders of your work is an excellent step to take. This will assure understanding and in most cases support of what you are undertaking. [81:17-19]

What are other school systems actively doing to control employee absenteeism? Walter (1977) outlined the status of teacher absence control programs in 28 suburban New York-New Jersey metropolitan school systems. His findings were not encouraging. The majority of these systems had no comprehensive teacher absence control program. Furthermore, he found that verbal and written communication regarding teacher absenteeism between chief school officers and personnel administrators was lacking in most of these systems. Among the school systems that had an absence control program, the characteristics of these programs varied from system to system. [82]

Suggestions for controlling staff absenteeism are discussed in this section, according to eight major categories:

1. establishing policies on employee absenteeism
2. developing guidelines for collecting absence data
3. defining responsibilities of middle management
4. defining responsibilities of upper management
5. developing programs to stimulate good attendance
6. developing innovative uses of paid leave
7. enlisting other agencies to help reduce employee absenteeism.

Establishing Policies on Employee Absenteeism

Suggestions from the literature on employee absenteeism repeatedly urge administrators to establish policies that relate specifically to staff absenteeism or to revise existing policies. The Joint Business-Educator Project in Newark, New Jersey (1975) developed the following district policy on staff attendance, calling it "one of the most important steps" in its Attendance Improvement Plan:

> The board recognizes that good attendance is necessary and expected in order to maintain an efficient school system. Therefore, the board encourages its employees to develop satisfactory attendance performance in pursuance of that goal. [81:10]

Gendler (1977) reported that one of the first actions the superintendent of the Merrick, New York, public schools took to reduce teacher absenteeism was to recommend to the school board that existing policies be modified to include criteria dealing with teacher attendance. [23] Gluyas (1972) recommended that stated organizational policies should be updated periodically, giving employees the rationale behind them. Possible statements that could be used in these attendance policies include: employees should be told that they are expected to attend work regularly and punctually and the reasons why employee attendance is important to all those who deal with the organization should be

clarified. [199:35] In Newark and Ewing Township, school management made changes in certain provisions of the labor contracts with their employees and board policies that were contrary to a recent ruling by the New Jersey Commissioner of Education. [81:15]

Absenteeism should be clearly defined, perhaps using one or more of the standard formulas described on pages 6-9 as a measurement tool. Standards for desired performance, which are different from policies, should be set from management's expectations of "maximum acceptable levels of absenteeism/turnover" and should be elaborated both orally and in writing. [273:75; 144:64] Clark (1971) said that standards should be set according to department experience. They are discovered when absence data are first compiled. As an example, he noted that if a department lost 10 employees in the past year from turnover and a company goal was set for reducing turnover by 20 percent in the next year, the department's standard would be eight terminations (20 percent of the 10 terminations from the previous year.) This method can be applied to setting absenteeism standards as well. Clark stressed that a key to effective standards is the involvement of the immediate supervisor, a subject that is treated in depth beginning on page 123. [144:65]

Dreyfack (1970) concluded that a "breaking point" should be established to signal that the time for direct management involvement has occurred, e.g., a verbal warning after the third absence, a written one after the fourth, and discipline after the fifth. [167:34] Kearns (1970) noted that in one company, employees receive a warning slip after their first and second unexcused absences and are dismissed after the third. These three absences cover a one-year period. This company maintained an absence rate of one half of one percent for 14 years using this method, he said. [259:51]

A 1970 article in *Supervisory Management* advocated that "occurrences" be used instead of days or hours for absenteeism control purposes so that employees could combine a continuous period of absence for a single reason into one occurrence. For example, three or four half-day doctor's appointments could be counted as one occurrence. Six occurrences per year were considered to be a normal amount of time away from the job. Medical verification should be required after the sixth occurrence. The main reason for using this definition, the article pointed out, was to identify personnel with a problem of chronic absenteeism, not those who make advance notice for a legitimate reason. [158:10-11] Vroom (1964) also suggested using this approach. [414]

Sheridan (1972) described the concept of "programmed attendance," which involves peer-group pressure to control absenteeism. For example, a single work group of 30 people determines a rate of absence agreeable to the organization, with the employees allowed to distribute the days off and manage the program themselves. Absenteeism has been reduced drastically in some cases where this method has been tried. [379:29-30]

A number of specific rules should be included in any attendance policy. Days off should be scheduled at least one day in advance. Employees should not be able to change absences to vacation leave after the absence has occurred. [173] In a study of teacher absenteeism in New York City, a state review office recommended that the City Board of Education eliminate the 30-day grace period given to teachers before they must indicate how their absence should be charged, so that the preparation of teacher absence reports could be expedited. [80:4] In certain cases, it may be advisable to require employees to submit to a medical checkup or produce a medical statement from a physician or nurse. [173] The organization may wish to provide this service for its own employees. [45:10] Some organizations employ a public health or visiting nurse to check on an absentee at home; however, Campbell (1970) warned that this measure should be used only in cases of suspected sick leave abuse, so that employees do not fear that the nurse is acting

as a company "watchdog." [132:48] Dreyfack (1970) added the following provisions: have management call the employee if he or she fails to call in, which emphasizes management's awareness and concern; and identify "weekend-stretchers," "seasonal stay-aways," and absentees who are out because of personal problems (drinking, gambling, etc.), making an effort to help the employee correct these problems. [167:34-35]

Specific, written disciplinary procedures for exceeding stated standards should be a part of an organization's absence policy, wrote Kuzmits (1977). [273] A notice should be posted, Farrant (1978) said, with a warning that employees who are absent for a certain number of working days without notifying their supervisor will be terminated. Farrant also advised that if an employee is absent for one day without notifying his or her supervisor, the employee and the supervisor should have a serious discussion. Supervisors should record the first and second absences that they have not approved. If an employee stays away from work the third time without notifying the supervisor, it should mean termination. Likewise, when an employee submits a false reason for an absence, it should result in termination. [173] Dreyfack (1970) argued for employers to clamp down on lateness, tying it with absences. [167:34] Gary (1971) found that in a study of 4,600 manufacturing employees, permanent discipline proved to be a better way to reduce absence than either indiscriminate discipline or no discipline. [189]

In contrast to these measures, there are indications that punishment may not solve absenteeism problems at all. Robinson (1974) said that strict warnings about possible dismissal only lead to a few weeks of good attendance before the employee resumes the old pattern of absence. [360:25] Buzzard and Liddell (1958) [129] and Nicholson (1976) [316] argued that sanctions used in absenteeism control problems might cause some employees to circumvent the system by resorting to fewer but longer absences. When Western Electric fired 100 workers as part of a demerit system for controlling absenteeism, a wildcat strike resulted. The demerit system was replaced with a system of positive inducements. [234] Heneghan and Ginsburg (1970), who studied the absenteeism of New York City municipal employees, found that departments with lower absence had relatively lenient policies for lateness. [224:50] Seatter (1961) [372] and Baum and Youngblood (1975) [103] reported that lower absence rates were associated with the use of strict control methods, such as keeping detailed attendance records, requiring medical verification for reported illness, and strict disciplinary measures. However, Rosen and Turner (1971) [364] found no such relationship. [394:398-399]

Even though specific rules may form the backbone of an organization's absenteeism policy, exceptions to these rules should be allowed, depending on certain circumstances. The emphasis should be "to develop a workable plan in the interest of both employee and management." [158:11] Lastly, the NEA advised nearly 20 years ago that the provisions and administration of local absenteeism plans should be reviewed frequently by school management and teacher representatives to ensure the greatest benefit for the instructional program. [37:22]

Developing Guidelines for Collecting Absence Data

A 1973 *Industry Week* magazine study found that while some companies surveyed kept extensive records on their employees' absence, others kept none at all. [88:51] This situation is not unique to business organizations. Capitan and Morris (1978) concluded that many school systems do not have employee absence monitoring systems. If they do, they said, they are not likely to use the data generated from them. [9:7] Suspected absenteeism problems cannot be pinpointed with any degree of accuracy without an effective means of collecting these data.

The experience of New York City illustrates some of the problems associated with insufficient absence data collection methods. As Zimet (1973) explained, an obstacle to reducing teacher absenteeism in the city school districts was the "casual manner in which records of teacher absences have been maintained in the district." [84:113] There was no uniform system of record keeping, even though secretaries of individual schools reported teacher absences to the central Board for payroll purposes. The scope and nature of informal absence records depended on the individual school secretary, but this information was not sent to district headquarters. As a result, it was impossible for officials at district headquarters to compare teacher absenteeism on a school-by-school basis or to find trends in teacher absenteeism in a particular school over a period of time. To correct this situation, the community superintendent requested school principals in fall 1971 to send him a report of the total number of days teachers were absent during each of the previous two school years. [84:111, 113]

Records can be as simple or as complex as necessary, but they should be designed to keep track of individual absences. Beginning in 1972-73, the Newark and Ewing Township, New Jersey, public schools developed a number of their own forms on which to record teacher absence data as part of their Attendance Improvement Plan. The forms established by these and other New Jersey school systems, which are reproduced below, may be helpful to other school administrators in devising suitable forms for their own systems.

As shown in Form 1 on page 119, these school systems use a multiple-year single page calendar to record the absence of all employees. Maintained by the building principal, this complete form facilitates trend analysis. This form also may be used to appraise individual staff members' attendance and tardiness. [29:11]

A multi-purpose payroll and substitute audit form is utilized in each school when the payroll is prepared. This form, called the "School Attendance Payroll Report" (see Form 2 on page 120) reports all staff absence classified by date, reason, and substitute replacement. The superintendent's office then can use a copy of this record to complete the "Teacher Monthly Attendance Summary" (Form 3, page 120.) [29:12]

Form 3 was designed to report a school-by-school record of individual teacher absence for each month of the school year. This form is the basis for analyzing absence patterns within a school system. The superintendent's office provides copies of this form to each principal. [29:13]

The fourth form in the New Jersey Attendance Improvement Program (page 121) presents a summary of the percent of absence due to illness by administrative unit. Also shown are the monthly and cumulative analysis of incidental absence (five days or less) for the school system, extended absence (more than five days), and total absence. This one-page summary is the basic management report whereby all system administrators receive absence data. [29:14]

Form 5 (page 122) is an example of an instrument, recommended by the New Jersey Chambers of Commerce involved in the Attendance Improvement Program, that may be used for data collection in local studies of staff absenteeism. [29:6]

According to a September 29, 1975 article in *Nation's Schools Report*, an absence form used in the Attleboro, Massachusetts, public schools reduced teacher absenteeism in that system by 12 percent. Included on the form, which kept track of all teacher, clerk, and custodian absences in an individual school for one week, are separate boxes for writing substitute teachers' pay rates, the reason for each employee's absence, and what management technique the principal used to discourage future absence. The form provided an easily accessible data base on absence patterns and was used by the superintendent in reporting to the school board and in making decisions on contract renewal and teacher tenure.

FORM 1.--Calendar for Recording Employee Absences

Name _____ Social Security No. _____

School _____ Employee Position _____

Absence Times _____ Days _____ Tardiness _____

1978 – 79

Times Abs ___ Tardy ___ JULY							Times Abs ___ Tardy ___ AUG.							Times Abs ___ Tardy ___ SEPT.							Times Abs ___ Tardy ___ OCT.							Times Abs ___ Tardy ___ NOV.							Times Abs ___ Tardy ___ DEC.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1														1	2							1	2	3	4									1	2
2	3	4	5	6	7	8	6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
9	10	11	12	13	14	15	13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
16	17	18	19	20	21	22	20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
23	24	25	26	27	28	29	27	28	29	30	31			24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
30	31																																		31						

Times Abs ___ Tardy ___ JAN.							Times Abs ___ Tardy ___ FEB.							Times Abs ___ Tardy ___ MAR.							Times Abs ___ Tardy ___ APR.							Times Abs ___ Tardy ___ MAY							Times Abs ___ Tardy ___ JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6						1	2						1	2	1	2	3	4	5	6	7			1	2	3	4	5						1	2
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31	29	30						27	28	29	30	31			24	25	26	27	28	29	30

Absence Times _____ Days _____ Tardiness _____

1979 – 80

Times Abs ___ Tardy ___ JULY							Times Abs ___ Tardy ___ AUG.							Times Abs ___ Tardy ___ SEPT.							Times Abs ___ Tardy ___ OCT.							Times Abs ___ Tardy ___ NOV.							Times Abs ___ Tardy ___ DEC.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7					1	2	3	4							1		1	2	3	4	5	6				1	2	3							1
8	9	10	11	12	13	14	5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8
15	16	17	18	19	20	21	12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15
22	23	24	25	26	27	28	19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22
29	30	31					26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30		23	24	25	26	27	28	29
														30																					30	31						

Times Abs ___ Tardy ___ JAN.							Times Abs ___ Tardy ___ FEB.							Times Abs ___ Tardy ___ MAR.							Times Abs ___ Tardy ___ APR.							Times Abs ___ Tardy ___ MAY							Times Abs ___ Tardy ___ JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5						1	2							1			1	2	3	4	5					1	2	3	1	2	3	4	5	6	7
6	7	8	9	10	11	12	3	4	5	6	7	8	9	2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
13	14	15	16	17	18	19	10	11	12	13	14	15	16	9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
20	21	22	23	24	25	26	17	18	19	20	21	22	23	16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
27	28	29	30	31			24	25	26	27	28	29		23	24	25	26	27	28	29	27	28	29	30				25	26	27	28	29	30	31	29	30					
														30	31																											

KEY:
- 0 – Illness Absence
- // – Tardiness
- X – Personal Days
- = – Sabbatical Leave
- ☐ – Other Causes
- Ø – Half Day Illness
- # – Vacation
- _____ Absence Over Five Days

SOURCE: Richard Harclerode (ed.). *Attendance Improvement Guide for Superintendents: How to Improve Staff Illness Absence*. A Group of New Jersey Chambers of Commerce: Newark, Jersey City, Eastern Union County, Mercer County, and New Jersey State, June 1979, p. 13.

FORM 2.--School Attendance Payroll Report

Teacher Absence Report

School _____

Teacher _____

Name	Date	Reason	Substitute

_____
Principal

A = Illness, B = School Duties, C = Personal, D = Death in Family

SOURCE: Richard Harclerode (ed.). *Attendance Improvement Guide for Superintendents: How to Improve Staff Illness Absence*. A Group of New Jersey Chambers of Commerce: Newark, Jersey City, Eastern Union County, Mercer County, and New Jersey State, June 1979, p. 12.

FORM 3.--School Monthly Attendance Summary

MONTHLY RECORD OF ILLNESS ABSENCE

WORK CENTER _____

RECORD OF TIMES/DAYS ABSENCE

Personal	ID	Times	Days	1977-78 Sep.	Oct.	1978-79 . . . Aug.	Tot.	Days "P"	"B"	"SL"
Incidental										
Extended										
Incidental										
Extended										

⋮

P = Personal, B = Business, SL = Sick Leave Days Remaining

SOURCE: Richard Harclerode (ed.). *Attendance Improvement Guide for Superintendents: How to Improve Staff Illness Absence*. A Group of New Jersey Chambers of Commerce: Newark, Jersey City, Eastern Union County, Mercer County, and New Jersey State, June 1979, p. 13.

FORM 4.--District Absence Analysis

	Total Monthly Absence					Monthly and Cumulative District Results					
	School				Special Grouping	Mon Inc	Cum Inc	Mon Ext	Cum Ext	Mon Tot	Cum Tot
	1	2	3	...							
Sep											
Oct											
Nov											
.											
.											
.											
.											
Total											

SOURCE: Richard Harclerode (ed.). *Attendance Improvement Guide for Superintendents: How to Improve Staff Illness Absence*. A Group of New Jersey Chambers of Commerce: Newark, Jersey City, Eastern Union County, Mercer County, and New Jersey State, June 1979, p. 14.

In the Amesbury, Massachusetts, school system, payment for sick leave benefits is contingent upon *specific* medical evidence from a physician, such as symptoms, laboratory tests, diagnosis, and treatment. Messner (1979) stated that this policy takes effect after absences of five or more consecutive work days. An important part of this program is the introduction of a special form designed to ensure that employees furnish the information required. Forms used by health insurance companies can serve as a good model, he said. Moreover, a form for shorter absences "for cause" may be required when sick leave abuse is suspected. Messner also suggested that two additional procedures need to be established: (1) contracting with a physician or hospital to evaluate the information on these forms to see if sick leave abuse is occurring and to ensure the confidentiality of employee sick leave records and (2) getting such a policy into employees' collective bargaining agreements, while difficult, is not impossible. [44]

These forms illustrate some of the principles involved in setting up a workable records system. As noted in the literature on employee absenteeism, these include:

1. Establish defintions for one or more absence categories. A number of widely-used absence definitions are discussed on pages 6-9 of this Research Brief.
2. Record data by the type of absence. A leave grid is one method of distinguishing between scheduled and unscheduled absence and recording how many hours an employee is absent for any one day. Employee names are listed vertically in a column on the left side of a page and the five days of the week, horizontally across the page, with such notations as "8/sick" and "8/vacation" entered in the appropriate spaces in the grid. [273:74]

FORM 5.--School Monthly Attendance Summary/Data Study

MONTHLY RECORD OF ILLNESS ABSENCE

WORK CENTER _____

YEAR OF STUDY 19__ 19__

RECORD OF TIMES/DAYS ILLNESS ABSENCE

SPECIAL INFORMATION FOR DATA ANALYSIS (SOME EXAMPLES)

# SCHEDULED WORK DAYS	15	..._____...
(-) EMERGENCY DAYS	-	..._____...
# ACTUAL WORK DAYS	15	..._____...
# STAFF INCL IN REPORT	30	..._____...

PERSONNEL ID	AGE	SEX	RES. IN DIST. OUT	PAST YEAR ILL. ABS.	CUM LEAVE BEGIN YEAR	NON TENURE		SEP.	OCT.	NOV.	...JULY	AUG.	TOTAL YEAR
							INCIDENTAL						
							EXTENDED						
							INCIDENTAL						
							EXTENDED						
							INCIDENTAL						
							EXTENDED						
							INCIDENTAL						
							EXTENDED						
							TOTALS						
							INCIDENTAL						
							EXTENDED						
							TOTAL						

SOURCE: Richard Harclerode (ed.). *Attendance Improvement Guide for Superintendents: How to Improve Staff Illness Absence.* A Group of New Jersey Chambers of Commerce: Newark, Jersey City, Eastern Union County, Mercer County, and New Jersey State, June 1979, p. 7.

3. Develop a standard medical certificate, if the school system decides to use one. Newark's certificate gave the school system's medical director essential information needed for cases of extended illness. The certificate was reviewed by the school system's attorney and medical director to discuss its privacy, legal, and propriety implications. [81:16]
4. Compute periodic totals for both individual employees and work groups (monthly, quarterly, etc.) [273:74]
5. Keep attendance data in individual work units rather than by department, whose personnel are not responsible to the supervisor of these work units. [224:49]
6. Circulate comparative attendance data among all schools to highlight excessive absence and stimulate competition among schools for reducing absenteeism. [80:4; 75]
7. Compile accurate data on the cost of substitute teachers' salaries. [80:4]
8. Maintain "lost-time" statistics, which show whether or not absenteeism is rising or falling or increasing in some areas and decreasing in others, with the overall result appearing constant. [199:36]
9. Issue regular reports on staff absence to all staff members, guarding against disclosure of individual records. [54:165]

Defining Responsibilities of Middle Management

One recommendation discussed in the literature consistently stands out as the most crucial step in effecting substantial change toward resolving problems of staff absenteeism: involve the employee's supervisor. [216:538; 144:65; 9:9; 23; 57:28; 132:47] In discussing possible solutions to the problem of absenteeism among federal government workers, Campbell (1970) argued that sick leave abuse must be attacked at the first-line, rather than staff, level, saying: "All the reform of leave allowances and enforcement of provisions for its use cannot be worth a quarter of the time and money expended if actual execution of policy is not assigned to the supervisor who must deal on a personal basis with employees." [132:47]

The Academy for Educational Development (1977) echoed this sentiment in recommendations proposed to local school systems that were contained in a study of teacher absenteeism in Illinois, commissioned by the State Board of Education: "Strengthen management (i.e., principals) responsibilities by specifically assigning the task for improving teacher attendance and for the collection of hard data, which through statistical analysis will determine and pinpoint if and where there is an absentee problem." [57:28]

Teacher absenteeism may be a potential source of conflict between principals and parents, as Zimet (1973) explained in a book on decentralization in New York City schools:

> Principals have pointed out to their teaching staffs that absenteeism is highly visible to parents and is very difficult to defend. Although a principal can support a teacher's actions vis-à-vis classroom teaching techniques, he cannot defend persistent and unexplained absences. [84:111]

Along with involving the supervisor, it is just as important to train him or her in specific control methods if such a program is to be successful. [144:65] In fact, supervisory training programs have effected reductions in employee absenteeism in studies by Copenhaver (1973) for food service workers [150] and Wexley and Nemeroff (1975) for medical center employees. [422] Hesseltine (1973) investigated changes in supervisors' attitudes and behavior after supervisors participated in a human relations training program; he then measured the effects of these changes on employee absence. Supervisors in the experimental group experienced positive changes in attitudes, which in turn, lowered employee absence. However, due to significant pretraining

differences between the experimental and control groups of supervisors under study, these results were negated. [229]

The Newark-Ewing Township, New Jersey, school systems included the following 12 guidelines for principals used in their Attendance Improvement Plans:

1. Recognize the problem.
2. Manage the problem through good personnel practices.
3. Have current knowledge of the problem.
4. Recognize excessive and chronic patterns of absence.
5. Establish school objectives regarding staff absence.
6. Concentrate efforts on employees with excessive absence.
7. Review cases requiring special attention with supervisors.
8. Make absence records part of the personnel records system.
9. Stress the importance of attendance in the pre-employment stages.
10. Consider using incentives to encourage good attendance.
11. Conduct research dealing with employee working conditions, attitude, and other factors which relate to good attendance.
12. Check the school calendar to avoid fracturing the school schedule. [54:168]

These and other duties of middle managers occupy a central position in suggestions for improving staff attendance found in the literature. Supervisors should take an active interest in all staff absences. [77] "No employee is 'good' enough to justify poor attendance," Smardon (1974) wrote, "because he inevitably gives the disease to everybody else." [384:15] Well-developed attendance records will help supervisors identify possible "telltale trends" of habitual sick leave abuse--Monday-Friday absences, single-day absences, and absences either before or after a holiday or after a payday. [273:75]

Although disciplinary procedures may be justified from time to time, the most effective way to modify absenteeism is for the supervisor to approach employees in a positive manner. Best results occur when management goes out of its way to tell employees how important their attendance is to the smooth operation of the organization. Principals should take a personal interest in teacher absences, stressing to absent teachers the interruption of the educational process. A "total team" approach has been used to inform employees that the real burden of absenteeism falls on those employees who report to work, that the consequences of absenteeism relate to all employees. [54:218; 167:33; 224:50; 130; 88:52] Robinson (1974) posed a number of questions that a supervisor could ask an employee to find whether or not a problem exists and also to show concern for the individual worker:

- Are you satisfied with your present job? If not, why?
- Are you satisfied with your work environment, such things as noise, wall colors, lighting?
- Are you satisfied with your transportation to and from work?
- Are you satisfied with the structure of your job?
- Are you satisfied with the relationships between you and your fellow workers?
- What types of changes would you like to see within the organization? [360:25]

Employees should report illness or other absence by talking directly to their supervisor. Experience clearly indicates that having employees call in to a telephone answering service encourages sick leave abuse. [158:11; 167:33; 45:10; 79:34; 78:27; 173] If employees fail to call in, the supervisor should attempt to call them at home. This procedure emphasizes management's concern for the welfare of its employees and could be a big factor in encouraging good attendance. Employees who do not call in should be required to fill out a form explaining why they did not call their supervisor. [167:34; 158:11] Employees should be required to meet with their supervisor on the first day they return to work

to discuss the reasons for their absence. [167:33; 199:36] Administrators may find it helpful to have teachers evaluate their substitutes when the teachers are absent. [54:218]

Principals may wish to spend some time during faculty meetings discussing staff absence. [54:218] Another tactic involves scheduling faculty meetings, conferences, or other important meetings on either Monday or Friday to offset high teacher absence traditionally found on those days. [80:4] Attendance records should be reviewed frequently with employees, with warnings issued to those whose absence rates are unsatisfactory. [199:36]

When an absenteeism control program was introduced successfully in the Merrick, New York, school system, school management there made sure that everyone involved understood that the plan was to be an ongoing one, not a "hit or miss" approach. [23] How the supervisor acts toward absenteeism will say a lot about how his or her subordinates feel about staying away from work. If supervisors believe that regular attendance is important, their subordinates are apt to follow their example; if not, they will act accordingly. [167:33] Supervisors should stress that sick leave is designed to ensure that employees' earning power will not be affected by illness. It should be heavily emphasized that sick leave is not designed to be considered an automatic day off, in addition to vacation leave. [77; 54:218; 45:10]

The middle manager is the hub around which an absenteeism plan either succeeds or fails. Aside from the points outlined above, the supervisor must make sure that three important guidelines are followed: (1) use common sense in making rules sensible and important, not overly detailed or illogical [173]; (2) exercise suitable caution in discussing attendance behavior, relying on proof instead of insinuation [23]; and (3) make all dealings with the staff positive, rather than negative. [54:218]

Olfson (1978) described how the principal has played the main role in controlling teacher absenteeism and substitute teacher usage in the Fairfield, Connecticut, public schools (fall 1978 enrollment of 10,228 pupils). Instead of having teachers report absences to a central telephone number, a new plan was started in 1977--teachers were instructed to call their building principal directly. The principal, in turn, sees if a substitute actually is needed; if so, the principal calls the central office, whose personnel contacts the substitute and takes care of the clerical work involved. [49:27]

Each building is assigned a quota of substitute days according to a formula determined from a study of the school system's certificated personnel absence rates over a three-year period (number of certificated building employees multiplied by six). When a principal requests a substitute for a day, the principal is charged with one day off his or her building's quota. However, only the first 10 days of an extended absence are charged to a building's quota. Absences from the eleventh on are charged to a "bank," established by the school system for such purposes. [49:28]

Awareness in the program was stimulated by the personnel department's dissemination of a monthly computer printout showing the quota for each building, the cumulative number of substitute teacher days charged to the quota during the school year, and the number of substitute teacher days left before the building's quota would be depleted. Even though there were no penalties attached to a building surpassing its quota, both the principals and teachers reportedly work hard to save substitute expenses. In 1978 the school system changed from a centralized to a decentralized budgeting system, where each building administrator is given a certain amount to be administered for his or her building. Thus, substitute days not used equal money that the building principal can spend somewhere else. With this addition, even greater success is seen for the program. As the administrative assistant in charge of personnel related, "the beauty of the quota system is that it shows [certificated personnel]--in concrete terms--a way in which, with a little bit of thought, imagination, and

responsibility, they can add to those savings." [49:28-29]

Defining Responsibilities of Upper Management

In a report to school personnel administrators on the subject of teacher absenteeism, Capitan and Morris (1978) presented a fundamental task facing upper management in its efforts to introduce an absenteeism control program. "If you as personnel director or superintendent," they said, "do not identify this as a priority by putting the full weight of your office behind these efforts, they are doomed to failure. Only when the teaching staff recognizes that the shcool system must support the efforts of the personnel department, is there a chance of success." [9:9] The New York City school district was advised in 1974 to assign the responsibility for improving teacher attendance to one central-office administrator and his or her counterparts in each community school district, holding each of them strictly accountable for their performance. [80:3-4]

In Merrick, New York, the superintendent or his designee met with building administrators from time to time to study attendance data on all teachers under the supervision of the building administrator. Where needed, plans of action were determined. Annual teacher evaluation reports, which contained information on steps taken toward attendance improvement, and recommendations for tenure or continued probation also were reviewed by the superintendent. [23]

Gemmell (1973) advocated that personnel managers ensure that line managers are fully aware of the consequences of absenteeism, so that the responsibility for absenteeism problems is not passed back and forth continually between these two managerial groups. He said that an effective way to accomplish this coordination is having the personnel manager graphically show the line manager the impact of absenteeism in dollars and cents. [192] Robins (1979) related that casual absences at a Memphis, Tennessee, General Electric plant fell to 2.2 percent in 1978 from 3.5 percent in 1977 after employees were informed in monthly meetings just how much absenteeism was costing the company. "Most of our efforts now go into awareness programs and enrichment," a company manager stated. [359:41]

Writers frequently have advised top management to cooperate with employee unions in developing absenteeism procedures. [23; 54:74-75; 88:52] "Usually the union is as anxious to help the employees as you are, when they are 'asked'," Hartman and Gibson (1971) stated. [216:538] As a union official noted, absence-prone employees may respond better to advice given by shop stewards (or ombudsmen, in nonunionized organizations), rather than their immediate supervisor. [427:14-15] Smardon (1974) related that unions typically do not want to get involved in arbitrating absenteeism-related terminations. This does not mean that the union representative will sympathize with the supervisor; it does mean that the union, after having warned its members, may not feel required to back up an employee who is fired for absenteeism. [384:14] However, securing cooperation between school management and union officials over the issue of staff absenteeism may require a change of attitudes from one or both parties. As Walter (1978) found in his study of 28 New York City metropolitan school systems, few personnel administrators viewed the involvement of teacher unions as a positive force in their absence control programs. [82]

Walter also investigated the relationship between administrator attitudes towards absenteeism and eight selected characteristics of effective teacher control programs. In none of the 28 school systems in the study did both chief school officers and personnel administrators have unfavorable attitudes towards absenteeism. In 11 systems with teacher absence control programs where both administrators had favorable attitudes toward absenteeism, at least one of the characteristics of an effective control program was lacking.

In 17 systems with teacher absence control programs where one administrator had a favorable attitude towards absenteeism and the other, an unfavorable attitude, at least one of the characteristics of an effective program was lacking. [82]

An important step management can take with new employees is to screen out applicants with a history of poor attendance. The personnel department should make a point to discuss in interviews with prospective employees the organization's absence policies and standards and the importance attached to good attendance. New hires should be told from the beginning that apparent indiscriminate use of sick leave will not go unnoticed. This should prevent employees from feeling mistreated if called on to document their sick leave use. [273:76; 132:47; 379:30; 199:35; 54:218; 167:34; 216:538]

However, there is some indication that administering a single test battery to all applicants, including measures of aptitude, personality, and background history, may not be very helpful in predicting absenteeism and lateness. Gavin (1973) described the development of uniform selection instruments for predicting attendance criteria for minority and nonminority ground service employees at a major domestic airline. Results indicated that aptitude tests were unrelated to the employees' absenteeism and lateness records; personality and background history tests provided absenteeism/lateness predictors, but these predictors differed for the two ethnic groups. Gavin concluded that the era of the single test battery for all applicants is no longer applicable and that "the wave of easy-to-develop and easy-to-administer selection procedures has passed and that future selection programs are likely to become, by comparison, much more intricate." [191:217]

Another frequently mentioned procedure involving upper management is to include attendance data in staff evaluations. [77; 80:4; 167:34; 54:218; 273:75-76] Four possible factors included on an evaluation form could be affected by employee absenteeism: attendance, observance of regulations, adherence to the work schedule, and quantity of work finished. [158:11] After administrators in the Alsip School District 126 in Worth, Illinois, discovered a pattern of increasing teacher absence, a new policy was initiated: absence records may decide who stays when reductions-in-force occur. [3]

Other specific measures available to upper management and outlined in the literature include:

- provide consultation services to teachers [54:165]
- orient employees in the proper attitude toward attendance [216:538]
- develop alternatives to hiring substitute teachers, such as: using community resources, including volunteers and guest speakers; having high school honor students teach younger children; and scheduling greater use of educational television and films [80:5; 53:37]
- develop plans for a "standby force" to replace absent personnel [110]
- motivate good attendance through legal compliance. [102; 103]

Developing Programs to Stimulate Good Attendance

Managers in all different types of organizations have introduced a number of programs, formal and informal, in an attempt to reduce chronic absence from work. As discussed in the literature on employee absenteeism, five informal solutions that supervisors can take in an effort to confront an absenteeism problem include:

- improving the work environment--order new paint, piped-in music; reorganize work stations; update equipment and machinery. [360:27]
- improving morale--keep your employees informed about pending changes; review with your employees questions they might

have about policies and procedures; suggest self-improvement courses to help your employees grow in their job skills; keep aware of trends so your employees can be told what will be demanded of them in the future; see if your employees know more about their jobs now than they did six months ago. [167:35]

- solving transportation problems--form car pools; establish a flexible work schedule for arriving at and leaving work. [360:28]
- discussing personal business needs--let your employees know that you are flexible when it comes to conducting necessary personal business that will take them away from the job; be open; when deadlines must be met, try to have the employee change his or her appointment to another day if possible. [360:28]
- instituting a feeling of pride in each employee's service to the organization--instill feelings of responsibility for their finished product or service; take time to tell employees how their work fits in with the objectives of the entire organization and how important you consider their contribution to be. [360:28]

As described below, more formal attendance improvement programs have included incentives, goal setting and participative decisionmaking, job enrichment, changing the length of the work week or working hours, and alcohol rehabilitation programs.

INCENTIVES

Reward structures for outstanding attendance generated from within the organization can take many forms. For rewards to be effective, they must be attainable, tied directly to attendance, and be valued by the employees under the system. [394:398] After studying absence data from 60 blue-collar employees in a unionized auto parts foundry, Morgan and Herman (1976) related that "for some employees absenteeism provided an opportunity to experience consequences that tended to encourage absenteeism and that were not offset by organizationally controlled consequences that would tend to deter absenteeism." Thus, they proposed that employers should formulate an absenteeism policy that rewards attendance with the same things that seem to motivate absenteeism, and that at the same time, penalizes absenteeism. [307]

In the private sector, some companies have successfully used cash incentives to promote good attendance. Grove (1968) described an attendance reward plan developed by the California-based SCREWCORP Division of VSI Corporation, which produces precision aerospace fasteners. Twenty-six office and technical employees and 116 production and maintenance employees were eligible to participate in the plan. (Eligible employees were those hourly, full-time, permanent workers who had finished their 60-day probationary period prior to the beginning of the incentive period.) January 1 and July 1 were established as the beginning dates of the two yearly attendance incentive periods. [208:119]

Perfect attending employees received $100 or 40 hours of straight pay, whichever was greater. Workers were paid $50 or 20 hours of straight pay, whichever was greater, for perfect attendance except for no more than three times of tardiness or leaving before the end of a shift, or a combination of these two, or perfect attendance except for no more than one day's absence and no tardiness or leaving a shift early. However, vacation leave, scheduled company holidays, jury leave, military leave of two weeks or less, or any company-approved absence during work hours did not affect eligibility. [208:119-120]

Results indicated that 30 of the 142 eligible employees (21.1 percent) qualified for the first place award earned for perfect attendance, with the average reward almost $125. Eighteen

other employees (12.7 percent) were awarded second place prizes of half this amount. Nine of the 26 office and technical employees (34.6 percent) won first place awards, compared to 21 of the 116 production and maintenance employees (18.1 percent). Absenteeism decreased 38 percent for production and maintenance personnel from January-June 1966 to January-June 1967, and 16 percent for office and technical workers. Overall absenteeism declined 34 percent during this period. [208:119]

The personnel director of the Provident Indemnity Life Insurance Company of Norristown, Pennsylvania, found that a trial program of awarding bonuses to good attending clerical employees was so successful that it would be continued on a permanent basis. Begun on December 1, 1966 (the start of the company's fiscal year) and ending on November 30, 1967, employees earned a total of 550 bonus hours amounting to nearly $4,000. Employees earned two hours of bonus pay for each full month of perfect attendance. Three extra hours of bonus pay could be earned for each three-month period of perfect attendance. Thus, an employee who never missed a day of work for an entire year would receive 36 hours of bonus pay (a full work-week plus one hour). The only legitimate absence that employees could take was for a death in the immediate family. When an employee was absent, he or she lost the bonus points for that month and quarter. Bonuses were paid in the first part of December at the rate that the employee was earning on November 30. To collect this bonus pay, personnel had to be employed on November 30 of the year in which they earned their bonus. [118]

Cash incentives for good attendance also were introduced with union endorsement in four Honeywell factories that produce temperature control items in Scotland. Under this plan, absenteeism must decline to eight percent or below (absenteeism had been about 12 percent during the year before the program was initiated) before any rewards at all were given. After the target was met, individual payments to hourly workers with good attendance records were made from a sliding scale according to average absenteeism across these four factories and the employees' own attendance:

Number of Days of Absence (individual)	Average Absenteeism Across the Company	Reward (in pounds)
Maximum of 2 days	8% or less	20
Maximum of 2 days	7	25
Maximum of 2 days	6	30
No absences	5	35
Maximum of 1 day	5	2/3 x 35
Maximum of 2 days	5	1/3 x 35

In addition, those hourly employees with perfect attendance records were eligible for a monthly drawing, which also varied according to the company's average absence rate:

Number of Prizes Awarded	Average Absenteeism Across the Company	Reward (in pounds)
Up to 20	5% or less	50 each
16	6	50 each
12	7	50 each
No lottery	8	

[137]

At Western Electric plants, workers who are punctual and do not miss days are rewarded with days off without pay and by not having to use the company time clock. [234] Other positive inducements some firms have tried include offering free football tickets or trading stamps to outstanding attenders. [234; 88:51] The August 8, 1978, issue of *Business Week* reported that each miner at the Sharples Coal Corporation in West Virginia was being paid $50 for each month without an accident or unexcused absence.

At a boxboard manufacturing plant in Massachusetts, a system to replace the company's existing absenteeism penalty system was developed by a committee of four hourly workers and two supervisors. Effective December 1978, the plan includes a scale ranging from zero to three points for documented absences to a nonexcused no-show. After 31 points were reached, an employee could be dismissed. This point total

accumulates, unlike the old system, where the system re-started each June. Perfect attendance periods can reduce a worker's point total. In addition, regular supervisor-employee meetings were initiated, plant-wide meetings are held at least twice a year, positive attitudes are encouraged, and production information is posted, which allows the entire work force to earn a bonus of up to 20 percent when it produces more than the week's goal. Absenteeism has decreased to 3.5 percent from 4 percent. As a front-office secretary explained: "Just look at the workers around here and you can see that it's worked out. We're not treated like peons here." [359:1, 41]

Pendalino and Gamboa (1974) reported that the absences of blue-collar workers in a manufacturing distribution center decreased significantly with the introduction of a lottery incentive system. [331] Tjersland (1972) [405] and Johnson and Wallin (1976)[254] also reported successfully using lotteries for reducing absenteeism.

Hamner and Hamner (1976) presented the results of positive reinforcement and similar behavior modification programs found in business organizations in 1976. Four organizations included decreases in absenteeism as a major goal of their programs--three companies were successful in meeting this objective. Michigan Bell (Operator Services) used praise and recognition and provided the opportunity for 2,000 employees at all levels in operator service to see themselves become better. This resulted in a 50 percent improvement in attendance. Connecticut General Life Insurance Company used self-feedback, system-feedback, and earned time off for 3,000 clerical employees and first-line supervisors; a drastic reduction in chronic absenteeism and lateness resulted. ACDC Electronics, Division of Emerson Electronics, used positive daily and weekly feedback from foremen to the company president for all 350 of its employees to raise attendance from 93.5 percent to 98.2 percent. Michigan Bell (Maintenance Services) was the one group that did not realize a change in absenteeism. Its program involved 220 maintenance workers, mechanics, and first- and second-line supervisors who were reinforced with self-feedback and supervisory feedback. [213]

In a study of 92 nurses, nursing assistants, and ward clerks in six nursing units of a large private hospital, Stephens and Burroughs (1978) randomly assigned subjects to one of two reward systems. In one system, employees were eligible for cash drawings of $20 if they were not absent at all during a three-week period. In the other system, employees were eligible for a $20 cash drawing if they were not absent on eight days that were selected randomly during the three-week time period. Significant decreases in absenteeism were found under both reward systems. There were no significant differences between the two systems. [396]

Reid, Schuh-Wear, and Brannon (1978) reported the results of using a group contingency to reduce absenteeism among nonprofessional personnel in a state institution. The contingency required that staff on a particular shift reduce and maintain the total number of absences below a certain level. If this level were reached during a four-week period, a new work schedule would be developed to provide more weekend days off. This program effectively reduced absenteeism among the shifts studied in significant amounts. [349]

Nord's 1970 article is one of the most frequently discussed studies in the area of incentives and attendance. He described how two completely different organizations improved employee attendance through the use of rewards. A large retail hardware operation put into effect a six-month experimental plan to recognize good attendance. Employees with perfect attendance and punctuality records for one month were eligible to draw applications at each of six store locations in the following month. One prize (a small appliance worth about $25) was made available for every 25 employees. A major award, such as a color TV, was drawn by lottery at the end of the six-month period.

Eligibility for this major award was based on perfect attendance and punctuality for the entire six months, excluding vacation or funeral leave. Names of eligible and winning employees were included in the company newspaper as members of the "Perfect Attendance Club." The personnel department reported that the program, later extended, was "highly successful"--sick leave payments were reduced 62 percent and during the first year of the program, absenteeism and tardiness were one-fourth of the previous level. [48:38-39]

The second organization, a metropolitan public school system, rewarded all teachers who met a specific criterion after a certain period of time. Teachers who had perfect attendance records, excluding funeral or court leave, over an entire semester were paid $50. The results of the program, summarized in Table 27, showed that the program was most effective during its second and third years of operation. When substitute teacher costs and the number of teachers were compared, it appeared that this type of reward system produced better results in the short run, rather than the long run. [48:39]

Although incentives have been successfully applied in many situations, it has been argued that they only reward habitual good attendees, but do not affect the behavior of the problem group. [379:29] Others believe that employees should not be rewarded for doing work they are paid to do anyway. Nord replied to this feeling by saying:

TABLE 27.--Metropolitan School's Percentage of Perfect Attendance and Substitute Teacher Costs for First Semester of Five Consecutive Years[1,2]

	Year of Program's Operation				
	1	2	3	4	5
Percentage of eligible teachers having perfect attendance	41	60	54	45	43
Adjusted cost of substitute teachers	$335,208	$219,984	$293,352	$326,424	$316,161

[1]Substitute teacher costs per day rose $1 during each year the program has been in operation. The figures in this table were adjusted to constant dollar costs by assuming that the rate for all the years was the same as it was the final year.

[2]During this period, the number of eligible teachers employed rose approximately 400, from about 3700 to 4100.

SOURCE: Walter Nord. "Improving Attendance Through Rewards," *Personnel Administration*, 33 (November-December 1970), p. 40. Copyright 1970 by the Society for Personnel Administration. Used with permission of The International Personnel Management Association.

> The answer is, it depends on how badly you want the behavior. If it is not important, forget about it. If it is important and it is not being performed, you have three choices.
>
> First, live with the problem.
>
> Second, punish those who do wrong. However, a rather persuasive body of knowledge has been accumulated showing that punishment has many undesirable side effects.
>
> Third, reward the desired behavior. [48:41]

According to a 1975 report by the National Commission on Productivity and Work Quality, state and local governments have employed a wide variety of incentives to stimulate employee productivity. From the results of a national survey, the Commission found that 93 percent of the 41 responding states and 84 percent of the 509 responding local governments reported experience with at least one type of incentive plan. Attendance incentives were reported to be used by 118 (23 percent) of the local government respondents. Eighty-five (72 percent) were cities of over 50,000 population. In cities with a population between 25,000 and 50,000, seven (18 percent) used attendance incentives. Of the responding counties, 26 (17 percent) used incentives to improve employee attendance. [170:21]

In educational organizations, similar positive rewards also have been advocated and attempted. The New York State Office of Education Performance Review (1974) recommended that the New York City school system and the New York United Federation of Teachers develop group incentives which would allow teachers to benefit from reduced absenteeism. [80:23-24] Spuck (1974) found that intrinsic rewards are important motivators for good attendance, since external rewards (e.g., salary) usually are applied in a general way in public school systems. It is important to realize, Spuck explained, that "factors which act as incentives in production-oriented situations may not be motivators or may not act as motivators in the same way for employees in professional service-oriented organizations as they do for employees in production-oriented occupations." [69:32] Ewing Township, New Jersey, developed a number of procedures for the internal recognition of outstanding attenders, including citation in an internal newsletter and a personal letter, and in-person acknowledgement. Other ways to reward good attendance mentioned in the literature are offering additional fringe benefits to an entire employee group for stipulated reductions in sick leave use and awarding severance pay based entirely, or partially, on unused sick leave at the time of retirement, death, or resignation. [45:10]

GOAL SETTING AND PARTICIPATIVE DECISIONMAKING

The research evidence to date shows that the introduction of goal setting and participative decisionmaking is associated consistently with reduced levels of employee absenteeism. Mann and Sparling (1956) reported that absence rates in a Detroit utility company decreased following a series of "interlocking" conferences with organizational teams and the publication of a new set of administrative statistics. When two plants of the utility were compared, significant differences were discovered in the methods and the results of how absences were handled administratively. [294]

Introducing employee participation in decisionmaking also has successfully reduced absences among manufacturing workers (Smith and Jones, 1968) [386] and black press operators (Oster, 1970) [325], although the reverse was true for highway construction workers and electrical crews (Powell and Schlacter, 1971). [343] Harvey (1977) found that employees exposed to increasing levels of employee self-control showed increases in

performance and job satisfaction and decreases in absenteeism. [217]

Lawler and Hackman (1969) found that the attendance of part-time custodial workers in three work groups improved after they were allowed to participate in developing a program of pay incentives, and not in two groups that had such a plan imposed on them by management. [281] In a follow-up study, Scheflen, Lawler, and Hackman (1971) found that, after management discontinued the incentive programs in two of these three participative groups, attendance in both of these two groups fell below pretreatment levels. In the third participative group, attendance continued to be high. For the two groups that had incentive plans imposed on them by company management, an increase in attendance was found after one year of the plans' operation. [367]

Latham and Kinne (1971) found that production increased and absence decreased after a three-month training program in goal setting was instituted for pulpwood producers who had not previously set production goals. [277] Bragg and Andrews (1973) noted a significant decline in the absence rates of 32 laundry workers who were involved in a participative decisionmaking program for 18 months when compared with two control groups. [119] Latham and Kinne (1974) reported an increase in production and decrease in absence for pulpwood-logging workers who participated in a one-day training program in goal setting. [278] Goal setting also helped reduce absences in studies by Ivancevich (1974) [248] and Wexley and Nemeroff (1975). [422]

Hautaluoma and Gavin (1975) reported that absences in a small manufacturing company were reduced after interventions of feedback, supervisory skills training, and process observation were conducted by a team of organizational psychologists. [219] However, Kim and Hamner (1976) found no correlation between the absence rate of blue-collar unionized employees and the introduction of performance appraisal and feedback. [266]

JOB ENRICHMENT

Robinson (1974) stated that job rotation, which involves an employee learning another employee's job for a certain period of time, might be an effective way to introduce job enrichment, reduce work routine, and curb absenteeism. [360:26-27] Use of job enrichment and job redesign has decreased absence and turnover substantially among samples of:

- coal miners (Trist and Others, 1965 [408])
- female clerical workers (Ford, 1969 [179])
- female nonunion assembly workers (Beer and Huse, 1972 [107])
- blue-collar workers (Smith, 1972 [385]; Ketchum, 1972 [263]; Glaser, 1976 [197]; World of Work Report, 1977 [358])
- food service workers (Copenhaver, 1973 [150])
- telephone operators (Lawler, Hackman, and Kaufman, 1973 [282])
- city welfare department employees (Spiegel, 1975 [389])
- keypunch operators, leaders, and alternates (Hackman and Others, 1975 [211]).

Locke, Sirota, and Wolfson (1976) discussed the results of an experimental job enrichment program that was introduced for 1,000 employees in three clerical units in a federal agency. Diagnosing the work situation and training personnel were accomplished before the enrichment program was begun. The experimental group (i.e., the job enriched group) experienced changes in behavior in the areas of productivity and absences. The authors attributed absence changes to initial changes in morale based on expectations of extrinsic awards. [286]

Eleven programs in private industry in the United States and Europe designed to lessen

employee absenteeism through work redesign were described by Macaluso and associates (1973):

- AT&T (New York)--The work of a group of 35-40 foremen at a telephone plant was expanded to include them taking the entire responsibility for their jobs and negotiating with their "customer." The program was begun in 1966. Result: Absenteeism or tardiness did not change significantly.
- AT&T--A group of 95-120 shareholder correspondents in the Treasury Department were given more freedom and less supervision. Employees writing letters to complainants were allowed to sign them without a supervisor's review. The program was begun in 1965. Result: Absenteeism decreased from 2 percent to 1.4 percent after a year's trial; turnover was almost eliminated.
- Polaroid Corporation--A group of more than 2,000 factory operators were rotated between their jobs on the production-line and more desirable jobs outside the factory. The program was begun in 1959. Result: Absenteeism and turnover declined.
- Texas Instruments, Inc.--A group of 600 women in electronic instrument assembling was requested to set its own production goal. The group was given an increased amount of information on costs and terms of the government contract on which it was then working. The program was begun in 1967. Result: Declines were noted in absenteeism, turnover, leaving time, complaints, and trips to the health center.
- Oldsmobile Division of General Motors (Michigan)--Workers in two plants held meetings with foremen and other employees via a volunteer hourly employee task force, conducted surveys, and made general recommendations for better employee relations. The program was begun in 1970. Result: In engineering, absenteeism decreased 6 percent and in assembly, 6.5 percent, even though in the rest of Oldsmobile it increased 11 percent.
- Corning Glass Works (Massachusetts)--Six instrument assembly workers were allowed to abandon assembly line techniques by scheduling their work as a group so that weekly objectives would be met. The program was begun in 1965. Result: After six months, absenteeism dropped from 8 percent to 1 percent.
- Alcan Aluminum Corporation (New York)--For a group of rolling mill operators, time clocks were removed. Workers were given unusual freedom and decisionmaking responsibilities in the design of their production jobs. Salaries were guaranteed for either absence or layoff. The program was begun in 1965. Result: Where the industry average for absenteeism was approximately 10 percent, absenteeism for these workers decreased to about 2.5 percent.
- Bankers Trust Company (New York)--A group of 200 production typists in stock transfer operations were given the chance to change their own computer output tapes, accept typing for a specific customer group, and check and schedule their own work. Training was provided for all these areas. The program was begun in 1969. Result: Absenteeism and tardiness declined.
- Micro-Wax Department, Shell Stanlow Refinery (England)--Chemical operators formed group teams for providing increased flexibility within shift teams and job rotation. Time clocks were taken down. The program was begun in 1963. Result: Absence and sickness declined to 3.3 percent in 1969 from 4.3 percent in 1963.
- Nobø Fabrikker (Norway)--A group of 10-40 workers in a new unit producing electrical panels in a metal manufacturing plant were placed in production groups and subgroups. They were put on group bonus rates and elected a substitute for their supervisor, a "contact person" with the department head.

The program was begun in 1965. Result: The general level of satisfaction and attendance was better for these workers than for the factory as a whole.

- Norsk Hydro (Norway)--Approximately 50 production workers formed autonomous work groups without supervisors. A productivity-based group bonus plan was set up. The program was begun in 1966. Result: In the experimental factory, absenteeism was 4 percent; in the control factory, it was 7 percent. [289; 214:404-417]

However, as Champagne and Tausky (1978) pointed out, the intrinsic rewards offered by job enrichment programs sometimes are not enough to produce desired results. They recommended a "more realistic" approach of positive reinforcement, using extrinsic rewards. [142]

Some researchers have found no relationship between job enrichment and absence decrease, among them Davis and Valfer (1966) [159], Siegel and Ruh (1973) [381], King (1974) [267], Frank and Hackman (1975) [182], Gomez and Mussie (1975) [203], and Malone (1975) [290]. Since a large number of studies in this area aid not use rigorous research methodology, according to Steers and Rhodes (1978), "we are left with largely hearsay evidence that job enrichment reduced absenteeism." [394:394]

CHANGING THE LENGTH OF THE WORK WEEK OR WORKING HOURS

Some organizations have shortened the traditional five-day work week to four days in trying to combat employee absenteeism. Proponents of this plan hope that Monday-Friday absences will be reduced drastically. In some cases, four-day work weeks have cut absenteeism (see Nord and Costigan, 1973 [324] and Robins, 1979 [359:1]), but may produce, at the same time, increased stress on employees who work longer days but shorter work weeks. [379:28]

In a different variation of rescheduling the employee work week, Greene (1974) found that absences among the staff of a private psychiatric hospital decreased significantly when a work schedule of 10 hours a day for eight days, with the following six days off, was instituted. [207] Isambert-Jamati (1962) found a positive relationship between length of work week and employee absenteeism [247], as did Flanagan, Strauss, and Ulman (1974). [176] In a study of personnel working in an institution for the mentally retarded, Pierce, Hoffman, and Pelletier (1974) reported that sick leave use was reduced after a four-day work week was established. [337]

Ivancevich (1974) [249] and Ivancevich and Lyon (1977) [250] reported opposite findings in their studies of four-day, 40-hour work weeks. Workers under this arrangement showed less anxiety-stress, but had no significant change in their absence rate in either study.

"Flexitime," a system which allows employees to alter their working hours somewhat to meet their own needs, produced modest declines in absence in studies by Robison (1976) [361] and Golembiewski, Hilles, and Kagno (1974) [202], but not in research of bank employees by White (1976). [424]

In summary, the research seems to indicate that shortened work weeks have been successful in reducing absenteeism, but the results are inconclusive as to whether or not changing employee working hours affects absence rates.

ALCOHOL REHABILITATION PROGRAMS

Programs aimed at alcoholic employees have shown success in reducing these employees' absence rates. Edwards and associates (1977) reported that, over a four-year period (two years before treatment and two years after), every one of 148 men who was treated for alcoholism in a U.S. Navy alcohol rehabilitation center used fewer sick days after treatment than before. [168] Similar results were found by Alander and Campbell (1975) for hourly alcoholic workers employed by Oldsmobile. [94] Moreover, alcohol

rehabilitation programs pay off monetarily. In a study involving 12 companies, the average absence of 286 employees involved in a pilot rehabilitation program declined from 445 hours in 12 months to 263 hours in 12 months. This resulted in savings of $454,000, compared to program costs of $230,000--a savings-to-cost ratio of 2:1. [5] In 1976 Pratt and Whitney Aircraft made a return of $3.50 for every dollar spent on its employee alcohol rehabilitation program in reduced absenteeism, medical costs, and alcohol-related accidents. In 1977 this ratio was 5:1. [95:6] Illinois Bell reported a benefit-to-cost ratio of 10:1 for its alcohol rehabilitation program. [95:6]

Developing Innovative Uses of Paid Leave

Examining leave provisions and converting paid leave into incentives might be another way to encourage good attendance, both in the short run and in the long run. Among the recommendations contained in the literature are:

1. Provide sick leave to employees for personal illness, injury, quarantine, or serious illness in the immediate family. [71]
2. Institute a "blanket leave" program, under which employees have a set number of hours of leave for both sickness and vacation. In a plan developed by the Panama Canal Company, full-time employees were given 324 hours of leave each year, with maximum accumulation of 720 hours. These 720 hours equalled 90 work days, more than the average balance of 66 days of accrued sick leave left unused by employees surveyed in a 1961 government study. [132:46-47]
3. Institute a "creditable service" plan, which turns unused sick leave into dollars at retirement. Under this plan, employees who retire after reaching an eligible level can have the remainder of their unused sick leave credited toward the total amount of service. Thus, a 30-year federal employee who retires receives 56 percent of his or her high three years' salary, Campbell (1970) explained. If this employee had an accumulation of 2,080 hours of sick leave (12 months) when retiring, he or she was credited with an additional year of service and received 58 percent of the high three years' salary. However, this method does not discourage short-term employees from abusing sick leave use. [132:46]
4. Establish a sick leave "bank" where employees can deposit unused sick leave which can be withdrawn after certain stipulations are met. [45:10] However, as *Nation's Schools Report* (1979) found in interviews with school officials who administer sick leave banks, these "banks" may be a costly fringe benefit. For example, in 1977-78, 3.2 percent of the teachers in Schaumburg, Illinois, who belonged to a sick leave bank used an average of 26.6 days per person; 4.7 percent of Montgomery County (Rockville), Maryland, teachers who belonged to a sick leave bank used an average of 25.5 days per person. In Collier County (Naples), Florida, each "withdrawal" that school employees have made from their sick leave bank has averaged about two weeks. The key to success for sick leave banks, according to these school administrators, is careful management control. [65]
5. Develop a policy of *unlimited* sick leave. Nadler (1972) found that among 12 school systems in Nassau County, New York, from 1965 to 1968, teachers in limited leave systems were absent 20 percent more than teachers in unlimited leave systems. [46]

6. Establish unlimited paid leave for any school employee injured on school property. A plan developed by the Los Angeles, California, public schools stipulated that in the first 60 days of injury (when workmen's compensation is in effect), the school system would pay the difference between the employee's salary and workmen's compensation. No regular sick leave would be used when this "assault" leave was taken. To control costs, each assault leave case was reviewed every 60 days to determine if extra leave was warranted. In school year 1972-73, 450 Los Angeles school employees took this leave at an average payment of $1,510. [39]
7. Allow the unlimited accumulation of unused sick leave. [45:10; 71]
8. Buy back unused sick leave, in whole or in part, at the end of a stipulated period. Teachers in Alsip School District No. 126 in Worth, Illinois, paid retiring teachers $10 a day for each unused day of sick leave. [3] Teachers in Lawrence, New York, also were eligible for retirement pay based on unused sick leave. In this plan, retirement pay equalled the daily pay rate at the last year of employment divided by two, multiplied by the number of unused sick leave days (not to exceed 100). Conceivably, a teacher with a daily pay rate of $100 and 100 unused sick leave days could earn $5,000. [58] Campbell (1970) argued that buy-back plans that operate on a yearly basis, rather than on a retirement or resignation basis, tend to criticize employees who use sick leave legitimately. [132:47-48]
9. Convert unused sick leave days to personal or vacation leave days. [45:10]
10. Allow certificated school employees to transfer unused sick leave days from one school system to another when changing employment. [71]
11. Allow certificated school employees who serve in more than one school system to receive appropriate sick leave for each position held. [71]
12. Provide certificated school employees use of the entire year's allowance of sick leave on the first day of the school year if needed. [71]
13. Pay certificated school employees for sick leave absence and for workmen's compensation, when applicable. [71]
14. Supplement workmen's compensation payments for certificated school employees if possible. [71]

Examples of city and county governments that have used innovative variations of leave use as an attendance incentive are described in the report by the National Commission on Productivity and Work Quality (1975). Employees in Sacramento, California, with 60 or more days of accumulated sick leave were eligible for rewards. Initiated in 1969, the plan allowed employees who accumulated six or more days of unused sick leave during a year either to receive 25 percent of the equivalent value of their unused sick leave from the preceding year in cash or to accumulate the unused credits instead of receiving cash. Sick leave could be accumulated without limit. Any employee with more than two years of service received at death, retirement, or resignation, one-third of the value of all unused sick leave credit. [170:21]

Results of the program are shown below. Until the plan was adopted in 1969, sick leave use was increasing; afterwards, the average annual sick leave use per employee declined nearly 10 percent. (See Table 28.) Presented in Table 29 is a comparison of the average number of sick leave days taken by eligible and ineligible employees (those with less than two years of service). Average sick leave taken by eligible employees declined sharply in the first year of the plan's operation, while sick leave for

TABLE 28.--Results of Attendance Incentive Plan: Sacramento, California*

Fiscal Year	Total Employees (Eligible and Ineligible)	Days Used	Yearly Average Sick Leave Use Per Employee
1966-67	2,245	14,396	6.41
1967-68	2,272	14,673	6.46
1968-69	2,341	15,391	6.57
1969-70[1]	2,394	13,987	5.84
1970-71	2,402	14,250	5.93

[1]Implementation of incentive program.

*William J. Woska, "Management Awareness--Sick Leave Incentive Plans," City of Sacramento, California, Fall 1971.

SOURCE: *Employee Incentives to Improve State and Local Government Productivity*. Washington, D.C.: National Commission on Productivity and Work Quality, March 1975, p. 22.

TABLE 29.--Comparison of Absenteeism Between Participants and Nonparticipants in Attendance Incentive Plan: Sacramento, California*

Calendar Year	Eligible Employees	Average Days Sick Leave Taken Per Employee	Ineligible Employees	Average Days Sick Leave Taken Per Employee
1969	1074	4.05	1327	7.67
1970	920	2.27	1491	8.45
1971	961	3.48	1483	8.09

*William J. Woska, "Management Awareness--Sick Leave Incentive Plans," City of Sacramento, California, Fall 1971.

SOURCE: *Employee Incentives to Improve State and Local Government Productivity*. Washington, D.C.: National Commission on Productivity and Work Quality, March 1975, p. 22.

ineligible employees increased. However, by 1971, eligible employees took an average of 3.48 days of sick leave, an increase from the previous year, while ineligible employees took an average of 8.09 days of sick leave, a decrease from calendar year 1970.

During fiscal year 1970, Kansas City, Missouri, began a program for converting unused sick leave into additional terminal leave. Employees who leave city employment receive one extra day of vacation leave for every four days of unused sick leave. Retiring employees receive one day of terminal leave for every two days of unused sick leave. Average sick leave was 9.3 hours per employee per month before this program was introduced. Sick leave use declined to 6.9 hours per employee per month in the year the program began, and two years later, it averaged 5.7 hours. Since that time, sick leave use increased to approximately six hours per employee per month and remained constant. [170:22-23]

It was reported that employees in St. Petersburg, Florida, were provided up to three additional vacation days per year for low sick leave usage. Employees in New Orleans, Louisiana, can choose to add their accumulated sick leave to their length of service at retirement. Included in a negotiated agreement in San Mateo County, California, was a provision for a retirement bonus of 50 percent of the cash value of unused sick leave if the total sick leave taken by the bargaining unit's 1,500 employees could be reduced 12.5 percent. After one year, employees were unable to reduce their sick leave use by this amount. [170:23]

The Commission also reported examples of sick leave payback programs used by three state governments. In Minnesota, employees with 20 or more years of service receive a cash payment equal to 20 percent of their unused sick leave at the time they leave state employment. Sick leave accumulation has a ceiling of 800 hours. A similar plan was introduced in 1967 by the state of Connecticut. Since that plan was introduced, average absenteeism declined more than 11 percent. Beginning in July 1973, Oregon added half the current cash value of an employee's sick leave to his or her pension formula at retirement. [170:23]

Enlisting Other Agencies to Help Reduce Employee Absenteeism

If possible, school systems may find it helpful to enlist the assistance of other organizations in trying to reduce absenteeism. The joint business-educator attendance project of the Greater Newark, New Jersey, Chamber of Commerce and the Newark and Ewing Township Public Schools, mentioned throughout this Research Brief, is an example of one such cooperative venture. [29; 54; 81] Stallings (1959) advocated that minimum sick leave provisions should be included specifically in all of the states' education codes. [71] The New York State Office of Education Performance Review (1974) recommended that:

> The State Education Department and the City [of New York] School District should institute budgetary action to financially penalize school districts with excessive expenditures for substitute teachers. [80:5]

School administrators who decide not to engage assistance outside their school system may find an inexpensive approach to absenteeism-prevention within their own schools. Adams (1976) reported that high school absences correlated significantly with future absences of factory workers in Salem County, New Jersey. As a step toward mitigating this situation, Adams recommended that programs should be stablished to inform parents of vocational school students about the possible long-range impact of poor attendance patterns during high school. [93]

SUMMARY AND CONCLUSIONS

While managers in business and industry have repeatedly struggled for years to find solutions to problems associated with employee absenteeism, concerted attempts by school management to cope with the problems of staff absenteeism have been less numerous and more recent. Why this is so is difficult to say. Perhaps until recently, absenteeism among educational personnel has not posed an important problem for most school systems. Perhaps few school systems have attempted to analyze the effects of employee absenteeism and report their findings to others. But it is clear that, today staff absenteeism in education, as elsewhere, is widespread and costly.

This Research Brief attempts to provide a comprehensive review of research on employee absenteeism for both educational and noneducational personnel. Although this report focuses on the absenteeism of educational employees, the abundant absenteeism literature from private industry and government also has been summarized in order to provide school administrators and school boards with timely and complete information from as many sources as possible.

The research has addressed a variety of facets relating to employee absenteeism, including current and trend absence data, major factors thought to influence employee absenteeism, costs associated with employee absenteeism, and recommendations for controlling employee absenteeism. From the available research reviewed here, the following tentative conclusions seem warranted at this time:

DATA ON EMPLOYEE ABSENCE

- One of the major problems in interpreting results from the literature on employee absenteeism is the wide number of definitions used to measure absence. Organizations frequently do not use the same criteria in counting job absences, which further hinders the interpretation of absence data.
- Among the measures commonly used in national absence surveys are the incidence rate (percent of workers with an absence), the inactivity rate (percent of usual hours lost), the severity rate (percent of usual hours lost by absent workers), and work-loss days. Absence frequency (total number of times absent) appears to be the most reliable of the absence measures used in experimental research.
- The literature on employee absenteeism suggests that a reasonable level of absence is within a range of three to six percent of available work time.
- The average absence rate for all workers in the United States ranged from 2.9 to 3.5 percent in 1978.
- Currently employed workers in the U.S. lost an average of 5.2 work days in 1975, the latest period for which data are available.
- National trend data on employee absenteeism published by three major data

sources, which use different measures of absence, have been markedly dissimilar. These sources have reported that: (1) no changes in absence rates occurred from 1973 to 1978, (2) absence rates decreased 27.5 percent from 1973 to 1978, and (3) absence rates declined 10.3 percent from 1965-66 to 1975.

- According to data published by the federal government, absence rates for educational personnel were near the national average in both 1967 and 1972.
- Few local school systems or states have collected and published absence data for teachers and other educational personnel. In two states where data have been published, teacher absence rates increased dramatically during the 1970s. A 46 percent increase in teacher absenteeism was found in Pennsylvania and a 16 percent rise was noted in Illinois.
- Virtually all school systems in the country provide teachers with paid sick leave and personal/emergency leave. The median number of days of sick leave provided is 10; the median number of personal/emergency leave days provided is three.
- Sixty percent of all school systems provide sabbatical leave for teachers, although sabbatical leave provisions are much more prevalent in large systems than in small systems. The majority of systems which provide sabbatical leave for teachers give half salary to teachers on sabbatical leave.
- Three-fourths of the school systems in the U.S. also provide jury leave, professional leave, military leave, parental leave, and family leave.
- Little research has been conducted on the extent to which leave without pay is taken by educational personnel. In the few studies where leave without pay usage has been reported, teachers took an average of less than one day of leave without pay per year.
- There is evidence to support the contention that a few employees may be responsible directly for much of the short-term absence that occurs within an organization.
- There is some indication that one-day use of sick leave indicates sick leave abuse.
- Use of substitute teachers plays an important role in analyzing management reaction to teacher absence. Most school systems select substitute teachers for duty primarily on the basis of their past performance as a substitute. Less than half of the school systems nationwide formally evaluate substitute teacher performance or provide orientation or in-service programs for substitutes. Few school systems use an alternative method for replacing absent teachers, either in addition to or in place of, substitute teachers.

THE RELATIONSHIP BETWEEN EMPLOYEE ABSENTEEISM AND PERSONAL FACTORS

- Research to date indicates a *consistent* association between absenteeism and:
  * lower level occupations/jobs
  * increased stress and anxiety
  * employee sex (women absent more frequently than men; men absent for longer duration than women); however, other intervening factors also may influence sex-absenteeism relationships, such as age, marital status, and occupation.
  * race (nonwhites absent more than whites); however, other factors such as occupation level, marital status, and age may influence race-absenteeism relationships.
- Research findings have been *inconsistent* on the relationship between absenteeism and:
  * tenure/years of employment experience
  * marital status

  * family size
  * education level
  * age; however, older employees may have higher sickness rates and younger employees may have higher absence rates for total or uncertified absences.

THE RELATIONSHIP BETWEEN EMPLOYEE ABSENTEEISM AND JOB SATISFACTION

- From an analysis of the available research, findings that reported a negative relationship between job satisfaction and absenteeism outnumber findings that reported no correlation between these variables by a margin of two to one.

THE RELATIONSHIP BETWEEN EMPLOYEE ABSENTEEISM AND ORGANIZATIONAL FACTORS

Organization-Wide Factors

- Of the 13 organization-wide factors examined by research, four were reported to have a *consistent* association with absenteeism:
  * industry (employees in goods-producing industries absent more than service workers)
  * large organization size
  * lenient personnel policies relating to absenteeism and leave usage
  * bargaining and union activity.
- *Inconsistent* results were found between employee absenteeism and six variables:
  * salary level/wage rate
  * satisfaction with pay
  * satisfaction with promotion
  * availability of overtime work
  * shiftwork
  * employment status.
- Research studies rather consistently have found a *lack* of relationship between absenteeism and the following variables:
  * satisfaction with organizational policies and practices
  * employee control and participation
  * organizational climate.

Work-Environment Factors

- Of the eight work-environment factors researched, two were found to be *consistently* related to employee absenteeism:
  * large work unit size
  * dissatisfaction with the work itself.
- Studies relating to three factors produced *inconsistent* results relating to employee absenteeism:
  * job autonomy and responsibility
  * task factors
  * satisfaction with the sense of achievement.
- Research rather consistently has found a *lack* of relationship between employee absenteeism and:
  * group cohesion/satisfaction with co-workers
  * satisfaction with the supervisor
  * employer-employee feedback.

Factors Particular to Education

- Each of four factors particular to education that have been studied were found to have a *consistent* correlation to teacher absenteeism:
  * level of teaching (elementary teachers absent more than secondary teachers)
  * grade organization
  * type of student taught (disadvantaged and minority)
  * type of school (Title I and inner-city).

THE RELATIONSHIP BETWEEN EMPLOYEE ABSENTEEISM AND TIME-PLACE FACTORS

- Each of the time-place factors examined have been found to relate *consistently* to employee absenteeism. High rates of absence have been reported for:
  * Mondays and Fridays
  * winter and spring months
  * the South

* residence outside the school system or inside a Standard Metropolitan Statistical Area
* increased travel distance to work.

THE RELATIONSHIP BETWEEN EMPLOYEE ABSENTEEISM AND TURNOVER

- Research findings suggest that some important differences may exist between the causes of absenteeism and employee turnover.
- Research clearly indicates that employee absenteeism is related *consistently* to the increased turnover of individuals. However, there appears to be an *inconsistent* relationship between absenteeism and the turnover of groups.

COST OF EMPLOYEE ABSENTEEISM

- Estimates of the cost of employee absenteeism in the U.S. to employers and the workforce run into the tens of billions of dollars.
- For an individual organization, the costs of employee absenteeism may be as high as $150 per person.
- Substitute teacher costs alone for a large school system may run into the millions of dollars.
- In school systems enrolling 10,000 or more pupils in 1975-76, the mean cost of substitute teachers' salaries was almost $250 per teacher.
- *Minimum* scheduled daily pay rates for substitute teachers ranged from $13.00 to $56.05 in 1978-79. *Maximum* scheduled daily pay rates ranged from $15.00 to $97.64.
- Median *minimum* scheduled daily pay rates for substitute teachers increased 13.0 percent from 1976-77 to 1978-79. Median *maximum* scheduled daily pay rates increased 8.6 percent.
- The cost of teacher absenteeism at the statewide level can be enormous. In Illinois, substitute teachers cost the state $32 million in 1975-76. In Pennsylvania, all professional salaries that were attributed to teacher absenteeism would have cost the state $88 million in 1977-78.

CONTROLLING EMPLOYEE ABSENTEEISM

- Research indicates that school systems might establish or revise existing policies on employee absenteeism, i.e., clearly define the concepts of *absence* and *absenteeism*, set standards, include specific rules regarding absenteeism, and set down disciplinary procedures for excessive absence.
- Research indicates that school systems might develop guidelines for collecting absence data. Many organizations have no absence monitoring system whatever and thus have no way of gauging the true impact of employee absenteeism. Forms for collecting data on employee absence can be as simple or as complex as necessary. Absences should be kept at the individual, work unit, and organizational levels, and should be recorded by the type of absence. A standard medical certificate should be developed. Absence data should be circulated to all staff members.
- Research indicates that school systems might define the responsibilities of middle management in the absence control system. Involving the employee's supervisor is one of the most crucial aspects of the entire control program. Where attempted, supervisory training programs have helped reduce absenteeism. Supervisors should be interested in all staff absences and deal with time lost from work in a positive manner. Employees should report absences directly to the supervisor, not through a telephone answering service which encourages sick leave abuse.
- Research indicates that school systems might define the responsibilities of upper management in the absence control system.

Without active support from the top, absence control programs have little chance of success. In school systems with collective bargaining, cooperation with employee unions is an important step in securing the cooperation of the employees themselves. School administrators have a number of options available to them which may play a role in reducing employee absenteeism--screening out applicants with poor attendance records, using attendance as a criterion in staff evaluations, and developing alternatives to hiring substitute teachers.

- Research indicates that school systems might develop programs to stimulate good attendance. Studies have shown that positive approaches toward absence reduction usually are more successful than punitive measures. Cash and noncash incentives have worked in a number of organizations to help decrease absenteeism, as have goal setting and participative decisionmaking, shortened work weeks, and alcohol rehabilitation programs. It has been shown that behavior modification works best for monotonous and repetitive jobs and that job enrichment and changing working hours are successful in some situations but not others.
- Research indicates that school systems might develop innovative uses of paid leave to encourage good attendance. Among the ways paid leave can be used as an incentive are sick leave banks, crediting all or part of unused sick leave to dollars at termination or retirement, providing a policy of unlimited sick leave, buy-back plans, and paid leave for injuries suffered on school property.
- Research indicates that school systems might enlist other agencies to help reduce employee absenteeism wherever possible, e.g., joint business-educator projects.

APPENDIX

TABLE A.--Work-Loss Days per Currently Employed Person per Year and Currently Employed Population, by Sex and Age: United States, 1975

Age	Work-loss days			Currently employed population		
	Both sexes	Male	Female	Both sexes	Male	Female
	Days per currently employed person per year			Number in thousands		
All ages 17 years and over.....	5.2	4.9	5.7	83,218	50,062	33,156
17-24 years.....	4.6	4.4	4.8	17,861	9,656	8,205
25-34 years.....	5.1	4.7	5.8	20,288	12,621	7,667
35-44 years.....	5.2	4.6	6.1	15,567	9,581	5,986
45-54 years.....	5.5	5.2	6.1	16,023	9,841	6,182
55-64 years.....	6.1	6.0	6.4	10,680	6,554	4,126
65-74 years.....	3.5	4.3	*2.2	2,387	1,524	863
75 years and over.....	8.9	*9.4	*7.8	413	286	127

*Figure does not meet standards of reliability or precision.

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in *Current Population Reports*, Series P-20, P-25, and P-60, and Bureau of Labor Statistics monthly report, *Employment and Earnings*.

A "work-loss day" is a day on which a person did not work at his or her job or business for at least half of his normal workday because of specific illness or injury. The number of days lost from work is determined only for persons 17 years of age and over who reported that at any time during the 2-week period covered by the interview they either worked at or had a job or business.

SOURCE: *Disability Days. United States 1975.* Vital and Health Statistics Series 10, Number 118. Hyattsville, Maryland: U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics, June 1978, p. 20.

TABLE B.--Work-Loss Days per Currently Employed Person per Year and Currently Employed Population, by Race, Sex, and Age: United States, 1975

Sex and age	Work-loss days			Currently employed population		
	Total[1]	White	Black	Total[1]	White	Black
Both sexes	Days per person per year			Number in thousands		
All ages 17 years and over.....	5.2	5.0	7.4	83,218	74,024	8,018
17-24 years.....	4.6	4.4	7.1	17,861	15,945	1,678
25-44 years.....	5.1	4.9	7.3	35,855	31,549	3,675
45-64 years.....	5.8	5.6	7.7	26,703	24,041	2,367
65 years and over.....	4.3	4.1	*6.5	2,800	2,489	299
Male						
All ages 17 years and over.....	4.9	4.7	7.3	50,062	45,138	4,230
17-24 years.....	4.4	4.1	8.6	9,656	8,673	849
25-44 years.....	4.7	4.5	6.3	22,202	19,919	1,907
45-64 years.....	5.5	5.3	8.0	16,395	14,926	1,292
65 years and over.....	5.1	4.8	*7.9	1,810	1,621	182
Female						
All ages 17 years and over.....	5.7	5.4	7.4	33,156	28,886	3,788
17-24 years.....	4.8	4.7	5.6	8,205	7,272	829
25-44 years.....	5.9	5.6	8.4	13,653	11,630	1,768
45-64 years.....	6.2	6.0	7.4	10,308	9,116	1,075
65 years and over.....	*2.9	*2.8	*4.3	990	868	116

[1] Includes all other races.

*Figure does not meet standards of reliability or precision.

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in *Current Population Reports*, Series P-20, P-25, and P-60, and Bureau of Labor Statistics monthly report, *Employment and Earnings*.

The "all other races" category includes American Indian, Chinese, Japanese, Hawaiian, and all other races. Mexican, Puerto Rican, and Cuban persons are included with "white" unless definitely known to be Indian or of another race.

SOURCE: *Disability Days. United States 1975.* Vital and Health Statistics Series 10, Number 118. Hyattsville, Maryland: U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics, June 1978, p. 22.

TABLE C.--Work-Loss Days per Currently Employed Person per Year and Currently Employed Population for Both Sexes and Males, by Age and Occupation Classification: United States 1975

Industry classification	Both sexes				Male			
	All ages 17 years and over	17-44 years	45-64 years	65 years and over	All ages 17 years and over	17-44 years	45-64 years	65 years and over
	Work-loss days per currently employed person per year							
All occupation classifications	5.2	5.0	5.8	4.3	4.9	4.6	5.5	5.1
Professional, technical, and kindred workers	4.1	3.9	4.9	*0.9	3.5	3.1	4.8	*1.3
Farmers and farm managers	2.7	*2.9	*2.6	*2.7	2.9	*3.1	*2.7	*2.9
Managers and administrators, except farm	3.7	3.6	3.8	*2.7	3.3	3.0	3.8	*3.5
Clerical and kindred workers	5.1	5.1	5.2	*7.0	4.9	4.8	4.9	*7.4
Salesworkers	4.0	3.3	5.2	*3.9	3.4	2.9	3.9	*6.0
Craftsmen and kindred workers	5.8	5.4	6.0	*12.6	5.6	5.1	6.0	*13.4
Operatives and kindred workers	6.5	6.0	7.7	*1.7	6.0	5.8	6.6	*0.8
Private household workers	4.7	*5.4	*4.3	*4.0	* -	* -	* -	* -
Service workers, except private household	6.5	6.1	7.8	*3.8	6.9	6.3	8.6	*4.9
Farm laborers and farm foremen	5.8	*2.8	*12.7	*12.5	5.8	*2.4	*14.0	*15.9
Laborers, except farm	6.6	6.7	6.9	*2.7	6.4	6.3	7.2	*2.9
Unknown	*3.7	*3.3	*4.9	* -	*2.0	*2.2	*1.9	* -
	Currently employed population in thousands							
All occupation classifications	83,218	53,716	26,703	2,800	50,062	31,858	16,395	1,810
Professional, technical and kindred workers	12,691	8,839	3,548	304	7,329	5,027	2,090	212
Farm and farm managers	1,546	587	712	248	1,464	552	679	233
Managers and administrators, except farm	9,221	4,977	3,891	353	7,184	3,934	2,975	275
Clerical and kindred workers	14,229	9,842	4,110	277	3,231	2,064	1,076	91
Salesworkers	5,264	3,253	1,748	262	3,058	1,870	1,024	163
Craftsmen and kindred workers	11,205	7,033	3,905	267	10,542	6,617	3,681	244
Operatives and kindred workers	12,646	8,330	4,047	270	8,709	5,975	2,568	166
Private houshold workers	1,080	447	476	157	*29	*14	*6	*9
Service workers, except private household	10,077	6,657	2,940	479	4,160	2,657	1,238	266
Farm laborers and farm foremen	1,095	763	272	59	786	562	180	44
Laborers, except farm	3,469	2,543	828	98	3,141	2,315	735	91
Unknown	694	444	226	*24	429	271	142	*15

- Quantity zero. *Figure does not meet standards of reliability or precision.

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in *Current Population Reports*, Series P-20, P-25, and P-60, and Bureau of Labor Statistics monthly report, *Employment and Earnings*.

SOURCE: *Disability Days. United States 1975.* Vital and Health Statistics Series 10, Number 118. Hyattsville, Maryland: U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics, June 1978, p. 38.

TABLE D.--Work-Loss Days per Currently Employed Person per Year and Currently Employed Population, by Income, Sex, and Age: United States, 1975

Sex and age	All incomes[1]	Family Income: Less than $3,000	$3,000-$4,999	$5,000-$6,999	$7,000-$9,999	$10,000-$14,999	$15,000 or more
Both sexes	Work-loss days per currently employed person per year						
All ages 17 years and over..	5.2	8.7	6.1	6.9	6.5	5.2	4.2
17-24 years.....	4.6	4.6	4.2	6.3	6.0	4.7	3.7
25-44 years.....	5.1	13.8	6.2	7.8	6.6	4.9	4.0
45-64 years.....	5.8	11.9	8.7	6.7	7.2	6.1	4.6
65 years and over.....	4.3	*5.1	*5.0	*4.9	*4.4	*5.2	*2.6
Male							
All ages 17 years and over..	4.9	7.2	7.1	6.5	6.7	5.2	3.8
17-24 years.....	4.4	*3.6	*4.1	7.4	6.2	4.2	3.3
25-44 years.....	4.7	10.5	6.8	6.7	6.0	4.6	3.8
45-64 years.....	5.5	12.1	12.1	5.3	8.3	6.4	4.0
65 years and over.....	5.1	*3.0	*7.3	*6.7	*5.3	*7.2	*3.3
Female							
All ages 17 years and over..	5.7	10.1	5.3	7.3	6.3	5.3	4.8
17-24 years.....	4.8	5.5	*4.2	5.1	5.7	5.2	4.2
25-44 years.....	5.9	17.0	*5.4	9.1	7.4	5.3	4.5
45-64 years.....	6.2	11.8	6.7	8.0	5.8	5.5	5.8
65 years and over.....	*2.9	*6.7	*2.2	*1.8	*2.6	* -	* -
Both sexes	Currently employed population in thousands						
All ages 17 years and over..	83,218	3,146	4,019	6,220	9,992	20,205	33,865
17-24 years.....	17,861	1,264	1,233	1,755	2,493	3,969	6,085
25-44 years.....	35,855	838	1,206	2,266	4,154	9,769	15,715
45-64 years.....	26,703	711	1,140	1,787	2,964	6,121	11,506
65 years and over.....	2,800	332	439	412	381	347	560
Male							
All ages 17 years and over..	50,062	1,483	1,967	3,297	5,761	12,834	21,202
17-24 years.....	9,656	611	681	940	1,334	2,193	3,294
25-44 years.....	22,202	416	624	1,234	2,495	6,459	9,775
45-64 years.....	16,395	308	422	860	1,672	3,929	7,696
65 years and over.....	1,810	147	240	263	260	253	438
Female							
All ages 17 years and over..	33,156	1,663	2,052	2,923	4,232	7,371	12,663
17-24 years.....	8,205	653	553	815	1,159	1,776	2,791
25-44 years.....	13,653	421	582	1,032	1,659	3,309	5,940
45-64 years.....	10,308	403	718	927	1,292	2,192	3,810
65 years and over.....	990	185	199	149	121	93	122

[1]Includes unknown income. - Quantity zero.

*Figure does not meet standards of reliability or precision.

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in *Current Population Reports*, Series P-20, P-25, and P-60, and Bureau of Labor Statistics monthly report, *Employment and Earnings*.

SOURCE: *Disability Days. United States 1975.* Vital and Health Statistics Series 10, Number 118. Hyattsville, Maryland: U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics, June 1978, p. 31.

TABLE E.--Work-Loss Days per Currently Employed Person per Year and Currently Employed Population for Both Sexes and Males, by Age and Industry Classification: United States, 1975

Industry classification	Both sexes				Male			
	All ages 17 years and over	17-44 years	45-64 years	65 years and over	All ages 17 years and over	17-44 years	45-64 years	65 years and over
	Work-loss days per currently employed person per year							
All industry classifications	5.2	5.0	5.8	4.3	4.9	4.6	5.5	5.1
Agriculture	3.7	2.9	4.6	*5.3	3.5	*2.5	4.1	*5.8
Forestry and fisheries	*2.4	*1.1	*4.7	* -	*2.8	*1.2	*5.8	* -
Mining	*3.6	*3.8	*3.3	* -	*3.9	*4.2	*3.6	* -
Construction	4.6	4.8	4.3	*1.4	4.8	5.0	4.5	*1.5
Manufacturing	6.1	5.6	7.1	*5.3	5.6	5.1	6.6	*6.3
Transportation and public utilies	6.1	5.8	6.4	*13.9	6.6	6.7	6.0	*14.6
Wholesale and retail trade	4.7	4.6	5.0	*4.4	4.1	4.2	3.6	*6.4
Finance, insurance, and real estate	3.9	3.8	3.6	*7.2	2.9	*2.6	*2.6	*6.5
Service and miscellaneous	4.8	4.6	5.8	*2.9	4.5	3.4	7.0	*2.7
Public miscellaneous	7.1	7.5	6.5	*7.3	6.3	6.5	6.0	*7.6
Unknown	*4.1	*4.0	*4.8	* -	*3.3	*3.8	*2.8	* -
	Currently employed population in thousands							
All industry classifications	83,218	53,716	26,703	2,800	50,062	31,858	16,395	1,810
Agriculture	3,015	1,606	1,076	333	2,497	1,280	918	299
Forestry and fisheries	70	44	*26	* -	61	40	*21	* -
Mining	656	426	221	*9	588	380	201	*7
Construction	5,042	3,377	1,537	128	4,695	3,148	1,427	120
Manufacturing	19,149	12,208	6,662	279	13,570	8,655	4,717	197
Transportation and public utilities	5,541	3,621	1,855	65	4,261	2,693	1,512	56
Wholesale and retail trade	16,155	10,852	4,750	553	9,012	6,082	2,567	362
Finance, insurance, and real estate	4,765	3,115	1,424	227	2,229	1,319	755	155
Service and miscellaneous	23,055	14,923	7,041	1,091	9,318	5,963	2,826	530
Public administration	5,086	3,097	1,904	85	3,432	2,045	1,322	64
Unknown	684	447	207	*29	399	251	129	*20

- Quantity zero.

*Figure does not meet standards of reliability or precision.

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in *Current Population Reports*, Series P-20, P-25, and P-60, and Bureau of Labor Statistics monthly report, *Employment and Earnings*.

SOURCE: *Disability Days. United States 1975*. Vital and Health Statistics Series 10, Number 118. Hyattsville, Maryland: U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics, June 1978, p. 37.

TABLE F.--Work-Loss Days per Currently Employed Person per Year and Currently Employed Population, by Place of Residence, Geographic Region, Sex, and Age: United States, 1975

Sex and age	All areas	Place of residence			Geographic region[1]			
		SMSA	Outside SMSA		Northeast	North Central	South	West
			Nonfarm	Farm				
Both sexes	Work-loss days per currently employed person per year							
All ages 17 years and over..	5.2	5.3	5.0	3.6	5.3	4.7	5.1	6.1
17-24 years	4.6	4.8	4.1	*3.5	5.0	4.2	4.4	5.2
25-44 years	5.1	5.2	5.3	*2.4	5.0	4.5	5.2	6.1
45-64 years	5.8	6.0	5.4	4.7	5.9	5.5	5.4	6.8
65 years and over	4.3	4.5	*4.0	*4.0	5.2	*3.0	4.8	*4.5
Male								
All ages 17 years and over..	4.9	5.0	4.8	3.8	5.1	4.3	4.9	5.5
17-24 years	4.4	4.7	3.7	*3.6	4.2	3.4	4.9	5.5
25-44 years	4.7	4.8	4.6	*2.6	5.1	3.9	4.5	5.6
45-64 years	5.5	5.4	5.9	4.7	5.4	5.7	5.4	5.6
65 years and over	5.1	5.3	*5.0	*4.5	*7.6	*3.2	5.9	*3.3
Female								
All ages 17 years and over..	5.7	5.9	5.3	*3.2	5.6	5.2	5.3	7.0
17-24 years	4.8	4.9	4.7	*3.1	5.8	5.1	3.7	4.9
25-44 years	5.9	5.9	6.3	*1.8	4.9	5.6	6.2	6.9
45-64 years	6.2	6.8	4.7	*4.9	6.6	5.1	5.4	8.9
65 years and over	*2.9	*3.3	*2.2	*1.1	*1.4	*2.7	*2.7	*6.8
Both sexes	Currently employed population in thousands							
All ages 17 years and over..	83,218	58,515	21,881	2,821	19,478	22,705	26,167	14,868
17-24 years	17,861	12,667	4,690	504	4,032	5,151	5,500	3,177
25-44 years	35,855	25,392	9,508	955	7,902	9,691	11,582	6,680
45-64 years	26,703	18,727	6,854	1,122	6,867	7,052	8,153	4,631
65 years and over	2,800	1,730	830	240	677	811	932	380
Male								
All ages 17 years and over.	50,062	34,777	13,274	2,011	11,676	13,778	15,616	8,993
17-24 years	9,656	6,591	2,727	338	2,099	2,803	3,036	1,718
25-44 years	22,202	15,666	5,885	652	5,000	6.016	7.079	4,107
45-64 years	16,395	11,443	4,136	816	4,157	4,415	4,898	2,925
65 years and over	1,810	1,077	527	205	420	543	603	243
Female								
All ages 17 years and over.	33,156	23,738	8,607	811	7,802	8,928	10,551	5,876
17-24 years	8,205	6,076	1,963	166	1,933	2,347	2,464	1,460
25-44 years	13,653	9,726	3,624	303	2,902	3,676	4,502	2,573
45-64 years	10,308	7,284	2,718	306	2,710	2,637	3,255	1,707
65 years and over	990	652	303	35	257	268	329	137

[1] Northeast: CT, MA, ME, NJ, NH, NY, PA, RI, VT. North Central: IA, IL, IN, KS, MI, MO, MN, ND, NE, OH, SD, WI. South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV. West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY.

*Figure does not meet standards of reliability or precision.

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in *Current Population Reports*, Series P-20, P-25, and P-60, and Bureau of Labor Statistics monthly report, *Employment and Earnings*.

SOURCE: *Disability Days. United States 1975.* Vital and Health Statistics Series 10, Number 118. Hyattsville, Maryland: U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics, June 1978, p. 26.

SELECTED BIBLIOGRAPHY

The following bibliography is based on a search of published and unpublished literature. Each of the entries relates to employee absenteeism in education, business, industry, or government, although not all are cited in the text.

Where possible, addresses and prices are given to expedite the ordering of desired materials. Documents for which ERIC Document (ED) numbers are given can be ordered from the ERIC Document Reproduction Service, Computer Microfilm International Corporation, P.O. Box 190, Arlington, VA 22210. The price schedule for documents is as follows: *Hard Copy:* 1-25 pages, $1.82; 26-50 pages, $3.32; 51-75 pages, $4.82; 76-100 pages, $6.32. (Add $1.50 for each 25-page increment or fraction thereof.) *Microfiche:* 1-5 fiche, 83¢; 6 fiche, $1.00; 7 fiche, $1.17; 8 fiche, $1.34; (Add 17¢ for each additional fiche.)

Part I: Education

1. *Absenteeism: A Study of Leave Taken by Dade County Public School Employees.* Miami, Florida: Dade County Public Schools, Office of Management and Budget (1401 N.E. Second Avenue, 33132), May 1978. 46 pp.

2. "Absenteeism: An Issue No Matter How You Look At It," *NEA Now,* (March 26, 1979), p. 4.

3. "Absenteeism Records May Decide Who Stays When Staff Is Reduced," *Successful School Administration,* (April 24, 1978), p. 140.

4. "Administrators Forum: This Month's Problem (Teacher Absences)," *School Management,* 11 (March 1967), pp. 55+.

5. "Alcoholic Employees," *Nation's Schools Report,* (October 11, 1976), p. 7.

6. Bamber, Chrissie. *Student and Teacher Absenteeism.* Fastback 126. Bloomington, Indiana: Phi Delta Kappa Educational Foundation (Eighth and Union, Box 789, 47402), 1979. 45 pp. (single copy 75¢; 60¢ to PDK members)

7. Bridges, Edwin M. and Maureen T. Hallinan. "Subunit Size, Work System Interdpendence, and Employee Absenteeism," *Educational Administration Quarterly,* 14 (Spring 1978), pp. 24-42.

8. Bundren, Dorence Lee. "The Influence of Situational and Demographic Factors on the Absentee Patterns of Teachers." Ed.D. dissertation, University of Southern California, 1974. 130 pp. (Abstract located in *Dissertation Abstracts International,* p. 1895 in vol. 35/04-A.)

9. Capitan, James H. and Robert J. Morris. "The Ohio Report on Teacher Absenteeism." Paper presented at the annual meeting of the American Association of School Personnel Administrators, October 1978. 10 pp.

10. _____, James Costanza, and James Klucher. "We Got a Sub Again Today--The Teacher Absenteeism Problem." Paper presented at the annual meeting of the American Association of School Administrators, February 1979. 6 pp.

11. Carranza, Elihu. "Life Changes and Teacher Performance," *California Journal of Educational Research*, 25 (March 1974), pp. 73-78.

12. Coller, Robert Dale. "An Analysis of Teacher Absenteeism and Its Relationship to Teacher Morale and Demographic Characteristics of Teachers." Ph.D. dissertation, The University of Michigan, 1975. 163 pp. (Abstract located in *Dissertation Abstracts International*, p. 6388 in vol. 36/10-A.)

13. Conran, Patricia C. and George A. Beauchamp. "Relationships Among Leadership, Climate, Teacher, and Student Variables in Curriculum Engineering." Paper presented at the annual meeting of the American Educational Research Association, April 1976. 24 pp. (ED 119 330)

14. Cramer, Jerome. "The Alcoholics on Your Staff: Find Them and Help Them," *The American School Board Journal*, 164 (August 1977), pp. 49-52.

15. Douglas, Steven Aaron. "Social-Psychological Correlates of Teacher Absenteeism--A Multi-Variate Study." Ph.D. dissertation, The Ohio State University, 1976. 187 pp. (Abstract located in *Dissertation Abstracts International*, p. 7033 in vol. 37/11-A.)

16. Elliott, Peggy G. and Donald C. Manlove. "The Cost of Skyrocketing Teacher Absenteeism," *Phi Delta Kappan*, 59 (December 1977), pp. 269-271.

17. Fearen, William. "The Prostitution of Sick Leave--A Legal and Moral Issue," *PSBA Bulletin*, (November-December 1972), pp. 28-30. (A publication of the Pennsylvania School Boards Association.)

18. Foster, Seymour Donlock. "An Investigation of Selected Factors in Schools with High versus Low Teacher Absenteeism in a New York City Community School District." Ed.D. dissertation, Fordham University, 1977. 135 pp. (Abstract located in *Dissertation Abstracts International*, p. 3832 in vol. 38/07-A.)

19. Frank, Thomas Gerard. "Teacher Absenteeism: A Study of the Association of Selected Teacher-Reported Job Attributes and Frequency of Absence." Ph.D. dissertation, State University of New York at Buffalo, 1975. 200 pp. (Abstract located in *Dissertation Abstracts International*, p. 1207 in vol. 36/03-A.)

20. *Fringe Benefits for Teachers, 1975-76*. Part III of National Survey of Fringe Benefits for Professional Personnel in Public Schools, 1975-76. Arlington, Virginia: Educational Research Service (1800 North Kent Street, 22209), 1976. 100 pp. ($10.00)

21. *Fringe Benefits for Teachers in Public Schools, 1977-78*. Part 3 of National Survey of Fringe Benefits in Public Schools. Arlington, Virginia: Educational Research Service (1800 North Kent Street, 22209), 1979. 151 pp. ($18.00)

22. Gardner, J. C. "Has Sick Leave Become an Illness?" *American School and University*, 47 (July 1975), pp. 14+.

23. Gendler, Paul H. "How to Cut Teacher Absenteeism in Half," *The American School Board Journal*, 164 (October 1977), p. 32.

24. "Getting Your Teacher Union Into the Act--At the Start," *The American School Board Journal*, 164 (August 1977), p. 51.

25. Gibson, R. Oliver. "Absence, Legitimacy, and System Size." Paper presented at the annual meeting of the Educational Research Association of New York State, November 1968. 8 pp. (ED 027 614)

26. _____. "Toward a Conceptualization of Absence Behavior of Personnel in Organizations," *Administrative Science Quarterly*, 11 (June 1966), pp. 107-133.

27. _____ and Paul Lafornara. "Collective Legitimacy and Organizational Attachment: A Longtitudinal Case Study of School Personnel Absences." Paper presented at the annual meeting of the American Educational Research Association, April 1972. 21 pp. (ED 063 674)

28. Gorsuch, Robert Allan. "An Investigation of the Relationships Between Core Job Dimensions, Psychological States, and Personal and Work Outcomes Among Public School Teachers." Ed.D. dissertation, University of Maryland, 1976. 151 pp. (Abstract located in *Dissertation Abstracts International*, p. 1779 in vol. 38/04-A.)

29. Harclerode, Richard (ed.). *Attendance Improvement Guide for Superintendents: How To Improve Staff Illness Absence*. A Group of New Jersey Chambers of Commerce: Newark, Jersey City, Eastern Union County, Mercer County, and New Jersey State, June 1979. 18 pp. (Available from the editor--(201) 649-3452.)

30. Hentschke, Guilbert C. "Upgrading Education Through Management Development," *Educational Economics*, 3 (July-August 1978), pp. 35-39.

31. "Here's How to Reduce Teacher Absenteeism," *The Executive Educator*, 1 (April 1979), pp. 11-12.

32. Husén, Torsten, Lawrence J. Saha, and Richard Noonan. *Teacher Training and Student Achievement in Less Developed Countries*. World Bank Staff Working Paper No. 310. Washington, D.C.: The World Bank (1818 H Street, N.W., 20433), December 1978. 135 pp.

33. "Instructor Survey Reveals Stress, Weight Top Concerns of Teachers Nationwide," *Instructor*, (February 1977), p. 12.

34. Laughlin, P. "Simple Way to Handle Teacher Absence," *School Management*, 5 (February 1961), pp. 66-67.

35. *Leaves of Absence for Classroom Teachers, 1965-66*. Research Report 1967-R5. Washington, D.C.: National Education Association, Research Division (1201 Sixteenth Street, N.W., 20036), 1967. 61 pp.

36. Leczinsky, Campion M. "Teacher Work-Autonomy and Teacher Illness-Absence in the Elementary School." Ph.D. dissertation, State University of New York at Buffalo, 1972. 152 pp. (Abstract located in *Dissertation Abstracts International*, p. 4011 in vol. 33/08-A.)

37. Lee, Beatrice Crump. *Teacher Absences and Cost of Substitute Services*. Research Memo 1960-35. Washington, D.C.: National Education Association, Research Division (1201 Sixteenth Street, N.W., 20036), November 1960. 21 pp.

38. *Local Provisions for Sick Leave and Maternity Leave*. Circular No. 5, 1962. Washington, D.C.: Educational Research Service (1800 North Kent Street, Arlington, Virginia 22209), June 1962. 17 pp.

39. "Long-Term Disability," *Nation's Schools Report*, (December 22, 1975), pp. 5-6.

40. Manganiello, Louis Patrick. "A Study to Determine the Relationship of Teacher Self-Acceptance and Other Selected Variables to Teacher Absence Behavior." Ed.D. dissertation, University of Miami, 1972. 101 pp. (Abstract located in *Dissertation Abstracts International*, p. 95 in vol. 34/01-A.)

41. Manlove, Donald C. and Peggy Elliott. "Absent Teachers . . . Another Handicap for Students?" *The Practitioner*, 5 (May 1979). 12 pp. 50¢ (Available from the National Association of Secondary School Principals, 1904 Association Drive, Reston, Virginia 22091.)

42. Marchant, Robert Edward. "The Effects of Selected Variables on Teacher Absenteeism." Ed.D. dissertation, University of Virginia, 1976. 108 pp. (Abstract located in *Dissertation Abstracts International*, p. 6187 in vol. 37/10-A.)

43. Marlin, Howard Benjamin. "An Analysis of Absenteeism and Utilization of Sick Leave by Selected Full-Time Ten-Month Professional Personnel in a Semi-Rural School System." Ed.D. dissertation, University of Southern Mississippi, 1976. 94 pp. (Abstract located in *Dissertation Abstracts International*, p. 5497 in vol. 37/09-A.)

44. Messner, Edward. "Control Costs for Employee Sick Leave," *The American School Board Journal*, 166 (July 1979), p. 32.

45. *Methods of Reducing Sick Leave Abuse*. Arlington, Virginia: Educational Research Service (1800 North Kent Street, 22209), November 1973. 10 pp. ($2.00)

46. Nadler, Charles D. "How to Cut Costs by Cutting Teacher Absenteeism," *The American School Board Journal*, 159 (May 1972), p. 22.

47. Nolte, M. Chester. "Mass Sickness Doesn't Pay in Camden," *The American School Board Journal*, 155 (March 1968), pp. 23-24.

48. Nord, Walter. "Improving Attendance Through Rewards," *Personnel Administration*, 33 (November-December 1970), pp. 37-41.

49. Olfson, Lewy. "How to Use Fewer Substitutes and Save School Dollars," *Education Digest*, 43 (February 1978), pp. 27-29.

50. Olson, Martin N. "Identifying Quality in School Classrooms: Some Problems and Some Answers," *Central Ideas*, 21 (February 1971). 11 pp.

51. "Personnel: Doctor's Note," *Nation's Schools Report*, (May 8, 1978), pp. 4, 7.

52. "Personnel: Teacher Absenteeism," *Nation's Schools Report*, (September 29, 1975), pp. 7-8.

53. *Practices and Procedures in the Use of Substitute Teachers*. Arlington, Virginia: Educational Research Service (1800 North Kent Street, 22209), 1977. 86 pp. ($10.00)

54. *A Program to Improve Teacher Attendance*. Newark, New Jersey: Greater Neward Chamber of Commerce, July 1974. 236 pp. (ED 112 499)

55. Redick, Barbara Duffey. "Role Conflict and Role Ambiguity Among Public School Counselors in Franklin County, Ohio." Ph.D. dissertation, The Ohio State University, 1972. 113 pp. (Abstract located in *Dissertation Abstracts International*, pp. 4098-4099 in vol. 33/08-A.)

56. Redmond, Max Earl. "The Relationships of Selected Factors to Illness Absences in the Fort Madison Community School District--A Case Study." Ph.D. dissertation, The University of Iowa, 1978. 167 pp. (Abstract located in *Dissertation Abstracts International*, p. 3291 in vol. 39/06-A.)

57. *Report on Teacher Absenteeism in the Public Schools of Illinois to State Board of Education, Illinois Office of Education*. Indianapolis, Indiana: The Academy for Educational Development, Public Policy Division, July 1977. 33 pp.

58. "Retirement Policies: Some Ways to Improve Both Staff Attendance and Instruction," *Updating School Board Policies*, 7 (January 1976), p. 5. (A publication of the National School Boards Association, Washington, D.C.)

59. Russell, Robert D. "Problem Drinking in the Education Profession," *Phi Delta Kappan*, 60 (March 1979), pp. 506-509.

60. *Salary Schedules and Fringe Benefits for Teachers, 1972-73.* Research Report 1973-R2. Washington, D.C.: National Education Association, Research Division (1201 Sixteenth Street, N.W., 20036), 1973. 278 pp.

61. *Scheduled Salaries for Professional Personnel in Public Schools, 1976-77.* Part 1 of National Survey of Salaries and Wages in Public Schools. Arlington, Virginia: Educational Research Service (1800 North Kent Street, 22209), 1977. 111 pp. ($12.00)

62. *Scheduled Salaries for Professional Personnel in Public Schools, 1977-78.* Part 1 of National Survey of Salaries and Wages in Public Schools. Arlington, Virginia: Educational Research Service (1800 North Kent Street, 22209), 1978. 123 pp. ($15.00)

63. *Scheduled Salaries for Professional Personnel in Public Schools, 1978-79.* Part 1 of National Survey of Salaries and Wages in Public Schools. Arlington, Virginia: Educational Research Service (1800 North Kent Street, 22209), 1979. 123 pp. ($18.00)

64. Schroeder, Juanita Hellmers. "The Relationships Between Teacher Perception of Managerial Behavior, Teacher Satisfaction, and Teacher Absenteeism." Ed.D. dissertation, University of New Orleans, 1977. 97 pp. (Abstract located in *Dissertation Abstracts International,* p. 4495 in vol. 38/08-A.)

65. "Sick Leave Bank May Be Costly Benefit," *Nation's Schools Report,* 5 (February 12, 1979), pp. 1-2.

66. *Sick Leave for Instructional Personnel, 1969-70.* Research Report vol. 18, no. 2, 1970-71. Miami, Florida: Dade County Public Schools, Department of Administrative Research (1410 N.E. Second Avenue, 33132), October 1970. 33 pp.

67. *Sick Leave Provisions for Classroom Teachers in Larger School Systems.* Circular No. 5, 1966. Washington, D.C.: Educational Research Service (1800 North Kent Street, Arlington, Virginia 22209), May 1966. 27 pp.

68. Slick, George H. "The Relationship of Organizational Climate Factors Which Influence Morale and Other Selected Variables to Absence Frequency." Ed.D. dissertation, Temple University, 1974. 148 pp. (Abstract located in *Dissertation Abstracts International,* p. 4947 in vol. 35/08-A.)

69. Spuck, Dennis W. "Reward Structures in the Public High School," *Educational Administration Quarterly,* 10 (Winter 1974), pp. 18-34.

70. "Staff Organization and Development: How to Stretch the Budget," *Successful School Administration,* (November 18, 1974), p. 51.

71. Stallings, John W. "Sick Leave for Teachers," *California Journal of Educational Research,* 10 (March 1959), pp. 60-63.

72. Stern, Michael. "Rate of Absences of Teachers Is Up," *The New York Times,* (February 3, 1970), p. 1.

73. *Study of Employee Absenteeism in Chicago Public Schools.* Chicago, Illinois: Chicago Board of Education, 1960.

74. Sylwester, Robert. "Educator Absences and Stress," *OSSC Quarterly Report,* 19 (Winter 1979), pp. 18-21. (A publication of the Oregon School Study Council, Eugene, Oregon.)

75. "Teacher Absence Costs Millions," *Successful School Administration,* (December 5, 1977), p. 107.

76. "Teacher Absences Costing $3,300 a Day," *Personnel News for School Systems,* (November 1977), p. 12. (A publication of the Educational Service Bureau, Ellettsville, Indiana.)

77. "Teacher Absences Reach Scandalous Highs," *Successful School Administration,* (December 11, 1978), p. 184.

78. *Teacher Absenteeism: Professional Staff Absence Study.* Harrisburg, Pennsylvania: Pennsylvania School Boards Association (412 North Second Street, 17101), October 1978. 54 pp. ($3.00)

79. *Teacher Absenteeism and Related Policies for Supplemental Remuneration.* Produced by the Philadelphia Suburban School Study Council-Groups A, B, C, & E, and the South Penn School Study Council-Group D. Philadelphia, Pennsylvania: The Graduate School of Education, University of Pennsylvania (3700 Walnut Street, 19104), 1970. 94 pp. (ED 062 274)

80. *Teacher Absenteeism in New York City and the Cost-Effectiveness of Substitute Teachers.* Albany, New York: State of New York, Office of Education Performance Review, January 1974. 39 pp. (ED 085 868)

81. *Teacher Attendance Improvement Program. A Joint Business-Educator Project.* Newark, New Jersey: Greater Newark Chamber of Commerce, August 1975. 23 pp. (ED 112 487)

82. Walter, Joseph William. "A Study of Administrative Attitudes Towards Absenteeism and Their Relationship to Selected Characteristics of Effective Teacher Absence Control Programs." Ed.D. dissertation, Hofstra University, 1977. 213 pp. (Abstract located in *Dissertation Abstracts International,* p. 3875 in vol. 38/07-A.)

83. "What's Missing in Class? Maybe the Teacher," *Education U.S.A.,* (August 20, 1979), pp. 371, 376.

84. Zimet, Melvin. *Decentralization and School Effectiveness: A Case Study of the 1969 Decentralization Law in New York City.* New York, New York: Teachers College Press, Teachers College, Columbia University, 1973. 186 pp.

Part II: Business, Industry, and Government

85. "Absent Workers--A Spreading Worry," *U.S. News and World Report,* (November 27, 1972), pp. 48-49.

86. *Absenteeism: A Report of the Discussion at the Seminar and Workshops, Highland Park, Illinois, November 22-23, 1954.* Chicago, Illinois: Research Council for Economic Security, 1955. 87 pp.

87. "Absenteeism: Unwell or Fed Up?" *Economist,* 234 (January 10, 1970), p. 20.

88. "Absenteeism Is Down, Some Firms Report," *Industry Week,* 177 (May 7, 1973), pp. 51-52.

89. "Absenteeism Just Won't Quit," *Business Week,* (July 25, 1970), p. 66.

90. "Absenteeism Plagues Autodom," *Industry Week,* 164 (August 17, 1970), pp. 13-14.

91. "Absentees: Who's Afraid of Recession?" *Iron Age,* 206 (July 23, 1970), p. 25.

92. Adams, J. D. "12 Ways to Cut Avoidable Absenteeism," *Factory,* 124 (January 1966), pp. 94-95.

93. Adams, William Harry III. "Study of the Relationship Between Student Attendance in High Schools and Employee Attendance in Selected Industries within Salem County, New Jersey." Ed.D. dissertation, Rutgers University, 1976. 155 pp. (Abstract located in *Dissertation Abstracts International,* p. 3578 in vol. 37/06-A.)

94. Alander, R. and T. Campbell. "An Evaluative Study of an Alcohol and Drug Recovery Program: A Case Study of the Oldsmobile Experience," *Human Resource Management,* 14 (1975), pp. 14-18.

95. "Alcoholism and Employee Relations: A BNA Special Report," *Government Employee Relations Report,* No. 776 (September 11, 1978). 20 pp. ($2.50) (Available from BNA Books, 1231-25th Street, N.W., Washington, D.C. 20037.)

96. Allen, Robert F. and Michael Higgins. "The Absenteeism Culture: Becoming Attendance Oriented," *Personnel,* 56 (January-February 1979), pp. 30-39.

97. Amrhine, K. W. "Ready for Sneezin' Season?" *Supervision,* 25 (November 1963), pp. 20-22.

98. Arbous, A. G. and H. S. Sichel. "New Techniques for the Analysis of Absenteeism Data," *Biometrika*, 41 (1954), pp. 77-90.

99. Argyle, Michael, Godfrey Gardner, and Frank Cioffi. "Supervisory Methods Related to Producitivity, Absenteeism, and Labor Turnover," *Human Relations*, 11 (1958), pp. 23-40.

100. Bashford, H. H. "Some Aspects of Sick Absence in Industry," *British Journal of Industrial Medicine*, 1 (1944), pp. 7-10.

101. Bass, Bernard. *Organizational Psychology*. Boston, Massachusetts: Allyn and Bacon, 1965.

102. Baum, John F. "Effectiveness of an Attendance Control Policy in Reducing Chronic Absenteeism," *Personnel Psychology*, 31 (Spring 1978), pp. 71-81.

103. _____ and Stuart A. Youngblood. "Impact of an Organizational Control Policy on Absenteeism, Performance, and Satisfaction," *Journal of Applied Psychology*, 60 (December 1975), pp. 688-694.

104. Baumgartel, Howard and Ronald Sobol. "Background and Organizational Factors in Absenteeism," *Personnel Psychology*, 12 (Winter 1959), pp. 431-443.

105. Beatty, Richard W. and James R. Beatty. "Longitudinal Study of Absence of Hard-Core Unemployed," *Psychological Reports*, 36 (April 1975), pp. 395-406.

106. Beehr, Terry A. and Nina Gupta. "A Note on the Structure of Employee Withdrawal," *Organizational Behavior and Human Performance*, 21 (February 1978), pp. 73-79.

107. Beer, M. and E. F. Huse. "A Systems Approach to Organizational Development," *Journal of Applied Behavioral Science*, 8 (1972), pp. 79-109.

108. Behrend, Hilde. "Absence and Labour Turnover in a Changing Economic Climate," *Occupational Psychology*, 27 (1953), pp. 69-79.

109. _____. *Absence Under Full Employment*. Monograph A3, University of Birmingham Studies in Economics and Society. Birmingham, England: University of Birmingham, 1951.

110. Berger, Paul D. and James P. Monahan. "A Planning Model to Cope with Absenteeism," *The Journal of Business*, 47 (October 1974), pp. 512-517.

111. Bernardin, Harold John, Jr. "The Influence of Reinforcement Orientation on the Relationship Between Supervisory Style and Effectiveness Criteria." Ph.D. dissertation, Bowling Green State University, 1976. 112 pp. (Abstract located in *Dissertation Abstracts International*, p. 1018 in vol. 37/02-B.)

112. _____. "The Relationship of Personality Variables to Organizational Withdrawal," *Personnel Psychology*, 30 (1977), pp. 17-27.

113. *BNA's Quarterly Report on Job Absence and Turnover*. BNA Bulletin to Management. Washington, D.C.: Bureau of National Affairs (1231-25th Street, N.W., 20037), March 15, 1979. 4 pp.

114. *BNA's Quarterly Report on the Employment Outlook: Absenteeism and Turnover*. BNA Bulletin to Management. Washington, D.C.: Bureau of National Affairs, February 24, 1977. 4 pp.

115. *BNA's Quarterly Report on the Employment Outlook: Absenteeism and Turnover*. BNA Bulletin to Management. Washington, D.C.: Bureau of National Affairs, First Quarter 1976. 4 pp.

116. *BNA's Quarterly Report on the Employment Outlook: Absenteeism and Turnover*. BNA Bulletin to Management. Washington, D.C.: Bureau of National Affairs, March 27, 1975. 4 pp.

117. *BNA's Quarterly Report on the Employment Outlook: Job Absence and Turnover*. BNA Bulletin to Management. Washington, D.C.: Bureau of National Affairs, March 9, 1978. 4 pp.

118. "Bonus Plan Rewards Good Attendance," *Administrative Management*, 29 (January 1968), pp. 43-44.

119. Bragg, J. E. and I. R. Andrews. "Participative Decision Making: An Experimental Study in a Hospital," *Journal of Applied Behavioral Science*, 9 (November 1973), pp. 727-735.

120. Brayfield, Arthur H. and Walter H. Crockett. "Employee Attitudes and Employee Performance," *Psychological Bulletin*, 52 (September 1955), pp. 396-424.

121. Brodman, Keeve. "Absenteeism, Working Efficiency and Emotional Maladjustments," *Industrial Medicine*, 14 (1945), pp. 1-5.

122. _____ and Louis P. Hellman. "Absenteeism and Separation in Relation to Length of Employment," *Industrial Medicine*, 16 (1947), pp. 219-222.

123. _____. "The Relation of Group Morale to the Incidence and Duration of Medical Incapacity in Industry," *Psychosomatic Medicine*, 9 (1947), pp. 381-385.

124. Buck, L. and S. Shimmin. "Overtime and Financial Responsibility," *Occupational Psychology*, 33 (1959), pp. 137-148.

125. Bullard, Cedric George. "A Sociological Study of Prison Officers in New South Wales: A Stressful Occupation." Ph.D. dissertation, University of New South Wales (Australia), 1977. (Abstract located in *Dissertation Abstracts International*, p. 6347 in vol. 38/10-A.)

126. Burke, R. J. and D. S. Wilcox. "Absenteeism and Turnover Among Female Telephone Operators," *Personnel Psychology*, 25 (Winter 1972), pp. 639-648.

127. Buyniski, E. F. "Stress; Sickness; Supervision," *Personnel Administration*, 25 (July 1962), pp. 38-42+.

128. Buzzard, R. B. "Attendance and Absence in Industry: The Nature of the Evidence," *British Journal of Sociology*, 5 (1954), pp. 238-252.

129. _____ and F. D. K. Liddell. *Coal Miners Attendance at Work*. NCB Medical Service, Medical Research Memorandum No. 3, 1958. (Cited in Richard M. Steers and Susan R. Rhodes. "Major Influences on Employee Attendance," *Journal of Applied Psychology*, 63 (August 1978), p. 404.)

130. Caldwell, William R. "Don't Control Absenteeism; Eliminate It," *Industry Week*, 167 (September 7, 1970), p. 34.

131. Caleo, R. L. "Absenteeism: Why It Happens, How to Reduce It," *Administrative Management*, 24 (June 1963), pp. 22-29.

132. Campbell, Edward I. "Sick Leave Abuse and What To Do About It: A Look at Government Employees," *Personnel*, 47 (November-December 1970), pp. 42-48.

133. "Can Management Set Standards for Attendance?" *Office*, 65 (February 1967), pp. 84+.

134. Canfield, Grant W. and David G. Soash. "Presenteeism--A Constructive View," *Personnel Journal*, 34 (1955), pp. 94-97.

135. Carson, I. "Luring Back the Absent Workers," *International Management*, 26 (December 1971), pp. 24-26+.

136. "Case of the AWOL Autoworker," *Industry Week*, 166 (April 6, 1970), pp. 61+.

137. "Cash Prizes to Beat Absenteeism," *Personnel Management*, 10 (June 1978), pp. 19, 21.

138. Castle, Peter F. C. "Accidents, Absence, and Withdrawal from the Work Force," *Human Relations*, 9 (1956), pp. 223-233.

139. Chadwick-Jones, J. K., C. A. Brown, and N. Nicholson. "Absence from Work: Its Meaning, Measurement, and Control," *Industrial Review of Applied Psychology*, 22 (October 1973), pp. 137-155.

140. _____. "A-Type and B-Type Absence: Empirical Trends for Women Employees," *Occupational Psychology*, 47 (1973), pp. 75-80.

141. _____ and Others. "Absence Measures: Their Reliability and Stability in an Industrial Setting," *Personnel Psychology*, 24 (Autumn 1971), pp. 463-470.

142. Champagne, Paul J. and Curt Tausky. "When Job Enrichment Doesn't Pay," *Personnel*, 55 (January-February 1978), pp. 30-40.

143. Clark, J. *Time Out: A Study of Absenteeism Among Nurses*. London, England: Royal College of Nurses, 1975.

144. Clark, William. "How to Cut Absenteeism and Turnover," *Administative Management*, 32 (March 1971), pp. 64-65.

145. Clarke, F. "Labor Turnover Studies," *Personnel Journal*, 25 (1946), pp. 55-58.

146. Collins, Marianne Nelson. "The Construct Validity of Reported Unsafe Behaviors." Ph.D. dissertation, Ohio State University, 1977. 90 pp. (Abstract located in *Dissertation Abstracts International*, p. 5623 in vol. 38/11-B.)

147. *Computing Absence Rates*. Personnel Policies Survey No. 27. Washington, D.C.: Bureau of National Affairs, 1954.

148. *Controlling Absenteeism*. Studies in Personnel Policies Survey No. 57. New York, New York: National Industrial Conference Board, 1960.

149. Cooper, R. and R. Payne. "Age and Absence: A Longitudinal Study in Three Firms," *Occupational Psychology*, 39 (1965), pp. 31-43.

150. Copenhaver, J. R. "Training, Job Enrichment, Reducing Costs," *Hospitals*, 47 (1973), pp. 118, 122, 126.

151. Court, A. T. "Industrial Absenteeism," *Wisconsin Medical Journal*, 42 (1943), pp. 313-318.

152. Covner, Bernard J. "A Study of Industrial Absenteeism," *American Psychologist*, 5 (1950), p. 336.

153. _____. "Management Factors Affecting Absenteeism," *Harvard Business Review*, 28 (1950), pp. 42-48.

154. _____ and Max Smith. "Times Absent vs. Days Absent as a Measure of Absenteeism," *Personnel*, 28 (1951), pp. 23-27.

155. Coward, Ralph and Virginia Nichols. *Suggestions for Control of Turnover and Absenteeism*. Washington, D.C.: U.S. Department of Labor, Manpower Administration, 1972.

156. Crowther, John. "Absence and Turnover in the Divisions of One Company, 1950-1955," *Occupational Psychology*, 31 (1957), pp. 256-269.

157. Cummings, Thomas G. and Susan L. Manring. "The Relationship Between Worker Alienation and Work-Related Behavior," *Journal of Vocational Behavior*, 10 (April 1977), pp. 167-179.

158. "Curbing Absenteeism," *Supervisory Management*, 15 (January 1970), pp. 10-12.

159. Davis, L. E. and E. S. Valfer. "Studies in Supervisory Job Design," *Human Relations*, 19 (1966), pp. 339-352.

160. de la Mare, G. and R. Sergean. "Two Methods of Studying Changes in Absence with Age," *Occupational Psychology*, 35 (1961), pp. 242-252.

161. "Dealing with Absenteeism," *Administrative Management*, 26 (September 1965), p. 14.

162. Dekar, A. D. "Absenteeism: A Fact of Life," *Personnel Journal*, 48 (November 1969), pp. 881-888.

163. Dennett, Barrie. "How to Minimise Malingering," *Personnel Management*, 10 (May 1978), pp. 30-32.

164. *Disability Days. United States 1975.* Vital and Health Statistics Series 10, Number 118. Hyattsville, Maryland: U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics, June 1978. 53 pp.

165. Dittrich, J. E. and M. R. Carrel. "Dimensions of Organizational Fairness as Predictors of Job Satisfaction, Absence and Turnover." *Academy of Management Proceedings '76,* from the annual meeting of the Academy of Management, August 1976.

166. _____. "Employee Attendance: An Operant Conditioning Intervention in a Field Setting." Paper presented at the annual meeting of the American Psychological Association, September 1976.

167. Dreyfack, Raymond. "A Program for Controlling Absenteeism," *Supervisory Management,* 15 (April 1970), pp. 32-35.

168. Edwards, Darrel and Others. "Primary and Secondary Benefits from Treatment for Alcoholism," *American Journal of Psychiatry,* 134 (June 1977), pp. 682-683.

169. Ehrenberg, R. G. "Absenteeism and the Overtime Decision," *American Economic Review,* 60 (June 1970), pp. 352-357.

170. *Employee Incentives to Improve State and Local Government Productivity.* Washington, D.C.: National Commission on Productivity and Work Quality, (2000 M Street, N.W., 20036), March 1975. 147 pp. + appendices.

171. "Excessive Absenteeism," *Supervision,* 40 (February 1978), p. 14.

172. Farr, J. L., B. S. O'Leary, and C. J. Bartlett. "Ethnic Group Membership as a Moderator of the Prediction of Job Performance," *Personnel Psychology,* 24 (1971), pp. 609-636.

173. Farrant, Alan W. "Absenteeism: How to Lower It," *Supervision,* 40 (September 1978), p. 16.

174. Feldman, J. "Race, Economic Class, and the Intention to Work: Some Normative and Attitudinal Correlates," *Journal of Applied Psychology,* 59 (1974), pp. 179-186.

175. Ferguson, D. "A Study of Occupational Stress and Health," *Ergonomics,* 16 (September 1973), pp. 649-664.

176. Flanagan, R. J., G. Strauss, and L. Ulman. "Worker Discontent and the Work Place Behavior," *Industrial Relations,* 13 (1974), pp. 101-123.

177. Fleishman, E. A., E. F. Harris, and H. E. Burtt. *Leadership and Supervision in Industry.* Bureau of Educational Research Monograph, No. 33. Columbus, Ohio: Ohio State University, 1955.

178. Fleming, T. J. "Absenteeism and the Germ Theory," *Supervisory Management,* 9 (February 1964), pp. 43-44.

179. Ford, R. N. *Motivation Through the Work Itself.* New York, New York: American Management Association, 1969.

180. Fox, John B. and Jerome F. Scott. *Absenteeism: Management's Problem.* Boston, Massachusetts: Graduate School of Business Administration, Harvard University, 1943. 28 pp.

181. _____. "Management Causes Absenteeism," *Personnel Journal,* 22 (1944), pp. 326-329.

182. Frank, L. L. and J. Richard Hackman. "A Failure of Job Enrichment: The Case of the Change That Wasn't," *Journal of Applied Behavioral Science,* 11 (1975), pp. 413-436.

183. Fried, Jacob, Morris Westman, and Milton K. Davis. "Man-Machine Interaction and Absenteeism," *Journal of Applied Psychology,* 56 (October 1972), pp. 428-429.

184. Froggat, P. "Short-Term Absence from Industry, I, II, and III," *British Journal of Industrial Medicine*, 27 (1970), pp. 199-224, 297-312.

185. *A Further Study of Attendance at Work in Large and Small Units*. London, England: Acton Society Trust, 1957.

186. Gamboa, Victor Urquico. "Beyond Skinner with Dignity--An Investigation of the Application of Behavior Modification in Industrial Settings." Ph.D. dissertation, University of Michigan, 1974. 141 pp. (Abstract located in *Dissertation Abstracts International*, pp. 961-962 in vol. 36/02-B.)

187. Garrison, Kathleen R. and Paul M. Muchinsky. "Attitudinal and Biographical Predictors of Incidental Absenteeism," *Journal of Vocational Behavior*, 10 (April 1977), pp. 221-230.

188. _____. "Evaluating the Concept of Absentee-Proneness with Two Measures of Absence," *Personnel Psychology*, 30 (Autumn 1977), pp. 389-393.

189. Gary, A. L. "Industrial Absenteeism: An Evaluation of Three Methods of Treatment," *Personnel Journal*, 50 (May 1971), pp. 352-353.

190. Gaudet, Frederick J. *Solving the Problems of Employee Absence*. A.M.A. Research Study 57. New York, New York: American Management Association, 1963.

191. Gavin, James F. "Predicting Performance and Attendance Criteria," *Personnel Journal*, 52 (March 1973), pp. 213-217.

192. Gemmell, Arthur J. "Personnel and Line Management: Partners in Absentee Control," *Personnel Journal*, 52 (February 1973), pp. 113-115.

193. Georgopoulos, B. S. and F. C. Mann. *The Community General Hospital*. New York, New York: Macmillan, 1962

194. _____, B. P. Indik, and S. E. Seashore. *Some Models of Organizational Effectiveness*. Ann Arbor, Michigan: University of Michigan, Institute for Social Research, 1960.

195. Gerstenfeld, Arthur. "Employee Absenteeism: New Insights," *Business Horizons*, 12 (October 1969), pp. 51-57.

196. Giese, W. J. and H. W. Ruter. "An Objective Analysis of Morale," *Journal of Applied Psychology*, 33 (1949), pp. 421-427.

197. Glaser, E. M. *Producitivity Gains Through Worklife Improvement*. New York, New York: The Psychological Corporation, 1976.

198. Glasser, Jay Howard. "A Stochastic Model for Industrial Illness Absenteeism." Ph.D. dissertation, North Carolina State University, 1967. 179 pp. (Abstract located in *Dissertation Abstracts International*, pp. 1719-1720 in vol. 28/04-B.)

199. Gluyas, J. Oliver. "You Can Improve Their Attendance," *Supervisory Management*, 17 (September 1972), pp. 35-36.

200. Goble, Jesse West. "Relationships Between Job Satisfaction, Demographic Factors, Absenteeism and Tenure of Workers in a Delmarva Broiler Processing Plant." Ph.D. dissertation, University of Maryland, 1976. 167 pp. (Abstract located in *Dissertation Abstracts International*, p. 1820 in vol. 38/04-A.)

201. "Goldbricks on Industry's Sick Call?" *Industry Week*, 170 (September 20, 1971), pp. 42-43.

202. Golembiewski, R. T., R. Hilles, and M. S. Kagno. "A Longitudinal Study of Flex-Time Effects: Some Consequences of an OD Structural Intervention," *Journal of Applied Behavioral Science*, 10 (1974), pp. 503-532.

203. Gomez, L. R. and S. J. Mussie. "An Application of Job Enrichment in a Civil Service Setting: A Demonstration Study," *Public Personnel Management*, 4 (1975), pp. 49-54.

204. Goodale, J. G. "Effects of Personal Background and Training on Work Values of the Hard-Core Unemployed," *Journal of Applied Psychology*, 57 (1973), pp. 1-9.

205. Gooding, Justin. "Blue-Collar Blues on the Assembly Line," *Fortune*, (July 1970), pp. 69-71.

206. Gowler, D. "Determinants of the Supply of Labour to the Firm," *Journal of Management Studies*, 6 (1969), pp. 73-95.

207. Greene, James A. "Restructuring Staff Time: The Eight-Day Week," *Hospital and Community Psychiatry*, 25 (November 1974), pp. 733-735.

208. Grove, Byron A. "Attendance Reward Plan Pays," *Personnel Journal*, 47 (February 1968), pp. 119-120.

209. Hackman, J. Richard and Edward E. Lawler III. "Employee Reactions to Job Characteristics," *Journal of Applied Psychology*, 55 (June 1971), pp. 259-286.

210. _____ and Greg R. Oldham. "Motivation Through the Design of Work: Test of a Theory," *Organizational Behavior and Human Performance*, 16 (1976), pp. 250-279.

211. _____ and Others. "A New Strategy for Job Enrichment," *California Management Review*, 17 (1975), pp. 57-71.

212. Halperin, J. "Absenteeism," *Personnel Journal*, 42 (November 1963), pp. 499-501.

213. Hamner, W. Clay and Ellen Hamner. "Behavior Modification on the Bottom Line," *Organizational Dynamics*, (Spring 1976), pp. 3-21.

214. Hampton, David R., Charles E. Summer, and Ross A. Webber. *Organizational Behavior and the Practice of Management*. Third Edition. Glenview, Illinois: Scott, Foresman and Company, 1978. 851 pp.

215. Harding, F. D. and R. A. Bottenberg. "Effect of Personal Characteristics on Relationships Between Attitudes and Job Performance," *Journal of Applied Psychology*, 45 (1961), pp. 428-430.

216. Hartman, Richard J. and John J. Gibson. "The Persistent Problem of Employee Absenteeism," *Personnel Journal*, 50 (July 1971), pp. 535-539.

217. Harvey, Barron Henry. "Exploring the Effects of Increasing Employee Self-Control/Determination." Ph.D. dissertation, University of Nebraska--Lincoln, 1977. 262 pp. (Abstract located in *Dissertation Abstracts International*, p. 7431 in vol. 38/12-A.)

218. Harvey, D. K. and E. P. Cuongo. "Physical Impairment and Job Performance: A Comparative Study of Accident Experience, Production Efficiency, Sick Absenteeism and Turnover Among 2,858 Physically Impaired and 5,523 Able-Bodied Workers in Government Industry," *Journal of the American Medical Association*, 127 (1945), pp. 902+.

219. Hautaluoma, Jacob E. and James F. Gavin. "Effects of Organizational Diagnosis and Intervention on Blue-Collar 'Blues,'" *Journal of Applied Behavioral Science*, 11 (October-December 1975), pp. 475-496.

220. Hawk, Donald L. "Absenteeism and Turnover," *Personnel Journal*, 55 (June 1976), pp. 293-295, 303.

221. Hedges, Janice Neipert. "Absence from Work--A Look at Some National Data," *Monthly Labor Review*, 96 (July 1973), pp. 24-30.

222. _____. "Absence from Work--Measuring the Hours Lost," *Monthly Labor Review*, 100 (October 1977), pp. 16-23.

223. _____. "Unscheduled Absence from Work--An Update," *Monthly Labor Review*, 98 (August 1975), pp. 36-39.

224. Heneghan, Maureen and Sigmund G. Ginsburg. "Use of Sick Leave," *Personnel Administration*, 33 (September-October 1970), pp. 46-50.

225. Heneman, Herbert G., Jr. and Others. "Standardized Absence Rates: A First Step Toward Comparability," *Personnel Journal*, 40 (1961), pp. 114-115.

226. Hershey, Robert. "Effects of Anticipated Job Loss on Employee Behavior," *Journal of Applied Psychology*, 56 (June 1972), pp. 273-275.

227. Herzberg, Frederick and Others. *Job Attitudes: Review of Research and Opinion*. Pittsburgh, Pennsylvania: Psychological Services of Pittsburgh, 1957.

228. Hesmondhalgh, Sally. "Controlling Trade Unionists' Time Off," *Personnel Management*, 10 (May 1978), pp. 26-29+.

229. Hesseltine, Glen Close. "Human Relations Training for Industrial Supervisors as Related to Their Attitude and Behavior." Ph.D. dissertation, Illinois Institute of Technology, 1973. 177 pp. (Abstract located in *Dissertation Abstracts International*, p. 2352 in vol. 34/05-B.)

230. Hewitt, David and Jessie Parfitt. "A Note on Working Morale and Size of Group," *Occupational Psychology*, 27 (1953), pp. 38-42.

231. Hill, J. M. M. and E. L. Trist. "Changes in Accidents and Other Absences with Length of Service: A Further Study on Their Incidence and Relation to Each Other in an Iron and Steel Works," *Human Relations*, 8 (May 1955), pp. 121-152.

232. Hill, M. "Who Stays Home?" *New Society*, 9 (March 1967), pp. 459-460.

233. Holmes, Thomas H. and Richard H. Rahe. "The Social Readjustment Rating Scale," *Journal of Psychosomatic Research*, 11 (1967), pp. 213-218.

234. "How Are You Going to Keep Them Down in the Office?" *Management Review*, 67 (June 1978), p. 58.

235. "How 190 Companies Handle Absenteeism and Tardiness," *Business Management*, 27 (February 1965), pp. 14-16+.

236. "How to Attack Absenteeism Costs," *Supervisory Management*, 13 (May 1968), pp. 7-9.

237. "How to Reduce Absenteeism Costs," *Supervisory Management*, 12 (June 1967), pp. 16-17.

238. Hrebiniak, Lawrence G. and Michael R. Roteman. "A Study of the Relationship Between Need Satisfaction and Absenteeism Among Managerial Personnel," *Journal of Applied Psychology*, 58 (December 1973), pp. 381-383.

239. Hulme, R. D. and R. V. Bevan. "The Blue-Collar Worker Goes on Salary," *Harvard Business Review*, 53, no. 2 (1975), pp. 104-112.

240. Huse, Edgar F. and Erwin K. Taylor. "The Reliability of Absence Measures," *Journal of Applied Psychology*, 46 (June 1962), pp. 159-160.

241. "I'd Like to Stop Lying to My Boss," *Personnel Journal*, 44 (December 1965), pp. 601-608.

242. Ilgen, Daniel R. "Attendance Behavior: A Reevaluation of Latham and Pursell's Conclusions," *Journal of Applied Psychology*, 62 (April 1977), pp. 230-233.

243. _____ and John H. Hollenback. "The Role of Job Satisfaction in Absence Behavior," *Organizational Behavior and Human Performance*, 19 (June 1977), pp. 148-161.

244. Indik, B. P. "Organization Size and Member Participation," *Human Relations*, 18 (1965), pp. 339-350.

245. _____ and S. Seashore. *Effects of Organization Size on Member Attitudes and Behavior*. Ann Arbor, Michigan: University of Michigan, Survey Research Center of the Institute for Social Research, 1961.

246. Ingham, G. *Size of Industrial Organization and Worker Behavior*. Cambridge, England: Cambridge University Press, 1970.

247. Isambert-Jamati, Viviane. "Absenteeism Among Women Workers in Industry," *International Labor Review*, 85 (March 1962), pp. 248-261.

248. Ivancevich, John M. "Changes in Performance in a Management by Objectives Program," *Administrative Science Quarterly*, 19 (1974), pp. 563-574.

249. _____. "Effects of the Shorter Workweek on Selected Satisfaction and Performance Measures," *Journal of Applied Psychology*, 59 (December 1974), pp. 717-721.

250. _____ and Herbert L. Lyon. "The Shortened Workweek: A Field Experiment," *Journal of Applied Psychology*, 62 (February 1977), pp. 34-37.

251. Jackson, J. H. "Factors Involved in Absenteeism," *Personnel Journal*, 22 (1944), pp. 289-295.

252. Johns, Gary. "Attitudinal and Nonattitudinal Predictors of Two Forms of Absence from Work," *Organizational Behavior and Human Performance*, 22 (December 1978), pp. 431-444.

253. Johnson, C. W. "What You Can Do About Absenteeism," *Supervisory Management*, 5 (November 1960), pp. 14-19.

254. Johnson, R. D. and J. A. Wallin. "Employee Attendance: An Operant Conditioning Intervention in a Field Setting." Paper presented at the annual meeting of the American Psychological Association, September 1976.

255. _____ and T. O. Peterson. "Absenteeism or Attendance: Which Is Industry's Problem?" *Personnel Journal*, 54 (1975), pp. 568-572.

256. Kahne, Hilda R. and Others. "Don't Take Older Workers for Granted," *Harvard Business Review*, 35 (November-December 1957), pp. 90-94.

257. Katz, Daniel and Herbert Hyman. "Industrial Morale and Public Opinion Methods," *International Journal of Opinion and Attitude Research*, 1 (1947), pp. 13-30.

258. Kauffman, Judith Anne. "A Comparative Study of Absenteeism Among Nurses." Ph.D. dissertation, United States International University, 1978. 92 pp. (Abstract located in *Dissertation Abstracts International*, p. 5072 in vol. 39/10-B.)

259. Kearns, John C. "Controlling Absenteeism for Profit," *Personnel Journal*, 49 (January 1970), pp. 50-51.

260. Kelley, J. W. "Case of the Alcoholic Absentee," *Harvard Business Review*, 47 (May-June 1969), pp. 14-16+.

261. Kerr, Willard A. "Labor Turnover and Its Correlates," *Journal of Applied Psychology*, 31 (1947), pp. 366-371.

262. _____, George J. Koppelmeier, and James J. Sullivan. "Absenteeism, Turnover, and Morale in a Metals Fabrication Factory," *Occupational Psychology*, 25 (January 1951), pp. 50-55.

263. Ketchum, L. D. Untitled paper presented at the American Association for the Advancement of Science Symposium on "Humanizing of Work," Philadelphia, Pennsylvania, December 1972, in "Major Influences on Employee Attendance: A Process Model," p. 404, Note 3. (Authored by Richard M. Steers and Susan R. Rhodes.) *Journal of Applied Psychology*, 63 (August 1978).

264. "Keytape Units Have Unexpected By-Product: Absenteeism Is Cut," *Management Adviser*, 8 (July 1971), p. 11.

265. Kilbridge, Maurice D. "Turnover, Absence, and Transfer Rates as Indicators of Employee Dissatisfaction with Repetitive Work," *Industrial and Labor Relations Review*, 15 (October 1961), pp. 21-32.

266. Kim, J. S. and W. C. Hamner. "Effect of Performance Feedback and Goal Setting on Productivity and Satisfaction in an Organizational Setting," *Journal of Applied Psychology*, 61 (1976), pp. 48-57.

267. King, A. S. "Expectation Effects in Organizational Change," *Administrative Science Quarterly*, 19 (1974), pp. 221-230.

268. Knox, J. B. "Absenteeism and Turnover in an Argentine Factory," *American Sociological Review*, 26 (1961), pp. 424-428.

269. Kornhauser, A. W. and A. A. Sharp. "Employee Attitudes: Suggestions from a Study in a Factory," *Personnel Journal*, 10 (1932), pp. 393-404.

270. Kovach, Kenneth Andrew. "Organization Size as Related to Job Satisfaction, Absenteeism, and Turnover." D.B.A. dissertation, University of Maryland, 1976. 172 pp. (Abstract located in *Dissertation Abstracts International*, p. 3752 in vol. 37/06-A.)

271. Kunin, T. "The Construction of a New Type of Attitude Measure," *Personnel Psychology*, 8 (1955), pp. 65-78.

272. Kunze, K. R. and R. Branner. "Motivation and Absenteeism," *Personnel Journal*, 23 (1944), pp. 69-72.

273. Kuzmits, Frank E. "Managing Absenteeism," *Personnel*, 54 (May-June 1977), pp. 73-76.

274. Lamberth, John and Wayne Padd. "Students' Attitudes and Absenteeism: A Possible Link," *Psychological Reports*, 31 (August 1972), pp. 35-40.

275. Latham, Gary P. and Elliott D. Pursell. "Measuring Absenteeism from the Opposite Side of the Coin," *Journal of Applied Psychology*, 60 (June 1975), pp. 369-371.

276. _____. "Measuring Attendance: A Reply to Ilgen," *Journal of Applied Psychology*, 62 (April 1977), pp. 234-236.

277. _____ and Sydney B. Kinne III. *Goal Setting as a Means of Increasing the Performance of the Pulpwood Harvester*. Atlanta, Georgia: American Pulpwood Association, 1971. 44 pp.

278. _____. "Improving Job Performance Through Training and Goal Setting," *Journal of Applied Psychology*, 59 (April 1974), pp. 187-191.

279. *The Law That Congress Ignores*. Research Report #3. Washington, D.C.: Foundation for the Study of Presidential and Congressional Terms (2101 L Street, N.W., Suite 307, 20037), [1978]. 3 pp. (Also see: "Absenteeism in Congress," *Parade Magazine*, (July 29, 1979), p. 8.)

280. Lawler, Edward E. III. *Pay and Organizational Effectiveness*. New York, New York: McGraw-Hill, 1971.

281. _____ and J. Richard Hackman. "Impact of Employee Participation in the Development of Pay Incentive Plans: A Field Experiment," *Journal of Applied Psychology*, 53 (December 1969), pp. 467-471.

282. _____ and S. Kaufman. "Effects of Job Redesign on Attendance," *Journal of Applied Social Psychology*, 3 (1973), pp. 39-48.

283. "Less Time Lost Due to Illness," *Office*, 56 (September 1962), p. 36.

284. Liddell, F. D. K. "The Measurement of Daily Variations in Absence," *Applied Statistics*, 3 (1954), pp. 104-111.

285. Locke, Edwin A. "Toward a Theory of Task Motivation and Incentives," *Organizational Behavior and Human Performance*, 3 (1968), pp. 157-189.

286. _____, David Sirota, and Alan D. Wolfson. "An Experimental Case Study of the Successes and Failures of Job Enrichment in a Government Agency," *Journal of Applied Psychology*, 61 (December 1976), pp. 701-711.

287. Lundquist, A. "Absenteeism and Job Turnover as a Consequence of Unfavorable Job Adjustment," *Acta Sociologica*, 3 (1958), pp. 119-131.

288. Lyons, Thomas F. "Turnover and Absenteeism: A Review of Relationships and Shared Correlates," *Personnel Psychology*, 25 (Summer 1972), pp. 271-281.

289. Macaluso, V. and Others. "*Work in America*: Appendix 1--Case Studies," in *Work in America: Report of a Special Task Force to the U.S. Department of Health, Education, and Welfare, Prepared Under the Auspices of the W. E. Upjohn Institute for Employment Research.* (Edited by James O'Toole.) Cambridge, Massachusetts: MIT Press, 1973.

290. Malone, E. L. "The Non-Linear Systems Experiment in Participative Management," *Journal of Business*, 48 (1975), pp. 52-64.

291. Malone, Michael Philip. "Predictive Efficiency and Discriminatory Impact of Verifiable Biographical Data as a Function of Data Analysis Procedure." Ph.D. dissertation, Illinois Institute of Technology, 1977. 115 pp. (Abstract located in *Dissertation Abstracts International*, p. 4520 in vol. 38/09-B.)

292. "Managers View Absenteeism: It's Falling, But Not Enough," *Industry Week*, 172 (February 21, 1972), pp. 26-27.

293. Mann, Floyd C. and H. Baumgartel. *Absences and Employee Attitudes in an Electric Power Company.* Ann Arbor, Michigan: University of Michigan, Institute for Social Research, 1952.

294. _____ and John E. Sparling. "Changing Absence Rates: An Application of Research Findings," *Personnel*, 32 (1956), pp. 392-408.

295. March, James G. and Herbert A. Simon. *Organizations.* New York, New York: Wiley, 1958.

296. Martin, Jean. "Some Aspects of Absence in a Light Engineering Factory," *Occupational Psychology*, 45 (1971), pp. 77-89.

297. Maslow, Abraham H. "A Theory of Human Motivation," *Psychological Review*, 50 (July 1943), pp. 370-398.

298. May, B. R. "I Can't Come in Today--I'm Sick," *Supervision*, 41 (March 1979), pp. 8-10.

299. May, Hal Joseph. "A Study of Pre-Injury Demographic Life History Items Associated with Delayed Return to Work Following Compensable Industrial Back Injury." Ph.D. dissertation, University of Oregon, 1974. 147 pp. (Abstract located in *Dissertation Abstracts International*, p. 6156 of vol. 35/12-B.)

300. Mayo, Elton and George F. Lombard. *Teamwork and Labor Turnover in the Aircraft Industry of Southern California.* Number 32. Boston, Massachusetts: Graduate School of Business Administration, Harvard University, 1944. 30 pp.

301. Melbin, Murray. "Organizational Practice and Individual Behavior: Absenteeism Among Psychiatric Aides," *American Sociological Review*, 26 (February 1961), pp. 14-23.

302. Metzner, Helen and Floyd Mann. "Employee Attitudes and Absences," *Personnel Psychology*, 6 (1953), pp. 467-485.

303. Miner, Mary Green. "Job Absence and Turnover: A New Source of Data," *Monthly Labor Review*, 100 (October 1977), pp. 24-31.

304. Mirvis, Philip H. and Edward E. Lawler III. "Measuring the Financial Impact of Employee Attitudes," *Journal of Applied Psychology*, 62 (February 1977), pp. 1-8.

305. Mitchell, J. H. and J. P. Dunn. "Comparative Absence Experience Among Employees Covered by a Prepaid or a Blue Cross/Blue Shield Health Insurance Program," *Journal of Occupational Medicine*, 20 (December 1978), pp. 797-800.

306. Morgan, F. M. "Toward Better Control of Absenteeism," *Personnel Journal*, 48 (April 1969), pp. 295+.

307. Morgan, Lillie G. and Jeanne B. Herman. "Perceived Consequences of Absenteeism," *Journal of Applied Psychology*, 61 (December 1976), pp. 738-742.

308. Muchinsky, Paul M. "Employee Absenteeism: A Review of the Literature," *Journal of Vocational Behavior*, 10 (June 1977), pp. 316-340.

309. "The Myth of Female Absenteeism," *Management Review*, 71 (March 1972), pp. 58-59.

310. "Nagging Problems of Absenteeism and Tardiness," *Business Management*, 33 (October 1967), pp. 12-13+.

311. Naylor, James C. and Norman L. Vincent. "Predicting Female Absenteeism," *Personnel Psychology*, 12 (Spring 1959), pp. 81-84.

312. Nesbit, Elsie. "Finding the Causes of Non-Attendance," *Social Work*, 2 (1957), pp. 81-86.

313. Newman, John E. "Predicting Absenteeism and Turnover: A Field Comparison of Fishbein's Model and Traditional Job Attitude Measures," *Journal of Applied Psychology*, 59 (October 1974), pp. 610-615.

314. Newton, Robert Andrew. "An Investigation of Certain Personality Factors in Relation to Industrial Absenteeism." M.S. thesis, Pennsylvania State College, 1950.

315. Nicholson, Nigel. "Absence Behavior and Attendance Motivation: A Conceptual Synthesis," *Journal of Management Studies*, 14 (October 1977), pp. 231-252.

316. _____. "Management Sanctions and Absence Control," *Human Relations*, 29 (February 1976), pp. 139-151.

317. _____ and Peter M. Goodge. "The Influence of Social, Organizational and Biographical Factors on Female Absence," *Journal of Management Studies*, 13 (1976), pp. 234-254.

318. _____, Colin A. Brown, and J. K. Chadwick-Jones. "Absence from Work and Job Satisfaction," *Journal of Applied Psychology*, 61 (December 1976), pp. 728-737.

319. _____. "Absence from Work and Personal Characteristics," *Journal of Applied Psychology*, 62 (June 1977), pp. 319-327.

320. _____, Toby Wall, and Joe Lischeron. "The Predictability of Absence and Propensity to Leave from Employees' Job Satisfaction and Attitudes Toward Influence in Decision-Making," *Human Relations*, 30 (June 1977), pp. 499-514.

321. _____ and Others. "Shiftwork and Absence: An Analysis of Temporal Trends," *Journal of Occupational Psychology*, 51 (June 1978), pp. 127-137.

322. Noland, E. Williams. "Attitudes and Industrial Absenteeism: A Statistical Appraisal," *American Sociological Review*, 10 (August 1945), pp. 503-510.

323. _____. "Foremen and Absenteeism," *Personnel Journal*, 24 (1945), pp. 73-77.

324. Nord, Walter and Robert Costigan. "Work Adjustment to the Four-Day Week: A Longitudinal Study," *Journal of Applied Psychology*, 58 (August 1973), pp. 60-66.

325. Oster, Ariel. "Attitudes as Mediators of the Effects of Participation in an Industrial Setting." Ph.D. dissertation, Wayne State University, 1970. 114 pp. (Abstract located in *Dissertation Abstracts International*, p. 4382 in vol. 31/07-B.)

326. Overbeke, J. E. "Auto Slump Barely Dents Absenteeism," *Industry Week*, 186 (August 4, 1975), p. 53.

327. Owens, A. C. "Sick Leave Among Railwaymen Threatened by Redundancy: A Pilot Study," *Occupational Psychology*, 40 (1966), pp. 43-52.

328. Pascale, Richard Tanner. "Personnel Practices and Employee Attitudes: A Study of Japanese- and American-Managed Firms in the United States," *Human Relations*, 31 (July 1978), pp. 597-615.

329. Patchen, Martin. "Absence and Employee Feelings About Fair Treatment," *Personnel Psychology*, 13 (Autumn 1960), pp. 349-360.

330. "Paying Long-Term Absentees," *Administrative Management*, 27 (July 1966), p. 14.

331. Pendalino, Ed and Victor U. Gamboa. "Behavior Modification and Absenteeism: Intervention in One Industrial Setting," *Journal of Applied Psychology*, 59 (December 1974), pp. 694-698.

332. Pennington, A. W. "The Chronic Absentee," *Industrial Medicine*, 18 (1949), pp. 213-214.

333. Petersen, C. A. "Why Women Stay Home," *Personnel*, 43 (May 1966), pp. 36-43.

334. Pettman, B. O. "Some Factors Affecting Labour Turnover: A Review of Research Literature," *Industrial Relations Journals*, 4 (1973), pp. 43-61.

335. "P-H Survey: Absenteeism and Lateness" in *P-H Personnel Management: Policies and Practices*, pp. 555-562. Englewood Cliffs, New Jersey: Prentice-Hall, 1974.

336. Pickard, C. O. "Absentee Control Plans," *Personnel Journal*, 23 (1945), pp. 271-276.

337. Pierce, P. S., J. L. Hoffman, and L. P. Pelletier. "The 4-Day Work Week Versus the 5-Day Work Week: Comparative Use of Sick Time and Overtime by Direct-Care Personnel in an Institutional Facility for the Severely and Profoundly Retarded," *Mental Retardation*, 12, no. 1 (1974), pp. 22-24.

338. Plummer, Norman. "Absenteeism in Industry," *Advanced Management*, 25 (1960), pp. 21-24.

339. Pocock, S. J. "Relationship Between Sickness Absence and Meteorological Factors," *British Journal of Preventive and Social Medicine*, 26 (November 1972), pp. 238-245.

340. _____, R. Sergean, and P. J. Taylor. "Absence of Continuous Three-Shift Workers: A Comparison of Traditional and Rapidly Rotating Systems," *Occupational Psychology*, 46 (1972), pp. 7-13.

341. Porter, Lyman W. and Richard M. Steers. "Organizational, Work, and Personal Factors in Employee Turnover and Absenteeism," *Psychological Bulletin*, 80 (August 1973), pp. 151-176.

342. Poulton, E. C. "The Environment at Work," *Applied Ergonomics*, (March 1972), pp. 24-29.

343. Powell, R. M. and I. Schlacter. "Participative Management: A Panacea?" *Academy of Management Journal*, 14 (1971), pp. 165-173.

344. *PPF Special Report: The Employment Picture--First Quarter, 1974*. BNA Bulletin to Management. Washington, D.C.: Bureau of National Affairs (1231-25th Street, N.W., 20037), March 14, 1974. 4 pp.

345. *A Preliminary Study of Attendance at Work in Large and Small Units*. London, England: Acton Society Trust, 1953.

346. Price, J. L. *Handbook of Organizational Measurement*. Lexington, Massachusetts: Heath, 1972.

347. "Profile of an Absentee," *Industry Week*, 178 (July 9, 1973), p. 41.

348. Raube, S. Avery. "Why Workers Stay at Home," *Conference Board Management Record*, 10 (1948), pp. 45-50.

349. Reid, Dennis H., Christine L. Schuh-Wear, and Marjorie E. Brannon. "Use of a Group Contingency to Decrease Staff Absenteeism in a State Institution," *Behavior Modification*, 2 (April 1978), pp. 251-266.

350. Reid, P. C. "Absenteeism: Industry's High-Priced Headache," *Supervisory Management*, 8 (October 1963), pp. 9-13.

351. "Report on Female Workers' Absenteeism and Turnover," *Office*, 70 (December 1969), p. 63.

352. Revans, R. W. "Human Relations, Management, and Size," in *Human Relations and Modern Management*. (Edited by E. M. Hugh-Jones.) Amsterdam, Netherlands: North-Holland Publishing, 1958.

353. _____. *Standards for Morale: Cause and Effect in Hospitals*. London, England: Oxford University Press, 1964.

354. Reza, A. M. "Labour Supply and Demand, Absenteeism, and Union Behaviour," *Review of Economic Studies*, 42 (April 1975), pp. 237-247.

355. Rhea, Bob D. "The Construction and Analysis of Two Forced-Choice Questionnaires Measuring Attitudes Toward Absenteeism." Ph.D. dissertation, Oklahoma State University, 1962. 89 pp. (Abstract located in *Dissertation Abstracts*, p. 386 in vol. 24(1).)

356. Rhodes, Susan R. and Richard M. Steers. *Summary Tables of Studies of Employee Absenteeism*. Technical Report No. 13. Eugene, Oregon: Graduate School of Management, University of Oregon, January 1978. 33 pp.

357. Rice, A. K. and E. L. Trist. "Institutional and Subinstitutional Determinants of Change in Labor Turnover," *Human Relations*, 5 (1952), pp. 347-372.

358. "Rising Absenteeism in Sweden Attributed to Generous Sick Pay," *World of Work Report*, 2, 1 (1977), p. 12.

359. Robins, James. "Firms Try Newer Way to Slash Absenteeism as Carrot and Stick Fail," *The Wall Street Journal*, 41 (March 14, 1979), pp. 1, 41.

360. Robinson , John F. "Why They're Absent. . .And What To Do About It," *Supervisory Management*, 19 (June 1974), pp. 24-28.

361. Robison, D. *Alternate Work Patterns: Changing Approaches to Work Scheduling*. Report of a conference sponsored by National Center for Productivity and Quality of Working Life and the Work in America Institute, Inc., New York, June 1976. (Cited in Richard M. Steers and Susan R. Rhodes. "Major Influences on Employee Attendance: A Process Model," *Journal of Applied Psychology*, 63 (August 1978), p. 404.)

362. Ronan, W. W. "A Factor Analysis of Eleven Job Performance Measures," *Personnel Psychology*, 16 (Autumn 1963), pp. 255-268.

363. _____, Gary P. Latham, and S. B. Kinne III. "Effects of Goal Setting and Supervision on Worker Behavior in an Industrial Situation," *Journal of Applied Psychology*, 58 (December 1973), pp. 302-307.

364. Rosen, Hjalmar and John Turner. "Effectiveness of Two Orientation Approaches in Hard-Core Unemployed Turnover and Absenteeism," *Journal of Applied Psychology*, 55 (August 1971), pp. 296-301.

365. Rousseau, Denise M. "Relationship of Work to Nonwork," *Journal of Applied Psychology*, 63 (August 1978), pp. 513-517.

366. Sawatsky, John C. "Psychological Factors in Industrial Organization Affecting Employee Stability," *Canadian Journal of Psychology*, 5 (1951), pp. 29-38.

367. Scheflen, Kenneth C., Edward E. Lawler III, and J. Richard Hackman. "Long-Term Impact of Employee Participation in the Development of Pay Incentive Plans: A Field Experiment Revisted," *Journal of Applied Psychology*, 55 (June 1971), pp. 182-186.

368. Schenet, N. G. "An Analysis of Absenteeism in One War Plant," *Journal of Applied Psychology*, 29 (1945), pp. 27-39.

369. Schindall, H. "Find Absenteeism's Hidden Costs," *Iron Age*, 192 (December 19, 1963), pp. 64-65.

370. Schuh, A. "The Predictability of Employee Tenure: A Review of the Literature," *Personnel Psychology*, 20 (1967), pp. 133-152.

371. Searls, D. J., G. N. Braucht, and R. W. Miskimins. "Work Values and the Chronically Unemployed," *Journal of Applied Psychology*, 59 (1974), pp. 93-95.

372. Seatter, W. C. "More Effective Control of Absenteeism," *Personnel*, 38 (September 1961), pp. 16-29.

373. Sellett, L. R. "Age and Absenteeism," *Personnel Journal*, 43 (June 1964), pp. 309-313.

374. Sergean, R. and J. Brierly. "Absence and Attendance Under Non-Continuous Three Shift Systems of Work," *Nature*, 219 (August 1968), p. 536.

375. Sharples, Darreld Kent. "A Study of the Predictive Relationship Between Absenteeism of Classified Civil Service Personnel and Job Satisfaction." Ph.D. dissertation, Ohio University, 1973. 241 pp. (Abstract located in *Dissertation Abstracts International*, p. 2240 in vol. 34/05-A.)

376. Shepherd, R. D. and J. Walker. "Absence and the Physical Conditions of Work," *British Journal of Industrial Medicine*, 14 (1957), pp. 266-274.

377. _____. "Absence from Work in Relation to Wage Level and Family Responsibility," *British Journal of Industrial Medicine*, 15 (1958), pp. 52-61.

378. _____. "Three-Shift Working and the Distribution of Absence," *Occupational Psychology*, 30 (1956), pp. 105-111.

379. Sheridan, John H. "Who Didn't Show Up Today?" *Supervisory Management*, 17 (December 1972), pp. 27-30.

380. Shore, H. H. "Absenteeism: How to Analyze Causes and Effects," *Supervisory Management*, 20 (September 1975), pp. 9-16.

381. Siegel, Alan L. and Robert A. Ruh. "Job Involvement, Participation in Decision Making, Personal Background and Job Behavior," *Organizational Behavior and Human Performance*, 9 (April 1973), pp. 318-327.

382. Sinha, A. K. P. "Manifest Anxiety Affecting Industrial Absenteeism," *Psychological Reports*, 13 (1963), p. 258.

383. *Size and Morale*. London, England: Acton Society Trust, 1953.

384. Smardon, Raymond A. "Some Cures for Chronic Absenteeism," *Supervisory Management*, 19 (November 1974), pp. 12-15.

385. Smith, A. L. "Oldsmobile Absenteeism/Turnover Control Program," *GM Personnel Development Bulletin*, February 1972.

386. Smith, C. G. and G. Jones. "The Role of the Interaction-Influence System in a Planned Organizational Change," in *Control in Organizations*. (Edited by A. S. Tannenbaum.) New York, New York: McGraw-Hill, 1968.

387. Smith, Frank J. "Work Attitudes as Predictors of Attendance on a Specific Day," *Journal of Applied Psychology*, 62 (February 1977), pp. 16-19.

388. Smith, P. C., L. M. Kendall, and C. L. Hulin. *The Measurement of Satisfaction in Work and Retirement*. Chicago, Illinois: Rand McNally, 1969.

389. Spiegel, A. H. III. "How Outsiders Overhauled a Public Agency," *Harvard Business Review*, 53, no. 1, (1975), pp. 116-124.

390. Staw, Barry M. and Greg R. Oldham. "Reconsidering Our Dependent Variables: A Critique and Empirical Study," *Academy of Management Journal*, 21 (December 1978), pp. 539-559.

391. Stecker, Albert Loomis. "A Two Factor Behavioral Theory of Industrial Absenteeism." D.B.A. dissertation, Indiana University, 1972. 132 pp. (Abstract located in *Dissertation Abstracts International*, p. 951 in vol. 34/03-A.)

392. Steers, Richard M. "Antecedents and Outcomes of Organizational Commitment," *Administrative Science Quarterly*, 22 (1977), pp. 46-56.

393. _____ and D. G. Spencer. "The Role of Achievement Motivation in Job Design," *Journal of Applied Psychology*, 4 (1977), pp. 472-479.

394. _____ and Susan R. Rhodes. "Major Influences on Employee Attendance: A Process Model," *Journal of Applied Psychology*, 63 (August 1978), pp. 391-407.

395. Steinmetz, Lawrence L. and Peter P. Schoderbek. "What You Can Do About Absenteeism," *Supervisory Management*, 12 (April 1967), pp. 10-14.

396. Stephens, Tedd A. and Wayne A. Burroughs. "Applications of Operant Conditioning to Absenteeism in a Hospital Setting," *Journal of Applied Psychology*, 63 (August 1978), pp. 518-521.

397. Sternhagen, C. J. "Absenteeism--When the Cause Is a Medical Problem," *Supervisory Management*, 15 (March 1970), pp. 21-23.

398. Steward, G. V. and J. M. Larsen. "A Four-Day Three-Day per Week Application to a Continuous-Production Operation," *Management of Personnel Quarterly*, 10, no. 4 (1971), pp. 3-20.

399. Stockford, L. O. "Chronic Absenteeism and Good Attendance," *Personnel Journal*, 23 (1944), pp. 202-207.

400. Talacchi, S. "Organization Size, Individual Attitudes and Behavior: An Empirical Study," *Administrative Science Quarterly*, 5 (1960), pp. 398-420.

401. Taylor, Daniel E. "Absent Workers and Lost Work Hours, May 1978," *Monthly Labor Review*, 102 (August 1979), pp. 49-53.

402. Taylor, P. J. "Individual Variation in Sickness Absence," *British Journal of Industrial Medicine*, 24 (1967), pp. 169-177.

403. _____. "Shift and Day Work: A Comparison of Sickness Absence, Lateness, and Other Absence Behaviour at an Oil Refinery from 1962 to 1965," *British Journal of Industrial Medicine*, 24 (April 1967), pp. 93-102.

404. _____ and S. J. Pocock. "Commuter Travel and Sickness Absence of London Office Workers." *British Journal of Preventative and Social Medicine*, 26 (August 1972), pp. 165-172.

405. Tjersland, T. *Changing Worker Behavior*. New York, New York: American Telephone and Telegraph Company, Manpower Laboratory, December 1972.

406. Trice, Harrison M. and James A. Belasco. "Patterns of Absenteeism Among Drinkers," *Management Review*, 56 (September 1967), pp. 55-57.

407. _____ and Paul M. Roman. "Alcoholism and the Worker," in *Alcoholism: Progress in Research and Treatment*, pp. 359-384. (Edited by Peter G. Bourne and Ruth Fox.) New York, New York: Academic Press, 1973.

408. Trist, E. L. and Others. *Organizational Choice*. London, England: Tavistock Publications, 1965.

409. Tucker, Helen I. and John F. Lotz. "Absenteeism: Experience with a Liberal Paid-Absence Plan," *Personnel*, 33 (1957), pp. 327-336.

410. Turner, A. N. and P. R. Lawrence. *Industrial Jobs and the Worker: An Investigation of Response to Task Attributes*. Boston, Massachusetts: Harvard University Press, Division of Research, 1965.

411. Turner, W. W. "Dimensions of Foremen Performance: A Factor Analysis of Criterion Measures," *Journal of Applied Psychology*, 44 (1960), pp. 216-223.

412. van Zelst, R. H. and W. A. Kerr. "Workers' Attitudes Toward Merit Rating," *Personnel Psychology*, 6 (1953), pp. 159-172.

413. Vroom, V. H. "Ego-Involvement, Job Satisfaction, and Job Performance," *Personnel Psychology*, 15 (1962), pp. 159-177.

414. _____. *Work and Motivation*. New York, New York: Wiley, 1964.

415. Wade, Leo. "A Human Relations' Approach to Sickness Absenteeism and Other Employee Problems," *A.M.A. Archives of Industrial Health*, 12 (December 1955), pp. 592-608.

416. Waters, L. K. and Darrell Roach. "Job Attitudes as Predictors of Termination and Absenteeism: Consistency Over Time and Across Organizational Units," *Journal of Applied Psychology*, 57 (June 1973), pp. 341-342.

417. _____. "Relationship Between Job Attitudes and Two Forms of Withdrawal from the Work Situation," *Journal of Applied Psychology*, 55 (February 1971), pp. 92-94.

418. Weaver, Charles N. "Influence of Sex, Salary, and Age on Seasonal Use of Sick Leave," *Personnel Journal*, 49 (August 1970), pp. 675+.

419. _____ and S. L. Holmes. "On the Use of Sick Leave by Female Employees," *Personnel Administration and Public Personnel Review*, 1 (1972), pp. 46-50.

420. Weitzel, W. and J. Bloedorn. "Action Research in Work Groups," *Personnel Administration*, 33 (September 1970), pp. 57-58.

421. Weller, O. H. "Touch-Tone Attendance and Labor Reporting," *Management Accounting*, 51 (August 1969), pp. 27-28+.

422. Wexley, K. N. and W. F. Nemeroff. "Effectiveness of Positive Reinforcement and Goal Setting as Methods of Management Development," *Journal of Applied Psychology*, 60 (1975), pp. 446-450.

423. White, B. L. "Job Attitudes, Absence from Work, and Labour Turnover," *Personnel Practices Bulletin*, 16 (1960), pp. 18-23.

424. White, Warren Leigh. "The Effect of Flexible Working Hours on Absenteeism and Job Satisfaction, and the Relationship Between Locus of Control and Utility of Flexible Working Hours." Ph.D. dissertation, University of Texas at Austin, 1976. 194 pp. (Abstract located in *Dissertation Abstracts International*, p. 4204 in vol. 37/08-B.)

425. Whyte, W. F. *Organizational Behavior*. Homewood, Illinois: Irwin, 1969.

426. Wood, Donald A. "Effect of Worker Orientation Differences on Job Attitude Correlates," *Journal of Applied Psychology*, 59 (February 1974), pp. 54-60.

427. Yolles, Stanley F., Pasquale A. Carone, and Leonard W. Krinsky. *Absenteeism in Industry*. American Lecture Series, Publication No. 969. Springfield, Illinois: Charles C. Thomas, 1975. 141 pp.

428. "You Can Control Employee Absences," *Business Management*, (April 1963), pp. 39-42.

429. Youngblood, Stuart Alan. "Modeling Absenteeism by Scaling Work and Nonwork Preferences." Ph.D. dissertation, Purdue University, 1978. 345 pp. (Abstract located in *Dissertation Abstracts International*, p. 3042 in vol. 39/05-A.)

430. Yusuk, R. P. *The Assessment of Employee Morale: A Comparison of Two Measures.* Bureau of Business Research Monograph No. 99. Columbus, Ohio: Ohio State University, 1961.

431. Zaharia, E. S. and A. A. Baumeister. "Technician Turnover and Absenteeism in Public Residential Facilities," *American Journal of Mental Deficiency,* 82 (May 1978), pp. 580-593.

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