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Abstract

Recently, some attention has been directed toward the affects of the quantity of schooling on achievement (Karaweit, N. 1973, 1975; Kidder, O'Reully, and Kiesling, 1975; Wiley 1973, 1974). This paper reports the results of a preliminary investigation of the effects of sex, socioeconomic status, family size, and a student's level of occupational aspiration on within school quarterly absence rates. The sample consisted of 167 ninth grade students randomly selected from the high school population of a suburban northeastern community. It was found that the sex of the child did not significantly affect the number of days the child was absent in any one quarter, or for the entire year. The size or socioeconomic status of the child's family, and the child's level of occupational aspiration had different impacts upon attendance at different times during the school year. Of the variance explained by all of the variables, 35 to 38 percent could be attributed to the characteristics of the home (family size, or socioeconomic status). The best predictor of student absence rates during a particular quarter was the student's previous history of absence. Multiple regression analysis was used to determine the relationships between background and previous attendance history.

INTRODUCTION: Many studies of school or program effects have arrived at somewhat less than positive results. These studies tend to indicate that more of the variance in achievement measures are attributable to family background variables than to between schools or programs. Recently, some attention has been directed toward the affect of school attendance on achievement (Karaweit, N., 1973, 1975; Kidder, O'Reully, and Kiesling, 1975; Wiley, 1973; Wiley and Harnischfeger, 1974; Harnischfeger and Wiley 1975). The rationale seems to be that the longer a child is in contact with the school environment (days of attendance) the more he or she will learn. The purpose of the research reported in this paper is to explore the relationships which may exist between school attendance and the characteristics of the family.

METHOD: The sample consisted of 167 ninth grade students from a suburban northeastern school system. The system used the 6-2-4 grade system. Therefore, these students were all entering high school freshmen. The students were randomly selected from a class of about 400. The sample contained 70 female, and 97 male students. Family background, and attendance data were obtained from existing school records. The occupations, and education levels of the student's parents were coded according to the scheme shown in tables A and B. The child's career aspirations were coded on the same scale as the parent occupations. The size of the student's family was recorded as the number of children (including the subject) currently living in the same abode as the subject.

An index of socioeconomic status was computed.

This index was the average of the z-scores of the parent's education, and occupation. In theory, if the variables were independent the averaging process would result in a variable with a mean of zero and a variance of one. The observed mean was  $-.004$ . Since the occupation and education levels of the parents were highly correlated (about .5 to .54 with each other) the observed variance of .86 was somewhat lower than the expected value of 1.0.

The number of days which the students were absent from school during each quarter, and the total number of days absent during the school year were used as criterion variables. Multiple regression techniques were used to determine the effects of the home background variables on school absence.

RESULTS: Separate multiple regression analyses were performed to assess the amount of variance in each quarter's absence rate, and in the total number of days absent that was explained by the home background variables, and previous attendance history. The results of each of these analyses are described in Table 1.

Some interesting observations can be made from the entries in Table 1. First, the student's level of occupational aspiration seemed to have had an effect upon the number of days of schooling the student received. The sign of the beta weight between aspiration and attendance indicated that students with higher levels of aspiration tended to have fewer days absent in the first quarter. However, after the first term the effect of the aspiration variable was not significant. The student's aspiration level did not seem to significantly effect the total number of days absent after the first term.

The size of a student's family seemed to have an affect on school absence accross quarters, except for the last (4 th. quarter) term. Students from larger families tended to be absent from school more often than their peers from smaller families.

The socioeconomic status of the family did not seem to effect the number of days which the student was absent except in the last term. There are numerous hypotheses which may explain this phenomina. In the last term most families, regardless of size, realize that this is the last term in which their children can make up deficiencies which may have resulted from absence or some other source. Therefore, more attention may be paid to end of term three reports than to reports from terms one, or two. The importance of the last term may serve as an incentive for parents of large families to pay more attention to the individual child's actions than they may have, otherwise. Therefore, the effect of family size would be diminished. Since the family size variable was highly correlated with the SES variable ( $r=.659$ ), the reduction of the influence of family size would release more of the

criterion's variance for the SES variable to explain. The data necessary to investigate this hypothesis, or others was not present. The inference, however, seems to be that children from high SES families tend to be absent less in the last term than children from low SES families. This can be explained by numerous causal hypotheses. The least important of which is not the social component of schooling. It is well known that a large amount of the school's social activity occurs in the last quarter of the year. It seems reasonable to assume that children from high SES families would be concerned with these activities. To be absent from school would imply a partial reduction in the number of social activities which a student would be actively involved. Therefore, higher SES students would be expected to be in school more often, and absent less than lower SES students. This is not the only hypothesis that would explain this effect. Many other theories can be developed which would tend to explain the observed phenomenon. It is probable that some combination of these theories is at work.

The results presented in table 1 with regard to the total number of days absent yields a very clear picture. The major and only significant family background factor which seems to affect the absence rate is the size of the family with whom the student resides. Students from larger families can be expected to be absent more during the school year than students from smaller families.

Indications of other interesting phenomena can be seen from the results reported in Table 1. The largest significant predictor of a student's absence rate in a particular term seems to be the child's past history of absence. Also, the predictive effect of term one's attendance seems to diminish after term two. The number of days absent in term four seems to be dependent upon the number of days a student was absent in terms two, and three but not in term one. The directionality of the effects are shown in figure 1. The directionality is shown by the arrows, and the numbers are the beta weights of all predictors with a significance level below .05.

The fact that term one does not effect terms three, or four is not surprising. In term one, and the beginning of term two school is still a 'new' or novel experience after the long summer. Students are meeting old friends, and making new ones. New and interesting social relationships are being formed. However, as the school year continues, the novel experiences of term one become the day to day routine of the school climate.

A final result which is interesting since it is somewhat counter intuitive is the insignificance of the sex variable. One might expect that the 'Tom Sawyer' effect should be present. Intuitively, it would seem that boys might be more interested in sports, fishing, hunting, etc., than in school events. This theory, if correct, would imply that boys would exhibit higher absence rates than girls. However, it seems that boys and girls do not differ significantly with regard to the number of days which

they attend school.

This sample consisted of students from one grade in a particular school system. The results can not be generalized to the population of all schools. However, the system sampled for this study was not much different from other suburban school systems in the industrial Northeast. The results obtained from this study should be similar to what one might expect to find in other comparable towns. Some interesting observations were: the effects of past attendance history, family size and SES on quarterly attendance, and that 35 - 38 percent of the total amount of explained variance was attributed to family background factors. The results of this research served to indicate what might be expected to be found in other suburban, and possibly urban towns.

#### REFERENCES

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Table 1

## Multiple Regression Results

INDEPENDENT VARIABLES	BETA WEIGHTS				
	TERM 1	TERM 2	TERM 3	TERM 4	TOTAL
SEX	-.04	-.00	-.07	-.05	-.01
SOCIOECONOMIC STATUS	-.04	-.08	-.01	-.19*	-.02
FAMILY SIZE	.22*	.26**	.18*	-.00	.39**
Asperation Level	-.24**	-.02	-.02	-.07	-.16
Absence Term 1	N.A.	.54**	.04	-.04	N.A.
Absence Term 2	N.A.	N.A.	.61**	.28**	N.A.
Absence Term 3	N.A.	N.A.	N.A.	.31**	N.A.
Total Variance Accounted For:	12.7%	41.0%	54.6%	33.0%	21.3%
Percent Of Total Accounted					
Variance Explained By Family					
Background Variables	N.A.	38%	38%	35%	N.A.

N.A. Not Applicable

\*  $p < .05$ \*\*  $p < .01$

# FIGURE 1

## RELATIONS BETWEEN VARIABLES

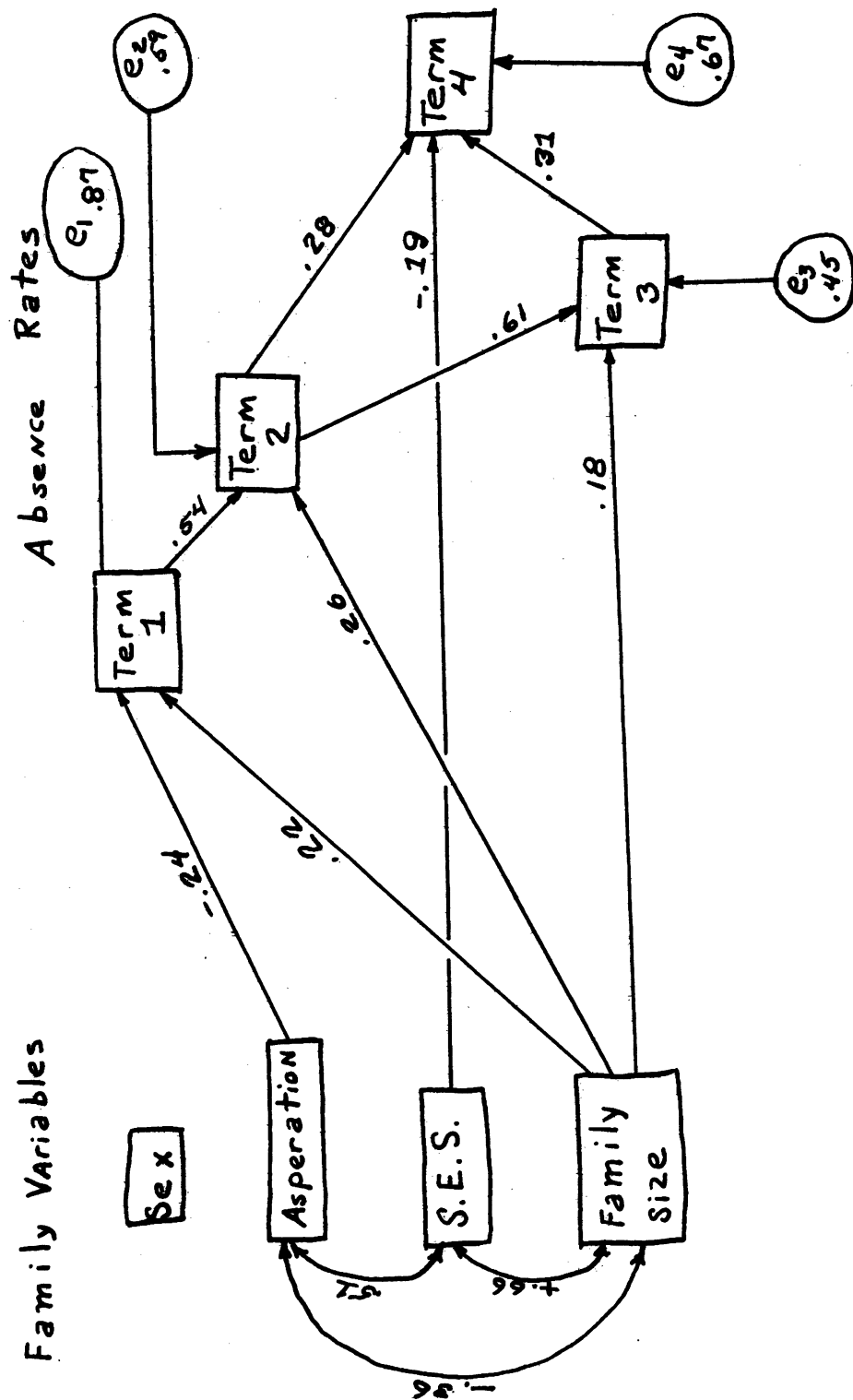


Table A  
Occupational Classifications

- Group 8: Architect, Banker, College Professor, Doctor, Engineer, Judge, Lawyer, Manager of a Business, Officer in the Armed Services, Owner of a Large Business, President of a Large Corporation, Town or State Official.
- Group 7: Artist, Computer Programmer, Entertainer, High School or Jr. High School Teacher, Minister, Newspaper Reporter, Nurse, Pharmacist, Real Estate or Insurance Salesman, Social Worker, Surveyor, Undertaker, Veterinarian, Writer.
- Group 6: College Student, Contractor, Construction Supervisor, Draftsman, Foreman, Fireman, Owner of a Small Business, Policeman, Professional Athlete, Radio/T.V. repairman, Salesman, Secretary, Supervisor, Technician.
- Group 5: Electrician, Elementary School Teacher, Machinist, Office Clerk, Stenographer, Tool Maker.
- Group 4: Baker, Carpenter, Cobbler, Mechanic, Plumber, Printer, Steel Construction Worker.
- Group 3: Corporal or Private in Armed Services, Bartender, Clerk, Gas Station Attendant, General Factory Worker, Hoist Operator, Machine Operator, Waitress.
- Group 2: Barber, Brick Layer, Bus Driver, Butcher, Butler, Cook, Housewife, Janitor, Laborer, Maid, Night Watchmen, Taxi Driver, Truck Driver.
- Group 1: Unemployed, or Deceased.

Table B  
Educational Classifications

- 9 Phd., Edd., LLd., M.D., DDS.
- 8 **Master's Degree**
- 7 B.A. or B. S. and more College
- 6 B.A. or B.S. only
- 5 Some College
- 4 High School Graduate
- 3 Some High School
- 2 Jr. High School Graduate
- 1 Elementary School Only