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Comparison of I.S.T.C. recommendations with reported teacher success

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COMPARISON OF I.S.T.C. RECOMMENDATIONS
WITH REPORTED TEACHER SUCCESS

by
Maurice L. Witty

Contributions of The Graduate School
Indiana State Teachers College
Number 272

Submitted in Partial Fulfillment
of The Requirements For The
Master of Science Degree
in Education

1936

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M. L. W.

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I. INTRODUCTION

A. Placement.

Many colleges and universities maintain a placement bureau for the convenience and help of their students. Indiana State Teachers College is no exception to this, and maintains such a bureau to aid in placing its students in positions, whether or not the student is enrolled in the College at the time of placement. That is, any former student has the privilege of registering with the bureau, as well as the present students, at no cost to the one registering. At the present writing, the bureau has approximately eight hundred students and former students registered in its live files.

A student must register voluntarily, supply only four or five small photographs of himself and the names of the professors from whom he wishes recommendations. These recommendations are strictly confidential, the student himself not knowing, unless the professor tells him, and are kept on file with the student's photographs and other data pertaining to him.

Upon the request for a teacher or the learning of a vacancy by the bureau, data of the students most likely to fit the position are sent to the prospective employer. After the prospective employer has examined these data, he is supposed to return them to the bureau where proper disposition is made of them.

The bureau has a sytem of following up the placements made with a blank upon which various traits are listed, and provision for rating them provided. The Superintendent of the school where any former student of Indiana State Teachers College is employed is asked to fill this blank out at near the end of the teaching year and return it to the bureau. This report is desired even though the student is not registered with the bureau.

Since some students are registered and others are not, and some Superintendents do not report their ratings of the teachers to the bureau, it follows that the bureau's data are often incomplete concerning many students.

B. The Problem.

Since Indiana State Teachers College sends out recommendations to the Superintendents through the medium of its Placement Bureau and the Bureau receives from the Superintendents their estimates of the teachers, it has been a question in the mind of the writer as to the actual worth of these recommendations.

Questions which might be asked are:

(1) Is there any correlation between the recommendations sent to the Superintendents and the estimates of the Superintendents?

(2) If there is agreement, upon what traits do both parties seem to agree best?

(3) If there is disagreement, upon what traits are the worst disagreements?

- (4) What per-centages of perfect agreement are there?
- (5) What corresponding ranks are given the same cases by Indiana State Teachers College and the Superintendents?
- (6) Who seems to rate the teachers the highest?

Many more questions of this type are answered in the general treatment of the data.

The problem, as it stands, concerns Indiana State Teachers College. Consequently, very little outside information as to the proper methods and procedures is available.¹ Some information was found pertaining to the methods employed in the rating of teachers, but none as to the treatment of such data as in the problem outlined. As a result, the writer with the help of his committee has had to devise original methods and procedures.

C. Source of Data.

The data for the making of this study were found in the files of the Placement Bureau of Indiana State Teachers College.

The records, as complete as the Bureau has them, are filed in "packet" style for each student registered. The Superintendents' reports are filed alphabetically outside of the "packets".

The Bureau has on file two types of recommendations and two types of Superintendents' reports.

The "old type" recommendation issued by the Bureau until the latter part of 1935 was of the "narrative" type. The reports returned by the Superintendents had eighteen traits

¹No bibliography given.

listed which they could check as they wished, either A, B, C, D, or F.²

The "new type" recommendation and Superintendent's report³ are identical cards, listing twenty-two traits to be checked A, B, C, D, or F. This has been used since the latter part of 1955.

D. Collecting The Data.

The data were collected upon a chart specially devised by the writer.⁴ The data were collected upon three levels, one, two, and three, from both types of recommendations and reports. All recommendations or reports listing a trait as A or B was called level one; C was called level two; D or F was called level three. This procedure was carried out due to the inability to distinguish so closely the different gradings in the "narrative" type recommendations.

Many hundred recommendations and reports were read and checked in order to get the corresponding pairs in which complete data were available. Only recommendations issued by members of the faculty were considered.

The collecting of the data from the "new type" recommendations was highly objective and easily obtained after the proper pair had been found. It was merely the transferring of the checked places on the blanks to the proper places upon

²See Appendix, pp. 79.

³See Appendix, pp. 80.

⁴See Appendix, pp. 78.

the chart. In most cases four recommendations were available and these were averaged to get the resulting recommendation.

The "old type" Superintendents' reports were very easily transferred in the same manner, with the exception that they listed only eighteen traits instead of the twenty-two found on the "new type".

In translating the "narrative" type recommendations it was necessary to read all of the recommendations filed for each case (usually four) and give them ratings according to the definitions of the traits contained on the Superintendents' report blanks. This, of course, was very subjective and necessitated the discarding of many recommendations as insufficient and lacking in complete and pertinent data.⁵ After sorting through hundreds of these, one hundred thirty-seven were found suitable to be matched with the proper Superintendents' reports.

Ninety-three "new type" cases and one hundred thirty-seven "old type" cases are used in the study.

E. Treating The Data.

The study, from this point on, is treated as two separate parts. The data of the "new type" will be treated in Part II and those of the "old type" will be treated in Part III. It is obvious that the data could not be treated together since the "new type" contains twenty-two traits while the "old type" contains only eighteen traits and were collected in a more or less subjective way. The data in both parts, however, will

⁵See Appendix, pp. 73, for samples of analyses of recommendations.

be treated in an identical manner. It follows that the results obtained in Part II will be the most valuable but it will be interesting to see how closely the results found in Part III parallel those of Part II.

For obvious reasons the original data sheet upon which the cases, with the names of the teachers considered, were charted will not be reproduced. The sheet is in no way necessary to the treatment of the data as the cases will be identified by numbers. Except in a few cases it will not be necessary to refer to any individual case.

II. THE "NEW TYPE" DATA

A. Treating The Data.

Part II concerns the treatment of only the ninety-three complete cases of the "new type" recommendations and Superintendents' report cards.

The ratings given all of the cases, either individually or collectively, by Indiana State Teachers College are taken as the basis of all calculations, unless otherwise specified.

The first treatment of the cases from one to ninety-three was to list them consecutively. (see Table I) Column two labeled "same" means the number of traits in which the traits are rated the same or identically. Thus, if Indiana State Teachers College rates the trait "health" at the "one" level and the Superintendent also rates the "health" trait (for the same case) at the "one" level, the rating is then credited to the "same" column. The same credit would be given if both Indiana State Teachers College and the Superintendent had rated the trait at the "three" level. Since twenty-two traits are listed, the total number of "sames" credited to a single case could not exceed twenty-two.

Columns three, four, five, and six labeled "plus one", "plus two", "minus one", and "minus two", respectively, are computed in the following manner.

If Indiana State Teachers College rates a trait at the "two" level and the Superintendent rates the same trait at the "one" level, calling the number of the level given by

I.S.T.C. "plus" and the number of the level given by the Superintendent "minus", the sum of the composite rating is "plus one".

Similarly, if I.S.T.C. rates the trait "three" and the Superintendent rates it "one", the composite rating is "plus two". If I.S.T.C. rates the trait at "three" and the Superintendent rates it at "two", the composite rating is again "plus one".

If I.S.T.C. rates a trait "one" and the Superintendent rates it "two", the composite rating is "minus one". A rating of "one" by I.S.T.C. and "three" by the Superintendent gives "minus two" and a rating of "two" by I.S.T.C. and "three" by the Superintendent again gives "minus one".

Column seven, marked "algebraic total", is found by multiplying the algebraic for columns, "plus one", "plus two", "minus one", and "minus two", by the number of traits listed in each column and then adding the products algebraically across. Since the "same" column has an algebraic value of zero, it is not considered.

Take case 68 for example (see Table I). There were eleven traits in which I.S.T.C. and the Superintendent rated them alike; six traits that I.S.T.C. rated at "one" level lower than the Superintendent; three traits that were rated "one" level lower by the Superintendent than by I.S.T.C.; two traits were rated "two" levels lower by the Superintendent.

Computing: $(6 \times 1) \text{ plus } (3 \times -1) \text{ plus } (2 \times -2) = -1$

Each case having twenty-two traits and there being

ninety-three cases makes a total of 2046 case-traits to be considered.

Adding the columns vertically and multiplying the totals by their respective values, the algebraic sum of -345 is found. This is the total algebraic value of the ninety-three cases. This, of course, excludes the 1469 case-traits which were rated the same by both I.S.T.C. and the Superintendents.

The ideal situation would be when all cases were rated alike on every trait, and the algebraic sum would then be zero. The extreme condition, when there is absolutely no agreement, would be when each trait for each case differed consistently, either plus two, or minus two, and then the algebraic sum for the ninety-three cases would be either, plus 4092, or minus 4092. (93 cases x 22 trait disagreements x plus or minus 2)

A situation could present itself where the number of disagreements giving a positive figure would just equal the number of disagreements giving the same negative figure and so have a total sum of zero. This would give an erroneous implication that there was perfect agreement upon all traits. This, however, is very unlikely as the mathematical chances are very much against it.

The value, -345, was arrived at by adding the 124 disagreements where the Superintendents rated the traits one level higher than I.S.T.C. and the 8 disagreements where they rated them two levels higher.

$$((124 \times 1) \text{ plus } (4 \times 2) = 132)$$

TABLE I
ALGEBRAIC VALUES

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
1	9	1		12		-11
2	13	5		4		1
3	21			1		-1
4	22					0
5	2			19	1	-21
6	10			12		-12
7	22					0
8	16			6		-6
9	22					0
10	21			1		-1
11	14	2		5	1	-5
12	22					0
13	20			2		-2
14	11			11		-11
15	16	6				6
16	21			1		-1
17	18	2		2		0
18	22					0
19	18			4		-4
20	20			2		-2
21	14	2		6		-4
22	14			8		-8

TABLE I (continued)

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
23	20	2				2
24	17	4		1		3
25	22					0
26	21			1		-1
27	19	1		2		-1
28	1			21		-21
29	19			3		-3
30	10	3		9		-6
31	14	1		7		-6
32	22					0
33	18			4		-4
34	22					0
35	2			10	10	-30
36	20	1		1		0
37	20			2		-2
38	21	1				1
39	18			4		-4
40	16			6		-6
41	9			10	3	-16
42	22					0
43	15	1		6		-5
44	10	7	4	1		14
45	9	13				13
46	16	2		4		-2

TABLE I (continued)

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
47	8			13	1	-15
48	14			8		-8
49	7			15		-15
50	20			2		-2
51	14	3			5	-7
52	3			19		-19
53	7			15		-15
54	18			4		-4
55	2			19	1	-21
56	18			4		-4
57	10			11	1	-13
58	15	7				-7
59	22					0
60	20			2		-2
61	16	6				6
62	11			11		-11
63	21			1		-1
64	9			10	3	-16
65	22					0
66	17	.1		4		-3
67	22					0
68	11	6		3	2	-1
69	13	3		6		-3
70	21			1		-1

TABLE I (continued)

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
71	22					0
72	13			9		-9
73	14	2		6		-4
74	13	8		1		7
75	18	3		1		2
76	22					0
77	16	6				6
78	15			7		-7
79	21			1		-1
80	21			1		-1
81	10	4		8		-4
82	21	1				1
83	9	13				13
84	22					0
85	18			4		-4
86	10			12		-12
87	15			7		-7
88	22					0
89	12			10		-10
90	16			6		-6
91	20	2				2
92	12	5		5		0
93	15			7		-7
Alg. Total	1469	124	4	421	28	-345

To this is added algebraically, the 421 disagreements where I.S.T.C. rated the traits one level higher than the Superintendents and the 28 disagreements where I.S.T.C. rated them two levels higher.

$$((421 \times -1) \text{ plus } (28 \times -2) = -477)$$

Also:

$$(132 \text{ plus } (-477) = -345)$$

In this same table there are 16 cases where the Superintendents and I.S.T.C. have rated all the traits at the "one" level. This means that 17.2 % of the total number of cases were rated as being at the highest level, or above average in all traits that are considered necessary in a teacher. The table also shows 1469 trait agreements at any level, out of a possible 2046, or seventy-one and eight tenths per cent.

Since the algebraic disagreement was -345 for ninety-three cases or 2046 case-traits, we can say that the disagreement is -3.709 per case or -.169 per case-trait. When classifying the cases on the basis of departments we can use these figures as a basis of relative comparison.

The value -3.709 per case means that, on the whole, the Superintendents rated the teachers lower by one level on approximately four traits or they could have rated the teacher lower by two levels on approximately two traits. This would mean that there could be, on an average, eighteen or twenty agreements on traits per case out of a possible twenty-two agreements.

Referring to Table I, if the "one" level disagreements, both plus and minus, are added numerically and the "two" level disagreements treated likewise, it is seen that there are 545 "one" level disagreements and 32 "two" level disagreements or 577 disagreements altogether. There is, then, less than 6 % of the disagreements at the "two" level.

(32 divided by 577 = 5.55 %)

That leaves the "one" level disagreements about 94 % of the total. It is easily seen now, that the value -3.709 means that in approximately 94 % of the disagreements that there was a "one" level disagreement on four case-traits out of the possible twenty-two. Since the value is negative, it means that I.S.T.C. rated one level higher (or the Superintendent rated one level lower) on the four traits in disagreement.

B. Treatment By Departments.

The treatment by individual departments would be more or less superficial if treated alone, so they have been placed in logical groups and treated accordingly. Table II is worked out in the same manner as Table I but only for Primary, Elementary, and Intermediate departments.

1. Primary, Elementary, Intermediate. Dividing the value -55 by 27, the number of cases, we find a value of -2.037 per case. Since 96 % of the disagreements fall at the "one" level, it is seen that the general disagreement is at the "one" level, with the Superintendents giving the lower rating

TABLE II
ALGEBRAIC VALUES
PRIMARY, ELEMENTARY, INTERMEDIATE

No.	Case No.	Same	plus 1	plus 1	minus 1	minus 2	Alg. Total
1	1	9	1		12		-11
2	4	22					0
3	15	16	6				6
4	36	20	1		1		0
5	58	15	7				7
6	3	21			1		-1
7	8	16			6		-6
8	18	22					0
9	30	10	3		9		-6
10	31	14	1		7		-6
11	45	9	13				13
12	56	18			4		-4
13	57	10			11	1	-13
14	66	17	1		4		-3
15	67	22					0
16	69	13	3		6		-3
17	14	11			11		-11
18	17	18	2		2		0
19	23	20	2				2
20	24	17	4		1		3
21	51	14	3			5	-7

TABLE II (continued)

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
22	52	3			19		-19
23	68	11	6		3	2	-1
24	74	13	8		1		7
25	75	18	3		1		2
26	84	22					0
27	85	18			4		-4
Alg. Total		419	64	0	103	8	-55

on two traits. Four hundred nineteen trait agreements out of a possible five hundred ninety-four means 70.7 % agreement.

2. Academic Departments. Table III groups the academic departments, English, Mathematics, Social Studies, Science, and Latin.

Dividing the figure -143 by the number of cases, 25, we get -5.72 per case. Ninety-three per cent of the disagreements are at the "one" level, so the general conclusion might be that the academic departments are rating higher, by one level, on approximately six traits. There is an agreement of 70.4 % on all of the case-traits.

3. Special Departments. Table IV considers all of special departments, Home Economics, Industrial Arts, Music, Art, Commerce, and Physical Education.

TABLE III
ALGEBRAIC VALUES

MATHEMATICS, ENGLISH, SCIENCE, SOCIAL STUDIES, LATIN

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
1	6	10			12		-12
2	11	14	2		5	1	-5
3	46	16	3		4		-2
4	71	22					0
5	82	21	1				-1
6	12	22					0
7	27	19	1		2		-1
8	38	21	1				1
9	61	16	6				6
10	62	11			11		-11
11	76	22					0
12	93	15			7		-7
13	22	14			8		-8
14	34	22					0
15	49	7			15		-15
16	79	21			1		-1
17	40	16			6		-6
18	43	15	1		6		-5
19	54	18			4		-4
20	28	1			21		-21
21	35	2			10	10	-30
22	47	8			13	1	-15

TABLE III (continued)

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
23	91	20	2				2
24	9	22					0
25	89	12			10		-10
Alg. Total		387	16	0	135	12	-143

Ninety-five per cent of the disagreements are at the "one" level, and the number of traits in disagreement per case is -3.675. We can agree that the special departments are rating, on an average, about four traits one level higher than the Superintendents. There is, also, an agreement on 72.8 % of all the traits by both the special departments and the Superintendents.

C. Conclusions, Tables I, II, III, IV.

Comparing the results obtained by departments with the general results, we can see that the special departments approach more nearly the average. The academic departments show the greatest disagreement with the Superintendents. The Primary, Elementary, and Intermediate departments come nearest to agreeing with the Superintendents on all ratings.

D. Individual Trait Agreements.

Table V shows the individual trait agreements and dis-

TABLE IV
ALGEBRAIC VALUES
HOME ECONOMICS, INDUSTRIAL ARTS, MUSIC, ART, COMMERCE
PHYSICAL EDUCATION

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
1	2	13	5		4		1
2	7	22					0
3	32	22					0
4	33	18			4		-4
5	87	15			7		-7
6	5	2			19	1	-21
7	13	20			2		-2
8	25	22					0
9	29	19			3		-3
10	55	2			19	1	-21
11	59	22					0
12	64	9			10	3	-16
13	65	22					0
14	10	21			1		-1
15	19	18			4		-4
16	39	18			4		-4
17	41	9			10	3	-16
18	42	22					0
19	44	10	7	4	1		14
20	50	20			2		-2
21	60	20			2		-2

TABLE IV (continued)

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
22	63	21			1		-1
23	70	21			1		-1
24	72	13			9		-9
25	73	14	2		6		-4
26	77	16	6				6
27	21	14	2		6		-4
28	83	9	13				13
29	86	10			12		-12
30	88	22					0
31	90	16			6		-6
32	92	12	5		5		0
33	20	20			2		-2
34	80	21			1		-1
35	26	21			1		-1
36	81	10	4		8		-4
37	16	21			1		-1
38	48	14			8		-8
39	53	7			15		-15
40	78	15			7		-7
41	37	20			2		-2
<hr/>							
Alg. Total	663		44	4	183	8	-147

TABLE V
TRAIT AGREEMENTS AND DISAGREEMENTS

	Agreement			Disagreement				Alg. Total
	High	Average	Low	plus 1	plus 2	minus 1	minus 2	
Health	74	4	0	4	0	10	1	-8
Intelligence	63	4	0	9	0	17	0	-8
Appearance	65	6	0	4	0	18	0	-14
Self-Control Poise	55	3	0	11	0	21	3	-16
Resourceful- ness	48	10	0	9	0	24	2	-19
Considerate- ness	69	0	0	3	0	19	2	-20
Pleasantness Cheerfulness	72	1	0	5	0	15	0	-10
Enthusiasm Forcefulness	59	6	0	9	0	17	2	-12
Adaptability	47	9	0	10	0	24	3	-20
Judgment	48	9	0	10	0	25	1	-17
Social Qualities	54	8	0	10	0	19	2	-13
Moral Stds.	82	0	0	2	0	7	2	-9
Cooperation	76	1	0	2	1	11	2	-11
Dependable- ness	74	0	0	4	1	13	1	-9
Management	58	5	0	4	0	26	0	-22

TABLE V (continued)

	Agreement			Disagreement				Alg. Total
	High	Average	Low	plus 1	plus 2	minus 1	minus 2	
Control	64	3	0	3	0	22	1	-21
Records Reports	68	1	0	1	1	20	2	-21
Knowledge General	47	9	0	9	1	27	0	-16
Knowledge in Major Field	62	3	0	9	0	19	0	-10
Use of English	61	6	0	2	0	24	0	-22
Teaching Ability	57	3	0	2	0	28	3	-32
Probable Growth	73	2	0	2	0	15	1	-15
Totals	1376	93	0	124	4	421	28	-345

agreements at all levels.

It is interesting to note that out of 1469 trait agreements, 1376 were at the high level, 93 at the average level and none at the low level. Evidently neither I.S.T.C. nor the Superintendents could agree when a teacher was below average but they could agree 1376 times or 93 % when they were above average.

Scrutinizing the "algebraic totals" of each trait, it is surprising to find that the trait "teaching ability" is agreed

upon the least of any, with the Superintendents rating it the lowest. "Health" and "intelligence" are agreed upon more nearly than any other trait. These, of course, are more measureable values than any of the others, and should be agreed upon more closely. A comparison of the extent of disagreement upon the traits is easily obtained from this table. One noticeable thing is the negative rating of all traits, meaning the Superintendents have consistently rated them lower than I.S.T.C.

The trait "moral standards" seems to be overrated by both I.S.T.C. and the Superintendents. Eighty-two cases of agreement at the highest level are recorded with nine in disagreement at the "one" level and two at the "two" level. This seems to the writer a reluctance upon the part of those doing the rating to attempt to judge anyone too harshly, and as a result the data seems to be distorted.

E. Distribution of Cases.

Figure 1 shows the distribution of cases according to algebraic scores.¹ A fairly normal curve is obtained with the greatest number of scores falling between the plus two and minus five limits. The curve, as expected, is skewed to the negative side, showing the general tendency of the Superintendents to rate the teachers lower than I.S.T.C.

Figure 2 was plotted from the sum of the recommendation levels given each trait, in each case, by I.S.T.C. and the Superintendents.²

The trait recommendations of I.S.T.C. and the Superin-

¹See column 7, Table I.

²See Data Collection Chart in Appendix.

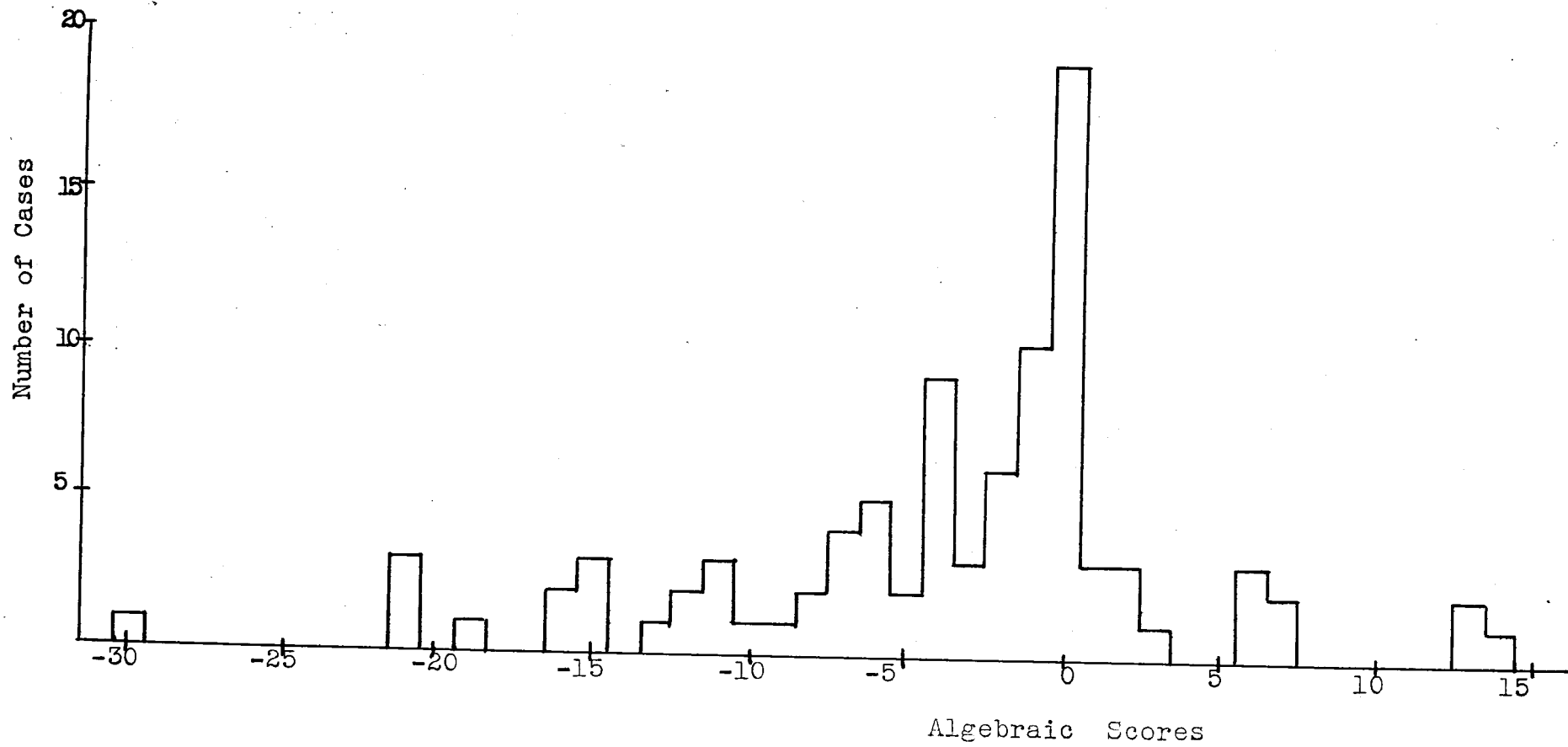


Figure 1. Distribution of Cases by Algebraic Scores.

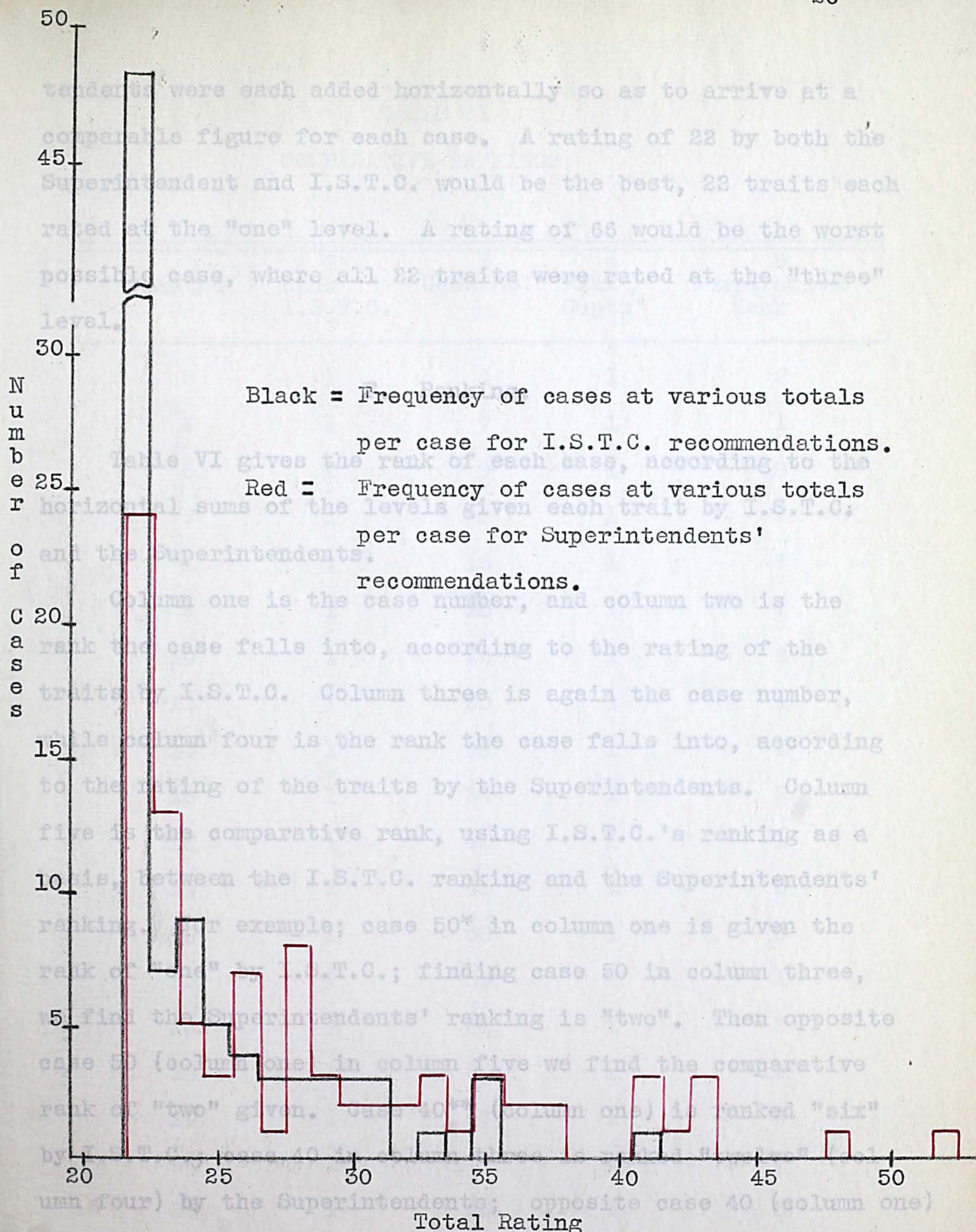


Figure 2. Frequency of Recommendations and Reports at Various Totals.

*Used as an example. See Table VI.

**Used as an example. See Table VI.

tendents were each added horizontally so as to arrive at a comparable figure for each case. A rating of 22 by both the Superintendent and I.S.T.C. would be the best, 22 traits each rated at the "one" level. A rating of 66 would be the worst possible case, where all 22 traits were rated at the "three" level.

F. Ranking.

Table VI gives the rank of each case, according to the horizontal sums of the levels given each trait by I.S.T.C. and the Superintendents.

Column one is the case number, and column two is the rank the case falls into, according to the rating of the traits by I.S.T.C. Column three is again the case number, while column four is the rank the case falls into, according to the rating of the traits by the Superintendents. Column five is the comparative rank, using I.S.T.C.'s ranking as a basis, between the I.S.T.C. ranking and the Superintendents' ranking. For example; case 50* in column one is given the rank of "one" by I.S.T.C.; finding case 50 in column three, we find the Superintendents' ranking is "two". Then opposite case 50 (column one) in column five we find the comparative rank of "two" given. Case 40** (column one) is ranked "six" by I.S.T.C.; case 40 in column three is ranked "twelve" (column four) by the Superintendents; opposite case 40 (column one) in column five we find the comparative rank "twelve" for case 40. In other words, in case 50, I.S.T.C. gave it a ranking of "one"

*Used as an example. See Table VI.

**Used as an example. See Table VI.

TABLE VI
COMPARATIVE RANKINGS

1 Case No.	2 Rank I.S.T.C.	3 Case No.	4 Rank Supts'	5 Comparative Rank
3	1	4	1	2
4	1	7	1	1
5	1	9	1	18
7	1	12	1	1
8	1	15	1	7
9	1	18	1	1
10	1	23	1	2
12	1	25	1	1
13	1	32	1	3
16	1	34	1	2
18	1	42	1	1
19	1	45	1	5
20	1	58	1	3
25	1	59	1	1
26	1	61	1	2
28	1	65	1	19
29	1	67	1	4
32	1	71	1	1
33	1	76	1	5
34	1	82	1	1
35	1	83	1	21
39	1	84	1	5

TABLE VI (continued)

1	2	3	4	5
Case No.	Rank I.S.T.C.	Case No.	Rank Supts'	Comparative Rank
42	1	88	1	1
48	1	91	1	9
49	1	3	2	15
*50	1	10	2	2
53	1	16	2	15
54	1	24	2	5
55	1	26	2	19
56	1	38	2	5
59	1	50	2	1
62	1	63	2	12
63	1	70	2	2
64	1	74	2	16
65	1	75	2	1
67	1	79	2	1
70	1	80	2	2
71	1	13	3	1
72	1	20	3	10
76	1	27	3	1
79	1	36	3	2
80	1	77	3	2
84	1	17	4	1
85	1	29	4	5
86	1	60	4	14
87	1	19	5	8

TABLE VI (continued)

1 Case No.	2 Rank I.S.T.C.	3 Case No.	4 Rank Supts'	5 Comparative Rank
88	1	33	5	1
90	1	37	5	7
22	2	39	5	10
27	2	54	5	3
31	2	56	5	8
43	2	85	5	7
60	2	44	6	4
82	2	8	7	1
93	2	11	7	9
11	3	21	7	7
21	3	43	7	7
23	3	46	7	1
36	3	66	7	3
37	3	73	7	5
38	3	90	7	2
52	3	2	8	19
73	3	31	8	7
91	3	87	8	1
6	4	48	9	16
17	4	93	9	4
51	4	22	10	11
66	4	72	10	7
75	4	51	11	2

TABLE VI (continued)

1 Case No.	2 Rank I.S.T.C.	3 Case No.	4 Rank Supts'	5 Comparative Rank
24	5	68	11	2
46	5	40	12	7
47	5	62	12	17
89	5	92	12	14
14	6	69	12	16
**40	6	30	13	12
41	6	78	13	17
15	7	81	13	1
61	7	86	14	1
78	7	89	14	13
30	8	6	15	13
58	8	49	15	1
77	8	53	15	3
1	9	14	16	17
2	9	64	16	8
74	9	1	17	2
68	10	41	17	11
69	10	47	17	12
81	10	15	18	13
92	11	28	19	12
45	12	52	19	1
57	12	55	19	20
83	12	57	20	1
44	13	35	21	6

while the Superintendents ranked it "two"; in case 40, I.S.T.C. ranked it "six" and the Superintendents ranked it "twelve".

1. Sums of Ranks. Table VII is derived from Table VI. Using the I.S.T.C. rankings as a basis, the sums of the numbers of each ranking is found from one to thirteen. For example; I.S.T.C. ranked 48 cases in number "one" rank, sum 48; I.S.T.C. ranked 7 cases in number "two" rank, sum 14; I.S.T.C. ranked 3 cases in number "twelve" rank, sum 36.

The comparative ranks³ given the same cases by the Superintendents for each group of the same basic rank are added. For example; the ranks (column five) from "two" down to "seven", corresponding to the rank of "one" (column two) given by I.S.T.C. for the cases numbered from 3 to 90 (column one) were added, and gave 264. Each group of rankings of one to thirteen were treated in a like manner to get Table VII.

TABLE VII
SUMS OF RANKS

I.S.T.C. Rank	1	2	3	4	5	6	7	8	9	10	11	12	13
I.S.T.C. Sum	48	14	27	20	20	18	21	24	27	30	11	36	13
Supts' Sum	264	42	52	39	40	45	15	17	27	36	12	22	6

Figure 3 is plotted from Table VII. A visual picture of

³ Column five, Table VI.



Figure 3. Graphic Representation of Table VII.

TABLE VIII
FREQUENCY OF CASES AT VARIOUS RANKS

Ranks	Cases	Per Cent
12	0	0
11	2	2.2
10	0	0
9	0	0
8	0	0
7	3	3.2
6	2	2.2
5	0	0
4	0	0
3	1	1.1
2	3	3.2
1	3	3.2
0	18	19.4
-1	12	12.9
-2	6	6.5
-3	3	3.2
-4	9	9.7
-5	2	2.2
-6	5	5.4
-7	3	3.2
-8	4	4.3
-9	2	2.2
-10	1	1.1
-11	3	3.2
-12	1	1.1
-13	1	1.1
-14	2	2.2
-15	1	1.1
-16	1	1.1
-17	1	1.1
-18	1	1.1
-19	0	0
-20	1	1.1

the deviation of the Superintendents' rankings is easily secured. In almost all cases the Superintendents have consistently marked the cases lower than I.S.T.C. The extreme difference occurs at the number "one" ranking position.

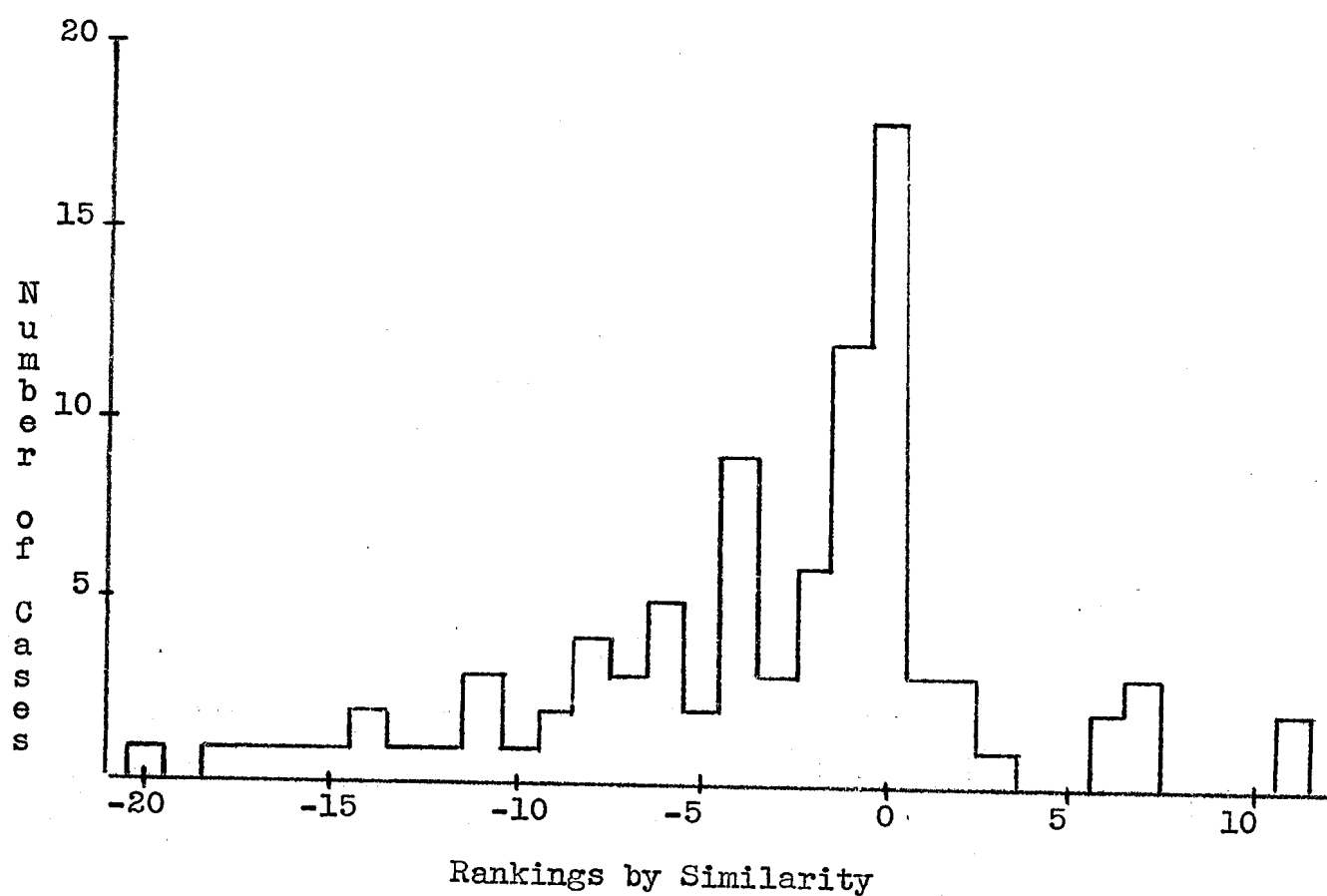


Figure 4. Frequency of Cases at Various Rank Values.

Table VIII gives the number of cases in which the ranks are the same; in which I.S.T.C. ranked the cases one to twenty ranks higher than the Superintendents (negative ranks) and the number of cases in which I.S.T.C. ranked the cases one to twenty ranks lower than the Superintendents (positive ranks). The percentages of total cases (93) which fall into the various classifications are shown. An inspection of the table shows, as before, the greatest number of cases (according to rank) falling into the same rank and being slightly skewed to the negative ranks, thus showing the tendency of the Superintendents to rank the teachers lower than I.S.T.C.

A marked similarity is found in Figure 1 and Figure 4, although Figure 1 was worked out on the basis of "algebraic scores" while Figure 4 was worked out on the basis of similarity of rank.

G. Conclusions, "New Type" Data.

While no definite conclusions can be drawn, such as the deriving of definite figures, to show the comparative worth of the ratings of the teachers by the Superintendents and I.S.T.C., a number of general conclusions can be drawn.

The most outstanding conclusion is that the Superintendents tend to rate the teachers lower than I.S.T.C. The tendency seems, in general, to rate them lower by "one" level on four traits out of the twenty-two to be rated. We find, upon inspection of Table V, that the traits in order of their lowest rating are approximately as follows: "teaching ability", "use of English", "management", "control", "records and reports."

"adaptability", "considerateness", and "resourcefulness".

The eight traits listed are the ones which the Superintendents seem to rate so much lower than the other fourteen. The fact that there is so much disagreement upon "teaching ability" and "use of English" seems so inconsistent, when we consider that I.S.T.C. is a teacher training Institution and the Superintendents are a product of this Institution or of one similar to it. The writer is inclined to believe that the Superintendents would probably be better able to judge teaching ability, due to the reality of the situation in which the teacher finds himself, rather than the Institution, which has only an opportunity to judge the teacher in a few hours per year of a more or less superficial situation in the practice teaching courses.

The only feasible explanation for the difference of opinion on "use of English" may be the tendency for the teacher to "let down" after getting out from under the vigilant eye and the acute ear of his English teacher. Of course, one could give the explanation that the Superintendents do not know good English when they hear it. The good agreement on the "health" and "intelligence" traits, as noted before, is probably due to ease with which these traits can be measured.

In departmentalizing the data into the "Special", the "Academic", and the combined Primary, Elementary, and Intermediate, the results show that the latter agrees very much better with the Superintendents' ratings than the other two, with the "Special" departments being very near the general disagreement, shown in Table I, and the "Academic" departments showing the poorest agreement of any.

The tendency of the curves to be skewed towards the negative side may be due to more than one reason. The Superintendents may be inclined to rate the teachers too low, but this is unlikely. The best reason is probably that I.S.T.C. is rating the teachers too high, especially as shown in some departments. The latter may be due to the teachers selecting the professors from whom they wish a recommendation. The teacher naturally selects the professors whom he thinks will give him the best recommendations, and in most cases this is true.

Approximately 70 to 72 per cent of the case-traits were rated the same by both I.S.T.C. and the Superintendents with 95 % of them at the high level and 7 % at the average level. The per cent at the low level was negligible. Most of the cases of disagreement cling closely to the middle of the curve, with the greater number on the negative side. I.S.T.C. rates twice as many cases at the high level as the Superintendents, but the Superintendents rate twice as many at one less than the high level as I.S.T.C.

Many more conclusions and inferences could be drawn, but the data are presented in such a way that the reader has only to examine the various tables and figures in order to pick out the facts or details in which he is interested.

III. THE "OLD TYPE" DATA

A. Treating The Data.

The data used in Part III were taken from the old type "narrative" recommendations and the "old type" Superintendents' report blanks.

These data are treated in the same way as those of Part II. It will not be necessary to explain the methods used and the mathematical calculations made, as these methods and procedures are fully outlined in Part II.

Only the data as taken from the collection chart will be presented here. The examples of evaluating the "narrative" type recommendations will be found in the Appendix.

The data used in Part III consists of the rating of eighteen traits per case, instead of twenty-two as in Part II. These traits are, on the whole, very similar to those of Part II, the wording being a little different sometimes combining two or more of the traits found in Part II into only one of those found in Part III.

Table IX evaluates the ratings algebraically. A total evaluation of -539 is found for the 137 cases used. This gives a value of -3.934 per case or -.219 per case-trait. There are 31 cases of complete agreement or 22.6 % of all cases. A total 1697 case-trait agreements or 68.8 % of the total case-traits. Ninety-two per cent of the disagreements were at the "one" level. Referring to the disagreement value of -3.934, one sees that 92 % of the disagreements were upon four traits

TABLE IX
ALGEBRAIC VALUES

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
1	18					0
2	9			9		-9
3	10	5	1	2		5
4	11			7		-7
5	15			3		-3
6	7			10	1	-12
7	9	8		1		7
8	8	7		3		4
9	18					0
10	17			1		-1
11	16			2		-2
12	13			5		-5
13	18					0
14	18					0
15	17	1				1
16	17			1		-1
17	16	2				2
18	11	5		2		3
19	10			8		-8
20	15			3		-3
21	3	15				-15
22	17			1		-1

TABLE IX (continued)

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
23	14	1		3		-2
24	0			18		-18
25	16			2		-2
26	18					0
27	18					0
28	9	2		6	1	-6
29	12			6		-6
30	18					0
31	6			12		-12
32	14			4		-4
33	18					0
34	3			9	6	-21
35	18					0
36	1			17		-17
37	7			11		-11
38	11	2		5		-3
39	18					0
40	2			11	5	-21
41	18					0
42	4			14		-14
43	16			2		-2
44	1			15	2	-19
45	18					0
46	16	2				2

TABLE IX (continued)

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
47	8			8	2	-12
48	12			6		-6
49	1			13	4	-21
50	3			15		-15
51	13			5		-5
52	6			10	2	-14
53	9			9		-9
54	9	1		8		-7
55	0			8	10	-28
56	18					0
57	6	2		9	1	-9
58	15			3		-3
59	13			5		-5
60	15			3		-3
61	7			10	1	-12
62	7	1		7	3	-12
63	10		1	6	1	-6
64	10	1		7		-6
65	11	7				7
66	18					0
67	15			3		-3
68	18					0
69	18					0

TABLE IX (continued)

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
70	16			2		-2
71	4			6	8	-22
72	12			5	1	-7
73	8	2		8		-6
74	16	1		1		0
75	11	2		4	1	-4
76	15			3		-3
77	11	4		3		1
78	18					0
79	18					0
80	18					0
81	18					0
82	11			7		-7
83	5	13				13
84	2			12	4	-20
85	13			5		-5
86	18					0
87	9	3		6		-3
88	13	4		1		3
89	12	2		4		-2
90	7	1		10		-9
91	13	2		3		-1
92	17	1				1
93	2	1		14	1	-15

TABLE IX (continued)

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
94	17			1		-1
95	17			1		-1
96	16	2				2
97	18					0
98	7	10		1		9
99	17			1		-1
100	16	2				2
101	13			5		-5
102	12	3		3		0
103	9	1		8		-7
104	18					0
105	6	1		11		-10
106	18					0
107	16	2				2
108	5			11	2	-15
109	9	6		3		3
110	8			10		-10
111	15			3		-3
112	3			15		-15
113	12			6		-6
114	17			1		-1
115	18					0
116	17			1		-1
117	9			9		-9

TABLE IX (continued)

Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
118	18					0
119	16	2				2
120	17			1		-1
121	17			1		-1
122	9			9		-9
123	18					0
124	6			12		-12
125	6			10	2	-14
126	17			1		-1
127	18					0
128	11	6		1		5
129	17			1		-1
130	18					0
131	7			11		-11
132	18					0
133	12	6				6
134	17	1				1
135	14			4		-4
136	12	1		5		-4
137	18					0
Alg. Total	1697	141	2	568	58	-539

at the "one" level.

Comparing Table IX with Table I shows the tendency of disagreement to be a little greater in Table IX. We see a disagreement of -3.934 per case as against -3.709; 92 % "one" level disagreements compared to 94 %; 69 % case-trait agreement compared to 72 %. One discrepancy, however, is apparent. Table IX shows 23 % of the cases in complete agreement as compared to 17 % in Table I.

B. Treatment By Departments.

1. Primary, Elementary, Intermediate. Table X treats the combined Primary, Elementary, and Intermediate departments. The algebraic value, -148, divided by the 45 cases gives a value of -3.289 per case for these departments. Ninety-four per cent of the disagreements being at the "one" level shows that in 94 % of the cases the disagreement has been at the "one" level on approximately three traits.

2. Academic Departments. Table XI combines the academic subjects, Mathematics, English, Science, Social Studies, and Latin. Dividing the algebraic value -171 of this table by the 41 cases gives a value of -4.171 per case. Ninety-four per cent of the disagreements fall at the "one" level so the disagreements are on four traits at the "one" level in 94 % of the cases.

3. Special Departments. Table XII shows the special departments, Home Economics, Industrial Arts, Music, Art, Commerce, and Physical Education. The value -220 divided by 51, the number of cases, gives the value -4.314 per case. Since

TABLE X
PRIMARY, ELEMENTARY, INTERMEDIATE

No.	Case No.	Same plus 1	plus 2	minus 1	minus 2	Alg. Total
1	2	9		9		-9
2	6	7		10	1	-12
3	7	9	8	1		7
4	8	8	7	3		4
5	11	16		2		-2
6	13	18				0
7	15	17	1			1
8	17	16	2			2
9	21	3	15			15
10	25	16		2		-2
11	28	9	2	6	1	-6
12	29	12		6		-6
13	31	6		12		-12
14	35	18				0
15	37	7		11		-11
16	38	11	2	5		-3
17	40	2		11	5	-21
18	45	18				0
19	48	12		6		-6
20	49	1		13	4	-21
21	51	13		5		-5
22	54	9	1	8		-7

TABLE X (continued)

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
23	60	15			3		-3
24	67	15			3		-3
25	68	18					0
26	70	16			2		-2
27	74	16	1		1		0
28	76	15			3		-3
29	77	11	4		3		1
30	80	18					0
31	84	2			12	4	-20
32	88	13	4		1		3
33	93	2	1		14	1	-15
34	95	17			1		-1
35	96	16	2				2
36	100	16	2				2
37	102	12	3		3		0
38	107	16	2				2
39	123	18					0
40	124	6			12		-12
41	127	18					0
42	129	17			1		-1
43	132	18					0
44	136	12	1		5		-4
45	137	18					0
Alg. Total		562	58	0	174	16	-148

TABLE XI
 MATHEMATICS, ENGLISH, SOCIAL STUDIES
 SCIENCE, LATIN

No.	Case No.	Same plus 1	plus 2	minus 1	minus 2	Alg.	Total
1	4	11			7		-7
2	9	18					0
3	10	17			1		-1
4	12	13			5		-5
5	14	18					0
6	16	17			1		-1
7	18	11	5		2		3
8	19	10			8		-8
9	20	15			3		-3
10	26	18					0
11	27	18					0
12	30	18					0
13	33	18					0
14	34	3			9	6	-21
15	39	18					0
16	41	18					0
17	42	4			14		-14
18	43	16			2		-2
19	44	1			15	2	-19
20	52	6			10	2	-14
21	53	9			9		-9
22	64	10	1		7		-6

TABLE XI (continued)

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
23	65	11	7				7
24	69	18					0
25	72	12			5	1	-7
26	73	8	2		8		-6
27	75	11	2		4	1	-4
28	81	18					0
29	86	18					0
30	87	9	3		6		-3
31	94	17			1		-1
32	98	7	10		1		9
33	99	17			1		-1
34	105	6	1		11		-10
35	106	18					0
36	108	5			11	2	-15
37	111	15			3		-3
38	117	9			9		-9
39	122	9			9		-9
40	126	17			1		-1
41	131	7			11		-11
Alg. Total		519	31	0	174	14	-171

90 % of the disagreements are at the "one" level, the disagreement is on approximately four traits per case at the "one" level.

TABLE XII

HOME ECONOMICS, INDUSTRIAL ARTS, MUSIC, ART, COMMERCE
PHYSICAL EDUCATION

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
1	1	18					0
2	3	10	5	1	2		5
3	5	15			3		-3
4	22	17			1		-1
5	23	14	1		3		-2
6	24	0			18		-18
7	32	14			4		-4
8	36	1			17		-17
9	46	16	2				2
10	47	8			8	2	-12
11	50	3			15		-15
12	55	0			8	10	-28
13	56	18					0
14	57	6	2		9	1	-9
15	58	15			3		-3
16	59	13			5		-5
17	61	7			10	1	-12
18	62	7	1		7	3	-12
19	63	10		1	6	1	-6
20	66	18					0
21	71	4			6	8	-22

TABLE XII (continued)

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg.	Total
22	78	18						0
23	79	18						0
24	82	11				7		-7
25	83	5	13					13
26	85	13				5		-5
27	89	12	2			4		-2
28	90	7	1			10		-9
29	91	13	2			3		-1
30	92	17	1					1
31	97	18						0
32	101	13				5		-5
33	103	9	1			8		-7
34	104	18						0
35	109	9	6			3		3
36	110	8				10		-10
37	112	3				15		-15
38	113	12				6		-6
39	114	17				1		-1
40	115	18						0
41	116	17				1		-1
42	118	18						0
43	119	16	2					2
44	120	17				1		-1

TABLE XII (continued)

No.	Case No.	Same	plus 1	plus 2	minus 1	minus 2	Alg. Total
45	121	17			1		-1
46	125	6			10	2	-14
47	128	11	6		1		5
48	130	18					0
49	135	14			4		-4
50	134	17	1				1
51	133	12	6				6
<hr/>							
Alg. Total	616	52	2	220	28		-220

All of the algebraic values of Tables IX, X, XI, and XII being negative shows that the Superintendents are rating lower than I.S.T.C.

C. Conclusions, Tables IX, X, XI, XII.

The College is rating the teachers higher than the Superintendents on about four traits per case. The combined Primary, Elementary, and Intermediate departments are conforming closer to the Superintendents' ratings than any of the other departments.

D. Individual Trait Agreements.

Table XIII gives the individual trait agreements and

TABLE XIII
TRAIT AGREEMENTS AND DISAGREEMENTS

	Agreement			Disagreement				Alg. Total
	High	Average	Low	plus 1	plus 2	minus 1	minus 2	
Sympathy	93	3	0	5	0	33	3	-34
Judgment	72	8	1	10	0	41	5	-41
Self-Control	85	11	0	8	1	27	5	-27
Enthusiasm	84	4	0	13	0	33	3	-26
Stimulative Power	76	10	0	7	0	41	3	-40
Earnestness	103	1	0	8	0	25	0	-17
Cooperation	113	1	0	4	0	16	3	-18
Culture & Refinement	99	7	0	3	0	27	1	-26
Personal Appearance	89	4	0	7	0	33	4	-34
Use of English	87	11	0	6	1	28	4	-28
Skill in Questioning	73	12	0	6	0	41	5	-45
Lesson Planning	80	10	0	7	0	35	5	-38
Making Assignments	79	10	0	7	0	36	5	-39
Discipline C.R. Man't	78	8	0	6	0	37	8	-47
Part' in Ex- Curr. Act's	93	3	0	7	0	33	1	-28

TABLE XIII (continued)

	Agreement			Disagreement				Alg. Total
	High	Average	Low	plus 1	plus 2	minus 1	minus 2	
Knowledge of Subj. Matter	88	8	0	18	0	21	2	-7
General Personality	94	8	0	7	0	27	1	-22
Gen'l Pers'ty For Position	80	11	0	12	0	34	0	-22
Totals	1566	130	1	141	2	568	58	-539

disagreements. Ninety-two per cent of the agreements are at the high level and 8 % at the average level with only one agreement at the low level. This corresponds to the 93 % at the high level in Table V. The traits, "discipline and classroom management", "skill in questioning", "judgment", "stimulative power", "making assignments", and "lesson planning" lead the list in being in disagreement with the Superintendents' ratings. These traits could easily constitute the most important parts of the general trait "teaching ability". If this is true, the trait "teaching ability" still seems to be the bone of contention between I.S.T.C. and the Superintendents. The trait "use of English" while not showing so high a disagreement as in Part II is still about the median.

E. Distribution of Cases.

Figure 5 is plotted in the same manner as Figure 1, Part II.

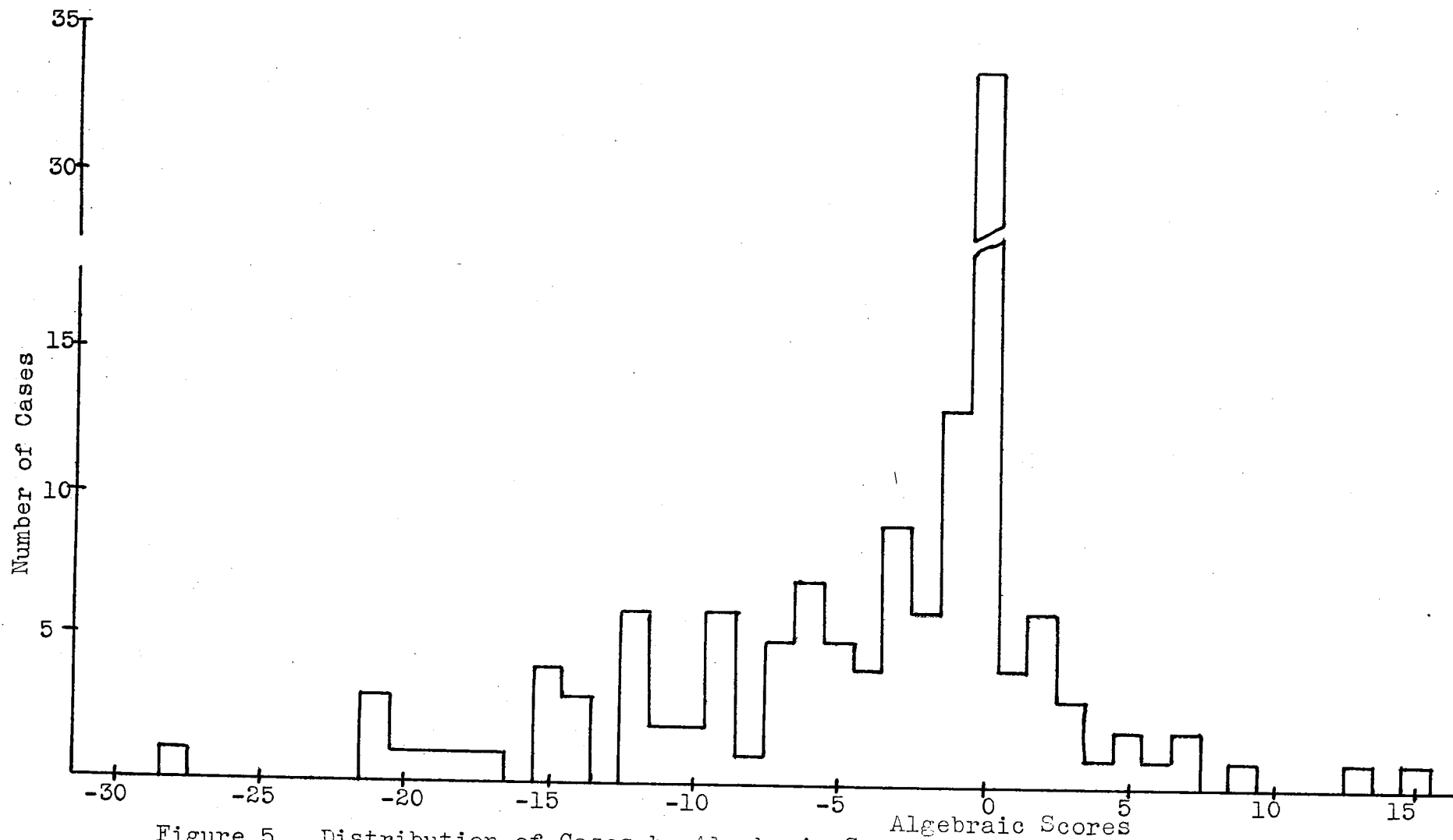


Figure 5. Distribution of Cases by Algebraic Scores.

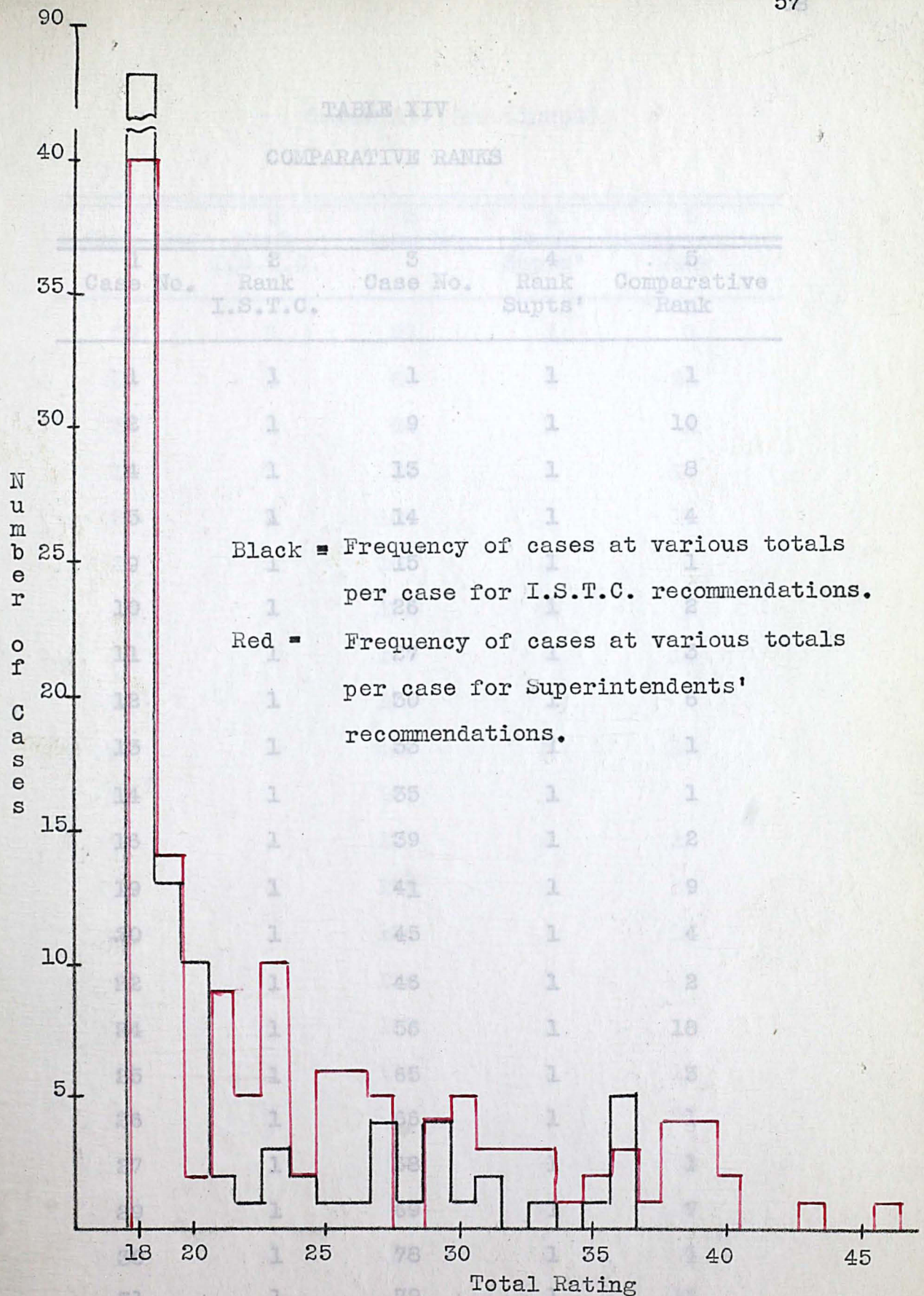


Figure 6. Frequency of Recommendations and Reports at Various Totals.

TABLE XIV
COMPARATIVE RANKS

1 Case No.	2 Rank I.S.T.C.	3 Case No.	4 Rank Supts'	5 Comparative Rank
1	1	1	1	1
2	1	9	1	10
4	1	13	1	8
5	1	14	1	4
9	1	15	1	1
10	1	26	1	2
11	1	27	1	3
12	1	30	1	6
13	1	33	1	1
14	1	35	1	1
16	1	39	1	2
19	1	41	1	9
20	1	45	1	4
22	1	46	1	2
24	1	56	1	18
25	1	65	1	3
26	1	66	1	1
27	1	68	1	1
29	1	69	1	7
30	1	78	1	1
31	1	79	1	12
32	1	80	1	5

TABLE XIV (continued)

1 Case No.	2 Rank I.S.T.C.	3 Case No.	4 Rank Supts'	5 Comparative Rank
33	1	81	1	1
34	1	86	1	21
35	1	96	1	1
36	1	97	1	17
37	1	100	1	11
39	1	103	1	1
41	1	106	1	1
42	1	107	1	14
43	1	115	1	3
44	1	118	1	19
45	1	119	1	1
47	1	123	1	12
49	1	127	1	21
50	1	130	1	15
51	1	132	1	6
52	1	133	1	14
53	1	134	1	10
55	1	137	1	24
56	1	10	2	1
58	1	16	2	4
59	1	17	2	6
60	1	22	2	4
66	1	74	2	1

TABLE XIV (continued)

1 Case No.	2 Rank I.S.T.C.	3 Case No.	4 Rank Supts.	5 Comparative Rank
67	1	94	2	4
68	1	95	2	1
69	1	99	2	1
71	1	114	2	22
72	1	116	2	8
76	1	120	2	4
78	1	121	2	1
79	1	126	2	1
80	1	129	2	1
81	1	11	3	1
82	1	25	3	8
84	1	43	3	20
85	1	5	4	6
86	1	20	4	1
94	1	21	4	2
95	1	58	4	2
97	1	60	4	1
99	1	67	4	2
104	1	70	4	1
106	1	76	4	1
111	1	111	4	4
112	1	3	5	15
113	1	23	5	7

TABLE XIV (continued)

1 Case No.	2 Rank I.S.T.C.	3 Case No.	4 Rank Supts.	5 Comparative Rank
114	1	92	5	2
115	1	32	5	1
116	1	98	5	2
117	1	8	6	10
118	1	12	6	1
120	1	51	6	2
121	1	59	6	2
122	1	83	6	10
123	1	85	6	1
124	1	109	6	12
126	1	128	6	2
127	1	135	6	1
129	1	136	6	2
130	1	129	7	1
131	1	113	7	11
132	1	4	8	1
137	1	64	8	1
15	2	72	8	1
40	2	82	8	22
61	2	89	8	13
62	2	91	8	13
64	2	18	9	8
70	2	19	9	4

TABLE XIV (continued)

1 Case No.	2 Rank I.S.T.C.	3 Case No.	4 Rank Supts'	5 Comparative Rank
74	2	48	9	2
108	2	63	9	16
110	2	73	9	11
125	2	88	9	15
134	2	2	10	1
135	2	53	10	6
136	2	103	10	6
23	3	117	10	5
46	3	122	10	1
48	3	7	11	9
63	3	37	11	9
73	3	110	11	9
96	3	131	11	1
100	3	31	12	1
103	3	47	12	10
107	3	57	12	1
119	3	87	12	1
17	4	124	12	2
57	4	61	13	12
93	5	62	13	20
89	6	75	13	8
90	6	42	14	14
92	6	52	14	5

TABLE XIV (continued)

1 Case No.	2 Rank I.S.T.C.	3 Case No.	4 Rank Supts'	5 Comparative Rank
91	7	90	14	8
133	7	50	15	1
65	8	112	15	1
109	9	125	15	6
3	10	108	16	5
8	10	36	17	6
75	10	77	17	13
87	10	24	18	12
128	11	28	18	6
18	12	54	18	9
54	12	44	19	18
88	12	84	20	9
105	12	93	20	20
28	13	101	20	18
6	14	105	20	23
9	14	34	21	1
101	15	38	21	20
102	16	49	21	21
7	17	102	21	11
21	17	40	22	4
38	17	71	22	21
77	17	6	23	17
83	17	55	24	6

We again find a fairly normal curve, skewed toward the negative side, showing the tendency of the Superintendents to rate lower than I.S.T.C. We also see the greatest number of cases clustered from plus two to minus five as in Figure 1. The range of scores is also greater on the negative side of the chart than on the positive side.

The sums (horizontally) of the rating levels given the traits of each case, by both I.S.T.C. and the Superintendents, were plotted (superimposed) to obtain Figure 6.¹ This figure shows the frequency of cases, at various totals per case, for both the Superintendents' and I.S.T.C.'s ratings. Eighteen is the best rating possible (eighteen traits at the "one" level) and 54 is the worst possible (eighteen traits at the "three" level). As in Figure 2, I.S.T.C. rated more than twice as many teachers at the perfect high level than the Superintendents. Also, as in Figure 1 the Superintendents have a greater range in rating and the curve tends to be smoother and more nearly approach the shape of one-half of a normal curve.

F. Ranking.

Table XIV gives the comparative ranks of the recommendations of I.S.T.C. and the Superintendents.²

1. Sums of Ranks. Table XV is derived from Table XIV. Using the I.S.T.C. rankings as a basis, the sum of the rankings (of the same rank) from one to seventeen is found. The

¹See data collection chart in Appendix.

²See Table VI.

TABLE XV

I.S.T.C.																		
Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
I.S.T.C.																		
Sum	85	26	30	8	5	18	14	8	9	40	11	48	13	28	15	16	85	
Supts'																		
Sum	486	121	47	14	5	27	9	1	6	36	6	47	18	24	20	21	59	

comparative ranks, given the same cases by the Superintendents for each group of the same basic rank, are added.

Figure 7 is plotted from the values found in Table XV. This chart gives the visual picture of the comparison of the Superintendents' and I.S.T.C.'s rankings, using I.S.T.C.'s rankings as a basis. The Superintendents' rankings show an extremely wide variation close to the top rankings with an unusually close similarity after the ranks of 7 or 8. The Superintendents' rankings are shown consistently lower than those of I.S.T.C.

Table XVI gives the frequency of the cases in which I.S.T.C. and the Superintendents ranked them the same. The percentages of the total cases are also shown.

Figure 8 gives the visual interpretation of Table XVI. The marked similarity of Figures 8 and 5 are again seen as was the similarity of Figure 4 and 1 in Part II.

G. Conclusions, "Old Type" Data.

The same general conclusions for Part III might be written

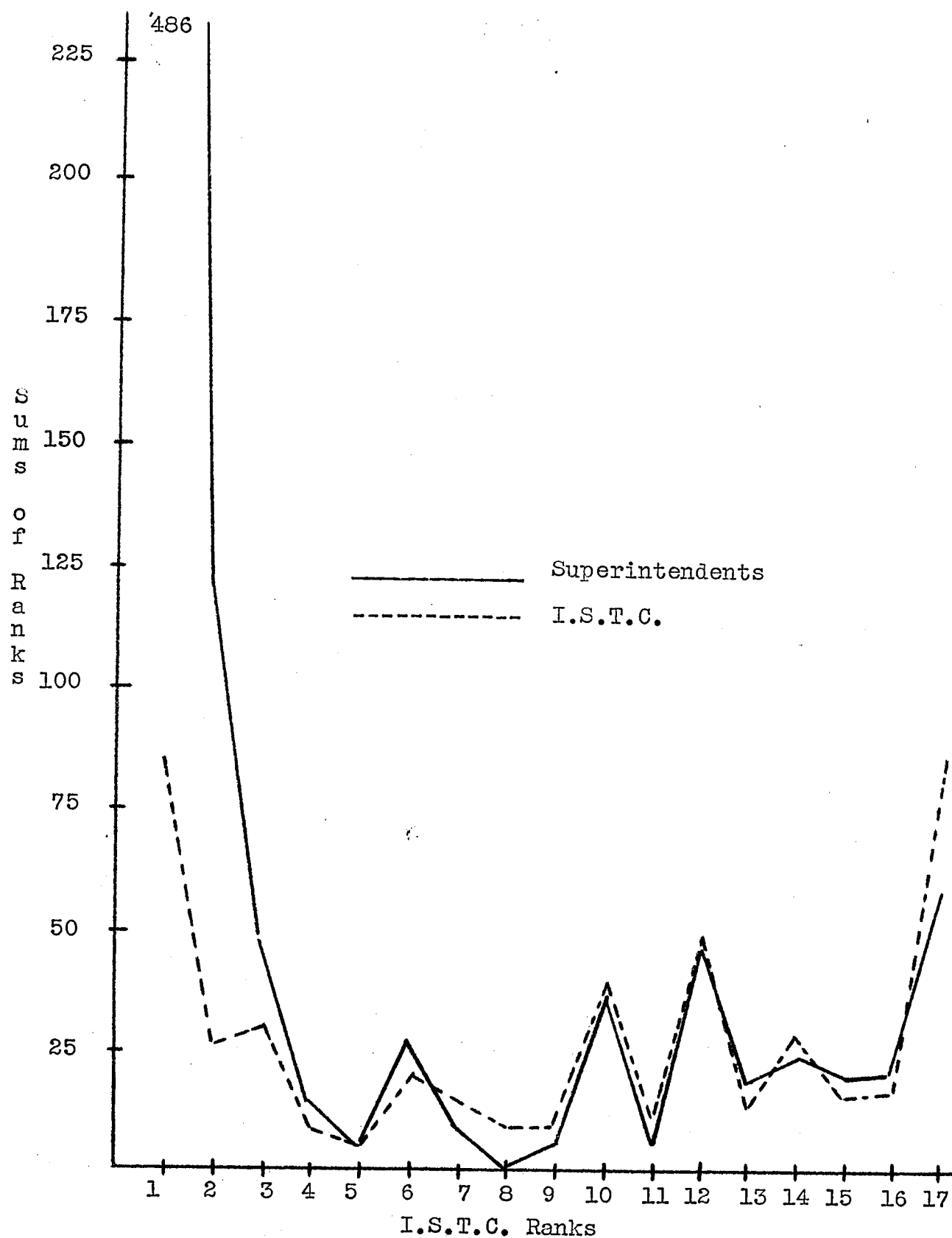


Figure 7. Graphic Representation of Table XV.

TABLE XVI
FREQUENCY OF CASES AT VARIOUS RANKS

Ranks	Cases	Per Cent
15	0	0
14	0	0
13	2	1.5
12	0	0
11	1	.7
10	0	0
9	0	0
8	0	0
7	1	.7
6	2	1.5
5	2	1.5
4	1	.7
3	3	2.2
2	6	4.4
1	3	2.2
0	33	24.1
-1	13	9.5
-2	7	5.1
-3	8	5.8
-4	4	2.9
-5	6	4.4
-6	7	5.1
-7	4	2.9
-8	4	2.9
-9	6	4.4
-10	2	1.5
-11	5	3.6
-12	0	0
-13	3	2.2
-14	3	2.2
-15	1	.7
-16	1	.7
-17	1	.7
-18	1	.7
-19	1	.7
-20	3	2.2
-21	1	.7
-22	0	0
-23	1	.7

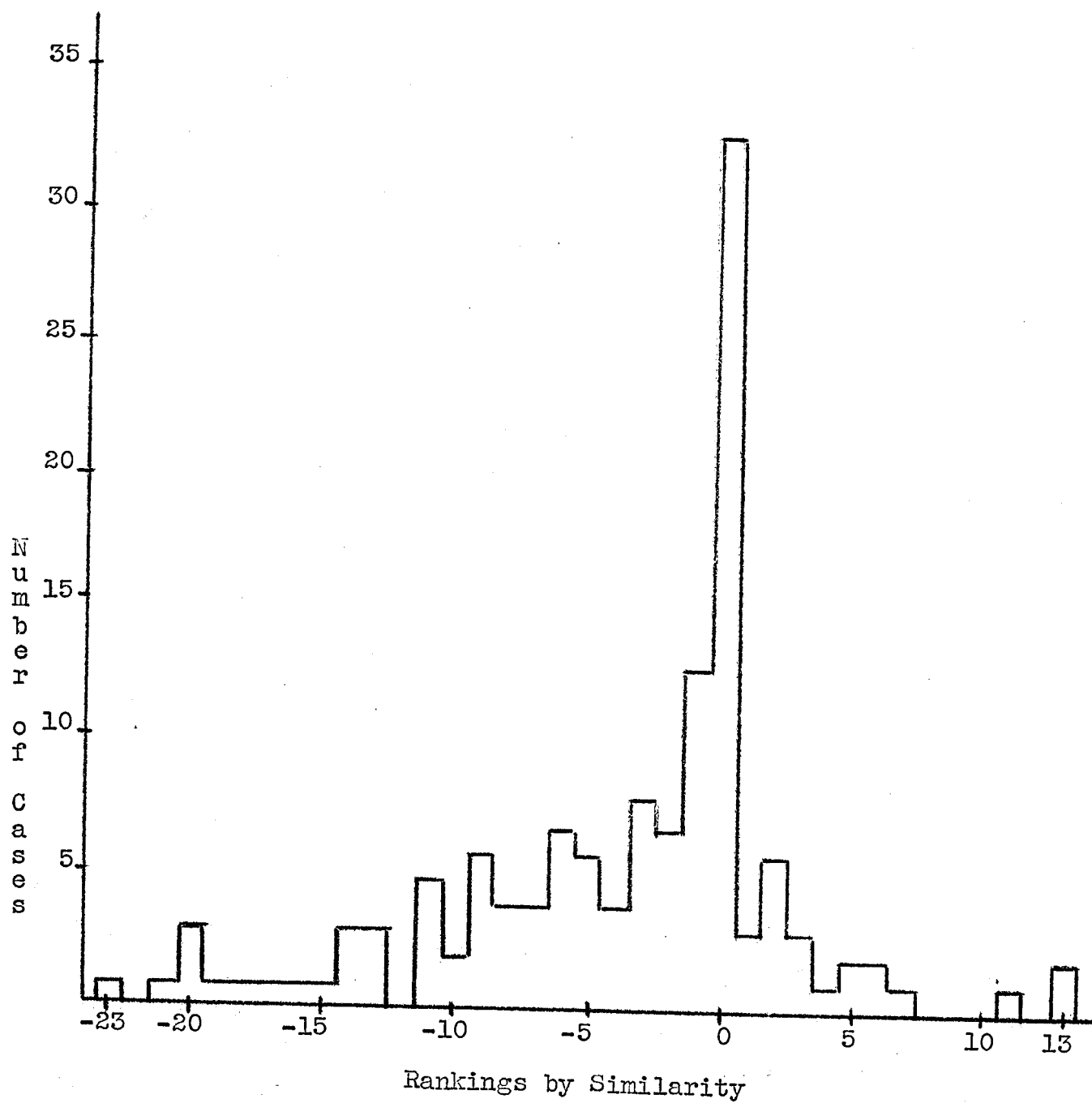


Figure 8. Frequency of Cases at Various Totals.

that were made for Part II. The Superintendents are rating the teachers lower than I.S.T.C. The combined Primary, Elementary, and Intermediate departments are rating their teachers nearer the Superintendents' ratings than any other departments. The trait "teaching ability" seems to be the one upon which there is the greatest disagreement. The curves are skewed to the negative side with the Superintendents having the greatest range of ratings.

IV. SUMMARY AND CONCLUSIONS

A. Summary.

The study, from the standpoints of a mathematical problem and a fact finding study, has been very interesting. The treatments of the data have been more or less original procedures and methods from the mathematical viewpoint. The graphs, charts, and tables are, of course, conventional procedure.

The study has revealed a number of facts that were expected but not known to be true. On the other hand, it has also revealed facts that are quite illuminating.

On the whole, the study was worthwhile. It has brought to light certain things that are worth knowing and has proven to the writer's satisfaction that the work of the Placement Bureau is worthy of being continued. While perfect correlation of the recommendations of I.S.T.C. and the Superintendents was not found, enough agreement was found to show that the College, through its Placement Bureau, is really giving a fair and reliable service to the teacher.

A study of the tables, charts, and graphs will reveal many things that the writer has not deemed pertinent to the immediate study.

The number of cases used, while comparatively small, were carefully selected so as to contain all of the necessary data. The writer feels that the results obtained are fairly conclusive and legitimate.

B. General Conclusions.

The results obtained from the analysis and the treatment of the data of both Part II and Part III are so similar that the general conclusions arrived at, by virtue of this study, will apply equally well to either part.

(1) The most outstanding conclusion is that Indiana State Teachers College is consistently rating the teachers higher than Superintendents do, after the teachers have gone out into their jobs the first year.

(2) Indiana State Teachers College rates approximately fifty per cent of the teachers at the highest level for all traits while the Superintendents rate about twenty-five per cent in like manner.

(3) The Superintendents are rating, on an average, one level lower on four of the traits in question than Indiana State Teachers College.

(4) The Superintendents rate the teachers over a range twice as great as Indiana State Teachers College.

(5) The combined Primary, Elementary, and Intermediate departments rates the teachers more nearly like the Superintendents than any of the other departments.

(6) The Special departments seem to rate their teachers at about the same average rating of all the teachers together.

(7) The Academic departments are prone to rate their teachers higher than any of the others and are therefore agreeing less with the Superintendents than the other departments.

(8) There is less agreement between Indiana State

Teachers College and the Superintendents on the traits, "teaching ability", and "use of English" than any others.

(9) More agreements are found regarding the traits, "health", and "intelligence" than any others.

(10) If the teachers, in their success, follow the normal curve to any extent, then Indiana State Teachers College is overrating them.

(11) A study of what "teaching ability" really means might be profitable to both Indiana State Teachers College and the Superintendents.

(12) The "new type" recommendation and Superintendent's report card is much more convenient to use and is much more objective to the Superintendent and to Indiana State Teachers College in the presentation of the data wanted.

V. APPENDIX

A. Evaluation of Samples of the "Narrative" Type Recommendations.

1. Statement. The definitions for the various traits upon which the ratings are given are found elsewhere in the Appendix.

In a number of cases of recommendations, every trait is not specifically mentioned, but the reader can get a fair idea of what is meant. Every recommendation does not contain all of the data required, but when each teacher has four or more recommendations a fairly good picture of the teacher can be secured by combining the pertinent data contained in all of them.

When evaluating the "narrative" type recommendations the author was careful not to be influenced by first seeing the Superintendent's report upon the teacher. This was done to eliminate any unconscious bias in the evaluating procedure.

The author does not claim to be infallible in his interpretations of these "narrative" recommendations, but after reading and analysing hundreds of them and seeing the close similarity of the results to the highly objective "new type" recommendations, he feels that his analyses have closely approximated the truth.

2. Samples. The following are examples of recommendations and their evaluations.

a. "Miss L. did very average work in the first term

practice. Her weakest point was discipline, a point which continues to be her chief difficulty in her second term practice."

"Although Miss L. has shown a lack of self-confidence in classroom management, she has always appealed to me as a person of very fine character traits."

"She bears a good reputation in her home community where she is highly regarded for her splendid character and morals."

The author rated Miss L. average on all the traits excepting "general personality for position held", "discipline and classroom management", "stimulative power", "enthusiasm", "self-control", and "judgment" which were marked below average and the traits "sympathy", "cooperation", "earnestness", and "general personality" which were marked above average.

b. "Miss Q. is one of the most capable and conscientious students that I have ever had. In two different courses she has had with me she has led the class. Also she possesses the poise, tact, rectitude, dignity, and other desirable personal and social traits which a discriminating employer will look for in a candidate for a good teaching position. I predict that she will make good with a bang."

Miss Q. was rated above average on every trait.

c. "She is not what I would term a "strong" teacher,

but she will do good work, will cooperate in a fine way, and be reasonably successful anywhere."

She was rated above average on "cooperation" and average on the remainder of the traits.

d. "Mr. W., I believe, is a clean young man and would be a good influence on young people under his care. He is likeable and considerate of others. He uses good English and has a neat appearance. I believe Mr. W. will be a credit to any school system that might employ him. He has done fine work managing our school equipment for three years."

"Mr. W. is a very good man, good student, very dependable, and a good athlete. Mr. W. is by far the most outstanding student and prospective teacher we have found in Physical Education this year. His scholarship is considerably above average. He has a fine personality, shows splendid initiative and is an earnest, conscientious worker."

Mr. W. would undoubtedly be above average in every respect and as such the author rated him.

e. "Miss B. (colored) did one term of student teaching in Science and is now taking her second term in Home Economics. She has very good personal qualities and satisfactory professional attitude. She is given an average rating by supervising teachers. Her management is average."

"She is neat, clean and personally attractive. She has a departmental scholarship of higher grade than most of her race. It is slightly above average. She is doing well and looks like a promising teacher."

Miss B. was given an average rating all the way through.

f. "In my opinion Miss M. is one of the most outstanding students and prospective teachers in this years graduating class. She was graduated from C.H.S. with honors and has made almost a straight 'A' record in college. She was elected to the K.D.P. Honor Society at this Institution and during the past year has been President of the organization. Miss M. went to Washington D. C. as a delegate to the National Conference of K.D.P. and took an active part in the program there. Miss M. has majors in three fields, namely, Mathematics, Latin, and English."

"Miss M. is of medium size, good looking, and has a pleasing personality. She has poise, good manners and is well liked by both faculty and her fellow students. She is young in years but sufficiently dignified to keep that from becoming a handicap."

"In her practice teaching Miss M. did exceptionally fine work for which she received an 'A' rating. She has also done considerable tutoring. I have had this young lady in quite a few classes and have observed her teach. I feel certain that she would make a fine addition to any High School teaching staff."

Miss M. was given an above average rating without any question.

C. "Old Type" Superintendent's Report.

THE INDIANA STATE TEACHERS COLLEGE

PLACEMENT BUREAU

Terre Haute, Indiana

TEACHER'S REFERENCE REPORT

CONFIDENTIAL INFORMATION concerning _____ Class _____

Course _____ Experience _____ years. Subject now teaching _____

Reporting Official _____ Position _____

Address _____

Personal and Social Traits

Teaching Activities

Check X after each characteristic, in one of the five columns, our estimate of the candidate.														
	Sympathy	Judgment	Self-Control	Enthusiasm	Stimulative Power	Earnestness	Cooperation	Culture and Refinement	Personal Appearance	Use of English	Skill in Questioning	Lesson Planning	Making Assignments	Discipline and Classroom Management
Superior	A													
Excellent	B													
Average	C													
Acceptable	D													
Unsatisfactory	E													

General personality rating, A, B, C, D, E, _____ General rating on those elements of personality requisite to good work in the position this teacher held or is now holding, A, B, C, D, E, _____

If your rating is below "B" do you think this teacher will eventually become a "B" or better teacher? _____

_____. If you have found that the teacher is weak in any of the attributes listed below please check and add any others which may apply:

(1) Knowledge of subject matter

(3) Elements of personality

(2) Technique of teaching

(4) Cooperation

What would you consider a fair success grade? _____ [figures] Has this teacher's work to date been satisfactory to you? _____

If not; in what particulars? _____

Remarks: _____

EXPLANATIONS

TEACHER RATING.

The "A" rating should be limited to approximately the upper ten per cent of the teachers of a system. This group should include only those who are regarded as **very superior**.

The "B" rating should include those teachers who are professionally alert, who are better than average, but not quite in the very superior group.

The "C" rating should be given the average teacher. A majority of the teachers of a system will likely be classed in this group. The "C" rating is very satisfactory for beginning teachers.

The "D" rating should include those teachers whose work is not entirely satisfactory but who will be retained in the system, possibly without advances on the salary schedule.

The "E" rating should be given to a teacher whose work is unsatisfactory and who will in all probability not be retained in the system.

DEFINITION OF TRAITS AND ACTIVITIES.

Traits:

- Sympathy:** Love for children, consideration, congeniality, kindness; helpfulness, approachfulness.
- Judgment:** Carefulness, common sense, discretion; good sense, prudence, tact, sense of value.
- Self-Control:** Not nervous, timid, hysterical, rampant, or subject to uncontrolled anger.
- Enthusiasm:** Heart in work, but not necessarily effusive; pupils like the subject because the teacher does.
- Stimulative Power:** Gets children to work and makes them like it; arouses interest of pupils.
- Earnestness:** Conscientiousness, seriousness, sincerity, not a bluffer, trying to earn salary.
- Cooperation:** Ability to work and get along with others.
- Culture and Refinement:** Use of good manners or taste in social situations.
- Personal Appearance:** Self-explanatory.
- Use of English:** Self-explanatory.

Activities:

- Questioning:** Use of questions; distribution of questions; no repeating of answers by teachers; no "All right" either in introducing question or after the answer has been given; no repeating of questions by teachers; no pumping after pupil has exhausted his supply of knowledge; no questions of the confirming type; no double questions; no suggestive questions; definite; so asked that not only can they be understood but that they cannot be misunderstood; no "Yes" or "No" by teacher after pupils' answers; etc.
- Lesson Planning:** Teacher's preparation; organization of subject; selection of devices; content of lesson; varieties of procedure.
- Making Assignments:** Making assignments and giving directions either for laboratory or other work; motivation; exact; connected with what has gone on before; not too long or too detailed; made before the bell rings.
- Discipline and Classroom Management:** Maintaining good order and holding attention of pupils; arrangement of seating of pupils; fixed schedule; etc.
- Teacher's Knowledge of Subject:** This should apply not only to the teacher's store of information on a particular subject but also to her appreciation for the subject and her skill in its presentation.
- Participation in Extra-Curricular Activities:** Ability and willingness of the teacher to take part in outside activities of the school or community.

D. "New Type" Recommendation Card.

PLACEMENT BUREAU
INDIANA STATE TEACHERS COLLEGE
TERRE HAUTE, INDIANA

Dear Sir:

In order to serve the best interests of education we desire complete and reliable information concerning the ability and success of students and alumni. Your **confidential** estimate of the person named below will be appreciated.

Please return the information requested at your earliest convenience.

Yours very truly,

Director of Placement

Name _____ Majors _____

F—Very Inferior; D—Below Average; C—Average; B—Above Average; A—Very Superior;
Check items you have had opportunity to observe

Personality-Teaching Qualities	F	D	C	B	A	Items	F	D	C	B	A
Health						Moral standards					
Intelligence						Cooperation					
Appearance						Dependableness					
Self control, poise						Management					
Resourcefulness						Control					
Considerateness, courtesy						Records, reports					
Pleasantness, cheerfulness						Knowledge—general					
Enthusiasm, forcefulness						Knowledge in major field					
Adaptability						Use of English					
Judgment						Teaching ability					
Social qualities						Probable growth					

Record on the back of this card any outstanding trait in candidate's personality, character, or preparation not indicated above. Give instances supporting your judgment.

Signed _____ Official Position _____ Date _____

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