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A STUDY OF FAILURE STUDENTS IN A JUNIOR HIGH SCHOOL

BY

DE RHAYMER E. KIRSCHMAN

**A research report submitted
in partial fulfillment of the requirements for the
degree Master of Science, Department of
Education, South Dakota State
College of Agriculture
and Mechanical Arts**

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D. E. K.

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CHAPTER I

INTRODUCTION

As a teacher in a junior high school the author became interested in the ever present problem of failures. This interest led the author to question certain opinions concerning the family background of failure students. "The all-important aspect of the failure label to a student, the recognition of its effect on his later life, and the responsibility of the teacher toward this problem is well recognized".¹ "The possibility of no nonpromotes has proved attractive".² "But the difficulties of grade records and promotion is still a major problem to all teachers".³

This study is an attempt to determine if certain socio-economic factors of the home are related to failure.

Statement of the Problem

This study was made of student failures in a junior high school. The purpose of the study was to determine if

¹Allan M. Pitkanen, "Antidotes for 'Failures'", The Educational Forum, vol. 19, number 2, 237-240, Kappa Delta Pi: Menasha, Wisconsin, January, 1955.

²Charles Myron Reinoehl and Fred Carleton Ayer, Classroom Administration and Pupil Adjustment, pp. 144-145, Appleton-Century-Crofts, Inc.: N , '9.0.

³Ralph K. Watkins, Techniques of Secondary School Teaching, pp. 339-373, The Ronald Press Company: New York, 1958.

certain home or neighborhood factors were common to the members of the failure group.

More specifically, the purpose of this study was to find answers to the following questions:

1. Do certain family conditions such as marital status and size of family have a relation to student failures?
2. Does economic status as indicated by neighborhood real estate values have a relation to student failures?

The study made and the answers determined were necessarily limited by the procedure and methods followed. These are explicitly set forth in Chapter II.

Delimitation

This study is limited to the students of Whittier Junior High School who have failed their respective grades during the years 1957 and 1958. It is further limited to the methods used in securing data. (The study would necessarily be limited to the data secured by school records or to any other technique used for securing data by the author.)

Procedure

To obtain answers to the preceding questions the records of all students of a certain junior high school were obtained. A list was made of students who had failed to pass

in the 1956-1957 school year or the 1957-1958 school year. From the records information was secured concerning family marital status, size of family, number of older and younger brothers and sisters, and home address. Also for the purpose of making meaningful comparison a control group was selected. The members of this control group were nonfailures. This made it possible to compare the factors studied in the failure group with the same factors found in the control group.

CHAPTER II

PROCEDURE

Selection of the School

The study was made of failure students in Whittier Junior High School. This particular junior high school was selected because the administrator was cooperative and its records were readily accessible. Furthermore, the enrollment of Whittier Junior High School (from 650-700 pupils) was considered large enough to give an adequate sample.

Failure Group

The failure group was composed of all students currently in Whittier Junior High School who had failed the 1956-1957 school year, and also those students who had failed the 1957-1958 school year.

One student had failed to pass the seventh grade in 1956-1957 and again in 1957-1958. This person is consequently listed twice in the failure group. The total number of failures for the two years numbered 61.

Control Group

A control group having an equal number of students was then set up. This group was composed of 27 seventh-grade students, 29 eighth-grade students, and 5 ninth-grade

students. This was the same distribution as was found in the student-failure group.

Method of Matching

There is a direct relationship between I.Q. and achievement.⁴ Therefore the control group was matched with the failure group on the basis of equal I.Q.'s. Where several I.Q.'s were listed for a student no attempt was made to evaluate the different scores. The arithmetic average of the several scores listed was used. Fractions were dropped if less than 1/2 but fractions of 1/2 or over were raised to the next whole number. The procedure followed in choosing students for the matching group produced an acceptable representative distribution. Each grade had previously been divided into seven or eight sections by the administrator. These he had set up by a random selection. Each section had been arranged alphabetically (last names) and each contained names from all parts of the alphabet found in that grade. In setting up the matching group, records were pulled until a student who had never failed was found with an I.Q. to match that of each student of the failure group. Each of the seven or eight sections was worked through before any cards were pulled from the others. Thus the control group matched the failure group student for student and grade for grade. No

⁴Leo J. Brueckner, The Changing Elementary School, p. 81, Inor Publishing Company, Inc.: New York, 1940.

attempt was made to match the groups on the basis of sex.

However, the whole grade failed to produce an exact match for five eighth-grade failures. These were matched in this manner. Three members of the control group have an I.Q. score 1 point above the I.Q. score of the corresponding failure students, one member of the control group has an I.Q. score 1 point below the I.Q. score of the corresponding failure student, and one member of the control group has an I.Q. score 5 points above the I.Q. score of the corresponding member of the failure group. Also, the whole seventh grade failed to produce an exact match for six seventh-grade failures. These were matched with three members of the control group whose I.Q. score was 1 point above the I.Q. score of the failure student and with one member of the control group whose I.Q. score was 1 point below the I.Q. score of the corresponding failure student. In the case of two very low I.Q. scores in the failure group, the lowest scores found in the nonfailure group were used. Specifically, an I.Q. score of 65 in the seventh-grade failures was matched with an I.Q. score of 69 in the control group. Likewise, an I.Q. score of 66 in the seventh-grade failures was matched with an I.Q. score of 73 in the control group. (For a complete list of students and I.Q.'s see Table A and Table B in the Appendix.)

Limitation of Matching Method

The failure of the control group I.Q. scores to exactly match the failure group I.Q. scores has to be recognized as providing a possibility for error. However, eight of these matchings have a difference of only 1 point. Only three matchings have a difference of more than 1 point. The greatest difference is 7 points. The effect of these differences is of course to raise the level of the I.Q. scores for the control group. Our concern over this variation is lessened when we consider that if all the differences were spread evenly over the 61 scores it would result in a difference between the two groups of less than $\frac{1}{3}$ of 1 point in the I.Q. scores.

Family Data

After the failure group and the control group had been determined, data concerning the family and marital status of the parents was recorded. The number of older brothers, the number of younger brothers, the number of older sisters, and the number of younger sisters were tabulated. It was possible from this data to make comparisons between the failure group and the control group as to the size of family, broken homes, only child, and other related items.

Location of Homes

The home address of each student was recorded. (See Table A and Table B in the Appendix.) The home of each failure student was located and marked on a map of the school district. The location of the home of each student in the control group was also marked on the same map with a different symbol. This made it possible to locate groupings of either failure students or control students.

Interviews

Lastly, interviews were made with the city assessor, a local realtor, and the school nurse. From the city assessor and the realtor expert opinion was secured regarding property values of certain neighborhoods in which groupings of students appeared. From the school nurse information concerning the social background of these same neighborhood areas was obtained.

CHAPTER III

ANALYSIS OF DATA

"Much has been said about the importance of social and economic status".⁵ The purpose of this study was to ascertain whether or not certain social and economic factors concerning family and neighborhood were common to the failure students. The failure group was determined as those students in Whittier Junior High School who had failed the 1956-1957 school year or the 1957-1958 school year. It is interesting to note that the tendency to pass and not fail sixth graders apparently holds true in this group, according to Bruckner⁶ and to Lobdell.⁷ Among the 27 seventh graders, only two had been failed in the sixth grade. Of the 29 eighth graders, ten had failed eighth grade and 19 had failed seventh grade. The complete data gathered from the records of the students in the failure group is recorded in Table A in the Appendix.

⁵Rudyard K. Bent and Henry H. Kronenberg, Principles of Secondary Education, pp. 186-187, McGraw-Hill Book Company, Inc.: New York, 1941.

⁶Leo J. Bruckner, The Changing Elementary School, pp. 79-80, Inor Publishing Company, Inc.: New York, 1940.

⁷Lawrence O. Lobdell, "Results of a Non-Promotion Policy in One School District", The Elementary School Journal, p. 334, University of Chicago Press: Chicago, February, 1954.

Use of Control Group

The presence or absence of certain factors is significant only to the extent with which those factors represent a departure from normal. Therefore, the control group was set up to provide an indication of the normal presence or absence of those certain factors. The incidence of those factors in the failure and the control groups therefore becomes significant. The manner in which the control group was selected was explained in Chapter II. The data gathered from the records of the students in the control group is recorded in Table B in the Appendix.

Parents Missing or Deceased

In the failure group there are six instances of parents being deceased or missing. The control group shows seven families which have a parent either dead or missing. In the failure group two students are living with foster parents. In the control group one student lives with foster parents, one student lives with his grandparents, and two students live in an orphanage. In the failure group four fathers are shown as deceased, and two of these mothers have remarried. In the control group two fathers and two mothers are shown as deceased, with one father and one mother remarried. For a complete tabulation of parents deceased or missing from the home see Table I.

TABLE I. FAMILIES OF FAILURE STUDENTS AND CONTROL-
GROUP STUDENTS WITH ONE OR BOTH PARENTS
DECEASED OR MISSING

Name	F	M	SF	SM	FF	FM	GF	GM
Failure group								
M.M.	?	?	-	-	1	1	-	-
P.M.	?	?	-	-	1	1	-	-
G.C.	0	1	1	-	-	-	-	-
R.C.	0	1	1	-	-	-	-	-
P.J.	0	1	-	-	-	-	-	-
J.D.	0	1	-	-	-	-	-	-
Control group								
B.C.*	?	?	-	-	-	-	-	-
P.H.*	?	0	-	-	-	-	-	-
E.H.	0	1	-	-	-	-	-	-
N.B.	0	1	1	-	-	-	-	-
P.C.	1	0	-	1	-	-	-	-
C.C.	-	-	-	-	1	1	-	-
S.M.	-	-	-	-	-	-	1	1

F - father
M - mother
0 - deceased
1 - present

SF - stepfather
SM - stepmother
FF - fosterfather
FM - fostermother

GF - grandfather
GM - grandmother
? - not known
* - orphanage

Family Members

In two families the failure student was found to be an only child. In the control group there is one family in which the student is an only child, and one family in which the control student is a twin. In the failure group, 14 students were the oldest of the siblings and 12 students were the youngest. Out of the control group, in 14 cases the student was the oldest child in the family. In 10 cases the student was the youngest child in the family. The total number of siblings in the families of the failure group is 219. The siblings in the control-group families number 213.

Divorced Parents

Thirteen of the 61 families of the failure students have a divorce breaking up the home. Five sets of parents of the control-group students have had divorces. This shows a divorce ratio of failure-student families to control-student families of approximately 2 1/2 to 1. In the failure group the students are living with their mother in seven of the 13 divorced families. Five of these mothers have remarried. In four of the remaining divorced families, the students live with their fathers, only one of whom has remarried. In the two remaining divorced families, both parents are absent from the home. In one case the student lives with two step-parents, and in the second case the student lives with a

grandmother.

In the five divorced families in the control group in all cases, the students are living with their mothers. Also, the mothers are remarried. For the complete tabulation of the divorced families see Table II. The significance of the data concerning divorced families becomes evident when we note that both the failure group and the control group have exactly the same number of families (five) with the mother remarried and the children living with her.

Grouping of Failures into Residential Areas

A map of the school district had been secured to make possible the locating of both the failure and the control-group students. Upon this map the location of the homes of failure students had been marked with a solid circle. The homes of the control students had been marked with an open circle. (See page 15.) It can readily be seen on this map that the failures are grouped into four areas. The most southerly area outlined on the map encloses six failure students in an area without including a single control student. The second outlined area lies to the north of the first area and near the center of the district. Within the outline of this area live 11 failure students and no member of the control group. The third area lies to the extreme north of the map and at the left. This area is much larger and lies outside the city limits. Within this third area live 10 failure

TABLE II. FAMILIES OF FAILURE STUDENTS AND CONTROL-GROUP STUDENTS WHOSE PARENTS ARE DIVORCED

Name	F	M	SF	SM	GF	GM
Failure group						
R.H.	1	d	-	-	-	-
D.H.	1	d	-	-	-	-
R.H.	1	d	-	-	-	-
B.W.	1	d	-	1	-	-
R.R.	d	1	-	-	-	-
M.F.	d	1	-	-	-	-
D.D.	d	1	1	-	-	-
R.D.	d	1	1	-	-	-
M.C.	d	1	1	-	-	-
R.P.	d	1	1	-	-	-
W.T.	d	1	1	-	-	-
F.M.	d	d	1	1	-	-
D.B.	d	d	-	-	-	1
Control group						
L.J.	d	1	1	-	-	-
C.M.	d	1	1	-	-	-
J.B.	d	1	1	-	-	-
S.M.	d	1	1	-	-	-
C.H.	d	1	1	-	-	-

F - father

SF - stepfather

GF - grandfather

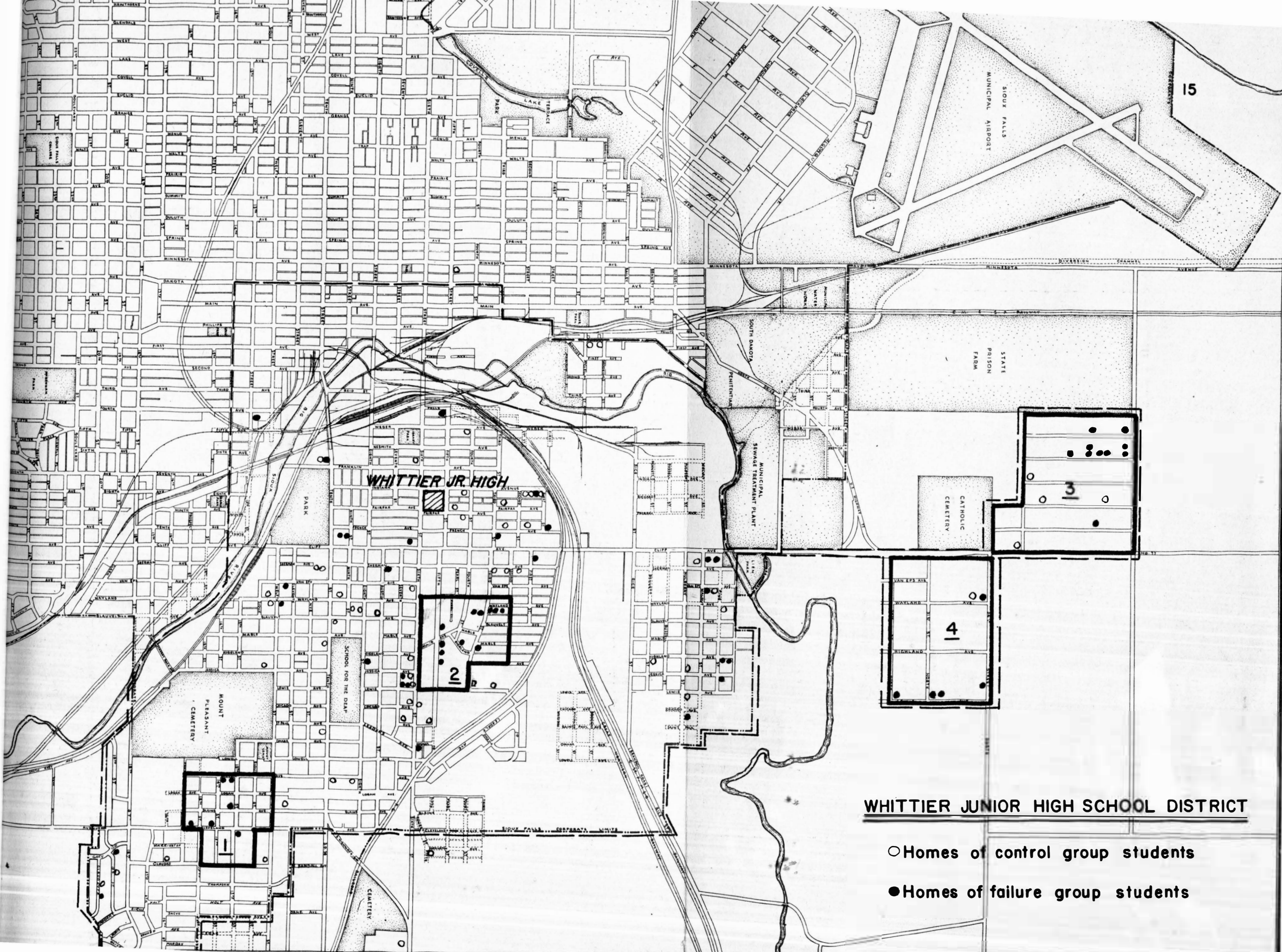
M - mother

SM - stepmother

GM - grandmother

1 - present

d - divorced



WHITTIER JR. HIGH

WHITTIER JUNIOR HIGH SCHOOL DISTRICT

- Homes of control group students
- Homes of failure group students

15

SIoux FALLS
MUNICIPAL AIRPORT

STATE
PRISON
FARM

CATHOLIC
CEMETERY

MUNICIPAL
SEWAGE TREATMENT PLANT

2

4

3

MOUNT
PLEASANT
CEMETERY

SCHOOL FOR THE DEAF

CEMETERY

CLARK AVE

CLARK AVE

CLARK AVE

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students and four control-group students. The fourth area of failure grouping is also at the extreme north end of the map but lies to the right of Highway 77. This area, too, is outside the city limits but is smaller than the third area. Included in it are the homes of five failure students and the home of one control-group student.

Real Estate Values

Real estate values were obtained to serve as an indication of the general economic level of the neighborhood in which the family lives.

Mr. O. J. Ostrander, city assessor, was interviewed and asked to make a statement about the real estate values of the four areas as compared to the surrounding areas. He stated that the first and second areas were definitely lower in value than the surrounding areas. He demonstrated this by showing on the tax books that these two areas contained some of the lowest lot values in town. He stated that areas three and four were outside his jurisdiction but that both were much lower in value than the first and second areas.

Mr. Wendell Hanson, local realtor and member of the state board of realtors, was also interviewed. He stated that he knew the areas well and had sold properties out of each. He said the first two areas were lower in value than the surrounding areas and that the values of the third and fourth areas were "way below" the value of the first and second areas.

Neighborhood Background

Mrs. Elaine Kendall, school nurse, was also interviewed for information about family and social background as it exists in these four areas. She stated that she had noticed that in all four areas the people were less stable, but that this was especially true in the two north areas. (These are relatively new areas resulting from Sioux Falls expansion in recent years.) Often, as a nurse making the usual visit to the home of new students, she finds that the family has moved before she can make her home visit. Many of these families move from two to four times each year. She commented that the north and west area (third area) had some rather nice homes located directly to the west of Highway 77 but that an area farther west was very poor. These, she said, were mostly old houses that had been moved in. It is interesting to note that of the 10 failures out of fourteen students in the whole area, nine of these failures and no nonfailures live along the two streets four and five blocks west of Highway 77. The school nurse said the homes in the fourth area were poorest, many being just "shacks".

She classified the four areas as all being on a lower social level. These areas progressively have a lower level beginning with the first and on down, with the fourth area at the bottom. The homes vary in degree but certain characteristics are true of all in these four areas. The lower the

level, the more noticeable these traits are. These common traits are characterized as follows. The families have more children. Children often quit school and then baby-sit at home. Mother almost always works.

Even the drinking is different--little or no social drinking but "hang-out" in bars. Health problems here tend to go untreated whether they involve vision, hearing, epilepsy, or accidents. The homes and children are not kept clean--many of the houses lack the facilities needed to keep things clean. Many of the characteristics are the same as those mentioned by Rudyard K. Bent and Henry H. Kronenberg.⁸

Significance of Grouping

The relation of the grouping of the failure students in the aforementioned four areas to the control-group students living in the same areas is very marked when the chi-square test of significance is used.⁹ Under normal conditions it can be assumed that in random grouping the distribution will be equally divided between control and failure groups. In this study, then, it would be expected that an equal number of failure students and an equal number of

⁸Rudyard K. Bent and Henry H. Kronenberg, Principles of Secondary Education, p. 184, McGraw-Hill Book Company, Inc.: New York, 1941.

⁹Henry E. Garrett, Statistics in Psychology and Education, pp. 258-259, Longmans, Green and Co.: New York, 1958.

control-group students would be located within any one particular geographical area. But the observed situation shows that there is a greater number of failure students in four areas than control-group students in the same areas. The significance can then be shown as follows.

		Control	Failure	
Observed	(f_o)	5	32	37
Expected	(f_e)	18.5	18.5	37
	$(f_o - f_e)$	= 13.5	13.5	
Correction	$(-.5)$	= 13	13	
	$(f_o - f_e)^2$	= 169	169	
	$\frac{(f_o - f_e)^2}{f_e}$	= 9.13	9.13	
	χ^2	= 18.26		
	df	= 1		
	P	< .01 (Table E) ¹⁰		

The probability of control-group students and failure students inhabiting the same community area has shown itself to be significant at the 1 per cent level in this study. The writer has attempted to show that with all data gathered without bias and other involved factors controlled there is a significant relationship between failure students and the economic status of their neighborhood.

¹⁰Ibid.

CHAPTER IV

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Summary and Conclusions

The study of failure students matched with nonfailure students produced several interesting statistics in the area of home and neighborhood socio-economic influences. No direct causes and effect can be proved by such a study, but the co-existence of certain facts is indicative.

Missing or Deceased Parents

It is interesting to note that in two of the homes of the control group a father had died and in two others a mother had died. This equal number would be considered normal for a control group, but the fact is somewhat less conclusive because one of the deceased mothers is reported for a student living in the orphanage. This is the only vital statistic reported about the parents of either the failure or the control-group students who live in either an orphanage or with foster parents. One each, or half of the widows and half of the widowers in the control group remarried. This same ratio of remarriage is found in the failure group, but there is a significant difference. In the families of the failing students, all deceased parents reported were fathers. This might be interpreted to mean that the death of the father is more damaging to the students in a

family group than the death of the mother. The fact that two of the control students are found in an orphanage, one is with foster parents, and one is with a grandparent; compared with the fact that, in the failure group, two students are with foster parents, none with grandparents, and none in the orphanage, is also indicative of at least one conclusion. An orphanage can and does, in this study, provide a satisfactory family influence on students.

Family Grouping

The fact that a student is an only child in this study seems to have little bearing on failure. Two of the failing students were only children; and although only one control student was an only child, one other was a twin (tabulated as neither oldest or youngest). A slightly greater portion of the failures were the youngest in the family. Of the failure group, 12 students were the youngest child and 14 were the oldest child; but in the control group, 10 students were the youngest child and 14 were the oldest. The order of placement of the students within the siblings has little effect on failure. The most evident fact from these figures is that more families in this school district were starting their families than were completing them at the time these children were born. The almost equal number of siblings in both groups indicates that size of family has little bearing on failure.

Divorces in the Family

The most noticeable fact about divorces is that all divorces of the control group are those in which the father has been divorced and the mother has remarried. These five cases seem to indicate that if the father is divorced and the mother remarries and takes the children into the new home, the home influence is not conducive to failure. The five similar cases in the failure group, father divorced and mother remarried, show this to be a normal situation, indicating neither a tendency toward nor against failure. When we consider the remaining cases of divorce found in the failing group, we find three families in which the father has divorced the mother and not remarried, one family in which the father has divorced the mother and remarried, two families in which the mother has divorced the father and not remarried, one family in which the student is living with a grandmother, and one family in which the student is living with fosterparents. The study indicates then that divorce, other than such cases as when the mother remarries and takes the children into the new home, might provide a situation conducive to student failure.

Social and Economic Influence

On the basis of the interviews with the city auditor and the realtor, there is a definite indication that the areas where failures are grouped in the district are actually

areas of much lower real estate values than are found in the surrounding neighborhood areas.

The interview with the school nurse indicates that these same areas offer a lower social level with respect to cleanliness, health, and general interest in having the student attend school. However, her statement that these families have more children is not in agreement with the almost equal number of siblings found in the two groups--219 in the failure group as compared to 213 in the control group. Failure students tend to be grouped in areas of low social and economic levels. There tends to be no or very few non-failing students living in the same geographical area where failing students are concentrated.

Significance of Failure-Student Grouping

As indicated by the application of the chi-square test of significance, the figures found in the study of failure-student grouping are significant. The difference between the number of nonfailure students and failure students living in the same geographical area under similar home conditions is significant to the 1 per cent level.

Implications for Further Study

One of the indications from this study is that it might be profitable to make a study of students in all families in which a divorce has occurred.

Another further study might be made of the social level of families as related to family income rather than economic area.

Recommendations

The author believes that certain steps could be taken which will tend to reduce the number of failure students. An obvious project which might be carried out would be a program to elevate the housing conditions in these areas. Many of these families could work closer with the public health department to effect better family health and grooming. Further school studies along this line might result in the correlation between student failures and other factors which were not covered in this study. These would be of value to the school in dealing with students from such failure areas. All these studies could furnish the school with more information which would enable the school administrator, counselor, teacher, and nurse to better cope with the problem of student failures.

LITERATURE CITED

- Bent, Rudyard K., and Kronenberg, Henry H., Principles of Education, pp. 184, 186-187, McGraw-Hill Book Company, Inc.: New York, 1941.
- Bruechner, Leo J., The Changing Elementary School, pp. 79-81, Inor Publishing Company, Inc.: New York, 1940.
- Garrett, Henry E., Statistics in Psychology and Education, pp. 258-259, Longmans, Green and Company: New York, 1958.
- Lobdell, Lawrence O., "Results of a Non-Promotion Policy in One School District", The Elementary School Journal, p. 334, University of Chicago Press: Chicago, February, 1954.
- Pitkanen, Allan M., "Antidotes for 'Failures'", The Educational Forum, vol. 19, number 2, 237-240, Kappa Delta Pi: Menasha, Wisconsin, January, 1955.
- Reinischl, Charles Myron, and Ayer, Fred Carleton, Classroom Administration and Pupil Adjustment, pp. 144-145, Appleton-Century-Crofts, Inc.: New York, 1940.
- Watkins, Ralph K., Techniques of Secondary School Teaching, pp. 339-373, The Ronald Press Company: New York, 1958.

APPENDIX**Tables of Data from School Records**

TABLE A. FAMILY DATA ON STUDENTS IN WHITTIER JUNIOR HIGH SCHOOL WHO FAILED THE 1956-1957 SCHOOL YEAR OR THE 1957-1958 SCHOOL YEAR

Name	Address	Family				Siblings					T
		F	M	SF	SM	I.Q.	OB	YB	OS	YS	
D.H.	919 N. Wayland	1	d	-	-	90	1	0	2	1	4
L.B.	901 N. Wayland	1	1	-	-	96	1	0	4	0	5
G.B.	1803 E. Spruce	1	1	-	-	111	0	1	1	1	3
N.N.	1616 E. 5th St.	1	1	-	-	99	0	1	0	2	3
K.B.	420 N. Lewis	1	1	-	-	99	3	0	0	0	3
R.H.	919 N. Wayland	1	d	-	-	90	1	0	2	1	4
T.M.	1912 E. 8th St.	1	1	-	-	95	0	0	0	0	0
J.C.	3020 N. 7th St.	1	1	-	-	66	1	0	2	1	4
J.M.	1018 E. 1st St.	1	1	-	-	108	0	2	1	1	4
J.W.	1909 E. 29th St.	1	1	-	-	96	2	0	4	0	6
L.B.	901 N. Wayland	1	1	-	-	96	1	0	4	0	5
D.D.	1212 E. Walnut	d	1	1	-	91	1	1	2	1	5
M.M.	2011 E. 31st N.	-	-	-	-*	93	0	0	2	0	2
S.M.	2805 E. 13th	1	1	-	-	108	3	2	0	0	5
A.Q.	1120 E. 9th St.	1	1	-	-	83	1	0	0	1	2
M.C.	227 N. Cliff	1	1	-	-	65	0	1	0	0	1
R.D.	1212 E. Walnut	d	1	1	-	96	0	1	2	2	5
J.H.	3726 N. 10th Ave.	1	1	-	-	106	0	2	0	1	3
D.H.	416 S. Wayland	1	1	-	-	100	1	1	1	0	3
E.B.	3710 N. 7th Ave.	1	1	-	-	82	3	1	2	1	7

TABLE A (Continued)

Name	Address	Family				Siblings					T
		F	M	SF	SM	I.Q.	OB	YB	OS	YS	
S.D.	3102½ N. 7th Ave.	1	1	-	-	87	1	3	0	1	5
T.R.	811 N. Indiana	1	1	-	-	89	0	0	0	2	2
G.C.	1626 E. 5th St.	0	1	1	-	93	1	0	4	0	5
R.K.	408 S. Van Eps	1	1	-	-	93	0	2	0	2	4
D.L.	625 N. Indiana	1	1	-	-	91	2	0	4	0	6
T.T.	3004 E. 21st St.	1	1	-	-	91	0	1	1	0	2
R.R.	1008 E. 3rd St.	d	1	-	-	96	3	2	1	2	8
D.B.	2106 E. Mulberry	d	d	-	- **	123					4
R.C.	1704 E. 3rd St.	0	1	1	-	92	1	0	0	0	1
M.C.	1900 N. Jessica	d	1	1	-	116	0	1	0	1	2
J.C.	915 S. Cleveland	1	1	-	-	83	2	0	1	0	3
H.P.	3018 N. Jessica	d	1	1	-	86	0	1	0	1	2
G.Q.	1120 E. 9th St.	1	1	-	-	86	1	0	0	2	3
M.L.	1618 E. 5th St.	1	1	-	-	96	3	0	0	3	6
F.M.	1422 E. 6th St.	d	d	1	1	80	0	4	0	2	6
J.S.	302 N. Sherman	1	1	-	-	94	1	1	0	2	4
J.Y.	3104 N. 7th St.	1	1	-	-	88	0	0	0	3	3
J.I.	701 S. Blaine	1	1	-	-	96	1	1	0	0	2
S.B.	3710 N. 7th Ave.	1	1	-	-	100	3	2	1	1	7
M.F.	708 N. Mable	d	1	-	-	87	1	1	0	0	2
C.F.	3208 Claudette Dr.	1	1	-	-	89	0	0	0	2	2
C.K.	1023 E. 1st St.	1	1	-	-	88	0	1	0	0	1

TABLE A (Continued)

Name	Address	Family				Siblings					
		F	M	SF	SM	I.Q.	OB	YB	OS	YS	T
C.P.	1810 N. Van Eps	1	1	-	-	82	1	1	0	2	4
D.H.	713 S. Conklin	1	1	-	-	96	0	0	1	0	1
W.T.	2930 N. Wayland	d	1	1	-	101	1	2	1	2	5
C.D.	3102½ N. 7th Ave.	1	1	-	-	106	0	3	0	2	5
D.S.	3305 N. 6th Ave.	1	1	-	-	97	2	1	1	0	4
S.H.	1912 E. 7th St.	1	1	-	-	92	1	0	0	0	1
B.W.	811 S. Cleveland	1	d	-	1	94	1	0	1	0	2
J.R.	201 S. Franklin	1	1	-	-	80	2	1	1	0	4
T.S.	417 E. 5th St.	1	1	-	-	89	0	2	0	0	2
P.M.	2011 E. 31st N.	-	-	-	- *	75	0	0	1	1	2
M.P.	3737 6th Ave. N.	1	1	-	-	88	0	1	0	1	2
P.J.	1805 E. 5th St.	0	1	-	-	94	0	1	1	0	2
J.E.	421 N. Lewis	1	1	-	-	93	2	3	3	2	10
D.G.	3415 N. 7th Ave.	1	1	-	-	96	1	3	3	0	7
R.H.	919 N. Wayland	1	d	-	-	96	1	1	1	1	4
J.D.	2300 E. 6th St.	0	1	-	-	112	0	0	0	0	0
H.W.	511 E. 13th St.	1	1	-	-	97	0	3	2	1	6
L.H.	700 S. Conklin	1	1	-	-	97	2	1	0	1	4

* - fosterfather and fostermother
 ** - grandmother
 *** - orphanage
 **** - grandfather and grandmother
 1 - present
 0 - deceased

d - divorced
 OB - older brothers
 YB - younger brothers
 OS - older sisters
 YS - younger sisters
 T - total

TABLE B. FAMILY DATA ON STUDENTS IN WHITTIER JUNIOR
HIGH SCHOOL WHO WERE IN THE CONTROL GROUP

Name	Address	Family				Siblings					
		F	M	SF	SM	I.Q.	OB	YB	OS	YS	T
B.B.	3329 N. Wayland	1	1	-	-	93	0	0	0	1	1
C.C.	1512 E. 8th St.	-	-	-	- *	96	0	0	0	0	0
R.G.	3125 N. 9th St.	1	1	-	-	106	1	1	0	0	2
R.H.	106 S. Wayland	1	1	-	-	108	2	0	0	0	2
S.H.	1711 E. 10th St.	1	1	-	-	99	0	0	0	2	2
J.B.	2020 E. 6th St.	1	1	-	-	100	2	1	1	1	5
L.J.	1900 N. Wayland	d	1	-	-	99	0	1	0	0	1
P.P.	3310 N. 7th St.	1	1	-	-	108	1	2	4	0	7
D.C.	1800 N. Lewis	1	1	-	-	95	1	1	3	4	9
D.F.	1828 E. 3rd St.	1	1	-	-	111	0	3	0	0	3
C.H.	312 W. 5th St.	1	1	-	-	90	1	0	0	0	1
J.L.	3108 Claudette Dr.	1	1	-	-	83	0	2	0	0	2
E.H.	503 N. Fairfax	0	1	-	-	90	1	1	0	3	5
C.M.	1509 E. 12th St.	d	1	1	-	91	0	0	1	1	2
J.B.	525 N. Franklin	d	1	1	-	96	0	1	1	0	2
B.C.	1301 E. 10th St.	?	?	-	- ***	96	0	0	0	1	1
A.F.	719 N. Wayland	1	1	-	-	93	4	1	1	0	6
J.W.	906 N. Sherman	1	1	-	-	93	0	0	1	1	2
S.M.	1422 E. 6th St.	d	1	1	-	69	0	5	1	3	9
E.M.	1813 E. 6th St.	1	1	-	-	73	0	2	1	0	3
V.J.	300 1/2 N. 8th St.	1	1	-	-	82	3	2	0	1	6

TABLE B (Continued)

Name	Address	Family				Siblings					T
		F	M	SF	SM	I.Q.	OB	YB	OS	YS	
D.H.	1508 N. Highland	1	1	-	-	89	0	0	1	0	1
M.S.	1120 N. Phillips	1	1	-	-	86	2	1	0	0	3
G.F.	1909 E. 17th St.	1	1	-	-	97	1	0	0	0	1
J.C.	1004 N. Van Eps	1	1	-	-	92	0	1	4	0	5
S.M.	116 N. Conklin	-	-	-	-	92	0	0	0	1	1
J.A.	1703 N. Jessica	1	1	-	-	92	0	0	0	3	3
E.C.	519 N. St. Paul	1	1	-	-	92	3	3	2	1	9
H.J.	3022 N. Cliff	1	1	-	-	94	0	2	0	0	2
J.K.	429 $\frac{1}{2}$ N. Weber	1	1	-	-	101	0	0	0	1	1
J.M.	233 N. Blauvelt	1	1	-	-	100	1	3	1	2	7
M.R.	811 N. Indiana	1	1	-	-	80	1	0	0	1	2
D.F.	1600 N. Sherman	1	1	-	-	93	0	0	1	0	1
D.G.	516 S. Jessica	1	1	-	-	96	0	0	0	1	1
H.K.	620 N. Lewis	1	1	-	-	106	1	1	1	2	5
W.U.	2500 E. 10th St.	1	1	-	-	116	4	0	1	0	5
D.B.	1000 E. 2nd St.	1	1	-	-	96	1	1	1	0	3
B.B.	508 N. Fairfax	1	1	-	-	87	1	0	0	2	3
D.M.	1813 E. 6th St.	1	1	-	-	80	0	5	0	0	5
R.R.	812 N. French	1	1	-	-	88	0	2	0	1	3
R.S.	201 S. Franklin	1	1	-	-	94	0	0	0	1	1
J.B.	Box 15, RFD 2	1	1	-	-	86	0	2	1	0	3
G.J.	312 S. Blaine	1	1	-	-	97	1	0	0	0	1

TABLE B (Continued)

Name	Address	Family				Siblings					T	
		F	M	SF	SM	I.Q.	OB	YB	OS	YS		
M.P.	1810 N. Van Eps	1	1	-	-	94	1	0	1	2	4	
R.S.	330 N. Franklin	1	1	-	-	83	1	0	2	0	3	
J.E.	421 N. Lewis	1	1	-	-	96	2	3	4	2	11	
S.G.	505 S. Thompson	1	1	-	-	88	0	3	1	1	5	
P.C.	935 S. Cloudas	1	0	-	1	123	1	0	0	2	3	
C.L.	625 N. Indiana	1	1	-	-	82	2	1	3	0	6	
J.G.	501 S. Wayland	1	1	-	-	111	1	0	0	1	2	
M.S.	1124 N. Phillips	1	1	-	-	88	1	3	1	4	9	
S.T.	609 N. Sherman	1	1	-	-	95	2	1	1	0	4	
C.H.	733 N. French	d	1	1	-	80	3	0	0	0	3	
F.S.	Box 36, RFD 2	1	1	-	-	90	1	0	0	1	2	
L.P.	2317 E. 19th St.	1	1	-	-	87	0	0	2	2	4	
J.H.	417 N. St. Paul	1	1	-	-	90	0	0	2	0	2	
P.H.	1301 E. 10th St.	-	0	-	-	***	96	0	2	0	4	6
M.B.	801 N. Indiana	1	1	-	-	97	0	3	0	1	4	
C.K.	1408 E. 9th St.	1	1	-	-	112	0	0	0	1	1	
M.H.	2309 E. 11th St.	1	1	-	-	96	0	0	1	1	2	
N.B.	2020 E. 6th St.	0	1	1	-	97	2	1	0	2	5	

* - fosterfather and fostermother
 ** - grandmother
 *** - orphanage
 **** - grandfather and grandmother
 1 - present
 0 - deceased

d - divorced
 OB - older brothers
 YB - younger brothers
 OS - older sisters
 YS - younger sisters
 T - total