

WHY THE 1936 LITERARY DIGEST POLL FAILED

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Abstract The *Literary Digest* poll of 1936 holds an infamous place in the history of survey research. Despite its importance, no empirical research has been conducted to determine why the poll failed. Using data from a 1937 Gallup survey which asked about participation in the *Literary Digest* poll I conclude that the magazine's sample and the response were both biased and jointly produced the wildly incorrect estimate of the vote. But, if all of those who were polled had responded, the magazine would have, at least, correctly predicted Roosevelt the winner. The current relevance of these findings is discussed.

The 1936 campaign concluded with the *Literary Digest* (1936a) publishing survey results forecasting a landslide victory for the Republican presidential candidate, Alf Landon. The actual election was, of course, won by the incumbent, Franklin Roosevelt, by a large margin. Thus the *Literary Digest* poll gained an infamous place in the history of survey research.

Almost every book on presidential elections or survey methodology contains some scathing reference to the poll and gives reasons why it failed to forecast the correct results. Some claim the error resulted from a biased sample. A few assert that the sample was acceptable but that the low response rate produced the incorrect forecast. Many others state that a combination of these problems was responsible. Surprisingly, these claims are mere speculation; no analysis has been conducted to determine why the *Literary Digest* poll was wrong. Consequently, we have some ideas—really competing hypotheses—as to why the poll failed but no empirical research by which to determine the source of the error.

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In this article I present evidence on why the *Literary Digest* poll failed, using data from a 1937 Gallup Poll which asked about participation in the magazine's survey.¹ Examining who was asked to participate in the poll and who actually did so allows us to determine where the poll went wrong.

The 1936 *Literary Digest* Poll

The 1936 poll was not the *Literary Digest*'s first survey. The magazine had run a poll on every presidential election since 1920 and had correctly forecast the winner in each.² Indeed, they called Roosevelt's victory in 1932 within one percentage point of the actual result. The poll had gained credibility among the public and politicians. According to Katz and Cantril (1937:156):

During the 1936 campaign, for example, the *New York Herald Tribune* devoted as much space to the *Literary Digest* results as to those of the American Institute of Public Opinion for which it was paying. The Hearst papers had their own poll (Crossley's Survey) deep in the back pages while featuring . . . the *Digest*'s.

The magazine was fond of quoting Democratic party chairman James A. Farley saying, "The *Literary Digest* poll is an achievement of no little magnitude. It is a Poll fairly and correctly conducted" (*Literary Digest*, 1936a:5). There are indications that the 1936 poll's favorable results encouraged the Landon campaign (Burns, 1956:281).

There were some skeptics. Academics and the pioneering professional pollsters were less enamored of the *Literary Digest* survey and its methods. A study of straw polls by a Columbia University sociologist discussed eight sources of potential error, including class and participation biases (Robinson, 1932:77–102). By 1936 George Gallup, Archibald Crossley, and Elmo Roper were conducting competing surveys based on more scientific sampling procedures.³

How did the *Literary Digest* conduct its 1936 poll? The magazine sent out more than 10 million straw vote ballots. The sample was drawn primarily from automobile registration lists and telephone

1. The data analyzed here are from American Institute of Public Opinion poll number 83, archived at the Roper Center for Public Opinion Research.

2. The *Literary Digest* had conducted straw polls on other elections and on issues. See Robinson, 1932:49–50.

3. Using these sampling procedures, Gallup replicated the *Literary Digest* survey, and with a 3,000-person sample was able to accurately forecast the magazine poll's results prior to its publication (Freedman, Pisani, and Purves, 1978:303).

books.⁴ Coverage in certain locales was astonishing. The *Literary Digest* (1936b) claimed to have polled every third registered voter in Chicago, every other registered voter in Scranton, Pennsylvania, and every registered voter in Allentown, Pennsylvania. The ballots were mailed in late summer and the returns were published each week from 6 September to 31 October as they were tabulated. The magazine stated the ballots were not "weighted, adjusted, nor interpreted." Over 2.3 million ballots were returned, an impressive number but representing less than a 25% participation rate.

The magazine's final count before the election gave Landon 1,293,669 votes (55%), Roosevelt 972,897 (41%), and Lemke 83,610 (4%). The actual results on election day gave the president 61% of the vote and his Republican challenger only 37%. This huge and apparently inclusive survey produced a most embarrassing prediction and is considered a major cause of the magazine's demise in 1938.

Explanations of What Went Wrong

The week following the election the *Literary Digest* tried to discern what went wrong. They dismissed the notion that their sample was flawed because it systematically excluded the poor (1936b):

Well, in the first place, the "have nots" did not reelect Mr. Roosevelt. That they contributed to his astonishing plurality no one can doubt. But the fact remains that a majority of farmers, doctors, grocers and candle-stick-makers *also* voted for the President. . . . Besides—We *did* reach these so-called "have not" strata.

The *Literary Digest* saw some problems in the response rate to their mail survey, although they had no explanation for it. Referring to their 1928 straw vote the magazine observed (1936b): "We wondered then, as we had wondered before and have wondered since, why we were getting better cooperation in what we have always regarded as a public service from Republicans than we were getting from Democrats. Do Republicans live nearer mail-boxes?"

The first wave of comments by professional pollsters and academics pointed to response bias as the primary culprit (Crossley, 1937:27; Gosnell, 1937). Katz and Cantril (1937:167–168) also cited the sampling problem. In any event, competitor surveys headed by Gallup, Roper, and Crossley predicted the 1936 election with reasonable accuracy

4. The *Literary Digest* was marketed by mail, and the lists were compiled mainly for solicitation purposes (Robinson, 1932:56). Advertising was included with the straw vote ballot (Katz and Cantril, 1937:158).

(Gosnell, 1937), sounding the death knell for the *Literary Digest* polling methodology.

Explanations for the poll's failure, however, have continued for 50 years past the event. They break down into three categories. First are those who place the blame on the sample and its failure to include the supposed core of Roosevelt's support, the poor. The main assumption of this view is that many of the president's supporters were excluded from the survey by virtue of not owning autos or telephones. Thus Rogers (1949:7) claimed that the survey "greatly overweighed the well-to-do, and voters less well-to-do, not able to have telephones, were for Mr. Roosevelt." Others have advanced some variant of this explanation (e.g., Bean, 1948:149–150; Irion, 1950; Anderson and Zelditch, 1975:227; Weisberg and Bowen, 1977:19–20; Edwards and Wayne, 1985:79).

Another, less-popular perspective is that the full sample was not the problem but that the response rate produced the error. The major proponent of this explanation is Maurice C. Bryson (1976), a statistician, who, without supporting data, reasoned that the full *Literary Digest* sample was not particularly biased and should still have supported Roosevelt because the ownership of cars and telephones in 1936 was too widespread to account for the poll's forecast. Instead, Bryson placed blame on the response rate. This view has been adopted by Polsby and Wildavsky (1984:204–205).

Finally, many commentators cite both the sample and the response rate as being flawed. This position was advanced by Charles Smith (1939:395–404) and George Gallup (1944:61–62) in the decade following the poll and has been carried into the present (e.g., Likert, 1948:7; Powell, 1951; Shively, 1974:55; Freedman, Pisani, and Purves, 1978:302–304; Erikson and Tedin, 1981:953; Hennessy, 1981; Babbie, 1986). These writers assert that the initial bias toward overrepresentation of Republicans in the sample was exacerbated by the fact that better-educated and wealthy people who tended to be Landon supporters were more likely to respond to the survey.

Data for Testing These Hypotheses

As noted above, none of these explanations has been subjected to empirical scrutiny. One data source available for testing these ideas has never, to my knowledge, been exploited. Between 19 and 24 May 1937, Gallup asked a series of questions regarding the *Literary Digest* poll:

1. Did you receive a *Literary Digest* straw vote ballot in the Presidential campaign last fall?

2. Did you send it in?
3. Did you change your mind regarding the candidate between the time you sent it in and the election?

The survey also asked who the respondent had voted for in the 1936 election and, as part of the standard demographic series, whether the respondent had a car or a telephone.⁵

This survey is the best available tool for determining why the *Literary Digest* poll failed. It must be noted, however, that Gallup's own quota sampling procedure did have significant flaws (Babbie, 1986:139). Moreover, like almost all postelection surveys, it overestimates the vote for the winning candidate—in this case by 5 percentage points. The poll also overrepresents the percentage of people who had a telephone or car, and the number of people who received a *Literary Digest* ballot and returned it. These shortcomings necessarily leave the evidence to be presented below less than perfect. Nonetheless, the data do permit reasonable estimation of the relative contributions of sampling error and nonresponse bias to the poll's failure. There is no reason to suppose that error in the Gallup data systematically biases such estimates from one side or the other.

Testing the Hypotheses

The *Literary Digest* poll was a failure because its estimate of the actual vote was wildly incorrect, and it even predicted the wrong winner. Commentary on the poll reveals two hypotheses to explain why it failed. They could both be wrong, either could be correct, or jointly they could be right. I will examine the hypotheses one at a time.

The Literary Digest poll failed simply because the sample was biased. For this to be the sole source of the problem the Gallup data should reveal that owners of cars and telephones gave most of their support to Landon, as should the majority of those who received *Literary Digest* straw vote ballots. Tables 1 and 2 reveal that these expectations are off the mark.⁶ Owners of only an automobile or a telephone were less supportive of Roosevelt than those who did not have either, but they were still strongly for him. Even respondents who had both a car and a telephone were for the president.

More importantly, those who claimed to have received a *Literary*

5. Gallup may well have collected this information for his own use. In a *Public Opinion Quarterly* article billed as an "inclusive compilation of . . . surveys" from 1935 to 1938, Gallup and Robinson (1938) did not mention the *Literary Digest* questions.

6. The χ^2 statistic for each of the three tables presented here are all significant at better than .0001. The applicability of such a significance test on a nonrandom sample is open to question.

Table 1. 1936 Presidential Vote by Car and Telephone Ownership (in Percent)

Presidential Vote	Car & Phone	Car, No Phone	Phone, No Car	Neither
Roosevelt	55	68	69	79
Landon	45	30	30	19
Other	1	2	0	2
Total <i>N</i>	946	447	236	657

SOURCE: American Institute of Public Opinion, 28 May 1937.

Digest ballot went for Roosevelt by 55% to 44%. Employing the rough 5% overestimate of the president's vote—and the 4% underestimate of Landon's share—still leaves Roosevelt the winner, although by very little. The margin for Roosevelt is considerably wider among those who did not participate in the magazine's survey. But if everyone who received a ballot had returned it the results would have, at least, correctly predicted Roosevelt a winner. The projected vote percentages, however, would have greatly underestimated the president's margin of victory.

This suggests that *the response rate was an important source of error*. Evidence supporting this claim is presented in Table 3. Among those who responded—correcting for those who remembered changing their mind before the election—a slight majority favored Landon. While the Gallup survey numbers do not reach the same level of sup-

Table 2. Presidential Vote by Receiving *Literary Digest* Straw Vote Ballot or Not (in Percent)

Presidential Vote	Received Poll	Not Receive Poll	Do Not Know
Roosevelt	55	71	73
Landon	44	27	25
Other	1	1	3
Total <i>N</i>	780	1339	149

SOURCE: American Institute of Public Opinion, 28 May 1937.

Table 3. Presidential Vote by Returning or Not Returning Straw Vote Ballot (in Percent)

Presidential Vote	Did Return	Did Not Return	Do Not Know
Roosevelt	48	69	56
Landon	51	30	40
Other	1	1	4
Total <i>N</i>	493	288	48

SOURCE: American Institute of Public Opinion, 28 May 1937.

port for the Republican reported in the *Literary Digest* poll, they are in the same direction. The well-known tendency for survey respondents to incorrectly remember having voted for the winning candidate may inflate Roosevelt's numbers in the Gallup survey.

The percentage of those who claim to have returned their straw vote ballot is too high, obviously inflated by many respondents claiming incorrectly that they participated. But if anything, this overreporting would seem likely to overestimate the support for the president. It does not seem probable that Roosevelt supporters would claim to have returned a ballot marked for the Republican challenger. On balance, then, it seems reasonable to conclude from this evidence that a low response rate together with a nonresponse bias contributed greatly to the failure of the *Literary Digest* poll to correctly call the winner.

But, more importantly, the initial sample was flawed; when compounded with the response bias it produced the wildly erroneous forecast of the vote percentages. As noted earlier, the Gallup poll produces an estimated vote of 66% for Roosevelt, 5% above the figure he actually received in the election. Thus, a rough calculation of the bias produced by the sample is around 11%, with another 7% accounted for by problems with the responses.

Conclusion

The evidence presented here strongly supports the conclusion that the 1936 *Literary Digest* poll failed to project the correct vote percentages or even the right winner not simply because of its initial sample, but also because of a low response rate combined with a nonresponse bias. Those who reported receiving straw vote ballots were supportive of the

president. But a slight majority of those who claimed to have returned their ballot favored Landon.

This conclusion does have some relevance today. We are, of course, subjected to nonrandom sample surveys daily. Most deal with trivial matters like determining who is the public's favorite television or movie star. A few concern important issues: who "won" a presidential debate or whether baseball should keep the designated hitter rule. We are all aware of the flaws inherent in such surveys and why their results should rarely be believed.

The analysis here should also call our attention to the other potential problem with any survey: nonresponse bias. Those who conduct the most reliable surveys are concerned with this problem, and much effort is expended devising ways to cope with it (e.g., Smith, 1983; Pearl and Fairly, 1985). Failure to properly handle participation problems can damage the results produced by any poll, but many surveys do not report or discuss their response rates. Consumers of public opinion surveys, as well as practitioners, must be reminded of this potential problem in order to avoid a future disaster like the *Literary Digest* poll of 1936.

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