

increase the proportion of registrants that vote in any election. There are several states where such notification is now required by law.

Finally, the experiments showed that knowledge of English, formal schooling, and familiarity with the simplest features of American political institutions are all factors which greatly influence the extent of popular participation in elections. A system of education reaching all adult illiterates would be a great step toward the permanent solution of the problem of non-voting. Too much emphasis cannot be placed upon the value of education as a method of stimulating a sustained interest in voting. The present experiment was largely educational, and the results produced can be traced to the confidence which the information imparted gave to certain persons who had been timid regarding the election process.

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**Invalid Ballots Under the Hare System of Proportional Representation.** One of the most widespread objections to the Hare system of proportional representation is its complexity. A Chinese puzzle seems simpler to the casual observer, and the man in the street is likely to conclude that such a method of voting has no value, because he will not take the time to understand it. Even those who have studied it closely often express doubts as to its feasibility for general elections. On the one hand, it requires the voter to express his choices among the candidates in a totally unfamiliar manner, and on the other, it imposes on the election officers a very special duty of being not only honest but accurate. The complexity of the count is probably the greater difficulty of the two. But with the rapid development of the technique of statistical compilation it seems probable that this will soon present no serious obstacle to the widespread use of the system.

The method of voting contemplated under proportional representation requires that the voters be converted from their traditional habits of expressing preferences by cross marks to the somewhat more exact method of expressing choices by means of numerals. If there is any real danger that the voter will be so confused that he will be unable to give an effective expression of his wishes, it would certainly show itself in a large percentage of invalid ballots. Unfortunately, the records of election statistics are woefully lacking on this point. Until proportional representation has once been adopted, little attention is paid to the number of ballots rejected, and if statistics are kept at all they are rarely

published. Even in those cities which have changed to the Hare system, the results have frequently been left unpublished, or, at best, published in inaccessible journals or newspapers.

An effort has been made in Table I to bring together data on this point for proportional-representation cities in the United States and Canada.<sup>1</sup> It will be noted that the experience of these cities in the matter of spoiled ballots has been far from conclusive. The percentage of spoiled ballots varied from 1.7 in the Winnipeg provincial election of June, 1920, to more than 20 in the Boulder, Col., municipal election of 1917. In general, the cities of Canada have a better record than those of the United States.

A number of reasons can be assigned for these differences in the proportion of ballots which could not be counted. The intelligence and literacy of the voters and the vigor of the educational campaign before the election are probably the most important factors. There seems to be some relation, likewise, between the percentage of votes spoiled and the length of experience of the community with proportional representation, the strictness of the election board in ruling out certain types of ballots, and the peculiar provisions of the local election law. In some cases it would appear that the number of invalid ballots varied with the size of the vote or the lack of interest in the issues involved. With so many variable factors to take into account, it would be misleading to compare one city with another.

Nor is it entirely fair to compare the number of invalid ballots in a single city before and after the introduction of the Hare system. Any change in the electoral machinery is likely to cause confusion at first. Furthermore, proportional representation votes are invariably counted centrally or semi-centrally. This makes possible adequate supervision and expert counters, neither of which are possible in the ordinary majority election. The large number of invalid ballots rejected whenever a recount is made under close supervision indicates that this may be an important element in the situation.

In spite of these difficulties of comparison, the experience of Cincinnati in the 1925 election, with regard to the number and kinds of invalid ballots, is very significant. Although the system was new, the vote large, the election laws relatively strict, and the task of the voter complicated

<sup>1</sup> This table has been compiled from "Local Impressions on P. R. in American Cities," *Proportional Representation Review*, April, 1924, 60-85. For supplementary information I am indebted to Mr. George H. Hallett, Jr., of the Proportional Representation League.

TABLE I  
 INVALIDITY OF PROPORTIONAL REPRESENTATION BALLOTS IN  
 AMERICAN CITIES

City	Election	Total Ballots	Invalid Ballots	Per cent Invalid	
<i>United States</i>					
Ashtabula, O.	1915	3,334	362	10.8	
	1917	3,438	262	7.6	
	1919	3,294	445	13.5	
	1921	5,154	156	3.0	
	1923	5,196	178	3.4	
	1925	4,781	237	5.0	
Boulder, Col.	1917	859	177	20.6	
	1919	1,165	275	23.6	
	1921	838	73	8.7	
	1923	1,995	378	18.9	
	1925	3,049	608	19.9	
Kalamazoo, Mich.	1918	4,461	157	3.5	
	1919	5,997	273	4.6	
Sacramento, Calif.	1921	12,607	305	2.4	
West Hartford, Conn.	1921	1,679	59	3.5	
	1922	1,681	78	4.6	
Cleveland, O.	1923	114,613	8,767	7.7	
	1925	108,167	8,518	7.9	
Cincinnati, O.	1925	124,091	4,361	3.5	
<i>Canada</i>					
Calgary, Alta.	1917	5,367	178	3.3	
	1918	7,069	643	9.1	
	1919	7,041	575	7.8	
	1920	8,461	541	6.4	
	1921	9,505	409	4.3	
	1922	13,483	476	3.5	
	1923	11,093	271	2.4	
	1925	10,445	237	2.8	
	Winnipeg, Man. (Provincial)	1920	48,246	819	1.7
		1922	45,078	750	1.7
(Municipal)	1920	29,640	2,077	7.0	
	1925	40,210	3,127	7.8	
	1922	3,093	186	6.0	
Moose Jaw, Sask.	1921	4,062	232	5.7	
North Battleford, Sask.	1921	712	15	2.1	
	1922	637	28	4.4	
	1923	857	64	7.5	
Regina, Sask.	1921	4,303	162	3.8	
	1922	3,812	162	4.3	
	1923	4,292	146	3.4	
	1924	6,173	263	4.3	

TABLE I (Continued)

City	Election	Total Ballots	Invalid Ballots	Per cent Invalid
<i>Canada (continued)</i>				
West Vancouver, B. C.	1921	303	10	3.3
	1922	558	27	4.8
	1924	547	11	2.0
Vancouver, B. C.	1921	6,310	172	2.7
	1922	11,140	803	7.2
	1922	10,913	741	6.8
South Vancouver, B. C.	1922	2,000	141	7.1
	1923	2,960	246	8.3
	1924	3,953	278	7.0
Victoria, B. C.	1922	4,155	154	3.7
Port Coquitlam, B. C.	1921	221	4	1.8
St. James, Man.	1923	2,212	50	2.3
Saskatoon, Sask.	1921	4,883	278	5.7
	1922	3,364	136	4.0
	1923	4,447	204	4.6
	1924	2,448	68	2.8
	1925	3,147	95	3.0
Edmonton, Alb.	1923	12,955	1,100	8.5
	1924	9,952	462	4.6
Total, United States	....	406,399	25,669	6.34
Total, Canada	....	350,407	16,341	4.66
GRAND TOTAL	....	756,806	42,010	5.55

by the fact that he was presented with six other ballots to be marked with an "x" at the same time that he was asked to vote by choices, only 3.51 per cent of the papers cast were invalid or blank. Even if all of the ballots classed as ineffective up to the last count be added to those illegally marked, the per cent would still be less than five and one-half (5.44). The exact figures are given in Table II.

This low percentage can hardly be attributed to the peculiar features of the Cincinnati electoral system. The Ohio election law seems unnecessarily strict in many points, and there was some complaint that the rulings of the board of elections were unfavorable to the new scheme. The board was bi-partisan. The two Republican members were frankly hostile to the Hare system, and the two Democratic members were only benevolently tolerant of it. Nevertheless, their rulings appeared to be

scrupulously impartial, and for the most part remarkably consistent and reasonably liberal.

TABLE II  
INVALID, BLANK, AND INEFFECTIVE BALLOTS

Kind of Ballot	Number	Per cent
Total of all ballots cast	124,091	100.00
Blank ballots	894	.72
Invalid on first count	3,467	2.79
Total invalid and blank	4,361	3.51
Ineffective, 2d to 33d count	2,402	1.93
Total invalid, blank, ineffective	6,763	5.44
Ineffective, final count	9,562	7.69
Grand total of ballots not used	16,325	13.13

The decision of the board of elections on the ballots sent them by the tellers as "doubtful or questioned" is shown in detail in Table III. Altogether, 5,025 went through their hands, 13.6 per cent of which were declared void. The bulk of questioned ballots (4,379) were sent to the board during the first unofficial sorting of first choices and were acted on by them on Thursday and Friday, November 5 and 6. The remainder were ballots which had been passed over as valid during this first sorting and were questioned during the stamping and numbering of the first choice ballots of each candidate. The board acted on these on Saturday and Sunday, November 7 and 8. For convenience, the two groups are designated in Table III under the captions "unofficial count" and "official count" respectively. The percentages in the table are percentages of the total number declared invalid or valid as the case may be.

Nearly half of the invalid ballots were marked with two or more crosses (45.3 per cent). Another important group consisted of those marked with two or more figures "1" (13.4 per cent). A third lot were invalidated by having both a cross and a figure "1" (6.5 per cent). Together, these three groups comprised two-thirds (65.2 per cent) of the ballots rejected. It seems possible that the last two groups might be greatly reduced, if not entirely eliminated, by a change in the method of presenting proportional representation to the electorate. Many organizations used the slogan "mark the ballot with figures." Somewhat better results might have been secured by stressing the necessity of marking "choices" in order of preference.

Another difficulty encountered at Cincinnati was due to the peculiar racial composition of the population. Nearly one-fourth of the people (97,823, or 24.2 per cent) were born in Germany or of German parentage.

TABLE III<sup>2</sup>  
 RULING OF BOARD OF ELECTIONS ON INVALID AND QUESTIONED BALLOTS

Declared Invalid, Reasons	Unofficial Count		Official Count		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
2 "x"s	1898	49.7	43	7.9	1941	44.6
2 "1"s	432	11.3	142	26.1	574	13.2
"x" and "1"	192	5.0	88	16.3	280	6.4
No. "1" marked	224	5.9	42	7.7	266	6.1
Ink, colored or in- delible pencil	93	2.4	126	23.3	219	5.0
"Yes" or "No"	19	.5	1	.2	20	.4
Mark on line	18	.5	...	....	18	.4
"x" and "1" in same square	15	.4	...	....	15	.3
Check (✓)	8	.2	1	.2	9	.2
Minus—"-"	3	.1	...	....	3	.1
Other	34	.9	88	16.3	122	2.8
Sub Total	2936	76.9	531	98.0	3467	79.5
Blank Ballots	883	23.1	11	2.0	894	20.5
<b>TOTAL</b>	<b>3819</b>	<b>100.0</b>	<b>542</b>	<b>100.0</b>	<b>4361</b>	<b>100.0</b>
Declared Valid, Objection						
Erasure	271	47.5	51	49.9	322	47.8
German "1"	76	13.3	14	13.5	90	13.4
"x" in place of "1"	77	13.5	3	2.9	80	11.9
Marked on both sides of names	22	3.9	11	10.6	33	4.9
"x" and "1" in same square	23	4.0	3	2.9	26	3.7
Written name	10	1.8	3	2.9	13	1.9
Figure out of box	50	8.8	1	.9	51	7.6
Other	41	7.2	17	16.4	58	8.6
<b>TOTAL</b>	<b>570</b>	<b>100.0</b>	<b>103</b>	<b>100.0</b>	<b>673</b>	<b>100.0</b>
Total Ballots Hand- led	4,379		646		5,025	
Per cent held Invalid	87.0		84.0		86.6	
Per cent held Valid	13.0		16.0		13.4	

<sup>1</sup> The following explanations may be useful:

"2 'x's" includes all ballots rejected because more than one name had a cross mark opposite it.

The figure "1" in German script has a hook on it, and sometimes it is difficult to distinguish between it and a "7." This difficulty was not realized at the first sitting of the board, and probably a few ballots were thrown out erroneously on the ground that two first choices had been indicated. The error (if any) was very small, however, for after about eight hundred ballots had been passed on, the board discovered the difficulty and made a closer inspection of the ballots. This problem would probably not present itself in most other communities. In any event, an intensive educational campaign on this point would probably be of great help to the tellers.

Many of the ballots passed on were exceedingly curious and throw considerable light on the mental processes of the voters. Some were marked with Roman numerals, while others had "No" written in every box not containing a figure. Two voters numbered their ballots straight

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"2 '1's" includes all ballots rejected because more than one name had a first choice indicated opposite it.

"'x' and '1'" includes ballots with a first choice and a cross opposite different names.

"No. '1' marked" includes ballots having numbers marked but no first choice indicated. See Exhibit I, number 19.

"Ink, colored or indelible pencil" includes all ballots rejected because not marked with the official election pencil provided by the board.

"'Yes' or 'No'" refers to ballots containing writing indicating that the voter was in favor of or opposed to certain candidates.

"Mark on line" includes all cases where the first choice mark ("x" or "1") was on the line between candidates so that it was impossible to tell which candidate was intended.

"'x' and '1' in same square" includes only ballots with both of these marks opposite the same candidate.

"Check (✓)" includes all ballots marked with other marks than a cross, a figure, or a minus, except those having a completely illegible mark.

"Minus— '-' " includes ballots having a horizontal line in the box opposite the name.

"Other" Invalid ballots includes largely the illegible and those invalid because written on. See below.

"Erasure" did not invalidate a ballot unless it left it in such a condition that the voter's wish could not be discovered.

"German 1" is a figure "1" with a hook on it. It was found that this was easily confused with a "7". Where it was possible to distinguish between them the ballot was declared valid.

"Figure out of box" and "Marked on both sides of names" both refer to ballots on which the voter had placed numbers elsewhere than in the place regularly provided for them.

"Written name" did not invalidate the ballot even though it was written over a printed name which had been scratched out.

down from "1" to "39." The law required these to be counted, although it was obvious that they did not represent a rational choice.

The invalid ballots show even more erratic tendencies. Some voters wrote "o.k." or "opposition" opposite certain names; some drew lines through all but nine names; one voter wrote out "first," "second," etc.; a number underlined nine names. One voter numbered the names on his ballot "1," "2," "3," "1," "2," "3," etc.; another even went so far as to number the paragraphs of the directions at the head of the ballot. These actions may have been due to illiteracy, but the voter who marked "7," "10," "13," "19," etc., evidently thought the Hare system was an intelligence puzzle to test his mathematical ability. These figures were placed after the seventh, tenth, thirteenth, nineteenth names, etc., indicating that the voter had laboriously counted the place from the top which his favorites occupied and numbered them accordingly.

Such ballots, however, were the exception rather than the rule. It seems a fair conclusion that less than one ballot in forty was mismarked because the voter misunderstood the new method of voting.<sup>3</sup> In other words, the educational campaign had been nearly ninety-eight per cent effective, a truly remarkable record.

This showing is explained in part by the character of the population of the city. There is no large foreign element of *recent* immigrants. For the most part, the people are substantial, middle class, business and commercial folk who have had the advantages of good schools. The city has a very low percentage of illiteracy, whether it be compared with the average for the state, the United States, or other large cities.

Great credit is due also to the splendid campaign of education which was carried on before the election. It began more than a year before the council was to be chosen and included lectures and demonstrations before women's clubs, groups of business men, and church organizations. Both political organizations (the regular Republican organization and the City Charter Committee) made strenuous attempts to reach their supporters with the information necessary for the proper voting response. The newspapers carried a number of articles describing the new system; and during the last week of the campaign a vacant store

<sup>3</sup> Nearly six per cent of the ballots declared void would have been found invalid under any scheme of voting. This includes those marked in ink, colored, or indelible pencil, those with "yes" or "no" written opposite the names, and those marked with a check or minus sign. Probably part of the ballots classed as invalid for other reasons would have been rejected under the old ward plan.



was rented in the business district where hourly demonstrations were conducted by representatives of the Proportional Representation League.

Work in the schools was by no means neglected. The public education committee of the Woman's City Club enlisted the services of Miss Leona Kamm, a public school teacher, who helped draw up an excellent brochure on the new charter and the Hare system. This pamphlet was so clearly and simply written that it could be used to teach children in the fifth to eighth grades how to mark the ballots. Lessons based on this material were introduced as part of the regular curriculum of the schools. The result was particularly gratifying, both to the advocates of proportional representation and to the people of Cincinnati. While a few districts seem to have been missed in this educational campaign, the efforts bore fruit in almost every precinct. Perhaps not the least of the benefits of the campaign was the reawakening of civic interest which it produced.

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