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entitled The Development of Civic
Information among School
Children.

be accepted as fulfilling this part of the requirements for the
degree of Doctor of Philosophy in Education

Approved by:

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Lucia Streitz
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THE DEVELOPMENT OF CIVIC INFORMATION

AMONG SCHOOL CHILDREN

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A Dissertation Submitted to the Graduate
Faculty of the College of Education,
University of Cincinnati, in partial
Fulfillment of the Requirements
for the Degree of Doctor of
Philosophy,
in
Education.

1930

by

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A.B. Northwestern University, 1913.

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Chapter I

INTRODUCTION

Although several investigations ¹ have been made for the purpose of ascertaining "life" facts or topics which should be incorporated into a modern course of study, and certain studies ² have been undertaken to show the present content and administration of existent courses of study, only

¹ Bassett, B.B. Content of the Course of Study in Civics. Seventeenth Yearbook, N.S.S.E., Part I, Chapter VII.

Sharon, J.A. What Are the Important Modern Problems. Elementary School Journal, June, 1919, p.764.

³ Horn, Earnest. Application of the Scientific Method to the Making of a Course of Study on Civics. Elementary School Journal, June, 1919, p. 762.

⁴ Davis, Maude B. Topics to be Included in (Instruction in Civics. Unpublished Master's thesis, University of Chicago.

Cocking, Walter D. Attitude of the Public to the Teaching of Citizenship. Unpublished Master's Thesis, University of Iowa.

² Reinoehl. Analytical Survey of State Courses of Study for Rural Elementary Schools.

Collins, Walter L. A Survey of Citizenship Curricula of the Elementary Schools. Unpublished Doctor's Thesis, University of Cincinnati.

one study ¹ has been made to determine the relative amount of civic information possessed by school children. This investigation, however, was confined to the study of pupils in the sixth grades of certain schools in Chicago and one or two smaller cities.

The purpose of the present investigation is to (1) ascertain the amount of certain civic information possessed by pupils of the fifth, sixth, seventh, eighth, and ninth grades respectively; (2) discover the source or sources of a limited amount of this information; and (3) evaluate any out-of-school factors which are operative in the civic education of the pupil.

These purposes have been realized by means of two investigations; one based upon the results of a group test, the other upon the results of individual interviews.

These investigations were carried on simultaneously but, for the sake of clarity, they will be treated in separate chapters of this report.

1

Burton, W. H. The Nature and Amount of Civic Information Possessed by Chicago Children of the Sixth Grade Level. Unpublished Doctor's Thesis, University of Chicago.

Selection of the Schools and Subjects

In order to be assured of the fact that the results of the test should be representative of pupils whose information was typical of the training and experience of the average, normal American child, the writer based his selection of the schools upon the pooled judgment of several persons who were familiar with the personnel of schools of a large mid-western city. This pooled judgment was based upon the statements of two directors of the public schools, two members of the faculty of the College of Education, and three principals who had for a long time been acquainted with the Cincinnati school system and who knew the reputation of the various schools.

The eight schools which ranked as being the most representative were investigated by the writer. A first-hand survey of the schools and their respective neighborhoods convinced the writer that these schools were probably as typical as could be found. These eight schools were therefore selected for the study. The following is a description of these eight schools:

School number (1) is located in the better residential section. Pupils in general are alert and

of receptive dispositions.

School number (2) is typical of a professional neighborhood. Pupils drawn from homes of good breeding and generous means.

School number (3) is located in a good, substantial, industrial community. Children drawn from the typical American working class.

School number (4) is as of School number (2), substantial, professional neighborhood.

School number (5) is representative of an industrial district. A sprinkling of foreigners of the substantial, dependable type.

School number (6) is located in an industrial community of moderately well-to-do citizens, many of them property owners.

School number (7) is drawn from a population which is changing from the dependable affluent to a less stable citizenry. In its main aspects it is still a normal American neighborhood.

School number (8) is having a population drawn from the economically independent home - professional and merchant types.

The following tabulation presents data of pupil population for each of these eight schools, by grades, sex, and totals.

Table I. Enrollment by Grade and Sex for the Eight Selected Schools

School	Fifth		Sixth		Seventh		Eighth		Ninth	
	B	G	B	G	B	G	B	G	B	G
No. 1	77	82	102	83	78	76	70	66		
No. 2	30	21	25	28	21	37	20	26		
No. 33	25	25	22	21	26	30	19	28		
No. 4	45	45	41	52	53	68	46	56		
No. 5	51	42	51	47	63	43	34	35		
No. 6	23	23	19	30	20	33	36	18		
No. 7							35	31		
No. 8									264	303
Total	251	238	260	261	261	287	260	260	264	303
Grade Total Popu- lation	489		521		548		520		567	
Grand Total	2645									

The Burton "Inventory of Community Civics" test was administered to the 2645 pupils of these eight selected schools. Of this number, 257 pupils were used as subjects for the personal interviews. One hundred and

fifteen additional personal interviews were chosen at random from two other schools. An explanation relative to the selection of these 372 cases will be given in a later chapter.

Figure I is an exact copy of the Burton "Inventory in Community Civics".

(Figure I is found on the following page)

11

11

Method of the Group Investigation

At the time of this investigation, there was no standardized group test in the field of civics, as it is conceived in modern thought and practice.

Dr. W. H. Burton's "Inventory in Community Civics" had just been devised, but had not been standardized, except tentatively for the sixth grade within certain schools of the city of Chicago and, in a very limited way, in the city of Salem, Oregon.

The technique used by Burton was utilized in so far as it was appropriate.

In the fifth and sixth grades, the two parts of the test were given on two consecutive days. In the upper grades (seventh and eighth) the two parts were given during two consecutive sessions, morning and afternoon. In the ninth grade, because of administrative difficulties, it was necessary to give the entire test within one class hour.

In the fifth and sixth grades, the children were introduced to the test in the manner suggested by Burton in his thesis. ¹

¹ Burton, W. H. The Nature and Amount of Civic Information Possessed by Chicago Children of the Sixth Grade Level. Unpublished Doctor's Thesis, University of Chicago.

Directions Given to Fifth and Sixth Grade

Pupils

This is not really an examination and you will not find it hard at all. Before I give you the papers, I wish you would answer a question for me.

What is the hardest thing to do in an examination - about an examination?

(Answers) The hardest thing about an examination is to get the right answer.

Then would it not be easy if the answers were placed on the paper beside the questions - all written out for you? Well, that is the very type of examination I am going to give you. Listen while I tell you about it.

I will give you one of these papers in a moment. On it you will find a number of questions. Under each question there are three answers. One of these answers is the right answer to the question. (Go slowly here). All you have to do is to read the question, read the answers, pick out the right answer and make a cross (X) in front of it. Does it sound easy? Shall we do one question on the board to see how it goes?

Which of these is the best automobile?

The Dodge
The Buick
The Overland

Now look sharp! That was easy, but I am going to give you a harder one now!

Which of these automobiles is made in Flint, Michigan?

Now that is a hard one and you are not sure of the answer. In the test you will find some very easy questions which you cannot miss, and a few that will be so hard that you will not know the answer. Now listen,

as this is very important. The only thing that counts in this examination is the right answer. If you know the answer and mark it with a (X) cross, it counts one. But if you do not know and guess wrong, then it counts one off. But right here this test is different from any you ever took. If you do not know the answer and do not guess at it, it does not count off against you. It does not count off if you leave blank those questions you do not know. If you know or have a good idea about the answer, go ahead and make an X, but if you do not know a thing about it, leave it alone.

Now I will pass out the papers. You may examine them, but do not start until all have papers. We are going to work the first page together, one question at a time, and I will help you with the answers. After that, you may do the other questions in the way I have just explained to you. Take your pencils. Look at the first page. I am going to read these questions one by one. you do just what it says as I read it. Ask questions if you do not understand. Ready, look at the sample questions. They are so easy that you cannot miss them. They are put there to give you practice in making an X in front of the right answer. Do this.

Turn the page and I will read what it says at the top of the page before you begin work. Now begin, work all the questions on this page and then go on to the next, and then to the last page. Keep on going until you are finished.

In the upper grades, this method of introduction was not used inasmuch as the pupils were more or less "test wise" and needed only to read the printed instructions which appear on the first page of Part I to get into the spirit of the test.

All tests were administered by the writer with the exception of two classes in the ninth grades. In

these two classes the tests were given by a person of long school experience, both as a teacher, as a supervisor and as a principal, and one who had been carefully drilled in the administration of tests.

The checking of the tests and the tabulation of the results were made by four or five clerks trained in their work and supervised by the writer. All tabulations were checked at the close of the day so that any errors made in the first checking were corrected at once.

The test papers were checked against a matrix so that it was almost impossible for errors to enter into the scoring of the test papers. The raw tabulation sheets were submitted to a cross checking, i.e. total wrong, omitted and correct had to tally. From the "raw" tabulation sheets, all derived data were computed by the writer and all tabulations and computations were checked back to the original tabulation sheets.

All additions (in computing the means, etcetera) were made and checked on a Burroughs Comptometer. All percentage calculations were made on a 72-inch slide rule, the Atlas Calculator. Many of these computations were made and checked to the third place, on the lower half of a "Richardson's Logarithmic Rule".

The score of the test is the number of answers correctly checked by the pupils.

Not all test results were used in the final tabulation inasmuch as some of the pupils did not complete the two parts of the test. A pupil's absence from either of the two sessions made it necessary to disregard his paper. In a few cases, papers were thrown out because of such obvious difficulties, incorrect marking of the paper, or an individual interruption during the test period.

All testing was done between January 25th and February 24th, 1926. Therefore, the norms should be accepted for mid-year standards. Tests were given on dates indicated below:

<u>School</u>	<u>Date</u>	<u>Number of Classes</u>
No. 3	Jan. 25 and 26, 1926	11
No. 4	Jan. 29 "	6
No. 8	Feb. 1, 2, 3, "	22
No. 1	Feb. 4 and 5 "	18
No. 7	Feb. 8 "	2
No. 1	Feb. 10 "	18
No. 6	Feb. 17 "	6.5
No. 2	Feb. 18 "	6
No. 5	Feb. 23 and 24 "	11

Amount of Civic Instruction Given In
the Selected Schools

At the time of this investigation, there was no prescribed course of study extant in the Cincinnati public schools. A personal interview with the director of this and allied work, brought out the response, "There is no definite course of study nor a definite outline of procedure for the presentation of civics in the schools."

In the absence of such objective data, such as a course of study, prospectus or outline, which might be used in working out a statement of the extent to which civic topics were emphasized, the teachers in whose classes the tests were used, were asked to state the total number of minutes per week given to civic instruction.

Answers to questions, addressed to more than fifty teachers, justify the statement that, in general, thirty minutes per week was being allowed for the discussion of civic topics. However, from what the writer learned in the personal interviews with teachers and pupils, there was no definite outline followed and the civic instruction was merely incidental. Several of the

teachers made specific remarks on this point, to wit:

Fifth Grade

"In connection with history, but no definite time is used or definite topic discussed".

"Indefinite, no time given."

"Our course is called History and Civics, but Civics is rather incidental."

Sixth Grade

"In connection with history, more especially geography".

"In connection with other work".

Seventh Grade

"No stated time per week. Intensive work several times during a year".

"Incidental teaching of civics in connection with other subjects."

Eighth Grade

"Twenty-five minutes allowed for Civic club activity."

"Incidentally with History."

Ninth Grade

One class period per week is the program assignment. As far as the writer could judge, there was no course of study followed.

The civic classes were generally assigned to the teachers who needed a class to fill up the program.

Mathematics, History, Science and English teachers were found so assigned.

In several of the classes, visited by the writer, the work was so very informal as to be of very little value; apparently no tie-up was made from week to week. Pupils were permitted to bring up for discussion whatever was momentarily of interest. Of course, the Mathematics teacher was primarily interested in mathematics and the other teachers in their respective subjects. Civics was a mere incidental lesson once a week to fill out the program.

Chapter II

SCORES AND NORMS

This chapter presents the results of the group test interpreted in terms of score distributions and in terms of grade norms.

Score Distributions of the Group

Test

The raw score distributions are given by grades, sex, and totals. The score values given in the frequency tabulations are midpoints of a two unit class interval. The lowest score value, 1, represents an interval of from 0 up to, but not including, 2, etcetera. Table II presents these data.

(Table II follows)

Table II. The Distribution of the scores of 2595 Pupils of the Eight Selected Schools on the Burton "Inventory in Community Civics", by Grades and Sex, February, 1927.

Midpoint Score	Fifth			Sixth			Seventh			Eighth			Ninth		
	G	B	T	G	B	T	G	B	T	G	B	T	G	B	T
95															
93													2		2
91										2		2	7		7
89										4		4	5	17	22
87							1	1	2	4		4	6	12	18
85							1	3	4	1	6	7	16	18	34
83					1	1		2	2	4	6	10	10	15	25
81					1	1	1	4	5	4	15	19	13	20	23
79		1	1				1	5	6	6	10	16	16	20	36
77					1	1	4	4	8	8	9	17	12	18	30
75				1	3	4	2	11	13	9	17	26	16	17	33
73				1	2	3	1	7	8	11	17	28	20	13	33
71					1	1	7	12	19	13	19	32	25	15	40
69					2	2	8	8	16	11	10	21	14	13	27
67	1		1		6	6	9	10	19	17	14	31	17	16	33
65		1	1	2	5	7	16	13	29	24	11	35	18	7	25
63		1	1	2	10	12	10	20	30	8	18	26	19	7	26
61		3	3	6	11	17	15	15	30	16	14	30	14	10	24
59		4	4	4	9	13	20	15	35	21	5	26	13	4	17
57		2	2	3	11	14	13	10	23	15	10	25	13	5	18
55		4	4	5	17	22	17	16	33	11	13	24	17	2	19
53	5	3	8	13	11	24	10	14	24	12	6	18	9	5	14
51	3	4	7	13	14	27	16	16	32	17	7	24	4	2	6
49	5	55	10	10	17	27	15	10	25	14	6	20	7	2	9
47	3	7	10	14	14	28	16	11	27	5	9	14	3		3
45	3	9	12	16	20	36	15	10	25	4	6	10	1	3	4
43	3	7	10	13	8	21	14	8	22	8	4	12	3	1	4
41	5	10	15	23	16	39	8	7	15	5	3	8	1	1	2
39	11	9	20	14	12	26	16	9	25	2	2	4			
37	4	23	27	8	8	16	11	2	13	3	3	6	2		2
35	18	19	37	25	11	36	9	5	14	5	1	6	1		1
33	9	12	21	19	10	29	10	3	13		2	2	1		1
31	17	18	35	17	9	26	8	3	11					1	1
29	20	19	39	11	9	20	6	1	7	1	1		1		1
27	27	30	57	6	4	10	3	1	4						
25	23	13	36	10	3	13	3	1	4	1	1				
23	11	11	22	6	1	7									
21	18	6	24	3	2	5									
19	11	7	18	3	2	5		1	1						
17	13	8	21	1	2	3									
15	8	6	14	1	1	2	1	1	2						
13	3	9	12	1	1	2									
11	2	3	5												
9	3		3												
7	3														
5															
3															
1	1		1												

✓ Totals

Means G

B

T

An inspection of Table II shows that, although children of the upper grades have a greater knowledge concerning the various civic topics, a tremendous amount of overlapping exists.

Apparently the boys have more correct information than the girls. Whether or not this difference is significant is stated in a succeeding section of the study.

The detailed scores ¹ classified by schools give evidence of some irregularity, from school to school, of the apparent knowledge on civics topics possessed by pupils of the respective groups. Much of the irregularity may be due to the fact that for these schools there is no specified course of civics study, nor any outline prescribed in the field of the curriculum. Each school has approached the problem of civics instruction according to the "dictates of its own conscience" and the exigencies which may have arisen with regard to local relationships and problems.

The tables also emphasize the very wide range of information possessed by the respective grade groups and the overlapping of accomplishment from grade to grade. In general, this overlapping suggests that pupils

¹ These detailed tables are to be found in Appendix "A".

have not been classified in terms of individual differences, or rather, that instruction has not been adapted to the needs of those individuals who are lacking in their civics knowledge. In a later chapter, it will be pointed out, however, that civics information has been gained, in a large measure, from sources beyond school control, to wit, the cinema, the daily papers, magazines, home and street conversations, information as easily assimilable by a fifth grade pupil as by one of the ninth grade.

Grade Norms and Their Reliability

This section of Chapter II presents in Table IIIa the Mean-norms by grades and sex, in Table IIIb the Mean-norms by total grades, and diagrammatically in Graph I, the relationship of the grade and sex norms one to the other for the various schools.

(Tables IIIa and IIIb follow)

Table IIIa. Mean-Norms and Difference by Grades
and Sex for 2595 Pupils in Eight
Selected Schools.

<u>Girls</u>	<u>Grades</u>	<u>Norms</u>	<u>Differences by Grades</u>
236	Fifth	29.13	
251	Sixth	41.16	12.03
287	Seventh	52.11	10.95
254	Eighth	61.53	9.42
296	Ninth	65.99	4.46
<u>Boys</u>			
248	Fifth	34.86	
255	Sixth	48.10	13.24
259	Seventh	58.36	10.26
259	Eighth	66.37	8.01
254	Ninth	75.33	8.85

(For Table IIIb, see following page)

Table IIIb. Grade Norms of 2595 Pupils, and Their Reliability. ^a

I	II	III	IV	V	VI	VII	VIII
No. of Cases	Grade in School	Norms (Arithmetic Means)	Sigma of Distribution	Sigma of Mean	Diff. in Norms	Sigma of the Diff.	E.C.
484	5	32.11	11.5	.524	12.52	.745	6.04
506	6	44.63	11.95	.530	10.43	.786	4.78
546	7	55.06	13.56	.578	8.92	.809	3.93
509	8	63.98	12.66	.564	7.95	.762	3.76
550	9	71.73	12.00	.511			

^a Column III. The arithmetic mean was determined by the formula: $M = \frac{\sum fm}{N}$. Gregory, C.A. Fundamentals of Educational Measurement, p. 281.

Column IV. Standard deviation of the distribution was determined by the formula: $\sigma_{diff} = \sqrt{\frac{\sum fd^2}{N} - c^2}$ (Odell, C.W. Educational Statistics, p. 131.

Column V. Sigma of the mean computed by the formula: $\sigma_{(m)} = \frac{\sigma_{(d)}^2}{N}$ Garrett, H.E. Statistics in Psychology and Education, p. 121.

Column VII. Sigma of the difference computed by the formula: $\sigma_{diff} = \sqrt{\sigma_{(m)}^2 + \sigma_{(ar)}^2}$ Garrett, H.E. Ibid, p. 129; McCall, W.A. "How to Experiment", p. 151.

Column VIII. Experimental coefficient computed by formula: $E.C. = \frac{\text{Difference}}{2.78 + \sigma_{diff}}$

McCall, W. A. Ibid., p. 404

Odell, C. W. Ibid., p. 228.

Table IIIb is to be read left to right as follows:

Test results from 484 pupils of the fifth grade give an arithmetic mean of 32.11 with a sigma deviation of score of plus or minus 11.5. The standard deviation of this measure of variability is .524.

An interpretation of this paragraph may be stated thus: The scores of the fifth grade pupils will fall in 8626 cases in 10,000 between the score values of 21.06 and 43.61. The grade norm 32.11 in 8626 cases in 10,000 will not deviate more than plus or minus .524 (Column V). This means that if additional fifth grade groups were tested under the same conditions, the norm of such groups would fall, in 86.26% of the cases, between the score values 31.586 and 32.634. We may be practically certain that the true mean lies between 32.11 plus or minus (three times .524) or between 33.682 and 30.538.

Column VI indicates the difference between successive grade norms. The difference between the sixth and fifth grade norms is $(44.63 - 32.11)$ 12.52 score points. This is found to be positive, large and probably significant. The standard deviation of this difference is expressed as .745 (Column VII), and in-

dicates that if other sample group differences of the same grades are derived under like conditions, the new difference will vary from this given difference (12.52) by plus or minus .745. In 86.26% of the cases, the true difference in ability between fifth and sixth pupils will be between 13.265 and 11.775. It is practically certain (99.865% of cases) that this difference in ability will be between 12.52 plus or minus (three times .745) or between 14.755 and 10.285.

According to formula $\left(\frac{D}{\sigma \text{ Diff.}} \right)^2$, we are

certain of the reliability of this difference, for $\frac{12.52}{.745}$ gives a value of 16.7 or 534 % which indicates

that this difference is just so much greater than is necessary for complete reliability. "A $\frac{D}{\sigma \text{ Diff.}}$ greater than three is to be taken as indication of just as much added reliability."

Column VIII gives an evaluation of difference in terms of McCall's Experimental Coefficient. ²

"An experimental coefficient of 1.0 is just exactly

¹ Garrett, H.E. Statistics in Psychology and Education. p. 133. Table XIV, p. 134.

² Odell, C.W. Educational Statistics. p. 227-8.
McCall, W.A. How to Measure in Education, p. 404-405.

practical certainty. An experimental coefficient -- 2.0 means double certainty." If this statement is to be taken at face value, then the experimental coefficient of 6.04 for the difference between the fifth and six grade norms indicates a reliability six times certainty.

From this discussion, it is evident the norms for each grade and the differences between the various successive grades are positive, large and significant.

Graph I is given to show, diagrammatically, the relation of school grade, sex and total norms one with the other. ¹

An attempt was made to find an explanation of certain fluctuations existing between the various schools and grades. (See especially the seventh grade fluctuations from school to school, and more especially the definite drop in school No. 6 Boys wherein the seventh grade norm falls below the sixth grade.) It was first thought to be due to inaccuracy of computation, but a review and recheck of all figures from a basic score indicated that no serious discrepancy could possibly be due to incorrectness in the various computations. An examination of the basic scores showed that

¹

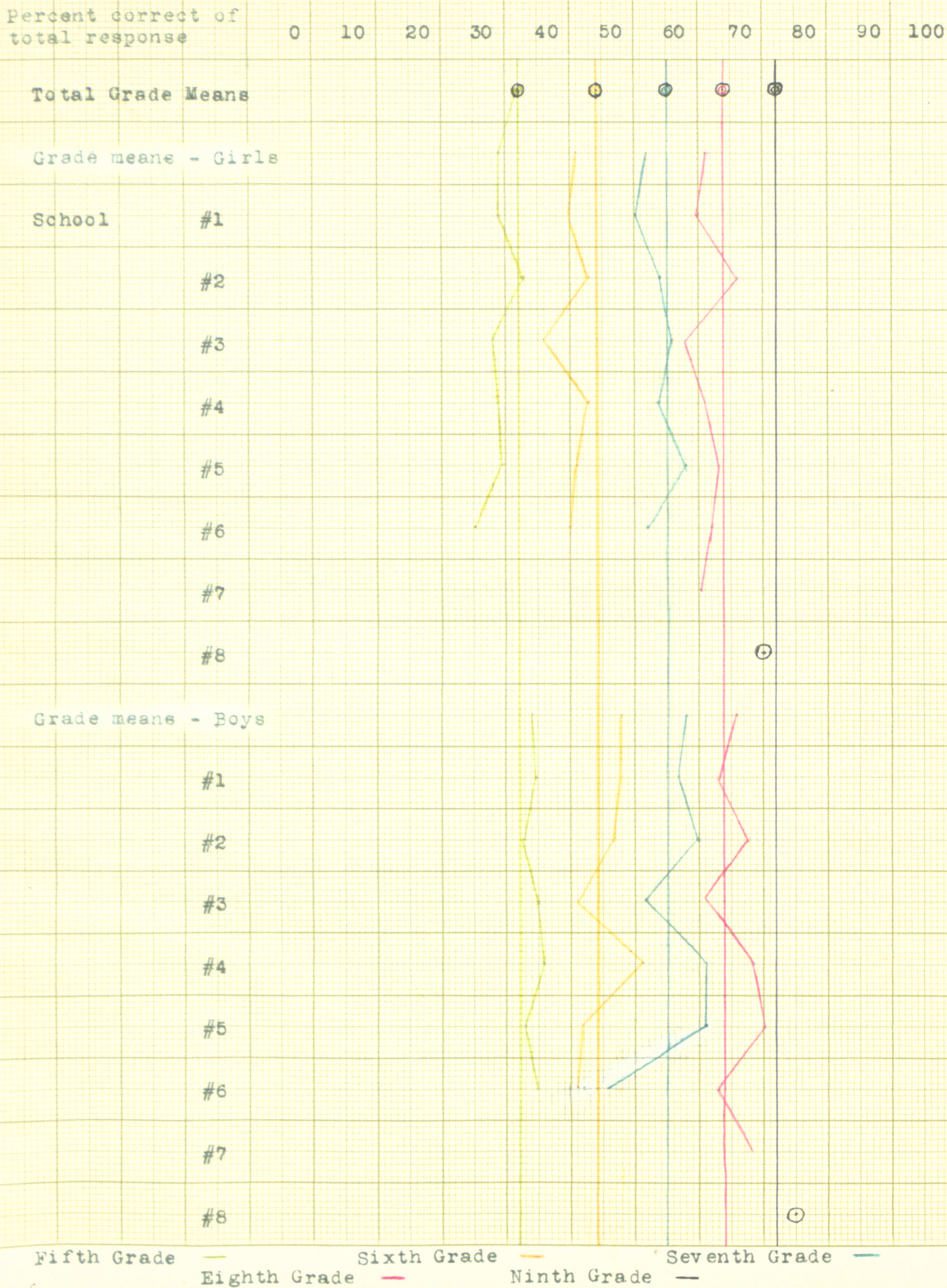
For the data upon which this graph is based, see tables in Appendix "A".

the boys and girls of this grade were unusually deficient in civic knowledge, as shown by test results in the school grade frequency distribution.¹

(Graph I follows)

¹ Frequency distribution tables by school and grade are found in Appendix "C".

Graph 1 Test Mean - Norms



are these averaged?

Table IVa. Comparison of Cincinnati Scores with Salem, Oregon and Certain ^a Chicago, Illinois, Scores. Political Division.

Location No. of Cases Grades	Salem		Chicago				Cincinnati
	164 6B	83 6A	S. Side 257 6B	N. Side 205 6A	N. Side 304 6B	224 6A	
Coroner	27	44	29	35	20	31	39
Fire Dept.	51	74	67	67	68	69	71.1
Plain Clothes	47	54	50	60	47	58	47
Council	39	40	21	22	24	26	54.7
City Ordin.	35	58	42	46	50	61	42.0
Municipal	6	20	21	29	30	43	28.5
Precinct	18	22	19	37	20	25	19-1
Sheriff	90	83	81	80	84	87	88.5
Legislature	72	77	42	50	56	65	59.4
Pres. Cabinet	19	20	11	22	15	18	21.0
Citizen	6	5	7	8	15	18	8.9
Federal	44	58	41	44	41	49	57.7
Graft	35	42	47	49	55	66	36.6
Naturalization	32	43	15	36	30	30	36.6
Tariff	21	38	47	30	37	40	45.5
Income Tax	52	68	50	59	55	67	57.2
Juvenile Court	43	54	65	75	61	71	60-6
Bail	66	82	83	86	80	72	60-6
Subpoena	12	22	10	14	14	18	10-8
Search Warrent	46	54	51	54	43	48	50.0
Candidate	55	74	66	61	67 ^a	68	76.0
Polling Place	44	41	80	85	84	83	67.2
Politics	37	64	56	61	58	66	53.5
Political Part.	35	46	37	44	33	53	39.8
Ballot	63	64	62	66	68	70	89.3
Pol. Boss	17	11	9	9	14	19	32.0
Pol. Platform	7	10	11	9	7	7	5.3
Pol. Machine	9	19	10	17	11	21	10.8
Pol. Convention	22	26	28	28	27	34	41.2
Pol. Ticket	37	47	39	50	47	57	60.8
Primary Elec.	16	22	14	25	24	26	18.4
Gov. Ownership	54	2	11	20	29	19	8.2

^a Scores for Chicago schools which were predominantly negro, Italian, or Jewish were left out of consideration.

Table IVa. Comparison of Cincinnati Scores with Salem,
Continued Oregon, and Certain Chicago, Illinois,
 Scores. Economic Division.

Location No. of Cases Grades	Salem		S. 257 6B	Chicago		N.Side 224 6A	Cincinnati 506 6th
	164 6B	83 6A		Side 205 6A	304 6B		
Consumer	19	29	12	19	14	20	24.5
Bankrupt	88	90	92	89	91	92	84.0
Wholesale	58	64	52	62	55	68	67.4
Chain Store	59	60	50	62	53	58	58.4
Profiteering	24	38	23	35	27	37	17.9
Charge Account	71	76	82	82	87	85	82.4
Postal Sav'g Bank	26	25	21	21	16	20	28.4
Deposit	79	82	89	80	88	91	82.7
Investments	60	59	60	65	58	55	67.8
Speculator	18	22	12	15	18	19	21.6
Financier	13	18	17	24	29	35	31.2
Postal Money Ord.	53	60	67	69	45	49	47.8
Registered Mail	43	54	58	55	46	48	42.4
Middleman	26	26	19	22	23	30	26.2
Mortgage	33	52	39	48	39	48	45.8
Deed	48	59	39	42	38	41	45.8
Installment	58	72	56	68	59	66	59.4
Labor Union	32	32	36	35	35	51	29.3
Strike Breaker	14	13	19	19	21	18	15.7
Employee	68	66	72	80	71	74	71.8
Sweat Shop	22	22	17	25	25	25	25.7
Seasonal Trade	36	49	13	19	38	50	28.0
Injunction	12	22	29	36	18	25	12.8
Boycotte	12	28	11	15	8	13	5.9
Strike	81	74	82	84	83	83	74.3
Good Roads	85	84	77	84	79	74	69.8
Transportation	59	59	51	59	53	50	54.9
Freight vs. Exp.	54	60	66	68	68	70	53.5
Stocks	40	44	54	60	50	60	53.9
Telephone-Telegr.	90	82	89	86	90	88	86.4
Conservation	7	2	9	8	13	10	11.6
Natural Resources	52	61	37	60	37	63	64.0

Table IVa. Comparison of Cincinnati Scores with Salem,
 Continued Oregon, and Certain Chicago, Illinois,
 Scores. Social Division.

Location No. of Cases Grades	Salem		Chicago				Cincinnati 506 6th
	164 6B	83 6A	257 6B	205 6A	304 6B	224 6A	
Divorce	87	89	94	88	83	92	92.2
Budget	46	34	7	11	20	14	35.9
Slums	58	76	66	75	65	78	70.0
Urban Population	10	7	5	7	13	9	15.6
Rural Distri.	61	61	21	32	23	24	36.6
Tenement	24	54	36	42	40	53	74.4
Suburbs	49	64	69	68	63	74	74.2
Pauper	40	55	40	51	46	48	46.8
Immigrant	65	66	84	83	75	86	79.9
Illiterate	18	13	15	13	12	23	20.6
Race Hatred	15	28	20	27	20	35	22.4
Employers-Immigra.	21	36	38	49	38	57	33.7
Americanization	59	73	59	64	50	67	66.3
Felony	10	14	5	8	13	11	9.8
Criminals-Educ.	28	26	44	44	38	42	40.1
Propaganda	15	17	12	20	17	29	18.7
Epidemic	54	64	41	39	46	48	48.5
Quarantine	97	86	91	92	88	88	77.6
Inspection-Markets	91	83	82	89	81	83	85.8
Contageous	62	67	62	68	55	58	50.2
Sch. for Blind	68	60	66	64	57	61	67.8
Reason for Sch.	88	84	90	91	89	88	89.2
Lawyer-Educ.	70	56	67	77	64	70	65.6
Vocational Ed.	13	20	9	12	14	9	12.6
Compul. Sch. Law	57	47	23	38	26	36	21.9
Recreation	18	22	25	36	28	40	40.6
Poverty	38	53	54	62	52	59	55.5
National Church	46	28	50	53	49	46	45.3
Good Morals	78	77	74	80	74	74	78.0
Blind Alley Job	27	34	22	27	28	39	24.5
Census	29	37	16	26	17	25	37.5
Aliens	29	30	15	17	20	26	21.6

Table IVb. Comparison of Norms

<u>Cincinnati</u>	<u>Chicago</u>	<u>Salem</u>
Total 6th (506 cases) 44.63	<u>South Side</u> (462 cases) 6A 44.16 6B 40.63 <u>North Side</u> (528 cases) 6A 46.64 6B 41.68	(247 cases) 6A 45.42 6B 40.30

Summary and Conclusions

There is an evidence of definite progression of knowledge from the fifth to the sixth, sixth to the seventh, seventh to the eighth and to the ninth grades.

The difference from grade to grade of this progression is large enough to be determined by factors other than mere chance.

These differences may be due to any number of causes, such as age of pupil (length of contact with things civic), number of papers, magazines, or books

*Don't think to the
same level*

read, street and home conversations, school training, etcetera.

It is impossible to say whether these grade increments are too small, too large, or ideal, inasmuch as there is no standard for comparison.

On the other hand, the Cincinnati norms may be accepted tentatively as the accomplishment of normal children with an average American background of experience and training, where no civic course, as such, is offered in the schools.

There is favorable comparison between the Cincinnati and Chicago norms for the sixth grade.

Chapter III

AMOUNT OF CIVIC INFORMATION POSSESSED BY PUPILS

This chapter gives a statement of the amount of civic information possessed by children of the fifth, sixth, seventh, eighth and ninth grades in the eight selected schools of Cincinnati, as evidenced by the per cent of correct replies to the various test items.

The Per Cent of Correct Responses

The Tables Va, Vb, and Vc, and Graphs II a-b, II-c-d, and II e-f, present the data by grade totals, test divisions, and individual items.

Throughout this chapter the various items of the test are represented by one or two key words. For instance, the first question of the test reads: "If a policeman finds a dead body, to whom does he turn it over?"

The chief of police
The coroner
The health officer

This question is represented by the word "coroner".

Table Va gives the per cent of correct answers for questions having to do with political information.

(Table Va follows)

Table Va (Political Division) is to be read as follows:

To the question "Coroner", 17.6% of the total 484 responses of the fifth grade pupils were correct, 39.0% of the total 506 responses of the sixth grade pupils were correct, 55.9% for the seventh grade, 67.4% for the eighth grade, and 82.4% for the ninth grade.

Table Va. Per Cent of Correct Response - Political Information.

Questions Referring to:	Per cent Correct Answers by Grades				
	5th	6th	7th	8th	9th
Coroner	17.6%	39.0%	55.9%	67.4%	82.4%
Fire Department	65.5	71.1	81.5	89.2	92.0
Plain Clothes Man	34.8	47.0	54.4	61.7	78.7
Council	51.0	54.7	59.9	72.2	83.4
City Ordinance	35.5	42.0	54.6	90.2	90.7
Municipal	12.5	28.5	36.9	38.2	64.4
Precinct	11.3	19.1	28.4	29.1	65.2
Sheriff	75.9	88.5	93.2	92.2	93.8
Legislature	52.6	59.4	86.6	90.0	87.7
Pres. Cabinet	17.8	21.0	25.0	45.7	54.3
Citizen	9.1	8.9	9.4	13.8	15.2
Federal	32.2	57.7	59.0	75.5	83.6
Graft	19.1	36.6	53.6	87.7	99.3
Naturalization	11.9	36.6	53.6	87.7	99.3
Tariff	18.3	45.4	49.8	79.3	89.8
Income Tax	43.2	57.2	64.5	69.7	82.2
Juvenile Court	39.3	60.6	75.6	80.7	82.5
Bail	49.6	60.6	81.2	88.4	86.4
Subpoena	7.6	10.8	17.2	22.3	33.9
Search Warrant	34.0	50.0	60.4	82.1	77.6
Candidate	50.2	76.0	87.3	92.4	97.4
Polling Place	50.4	67.2	85.5	89.5	96.3
Politics	30.6	53.5	71.8	83.6	91.2
Political Parties	21.8	39.8	55.9	81.7	85.3
Ballot	68.7	89.3	95.9	98.8	98.4
Political Boss	14.2	32.0	18.7	21.9	39.1
Political Platform	3.9	5.3	7.5	17.4	45.8
Political Machine	9.5	10.8	16.8	29.3	51.5
Political Convention	25.7	41.2	47.3	64.1	74.4
Political Ticket	38.7	60.8	81.4	91.6	95.1
Primary Election	13.4	18.4	30.0	39.8	55.0
City, State Ownership	2.8	8.2	18.8	26.2	33.0
Number of Cases	484	506	546	509	550

Table Vb. Per Cent of Correct Response - Economic Information.

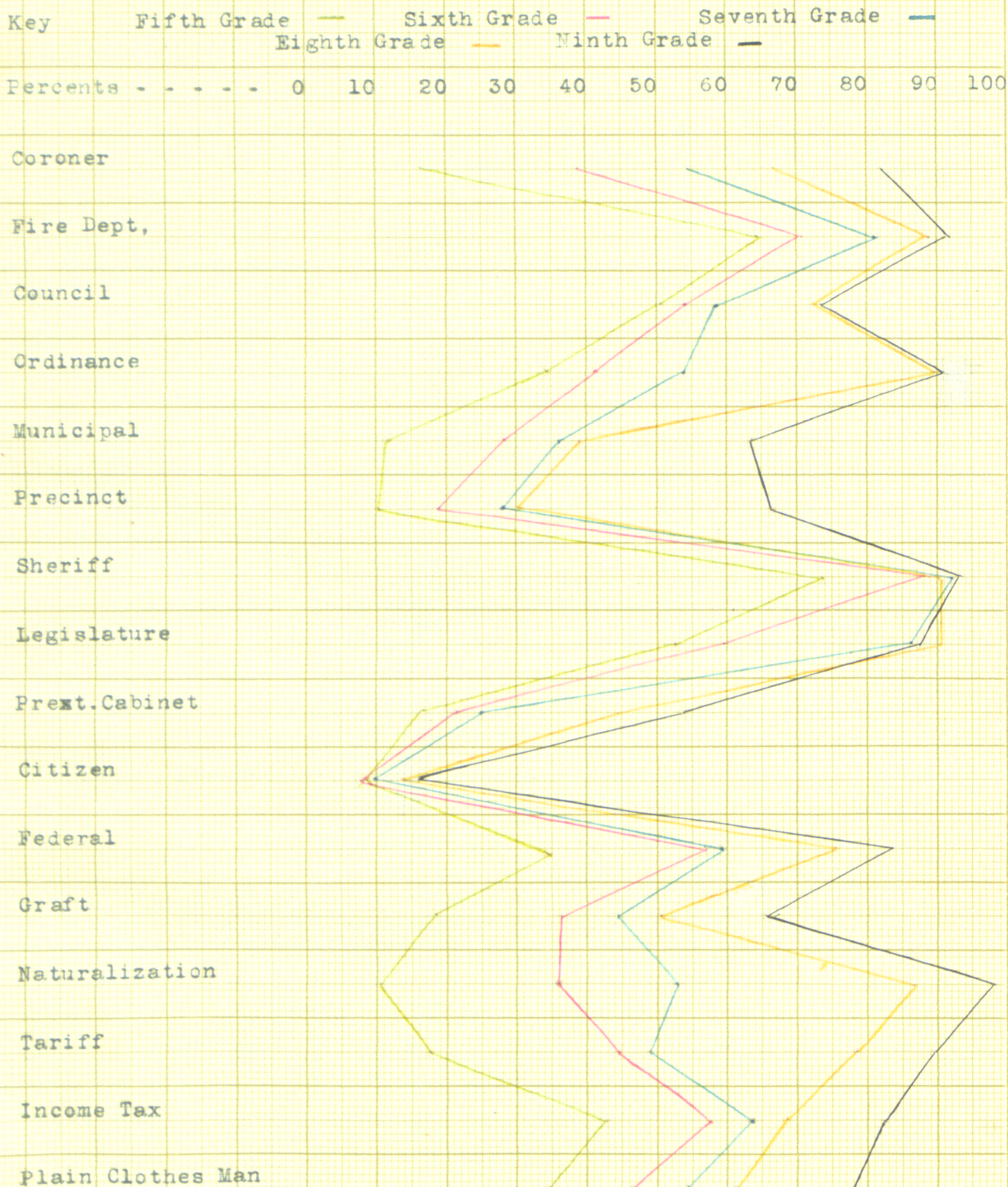
Questions Referring to:	Per Cent Correct Answers by Grades				
	5th	6th	7th	8th	9th
Consumer	12.5%	24.5%	30.8%	47.0%	61.0%
Bankrupt	63.9	84.0	90.6	97.2	98.8
Wholesale	45.1	67.4	75.1	87.3	91.0
Chain Store	40.8	58.4	70.1	78.1	88.0
Profiteering	10.2	17.9	24.4	26.8	43.4
Charge Account	66.4	82.4	86.8	95.1	94.5
Postal Sav. Bank	28.1	28.4	35.1	25.5	37.2
Deposit	66.3	82.7	92.6	97.2	99.9
Investments	41.2	67.9	71.3	86.1	86.4
Speculator	15.4	21.6	23.8	36.0	61.2
Financier	14.8	31.2	42.6	64.0	81.4
Postal Money Order	31.7	47.8	58.9	61.5	84.8
Registered Mail	31.9	42.4	59.4	63.9	79.0
Middleman	9.4	26.2	35.1	45.6	64.2
Mortgage	23.9	45.8	59.3	67.9	85.7
Deed	34.2	45.8	65.3	74.3	81.5
Installment	36.2	59.4	78.9	89.0	94.9
Labor Union	19.2	29.3	43.7	51.7	63.1
Strike Breaker	20.2	15.7	17.2	20.9	30.5
Employee	53.1	71.8	80.2	84.9	85.1
Sweat Shop	21.2	25.7	35.6	47.4	62.2
Seasonal Trade	22.8	28.0	41.4	51.5	58.9
Injunction	11.3	12.8	21.7	33.5	38.6
Boycott	5.1	5.9	10.1	21.5	42.5
Strike	66.2	74.3	80.5	87.3	89.5
Good Roads	49.2	69.8	71.2	79.6	87.3
Transportation	45.3	54.9	53.9	71.3	69.5
Freight vs. Express	44.2	53.5	60.6	68.2	73.0
Stocks	29.6	53.9	64.6	77.0	84.2
Telephone-Telegr.	71.0	86.4	94.3	96.2	92.7
Conservation	10.5	11.6	13.9	17.8	40.3
Natural Resources	22.2	64.0	77.3	95.3	90.5
Number of Cases	484	506	546	509	550

Table Vc. Per Cent of Correct Response - Social Information.

Questions Referring to:	Per Cent Correct Answers by Grades				
	5th	6th	7th	8th	9th
Divorce	85.0%	92.2%	95.3%	97.4%	97.4%
Budget	16.4	35.9	58.2	65.8	80.1
Slums	46.0	70.0	84.2	91.6	97.2
Urban Population	14.1	15.6	12.9	21.0	37.4
Rural Districts	15.8	36.6	54.6	66.0	86.6
Tenement	42.4	74.4	82.4	90.2	95.6
Suburbs	49.3	74.2	83.2	92.2	95.9
Pauper	23.5	46.8	68.0	79.3	97.6
Immigrant	40.3	79.9	90.0	96.6	98.6
Illiterate	12.1	20.6	35.6	44.7	66.6
Race Hatred	15.8	22.4	33.8	43.6	60.8
Employers-Immigrants	20.3	33.7	46.5	64.2	75.3
Americanization	42.8	66.3	76.0	83.4	96.3
Felony	13.1	9.8	11.4	14.2	21.3
Criminals-Education	27.0	40.1	47.0	43.8	59.9
Propaganda	9.4	18.7	22.5	22.4	46.4
Epidemic	24.7	48.5	75.8	85.3	90.5
Quarantine	43.2	77.6	93.2	95.0	95.0
Inspection-Markets	76.3	85.8	94.1	97.0	95.3
Contagious	34.4	50.2	65.9	72.0	76.0
Schools-Blind	61.7	67.8	74.9	80.3	76.2
Reason for Schools	86.7	89.2	91.3	91.0	87.3
Lawyer-Doctor Ed.	54.9	65.6	78.5	82.9	80.7
Vocational Ed.	10.5	12.6	22.1	41.6	45.5
Recreation	10.3	27.9	43.5	69.7	85.0
Compulsory Sch. Law	28.2	40.6	60.4	73.7	80.0
Poverty	20.2	55.5	70.4	85.8	85.5
National Church	31.1	45.3	71.0	78.0	81.2
Good Morals	66.0	78.0	82.2	86.0	82.5
Blind Alley Job	15.4	24.5	40.4	51.3	86.7
Census	10.5	37.5	63.9	82.3	83.3
Aliens	14.0	21.6	32.2	52.3	63.8
Number of Cases	484	506	546	509	550

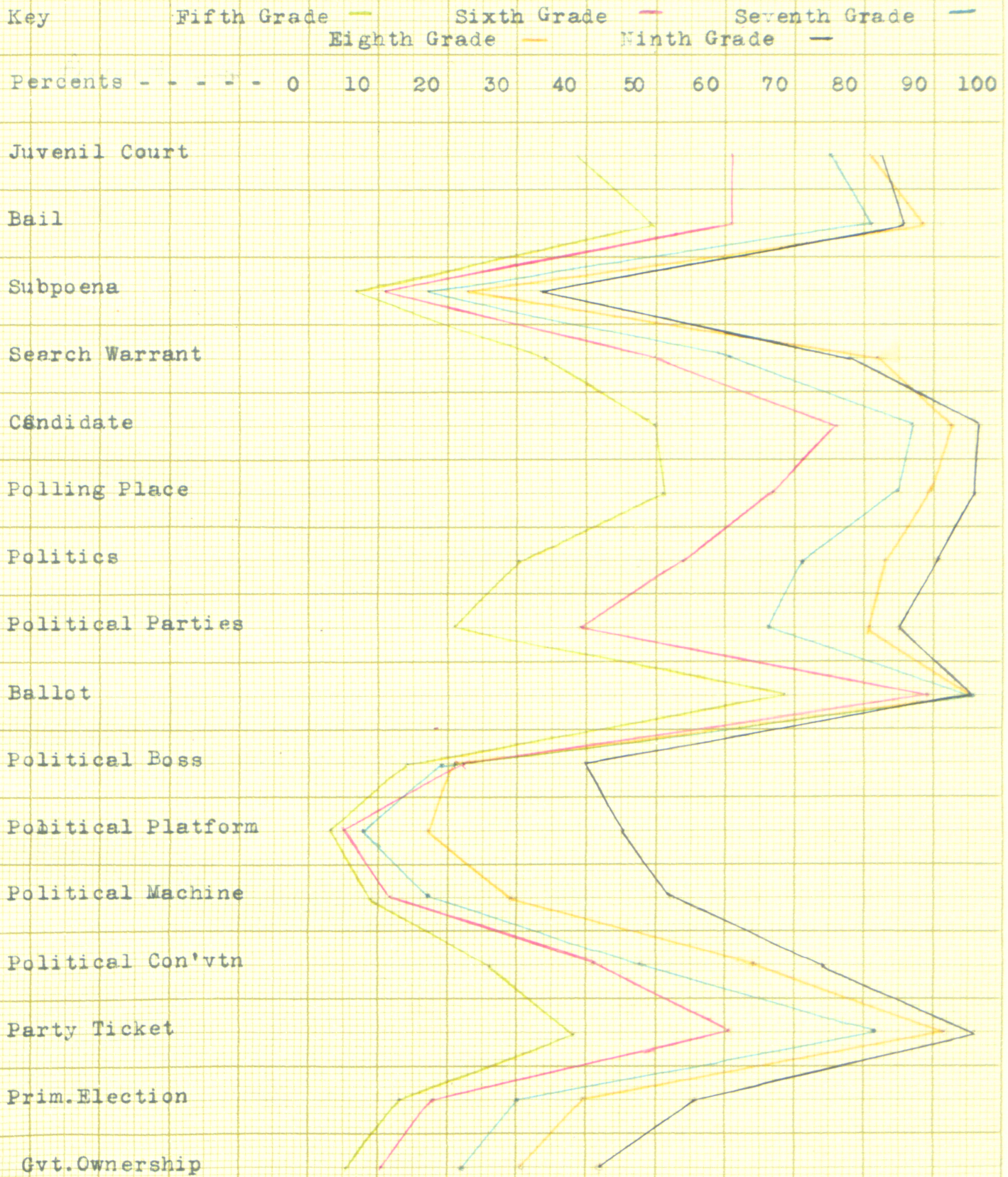
Graph II A.

PERCENT OF CORRECT RESPONSE (Political Division)



Graph II-A (continued)

PERCENT OF CORRECT RESPONSES (Political Division)



PERCENT OF CORRECT RESPONSE (Economic Division)



Graph II - B (continued)

PERCENT OF CORRECT RESPONSE - (Economic Division)

Key	Fifth Grade	Sixth Grade	Seventh Grade	Eighth Grade	Ninth Grade						
Percents - - - - -	0	10	20	30	40	50	60	70	80	90	100

Installment Plan

Labor Union

Strike Breaker

Employee

Sweat Shop

Seasonal Trade

Injunction

Boycott

Strike

Good Roads

Transportation

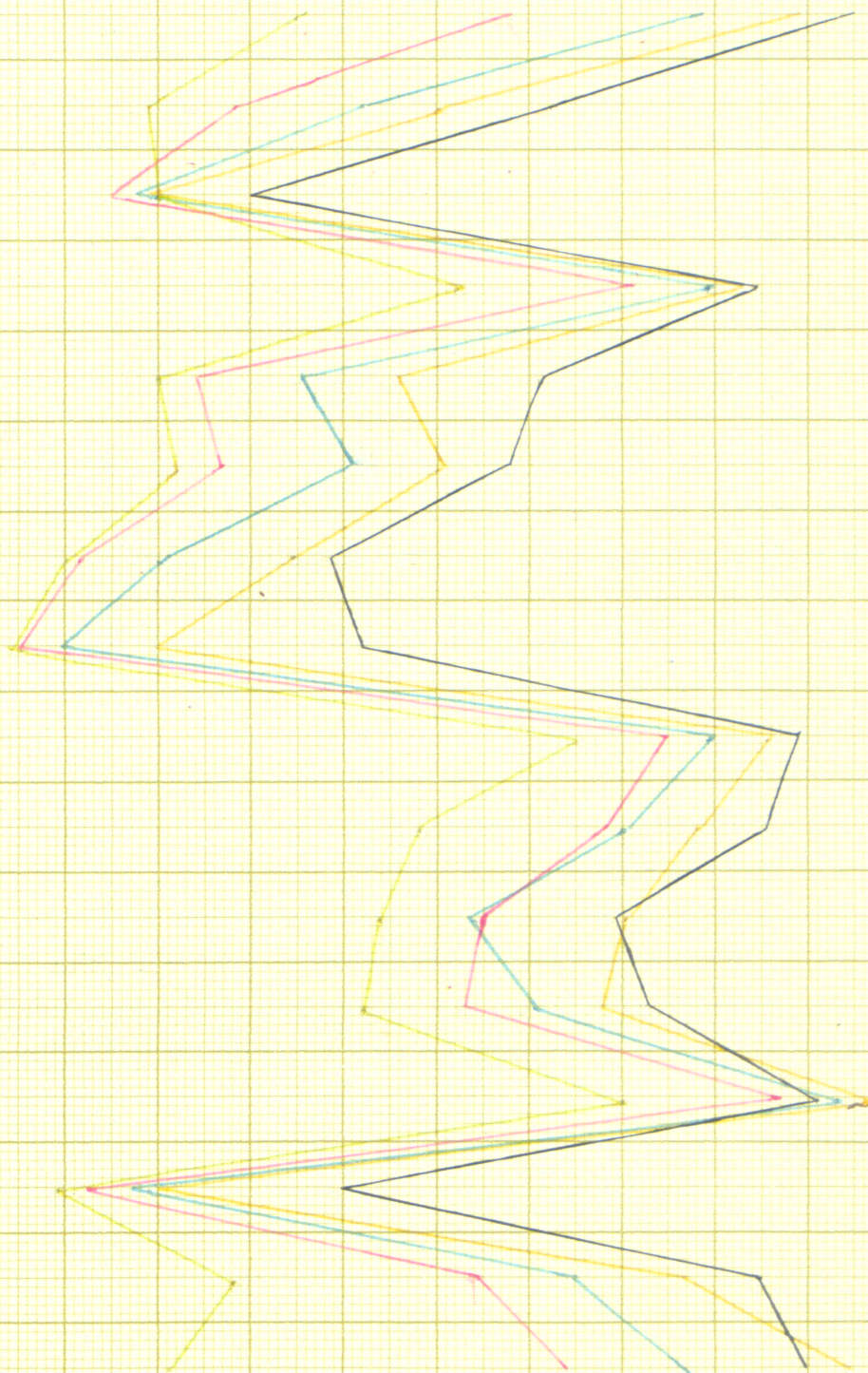
Frt. vs Exp.

Telegr. Impt.

Conservation

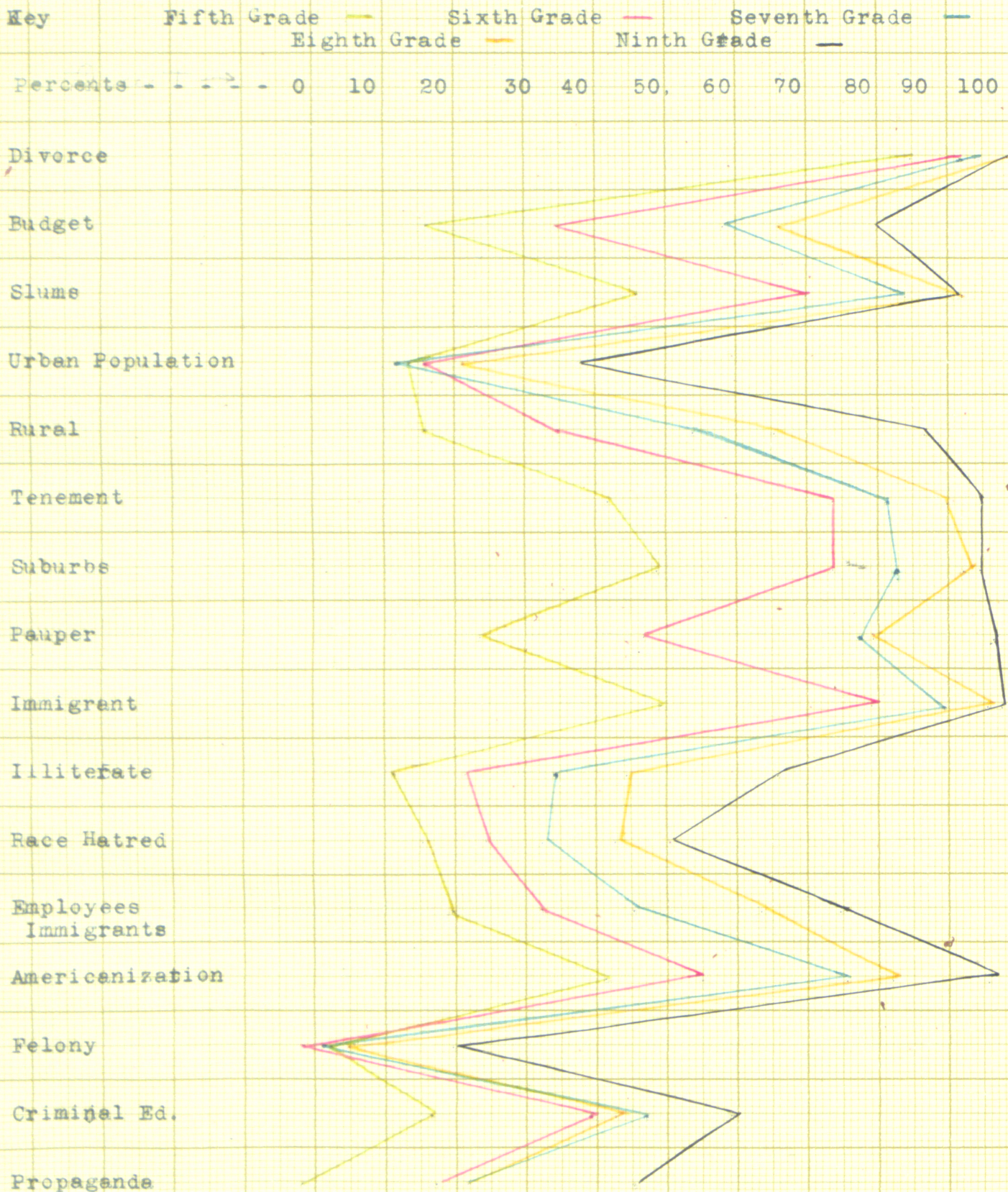
Stocks

National Resources

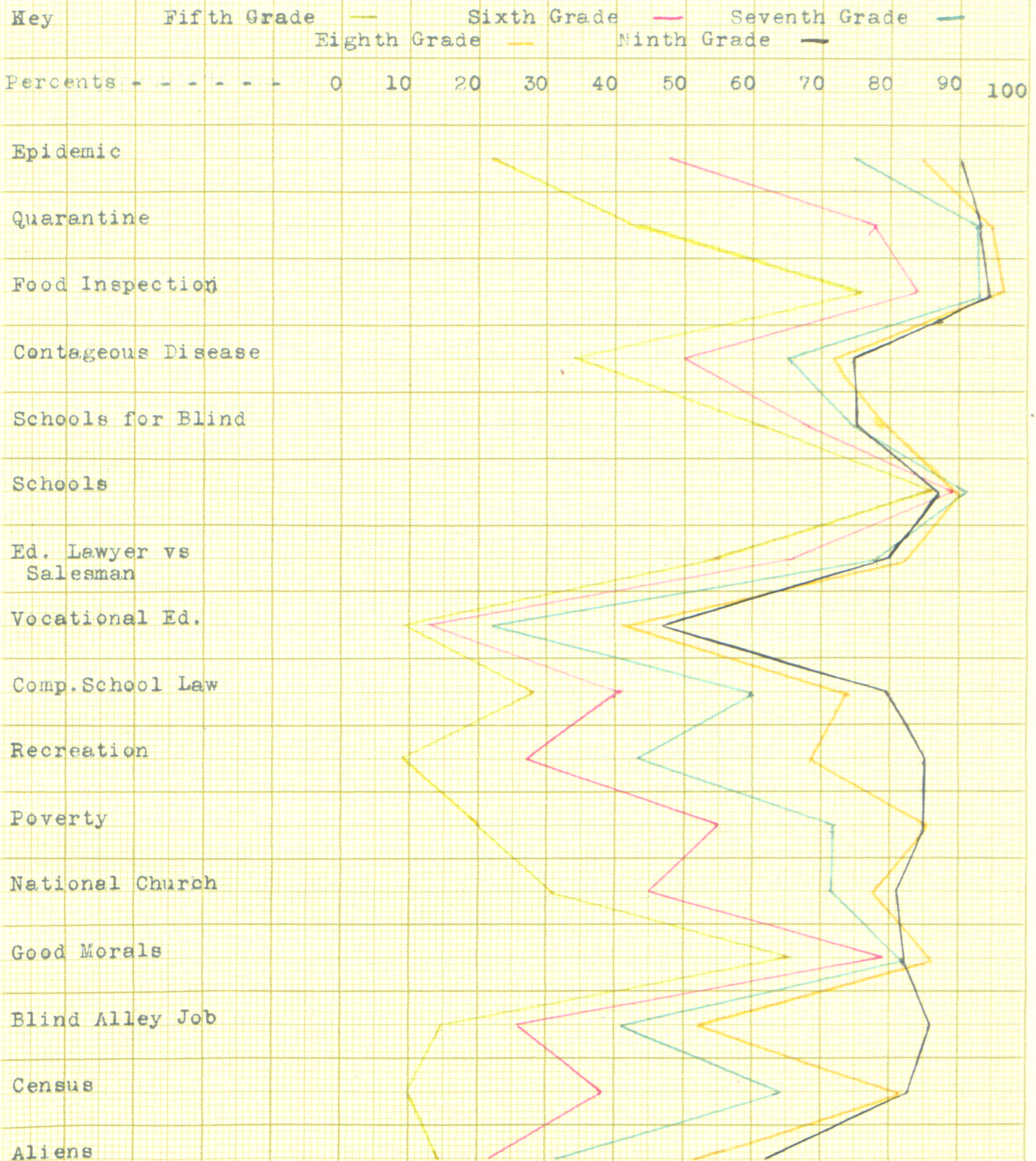


Graph II-5.C

PERCENT OF CORRECT RESPONSE (Social Division)



PERCENT OF CORRECT RESPONSE (Social Division)



Graph II, which is a graphical presentation of Table V, presents the items in the order of the test and shows an approximately equal lack of uniformity of knowledge throughout the three divisions of the test - political, economic and social.

In other words, there is apparently no particular division of the test wherein the pupils of the various grades excel. This statement is confirmed by averaging the total items scores for each grade and division; then reducing the average percentage to indices based upon the "political" data.

Table VI. Average Item Score by Grade and Division.

<u>Divisions</u>	5th	6th	<u>Grades</u> 7th	8th	9th
A.					
Political	30.3	43.7	53.7	63.0	74.6
Economic	33.2	46.6	55.2	67.3	73.2
Social	38.1	48.6	61.6	70.1	79.11

Indices by Grade and Division
(Political Score Used as Basis)

<u>Divisions</u>	5th	6th	<u>Grades</u> 7th	8th	9th
B.					
Political	1.0	1.0	1.0	1.0	1.0
Economic	1.1	1.05	1.03	1.06	.98
Social	1.1	1.11	1.14	1.11	1.06

It is evident from Table VI that pupil's knowledge of civics topics is relatively evenly divided between the three phases. It may be further noted that, with the exception of one instance, (the ninth grade economic index, .98) the economic and social phases of civics are better understood than the political. The social phase of civics is generally the best known of the three.

The Difference in Difficulty of Various Items

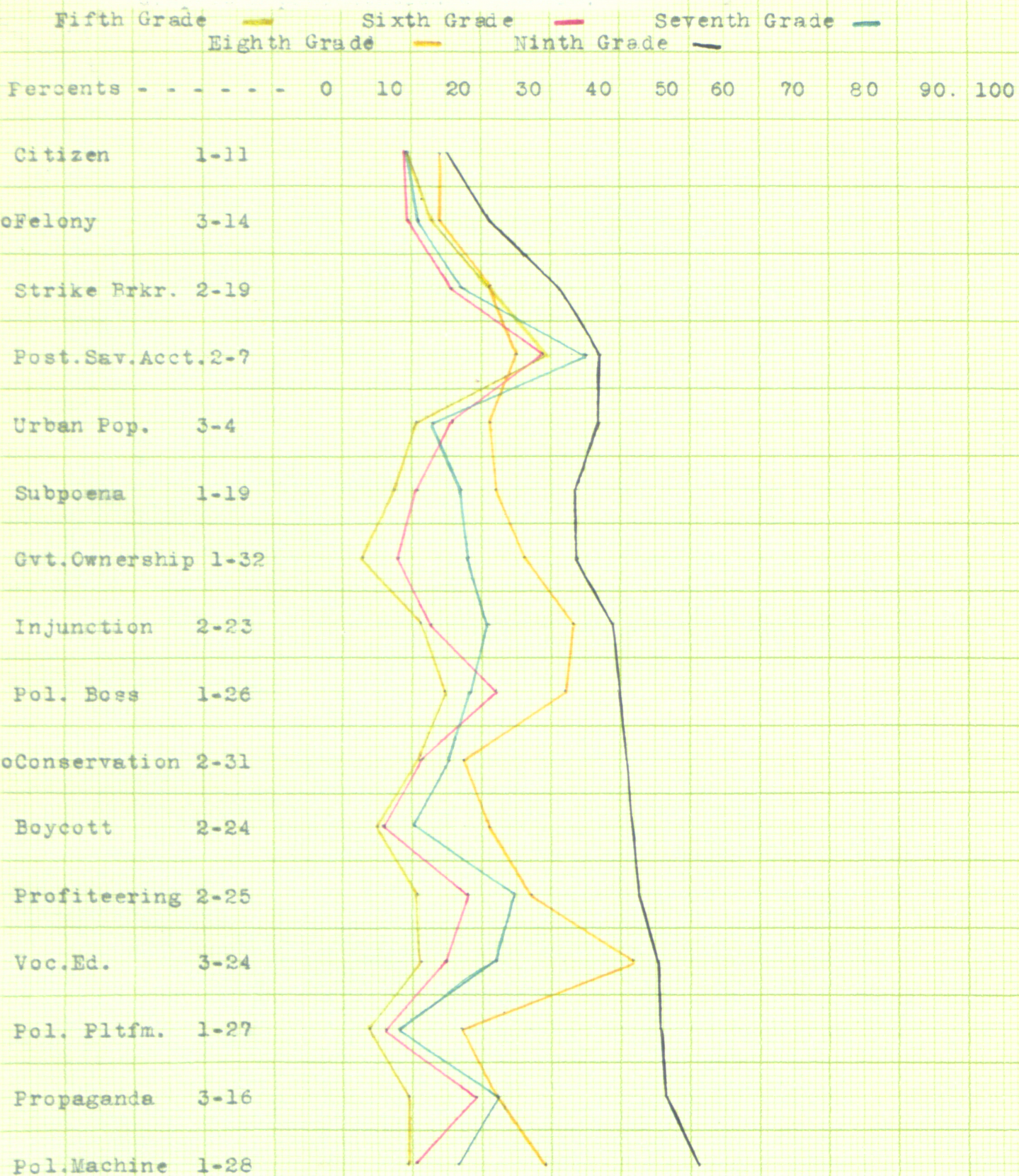
In Graph III, an attempt is made to present the per cent of correct responses to the various questions in an approximate descending order of difficulty. 27

The criteria for this rearrangement are:

1. Apparent general decrease in difficulty from the least known to the most known, and
2. Differentiating values of the several questions in the test.

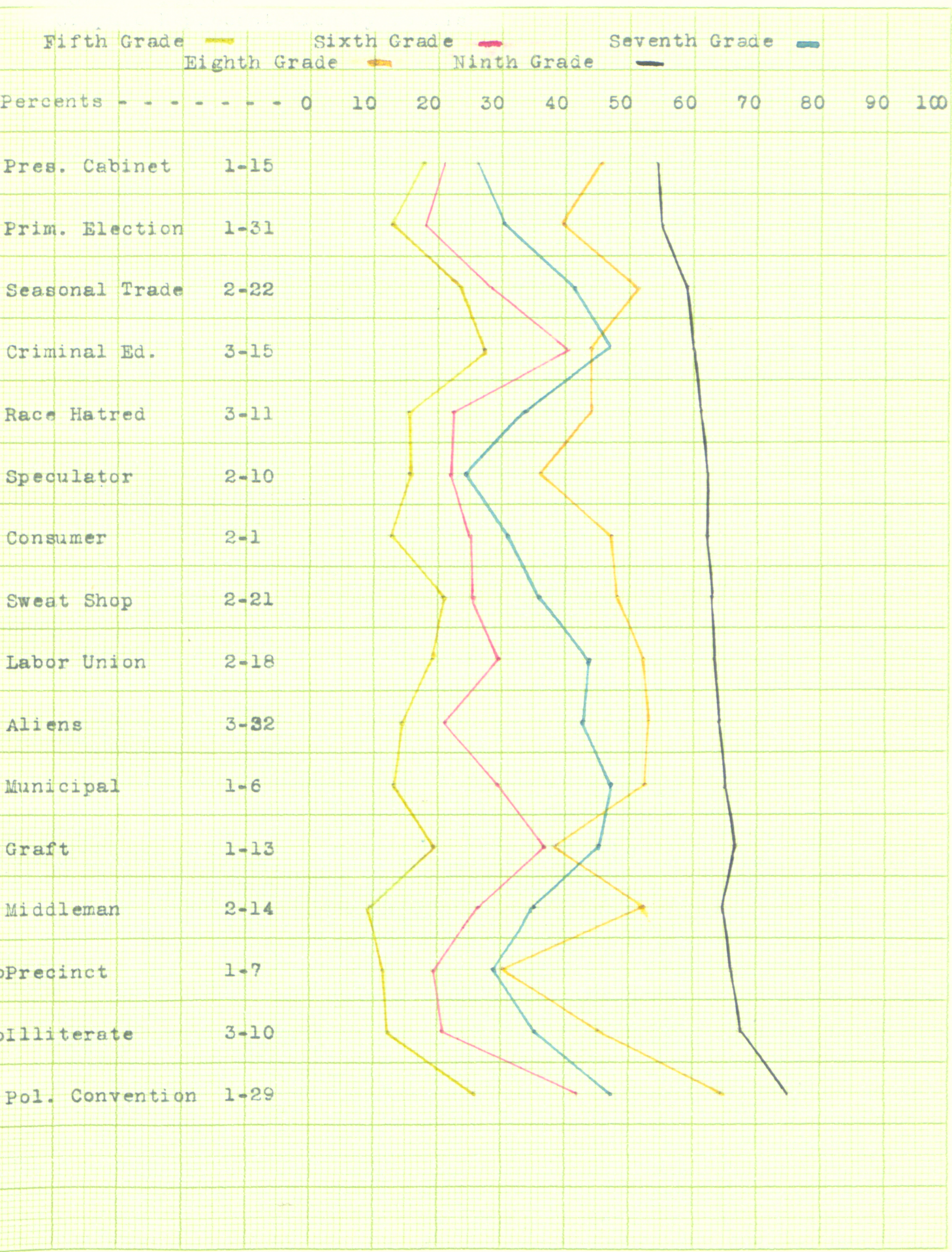
(Graph III follows)

Graph III PERCENT OF CORRECT RESPONSE (approximate order of difficulty)



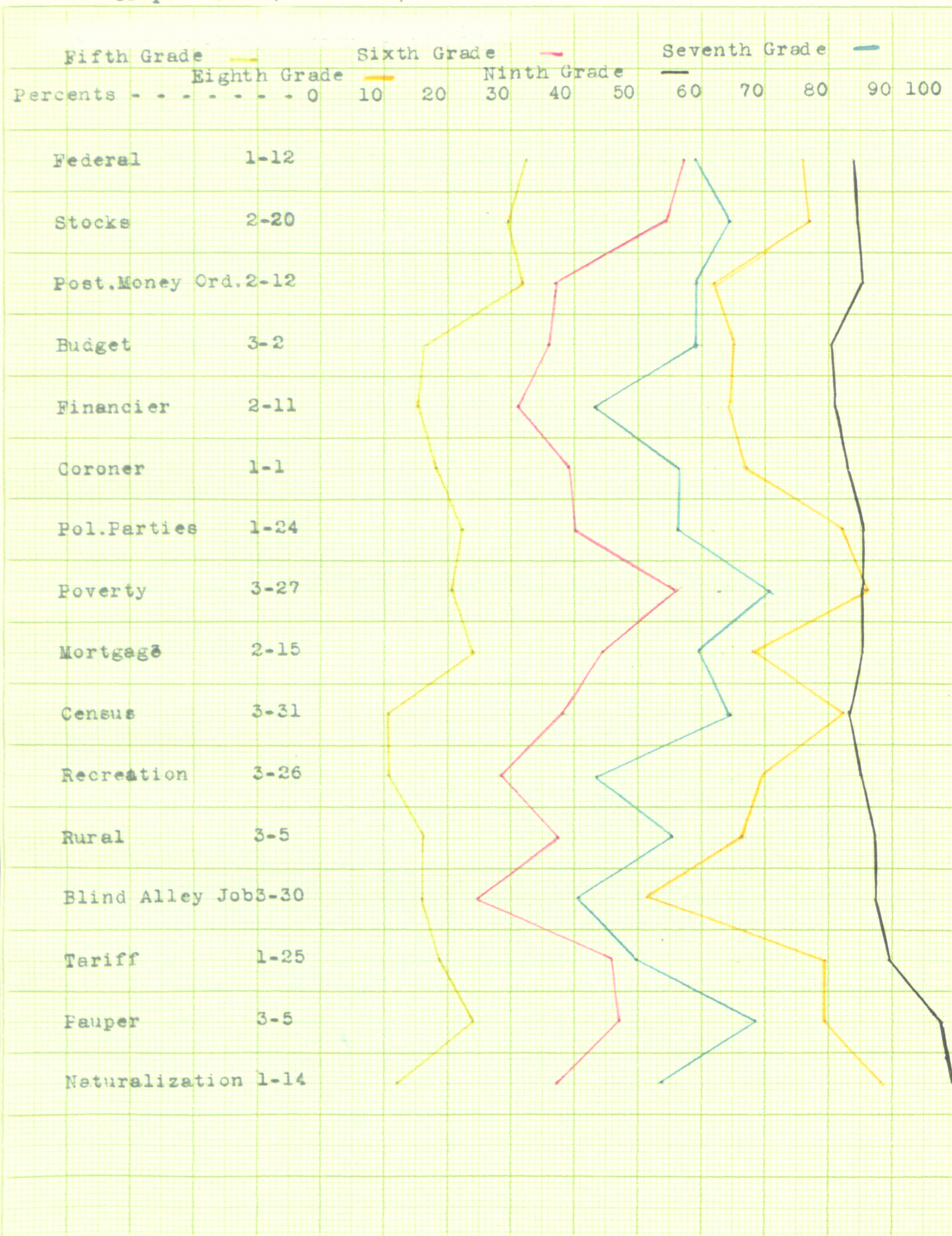
NOTE:- The numbers following the various words (e. g. Citizen 1-11, Felony 3-14) designate the relative position of the question in the test. Citizen is the eleventh question of part 1, Felony is the fourteenth question of part 3.

Graph III (continued)

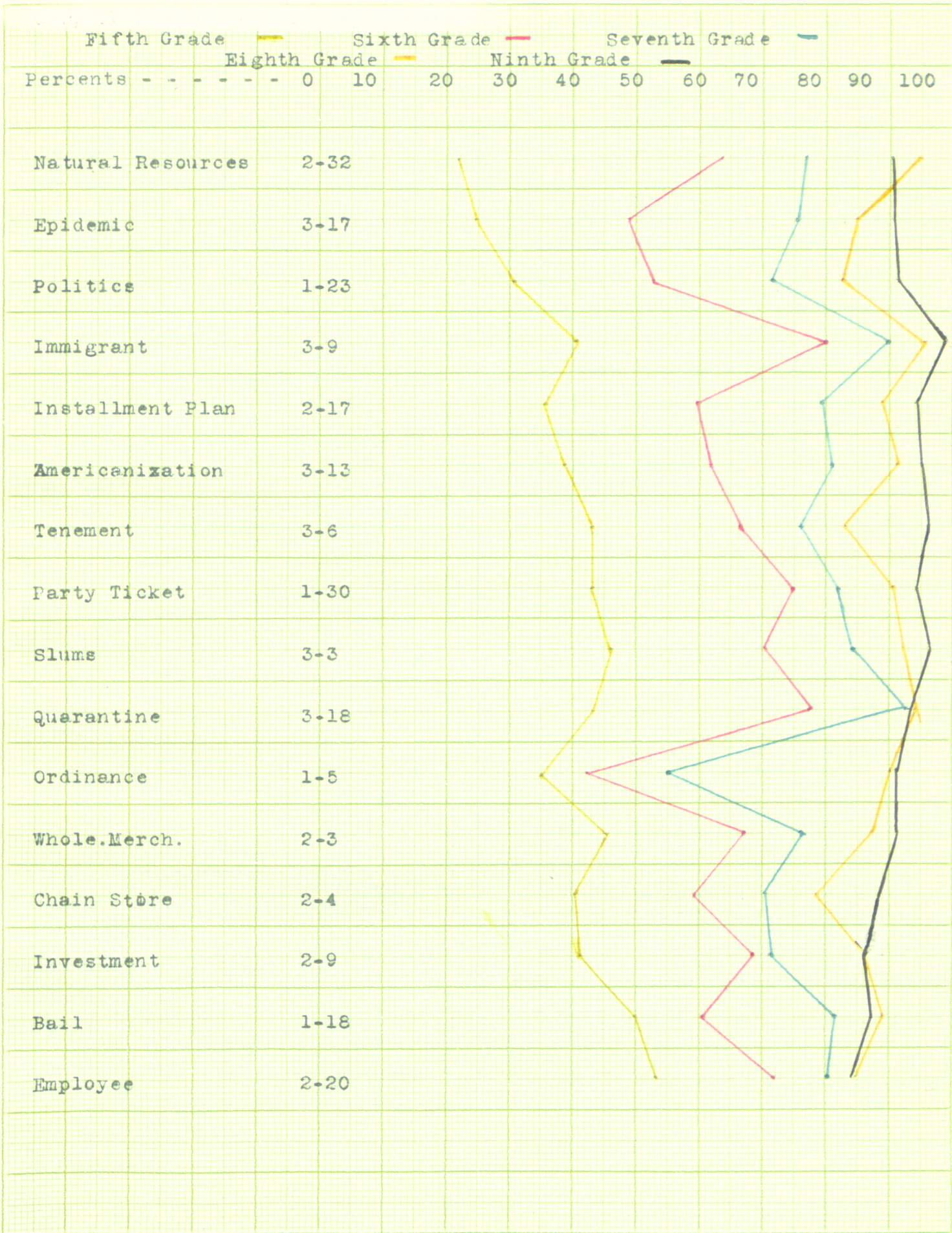


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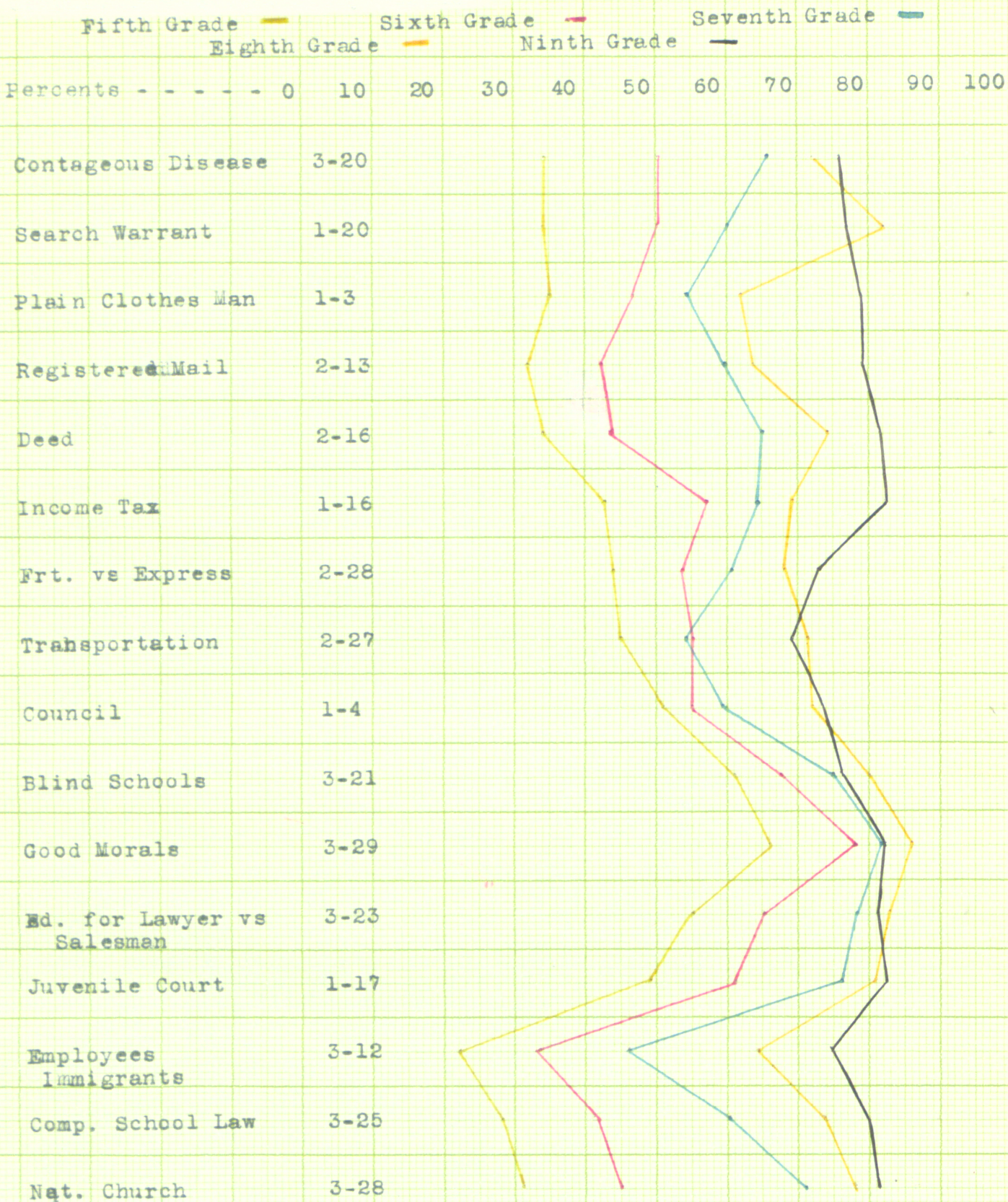
Graph III (continued)



Graph III (continued)



Graph III (continued)



Graph III (continued)

Fifth Grade — Eighth Grade — Sixth Grade — Ninth Grade — Seventh Grade —

Percents - - - - - 0 10 20 30 40 50 60 70 80 90 100

Legislature 1-9

Good Roads 2-26

Strike 2-25

Suburbs 3-7

Polling Place 1-22

Candidate 1-21

Bankrupt 2-2

Deppsit 2-8

Ballot 1-25

Charge Acct. 2-6

Fire Dept. 1-2

Telegraph Imp. 2-3

Sheriff 1-8

Food Inspector 3-19

Divorce 3-1

Schools 3-22

Graph III (B-1) gives a listing of test items in an approximate general descending order of difficulty, with those topics first for which there are the least percentage of correct replies.

The words "citizen", "felony", and "strike-breaker" (B-2) are the least known.

The correct answer to the question (1-12)

"Peoples of what races can be made citizens of the United States?"

Only the white races, negroes, and indians.

Only people of the white races.

People of any race who have good character.

is least generally known by the entire subject population. There is no significant differentiation between the responses of the fifth (9.10), sixth (8.9) and the seventh (9.4) grade pupils. However, there is a relatively significant difference between these grades and the eighth (13.8) or the ninth (15.2). This last statement is made on the evidence found in the "abac" (Page 55, ~~Table~~----). Twice sigma for a percentage level, 10, gives a value of 4.2 (relative certainty). Thrice sigma gives 6.3 (certain significance).

Just why the question ranks so low in the percentage table cannot be explained without an understanding of the important position it holds, or the emphasis

which is placed upon it in the course of study.

The answer to this important question comes not within the province of this paper, but may we not surmise that it is due to the general indifference of the average American home to a question which does not immediately concern its own status, or to the miopic concepts which a traditional type of civic instruction engenders.

The best known topics are "schools", "divorce", "food inspection", "sheriff", etc. (B-3). In the case of the topic "schools", the question reads:

"What is the chief reason why schools are run?"

Because we have enough money to run them.
Because the law says children must go to school.
Because all children should have an education.

Approximately ninety per cent of the subjects give the right answer. The "abac" (page 55) at this percentage level indicates that a difference of at least 4.2 (or preferably 6.3) must obtain if the difference is to be considered significant. There is no certain difference between any of the succeeding grades. However, the difference between the seventh and fifth grades (91.3 - 86.7 - 4.6) may be considered relatively certain (twice sigma - 4.2). No reason can be ascribed to the lack of 100 per cent correct response on this question.

Certain items differentiate quite definitely between certain grades and groups of grades (B-4). For instance, between the fifth, sixth, seventh, and eighth grades and the ninth grade.

Conservation
Boycott
Political Platforms
Propaganda
Precinct

These items have come into the child's experience or vocabulary during the last year of the elementary or the first year of the high school.

Certain items are most widely differentiating between certain groups of grades, i.e., (B-5) between the fifth grade and the sixth, seventh, eighth and ninth grades.

Natural Resources
Immigrant
Quarantine
Candidate

These items most generally come into the child's vocabulary after he has passed into the sixth grade.

Certain items differentiate by approximate equal steps between the various grades (B-6).

Financier
Coroner
Recreation
Rural
Pauper
Naturalization
Employees-Immigrants
Compulsory school law

Naturalization is probably one of the most interesting items of the test, at least from the angle of differentiation. It has the widest grade to grade differentiating value. Fifth, 11.9, sixth, 36.6, seventh, 53.6, eighth, 87.7, ninth, 99.3 - all indications point out the fact that this word comes into the child's vocabulary at no particular point in his school experience. A later chapter will show that knowledge of this term is largely a matter of school training. It would seem that consistent emphasis has been placed on the word in all grades.

The first and probably most important statistical question which may be asked is, "What percentage differences, grade from grade, presented for the various test items, are "significant", "are beyond the chance of error in sampling?" In answer to this question, an "abac" has been devised which shows for varying percentage (multiples of five) the differences which are certainly due to causes other than sample error. According to accepted statistical procedure, three times sigma is indicative of reliability, almost complete certainty (999 chances in 1000). From the normal probability curve table, given by Rugg in his "Statistical Methods Applied to Education", page 389, one derives the fact that two times sigma gives a chance of 9546 in 10,000; that the difference is

correspondingly a true difference.

These two multiples of sigmas of a difference of percentage have been used in setting forth, for successive percentage, the amount of difference necessary for the difference to be called significant or reliable. This "abac" has been computed by means of the formulas:

$$\sigma_p = \sqrt{\frac{pq}{N}} : \sigma_{p_1 - p_2} = \sqrt{\sigma_{p_1}^2 + \sigma_{p_2}^2} \quad (1)$$

$$\sigma_{diff} = \sqrt{\sigma_{p_1}^2 + \sigma_{p_2}^2} \quad (2)$$

and with the aid of the Edgerton-Peterson tables of "Standard Errors in Percentage".

Significant differences are given for the respective percentages. Not every possible percentage was used as the sigmas of proportion varied but slightly from per cent to per cent. Every fifth per cent was used inasmuch as the degree of difference found was considered to be of sufficient statistical accuracy. Refinement of procedure would have resulted in no more meaningful data.

(For differences for percentages, see following page)

- (1) Edgerton, H. A.; Jo. of Ed. Psy. Feby 1927, pg 127
 (2) Edgerton-Patterson: Jo. of App. Psy. Sept 1926, pg 390

<u>Percentage</u>	<u>Difference</u> <u>must be</u>	<u>For 2 differ.</u> <u>difference</u> <u>must be</u> (98 chances in 100)	<u>For 3 diff.</u> <u>difference</u> <u>must be</u> (99.9 chances in 100)
95 or 5	.016	3.3	4.8
90 or 10	.021	4.2	6.3
85 or 15	.024	4.8	7.1
80 or 20	.027	5.4	8.1
75 or 25	.029	5.8	8.7
70 or 30	.030	6.0	9.0
65 or 35	.031	6.2	9.3
60 or 40	.032	6.4	9.6
55 or 45	.033	6.6	9.9
50 or 50	.033	6.6	9.9

The Per Cent of Correct Response by Sex

The following pages of Table VII present the per cent of correct response by grade and sex.

(Table VII follows)

Table VII. Per Cent of Correct Response by Sex.
A. Political

Questions Referring to:	Sex	Grades				
		5th	6th	7th	8th	9th
Coroner	G	13.9	31.2	49.5	65.8	80.1
	B	21.1	46.7	63.2	69.2	84.8
Fire Department	G	57.8	59.6	74.2	82.5	89.2
	B	73.0	82.7	90.0	94.5	95.8
Plain Clo. Man	G	27.7	41.2	44.7	56.0	72.6
	B	40.3	52.9	65.6	67.6	86.0
Council	G	46.8	45.2	56.8	64.3	64.7
	B	55.0	64.2	63.6	80.5	83.3
City Ordinance	G	32.5	35.4	47.1	91.0	88.5
	B	38.3	48.7	63.2	89.4	93.5
Municipal	G	6.3	22.0	28.5	33.9	59.7
	B	18.3	34.8	46.6	42.6	70.0
Precinct	G	8.9	15.4	25.3	20.2	56.4
	B	13.6	22.8	32.0	37.9	75.7
Sheriff	G	66.6	83.2	90.7	92.3	93.1
	B	85.0	93.9	96.0	92.1	95.0
Legislature	G	50.2	51.6	84.9	88.3	84.8
	B	55.0	67.2	88.9	91.7	91.3
Pres. Cabinet	G	18.6	16.2	19.4	41.3	47.1
	B	17.1	25.9	33.6	50.4	62.8
Citizen	G	10.1	8.1	8.0	7.4	11.6
	B	8.0	9.7	11.1	20.3	19.3
Federal	G	27.5	48.1	50.6	72.9	78.9
	B	36.7	67.2	68.8	78.5	89.3
Graft	G	16.5	30.4	40.5	49.4	58.8
	B	21.5	41.8	49.8	54.3	74.6
Cases	G	236	251	287	254	296
	B	248	255	259	255	254

Table VII presents data in the order of test items and is to be read as follows:

To the question "coroner", correct replies were made by

13.9 % of the 236 fifth grade girls

21.1 % of the 248 fifth grade boys

31.1 % of the 251 sixth grade girls

46.7 % of the 255 sixth grade boys

etc.

The number of cases for the respective grades is expressed at the bottom of the page.

Table VII continues:

Table VII. Per Cent of Correct Response by Sex.
continued A. Political (Continued)

Questions Referring to:	Sex	Grades				
		5th	6th	7th	8th	9th
Naturalization	G	11.4	33.5	50.5	87.9	99.9
	B	12.4	39.8	57.3	87.5	98.8
Tariff	G	14.3	34.7	42.5	74.3	85.8
	B	21.9	58.4	57.7	84.3	94.3
Income Tax	G	38.0	53.5	62.3	66.1	75.9
	B	48.2	61.0	67.5	73.4	91.6
Juvenile Court	G	30.7	49.3	72.4	78.6	78.7
	B	47.6	71.7	79.5	82.7	86.7

Table VII. Per Cent of Correct Response by Sex.
continued A. Political (Continued)

Questions Referring to:	Sex	Grades				
		5th	6th	7th	8th	9th
Bail	G	43.2	48.9	74.1	86.8	81.3
	B	55.7	72.0	92.0	90.0	91.1
Subpoena	G	6.3	7.5	13.5	19.1	26.4
	B	8.9	14.0	21.3	25.5	42.6
Search Warrant	G	29.4	46.6	58.5	80.2	71.3
	B	38.4	53.3	62.9	84.2	84.8
Candidate	G	42.8	67.7	83.8	90.7	96.7
	B	57.3	83.3	91.6	94.3	98.1
Polling Place	G	46.2	66.7	81.8	86.0	94.6
	B	54.5	69.7	90.0	93.1	99.2
Politics	G	29.0	51.7	71.7	83.7	90.6
	B	32.3	55.2	72.2	83.9	91.6
Political Parties	G	17.6	40.7	51.3	82.5	83.0
	B	25.9	38.9	61.3	81.1	87.8
Ballot	G	61.7	85.3	95.2	99.2	98.6
	B	75.5	93.0	97.0	98.5	98.1
Political Boss	G	14.7	18.9	18.0	16.4	28.4
	B	13.7	24.9	19.4	27.4	51.3
Political Platform	G	2.5	7.9	6.2	16.8	43.4
	B	5.2	2.7	8.9	17.8	53.2
Political Machine	G	10.1	7.1	11.1	19.5	36.7
	B	8.9	14.4	23.3	39.1	68.5
Political Conven.	G	19.3	31.2	45.3	53.3	64.7
	B	31.9	51.0	49.6	75.0	85.5
Political Ticket	G	34.5	51.8	80.0	92.2	96.0
	B	42.8	69.6	83.4	91.2	93.9
Primary Election	G	9.6	13.0	24.3	28.1	46.0
	B	16.6	23.8	36.5	51.8	65.4
City, State Ownersh.	G	.5	7.1	17.7	16.4	18.4
	B	5.5	9.3	20.2	36.0	49.8
Cases	G	236	251	287	254	296
	B	248	255	259	255	254

Table VII. Per Cent of Correct Response by Sex.
continued B. Economic.

Questions Referring to:	Sex	Grades				
		5th	6th	7th	8th	9th
Consumer	G	11.4	16.6	25.7	35.0	49.8
	B	13.5	30.6	36.7	59.7	74.8
Bankrupt	G	58.9	81.3	87.6	96.5	98.3
	B	68.2	87.0	94.0	98.0	99.2
Wholesale	G	38.1	62.8	77.9	87.5	88.8
	B	51.8	74.2	73.5	87.1	93.5
Chain Store	G	39.7	56.6	67.2	74.7	85.2
	B	41.8	60.3	73.5	81.6	91.2
Profiteering	G	6.7	13.5	26.0	20.3	34.4
	B	13.5	22.4	22.5	33.6	63.7
Charge Account	G	64.2	80.1	89.0	96.0	94.0
	B	68.5	85.0	83.5	94.1	95.0
Postal Sav. Bank	G	29.5	26.2	40.5	24.1	36.7
	B	26.7	30.6	28.7	27.0	37.9
Deposit	G	62.8	80.1	92.4	96.0	99.6
	B	69.7	85.3	92.9	98.5	100.
Investments	G	31.7	62.4	67.2	84.0	83.1
	B	50.2	73.5	76.2	88.3	90.1
Speculator	G	16.9	18.1	25.5	32.3	57.1
	B	13.9	25.1	22.2	39.8	65.9
Financier	G	10.5	22.7	40.5	62.6	76.8
	B	18.7	39.7	45.0	65.6	86.7
Postal Money Order	G	28.3	43.3	54.7	54.5	80.8
	B	35.1	52.2	64.6	70.3	91.7
Registered Mail	G	27.9	32.0	54.7	57.6	76.6
	B	35.9	52.9	64.8	70.3	81.7
Middleman	G	8.0	20.0	33.5	38.2	59.1
	B	10.7	32.5	37.3	53.1	70.0
Mortgage	G	18.6	42.4	58.2	66.1	82.2
	B	29.1	49.4	60.4	69.9	89.7
Deed	G	29.2	39.7	59.6	71.6	76.6
	B	39.0	52.2	71.9	77.3	87.0
Cases	G	236	251	287	254	296
	B	248	255	259	255	254

Table VII. Per Cent of Correct Response by Sex.
 continued B. Economic (continued).

Questions Referring to:	Sex	Grades				
		5th	6th	7th	8th	9th
Installment	G	34.0	56.4	78.6	89.2	94.5
	B	38.4	62.3	79.5	88.9	95.4
Labor Union	G	16.4	25.3	40.1	52.9	60.3
	B	21.8	33.1	47.7	50.6	66.2
Strike Breaker	G	16.4	14.2	14.2	16.4	23.0
	B	23.8	17.1	20.6	25.5	38.4
Employee	G	51.7	66.7	76.9	86.4	87.6
	B	54.5	76.7	84.2	83.5	82.1
Sweat Shop	G	20.6	24.1	36.4	48.3	63.3
	B	21.8	27.2	34.9	46.7	60.8
Seasonal Trade	G	21.0	27.3	40.1	49.8	56.3
	B	24.6	28.8	43.0	53.3	62.4
Injunction	G	8.4	11.5	18.0	27.2	30.0
	B	14.1	14.0	28.0	39.6	48.2
Boycott	G	5.9	5.1	7.9	17.1	36.7
	B	4.4	6.6	12.4	25.9	49.0
Strike	G	60.5	66.7	79.4	86.8	88.7
	B	71.8	81.7	82.2	88.0	90.4
Good Roads	G	47.5	75.8	72.8	77.1	89.3
	B	50.4	63.8	69.8	82.3	94.8
Transportation	G	37.8	47.7	46.4	65.0	61.0
	B	52.9	61.8	62.4	77.7	79.1
Freight vs. Express	G	37.8	42.2	48.4	56.0	63.7
	B	50.4	64.6	74.8	80.4	83.6
Stocks	G	23.1	45.7	55.4	70.6	79.6
	B	35.9	61.9	75.2	83.8	89.5
Telephone-Telegra.	G	68.4	85.7	92.4	95.7	93.0
	B	73.5	87.2	96.6	97.0	92.4
Conservation	G	12.2	12.2	12.1	15.2	37.6
	B	8.9	10.9	15.9	20.5	43.3
Natural Resources	G	18.1	58.5	73.5	94.6	89.7
	B	26.2	69.2	81.9	96.8	91.2
Cases	G	236	251	287	254	296
	B	248	255	259	255	254

Table VII. Per Cent of Correct Response by Sex.
C. Social

Questions Referring to:	Sex	Grades				
		5th	6th	7th	8th	9th
Divorce	G	83.5	92.4	96.6	98.0	97.7
	B	86.9	92.0	94.0	96.9	96.9
Budget	G	18.6	38.9	66.9	75.1	91.0
	B	14.3	32.9	48.6	56.6	67.4
Slums	G	46.5	68.5	83.4	91.5	98.0
	B	45.8	71.9	84.9	91.8	96.4
Urban	G	12.7	10.8	14.5	19.5	36.0
	B	15.5	20.5	11.1	22.8	39.0
Rural	G	13.5	30.1	52.0	60.3	82.8
	B	17.9	43.3	57.7	71.9	90.8
Tenements	G	41.8	80.4	84.1	90.7	97.3
	B	43.0	68.8	80.6	89.9	93.4
Suburbs	G	43.1	67.7	79.3	89.9	95.7
	B	55.4	80.8	87.7	94.5	96.0
Pauper	G	23.7	45.8	68.2	86.3	99.3
	B	23.5	47.5	68.0	72.3	95.4
Immigrant	G	31.7	79.7	90.0	97.3	99.0
	B	48.6	80.0	90.0	96.1	98.0
Illiterate	G	9.3	16.2	29.6	40.2	62.1
	B	14.7	25.1	41.5	48.8	71.9
Race Hatred	G	14.8	21.2	29.6	40.2	59.4
	B	16.7	23.6	38.3	46.9	62.4
Employers-Immigr.	G	15.2	24.7	39.6	54.0	68.3
	B	25.1	42.9	54.1	74.5	82.9
Americanization	G	43.1	66.2	75.8	84.5	97.3
	B	42.6	66.5	76.2	82.4	95.0
Felony	G	10.1	7.7	11.8	13.6	16.8
	B	15.9	12.6	11.1	14.8	26.5
Criminal-Education	G	25.3	43.5	47.2	46.7	54.8
	B	28.7	36.8	46.6	41.0	64.9
Propaganda	G	6.7	13.9	20.1	15.6	39.2
	B	11.9	24.6	25.6	29.3	54.1
Cases	G	236	251	287	254	296
	B	248	255	259	255	254

Table VII. Per Cent of Correct Response by Sex.
continued C. Social (continued)

Questions Referring to:	Sex	5th	6th	7th	8th	9th
Epidemic	G	24.3	46.9	73.4	86.8	91.3
	B	25.0	49.8	78.7	84.3	89.3
Quarantine	G	25.2	76.2	93.5	96.0	95.3
	B	60.5	79.0	93.1	93.9	94.6
Inspection-Markets	G	75.6	86.5	93.2	97.3	95.6
	B	77.0	85.3	95.3	97.0	95.0
Contagious	G	34.0	49.9	65.4	73.6	75.0
	B	34.7	50.6	66.3	70.7	77.2
Schools-Blind	G	61.7	75.4	76.5	81.3	78.3
	B	61.7	62.2	73.3	79.6	73.8
Reason for Schools	G	85.3	88.8	90.3	87.5	86.3
	B	87.6	89.5	92.7	94.7	88.2
Lawyer-Doctor Educ.	G	50.2	60.0	77.2	76.7	80.0
	B	59.3	70.8	80.3	89.2	81.0
Vocational Education	G	10.5	13.8	23.2	40.1	48.0
	B	10.5	11.3	20.9	43.3	42.6
Compul. School Law	G	26.5	36.5	60.3	75.5	78.6
	B	29.9	44.7	60.9	72.3	81.3
Recreation	G	10.1	30.1	45.7	70.8	88.0
	B	10.5	25.7	41.1	66.8	81.3
Poverty	G	19.3	53.7	68.2	89.2	86.6
	B	21.0	57.2	73.3	82.7	84.0
National Church	G	27.8	43.8	69.6	76.7	78.0
	B	34.3	46.7	72.9	79.6	84.8
Good Morals	G	68.8	80.2	84.1	89.9	82.7
	B	63.3	75.0	80.3	82.3	81.1
Blind Alley Job	G	14.7	20.5	35.0	44.4	87.0
	B	16.1	28.5	46.5	58.4	86.3
Census	G	8.4	32.8	58.2	84.1	79.8
	B	12.5	42.0	76.0	80.8	87.4
Aliens	G	15.1	21.3	32.9	50.2	64.3
	B	12.9	21.8	31.5	54.5	63.1
Cases	G	236	251	287	254	296
	B	248	255	259	255	254

Table VIII shows in terms of percentage differences the instances in which the civic knowledge possessed by one sex equals or exceeds that possessed by the other. All differences which are significant have been asterisked.

(Table VIII follows)

Table VIII. The Difference in Per Cent of Correct Replies in which Boys Exceed Girls or Girls Exceed Boys. Political

Questions Referring to:	5th Grade		6th Grade		7th Grade		8th Grade		9th Grade	
	B	G	B	G	B	G	B	G	B	G
Coroner	7.2		*15.3		*13.7		3.4		4.7	
Fire Department	*15.2		*23.1		*15.8		*12.0		6.6	
Plain Clothes Man	12.6		11.7		*20.9		11.6		*13.4	
Council	8.2		*19.0		6.8		16.2		*18.6	
City Ordinance	5.8		*13.3			1.6			5.0	
Municipal	*12.0		*12.8		*18.1		8.7		10.3	
Precinct	4.7		7.4		6.7		*17.7		*18.3	
Sheriff	*18.4		10.7		5.3				2.9	
Legislation	4.8		*15.6		4.0		3.4		6.5	
President's Cabinet		1.5	9.7		*14.2		9.1		*15.7	
Citizen		2.1	1.6		3.1		*12.9		7.7	
Federal	9.2		*19.1		*18.2		5.6		*10.4	
Graft	5.0		11.4		9.3		4.9		*15.8	
Naturalization	1.0		6.3		6.8			.4		1.1
Tariff	7.6		*23.7		*15.2		10.0		*8.5	
Income Tax	10.2		7.5		5.2		7.3		*15.7	
Juvenile Court	*16.9		*22.4		7.1		4.1		8.0	
Bail	12.5		*23.1		*17.9		3.2		*9.8	
Subpoena	2.6		6.5		7.8		6.4		*16.2	
Search Warrant	9.0		6.7		4.4		4.0		*13.5	
Candidate	*14.5		*15.6		*7.8		3.6		1.4	
Polling Place	8.3		3.0		8.2		7.1		4.6	
Politics	3.3		3.5		.5		.2		1.0	
Political Parties	8.3			1.8				1.4		.5
Ballot	*14.2		7.7		10.0			.7		
Political Boss		1.0	6.0		1.8		11.0		*22.9	
Political Platform	2.7			5.2	1.4		1.0		9.8	
Political Machine		1.2	7.3		2.2		*19.6		*31.8	
Political Convention	*12.6		*19.8		4.3		*21.7		*29.8	
Political Ticket	8.3		*17.8		4.3			1.0	*19.4	2.1
Primary Election	7.0		*10.8		*12.2		*23.7		*31.4	
City, State Ownership	5.0		2.2		2.5		*19.6			

Table VIII. The Difference in Per Cent of Correct Replies in which Boys Exceed Girls or Girls Exceed Boys. Economic

Questions Referring to:	5th Grade			6th Grade			7th Grade			8th Grade			9th Grade		
	B	G		B	G		B	G		B	G		B	G	
Consumer	2.1			*14.0			11.0			*24.7			*25.0		
Bankrupt	9.3			5.7			*6.4			1.5			.9		
Wholesale	*13.7			11.4		4.4							4.7		
Chain Store	2.1			3.7			6.3			6.9			6.0		
Profiteering	6.8			*8.9		3.5				*13.3			*19.3		
Charge Account	4.3			4.9		5.5							1.0		
Postal Savings		2.8		4.4		11.8				2.5			1.2		
Deposit	6.9			5.2			.5			2.5			1.4		
Investments	*18.5			11.1			9.0			4.3			7.0		
Speculator		3.0		7.0		3.3				7.5			8.8		
Financier	8.2			*17.0			4.5			3.0			*9.9		
Postal Money Order	6.8			8.9			9.9			*15.8			*10.9		
Registered Mail	8.0			*20.9			10.1			12.7			3.1		
Middleman	2.7			*12.5			3.8			*14.9			10.9		
Mortgage	10.5			7.0			2.2			3.8			7.5		
Deed	9.8			12.5			*12.3			5.7			*10.4		
Installment	4.4			5.9			8.4						9.9		
Labor Union	5.4			7.9			6.4						5.4		
Strike Breaker	7.4			2.9			7.3			9.1			*15.4		
Employees	2.8			*10.0						2.3			5.9		
Sweat Shop	1.2			3.1		1.5				2.9					
Seasonal Trade	3.6			1.5			2.9			1.6			6.1		
Injunction	5.7			2.5			*10.0			3.5			*18.2		
Boycott		1.5		1.5			4.5			*12.4			*12.3		
Strikes	11.3			*15.0			12.8			1.2			1.7		
Good Roads	2.9				12.0					5.2			5.5		
Transportation	*15.1			*14.1			*16.0			5.7			*18.1		
Freight vs. Express	12.6			*22.4			*26.4			*24.4			*19.9		
Stocks	*12.8			*16.2			*19.8			*13.2			*9.9		
Telephone-Telegr.	5.1			1.5			*4.2			1.3			*9.9		
Conservation		3.3					3.8			5.3			5.7		
Natural Resources	8.1			10.7			8.4			2.2			1.5		

.6

Table VIII. The Difference in Per Cent of Correct Replies in which Boys Exceed Girls or Girls Exceed Boys. Social

Questions Referring to:	5th Grade		6th Grade		7th Grade		8th Grade		9th Grade	
	B	G	B	G	B	G	B	H	B	G
Divorce	3.4	4.3		4.4		2.6		1.1		.8
Budget		.7		6.0		*18.5		*18.5		*22.6
Slums			.3		1.5		.3			1.6
Urban	2.8		*9.7				3.3		3.0	
Rural	4.4		*13.2		5.7		11.6		8.0	
Tenements	1.2			11.6				.8		3.9
Suburbs	12.3		*13.1		8.4		4.6		.3	
Pauper		.2	1.7					*14.0		3.9
Immigrant	*16.9				0.0			1.2		1.0
Illiterate	5.4		8.9		11.9		8.5		9.8	
Race Hatred	1.9		2.4		8.7		.7		3.0	
Employers-Immigrant	9.9		*18.2		*14.4		*20.5		*14.6	
Americanization		.5	3.3		.4			2.1		2.3
Felony	5.8		4.9				1.2		9.7	
Criminal-Education	3.4			6.7				5.7	10.1	
Propaganda	5.2		*10.7		5.5		*13.7		*14.9	
Epidemic	.7		2.9		5.3			2.5		2.0
Quarantine	*35.3		2.8					2.1		.6
Inspection-Markets	1.4			1.2	2.1			3.9		
Contagious	.7		.7	13.2	.9			1.7	2.2	4.5
Schools-Blind	.0								1.9	
Reason for Schools	2.3				2.4				1.0	
Lawyer-doctor Educ.	9.1		10.8	2.5	3.1		*12.5			5.4
Vocational Education							3.2		2.7	
Compulsory School Law	3.4		8.2	4.4	.6			3.2		6.7
Recreation	1.7		3.5		5.1			4.0		2.6
Poverty	6.5		2.9		3.3			6.5		
National Church		5.5		5.2			2.9	7.6	6.8	1.6
Good Morals	1.4		8.0		*11.5					.7
Blind-Alley Job	4.1		9.2		17.8		*14.0		7.6	
Census		2.2	.5					3.3		1.2
Alien							4.3			

From the foregoing Table VIII, it is interesting to note that of all responses in the five grades the girls are exceeded by the boys in practically every instance and in the proportions as indicated below:

Political Economic Social
(32 questions in each division)

Fifth Grade

Boys exceeded	28	28	24
Girls exceeded	4	4	8

Sixth Grade

Boys exceeded	31	30	23
Girls exceeded	1	2	9

Seventh Grade

Boys exceeded	32	25	21
Girls exceeded	0	7	11

Eighth Grade

Boys exceeded	26	26	15
Girls exceeded	6	6	17

Ninth Grade

Boys exceeded	29	30	16
Girls exceeded	3	2	16

This tabulation brings to light the interesting fact that, with reference to the social aspect of community civics, there is a decreasing proportion in the number of cases wherein the boys exceed the girls,

as pupils progress through the grades.

For the reader who prefers graphical presentation of data, a series of graphs has been prepared which gives, at a glance, the basic information incorporated in Table VII and Table VII. The graphs show exactly how near to significance certain differences are, as well as those that are more or less significant. These graphs are included in Appendix B.

Significance of Sex Differences

In accordance with the statistical procedure explained on page 54, calculations were made to discover which of the differences are actually significant. They have been starred in Table VIII. The girls equalled or excelled over the boys in 101 cases, but the differences in favor of the girls are significant in regard to only four questions, namely:

1. Postal Savings - 7th Grade.
2. Budget - 7th Grade.
3. Budget - 8th Grade.
4. Pauper - 8th Grade.

On the other hand, the boys equalled or exceeded the girls in all other cases, and the differences were

found to be significant in 110 of these instances. The items found significant are starred in Table VIII.

Summary and Conclusions

There is little or no differentiation of knowledge found between the three phases of civic topics - political, economic, and social.

Certain topics, such as "fire department", "sheriff", "charge account", "divorce", "reason for schools", come into the child's vocabulary and understanding of civics topics at a relatively early (5th Grade) school experience.

Certain topics such as "cornner", "council", "ordinance", "municipal", "political platform", come into the child's vocabulary only with progression through the upper grades.

Certain topics such as "naturalization", "political parties", "financier", "Americanization", take on significance in a more or less progressive order as the child passes from grade to grade.

In only four instances do the girls significantly exceed the boys in their knowledge of civic matters.

In a relatively long list of topics do the boys exceed the girls in their civic information.

In terms of social civics, there is a decreasing proportion of the number of cases wherein the boys significantly exceed the girls as the grade designations increase.

Chapter IV

SOURCES OF CIVIC INFORMATION

A pertinent and interesting query is, "From what sources do school children derive their information?"

The popular mind would naturally solve this question by answering, "The major portion of pupil's information is derived from school study."

Burton, in his discussion of certain results of personal interviews ¹ hinted at such sources as "home discussions", "moving pictures", "outside reading", etcetera, but in no case did he give any quantitative statement as to the relative importance of the various sources. His thesis does not attempt to make such an estimate.

Subjects for the Interviews

In a limited way, this study does attempt to throw some light upon the relative importance of certain

¹ Burton, W.H. loc. cit.

sources of civic information possessed by school children.

This attempt was accomplished through individual interviews, wherein 257 children were asked to respond to twelve selected questions. These pupils were chosen from the various grades on a basis of total score value, in accord with the statement given below. This was done for the purpose of selecting pupils representative of the extremes as well as the medians of the grade groups. Score values were chosen with the hope that approximately the same number of pupils should represent each group.

The following table presents the classification of the 257 pupils:

(Table IX follows)

Table IX. Classification of the Cases Used in
the Personal Interviews.

For Fifth Grade Children:

Girls who made a total score of 50 or above	5	
Girls who made a total score of 12 or below	11	
Girls who made a total score of 28 or 29	15	
Boys who made a total score of 57 or above	10	59
Boys who made a total score of 16 or below	12	
Boys who made a total score of 33 or 34	6	

For Sixth Grade Children:

Girls who made a total score of 61 or above	7	
Girls who made a total score of 23 or below	12	
Girls who made a total score of 41	7	
Boys who made a total score of 69 or above	9	57
Boys who made a total score of 26 or below	9	
Boys who made a total score of 47 or 48	13	

For Seventh Grade Children:

Girls who made a total score of 73 or above	11	
Girls who made a total score of 30 or below	14	
Girls who made a total score of 51 or 52	15	
Boys who made a total score of 80 or above	11	74
Boys who made a total score of 34 or below	12	
Boys who made a total score of 57 or 58	11	

For Eighth Grade Children:

Girls who made a total score of 80 or above	9	
Girls who made a total score of 40 or below	8	
Girls who made a total score of 61	11	
Boys who made a total score of 86 or above	12	67
Boys who made a total score of 40 or below	15	
Boys who made a total score of 65 or 66	12	257

Questions Used in the Interview

There was no special criterion for the selection of these twelve questions except that four questions were chosen from each of the aspects of community civics - political, economic and social. Furthermore, the questions ranged in increasing order from the "least known" to the "most known" on the basis of their differentiated values.¹ A much more fortunate selection of questions for this special (oral) test might have been made. However, the great number of possible combinations made the best choice of specific questions a relative impossible matter. In all probability, any one combination would prove as valuable as another for the purpose of this study. Data given represent the percent correct of total responses.

¹ See "deed", "illiterate", "stocks", "mortgages", "naturalization", "tenement."

Questions Chosen for the Personal Interview.

Percentage Correct of Response for the Various

Grades

	<u>5th</u>	<u>6th</u>	<u>7th</u>	<u>8th</u>	<u>9th</u>
What is a felony?	13.1	9.8	11.4	14.2	21.3
What is conservation?	10.5	11.6	13.9	17.8	40.3
What is a precinct?	11.3	19.1	28.4	29.1	65.3
What is an illiterate person?	12.1	20.6	35.6	44.7	66.6
What does a deed to property show?	34.2	45.8	65.3	74.3	81.5
When we speak of stocks and bonds, what is meant by stocks?	29.6	53.9	64.6	77.0	84.2
Why do people put mortgages on their property?	23.9	45.8	59.1	67.9	85.7
What is meant by naturalization?	11.9	36.6	53.6	87.7	99.3
What is a tenement?	49.3	74.2	83.2	92.2	95.9
What is a state legislature?	52.6	59.4	86.6	90.0	87.7
What county officer is most nearly like a chief of police?	75.9	88.5	93.2	92.2	93.8
What is a divorce?	85.0	92.2	95.3	97.4	97.4

Method of Individual Interview

In the main, the personal interviews were carried on by two people. First, a person of long experience as a teacher, principal and supervisor, who is thoroughly

conversant with modern theories and practices; second, the writer, who has had fourteen years of experience as teacher, principal, superintendent and director of research, during which time he has had experience with the giving of several hundreds of individual examinations. From this experience, there has been carried into this investigation the careful technique of the individual examination.

In a very limited number of cases, various teachers have contributed to the results which are presented in the following pages. Two teachers, of wide experience, especially in the field of civics, obtained the results of personal interviews for the pupils of their rooms. In two other cases, teachers have added to the results by presenting data from a few cases in which they were personally interested. In all such cases, the writer was assured that the results could be considered reliable before they were incorporated into the final totals.

In almost every case (the exception being limited to two or three minor interruptions) the interviews carried out by the first two investigators were done under ideal conditions. In all but one school, a quiet room was

provided (usually the doctor's or the nurse's office). In practically every interview, complete report was secured, for the pupils were of the normal type and were much interested in the problem and so gave freely of their time, attention and information. The interest on the part of the principals and teachers was marked and facilitated the work.

The twelve questions were presented to the pupils one at a time with the supplementary remark: "What is the answer to this question?" If a clearly incorrect answer was given, wherein the pupil displayed total ignorance, or such a statement given as "I don't know that one", a check was placed under the column, No Answer Given. If a partially correct answer was given, the pupil was encouraged further by the suggestion, "What else might it mean?" "Tell me something more about the word." In many cases the pupil had a "halo" of information about the word which could not be pinned down to a specific definition or meaning, but which, nevertheless, indicated that their knowledge of the term was sufficient enough, although hazy, to be included in the final tabulations.

In such a case, and whenever a clearly correct answer was given, the pupil was asked further, "How do

you know that is the right answer?" "Where did you get that information?" or "Where did you find out about that fact?"

The pupil was urged to give as many responses to a given stimulus as possible, in the hope that the responses would bring out the actual sources of information.

As the responses were given, the source of information was determined and classified under four major headings. If a dual or triple classification could be made of the answer or answers, a proportional value was assigned to the various classifications. For instance, if a response to the word "stocks" indicated that the child had received the information from "magazine advertisements", "home discussions", and "school arithmetic", a value of one-third was given under the three headings, "General Reading, Home and School".

The four major headings used in the classification are:

1. Outside Contacts: Movies, street companions, bill boards, poster advertisements, indefinites.
2. General Readings: Magazines, newspapers, stories, books.
3. Home Influence: Family discussions, information received from the family or immediate relations.
4. School Influence: Classroom discussions, teacher, schoolbooks, dictionaries.

Illustrations are given to indicate the method of classification. In a few cases it was difficult to classify the sources of information. Such replies as the following were classified under

Outside contacts:

"Used to hear people say"

"Heard grown people talk"

"Heard it outside somewhere"

"I don't know where I got it"

"I heard them talking about that on the street"

To illustrate:

Mortgage: "Last year father mortgaged the house to build a garage and he needed money".
Classified under #3

"Heard a rag-man say that a Jew had a mortgage on his house. They can borrow money on property."
Classified under #1

"I read that in a book, 'Herbert Carter's Legacy'".
Classified under #2

Divorce: "Like if mother and dad went to court and quit living together. I heard that at home."
Classified under #3

"My mother and father are divorced."
Classified under #3

"I seen that word in the newspaper."
Classified under #2

"My sister got a divorce last week."
Classified under #3

Divorce(cont.):

"I saw that in the movies."
Classified under #1

"I read it in the Remus trial
and asked my dad what it meant."
Classified under #2 and #3

Precinct:

"We had that in spelling and I
looked it up in the dictionary."
Classified under #4

"We talked about that in civics
when we had the elections."
Classified under #4

"I saw that on the automobiles."
(election posters)
Classified under #1

Sheriff:

"I know, I had that in a 'cow-boy'
book".
Classified under #2

"I saw that on the automobile
signs (posters) against the Marshall
Bill."
Classified under #1

"My brother was arrested by a sheriff
when we lived in the country."
Classified under #3

"I saw that in a 'Western' picture".
Classified under #1

Deed:

"A piece of paper which shows that
you own your house. My father has
one".
Classified under #3

"My sister has a deed to some property
in Wisconsin."
Classified under #3

Stocks:

"My sister has some stock in Krogers".
Classified under #3

"We had that in arithmetic and teacher
told us."
Classified under #4

Stocks (cont.):

"My father has some stocks in Krogers."

Classified under #5

Tenement:

"I saw that in the movies in a picture of a wash out on the line in the alley."

Classified under #1

"We used to live in one down in the city."

Classified under #3

It may be a matter of pedagogical criticism that the classification does not give enough credit to the value of school training. Much of the information called for in the answers to the twelve questions has been discussed in the school room, but the replies of the pupils show quite conclusively that the information which they possess is in large measure tied up, psychologically, with out-of-classroom interests. The personal interview was in the nature of an association test in that it "dips into the general mass of the individual's associations formed at various times under varying conditions; with varying degrees of frequency, recency, vividness, emotional and intellectual values; and all of these conditions vary from one another." ¹ It may be said then that the responses of the pupils are weighed with the most significant

1 - Wells and Woodworth - "Association Method" Psychological Monograph #57, 1911.

connections. It is these connections that give evidence of the most important and outstanding sources of information. Although pupils are not able to give specifically the one source from which they get a bit of information, the answers given indicate the major connection, and in all probability the major sources.

For instance, this response to the question, "What is a mortgage?" given by a seventh grade boy: "Last year my father mortgaged the house to build a garage and he needed money." Although the child may have heard the word mortgage many times in his reading and arithmetic in school, the contact which made the strongest association was an out-of-school contact of a year ago. The principle of association follows here. The most immediate response may indicate the stronger neural connections.

Results of the Personal Interviews

The following pages present tables and graphs which give in terms of per cent correct of all responses the proportion of correct replies classified according to certain sources of information.

Table Xa is to be read as follows:

Of the fifty-nine replies made, 93.3% were incorrect, 6.7% were correct. The information for these correct answers was gathered from sources indicated respectively under the headings: "street", "reading", "home" and "school".

Table Xa. Per Cent Correct of Total Responses to Twelve Questions, Classified According to Certain Sources.

Fifth Grade						
<u>Questions</u>	<u>Cases</u>	<u>Total</u> <u>correct</u>	Per Cent of Correct Answers Derived			
			St.	R'g	Home	School
Felony	59	6.7	0.8	2.5	3.4	0.0
Conservation		3.4	0.0	0.8	0.0	2.1
Precinct		10.0	0.0	0.0	6.7	3.4
Illiterate		10.0	0.0	1.7	5.1	3.4
Deed		39.0	0.0	4.7	25.1	9.0
Stocks		23.7	0.0	2.1	21.2	0.0
Mortgage		25.4	2.1	5.1	17.0	0.8
Naturalization		17.0	2.1	6.8	4.4	3.4
Tenement		51.0	11.5	7.6	16.0	16.0
Legislature		39.0	0.8	5.6	4.7	27.6
Sheriff		51.0	22.9	11.8	11.8	4.2
Divorce		91.5	7.8	39.4	44.4	0.0
Totals	708					
Percentage (all replies)	100	30.7	4.1	7.4	13.3	5.8
Percentage (correct replies)		100.0	13.2	23.7	42.9	19.3

14 % is a significant difference

(3 x 6)

7 % is a related significant difference

(2 x 6)

Percents - - - - - 0 10 20 30 40 50 60 70 80 90 100

FELONY

18 Street
2.1 Reading
3.4 Home
0.0 School

CONSERVATION

0.0 Street
.8 Reading
0.0 Home
2.1 School

PRECINCT

0.0 Street
0.0 Reading
6.7 Home
3.4 School

ILLITERATE

0.0 Street
1.7 Reading
5.1 Home
3.4 School

DEED

.01 Street
4.7 Reading
25.1 Home
9.0 School

STOCKS

.01 Street
2.1 Reading
21.2 Home
.01 School

Graph IV-A (continued)

14% is a significant difference (3 x o)
7% is a significant difference (2 x o)

Percents - - - - 0 10 20 30 40 50 60 70 80 90

MORTGAGE 25.4

Street 2.1

Reading 5.1

Home 17.0

School 0.8

Naturaliztn 17.0

Street 2.1

Reading 6.8

Home 4.4

School 3.4

TENEMENT 51.0

Street 11.5

Reading 7.6

Home 16.0

School 16.0

LEGISLATURE 39.0

Street 0.8

Reading 5.6

Home 4.7

School 27.6

SHERIFF 51.0

Street 22.9

Reading 11.8

Home 11.8

School 4.2

DIVORCE 91.5

Street 7.8

Reading 39.4

Home 44.4

School 00.0

The data in the foregoing table and graphs indicate the following outstanding conclusions:

The influence of home contacts is greatest in forming the child's concept of such matters as "deed", "stock", and "mortgage".

The influence of the "street" is greatest in establishing concepts regarding "sheriff" and the like.

For the idea of "divorce", the child gets his concept largely from general reading and the home.

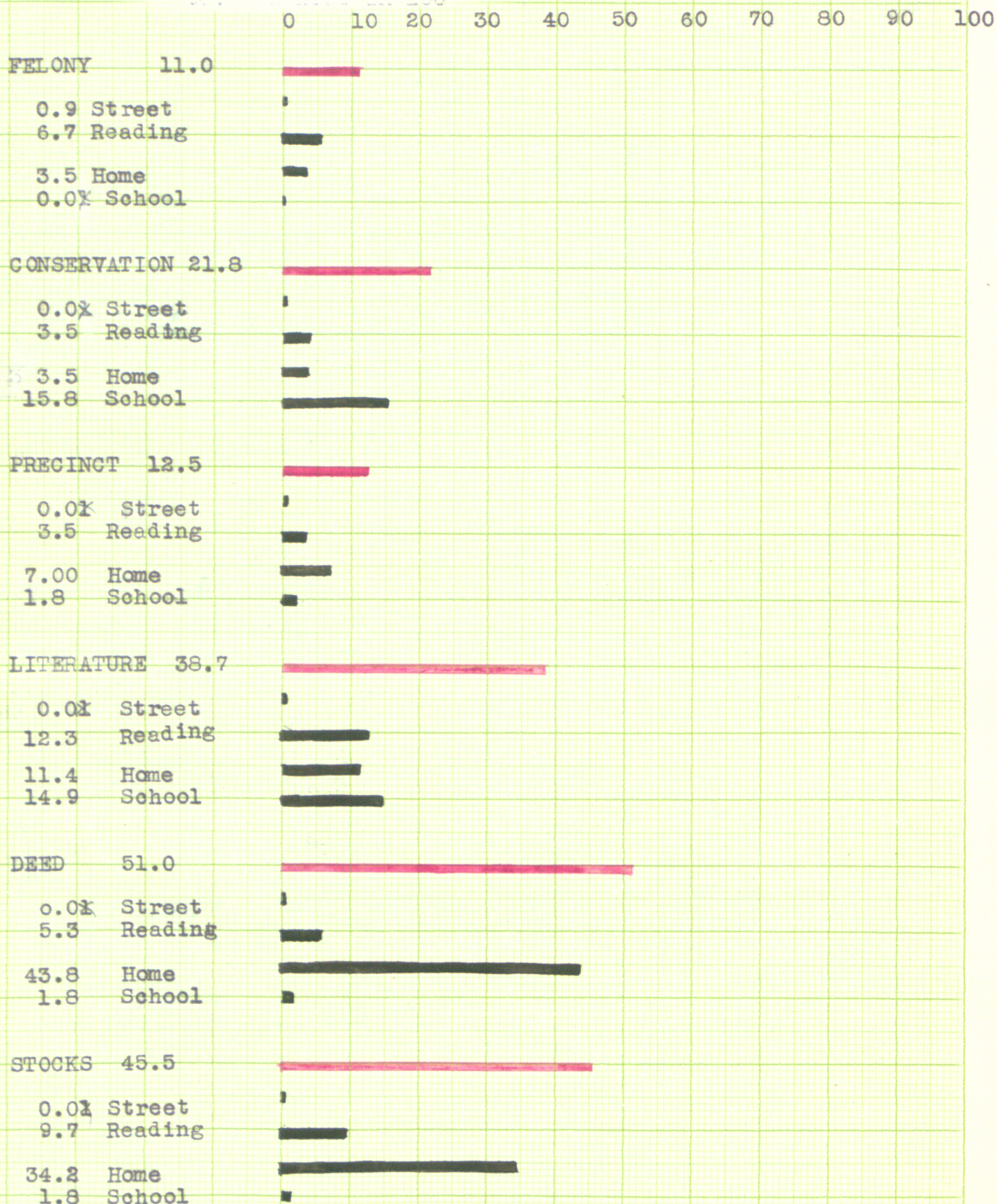
It is significant that 42.9% of the civic information of the fifth-grade child comes from home influences, while only 19.3% is derived from the school.

(Table Xb follows)

Table Xb. Per Cent Correct of Total Responses to
Twelve Questions Classified According to
Certain Sources of Information.

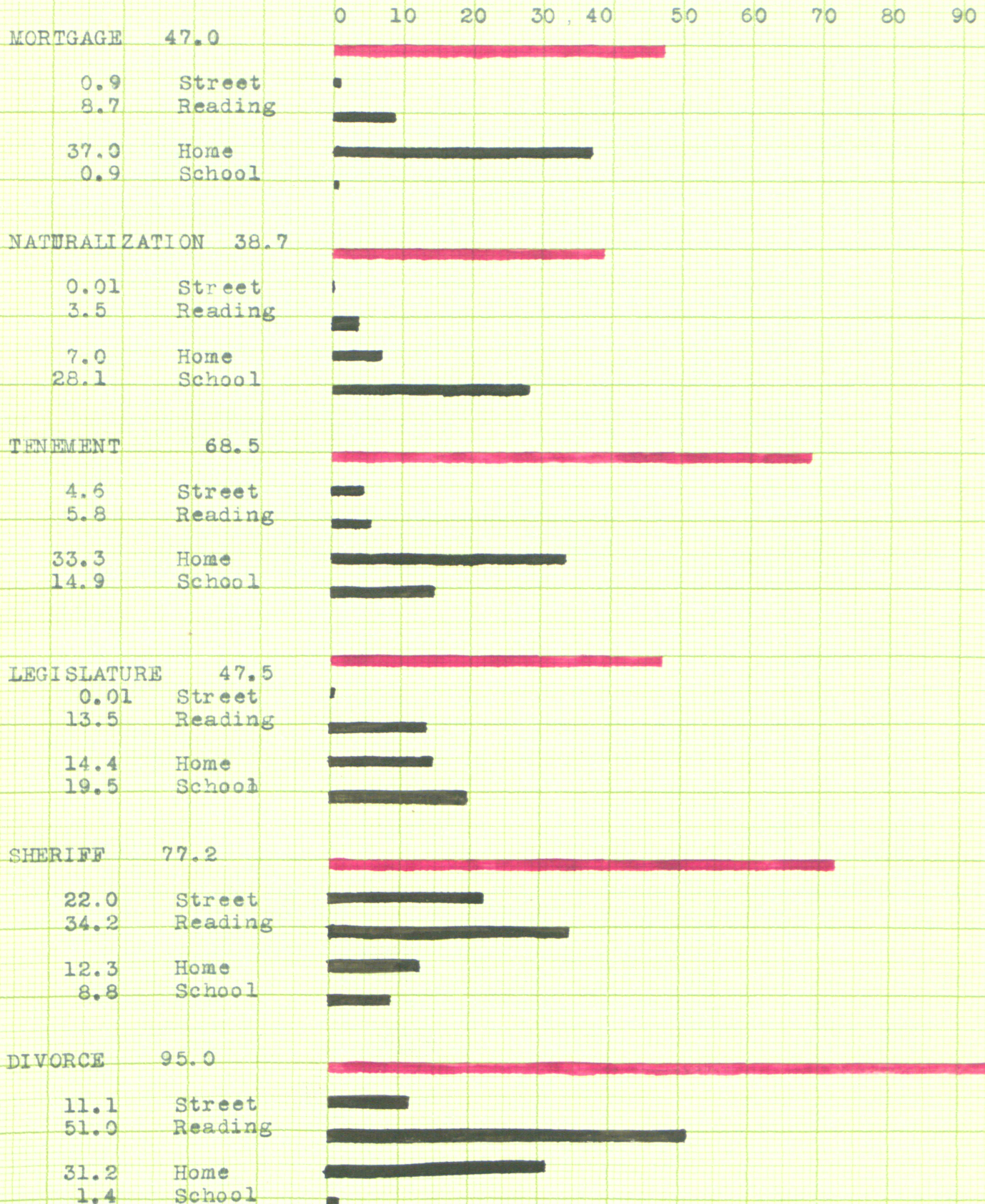
Sixth Grade						
<u>Questions</u>	<u>Cases</u>	<u>Total Correct</u>	<u>Per Cent of Correct Answers Derived</u>			
			<u>St.</u>	<u>R'g</u>	<u>Home</u>	<u>School</u>
Felony	57	11.0	0.9	6.1	3.5	0.0
Conservation		21.8	0.0	3.5	3.5	15.8
Precinct		12.5	0.0	3.5	7.0	1.8
Illiterate		38.7	0.0	12.3	11.4	14.9
Deed		51.0	0.0	5.3	43.8	1.8
Stocks		45.5	0.0	9.7	34.2	1.8
Mortgage		47.4	0.9	8.7	37.0	0.9
Naturalization		38.7	0.0	3.5	7.0	28.1
Tenement		68.5	4.6	5.8	33.3	14.9
Legislature		47.5	0.0	13.5	14.4	19.5
Sheriff		77.2	22.0	34.2	12.3	8.8
Divorce		95.0	11.1	51.0	31.2	1.4
Totals	684					
Percentage (all replies)	100	46.3	3.3	13.9	19.9	9.2
Percentage (correct replies)		100.0	7.1	29.9	42.4	20.2

7 % significant (2 X 0) 98.8 chances in 100
 14 % significant (3 X 0) 99.9 chances in 100



Graph IV-B (continued)

7 % significant difference (2 0) 98.8 chances in 100
 14 % significant difference (3 0) 99.9 chances in 100



Significant points of Table Xb and graphs IVb are as follows:

The term "illiterate" receives its meaning in almost equal proportion from the three "sources" - general reading, home, and school.

As in the fifth grade, so in the sixth, the words "deed", "stocks", and "mortgage" get their meaning from the home influences.

"Divorce" gets its meaning most largely from general reading and home.

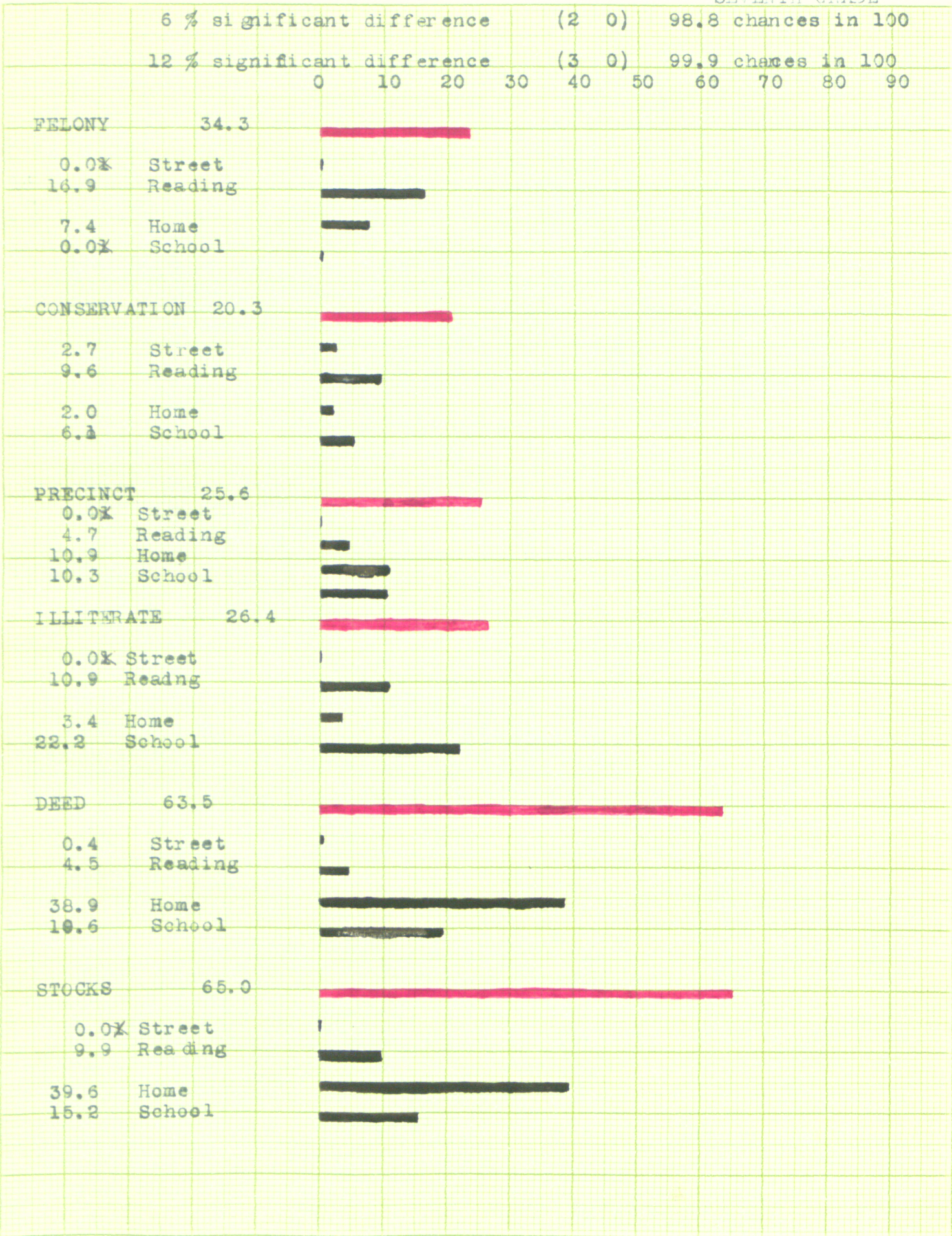
The concept of naturalization comes from the school in the proportion of 28.1 of the 38.7% of correct replies.

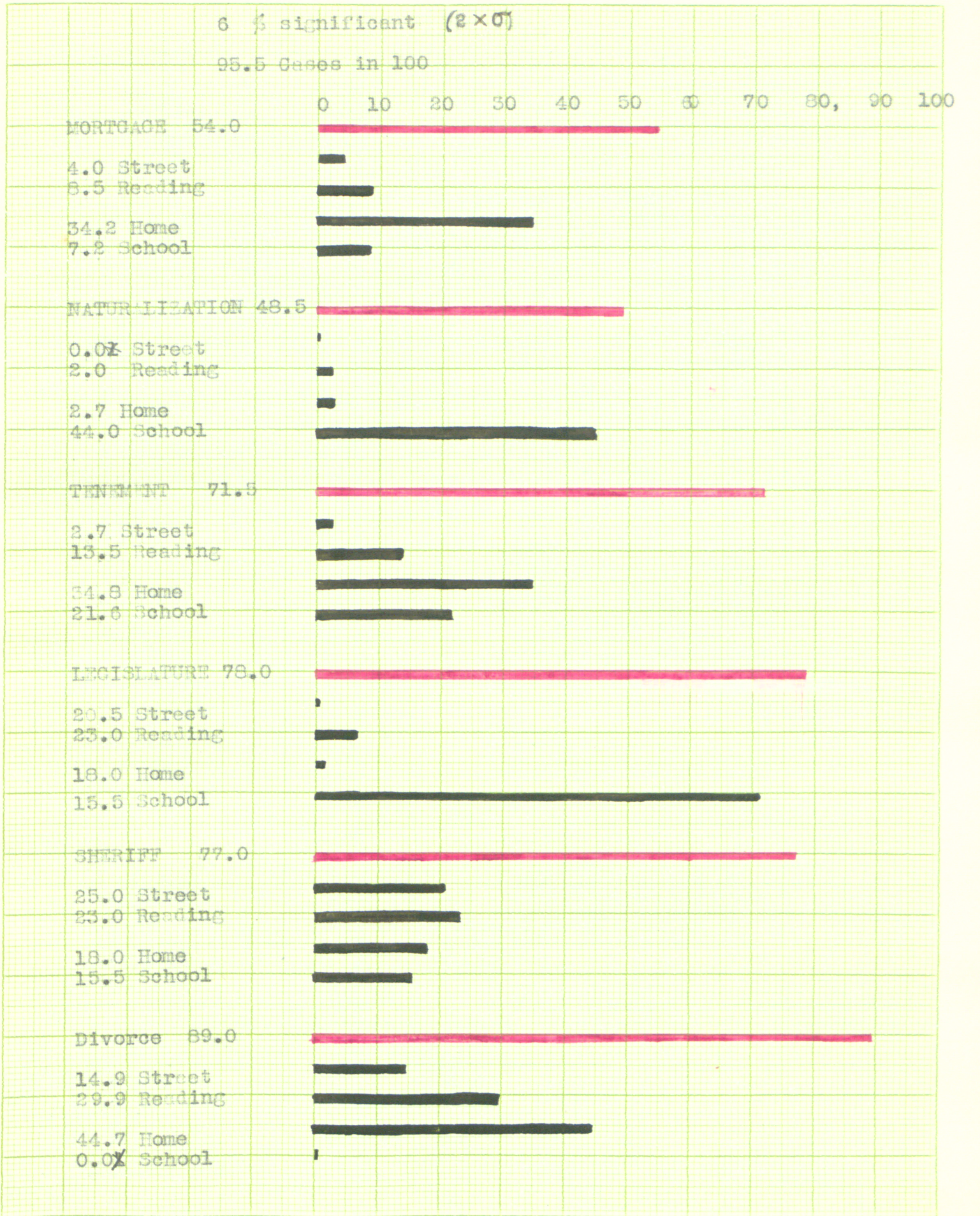
42.4% of the total correct replies are influenced by home contacts.

(Table Xc follows)

Table Xc. Per Cent Correct of Total Responses to
Twelve Questions Classified According to
Certain Sources.

Seventh Grade						
<u>Questions</u>	<u>Cases</u>	<u>Total Correct</u>	<u>Per Cent of Correct Answers Derived</u>			
			<u>St.</u>	<u>R'g</u>	<u>Home</u>	<u>School</u>
Felony	72	24.3	0.0	16.9	7.4	0.0
Conservation		20.3	2.7	9.5	2.0	6.1
Precinct		25.6	0.0	10.9	3.4	22.2
Illiterate		26.4	0.0	4.7	10.9	10.3
Deed		63.5	0.4	4.5	38.9	19.6
Stocks		65.0	0.0	9.9	39.6	15.2
Naturalization		48.5	0.0	2.0	2.7	44.0
Tenement		71.5	2.7	13.5	34.8	21.6
Legislature		78.0	0.0	6.8	1.4	70.5
Sheriff		77.0	20.5	23.0	18.0	15.5
Divorce		89.0	14.9	29.9	44.7	0.0
Totals	888					
Percentage (all replies)	100	54.6	3.8	11.6	19.7	19.4
Percentage (correct replies)		100.0	7.0	21.4	36.0	35.4





Significant points of Table Xc and graph IVc are:

From the contacts of the school, pupils of the seventh grade are influenced in greater proportion in their concepts of naturalization, legislation, and precinct.

It is at this grade level that the influence of the school is more definitely felt with respect to a number of the words - precinct, naturalization, and legislature. For the latter, 70.5 of the 78% of correct replies are influenced by the school.

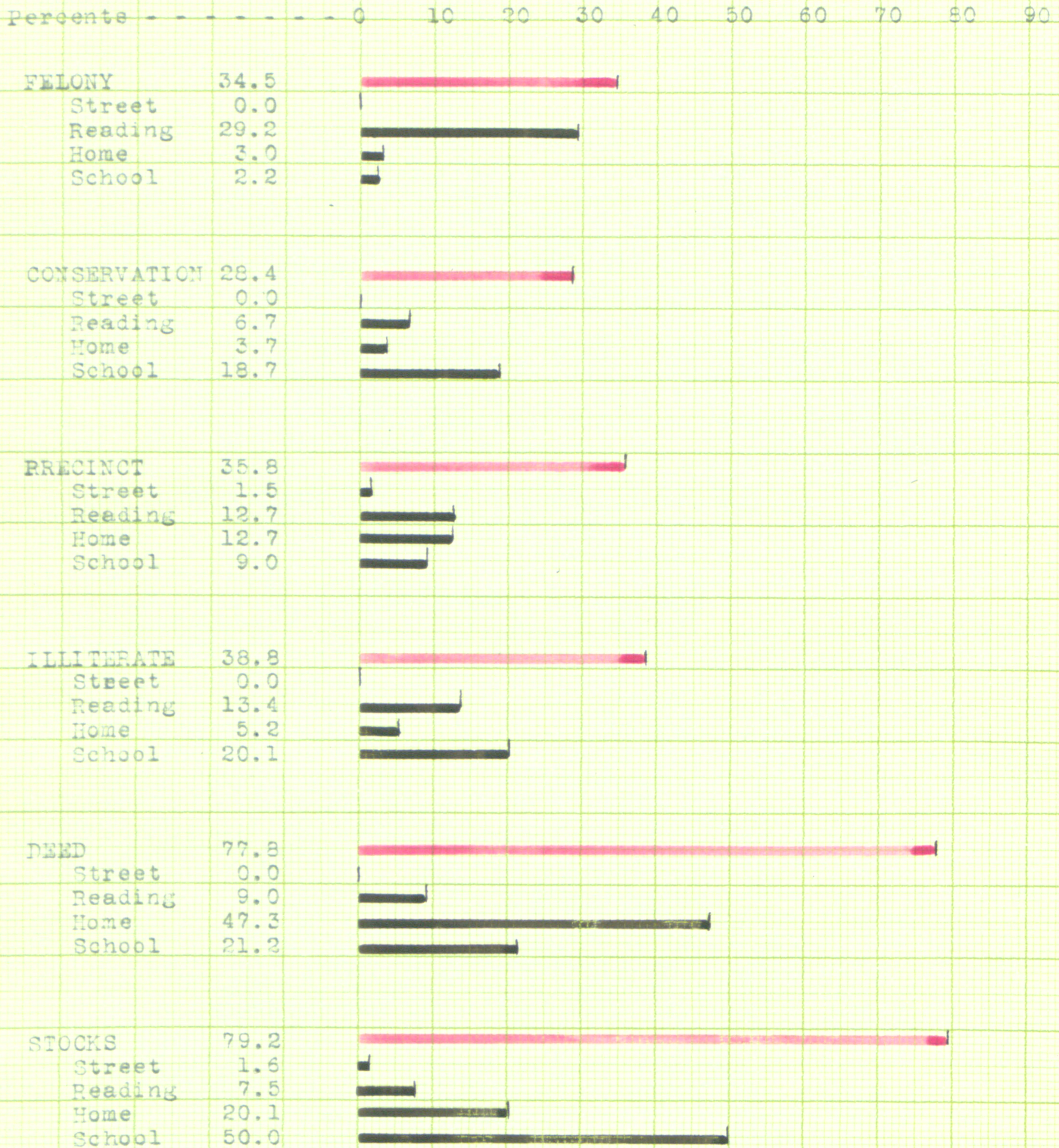
Although 36% of the correct replies indicate that proportion of home influence to be operative in giving concepts to the children, the influence of the school is almost as great - 35.4%.

(Table Xd follows)

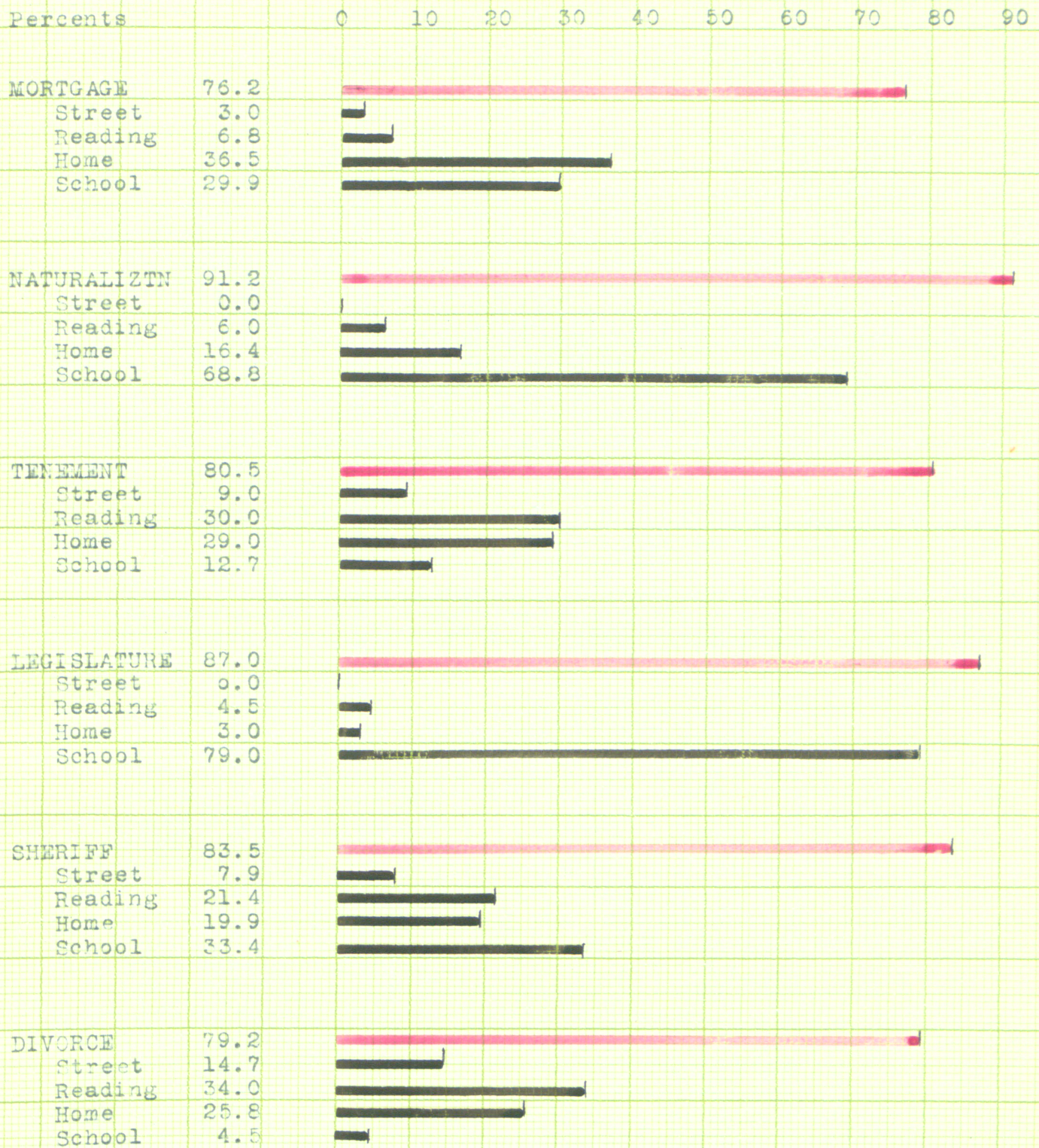
Table Xd. Per Cent Correct of Total Responses to
Twelve Questions Classified According to
Certain Sources.

Eighth Grade						
<u>Questions</u>	<u>Cases</u>	<u>Total Correct</u>	<u>Per Cent of Correct Answers Derived</u>			
			<u>St.</u>	<u>H'g</u>	<u>Home</u>	<u>School</u>
Felony	67	34.5	0.0	29.2	3.0	2.2
Conservation		28.4	0.0	6.0	3.7	18.7
Precinct		35.8	1.5	12.7	12.7	9.0
Illiterate		38.8	0.0	13.4	5.2	20.1
Deed		77.8	0.0	9.0	47.3	21.2
Stocks		79.2	1.6	7.5	20.1	50.0
Mortgage		76.2	3.0	6.8	36.5	29.9
Naturalization		91.2	0.0	6.0	16.4	68.8
Tenement		80.5	9.0	30.0	29.0	12.7
Legislature		87.0	0.0	4.5	3.0	79.0
Sheriff		83.5	7.9	21.4	19.9	33.4
Divorce		79.2	14.7	34.0	25.8	4.5
Totals	804					
Percentage (all replies)	100.0	66.0	3.1	15.0	18.5	29.2
Percentage (correct replies)		100.0	4.7	22.6	27.4	45.0

6% difference is significant (2 X o) 95.5 chances in 100



Graph IV-D (continued)



Significant points of Table Xd and graph

IV d:

The influence of the school becomes more pronounced in this grade. Of the total influences exerted on the learning of the child, 45% is from this source. The word "stocks" receives 50% of its meaning from school contacts.

(Table Xe follows)

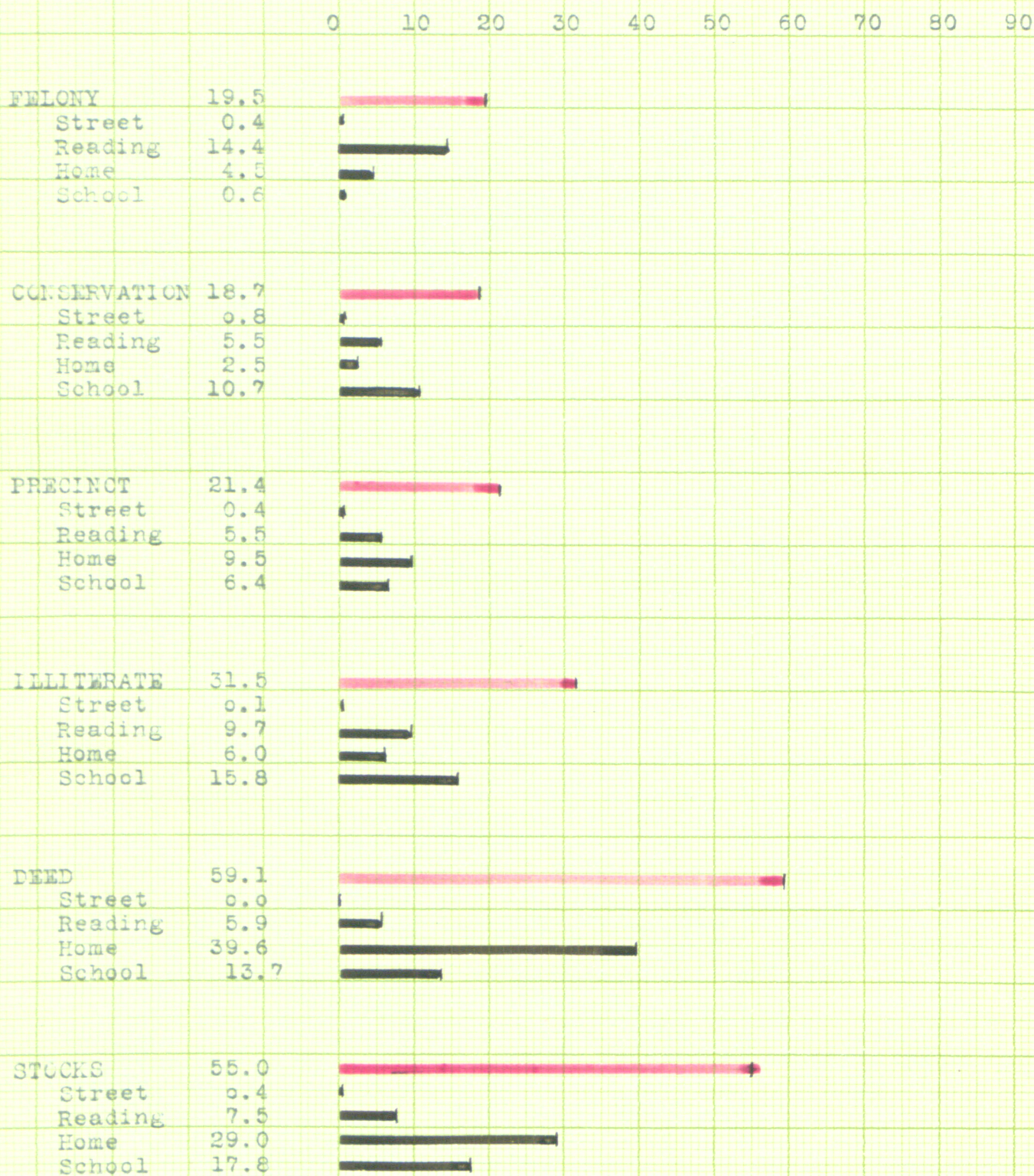
Table Xe. Per Cent Correct of Total Responses to Certain Questions Classified According to Certain Sources.

Fifth Grade to Eighth Grade						
<u>Questions</u>	<u>Cases</u>	<u>Total</u> <u>Correct</u>	<u>Per Cent of Correct</u> <u>Answers Derived</u>			
			<u>St.</u>	<u>R'g</u>	<u>Home</u>	<u>School</u>
Felony	257	19.5	0.4	14.4	4.5	0.6
Conservation		18.7	0.8	5.3	2.3	10.7
Precinct		21.4	0.4	5.5	9.5	6.4
Illiterate		31.5	0.0	9.7	6.0	15.8
Deed		59.1	0.1	5.9	39.6	13.7
Stocks		55.0	0.4	7.5	29.0	17.8
Mortgage		51.8	2.7	7.0	31.4	10.4
Naturalization		50.2	0.6	4.1	7.6	37.4
Tenement		68.8	6.8	16.9	28.3	16.4
Legislature		65.0	0.2	7.5	5.5	51.5
Sheriff		72.9	18.1	22.4	14.8	16.3
Divorce		88.5	12.3	37.8	36.7	1.5
Totals	3084					
Percentage (all replies)	100.0	50.1	3.6	12.1	17.9	16.5
Percentage (correct replies)		100.0	7.1	24.1	35.3	33.5

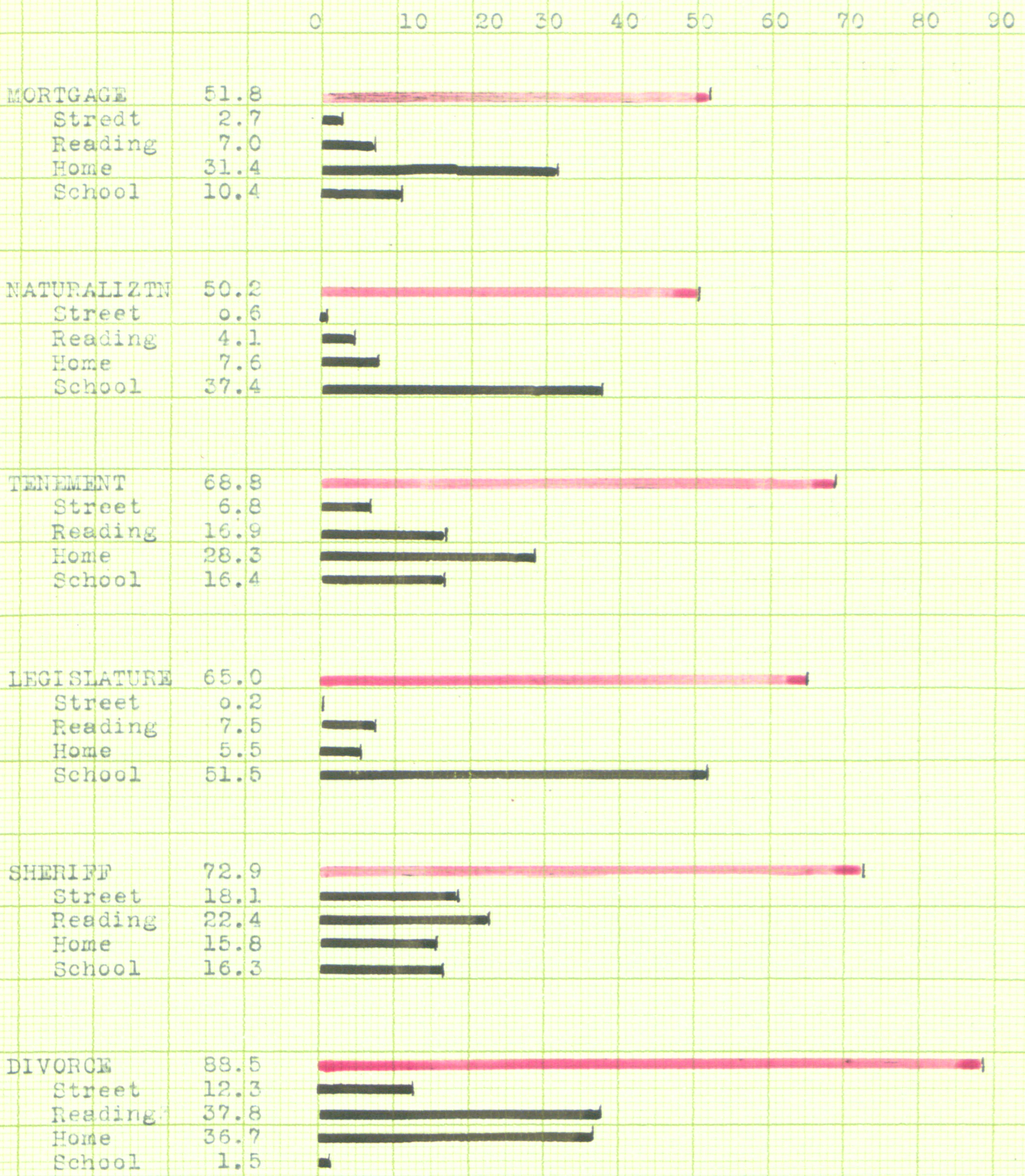
Graph IV-E PERCENT OF CORRECT RESPONSE

257 cases
Grades 5-8, incl.

2% difference is significant, 95.5 chances in 100.
4% difference is significant, 99.9 chances in 100.



Graph IV-E (continued)



Significant points of Table Xe and graph IVe are:

This table is a summary of the personal interviews data for grades five to eight, inclusive.

The most outstanding contribution here is the fact that about one-third (33.5%) of a child's concepts come from the school, slightly over one-third (35.3%) from home contacts, and but slightly less than one-third (31.2%) from other outside interests.

The school's influence is greatest in contributing to information concerning such terms as: "lesiglature", "naturalization", "illiterate", and "conservation" - terms which have to do with state and national concern, mostly political.

The home influence is greatest in effecting concepts in connection with such words as: "tenement", "mortgage", "stocks", "deeds" and "precinct" - words which have to do with living conditions and financial affairs, most economic.

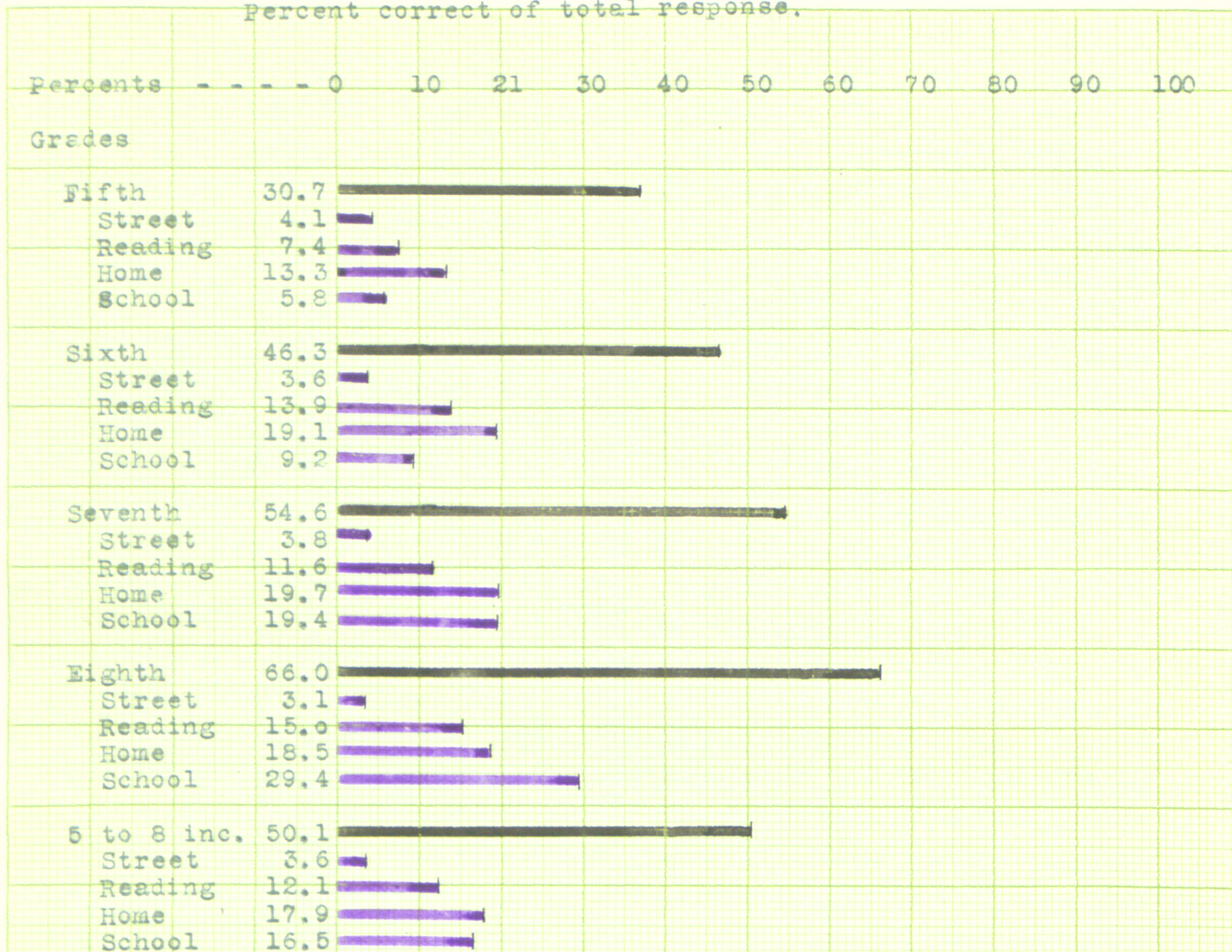
"Street" and "reading" contacts give their greatest contributions in such cases as: "divorce," "sheriff", and "felony" - mostly social.

Table XI. Summary of Data from Personal Interviews.
Percentage of Correct Replies to Twelve
Questions Classified According to Certain
Sources.

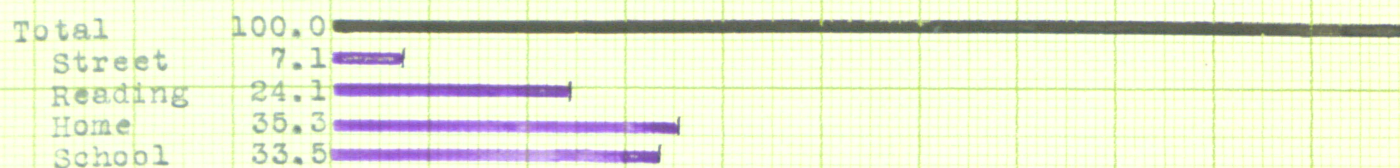
<u>Grade</u>	<u>Cases</u>	<u>% Correct</u>	<u>Street</u>	<u>Read'g</u>	<u>Home</u>	<u>School</u>
5.	708	30.7	13.2	23.7	42.9	19.3
6.	684	46.3	7.1	29.9	42.4	20.2
7.	888	54.6	7.0	21.4	36.0	35.4
8.	804	66.0	4.7	22.6	27.4	45.0
All	3084	50.1	7.1	24.1	35.3	33.5

The above table and the following graph set forth, in recapitulation, the sum total of influences by grades. In the fifth and sixth grades, contributions to civic concepts come largely from the home. In the seventh grade, the home and school influences are about equal. In the eighth grade the greatest contributing factor is the school. The influence of the street decreases rapidly as the child passes from grade to grade.

Graph V Summary of data from personal interview.
Percent correct of total response.



Graph V-b Summary of data from personal interviews.
Percent of correct responses after a certain
classification, grades five to eight, inclusive.



Rank Order of Stimuli

The following table gives by grade the stimuli ranked in approximate ascending order of the percentage of responses which were correct, classified according to certain sources of information.

The tabulation for the fifth grade is to be read as follows: Of the total responses, pupils have received correct information from the "street" concerning conservation, precinct, illiterate, deed, and stocks, to the extent of zero per cent; concerning legislature and felony to the extent of eight-tenths of one per cent; concerning mortgage and naturalization to the extent of two and one-tenth per cent; etcetera.

Two words, "legislature" and "divorce", have been taken to represent two extreme types of civic information - one the purely technical, political textbook term; the other of general social usage; these are words which rarely find a place in classroom discussion.

Two reference lines drawn across the tabulations indicate the extent to which children derive meanings for these two words from the various sources.

Table XII. Rank Order of Stimuli. Fifth Grade. 59 Cases.

<u>Street</u>	<u>Reading</u>	<u>Home</u>	<u>Schools</u>
.0 Conservat.	.0 Precinct	.0 Conservat.	.0 Felony
.0 Precinct			.0 Stocks
.0 Illiterate			.0 Divorce
.0 Deed			.0 Mortgage
.0 Stocks			
.8 Legislature	.8 Conservat.		
.8 Felony			
	1.7 Illiterate		
2.1 Mortgage	2.1 Felony		2.1 Conservat.
2.1 Naturalizn.	2.1 Stocks		
		3.4 Felony	3.4 Precinct
			3.4 Illiterate
			3.4 Naturalizn.
			4.2 Sheriff
	4.7 Deed	4.4 Naturalizn.	
		4.7 Legislature	
	5.1 Mortgage	5.1 Illiterate	
	5.6 Legislature		
	6.7 Naturalizn.	6.7 Precinct	
	7.6 Tenement		
7.8 Divorce			
11.5 Tenement	11.8 Sheriff	11.8 Sheriff	9.0 Deed
		16.0 Tenement	16.0 Tenement
		17.0 Mortgage	
22.9 Sheriff		21.2 Stocks	
		25.1 Deed	
			27.6 Legislature
	39.4 Divorce		
		44.4 Divorce	

Table XII (cont.) Rank Order of Stimuli. Sixth Grade. 57 Cases.

<u>Street</u>	<u>Reading</u>	<u>Home</u>	<u>School</u>
.0 Conservat.			.0 Felony
.0 Precinct			
.0 Illiterate			
.0 Deed			
.0 Stocks			
.0 Naturalizn.			
.0 Legislature			
.9 Felony			.9 Mortgage
.9 Mortgage			
			1.4 Divorce
			1.7 Precinct
			1.7 Deed
			1.7 Stocks
	3.5 Naturalizn.	3.5 Felony	
	3.5 Precinct	3.5 Conservat.	
4.6 Tenement	3.5 Conservat.		
	5.3 Deed		
	6.1 Felony		
		7.0 Naturalizn.	
		7.0 Precinct	
	8.7 Mortgage		8.9 Sheriff
	9.6 Stocks		
11.4 Divorce		11.4 Illiterate	
	12.3 Illiterate	12.3 Sheriff	
	13.5 Legislature	14.1 Legislature	14.9 Tenement
			14.9 Illiterate
	15.8 Tenement		15.9 Conserva.
22.0 Sheriff			19.5 Legislat.
			28.1 Naturalizn.
		31.2 Divorce	
		33.3 Tenement	
		34.2 Stocks	
		37.0 Mortgage	
		43.8 Deed	
	34.2 Sheriff		
	51.0 Divorce		

Table XII. (cont.) Rank Order of Stimuli. Seventh Grade. 74 Cases.

<u>Street</u>	<u>Reading</u>	<u>Home</u>	<u>School</u>
.0 Felony			.0 Divorce
.0 Precinct			.0 Felony
.0 Illiterate			
.0 Stocks			
.0 Naturalizn.			
.0 Legislature			
.4 Deed			
		1.4 Legislature	
	2.0 Naturalizn.	2.0 Conservation	
2.7 Conservat.		2.7 Naturalizn.	
2.7 Tenement		3.4 Illiterate	
4.0 Mortgage			
	4.5 Deed		
	4.7 Precinct		
			6.1 Conserva.
	6.18 Legislature	7.4 Felony	7.2 Mortgage
	8.5 Mortgage		
	9.5 Conservat.		
	9.9 Stocks		
	10.9 Illiterate	10.9 Precinct	10.3 Precinct
	13.5 Tenement		
14.9 Divorce			
	16.9 Felony		
		18.0 Sheriff	
20.5 Sheriff			
	23.0 Sheriff		
	29.9 Divorce		
		34.2 Mortgage	
		34.8 Tenement	
		38.9 Deed	
		39.6 Stocks	
		44.7 Divorce	
			44.0 Naturalizn.
			70.5 Legislat.

Table XII.(Cont.) Rank Order of Stimuli. Eighth Grade. 67 Cases.

<u>Street</u>	<u>Reading</u>	<u>Home</u>	<u>School</u>
.0 Felony			
.0 Conservat.			
.0 Illiterate			
.0 Deed			
.0 Naturalizn.			
.0 Legislature			
1.5 Precinct			
1.6 Stocks			
3.0 Mortgage			2.2 Felony
	4.5 Legislature	3.0 Legislat.	
	6.0 Naturalization.	3.0 Felony	
	6.0 Conservation	3.7 Conservat.	
	6.8 Mortgage	5.2 Illiterate	4.5 Divorce
7.9 Sheriff	7.5 Stocks		
9.0 Tenement	9.0 Deed		9.0 Precinct
	12.7 Precinct	12.7 Precinct	12.7 Tenement
	13.4 Illiterate	16.4 Naturaliz.	18.7 Conserva.
14.7 Divorce		19.9 Sheriff	
	21.4 Sheriff	20.1 Stocks	20.1 Illit.
		25.8 Divorce	21.2 Deed
	29.2 Felony	29.0 Tenement	
	30.0 Tenement		29.9 Mortgage
	34.0 Divorce	36.5 Mortgage	33.4 Sheriff
		47.3 Deed	
			50.0 Stocks
			68.8 Naturaliz.
			79.0 Legislat.

Table XII. (cont.) Rank Order of Stimuli. 5th to 8th Grades. 257 Cases.

<u>Street</u>	<u>Reading</u>	<u>Home</u>	<u>School</u>
.0 Illiterate			
.1 Deed			
.2 Legislature			
.4 Stocks			
.4 Felony			
.4 Precinct			
.6 Naturalizn.			.6 Felony
.8 Conservat.			
2.7 Mortgage		2.3 Conservat.	1.5 Divorce
	4.1 Naturalizn.	4.5 Felony	
	5.3 Conservat.	5.5 Legislature	
	5.5 Precinct	6.0 Illiterate	
	5.9 Deed		6.4 Precinct
6.8 Tenement	7.0 Mortgage		
	7.5 Stocks		
	7.5 Legislature	7.6 Naturalizn.	
	9.7 Illiterate	9.5 Precinct	
			10.4 Mortgage
			10.7 Conservat.
12.3 Divorce	14.4 Felony	14.8 Sheriff	
			15.8 Illiterate
			16.3 Sheriff
	16.9 Tenement		16.4 Tenement
			17.8 Stocks
18.1 Sheriff	22.4 Sheriff		
		28.3 Tenement	
		29.0 Stocks	
		31.4 Mortgage	
		36.7 Divorce	
	37.8 Divorce	39.6 Deed	37.4 Naturalz.
			51.5 Legislat.

Significant Points in Table XII, Rank
Order of Stimuli

The value of the five foregoing tabulations lies in the fact that they express the importance of the various sources of information for the various grades and total grades.

Inasmuch as the data for the last tabulation was derived from the answers of 257 cases, the results may be considered reliable. For that reason, the following conclusions are drawn therefrom.

The two words "legislature" and "divorce" have been taken as specific type illustrations. "Legislature" becomes meaningful to the child largely from school room contacts. On the other hand, "divorce" becomes meaningful to the child from out-of-school contacts, more especially "reading" and "home".

It is interesting that such words as "deed", "stocks", and "mortgage" so definitely derive their meaning from the home. It has been pointed out elsewhere that this may be due to the fact that the children hear these terms discussed in the family circle.

Comments on the Chapter

If the results of this chapter can be considered scientifically sound, we find facts which have certain

educational significance; for the evidence sets forth quite strongly, in quantitative terms, an evaluation of those out-of-school factors which contribute to the concepts possessed by individuals.

1. According to a final recapitulation about one-third of the civic information possessed by children of the fifth to the eighth grades, inclusive, is derived from the school, over one-third from the home, and slightly under one-third from street and outside reading influences.

More specifically, this is expressed in the following proportion:

Street	7.1%
Reading	24.1%
Home	35.3%
School	33.3%

2. Data of the Rank Order of Stimuli tables seem to warrant two conclusions:

a. Information concerning certain technical terms are derived from schoolroom contacts;

b. Information concerning terms of general social and economic usage are derived more specifically from out-of-school contacts.

Chapter V

SUMMARY

This investigation was carried on in schools populated by pupils from typical American homes and in schools wherein there has been no concerted attempt to present civics in accord with a logically arranged outline, prospectus or course of study.

The tabulations of scores indicate a very wide range of information possessed by the pupils of each of the several grades tested and a generous overlapping of ability throughout the grades is evident. However, mean scores show a definite, regular, and significant increment of civic understanding from grade to grade.

An analysis of data relative to the per cent of correct answers to the various questions justifies the following statements:

A. Certain common civic terms are little understood by all children of the various grades covered by this investigation. Specifically, such words as "citizen", "felony", "strike-breaker", and "subpoena" are illustrations.

Only 15.2 per cent of the ninth grade pupils gave the correct answer to the question relative to the word "citizen".

It is difficult to suggest an explanation for this inability to check the correct answer in this case, unless it be that the question calls for a greater technical knowledge than should be expected of school children, especially those of the elementary grades. The lack of a refined knowledge on the part of the child may exist because the school takes too easily for granted in its teaching that the children have a complete concept concerning words which are so frequently used.

On the other hand, it is easy to see why such words as "felony" are not understood fully by children for such words come into the vocabulary in a relatively limited degree.

These questions very well illustrate the injustice of many tests made from an adult viewpoint. In all probability, children of even the fifth grade have a real though limited, non-technical understanding of such words for which they should be given credit.

B. Those questions which are known equally well by all pupils are illustrated by such terms as "reason

for school", "divorce". From 86.7 per cent to 91.3 per cent of the children answered the first of these questions correctly. The high percentage of correct replies from the fifth grade indicates clearly that the understanding of this question comes not from specific school training in those grades above the fifth grade. In all probability, pupils become aware of the importance of and the reason for schools as much or more from the many contacts of society as from general school life itself.

C. Questions which showed the differentiation of knowledge between grades and groups of grades were such as pertained to "conservation", "political platform", "precinct", etcetera. These cases could easily represent those situations wherein school training has definitely influenced the understanding of the child in grades above the eighth grade. The fifth, sixth, and seventh grade child knows practically nothing about "political platform" (3.9%, 5.3%, 7.5% respectively). The eighth grader has a slight advantage (17.4%), but a great increase of understanding comes (as far as this investigation is concerned) in the ninth grade (45.8%). For such questions as these, interest and understanding come to children only upon reaching the ninth grade in school.

D. Questions pertaining to "immigrant", "tenement", "quarantine", "ballot", illustrate that situation wherein interest in and knowledge about certain civic facts develop conspicuously after the child has passed out of the fifth grade. Although the fifth grade children have answered the first of these questions correctly to the extent of 40.3 per cent, a great advance in knowledge is gained in the other grades, to wit: Sixth, 79.9%; seventh, 90.0%; eighth, 96.6%; ninth, 98.6%.

E. Those questions which differentiate grade from grade by almost equal steps are such as "financier", "recreation", "pauper", "naturalization".

These questions point to a more or less regular progressive gain in interest and knowledge throughout the grades studied in this investigation. Whether or not this progressive gain is due solely to school training, is not a question to be answered by this investigation, but (due to the fact that there was no organized course of study) the author is inclined to suggest that the results are as much (if not more) a matter of natural interest ~~as a matter of natural interest~~ as a matter of definite school study.

Pupils have an interest in and a knowledge about the three phases of civics (political, economic, social) in about equal proportions. When the percentage facts are reduced to a series of indices (based on the "political" percentage), the following distribution is secured:

	<u>Grades</u>				
	5	6	7	8	9
	<u>Indices</u>				
Political	1.0	1.0	1.0	1.0	1.0
Economic	1.1	1.05	1.03	1.06	.98
Social	1.1	1.11	1.14	1.11	1.06

Sex differences. In general, the boys exceed the girls in percentage of correct answers. An analysis of the percentage sex differences results in the following tabulation:

(For complete tabulation, see following page)

<u>Of the 32 questions:</u>	<u>Political</u>	<u>Economic</u>	<u>Social</u>
<u>Fifth Grade</u>			
Boys exceed	28	28	24
Girls exceed	4	4	8
<u>Sixth Grade</u>			
Boys exceed	31	30	23
Girls exceed	1	2	9
<u>Seventh Grade</u>			
Boys exceed	32	25	21
Girls exceed	0	7	11
<u>Eighth Grade</u>			
Boys exceed	26	26	15
Girls exceed	6	6	17
<u>Ninth Grade</u>			
Boys exceed	29	30	16
Girls exceed	3	2	16

Although it is true that, for social civics, the figures for "girls exceed" tends to increase with the advance in grade designation, it must be stated that the "excess" difference is large enough to be significant in only four cases:

Postal Savings	(Seventh grade)
Budget	(Eighth grade)
Pauper	(Eighth grade)
Budget	(Ninth grade)

In the case of "budget", the results may be influenced largely by the activities, on the part of the girls, of

buying or work with food and clothing for or in the home.

On the other hand, the boys exceed the girls, significantly, in 110 cases or fifty-four different items. Of particular interest is the case of "transportation" wherein there exists a true difference of excess in all five grades.

Twelve questions chosen at random were presented to 257 pupils and replies from the questions, "How do you know that is the right answer?" and "Where did you find that fact?" were classified under the four broad headings - Outside Contacts, General Readings, Home Influences, School Influences.

The following tabulation is a summary of the results:

(For tabulations, see the following page)

Percentage of Correct Replies, Classified

<u>Grade in</u> <u>School</u>	<u>Sources</u>			
	<u>Street</u>	<u>Readings</u>	<u>Home</u>	<u>School</u>
5th	13.2	23.7	42.9	19.3
6th	7.1	29.9	42.4	20.2
7th	7.0	21.4	36.0	35.4
8th	4.7	22.6	27.4	45.0
All	7.1	24.1	35.3	33.5
School Influence			33.5%	
Out-of-School Influences			66.5%	

Two hopeful signs are evidenced here. As the child progresses through the grades, the school environment increases in its importance. During the same time the street influences decrease in importance.

"Outside reading" influence is relatively constant throughout the four-grade experience.

Conclusions and Suggestions

The results of this study present a cross section of the civic knowledge possessed by children of certain grades and indicate in a measure the degree to which this knowledge has been derived from in-school and out-of-school influences. The data are important in that they present a picture of the interest of children in civic information and set a basis for the analysis of the efficiency of the school's influence.

However, it must be borne in mind that the results of this study give evidence of the child's reaction to a test devised largely from the adult standpoint. The inclusion of topics were based upon the review of adult opinions of representative citizens, analysis of books and articles by eminent social scholars and leaders in civics, analysis of adult read newspapers and magazines, state and national political platforms written for adult understanding.

Three important suggestions may be presented from this study:

I. Curriculum Construction. If civic training and civic testing are to be rated for the "new" school the educator must forget the adult standards of civic ideas and set up a series of graded civic concepts based

entirely upon the levels of child experience and thought. In other words, the curriculum and test maker must enter upon his task through the worlds and thoughts of the child and the teacher must become a student with the child in the realm of his civic interests.

This need was brought forceably to the writer during the personal interviews wherein many children gave evidence of "myopic" knowledge, blurred concepts. The children lacked complete understanding of the topic largely, so the author suggests, because the teacher had taken for granted that, inasmuch as a term was correctly used in a sentence or a discussion, it was thoroughly understood by the child from an adult viewpoint.

The word "citizen" is an illustration of this point. The very low score for this word, even for the ninth grade, is due probably to the technical meaning demanded by the test. Teachers as adults assume a complete knowledge on the part of the child. But the child's experience has not given him a sufficient background of understanding to appreciate the full significance of the term. Because the child seems to use the symbol rightly, we are content to take complete concept for granted. It is in such a way that a miasma of myopic concepts ensue.

In the early elementary grades, at least,

curriculum construction must proceed with the principle of the child's viewpoint uppermost.

In this day of the new school we need to emphasize the fact that we must not assume the importance of those interests necessary to the civics curriculum; we need to discover them. The selection of any part or item of the curriculum, the method of employing it, the objective to which it is directed must all be determined by the capacity and interests of the learner.

This means:

(a) A critical evaluation of our courses of study with reference to the emphasis placed upon the most important phases of civics by learning situations as they appear in the child's experience.

(b) A critical evaluation of the concepts of children concerning civic matters in terms of levels of experience.

(c) An adaptation of the curriculum to take advantage of those experience levels.

II. Acceptance of a broader view of learning situation. Expressed by Charters ¹, "The aim of civics is to give to the pupil an understanding of the problems which he, as a citizen, will have to face." The understanding of the problems of civic responsibility depends upon a

¹ Charters, W.W. Teaching the Common Branches.
p1 299

content of knowledge and its expression upon conduct. Both depend, largely, upon habituations of thought and action if intelligent adaptation to social usage is demanded.

For the fuller development of knowledge and the expression in conduct, the school must look beyond the narrow confine of the classroom, and bring in to a guided situation those out-of-school activities which, so this study implies, are so pertinent to the development of the child.

Whatever experiences might affect civic behavior are potential instrumentalities for civic education. These instrumentalities include not only the formal subject matter of instruction, the manner of teaching, the spirit and method of school organization and the particular pupil activities consciously organized to the civic end, but also those appropriate out-of-school activities which unconsciously constitute an informal civic curriculum.

The teacher must accept the importance of out-of-school factors as possible learning situations wherein the child's activities and experiences lend themselves so favorably to a mastery of certain civic matters. The results of this study indicate, in many instances,

particularly "divorce", that the child has most largely received his information (unguided) from the street and other incidental learning situations.

III. Need for an early appreciation of civics.

The results of this investigation do not indicate just what is the desirable amount of civic information which a child of any specific grade should possess, but it does indicate, in general, the amount possessed.

In the light of pupil elimination ¹ the results of this study would indicate the need for an earlier emphasis upon the fundamental civic topics, an abundant, recurring, emphasis upon civics instruction in the fifth and sixth grades.

¹
p. 277. Bagley and Keith. Introduction to Teaching.

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APPENDIX "A"

Comparisons

The following tables are given for those who may be interested in examining the more minute details of the score distributions. Totals and means are given at the bottom of each table.

Tables XIIIa, XIIIb, XIIIc, XIId, XIIE, XIIIf, XIIIg, XIIIh, XIIIi follow.

Table XIIIa. Frequency Distribution by Schools. Fifth Grade Girls.

<u>Score</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>Totals</u>
	<u>Schools</u>								
95									
93									
91									
89									
87									
85									
83									
81									
79									
77									
75									
73									
71									
69									
67		1							1
65									
63									
61									
59									
57									
55									
53	4	1							5
51	1	1			1				3
49		1		3	1				5
47	1	2							3
45	1		1	1	1	2			6
43									
41	1			1	3				5
39	4	1	3	1	2				11
37	2		1			1			4
35	6	1		6	4				18
33	4	2	1	1	1	1			9
31	3	3	1	7	2	1			17
29	10	1	1	2	4	2			20
27	9	3		2	9	4			27
25	11		3	5	3	1			23
23	4		1	3	1	2			11
21	5	1	3	5	2	2			18
19	2	1	1	3	2	2			11
17	5	1	5	1		1			13
15	1	2		1	2	2			8
13	4	1	1	1	1	1			9
11	2								2
9			1		2				3
7	2			1					3
5					1				1
3									
1									
<u>Totals</u>	82	21	25	44	41	23			236
<u>Means</u>	28.95	32.57	28.01	29.42	29.69	25.65			29.13

Table XIII.b Frequency Distribution by Schools. Fifth Grade Boys.

Scores	Schools								Totals
	1	2	3	4	5	6	7	8	
95				1					1
93									
91									
89									
87									
85									
83									
81									
79									
77									
75									
73									
71									
69									
67									
65	1								1
63				1					1
61	2			1					3
59	3			1					4
57	1			1					2
55	1	1	1				1		4
53	1				2				3
51	1			2	1				4
49	1				4				5
47	2		1	2	1		1		7
45	2	2	2	1	1		1		9
43		1	2	1			3		7
41	4	3	1	2					10
39	2			2	4		1		9
37	7	2	1	3	5		5		23
35	5	3	1	5	4		1		19
33	4	2	2	3			1		12
31	6	3	4	3	1		1		18
29	4	4	1	2	7		1		19
27	10	3	4	3	7		3		30
25	6	1		1	5				13
23	2	3	1	2	2		1		11
21	2		1	1	2				6
19	3	1		2	1				7
17	1		1	2	3				8
15	3	1					2		6
13	1		1	1					3
11	1		1	1					3
9									
7									
5									
3									
1									
Totals	76	30	25	43	51	23			248
Means	34.87	33.47	34.96	36.14	33.22	34.87			34.86

Table XIIIc. Frequency of Distribution by Grades. Sixth Grade Girls.

Scores	Schools								Totals
	1	2	3	4	5	6	7	8	
95									
93									
91									
89									
87									
85									
83									
81									
79									
77									
75	1								1
73				1					1
71									
69									
67									
65	1			1					2
63	1			1					2
61	1	1		3	1				6
59	1	2	1						4
57	1			2					3
55	3	2							5
53	6			2	3	2			13
51	2	2		4	4	1			13
49	2		1	5	1	1			10
47	4			4	4	2			14
45	3	4	2	1	5	1			16
43	4		2	2	5				13
41	6	3	2	3	5	4			23
39	5	1	1	4	3				14
37	3	3		1	1				8
35	4	2	2	4	8	5			25
33	7	4	2	2	3				19
31	4	2	1	5	2	3			17
29	5	1	2	1	1	1			11
27	3				2	1			6
25	4		1	4	1				10
23	1			3	1	1			6
21	2					1			3
19			1						3
17			1						1
15			1						1
13	1								1
11									
9									
7									
5									
3									
1									
Totals	77	27	20	52	47	28			251
Means	40.57	43.12	36.30	43.19	41.49	42.01			41.16

Table XIIIId. Frequency Distribution by Grades. Sixth Grade Boys.

<u>Scores</u>	<u>Schools</u>								<u>Totals</u>
	1	2	3	4	5	6	7	8	
95									
93									
91									
89									
87									
85									
83				1					1
81	1								1
79									
77	1								1
75	1				1	1			3
73	1			1					2
71			1						1
69	1				1				2
67	1			3	2				6
65	4		1						5
63	2	1		3	3	1			10
61	3	3		3		2			11
59	3	1		2	2	1			9
57	9			1	1				11
55	6	3	4	2	2				17
53	4			4	3				11
51	7	1		2	3	1			14
49	8	2	1	2	4				17
47	5	1	2	1	5				14
45	6	3	3	1	5	2			20
43	4		2	2					8
41	6	3	1	1	3	2			16
39	3	1	2		3	3			12
37	2				3	3			8
35	6	1		2		2			11
33	4	1	1	2	1	1			10
31	1	1	2	1	4				9
29	4	2		1	2				9
27	1		1	2					4
25	1		1		1				3
23	1								1
21	1		1						2
19			1	1					2
17	1			1					2
15	1								1
13			1						1
11									
9									
7									
5									
3									
1									
<u>Totals</u>	99	24	22	40	51	19			255
<u>Means</u>	48.71	47.67	41.37	50.90	47.92	46.70			48.10

Table XIIIe. Frequency Distribution by Grades. Seventh Grade Girls.

Scores	Grades								Totals
	1	2	3	4	5	6	7	8	
95									
93									
91									
89									
87					1				1
85				1					1
83									
81	1								1
79		1							1
77	1	1		1		1			4
75	1		1						2
73				1					1
71	2	1		4					7
69	2	2		2	2				8
67		2		2	3	2			9
65	2	1		6	4	3			16
63	2	1		2	4	1			10
61	2	2	1	4	5				15
59	8	3	2	5	2				20
57	2	11	1	4	3	2			13
55	4	4		5	4				17
53	4	2	1	1	2				10
51	7	2		3	3	1			16
49	2	2	4	3	3	1			15
47	6	1		5	1	3			16
45	3	1	2	3	1	4			14
43	4	4	2	2	2	1			15
41	4		3	1					8
39	3		1	4	2	6			16
37	3	1	5	1	1				11
35	2	1	2	1		3			9
33	2	2	1	2		3			10
31	4		2	1		1			8
29	3	2	1						6
27	1			2					3
25			1	1		1			3
23									
21									
19									
17									
15				1					1
13									
11									
9									
7									
5									
3									
1									
Totals	76	37	30	68	43	33			287
Means	50.68	54.38	44.41	54.18	58.05	47.68			52.11

Table XIIIIf. Frequency Distribution by Grades. Seventh Grade Boys.

Scores	Schools								Total
	1	2	3	4	5	6	7	8	
95									
93									
91									
89									
87					1				1
85	2		1						3
83				2					2
81	1	1		1	1				4
79		1		1	3				5
77	1	1		1	1				4
75	2		1	4	4				11
73	2			2	3				7
71	3			5	4				12
69		1	1	3	3				8
67	2	5		2	1				10
65	4	2	1	2	3	1			13
63	9	2	2	2	5				20
61	5	1	1		7		1		15
59	7		2	6					15
57	2	1	2		4	1			10
55	5	1	1	4	4	1			16
53	5		1	3	2	3			14
51	8		1	3	4				16
49	5			2	1	2			10
47	5		1	1	4				11
45	1	1	2	2	3	1			10
43	2		3	1	2				8
41	3	2	1	1		1			7
39	1			3	1	4			9
37				1		1			2
35	2		1		1	1			5
33	1		1			1			3
31	1	1	1						3
29			1						1
27				1					1
25						1			1
23									
21									
19			1						1
17									
15						1			1
13									
11									
9									
7									
5									
3									
1									
Totals	79	20	26	53	61	20			259
Means	57.79	60.30	52.00	61.40	61.32	45.10			58.36

Table XIIIg. Frequency Distribution by Grades. Eighth Grade Girls.

Scores	Schools								Total
	1	2	3	4	5	6	7	8	
95									
93									
91									
89									
87									
85		1							1
83	2			1			1		4
81	1	2		1					4
79	1			1		2	2		6
77	2		1	2	3				8
75	3	3		1	1		1		9
73		1	2	3	3	1	1		11
71	3	1	1	4	1	1	2		13
69	2	1	1	2		2	3		11
67	6	1	2	4	2	2			17
65	4	4	1	2	9	2	2		24
63	2	1		4			1		8
61	5	2	1	5	2	1			16
59	7			5	5	2	2		21
57	3		5	1	2	1	3		15
55	4	1		2	1		3		11
53	4	1	2	1	2		2		12
51	5	2	5	4	1				17
49	3	1		6	1	1	2		14
47	1	1	1	1			1		5
45	1			2		1			4
43	1		2	1		1	3		8
41	1		2		1	1			5
39	1						1		2
37	1		2						3
35	2			1	1		1		5
33									
31									
29									
27									
25									
23									
21									
19									
17									
15									
13									
11									
9									
7									
5									
3									
1									
Totals	65	23	28	54	35	18	31		254
Means	60.8	66.22	56.69	61.99	63.25	62.09	60.32		61.53

Table XIIIh. Frequency Distribution by Grades. Eighth Grade Boys.

Scores	Schools								Total
	1	2	3	4	5	6	7	8	
95									
93									
91			1			1			2
89	2			2					4
87		1		1	1	1			4
85	1			4			1		6
83	1	1		1	2		1		6
81	1	2		2	3	2	5		15
79	2			2	3	1	2		10
77	2	1	1	2	1	1	1		9
75	4	1		5	2	2	3		17
73	4	2	1	4	3	2	1		17
71	4	2	2	2	3	2	4		19
69	4	2	1		1	2			10
67	2	1	1	3	4	1	2		14
65	4	1	3		2		1		11
63	5			4	3	2	4		18
61	5	1		2	3	1	2		14
59	1	1			1	1	1		5
57	1	1	1	2	1	3	1		10
55	6	1		2	2		2		13
53	3		1			2			6
51	3					2	2		7
49	2		1			3			6
47	5	1	2			1			9
45	1			2		1	2		6
43			1	2		1			4
41	1					1	1		3
39	1			1					2
37	1			1			1		3
35				1					1
33	1		1						2
31									
29	1								1
27									
25		1							1
23									
21									
19									
17									
15									
13									
11									
9									
7									
5									
3									
1									
Totals	68	20	19	45	33	35	35		255
Means	63.5	68.3	61.66	68.84	72.4	63.78	68.17		66.37

Table XIIIi. Frequency Distribution by Grades. Ninth Grade

<u>Scores</u>	<u>Boys</u>	<u>Girls</u>
95	2	
93	7	
91	17	
89	12	5
87	18	6
85	15	16
83	20	10
81	20	13
79	18	16
77	17	12
75	13	16
73	15	20
71	13	25
69	16	14
67	7	17
65	7	18
63	10	19
61	4	14
59	5	13
57	2	13
55	5	17
53	2	9
51	2	4
49		7
47	3	3
45	1	1
43	1	3
41		1
39		
37		2
35		1
33	1	1
31	1	
29		
27		
25		
23		
21		
19		
17		
15		
13		
11		
9		
7		
5		
3		
1		
Totals	254	286
Means	75.33	65.99

Percent of Correct Responses by Grade
and Sex.

The following pages present, in graph VI, the per cent of correct response for each item by grade and sex. For each grade the graphs are arranged in appropriate descending order of difficulty. They show different degrees of knowledge from question to question and indicate wherein the one sex equals or exceeds the other.

As an aid to the interpretation of graph VI the following table of significant differences has been devised; one for the fifth, sixth and eighth grades, (based on the average of 250 cases each) and one for the seventh and ninth grades, (based on the average of 250 and 290 cases respectively).

(For Table XIV, see following
page)

Table XIV. Significant Differences, Grades 5, 6 and 8.

Percent Score	Sigma of Difference	2	3
5	.022	4.4	6.6
10	.028	5.7	8.5
15	.034	6.8	10.0
20	.037	7.5	11.0
25	.040	8.1	12.0
30	.043	8.6	12.9
35	.044	8.9	13.2
40	.045	9.1	13.5
45	.045	9.1	13.5
50	.045	9.1	13.5
55	.045	9.1	13.5
60	.045	9.1	13.5
65	.044	8.9	13.2
70	.043	8.6	12.9
75	.040	8.1	12.0
80	.037	7.5	11.0
85	.034	6.8	10.0
90	.028	5.7	8.5
95	.022	4.4	6.6

The above table is based on a difference of the percentage results of 250-250 cases. These figures are near enough to the actual number of cases to give accuracy to the third decimal place. The grade totals for the girls and boys are as follows:

Fifth Grade	236-248
Sixth Grade	251-255
Eighth Grade	254-255

A refinement of computation brings a significant change only in the fourth or fifth decimal place. Inasmuch as comparison of the three places only is necessary, greater mathematical accuracy was not indulged in.

Table XIVA. Significant Differences, Grades 7 and 9.

Percent Score	Sigma of Difference	2	3
5	.020	4.0	6.0
10	.026	5.2	7.8
15	.032	6.5	9.6
20	.035	7.0	10.5
25	.037	7.5	11.1
30	.039	7.9	11.9
35	.041	8.5	12.5
40	.043	8.7	13.0
45	.044	8.9	13.1
50	.044	8.9	13.1
55	.044	8.9	13.1
60	.043	8.7	13.0
65	.041	8.5	12.5
70	.039	7.9	11.9
75	.037	7.5	11.1
80	.035	7.0	10.5
85	.032	6.5	9.6
90	.026	5.2	7.8
95	.020	4.0	6.0

The above table is based on a difference arising from the percentage results of 290-250 cases. The grade Totals for girls and boys are as follows:

Seventh Grade	287-259
Ninth Grade	296-254

Graphic Representation by Sex.

Boys

Total

Fifth Grade

Girls

0 10 20 30 40 50 60 70 80 90 100

Govt. Ownership 1-32

Pol. Platform 1-27

Boycott 2-24

Subpoena 1-19

Citizen 1-11

Propaganda 3-16

Middleman 2-14

Pol. Machine 1-28

Profiteering 2-5

Recreation 3-26

Conservation 2-31

Voc. Ed. 3-24

Census 3-31

Injunction 2-23

Precinct 1-7

Naturalization 1-14

Sign. Diff 3 X σ

8.5

KODAK SAFETY FILM

Graphic Representation by Sex
Boys Girls

Fifth Grade
Total

0 10 20 30 40 50 60 70 80 90 100

Illiterate 3-11

Municipal 1-6

Consumer 2-4

Felony 3-14

Prim. Election 1-31

Aliens 3-32

Urban Pop. 3-4

Pol. Boss 1-26

Financier 2-11

Speculator 2-10

Blind Alley Job 3-30

Race Hatred 3-11

Rural 3-5

Budget 3-2

Coroner 1-1

Pres. Cabinet 1-10

Sign. Diff. 3 X 6

10.0

Graphic Representation by Sex.

Boys —

Girls —

Fifth Grade

Total —

0 10 20 30 40 50 60 70 80 90 100

Tariff	1-15
Graft	1-13
Labor Union	2-18
Strike Bkr.	2-19
Poverty	3-27
Employees	3-12
Immigrants	
Sweat Shop	2-21
Pol. Parties	1-24
Nat'n Resources	2-32
Pauper	3-8
Mortgage	2-15
Epidemic	3-17
Pol. Convtn.	1-29
Criminal Ed.	3-15
Post. Sav. Acct.	2-7
Seasonal Trade	2-22
Sign, Diff.	3 X 6

Graphic Representation by Sex.

Boys —

Girls —

Fifth Grade

Total

0 10 20 30 40 50 60 70 80 90 1

Comp. School Law 3-25

Stocks 2-29

Politics 1-23

Nat. Church 3-28

Post. Mon. Order 2-12

Registered Mail 2-13

Federal 1-12

Search Warrant 1-20

Deed 2-16

Con. Disease 3-20

Plain Clothes Man 1-3

Ordinance 1-5

Instal. Plan 2-17

Party Ticket 1-30

Immigrant 3-9

Juvenile Court 1-17

Sign. Diff. $3 \times \sigma$

13.2

Graphic Representation by Sex

Boys — Girls — Total — Fifth Grade

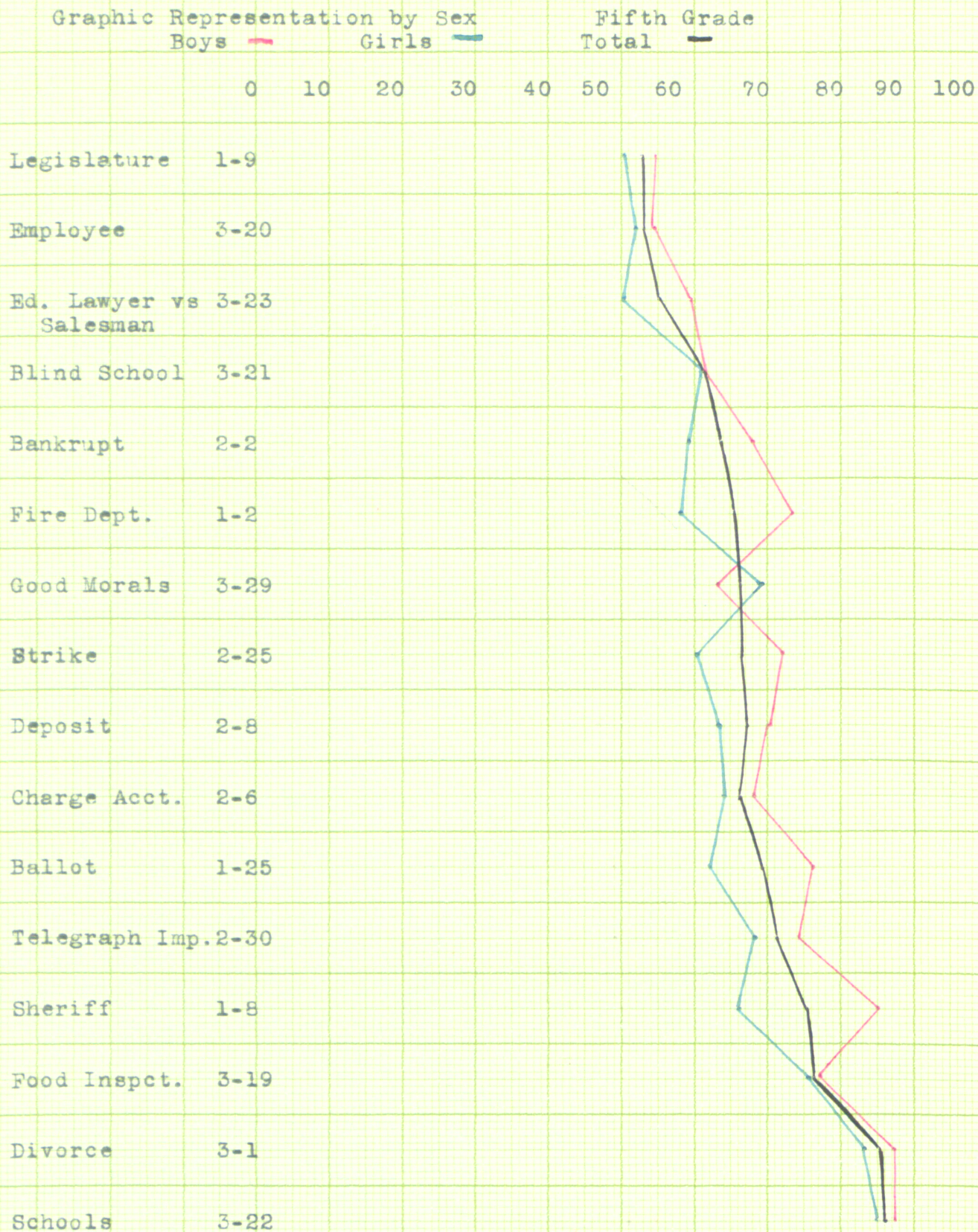
0 10 20 30 40 50 60 70 80 90 100

Chain Store	2-4
Investment	2-9
Tenement	3-6
Americaniztn.	3-13
Income Tax	1-16
Quarantine	3-18
Frt. Vs. Express	2-28
Whole. Merch.	2-3
Transportation	2-27
Slums	3-3
Good Roads	2-26
Suburbs	3-7
Bail	1-18
Candidate	1-21
Polling Place	1-22
Council	1-4

Sign. Diff. $3 \times \sigma$

13.5

Graph VI-A (continued)



Sign, Diff. $3 \times \sigma$ (diff)

13.2

12.0

Graphic Representation by Sex
Boys — Girls —Sixth Grade
Total —

0 10 20 30 40 50 60 70 80 90 100

Political Pltfrm. 1-27

Boycott 2-24

Govt Ownership 1-32

Citizen 1-11

Felony 3-14

Subpoena 1-19

Pol. Machine 1-28

Conservation 2-31

Vocational Ed. 3-24

Injunction 2-23

Urban Population 3-4

Strike Bkr. 2-19

Profiteering 2-5

Prim. Election 1-31

Propaganda 3-16

Precinct 1-7

Sign. Diff $3 \times \sigma$ (diff)

10.9

KODAK SAFETY FILM CO. N.Y.

Graphic Representation by Sex

Boys

Girls

Total

Sixth Grade

0 10 20 30 40 50 60 70 80 90 100

Illiterate 3-10

Pres. Cab. 1-10

Aliens 3-32

Speculator 2-10

Pol. Boss 1-26

Race Hatred 3-11

Consumer 2-1

Blind Alley Job
3-30

Sweat Shop 2-22

Middleman 2-14

Recreation 3-26

Seasonal Trade
2-22Post. Sav. Acct.
2-7

Municipal 1-6

Labor Union 2-18

Financier 2-11

Sign. Diff $3 \times \sigma$ (diff)

12.0

Graphic Representation by Sex.

Boys —

Girls —

Total —

Sixth Grade

0 10 20 30 40 50 60 70 80 90 100

Employees 3-12
Immigrants

Budget 3-2

Graft 1-13

Naturaliztn. 1-14

Rural 3-5

Census 3-31

Coroner 1-1

Pol. Parties 1-24

Criminal Ed. 3-15

Comp. School Law
3-25

Pol. Convtn. 1-29

Ordinance 1-5

Registered Mail
2-13

National Church
3-28

Tariff 1-15

Mortgage 2-15

Sign. Diff. 3 X ~

13.2

13.5

—

—

Graphic Representation by Sex,
Boys Girls

Total Sixth Grade

0 10 20 30 40 50 60 70 80 90 100

Deed 2-16

Pauper 3-8

Plain Clo. Man
1-3

Post.Mop.Ord.
2-12

Epidemic 3-17

Search Warrant
1-20

Con.Disease 3-20

Politics 1-23

Frt. vs Exp.2-28

Stocks 2-29

Council 1-4

Transptn. 2-27

Income Tax 1-16

Federal 1-12

Chain Store 2-4

Sign. Diff. 3 X σ

13.5

13.5

Graphic Representation by Sex.

Boys

Girls

Total

Sixth Grade

0 10 20 30 40 50 60 70 80 90 100

Instal. Plan 2-17

Legislature 1-9

Juvenile Court 1-17

Bail 1-18

Party Ticket 1-30

Nat. Resources 2-32

Ed. Lawyer vs
Salesman 3-23

Americaniztn. 3-13

Polling Place 1-22

Whole. Merch. 2-3

Blind Schools 3-21

Investment 2-9

Good Roads 3-29

Slums 3-3

Fire Dept. 1-2

Sign. Diff 3 X σ

13.5

12.9

Graphic Representation by Sex.

Boys — Girls — Total —

Sixth Grade

0 10 20 30 40 50 60 70 80 90 100

Suburbs 3-7

Strike 2-25

Tenement 3-6

Candidate 1-21

Quarantine 3-18

Good Morals 3-29

Immigrant 3-9

Chg. Acct. 2-6

Deposit 2-8

Bankrupt 2-2

Inspect. Foods 3-19

Telegraph Imp. 2-30

Sheriff 1-8

Schools 3-22

Ballot 1-25

Divorce 3-1

Sign. Dff; 3 X 5'

12.-

8.5

Graphic Representation by Sex
Boys — Girls —

Seventh Grade
Total —

0 10 20 30 40 50 60 70 80 90 100

Pol. Pltm. 1-27

Citizen 1-11

Boycott 2-24

Felony 3-14

Urban Pop. 3-4

Conservation 2-31

Pol. Mach. 1-28

Subpoena 1-19

Strike Bkr. 2-19

Pol. Boss 1-26

Govt. Owner. 1-32

Injunction 2-23

Voc. Ed. 3-24

Propaganda 3-16

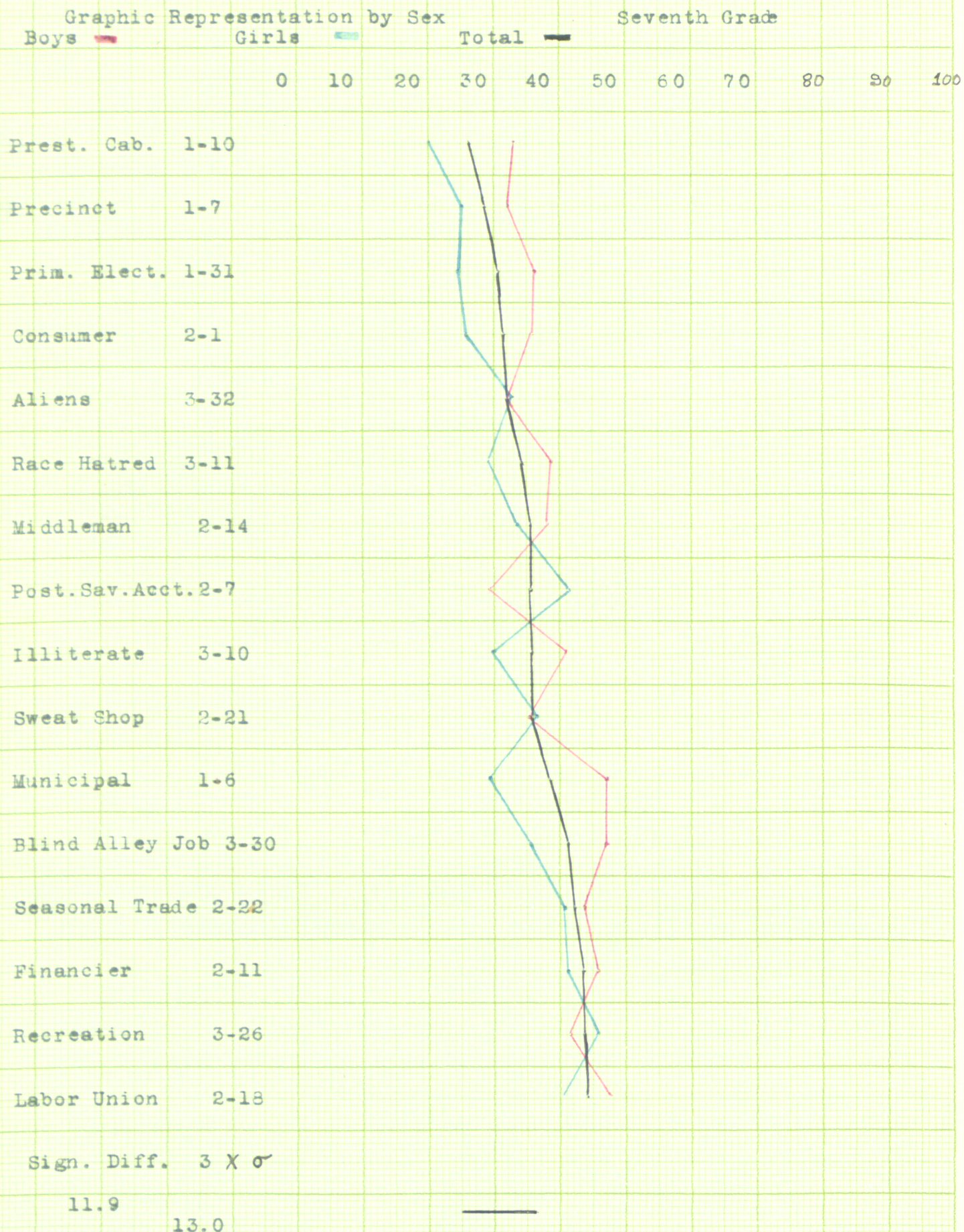
Speculator 2-10

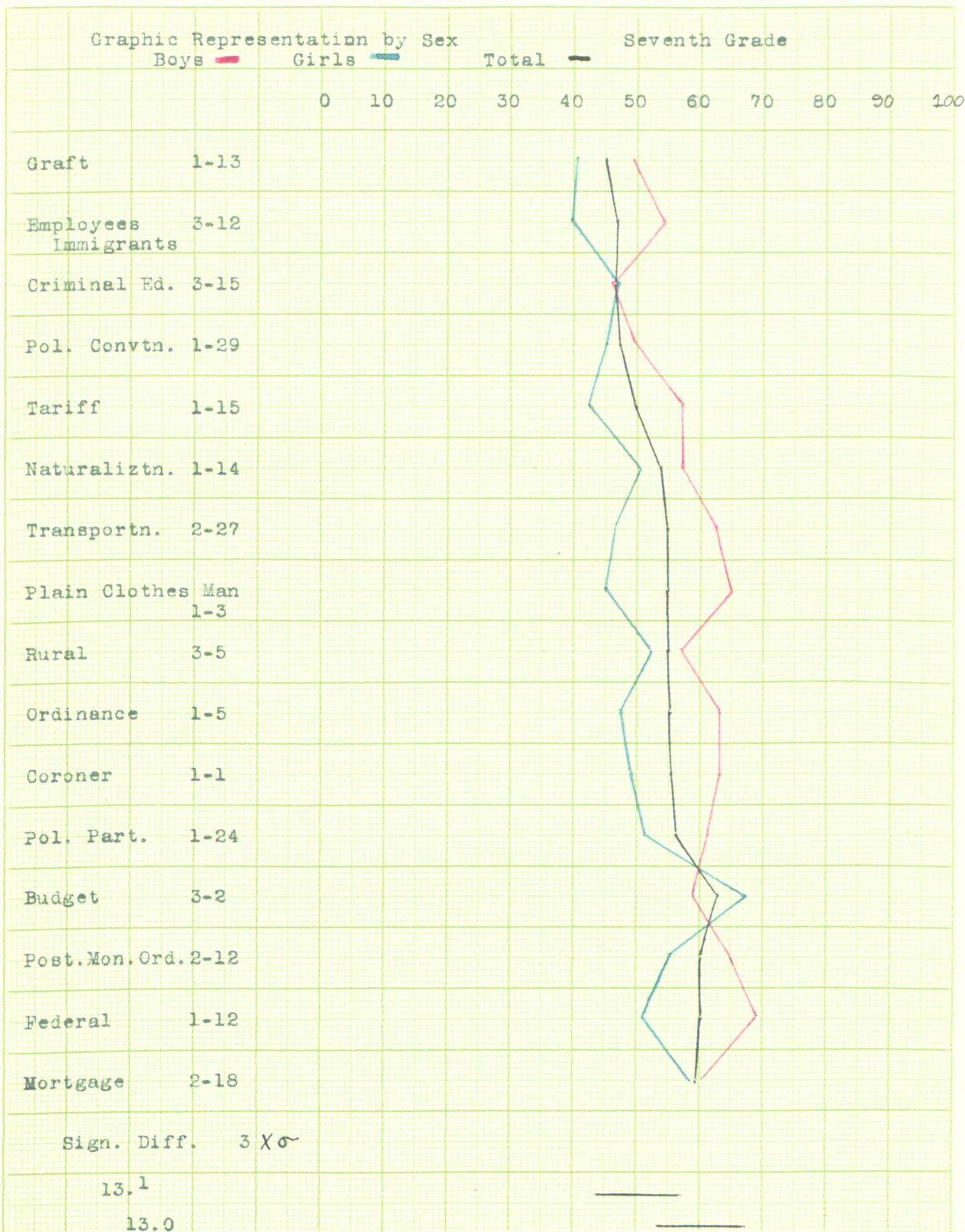
Profiteering 2-5

Sign. Diff. 3 X σ'

9.6

11.1





Graphic Representation by Sex

Seventh Grade

Boys

Girls

Total

0 10 20 30 40 50 60 70 80 90 100

Registered Mail 2-13

Council 1-4

Comp. School Law 3-25

Search Warrant 1-20

Frt. vs Exp. 2-28

Census 3-31

Income Tax 1-16

Stocks 2-29

Deed 2-16

Cop; Disease 3-20

Pauper 3-8

Chain Store 2-4

Poverty 3-27

Nat. Church 3-28

Good Roads 2-26

Investment 2-9

Sign. Diff. 3 X σ

13.0

11.9

Graphic Representation by Sex

Seventh Grade

Boys

Girls

Total

0,

10

20

30

40

50

60

70

80

90

100

Politics

1-23

Blind Schools

3-21

Juvenile Court

1-17

Epidemic

3-17

Whole.Merch.

2-3

Americaniztn.

3-13

Nat. Resources

2-32

Ed. Lawyer vs
Salesman

3-23

Instal. Plan

2-17

Employee

2-20

Strike

2-25

Bail

1-18

Patry Ticket

1-30

Fire Dept.

1-2

Good Morals

3-29

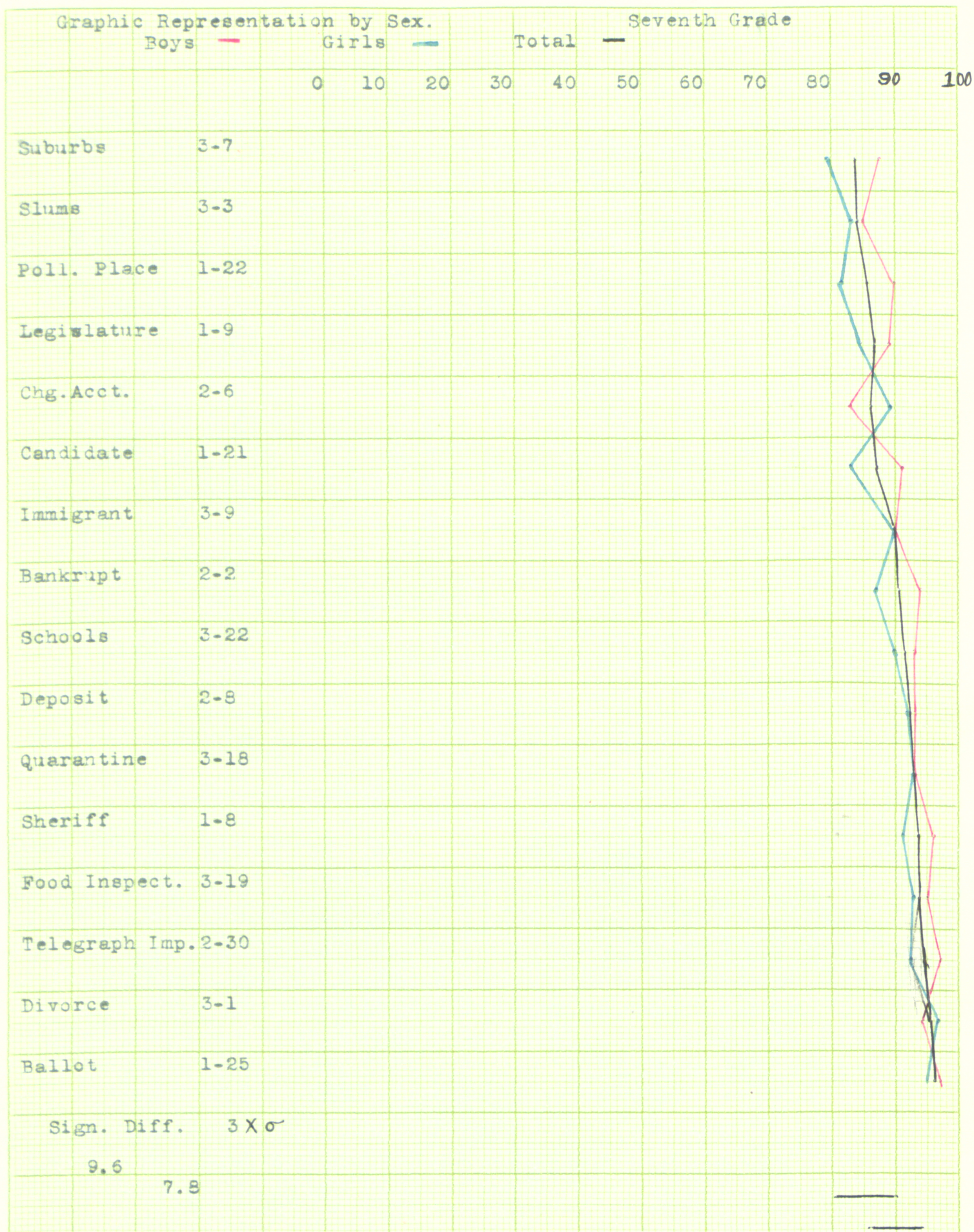
Tenement

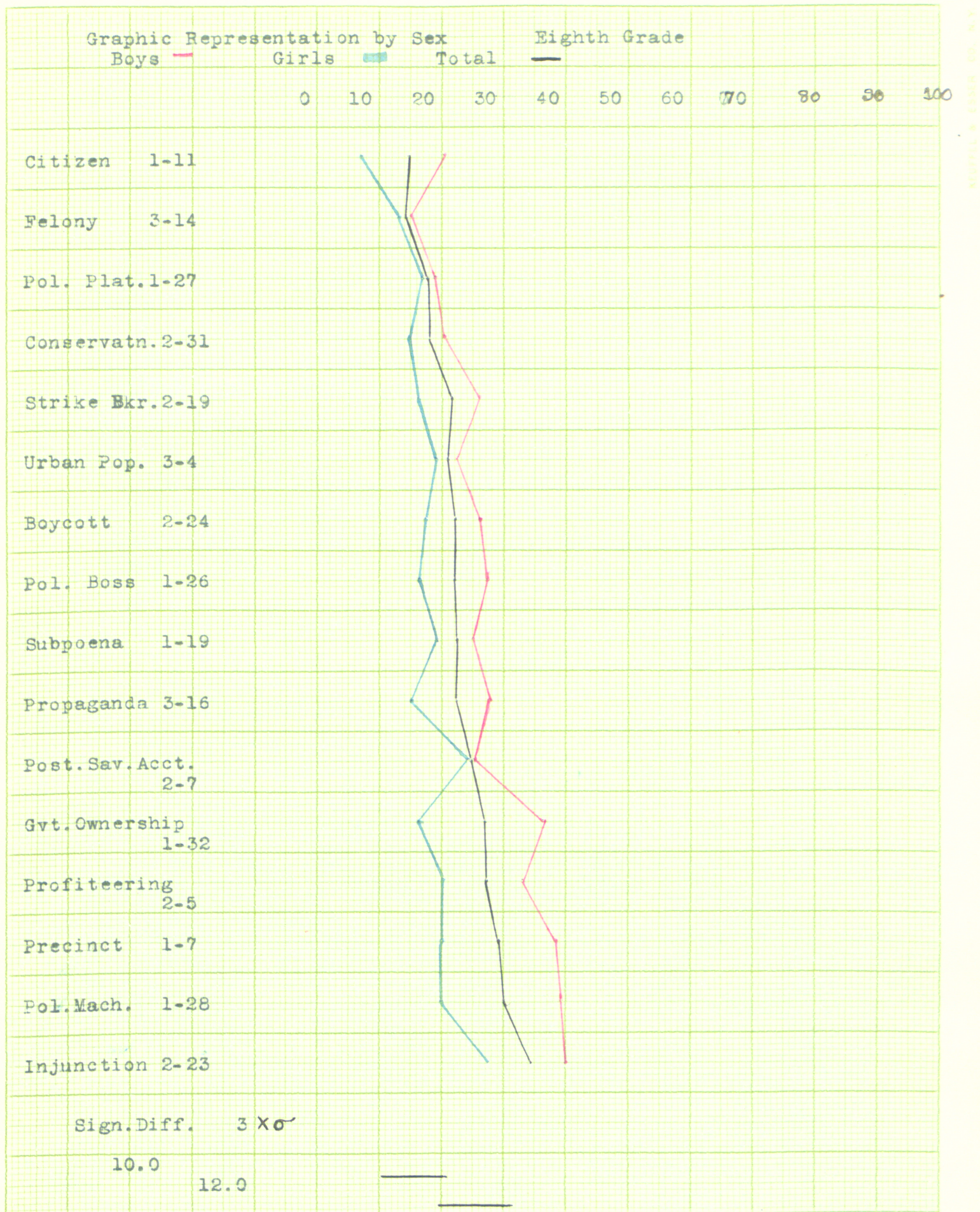
3-6

Sign. Diff.

3 X 5

10.5





Graphic Representation By Sex. Eighth Grade
 Boys — Girls — Total —

0 10 20 30 40 50 60 70 80 90 100

Speculator 2-10

Municipal 1-6

Prim. Election 1-21

Voc. Education 3-24

Race Hatred 3-11

Criminal Ed. 3-15

Illiterate 3-10

Middleman 2-14

Pres. Cab. 1-10

Consumer 2-1

Swaet Shop 2-21

Blind Alley Job 3-30

Seasonal Trade 2-22

Labor Union 2-18

Graft 1-13

Aliens 3-32

Sign. Diff. 3σ

13.5

13.5

Graphic Representation by Sex

Eighth
Grade

Boys

Girls

Total

0 10 20 30 40 50 60 70 80 90 100

Post. Mon. Ord. 2-12

Plain Clo, Man 1-2

Registered Mail 2-13

Financier 2-11

Pol. Convtn. 1-29

Employees
Immigrants 3-12

Budget 3-2

Rural 3-5

Coroner 1-1

Mortgage 2-15

Frt. vs Exp. 2-28

Recreation 3-26

Income Tax 1-16

Transptn. 2-27

Con. Disease 3-20

Council 1-4

Sign. Diff. 3 X 5

13.5

12.9

Graphic Representation by Sex.

Boys

Girls

Total

Eighth Grade

0 10 20 30 40 50 60 70 80 90 100

Comp. School Law 3-25

Deed 2-16

Federal 1-12

Stocks 2-29

Nat. Church 3-28

Chain Store 2-4

Tariff 1-15

Pauper 3-8

Good Roads 2-26

Blind Schools 3-21

Juvenile Court 1-17

Pol. Parties 1-24

Search Warrant 1-20

Census 3-31

Ed. Lawyer vs
Salesman 3-23

Americaniztn. 3-13

Sign. Diff. 3 x 6

12.0

10.0

Graphic Representation by Sex

Boys

Girls

Total

Eighth Grade

0

10

20

30

40

50

60

70

80

90

100

Politics

1-23

Employee

2-20

Epidemic

3-17

Poverty

3-27

Good Morals

3-29

Investment

2-9

Whole.Merch.

2-3

Strike

2-25

Naturaliztn.

1-14

Mail

1-18

Instal.Plan

2-17

Fire dept.

1-2

Poll.Place

1-22

Legislature

1-9

Ordinance

1-5

Tenement

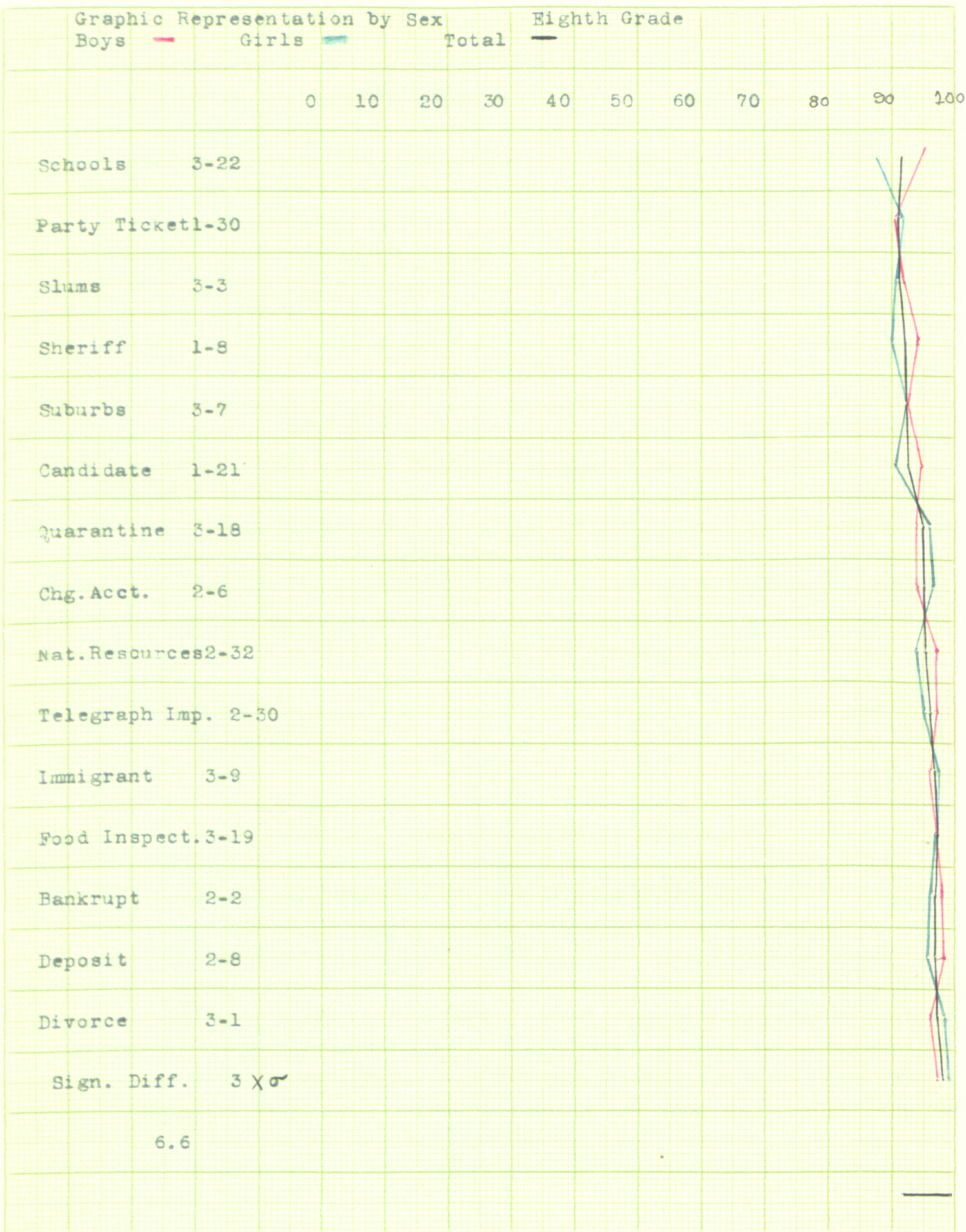
3-6

Sign.Diff.

3 X 6

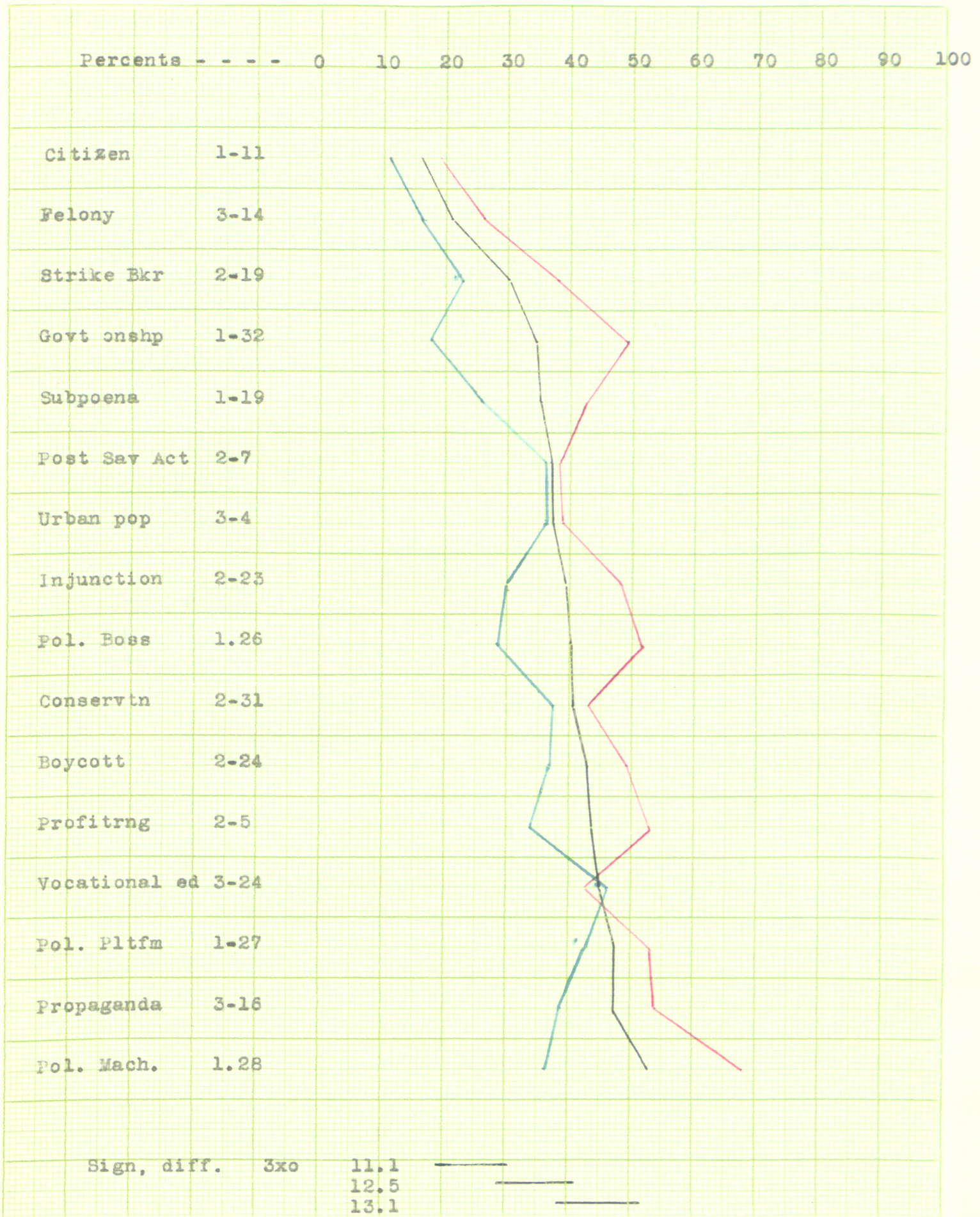
10.0

Graph VI-D (continued)



Graph VI-E PERCENT OF CORRECT RESPONSES.

Ninth Grade.



Graphic Representation by Sex

Ninth Grade

Boys — Girls — Total —

0 10 20 30 40 50 60 70 80 90 100

Prest. Cab; 1-10

Prim. Election 1-31

Seasonal Trade 2-22

Criminal Ed. 3-15

Race Hatred 3-11

Consumer 2-1

Speculator 2-10

Sweat Shop 2-21

Labor Union 2-18

Aliens 3-32

Middleman 2-14

Municipal 1-6

Precinct 1-7

Graft 1-13

Illiterate 3-10

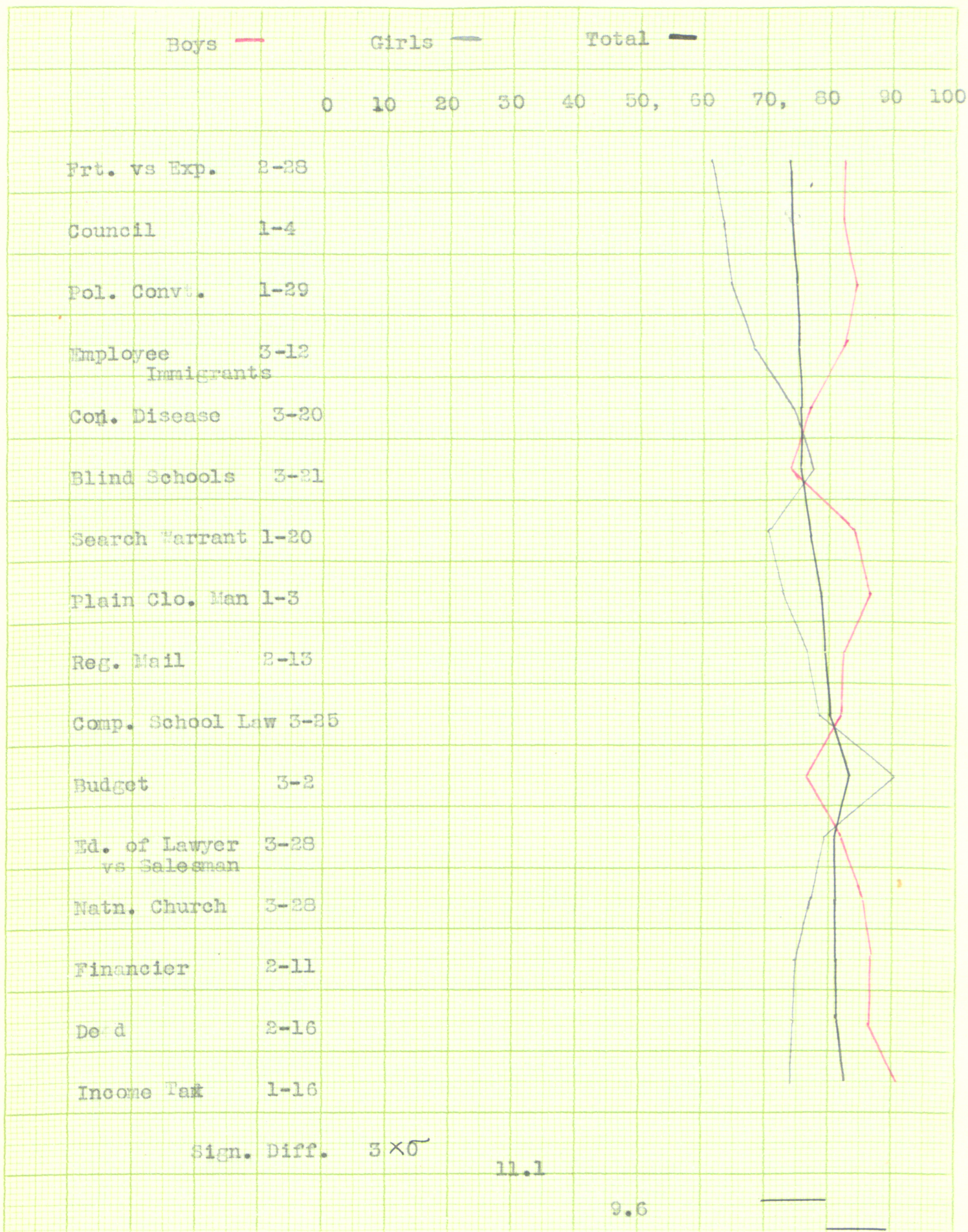
Transportation 2-27

Sign. Diff. $3 \times \sigma$

13.1

12.5

Graph VI - e (continued)



Graphic Representation by Sex Ninth Grade
 Boys — Girls — Total —

0 10 20 30 40 50 60 70 80 90 100

Coroner 1-1

Good Morals 3-29

Juvenile Court 1-17

Census 3-31

Federal 1-12

Stocks 2-29

Post.Mon.Ord. 2-12

Recreation 3-26

Employee 2-20

Pol. Parties 1-24

Poverty 3-27

Mortgage 2-15

Bail 1-18

Investment 2-9

Rural 3-5

Blind Alley Job 3-30

Sign.Diff. 3 X 0

9.6

KODAK SAFETY FILM CO. N.Y.

Graphic Representation by Sex Ninth Grade

Boys — Girls — Total —

0 10 20 30 40 50 60 70 80 90 100

Schools 3-22

Good Roads 2-26

Legislature 1-9

Chain Store 2-4

Strike 2-25

Tariff 1-15

Nat. Resources 2-32

Epidemic 3-17

Ordinance 1-5

Whole. Merch. 2-3

Politics 1-23

Fire Dept. 1-2

Telegraph
Imp. 2-30

Quarentine 3-18

Sheriff 1-8

Chg. Acct. 2-6

Sign. Diff. 3 X 5

7.8

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AN INVENTORY IN COMMUNITY CIVICS

Part I

W. H. BURTON

(Not a standard test. Constructed for use in a specific investigation.)
(Not released for publication in any form.)

1. If you are a boy make an X here----- If a girl make an X here-----
2. Name----- Room-----
3. Name of your school----- Grade-----
4. Age last birthday----- Date of birthday-----

On the following pages you will find a number of questions. Under each question there are three answers. One of these answers is the best answer. Find the best answer and make an X in front of it. If you do not know which is the right answer, do not make an X, but go on to the next question.

If you come to questions which you do not understand, or which have hard words in them, do not try to answer them, but go on to the next ones. Do not guess at the answer if you do not know which is the right one.

SAMPLE QUESTIONS

Below there are two questions to show you how to do the others. The first one asks, "What is a college?" The right answer is "A place to get an education." You may make an X in front of that answer. The next one asks, "What is a janitor?" and you know the right answer is "A man who sweeps and cleans buildings," so you may put an X in front of that answer.

What is a college?

- A place where sick people are cared for.
- A place to get an education.
- A place where automobiles are made.

What is a janitor?

- A man who sweeps and cleans buildings.
- A man who drives a taxicab.
- A man who takes tickets on the train.

DO NOT WRITE IN THESE BLANKS

Section 1-----Section 2-----Section 3-----Total-----

SECTION I

Remember, you are to find the right answer to each question and make an X in front of it. If you do not know the right answer **do not guess at it**. It does not count against you to leave some questions without answering them. Go on to the next question.

1. If a policeman finds a dead body, to whom does he turn it over?
The chief of police.
The coroner.
The health officer.
2. How is the fire department paid for?
Out of tax money..
By the fire insurance companies.
By people whose houses have been saved.
3. What is a plain-clothes man?
A man who buys and sells old clothes.
A tailor who makes men's suits and coats.
A policeman who does not wear a uniform.
4. Who makes the laws for the city?
The council.
The judges and the courts.
The mayor and a special committee.
5. What is a city ordinance?
A city officer.
A city law.
A city map.
6. What does the word municipal mean?
It means belonging to the United States government.
It means belonging to a foreign government.
It means belonging to the city government.
7. What is a precinct?
It is a kind of city law.
It is a kind of city officer.
It is a kind of division of the city.
8. What county officer is most nearly like a city chief of police?
The county auditor.
The county commissioner.
The county sheriff.
9. What is the state legislature?
A body of men who make the state laws.
A body of men who keep the state records.
A body of men who manage state courts.
10. Who are the men in the president's cabinet?
The heads of the chief government departments.
The secret service men who guard him.
A group of the most important senators.
11. People of what races can be made citizens of the United States?
Only the white races, negroes, and Indians.
Only people of the white races.
People of any race who have good characters.
12. What does the word federal mean?
It means belonging to a foreign government.
It means belonging to the city government.
It means belonging to the national government.
13. What is graft?
Money stolen or received dishonestly.
Money used to pay city officers with.
Money used to pay for city parks and boulevards.
14. What is meant by naturalization?
It is one way of selecting candidates to run for office.
It is the process by which a foreigner is made a citizen.
It is another name for joining the army or navy.
15. What is a tariff?
A tax on goods made in this country.
A tax on goods shipped into this country.
A tax on houses and land.
16. What is an income tax?
It is a tax on theater tickets, movies, and ice-cream sodas.
It is a tax on goods coming into this country.
It is a tax on wages, salaries, or money one receives.

SECTION II

1. What is a consumer?

A person who manufactures goods of any kind.
A person who uses goods of any kind.
A person who stores goods of any kind.

2. What does it mean to say that a man is bankrupt?

That he has a great deal of money in the bank.
That he has not enough money to pay his debts.
That he owns stock in the bank.

3. What is a wholesale merchant?

One who stores large quantities of goods and sells to smaller stores.
One who has many customers and sells many goods.
One who has many big bargain sales every year.

4. What is a chain store?

One which sells automobile supplies.
One with many small departments in it, all in one building.
One which belongs to a group of stores which are all alike.

5. What is profiteering?

Taking far more profit than is honest or fair.
Dividing up profits among those owning the business.
Giving profit coupons to customers.

6. What is a charge account?

An arrangement with a store so that customers can take goods without paying for them until the end of the month.
An arrangement with a store so that goods can be saved for the customer until he is able to pay for them.
An arrangement so that goods need not be paid for until delivered.

7. What is a postal savings bank?

A post-office department which will send money through the mail for you.
A post-office department where you can leave money for safekeeping.
A post-office department which is just like a regular bank.

8. What is meant by making a deposit at the bank?

Cashing a check at the bank.
Taking money out of the bank.
Putting money in the bank.

9. What do people do when they make investments?

Put their money in the bank where it will be safe.
Use their money to try to make more money.
Waste their money through making mistakes.

10. What is a speculator?

A man who buys only the best and safest stocks and bonds.
A merchant who shares the profits with his customers.
A man who tries to make much money quickly by buying and selling.

11. What kind of work does a financier do?

Helps run banks and manage money matters.
Helps run courts and manage trials with the lawyers.
Helps run colleges and plan educational matters.

12. What is a postal money order?

It is an order paying you for packages lost in the mail.
It is a way to send money by mail.
It is an order to take money out of the postal savings bank.

13. Which is the best way to send valuable things by mail?

Registered mail.
Special delivery.
Parcel post.

14. What is a middleman?

A man who handles goods between the freight yards and the stores.
A man who handles goods between the maker and the user.
A man who stores goods between seasons until they are needed.

15. Why do people put mortgages on their property?

In order to prove that they own it.
So they will not have to pay such high taxes.
So they can borrow money on it.

16. What does a deed to property show?

It shows how much it is worth.
It shows who owns it.
It shows who rents it and what they pay.

SECTION III

1. What is a divorce?

- A court order breaking up a marriage.
- A court order requiring a husband to care for his family better.
- A court order punishing husbands and wives who do not take good care of their children.

2. What is a budget?

- A statement of how one's money is to be spent.
- A kind of tax on money, stocks, and valuables.
- An amount of money given to charity.

3. What are slums?

- Parts of the city where factories and freight yards are built.
- Parts of the city where there are many vacant lots and poor streets.
- A dirty, unhealthy part of the city where many poor people live.

4. What is an urban population?

- A population living in the country.
- A population living in the cities.
- A population living in a foreign country.

5. Where are the rural districts?

- Out in the country.
- In the business district.
- In the factory district.

6. What is a tenement?

- A place where poor people may receive medicine free.
- A place where poor people live in crowded, unhealthy conditions.
- A place which provides playgrounds for poor children.

7. Where are suburbs to be found?

- In the business section of the city.
- Out in the country on the farms.
- Near the edges of the city.

8. What is a pauper?

- A man who is very sick.
- A man who is not very smart.
- A man who has no money.

9. What is an immigrant?

- A person who comes to this country from some other country.
- A person who is ignorant, dirty and a poor worker.
- A person who commits crimes and is dangerous.

10. What is an illiterate person?

- A person who can read and write.
- A person who cannot read and write.
- A person who can speak more than one language.

11. What does race hatred mean?

- The dislike races feel for one another during war only.
- The dislike of any race for another for any reason.
- Dislikes between groups of the same race for any reason.

12. Why do employers wish many immigrants to come to America?

- Because this makes wages lower.
- Because the immigrants are skillful workers.
- Because they are easy to manage.

13. What is Americanization?

- Putting a red, white, and blue label on anything.
- Putting American government over the Philippines, Alaska, etc.
- Educating our immigrants to become good citizens.

14. What is a felony?

- A crime which is very serious.
- A crime which is not very serious.
- A crime for which you are fined but not put in jail.

15. Are most criminals well educated or not?

- Most of them are educated, but find it easier to steal than work.
- Most of them are uneducated and do not know any better.
- Most of them are well educated and use their brains to plan crimes.

16. What is propaganda?

- Saying and writing things which are strictly truthful.
- Telling news and current events in newspapers.
- Saying and writing things to get people to believe your way.

AN INVENTORY IN COMMUNITY CIVICS

W. H. BURTON

(Not a standard test. Constructed for use in a specific investigation.)
(Not released for publication in any form.)

1. If you are a boy make an X here----- If a girl make an X here-----
2. Name----- Room-----
3. Name of your school----- Grade -----

Do you remember answering, a few days ago, some questions on a paper just like this one? I would like you to answer a few more for me.

Do you remember how to do them? Each question has three answers under it. One of these answers is the best answer. Find the best answer and make an X in front of it. If you do not know which is the best answer, do not make an X but go on to the next question. Do not guess at the answer if you do not know which is the right one.

If you come to questions which you do not understand, or which have hard words in them, do not try to answer them, but go on to the next ones.

SECTION I

17. What is the juvenile court?

- A court which handles serious crimes only.
- A court which handles children's cases only.
- A court in small towns out in the country.

18. What is bail money?

- Money used to buy votes dishonestly.
- Money used to pay a lawyer to defend you in court.
- Money used to get a man out of jail until his trial.

19. What is a subpoena?

- An order for a man's arrest when he is guilty.
- An order to appear in court at a certain time.
- An order freeing a man from jail when he is not guilty.

20. What is a search warrant?

- An order allowing a policeman to search a man's pockets.
- An order to policemen to search for an escaped criminal.
- An order allowing a policeman to search a house.

(GO TO NEXT PAGE)

DO NOT WRITE IN THESE BLANKS

Section 1-----Section 2-----Section 3-----Total-----

SECTION I (Continued)

21. What is a candidate?

A man who holds a government office.
A man trying to get elected to an office.
A man who helps count votes after an election.

22. What is a polling place?

Where citizens pay their taxes.
Where election disputes are settled.
Where citizens vote.

23. What are politics concerned with?

The policemen and managing the police department.
Elections, voting, and running the government.
Lawyers, judges, and managing the courts.

24. What are political parties?

They are organizations of voters who believe the same things.
They are parades, meetings, etc., held just before an election.
They are parties given to celebrate winning an election.

25. What is a ballot?

A piece of paper on which to vote.
A committee which counts votes.
A place where voting is done.

26. What is a political boss?

A man who sees that voters vote as he tells them.
A man who sees that votes are counted honestly.
A man who sees that voters are orderly while voting.

27. What is a political platform?

The stand from which the speakers make their speeches.
A statement of what the party believes in.
A list of men who are running for office.

28. What is a political machine?

An automobile used to get voters to the voting place.
A group of men who run political affairs to suit themselves.
A box into which votes are put to be counted.

29. What is a political convention?

A meeting held to decide election disputes.
A meeting held to discuss plans for making laws.
A meeting held to select candidates for an election.

30. What does the ticket of a political party show you?

It shows you what men are running for office.
It shows you whether you can vote or not.
It shows you where the voting places are.

31. What is a primary election?

The very first election of the year.
An election to select candidates for a later election.
It is an election which decides important things.

32. Read the following list carefully. Put an X in front of all those things which are usually owned by the city, the state, or the national government. Leave blank those things, which are usually owned by business men or by business companies.

Telephone lines

Fire engines

Police patrols

Street cars

Water works

Railroads

Street-cleaning wagons

Electric light system

Gas tanks and meters

Library

Playgrounds and parks.

Post-office

Newspapers

Ice plant and wagons

Schoolhouses

SECTION II

17. What is meant by buying on the instalment plan?

Paying so much a month for goods.
Borrowing money to pay for goods.
Paying cash for goods when you buy them.

18. What is a labor union?

An organization of all workmen in any line to secure their rights.
An organization of workmen to secure an equal division of money.
An organization of workmen to help each other secure jobs.

19. What is a strike breaker?

A man who refuses to quit his job and strike.
A man who takes the job of a man who is on strike.
A man who quits striking and goes back to his job.

20. What is an employee?

A man who is hired to work by another man.
A man who hires other men to work for him.
A man who is out of work and looking for it.

21. What is a sweat shop?

One in which people suffer from the heat.
One in which people do hard work under poor conditions.
One in which people work hard and get overheated.

22. What is a seasonal trade?

One which runs during all parts of the year.
One which runs without paying any attention to the weather.
One which runs only during certain parts of the year.

23. What is an injunction?

A court order making people do, or stop doing, a certain thing.
A place where several railroads come together.
A breakdown of machinery which stops work in a factory.

24. What is a boycott?

A form of taxation used in foreign countries.
Something like a reform school for bad boys.
A refusal to do business with certain people.

25. What is a strike?

Workmen quit and refuse to work.
Workmen ask for a job.
Workmen fight and create a disturbance.

26. Why are good roads and streets being built everywhere?

They are easier and nicer to ride and drive over.
They look better and are not so dirty.
They reduce the cost of transportation and help business.

27. Which is correct?

Transportation by water costs more than transportation by railroad.
Transportation by water costs less than transportation by railroad.
Transportation by water costs just the same as by railroad.

28. Which is correct?

Sending goods by freight is faster than by express.
Sending goods by freight is just as fast as by express.
Sending goods by freight is slower than by express.

29. When you speak of stocks and bonds what do you mean by stocks?

Valuable papers issued by the government and paying interest.
Shares in the ownership of a company or business.
Sums of money drawing interest in the bank.

30. Are telephones, telegraphs, and post-offices very important in business?

They are helpful, but not really very important.
They are of very great importance.
They are important, but not really worth all the money they cost to run.

31. What is conservation?

Saving such things as food, clothing, supplies, etc.
Saving such things as coal and iron mines, water power, etc.
Saving food by preserving it for next year.

32. What are a country's natural resources?

Its armies and navies which protect it.
Its mines, forests, rivers, etc.
Its railroads, factories, cities, etc.

SECTION III

17. What is an epidemic?

It is where many people are sick of the same disease.
It is where many people are sick of different diseases.
It is a way to stop disease by vaccination.

18. Why are sick people put in quarantine?

So they will not give other people the disease.
So they will get well quicker and more easily.
Because that is the kindest way to care for them.

19. Why does the law require markets, bakeries, restaurants, to be inspected?

To see that the prices are fair and honest.
To see that the food is clean and healthful.
To see that careful workmen are employed.

20. What is a contagious disease?

One you get by eating something.
One you get from other people.
One which is quite serious.

21. Why should we have schools for blind, deaf, and crippled children?

That is the easiest and kindest way to care for them.
So they will be able to support themselves later on.
So they will have something to do and not get in trouble.

22. What is the chief reason why schools are run?

Because we have enough money to run them.
Because the law says children must go to school.
Because all children should have an education.

23. Which is correct?

Lawyers and doctors need much more education than salesmen and merchants.
Lawyers and doctors need just the same education as salesmen and merchants.
Lawyers and doctors do not need as much education as salesmen and merchants.

24. What kind of education is vocational education?

One kind of musical education for singing and playing.
One which prepares boys and girls for some trade or business.
One kind of higher education that prepares you for college.

25. What does the compulsory school law do?

It makes people pay taxes to support schools.
It makes the schools run during certain months.
It makes pupils stay in school until a certain age.

26. What is meant by recreation?

Keeping the parks clean to play in.
Playing, resting, having a good time.
Teaching people to be better and happier.

27. What does poverty mean?

It means that money is saved and put in the bank.
It means that there is not enough money to buy necessary things.
It means that there is plenty of money to buy necessary things.

28. Do we have a national church in the United States?

The government has not made any church the national church.
The government has made one church the national church.
The government favors one church, but has no law about it.

29. Which of the following are the most important in good morals?

Being kind, happy, and cheerful.
Being generous and helpful.
Being honest and truthful.

30. What is a blind alley job?

One which is likely to be hard on the eyes.
One in a small factory on a narrow dark street.
One which does not train for better jobs.

31. What is the census?

A report the chief of police makes about the work of his department.
A report showing number of people in the country and many facts about them.
A report showing how many votes were cast and how much the elections cost.

32. What are aliens?

Foreigners who cannot read and write English very well.
Foreigners living in this country who are not citizens.
Foreigners who cause trouble and get into trouble with the police.

Graphic Representation by Sex Ninth Grade

Boys —

Girls —

Total —

0 10 20 30 40 50 60 70 80 90 100

Instal. Plan 2-17

Party Ticket 1-30

Food Insp. 3-19

Tenement 3-6

Suburbs 3-7

Americaniztn. 3-13

Poll. Place 1-22

Slums 3-3

Candidate 1-21

Divorce 3-1

Pauper 3-8

Ballot 1-25

Immigrant 3-9

Bankrupt 2-2

Naturaliztn. 1-14

Deposit 2-8

Sign. Diff. 3 x 6

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