ARE THERE BELLWETHER ELECTORAL DISTRICTS?*

BY EDWARD R. TUFTE AND RICHARD A. SUN

Using election returns from all U.S. counties for 14 presidential elections, this study investigates the utility of election forecasting based on "bellwether" or "barometric" electoral districts.

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> *Time present and time past*
> *Are both perhaps present in time future,*
> *And time future contained in time past.*
> T. S. Eliot, *Four Quartets*

PRIOR TO THE 1936 PRESIDENTIAL ELECTION, the conventional political wisdom had it that as Maine voted, so went the rest of the nation. After the 46-state landslide, James Farley, Roosevelt's campaign manager, revised the theory: "As goes Maine, so goes Vermont." Such is perhaps the inevitable fate of so-called bellwether or barometric electoral districts. Still, there are always new contenders with strikingly unblemished records of retrospective accuracy to replace wayward bellwethers.

Given the familiar inferential caution that retrospective accuracy provides little guarantee of prospective accuracy, what is the value of claims that certain districts invariably reflect the national division of the vote? The answers at hand differ. A skeptical statistician probably has little faith in the after-the-fact predictive success of bellwether districts. The collector of political folklore marvels at the records of such byways as Palo Alto County, Iowa, and Crook County, Oregon, which have voted

for the winner of every presidential election in this century. The newspaper reporter intervies a few citizens of Palo Alto or Crook County in seach of "clues as to what will happen next Tuesday"; and Louis Bean has written four books premised on the notion that as goes X, so goes the country.[1]

This study, examining a considerably greater volume of evidence than previous efforts, provides a more detailed and a more definitive answer to the question: Are there bellwether electoral districts?

TYPES OF BELLWETHERS

The data for our inquiry consisted of the election returns from almost all 3,100 U.S. counties for the 14 presidential elections from 1916 to 1968.[2] Such a data base, although unwieldly, provides an opportunity to thoroughly examine three possible types of bellwethers:

1. *The all-or-nothing district.* This electoral district either votes with the national winner or it does not. Counties with long records of supporting winners are all-or-nothing bellwethers. This seems to be the usual meaning of "bellwether district." Most discussions of putative bellwethers report that the district has voted with the winner in the last *N* elections. Sometimes *N* is surprisingly small; some journalists have interviewed nonrandomly selected citizens of "bellwether" communities that have voted for the winner in only three or four previous elections.

2. *The barometric district.* This electoral district accurately predicts

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[1] Louis Bean, *Ballot Behavior,* Washington, D. C., Public Affairs Press, 1940; *How to Predict Elections,* New York, Knopf, 1948; *How America Votes in Presidential Elections,* Metuchen, New Jersey, Scarecrow Press, 1968; and *How to Predict the 1972 Elections,* New York, Quadrangle, 1972. A beautiful analysis of the of the "as-goes-Maine" myth is found in Claude E. Robinson, *Straw Votes,* New York, Columbia University Press, 1932, pp. 25–45. Discussions of British barometric districts include The Association for Planning with Henry Durant, *Political Opinion,* London, George Allen and Unwin, 1949, pp. 44–47; and James K. Pollock, "Barometer Areas," in Pollock *et al., British Election Studies, 1950,* Ann Arbor, Michigan, Geoge Wahr Publishing Co., 1951, pp. 126–136. Both Durant and Pollock note that "a barometer constituency can easily cease, in the following election, to be a barometer."

[2] The data tapes were made available through the Inter-University Consortium for Political Research. We extensively edited the tapes, correcting errors and adding missing data. We obtained the complete two-party election returns for the 14 elections from 1916 to 1968 for 2,938—or 96 per cent—of the 3,070 counties in the United States. The remaining counties had to be dropped because one election in the 14-election series was missing or because the county had changed its name or combined with other political units. A listing of the missing counties and election years was reviewed before and after our analysis. It appeared that the small amount of missing data had no consequences for our findings. Some of our early computations carried along votes for four different parties in each county, but we finally edited the data to include only the returns for the two major parties. Thus, all election returns reported here are based on the votes of the two major parties in all the elections. Additional analysis of these data is found in Richard A. Sun, *Predicting Presidential Elections: An Analysis of the Bellwether County Concept,* New Jersey, Princeton University, senior thesis, 1972.
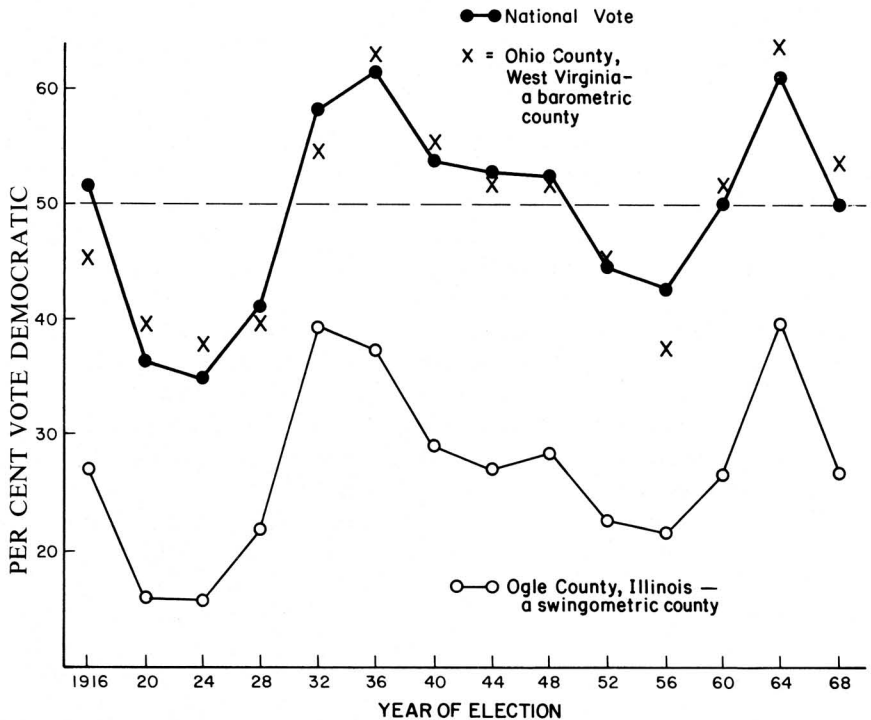
FIGURE 1. BAROMETRIC AND SWINGOMETRIC COUNTIES

the national share of votes received by the winner. In a close election, a good barometric bellwether might fall on the losing side although still be close to the actual division of the national vote.

Figure 1 shows the record of the best barometric district in the country over all the elections from 1916 to 1968: Ohio County, West Virginia. A relatively small, urban county in the Ohio River valley with three-fourths of the population dwelling in the main city of Wheeling, Ohio County has typically come within 2.45 percentage points of the winning proportion of the vote over the 14 presidential elections. That county's distinction comes mainly from its record in the five elections from 1936 to 1952, when it differed from the national vote by 0.5, 1.0, 1.0, 0.6, and 0.1 per cent, respectively. Wheeling's more recent record as the nation's barometer is less distinguished: from 1956 to 1968, the differences were 4.9, 1.4, 2.5, and 3.9 per cent, respectively.

3. *The swingometric district.* This electoral district accurately follows the shifts, or swings, in the national share of the vote from election to election. For example, if the national share of a party's vote went from 47.4 to 51.5 per cent from one election to the next (a shift of 4.1 per cent), then all the following districts would be swingometric:

	Election 1	Election 2	Swing
District A	27.4%	31.5%	4.1%
District B	52.9	57.0	4.1
District C	82.3	86.4	4.1

Good statistical practice suggests that such swings should be transformed to make a constant swing count for more near the tails of the vote distribution. For example, a shift of 4 per cent is "easier" if it is from 52 to 56 per cent, and "harder" from 85 to 89 per cent. Surprisingly, it is the experience of the electoral analysts that swings are best analysed as untransformed percentage differences.[3]

Figure 1 shows a fine retrospectively swingometric district: Ogle County, Illinois. Ogle County has always cast at least 60 per cent of its votes for Republicans, thereby voting with the loser in 8 of the 14 presidential elections from 1916 to 1968 and typically running 22 percentage points off the national vote. The county is, obviously, neither an all-or-nothing nor a barometric bellwether. It has, however, quite precisely paralleled shifts in the national division of the vote, usually coming within two percentage points of the national swing. As Ogle has swung, so has the nation.

RESEARCH DESIGN

As a basic test of the credibility of bellwethers we conducted a series of historical experiments, each designed to answer the following question: How well would we have done in predicting the election of 19xx if we had followed a group of supposedly bellwether counties chosen on the basis of elections prior to the election of 19xx?

For example, going into the 1968 election, 49 counties had voted for the winner in every presidential election since 1916—that is, 13 elections in a row with the winner. Were these 49 retrospective bellwethers more likely than other counties to support the winner in 1968? Or, for barometric and swingometric bellwethers, did counties that followed or shifted with the national division of the vote prior to 1968 remain barometric or swingometric in 1968 compared to other counties?

[3] There are a number of recent discussions of the matter, usually in the context of British politics: David Butler and Donald Stokes, *Political Change in Britain*, London, Macmillan, 1969, pp. 303–312; H. B. Berrington, "The General Election of 1964," *Journal of the Royal Statistical Society, Series A*, Vol. 128, 1965, pp. 17–51; Ian Robinson, "The Candidate's Share of the Vote: The Construction of Indices of Electoral Proximity," *Political Studies*, Vol. 19, 1971, pp. 447–454; W. L. Miller, "The Analysis of Electoral Change," *Journal of the Royal Statistical Society, Series A*, Vol. 135, 1972, pp. 122–142; I. McLean, "The Problem of Proportionate Swing," *Political Studies*, Vol. 21, 1973, pp. 57–63; Edward R. Tufte, "The Relationship Seats and Votes in Two-Party Systems," *American Political Science Review*, Vol. 67, 1973, pp. 540–554; Nigel S. Roberts, "The Roundabout Swings of Australian Psephology," *Political Studies*, Vol. 21, 1973, pp. 380–384; and J. I. Gershuny, "The Non-Paradox of Swing," *British Journal of Political Science*, Vol. 4, 1974, pp. 115–119.

These are the kinds of questions we answered repeatedly—for different elections, for different methods of choosing historical bellwethers, and for the three different types of bellwethers.

Since historical experiments directly answer the question at hand, they provide the most powerful means of assessing the credibility of bellwethers. It is also possible to construct probability models to provide a baseline or null hypothesis against which to compare the observed performance of reputed bellwethers. We met with little success in developing models based on reasonable assumptions. The construction of a useful probability model remains an open question, although we suspect that even a very good model would still not provide as direct and powerful test of bellwethers as historical experiments.

Another statistical problem arises because bellwethers are found in an after-the-fact search through election returns; there is no theory to identify particular areas as potential bellwethers before the fact. The result is a situation analogous to that of "shotgunning" in survey research: searching through a large body of data for statistically significant results leads to difficulties in just how to include the fact of the search in an adjusted significance test. One answer is simply the independent replication on a fresh collection of data of the results found through searching. That is, of course, the underlying logic of the historical experiment: bellwethers are chosen from a search and then it is determined whether their bellwether performance is replicated in the historical future.

The usual technique for evaluating bellwethers is retrospective admiration of the historical record. Almost all written accounts of reputed bellwethers describe an area's lengthy history of voting for winners and then ask, in effect, "Isn't that something?" These accounts try to evaluate the predictive performance of the past without reference to either prospective accuracy or the predictive record of other areas. Consider the following excerpts from a typical *New York Times* story on bellwethers:

> Town Votes 'Em As It Sees 'Em
> And It Usually Sees 'Em Right

> Salem, N. J., April 8—The political prefossionals are keeping an eye on this small Quaker community in southern New Jersey for clues to the outcome of the presidential election.

> For fifty years, with only two exceptions, Salem has voted for the victorious Presidential candidate. . . .

> There is no clear reason for Salem's stature as an election indicator.

> "But," says County Clerk Thomas J. Grieves, "you can't call it chance or a quirk. It happens too often. . . ."[4]

Actually, there are several hundred counties with predictive records better than Salem's over the last fifty years. But the important point is

[4] *The New York Times,* April 9, 1964, p. 29.

that no evaluation of Salem's record can be made on the basis of past election returns from Salem alone. A bellwether's credibility can only be assessed by examining, in comparison to other districts, its *predictive* record—not merely its postdictive record.

TESTING FOR ALL-OR-NOTHING BELLWETHERS

Consider the following historical experiment. Let us choose the counties with the best records for predicting presidential elections from 1916 to 1964 and see how well they predicted the outcome of the 1968 election. There were 49 such counties with records of supporting the winner in all 13 elections from 1916 to 1964. Such a record, by almost any standard, is a bellwether performance—that is, *if* the counties had been identified in 1916 instead of after the fact. How well did the 49 retrospective bellwethers of 1916–1964 do in predicting the winner in 1968? Not very well at all. Twenty-seven of the 49 (or 55.1 per cent) voted with the winner in 1968. Two-thirds of *all* counties supported the winner in 1968 and so a county chosen at random could typically have been expected to outpredict the counties with previously perfect predictive records.

Table 1 shows the full array of results, with the 1968 predictive performance tabulated against the prior record of predictive accurarcy. Oddly enough, the best predictions in 1968 were made by counties that had had

TABLE 1
PREDICTIVE PERFORMANCE FROM 1916 TO 1964 COMPARED WITH PREDICTIVE RECORD
IN THE 1968 ELECTION

Past Performance, 1916–1964				1968 Performance			
Past Predictions		Counties		Right		Wrong	
Right	Wrong	Number	Per Cent	Number	Per Cent	Number	Per Cent
0	13	0	0.0%	0	0.0%	0	0.0%
1	12	0	0.0	0	0.0	0	0.0
2	11	0	0.0	0	0.0	0	0.0
3	10	0	0.0	0	0.0	0	0.0
4	9	0	0.0	0	0.0	0	0.0
5	8	80	2.7	80	100.0	0	0.0
6	7	229	7.8	209	91.3	20	8.7
7	6	502	17.1	303	60.4	199	39.6
8	5	708	24.1	424	59.9	284	40.1
9	4	554	18.8	397	71.6	157	28.3
10	3	380	12.9	251	66.0	129	33.9
11	2	274	9.3	148	54.0	126	46.0
12	1	162	5.5	97	59.9	65	40.1
13	0	49	1.6	27	55.1	22	44.9
Total		2938	100.0	1936	65.9	1002	34.1

the worst record in the past (5 right, 8 wrong). These 80 counties (that went 100 per cent for the winner in 1968) were, of course, counties that have voted for the Republican candidate in every presidential election since 1916, and they persisted in 1968. So it is easy to find a group of counties, identified by their past voting record, that will support the upcoming winner—if you only know how the election is going to turn out!

The election of 1968 was a particularly bad year for the bellwethers of the past. Table 2, repeating the tests for the presidential elections from 1936 to 1964, shows that for some elections the bellwethers of the past do

TABLE 2
PREDICTIVE RECORD OF PREVIOUSLY ACCURATE COUNTIES IN PRESIDENTAL ELECTIONS,
1940–1964

Predicting 1940 1916–1936 Past Performance: Right-Wrong	Number of Counties	Per Cent of Counties Voting with Winner in 1940
2-4	3	33.3%
3-3	914	74.8
4-2	672	63.4
5-1	747	50.7
6-0	602	52.9
Nation	2938	61.6

Predicting 1944 1916–1940 Past Performance: Right-Wrong	Number of Counties	Per Cent of Counties Voting with Winner in 1940
2-5	2	100.0%
3-4	231	1.3
4-3	930	73.4
5-2	794	50.1
6-1	662	46.3
7-0	319	72.7
Nation	2938	55.3

Predicting 1948 1916–1944 Past Performance, Right-Wrong	Number of Counties	Per Cent of Counties Voting with Winner in 1948
3-5	230	1.3%
4-4	250	9.2
5-3	1079	71.8
6-2	753	60.0
7-1	394	77.6
8-0	232	87.5
Nation	2938	59.9

TABLE 2 *continued*

Predicting 1952 *1916–1948 Past* *Performance:* *Right-Wrong*	*Number of* *Counties*	*Per Cent of Counties* *Voting with* *Winner in 1952*
3-6	227	100.0%
4-5	230	99.6
5-4	327	99.7
6-3	1076	46.6
7-2	540	62.6
8-1	335	65.9
9-0	203	81.3
Nation	2938	68.3

Predicting 1956 *1916–1952 Past* *Performance:* *Right-Wrong*	*Number of* *Counties*	*Per Cent of Counties* *Voting with* *Winner in 1956*
4-6	228	100.0%
5-5	230	99.6
6-4	900	43.6
7-3	704	72.3
8-2	452	78.1
9-1	259	78.8
10-0	165	87.3
Nation	2938	70.0

Predicting 1960 *1916–1956 Past* *Performance:* *Right-Wrong*	*Number of* *Counties*	*Per Cent of Counties* *Voting with* *Winner in 1960*
5-6	229	2.6%
6-5	738	67.2
7-4	586	35.1
8-3	608	24.8
9-2	408	35.0
10-1	225	36.0
11-0	144	35.4
Nation	2938	38.6

Predicting 1964 *1916–1960 Past* *Performance:* *Right-Wrong*	*Number of* *Counties*	*Per Cent of Counties* *Voting with* *Winner in 1964*
5-7	223	64.1%
6-6	248	65.3
7-5	876	61.1
8-4	663	74.0
9-3	416	84.8
10-2	287	90.6
11-1	174	91.9
12-0	51	96.1
Nation	2938	73.3

predict the upcoming election somewhat more accurately than a typical county.

Tables 1 and 2 provide us with a great deal of experience with retrospective all-or-nothing bellwethers:

(1) Perhaps each time one hears of an area with a spectacular postdictive record, a glimmer of curiosity and hope arises: surely this fine record is not mere chance—*something* must be going on. Whatever that something might be, it is not a high degree of prospective accuracy. Sometimes previously accurate districts do better than just any collection of districts and sometimes they do not. The retrospective bellwethers were particularly poor in the close elections of 1960 and 1968. The compilations of Table 2 show the erratic record of the retrospective all-or-nothing bellwethers in predicting the future.

(2) "Bellwethers" have been identified in Tables 1 and 2 by their previously perfect predictive records in at least six previous elections in a row. If this standard is applied to judging the results of our historical experiment, then the bellwethers of the past are not the bellwethers of the present. In five of the eight elections, the previously bellwether counties had a higher probability of voting with the winner than a county chosen at random from the nation as a whole. In the other three elections (1940, 1960, and 1968), however, a county chosen at random was the county of choice in predicting the upcoming election.

(3) The retrospective bellwethers, *taken as a group,* correctly predicted seven of the eight trial elections—in the sense that a majority of the group of retrospective bellwethers supported the winner. Exactly the same would be true of a group of randomly selected counties (within the limits of sampling error).

(4) There were, alas, no anti-bellwether counties. No county had such an outstandingly poor record that it could serve, by reversing its preferences, as a predictive (or even postdictive) guide.

(5) The lumpy quality of the predictive successes when classified by their record of the past is simply an artifact of the tendency for counties to vote for the same party election after election. Consequently, some clusters in the record of past performances happen to be almost purely Democratic counties, and others, Republican counties. Thus, as a group, they are either highly accurate or highly inaccurate, depending upon the result of the predicted election.

The county election results are clearly not independent over space and time: the inter-election and inter-county correlations are very high. For example, the correlation between the division of the vote from one election to the next over all counties is almost always greater than 0.90. Considering that a county could go either Democratic or Republican in each of the 14 elections yields $2^{14} = 16,384$ theoretically possible electoral histories or paths that the counties could have followed over the 56 years.

TABLE 3
MOST FREQUENTLY OCCURRING COUNTY ELECTORAL HISTORIES, 1916–1968

History	Number of Counties
Straight Democratic	200
Democratic, except 1964	160
Democratic, except 1968	54
Democratic, except 1964 and 1968	58
Straight Republican	80
Republican, except 1964	128
Republican, except 1932, 1964	75
Republican, except 1932	51
Republican, except 1932, 1936, and 1964	136
Republican, except 1916, 1932, and 1936	70
Republican, except 1916, 1932, 1936, and 1964	155
Followed nation, all elections	27
Followed nation, except 1960	68
Followed nation, except 1968	22

Less than 400 of these electoral histories actually occur and only about 30 contain more than a handful of counties. At least 40 per cent of all counties have gone more or less straight Democratic or straight Republican with occasional deviations in landslide years (Table 3).

(6) Twenty-seven of the nation's 3100 counties voted for the winner in every presidential election from 1916 to 1968. It may be possible—or at least a firm believer in bellwethers might well argue—that there are some truly bellwether districts hidden in those counties. What we have shown, of course, is only that counties with perfect postdictive records have undistinguished predictive records—when those counties are taken as a group. The only way we can identify bellwethers is as members of such a group.

One final piece of evidence to consider is the performance of the nation's finest retrospective bellwethers. Prior to the 1960 election, eight of the nation's counties had supported every winner in this century. After 1968, only three of these eight super-bellwethers still had unblemished records: Crook County, Oregon; Laramie County, Wyoming; and Palo Alto County, Iowa. They remained accurate in 1972.

Our conclusion in the case of all-or-nothing bellwethers is clear: the usual concept of a bellwether electoral district has no useful predictive properties. Collectors of political folklore need no longer dust off the voting records of Palo Alto County, Iowa, to see how many decades back in history that county has gone with the winner. Newspaper reporters need no longer interview citizens of Palo Alto County, chosen nonrandomly, for their views on the upcoming election. And survey researchers can remain secure in their fortress of probability laws without having to

worry that an inexplicably magic county will outperform their survey predictions—at least in the long run.

It is not too surprising that the all-or-nothing bellwethers of the past had the most difficulty going along with the national outcome of the close elections of 1960 and 1968. Even if the retrospectively bellwether counties had moved pretty much with national trends in those elections, their predictive success would have been only about 50-50, falling on the correct side practically by chance—perhaps in the same way that the national outcome was determined. At any rate, in the all-or-nothing case, a county on the losing side gets no predictive credit even if it is very close to the national division of the vote.

We now consider a criterion for bellwethers that does take into account how closely a county follows the national division. A district reliably imitating the national division of the vote is a "barometric" bellwether.

The search and test for barometric bellwethers follow the design used in the all-or-nothing case. Predictive performances of historically barometric districts are tested on a fresh election, one whose results were not used to identify the barometric bellwethers in the first place.

Table 4 shows the type of table we constructed for many combinations of elections in order to assess the predictive performance of retrospectively barometric districts. All the counties were classified by their average absolute difference from the national division of the vote in the eight elections from 1936 to 1964. Table 4 shows that 35 counties deviated from the national vote an average of less than 2.5 percentage points over those eight elections. At the other extreme, 411 counties deviated by an average of more than 25 percentage points. The table then compares past performance from 1936 to 1964 with the predictive performance in the 1968 election.

The top row of data (Table 4), when compared with the other rows, yields the comparison necessary for evaluating the performance of barometric districts. Of those 35 bellwethers of the past, 14 maintained in the 1968 election a standard comparable to their previous performance: an error of less than 2.5 percentage points. The remaining 21 performed less well: two had errors between 7.5 and 10.0 percentage points. Note, however, that counties that were more barometric in the past performed better than counties that were less barometric in the past.

Table 5, following the logic of Table 4, summarizes the over-all results of the analysis of all the elections. Table 5 shows the detailed performance of the retrospectively bellwether districts for each test election along with a summary measure of the error made by all counties in predicting the test election.

TABLE 4

1968 ERRORS IN PREDICTION COMPARED TO 1963-1964 DEVIATIONS FROM NATIONAL DIVISION OF THE VOTE

Average Absolute Error in the Past: 1936–1964[a]	N	Error in Predicting 1968 Vote (Absolute Difference Between County Vote and National Vote)							
		<2.5	2.5–5.0	5.0–7.5	7.5–10.0	10.0–15.0	15.0–20.0	20.0–25.0	>25.0
<2.5	35	14	10	9	2	0	0	0	0
2.5–5.0	412	133	97	70	56	45	9	2	0
5.0–7.5	481	83	76	74	87	118	34	8	1
7.5–10.0	362	29	42	41	71	106	47	23	3
10.0–15.0	564	41	52	57	69	154	105	66	20
15.0–20.0	400	35	38	42	35	76	81	53	40
20.0–25.0	273	21	23	18	28	35	52	43	53
>25.0	411	30	36	44	33	67	46	48	107
Total	2938	386	374	355	381	601	374	243	224

[a] This is the average of the absolute differences between the county vote and the national vote over the eight elections, 1936–1964. Thus, there are, for example, 35 counties that averaged within 2.5 percentage points of the national percentage from 1936 to 1964. Of those 35 counties, 14 deviated from the national percentage by less than 2.5 percentage points in the 1968 election.

TABLE 5
PREDICTING THE NATIONAL DIVISION OF THE VOTE IN ELECTIONS FROM 1948 TO 1968
FROM BAROMETERS CHOSEN BY THEIR PREDICTIVE PERFORMANCE IN THE
EIGHT ELECTIONS PRIOR TO THE PREDICTED ELECTION

Absolute Errors in Predicting Named Election	Record of Counties with an Average Absolute Error Less than 2.5 Percentage Points in the Preceding Eight Elections in Predicting the Election of:					
	1948	1952	1956	1960	1964	1968
0–2.5		2		6	8	14
2.5–5.0	4	1	3	7	7	10
5.0–7.5		4	2	4	5	9
7.5–10.0				1	2	2
10.0–12.5		2	1	1	2	
>12.5		1				
Number of Counties	4	10	6	19	24	35
Average absolute error of the barometers in predicting the named election	3.8	7.0	5.8	4.1	4.5	3.7
Average absolute error of all 2938 counties in predicting the named election	14.8	13.4	12.1	11.3	10.6	11.6

We conclude the following with respect to barometric bellwethers:

Compared to other counties, counties that have been closer to the winning percentage in the past tend also to be closer to the winning percentage in the future. From Table 5, the average absolute errors for all counties (averaged over the six test elections from 1948 to 1968) is 12.3 percentage points; for the barometers of the past, the average predictive error is 4.8 percentage points. And in each test elections, the barometric bellwethers far outperform the remainder of the counties—on average.

Counties chosen on the basis of small errors in retrospective predictions tend to have considerably larger errors in their prospective predictions. The error in the predicted elections is often double or triple the error in the postdicted elections. About one-third of the retrospectively barometric counties stayed within the same interval (0 to 2.5 percentage points) of retrospective error when we tested them prospectively.

The counties of Table 5 were chosen because their performance deviated less than 2.5 percentage points from the national division of the vote over the last eight elections. Yet in the six trial elections, the deviations averaged 3.8, 7.0, 5.8, 4.1, 4.5, and 3.7 percentage points, respectively. Such a regression toward mediocrity, whatever its source, indicates the very limited predictive value of individual barometric counties of the past—even though those counties can, in fact, be expected to do better than the average county in predicting upcoming elections.

Our results here seem best explained by the simple view that counties

that have been relatively closely divided in their political preferences in the past tend to remain relatively closely divided in the future.

Can we improve over the performance of individual bellwether districts by taking some combination of counties to form a barometric supercounty? One such supercounty is simply the aggregate prediction coming from the retrospective barometrics chosen for Table 5. The errors are not centered about zero, however, and the combination prediction of the counties for each election in Table 5 ranges between one-half and three percentage points off.

It is not clear how to evaluate this performance. Alternative kinds of supercounties might be considered. One possibility is a combination of counties based on population, or perhaps geography, or both.[5] Another is *any* small number of counties (for example, the first 15 to report on election night) with the current returns adjusted for the past electoral behavior of the county. Still another alternative is a random sample of counties.

We believe that both the random sample of counties and the adjusted method are, in the long run, far preferable to a retrospectively barometric supercounty because of the firmer inferential foundation underlying the first two methods. The main inferential base for the retrospectively barometric supercounty is the mysterious mechanism, if any, that leads to bellwethers, if any.

SWINGOMETRIC BELLWETHERS

In the search for all-or-nothing and barometric bellwethers, many counties were immediately eliminated because of their virtually un-

TABLE 6
PREDICTIVE PERFORMANCE OF BEST RETROSPECTIVE SWINGOMETRIC COUNTIES

| | Average Absolute Error in Swing[a] in the Predicted Election for: | |
Election Predicted:	Previously Swingometric Counties (N)	The Nation (N = 2938)
1948	3.8 (1)	6.3
1952	(0)	7.3
1956	3.8 (2)	5.7
1960	1.8 (3)	7.5
1964	5.3 (7)	8.7
1968	0.8 (3)	7.8

[a] The average absolute error in swing is the mean of the absolute value of the national inter-election swing minus the county inter-election swing. Thus the error is in percentage points. The swingometric counties are counties in which the mean absolute error in swing was less than 1.5 percentage points averaged over the eight elections prior to the election predicted.

[5] See Bean, *How to Predict the 1972 Election, op. cit.*, pp. 142–169.

deviating commitment to one party, with what defections there were occurring in landslide elections when national swings were large enough to topple even some of the hardcore areas of the losng party's support.

We now turn to a type of bellwether in which all counties are candidates for predictive excellence, including those that have voted for the same party in every election in this century: the swingometric bellwether.

A swingometric bellwether shifts or swings from election to election along with the whole nation. Figure 1 showed one of the better retrospectively swingometric districts—Ogle County, Illinois—which has shifted pretty much with the nation even though its citizens have, since 1916, cast a minimum of 60 per cent of their votes for Republican presidential candidates. The analysis uses our usual procedure. First, a group of retrospectively swingometric counties is chosen; then how well they

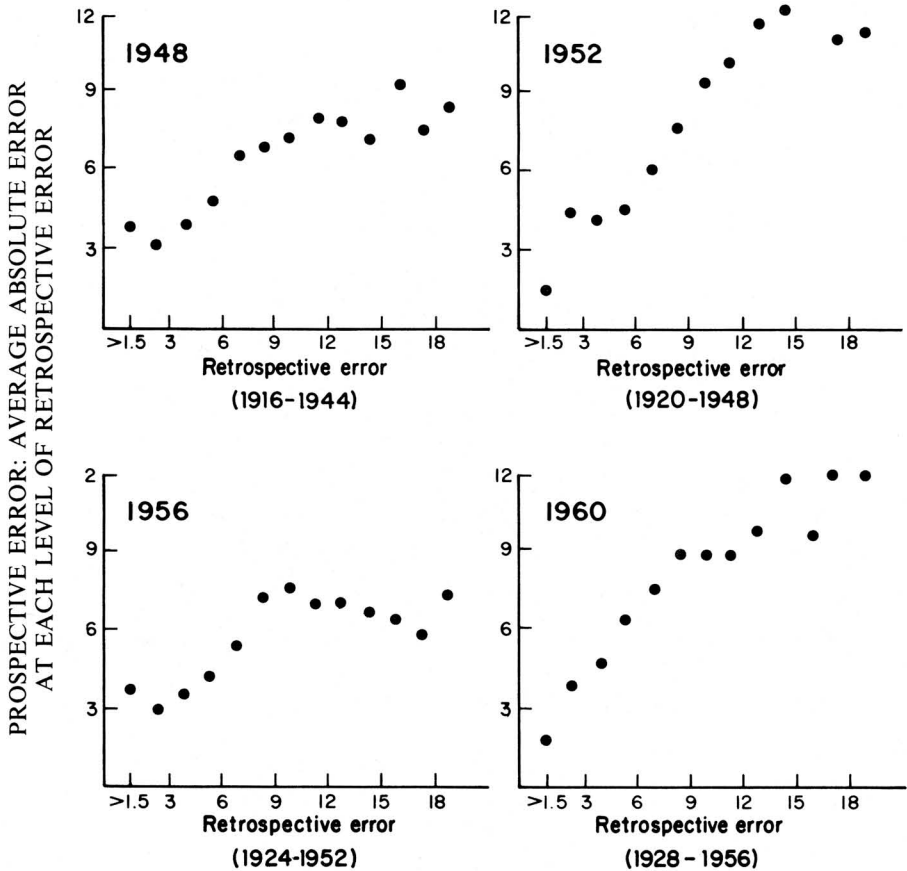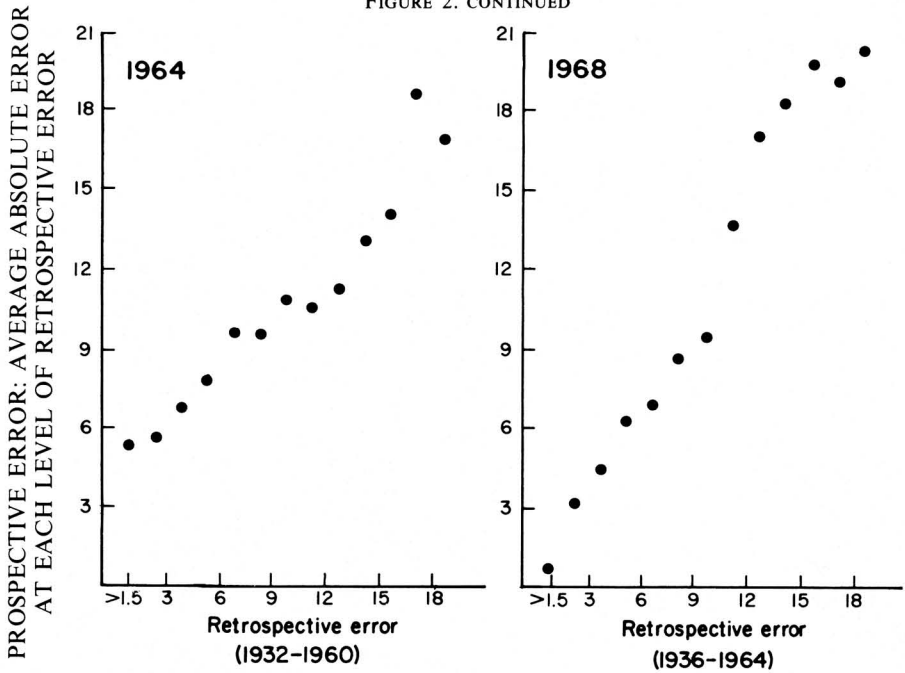FIGURE 2. SWINGOMETRIC: RETROSPECTIVE AND PROSPECTIVE ERROR

FIGURE 2. CONTINUED

Retrospective error
(1932-1960)

Retrospective error
(1936-1964)

PROSPECTIVE ERROR: AVERAGE ABSOLUTE ERROR AT EACH LEVEL OF RETROSPECTIVE ERROR

maintain their swingometric predictive record on fresh elections is determined.

Table 6 and Figure 2 show the results. Districts shifting with the national division of the vote in the past tend to do so in the future—at least compared to other counties. The figures for the elections from 1948 to 1968 indicate that prospective swingometric error is directly related to retrospective error and that swingometric counties of the past tend to outpredict the average county in the future. As in the case of the barometric districts, the errors made in predicting the future by counties with retrospectively good records far exceed the errors made in the past. It is clear, then, that some counties are especially swingometric, although they are not bellwethers because of their fairly substantial prospective error rate.

Why should some counties shift as the nation shifts? Note that what is to be explained is the *shift* from election to election, since many of the swingometric counties are not at all barometric. We have no ready answers.

Table 7 shows the best swingometric counties in the United States over the 14 presidential elections from 1916 to 1968. These 12 counties are the only ones out of all 3,100 that have averaged within 2.5 percentage points of the national swing from 1916 to 1968. All but one are scattered

through northern Indiana and north-central Illinois. A few are also barometric, although most of the 12 run fairly strongly Republican.

It is a pleasant coincidence that 11 of the 12 counties whose shifts mirror those of the nation are located near the geographic population center of the country—a point that has moved westward through Indiana and Illinois during the course of elections at hand.

The best swingometric—LaPorte County, Indiana—is a mixture of rural, suburban, and urban areas that might be said to parallel the United States as a whole. A visit to LaPorte County indicated that its swingometric virtues were, not surprisingly, unknown to its residents—although it was remarked that some local politicians had felt that races for local offices were rather strongly affected by the prevailing trend in the national vote.

CONCLUSION

Are there bellwether electoral districts? No, at least not if they are chosen before the fact. Some counties are more barometric than others, both in retrospect and in prospect. Some counties are more swingometric than others, both in retrospect and in prospect. While spectacular in their postdictions, these counties are not sufficiently barometric or swingometric in their predictions to provide a precise or reliable guide to upcoming elections. Several alternative methods of prediction are also preferred because their underlying inferential logic is more secure than the unknown mechanisms producing the highly variable barometric and swingometric behavior observed in our data.

The all-or-nothing counties are only a curiosity and probably should be forgotten. It is a waste of time to send reporters out to interview non-

TABLE 7
THE BEST SWINGOMETRIC COUNTIES 1916–1968

Swingometric Counties	Average Absolute Deviation from National Swing, Averaged over the 14 Elections from 1916–1968, in Percentage Points
La Porte, Indiana	1.54
St. Joseph, Indiana	1.74
Henry, Illinois	1.77
Douglas, Nebraska	1.90
Ogle, Illinois	2.07
De Kalb, Illinois	2.20
Mercer, Illinois	2.23
Porter, Indiana	2.25
McLean, Illinois	2.29
Whiteside, Illinois	2.36
Winnebago, Illinois	2.41
Madison, Illinois	2.50

randomly selected citizens of Crook County a week or two before the election—at least from any sort of scientific point of view.

There perhaps remains a magical air about the bellwethers of the past. Some of these districts, considered individually, seem to have such phenomenal records, and while we know better than to take them seriously, still. . . . It may be best to look not to the election returns for the source of the mystery, but rather to ourselves. Maugham once wrote:

The faculty for myth is innate in the human race. It seizes with avidity upon any incidents, surprising or mysterious, in the career of those who have distinguished themselves from their fellows, and invents a legend to which it then attaches a fanatical belief. It is the protest of romance against the commonplace of life.[6]

[6] Somerset Maugham, *The Moon and Sixpence,* Harmondsworth, Middlesex, England, Penguin Books, 1941, p. 7.