

Richard Nixon Presidential Library
Contested Materials Collection
Folder List

<u>Box Number</u>	<u>Folder Number</u>	<u>Document Date</u>	<u>No Date</u>	<u>Subject</u>	<u>Document Type</u>	<u>Document Description</u>
16	17	9/9/1970	<input type="checkbox"/>	Campaign	Memo	From: David R. Derge To: H.R. Haldeman RE: Population of Surveys for the President. 3 pgs.
16	17	9/18/1970	<input type="checkbox"/>	Campaign	Memo	From: David R. Derge To: H.R. Haldeman RE: Analysis of Unsigned Memorandum Entitled "The July ORC-David Derge Opinion Poll Conducted for the President." 4 pgs.
16	17	9/9/1970	<input type="checkbox"/>	Campaign	Memo	From: David R. Derge To: H.R. Haldeman RE: Population of Surveys for the President. 3 pgs.
16	17	7/30/1970	<input type="checkbox"/>	Campaign	Memo	From: William Low To: Lawrence Higby RE: National Survey of Public Opinion. 2 pgs.

<u>Box Number</u>	<u>Folder Number</u>	<u>Document Date</u>	<u>No Date</u>	<u>Subject</u>	<u>Document Type</u>	<u>Document Description</u>
16	17	7/29/1970	<input type="checkbox"/>	Campaign	Other Document	Methodology for Conducting a National Sample Survey of 1500 Interviews with Adults 21 Years or Older. 2pgs.
16	17	7/24/1970	<input type="checkbox"/>	Campaign	Memo	From: Thomas W. Benham To: Lawrence Higby RE: Some Explanation of the Sampling Problem in Connection with the Most Recent Survey of Public Attitudes Toward the Nixon Administration. 5 pgs.
16	17	7/15/1970	<input type="checkbox"/>	Campaign	Memo	From: Lawrence Higby To: H.R. Haldeman RE: Poll of Western Sample. 1 pg.
16	17	7/20/1970	<input type="checkbox"/>	Campaign	Letter	From: David R. Derge To: Lawrence Higby RE: Sampling Problems. 3 pgs.

9 September 1970

MEMORANDUM FOR H. R. HALDEMAN

Subject: Population of Surveys for the President

1. The universe for our national surveys has been defined as "all persons 21 years of age or over, living in private households in the continental United States." The "all persons" criterion is commonly used in survey procedures in this country and yields valid measures of adult public opinion.
2. Some recent objections of "sample distortions" have been raised because the above definition does not accurately reflect "the electorate." Some groups vote more heavily (e.g. 50-64) and others more lightly (e.g. 21-30). The same objections have been raised to party identification of "the electorate".
3. I think that we should be absolutely clear about what we are measuring. The party identification question is not designed to measure the projected actual vote in a particular electoral situation, but what all people over 21 perceive as their party identification regardless of whether they vote or not. Since voting turnout varies considerably from situation to situation, measurements of "public opinion" have to be arbitrarily adjusted if the goal is to measure "election results".
4. If the President wishes an estimate of what "election results" would follow from measurements of "public opinion", I would recommend the following procedure:
 - a. Report "public opinion" of all persons 21 and over, as in the past.
 - b. Undertake development of a computer program which would apply arbitrary factors of "voting turnout" by weighting each subgroup of the population according to best estimates of past voting behavior. The survey results could then be run through this program to obtain weighted results based upon likelihood of voting.
 - c. If this procedure is followed we might be able to avoid the confusion of criticizing a sample which is not designed to forecast election results.


DAVID R. DERGE

Re: The July ORC-David Derge Opinion Poll
Conducted for the President

Because of a poorly designed sample, I don't believe that this poll is any good. It is difficult to analyze the poll sample because of their imprecise categorizations, but the following will suggest why the sample base is so distorted as to make the poll less than representative of cross-sectional American thought or opinion.

1. Sample Distortions (See Page T-4)

A. Fifteen percent of the sample is non-white. This is too high. Negroes usually constitute 7-8% of the electorate, Latins 2-4%. Therefore, an 11-12% non-white sample would seem appropriate. But a 15% sample - with non-whites admittedly 8-1 Democratic - creates a roughly 3% distortion to the Democratic side.

B. Twenty-one percent of the sample is aged 21-29. They are a much lesser share of the electorate than this. Similarly, 50-64 year-olds constitute only 24% of the sample but they are probably about 30% of the electorate. The net effect of these two distortions is probably in favor of the Democrats.

C. Blue-collar workers constitute 43% of the vocational sample group. This seems too high, although it depends on the definition. Thirty percent of those sampled come from labor union families, which also seems too high.

D. Southerners constitute 30% of the sample, but because of turnout they constitute only some 20% of the electorate (Kentucky and the eleven Confederate states). This is a major pro-Democratic distortion.

E. Voters from cities over 1,000,000 in population constitute 24% of the sample. But in actuality, voters in New York City, Chicago, Los Angeles, Philadelphia and Detroit - the one million plus cities - constitute only about 10% of the electorate. Definitions may be loose here, but if not, this is another major distortion in the Democratic direction.

Sample Conclusion: All told, the sample would seem to have (estimating conservatively) a 5-10% built-in Democratic bias. This warped sample is actually stated on page T-4: Democrats, 57%; Republicans, 30%; independents, 7%; others/no answer, 6%. This is a decidedly more Democratic and less independent sample than the national breakdown found by Gallup.

2. Usefulness of Sample/Results/Data

If one accepts the idea that the sample is inaccurate, then its results cannot be safely compared with prior surveys to determine trends. For example, if this survey is Democrat-biased, then any trend compared with a prior accurate-sample survey would be Democratic as a matter of course.

Therefore, I do not believe that the statistics on the President's popularity can be used, nor the data on party identification or congressional vote intention.

3. Conservative as Opposed to GOP Identification

The survey data suggests that the Administration is not profiting from the conservative trend in the United States, which I believe is accurate. While the data is sketchy, and the questions ~~not~~ designed to probe this subject superficial, I would go so far as to say right now that the Administration's welfare, suburban integration, IRS innovation and the like, coupled with failure to articulate a philosophic and programmatic alternative to Great Society liberalism-cum-welfare-cum racial engineering per public alienation is on the verge of aborting the so-called "emerging Republican majority."

4. ORC Opinion Survey Questions

Even if the sample was a good one, I don't believe that the questions were designed in such a way as to elicit particularly useful information.

18 September 1970

MEMORANDUM FOR H. R. HALDEMAN

Subject: Analysis of Unsigned Memorandum Entitled "The July ORC --David Derge Opinion Poll Conducted for the President."

1. The Anonymous Critic in his section, "Sample Distortions," fails to understand the nature of the universe that the July study represents. Apparently, he did not read the leading sentence on page T-1 of the Technical Survey Data:

"The universe for this survey was defined as all persons 21 years of age or over living in private households in the continental United States."

In four of the five subparagraphs under Section 1 (A, B, D, and E), he criticizes the sample because it does not match his picture of the "electorate." Actually, as a measure of the universe the survey sample was intended to represent, it matches very closely to known census figures.

For example, the survey closely approximates the nonwhite population. The survey's definition includes the Spanish speaking in this category. Together with blacks, these constitute about 12% to 13% of the nation compared with the 15% shown in our sample.

He says in his paragraph B, "21% of the sample is aged 21-29. They are a much lesser share of the electorate than this." Actually, 21% is the exactly correct proportion of 21-29 year olds in the population studied, according to most recent census data.

He also says, "Similarly, 50-64 year olds constitute only 24% of the sample but they are probably about 30% of the electorate." The actual fact is that 24% is the exactly correct proportion of this age group in the population studied.

In D, he criticizes the sample as understating the South, but he estimates "they constitute only some 20% of the electorate." The fact of the matter is 30% is the correct census proportion for the South of the population studied.

In paragraph E, he misunderstands our category: cities over 1,000,000 in population. In our category -- like the census -- we use Standard Metropolitan Statistical Areas which include the suburbs about a major city as well as the core city itself.

The Anonymous Critic also criticizes the blue-collar category. He says, "This seems too high, although it depends on the definition. Thirty percent of those sampled come from labor union families, which also seems too high." In actuality, the census shows 38% of the population studies in the blue-collar group. The survey shows 42%, well within an acceptable range. The census does not give any figures for union households but only for union members themselves. The most recent four trend surveys we have done have consistently shown between 29% and 31% of respondents coming from households in which there is a union member. The Anonymous Critic has no figures with which to take issue with these findings, since Census doesn't provide them.

See my 9 September 1970 memorandum to Mr. Haldeman entitled "Population of Surveys for the President" for recommendations on analyzing "the electorate" from survey data.

2. In his "Sample Conclusion," the Anonymous Critic says, "This warped sample is actually stated on page T-4: Democrats, 57%; Republicans, 30%; Independents, 7%; others/no answer, 6%. This is a decidedly more Democratic and less Independent sample than the national breakdown found by Gallup." Actually, page 158 of the same report shows the following table, based on weighted figures.

	Total Public				
	May 1969	Aug. 1969	Dec. 1969	April 1969	Present Survey
Democrat	40%	43%	41%	40%	44%
Lean Democrat	9	10	14	13	11
	} 49%	} 53%	} 55%	} 53%	} 55%
Republican	27	23	24	26	25
Lean Republican	10	10	14	12	8
	} 37	} 33	} 38	} 38	} 33
Independent	10	9	4	5	6
Other, undecided	4	5	3	4	6

These data are based on the following two questions:

"In politics as of today, do you consider yourself a Democrat, a Republican, an Independent, or what?"

(If Independent or undecided):

"As of today, do you lean more to the Democratic Party or more toward the Republican Party?"

When we use party affiliation for data analysis, it has been our practice to combine the "leaners" with the others who choose a party in order to provide a larger base for cross analysis, therefore increasing the stability of this subgroup.

Our first question is identical to the question Gallup uses in his poll. He does not use our "leaner" question for a more precise measurement to show the disposition of people who call themselves "Independents."

If our June 1970 survey data are repercentaged with "leaners" counted as "Independent" and the "other and undecided" omitted, as Gallup has done, then the figures come out as follows:

	<u>Gallup June 1969</u>	<u>Gallup July 1970</u>	<u>June 1970 Survey</u>
Republican	28%	29%	27%
Democrat	42	44	46
Independent	30	27	27

Thus, our June 1970 survey findings are very close to the Gallup findings. The Anonymous Critic's error was in not understanding the definitions used by Gallup and those in T-4 of our report.

3. The concept of "the electorate" quoted so often in the memo is a very tricky one as far as research analysis is concerned. Which electorate do we mean? The 62 1/2 million people who voted in the off-year elections of 1966? The 73 million people who voted in the Presidential election of 1968? Or the about 65 million who may vote in the off-year 1970 elections? Or do we mean those who will vote in the 1972 Presidential election? (If the latter, then we had better start interviewing 19 and 20-year olds because they may be part of the electorate.) There are a number of ways to filter out the electorate in surveys -- voting intention, status as to registration, past voting behavior, etc. These measures are most useful in periods very close to elections for the special analysis required, but in an ongoing trend series they can introduce distortion from wave to wave.
4. Section 2 of the Anonymous Critic's remarks are meaningless in light of the foregoing. Section 3 requires no comment (although the Anonymous Critic seems to accept the findings of the survey when they tend to agree with his preconceptions).

5. In Section 4, the Anonymous Critic says, "Even if the sample was a good one, I don't believe that the questions were designed in such a way as to elicit particularly useful information." The questions were carefully formulated, discussed and approved by White House staff members, and backstopped by the Opinion Research Corporation, with 32 years of research experience, a large group of professionals and an established record in political research.

I am not aware of the survey research credentials of the Anonymous Critic and therefore cannot judge him against those mentioned above.


David R. Derge

9 September 1970

MEMORANDUM FOR H. R. HALDEMAN

Subject: Population of Surveys for the President

1. The universe for our national surveys has been defined as "all persons 21 years of age or over, living in private households in the continental United States." The "all persons" criterion is commonly used in survey procedures in this country and yields valid measures of adult public opinion.
2. Some recent objections of "sample distortions" have been raised because the above definition does not accurately reflect "the electorate." Some groups vote more heavily (e.g. 50-64) and others more lightly (e.g. 21-30). The same objections have been raised to party identification of "the electorate".
3. I think that we should be absolutely clear about what we are measuring. The party identification question is not designed to measure the projected actual vote in a particular electoral situation, but what all people over 21 perceive as their party identification regardless of whether they vote or not. Since voting turnout varies considerably from situation to situation, measurements of "public opinion" have to be arbitrarily adjusted if the goal is to measure "election results".
4. If the President wishes an estimate of what "election results" would follow from measurements of "public opinion", I would recommend the following procedure:
 - a. Report "public opinion" of all persons 21 and over, as in the past.
 - b. Undertake development of a computer program which would apply arbitrary factors of "voting turnout" by weighting each subgroup of the population according to best estimates of past voting behavior. The survey results could then be run through this program to obtain weighted results based upon likelihood of voting.
 - c. If this procedure is followed we might be able to avoid the confusion of criticizing a sample which is not designed to forecast election results.


DAVID R. DERGE

Re: The July ORC-David Derge Opinion Poll
Conducted for the President

Because of a poorly designed sample, I don't believe that this poll is any good. It is difficult to analyze the poll sample because of their imprecise categorizations, but the following will suggest why the sample base is so distorted as to make the poll less than representative of cross-sectional American thought or opinion.

1. Sample Distortions (See Page T-4)

A. Fifteen percent of the sample is non-white. This is too high. Negroes usually constitute 7-8% of the electorate, Latins 2-4%. Therefore, an 11-12% non-white sample would seem appropriate. But a 15% sample - with non-whites admittedly 8-1 Democratic - creates a roughly 3% distortion to the Democratic side.

B. Twenty-one percent of the sample is aged 21-29. They are a much lesser share of the electorate than this. Similarly, 50-64 year-olds constitute only 24% of the sample but they are probably about 30% of the electorate. The net effect of these two distortions is probably in favor of the Democrats.

C. Blue-collar workers constitute 43% of the vocational sample group. This seems too high, although it depends on the definition. Thirty percent of those sampled come from labor union families, which also seems too high.

D. Southerners constitute 30% of the sample, but because of turnout they constitute only some 20% of the electorate (Kentucky and the eleven Confederate states). This is a major pro-Democratic distortion.

E. Voters from cities over 1,000,000 in population constitute 24% of the sample. But in actuality, voters in New York City, Chicago, Los Angeles, Philadelphia and Detroit - the one million plus cities - constitute only about 10% of the electorate. Definitions may be loose here, but if not, this is another major distortion in the Democratic direction.

Sample Conclusion: All told, the sample would seem to have (estimating conservatively) a 5-10% built-in Democratic bias. This warped sample is actually stated on page T-4: Democrats, 57%; Republicans, 30%; independents, 7%; others/no answer, 6%. This is a decidedly more Democratic and less independent sample than the national breakdown found by Gallup.

2. Usefulness of Sample/Results/Data

If one accepts the idea that the sample is inaccurate, then its results cannot be safely compared with prior surveys to determine trends. For example, if this survey is Democrat-biased, then any trend compared with a prior accurate-sample survey would be Democratic as a matter of course.

Therefore, I do not believe that the statistics on the President's popularity can be used, nor the data on party identification or congressional vote intention.

3. Conservative as Opposed to GOP Identification

The survey data suggests that the Administration is not profiting from the conservative trend in the United States, which I believe is accurate. While the data is sketchy, and the questions not designed to probe this subject superficial, I would go so far as to say right now that the Administration's welfare, suburban integration, IRS innovation and the like, coupled with failure to articulate a philosophic and programmatic alternative to Great Society liberalism-cum-welfare-cum racial engineering per public alienation is on the verge of aborting the so-called "emerging Republican majority."

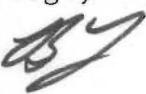
4. ORC Opinion Survey Questions

Even if the sample was a good one, I don't believe that the questions were designed in such a way as to elicit particularly useful information.

OFFICE MEMORANDUM
Republican National Committee

To: Mr. Larry Higby

Date: July 30, 1970

From: Bill Low 

Subject: National survey of public opinion

Per your request, I offer the following observations:

A. Concerning the most recent study conducted by ORC:

1. There is no dispute that a significant sample error did occur. Sufficient information is not readily available which would permit a determination of whether the sample error was caused by incorrect methodology or simply occurred by chance.

2. The fact that ORC did not become aware of the error during the course of field auditing or final analysis is, in my judgment, an operational mistake by the company. Tom Benham acknowledges this mistake.

3. As an experienced user, I cannot recommend acceptance of the revised report or of the assumptions involved in post-stratification on the factor of expressed party preference. I find nothing in Mr. Benham's memorandum of July 24 which changes this evaluation. On page four, the Benham memorandum moves from a weighted sample by sex (paragraph 2) to a weighted sample according to expressed party preference (paragraph 3). The important distinction is, of course, the fact that the sex of an individual respondent remains constant, but party attitude, as expressed by the respondent, is subject to change. As Benham notes, these changes do not occur rapidly on a national level. They have been known, however, to fluctuate significantly on the state level. As a result of the potential for change in expressed party attitude, it is, in my judgment, improper to post-stratify the sample by party preference. In short, there is no way to determine whether you are correcting sample error or destroying a genuine change in opinion.

4. I have the impression that this particular ORC study will not be accepted by the decision makers as accurate and reliable regardless of the technical explanations that are offered.

Mr. Larry Higby
Page 2
July 30, 1970

RECOMMENDED ACTION

1. I recommend that the most recent ORC study not be used in decision making and that copies of the study not be distributed.

2. I recommend that Dr. Derge conduct a thorough evaluation of the matter upon his return from Africa and that he suggest further action by the Republican National Committee.

B. Additional survey activity for 1970:

1. Subject to the Derge evaluation as noted above, I recommend that a new vendor be selected to conduct the RNC surveys for 1970. Based partially on Derge's original evaluation of survey firms for this project, but largely on my own experience with the company as a client, I recommend that the new firm be DMI (Decision Making Information) of Los Angeles, California. I recommend that all dealings with the firm be handled through the RNC and we, in turn, will deal only with the company president, Dr. Richard Wirthlin.

2. DMI has agreed to conduct one study of national public opinion using 1500 samples for a total of \$25,000.

3. Methodology (note attached).

4. Assurances of sample accuracy -- Naturally DMI assures us that every precaution will be taken to produce an accurate sample. We must, however, prepare in advance for a situation such as that which occurred with ORC. I have asked for, and DMI has given, the guarantee that a sample error of that proportion will be corrected by a new study at no cost to the RNC.

5. The matter of most immediate concern is the timing of the next study. I am attaching a suggested timetable for a study in October and another study to be taken either in August or September. My knowledge of the situation is severely limited; not knowing what your immediate requirements might be, I do recommend, however, that the September timetable be given serious consideration because of sampling difficulties in the month of August which are caused by extensive vacationing.

Larry, I hope the above will serve Mr. Haldeman's purpose. I will stand ready to proceed according to his request.

Sincerely,



Bill Low
Executive Director
Political Division

July 29, 1970

DMI
1300 West Olympic Boulevard
Los Angeles, California 90015

Methodology for Conducting A National Sample Survey
of 1500 Interviews with Adults 21 Years or Older

Purpose: The primary objectives would be to measure public opinion and attitudes of the potential voting population of the U. S. population 21 years of age or older at given points in time and to provide trend information with past studies.

To accomplish these objectives, we recommend a multi-stage area probability sample designed and selected to produce reliable and unbiased estimates of the population 21 years and older of the United States (excluding Alaska and Hawaii).

Accordingly the sample design must meet the following criteria:

- Every household within the universe has a known probability of being included in the survey.
- Every individual 21 years and older has a known probability of being included.
- Sampling procedures when administered in the field adhere to the same strict controls consistent with the precision demanded by the procedures employed in determining basic sample selections.

Within the framework of the sample design, we would recommend a large number of sample localities and interviewing clusters consistent with sample size to assure reaching as broad a cross section of the population as exists within the survey universe. A large number of localities and clusters will reduce sampling error and as a result produce more precise survey estimates.

To complete 1500 interviews, we would use one hundred thirty-nine (139) localities (made up of eighty-nine (89) standard metropolitan statistical areas and fifty (50) non-metropolitan counties). The interviews would be spread throughout four hundred (400) clusters or interviewing areas.

Within each cluster, interviewers would be instructed to interview at every Nth household to achieve maximum spread throughout the clusters. This achieves two benefits:

- 1 - Reaches a more complete cross section within each interviewing area.
- 2 - Intervening households in the clusters can be segregated into a series of matched samples for subsequent studies. This will give us minimum error between studies for evaluating trend information.

Designing and selecting a "good sample" is a relatively easy task. Implementing that sample at the field level requires much more vigilance and care to accomplish this task; no interviewer judgment in household or respondent selection is allowed. Precise procedures are provided. All field work is validated on a daily basis, from the first day of field work until the last. Key survey criteria are checked in on a daily basis and projected to the whole. All interviewers mail their work on a daily basis, so in effect, everyday the questionnaires received represent a reasonable facsimile of a sub-sample. This serves as an excellent quality control on field interviewing.

Interviewing hours will be tightly controlled to achieve maximum sample recovery. All interviews will be conducted from 5:30 p.m. - 9:30 p.m. on weekdays or on week ends.

Each questionnaire is completely edited for completeness and accuracy prior to any coding and processing.

The current study design defines the universe as 21 years or older. For continuity with past studies, we recommend maintaining that definition for the current time. We also recommend, however, that all data be broken out by registered voters on all criteria since they more closely describe the target group or party affiliation as well as other criteria. Since only about two-thirds of the population of voting age actually vote, the fifteen hundred (1500) sample becomes somewhat diluted in analyzing voter groups. In subsequent studies it would be possible to drop the non-registered segment while maintaining the same sample size. This would provide larger basis for analysis of specific target groups.

MEMORANDUM

July 24, 1970

TO: LARRY HIGBY
WHITE HOUSE STAFF
WHITE HOUSE
WASHINGTON, D.C.

FROM: THOMAS W. BENHAM
EXECUTIVE VICE PRESIDENT
OPINION RESEARCH CORPORATION
PRINCETON, NEW JERSEY

SUBJECT: SOME EXPLANATION OF THE SAMPLING PROBLEM IN CONNECTION WITH
THE MOST RECENT SURVEY OF PUBLIC ATTITUDES TOWARD THE NIXON
ADMINISTRATION

*no - question
was re dictated
& recorded 90% for
West small
g.p.*

Background

Sometime after the June 1970 analysis of public attitudes was delivered to the White House on July 3 by Doctor Derge, question was raised about the proportion of Democrats in the West included in the survey. We immediately reinvestigated the sample and found that, indeed, even though the sample as a whole and the sample in the West both were within the normal range for key demographic figures by the statistical chance involved in sampling, we did include too large a proportion of Democrats in the western section of the country. This was not a problem in any other part of the survey. Consequently, we reweighted the data on our computer, printed out new computer tabulations for the entire report, and revised the report throughout. Virtually all of the changes were of the magnitude of one percentage point, the chief exception being data relating to a few questions sensitive to party affiliation in the West. These have been corrected. The overall finding of the report, however, that the Administration seems to be declining in favor in the West still is evident; although the first version exaggerated it. The last Gallup findings on Nixon's popularity also confirm a downtrend in the West.

_____ ?
!

Why Samples Are Used

In the 32 years in which Opinion Research Corporation has been in business, we have conducted a vast number of surveys in many different subject matter areas and among a wide variety of publics -- from the general public to very specialized groups such as security analysts, industrial nurses, electrical engineers, and the like. In all of these surveys, the interviews were conducted among a sample of the individuals who comprised the particular population under study. In doing a survey, interviews are conducted among a sample of the given population rather than attempting to interview all members of that population -- that is, rather than conducting a census. The reason for this is that it is normally impossible from the point of view of time and cost to reach every member of a given population. It is also unnecessary, as statistical theory provides us with methods of selecting certain persons from among a given population who are representative of the entire population. From the results of the sample survey, then, we can infer the characteristics of the larger body of people -- i.e., the particular population under study.

Samples for the Republican National Committee

In the work that we have been doing for the Republican National Committee, wherein the attitudes and opinions of adults nationwide are desired, it is particularly obvious that a complete census would be most impractical. Thus, the studies have been conducted among nationwide samples of the adult population; and these samples have been comprised of about 1,500 carefully selected respondents. Much time and effort goes into this sample selection so that the characteristics of the final sample do in fact accurately reflect the known characteristics of the population. When this is true -- and it has been true in all of the studies that we have done for the Republican National Committee -- we can then safely infer (within known error limits) the attitudes and opinions of the adult population from those of this carefully selected sample.

Some Limitations of Sample Surveys

However, there is a price to pay for using samples. This price is that results from even the best designed and executed surveys inherently vary from one sample to the next. This variation arises from the basic nature of choosing, even randomly, different samples to represent the entire population. While this variation can never be completely eliminated, it can be reduced and controlled by several means. The extent of

Opinion Research Corporation
Research Park
Princeton, New Jersey

the variation can also be estimated by statistical formulae. There would even be variation if a census were attempted, as no census is ever successful in reaching everybody in a given population. There is, however, no way to know how much error there is in an attempted census; while survey error is a known quantity.

Measuring Sample Variation

The estimate of sample variation is not in terms of the difference between a particular sample result and the corresponding population ("true") value. Rather, the standard form is that the sample result will differ from the true value by more than a given amount only some small percent of the time. For example, without utilizing any special methods, the trend sample of the Western U.S. (given a sample size in this region of about 225, which is the case for the recent series of surveys conducted for the Republican National Committee) will be within 8% or less of the true value in at least 95 samples out of every 100. Note that without special methods this means one survey in 20 will have Western results which are off by 8% or more, solely on the basis of chance. (See attached guide to statistical significance of survey results.) Considering a sequence of surveys and the fact we are simultaneously sampling other regions, it is clear that such sample variations will eventually occur.

Reducing Sample Variation

The simplest method for improving the average sample accuracy is to increase the sample size. As a rough rule of thumb, multiplying sample size by four about halves the sample variation around the true value. Thus, increasing the Western sample to 900 (from 225) would mean that one sample in 20 would be off, by chance, only 4% or more instead of the 8% as is now the case. The problem with this approach is the greatly increased cost of the larger sample.

Thus, we turn to other methods for reducing variation from sample to sample. One such method is called stratification -- that is, insuring the proper proportions of respondents from California, Oregon, Washington, etc. We do, in fact, use such stratification and also stratify rural, suburban, urban, and by city size. The effect of such stratification, however, is just about equalized by the variation introduced by taking more than one respondent using the same starting point and proceeding down the block (i.e., clustering) and by the inevitable nonresponse of some proportion of the designated respondents.

Opinion Research Corporation
Research Park
Princeton, New Jersey

What ways remain to reduce the variation from survey to survey (i.e., from sample to sample)? The final procedure is called weighting or post-stratification. This is done by using information either from population censuses or previous surveys. For example, we know that, with the total U.S. adult population, there are about 47 men to every 53 women age 21 and older. Thus, if a particular sample significantly differs from this proportion of men to women, we can weight the results to correct for this variation. If the questions of interest in the survey are correlated with the proportion of men to women, this weighting will give a more accurate picture of the total population's views.

To see why this is useful, consider a hypothetical situation in which all men approved and all women disapproved of a particular item. If in some given sample we happened to get 60 men and 40 women, we would get an approval rate of 60%. However, by weighting the men so that they represented just 47% of the sample, we would (in this special case) totally eliminate the sampling variation. More typically, we reduce, but not eliminate, the sampling variation.

The proportion of Democrats and Republicans is known within fairly narrow limits from a great body of past surveys and is known to change very slowly. Further, attitudes on political questions are highly correlated with party preference. Thus, party preference can be used as a weighting variable, since it meets the two qualifications of being known in advance and being correlated with the questions of interest.

Correction Applied in the Current Study

In the recent political study for the Republican National Committee, the proportion of Western Democrats deviated considerably from the known ("true") proportion. Thus, it makes sense to weight the sample so that the proportion of Democrats in the sample more nearly reflects the known value. The effect of the weighting is to sharply reduce the deviation of the sample value from the true population value. In quantitative terms with such weighting the sample value would differ from the true value by 4% or more in no more than five surveys in 100. Without such weighting, the corresponding figures would be 8% or more in five surveys in 100.

Normally, we weight only for census variables such as sex, age, income, education, race, and occupation; and in the current survey, these census variables checked out within the acceptable range of variation. This is

Opinion Research Corporation
Research Park
Princeton, New Jersey

why we did not notice at first the rather large deviation in the proportion of Western Democrats. The reason for this is that even small changes in the ratio of Democrats are in themselves interesting; and so, the tendency is to report their values rather than use them for weighting other values. And, furthermore, the deviation in the West had little effect on the party preference figures for the total sample.

Conclusion

In conclusion, it is worth reiterating that all samples inherently involve variation around the true population value. However, intelligent use of stratification and weighting can reduce this variation to an acceptable level. In our professional opinion, the effect of the Western Democrat-Republican weights on the recent survey results, in combination with the more usual variation reducing techniques, makes the results trustworthy; and all significant figures fall well within normal tolerances.

TWB/jfs
Attachment

cc: Dr. David R. Derge
Mr. William H. Low

Opinion Research Corporation
Research Park
Princeton, New Jersey

MEMORANDUM

THE WHITE HOUSE
WASHINGTON

HIGH PRIORITY

July 15, 1970

MEMORANDUM FOR: H. R. HALDEMAN
FROM: L. HIGBY
SUBJECT: Poll of Western Sample

ORC has found what they believe to be the error in regard to the results in the West on their most recent poll.

In previous polls the average has been 49% Democrat, 38% Republican, 13% Independent.

In the most recent poll the distribution of the West turns out to be 67% Democrat, 23% Republican, 10% Independent.

As you know I have a call in to Derge. I am going to suggest to him that they redo the poll, incorporating new and correct figures for the West. The present figures obviously give all questions on the poll a Westward tilt.

Do you have any objection to my calling Derge to ask for this action?

No Objection Hold up

in fact - we should really hit them - and we should not pay for this poll until I've approved

20 July 1970
Abidjan, Ivory Coast

Mr. Larry Higby
The White House
Washington, D.C.

Dear Larry:

I am typing this letter to give you some thoughts and recommendations which were not possible by transatlantic telephone. As you pointed out, it wasn't exactly the ideal time to be away, but that couldn't be helped.

Sampling problems. It is difficult to know what exactly went wrong with the ORC and Chilton samples without talking at some length to the sampling departments of the organizations. However, a few caveats about sampling in general should be mentioned. First, the sample design and size (1500 ORC, 1000 Chilton) are for national readings. They are not appropriate for state analyses, and the regional results have limitations because of the number of cases involved--and the sampling error increases as the number of cases decreases. If you will check the memorandum I wrote earlier this year on the "approve/disapprove" measurement I believe you will find one table which shows sampling error by number of cases. The sampling procedure divides the whole country into sampling units, and in the random selection of these units each person in the country has an equal chance of being included in the sample. Because of population concentrations, and the absence of a homogeneous distribution of people, the sparsely populated states have relatively fewer sampling units, and thus less chance that one will be chosen. This may explain why some states have not been included in a national sample. Unless the sample were sharply increased in size it would not be possible to make state-by-state analyses which would be meaningful. Regional accumulations of states is about as far as they sample can be pushed. Even so, regional results are less reliable than national results. Second, in terms of reliability, the sampling which allows us to get by with 1500 cases is based on the probability that the sampling error will be no more than $\frac{1}{2}$ 3% in 95 cases out of 100. This level of probability (.95) means that you must expect greater sampling error than $\frac{1}{2}$ 3% in one sample out of every twenty. To reduce the probability of error below that point would call for a sharp increase in sample size, thus in cost. It may be that the western sample of ORC was that one case in twenty. Action: we may wish to consider in future surveys a stratification of the sample which guarantees that a particular region, state, or part of a state is represented by at least, and no more than, a particular percent of the total national sample. I would want to discuss this at some length with a statistician to make sure that we don't run into the problem of messing up national reliability by guaranteeing a stratification of this sort. It would also be possible to stratify by party identification or any other variable, but the problem here is that any a priori judgment about the sample could mask changes which the sample is meant to reveal: for example, if we stratify by sex, and require that the male-female distribution be 50-50, we could mask a real division of 51-49, 53-47, or whatever it is in the real world--the same could be true to stratification by what we think the party division should be.

State-by-state polls. As we have discussed before, the sample size for any population as large as an American state is very close to the required size for the nation. The sampling curve rises abruptly and levels off abruptly. Thus, in 1968 we used a sample size of 1000 per state (and I would have liked to make it larger). Unless there is a lot of money available, this suggests that polling several states

must be a telephone operation with a sample size of 500-1,000 depending on the sampling error you are willing to tolerate. If it is a telephone operation, this places limitations on content and type of question available. Something like this might be discussed:

1. RMN approve/disapprove question.
2. Issue question based on the findings of the June survey (wherein respondents were asked to identify and rank issues by open-end question.) We could accept the identification and ranking of that survey and simply ask the respondent to do his own ranking, express approval/disapproval of handling the issue by RMN, by the Senatorial candidates, by the parties, or by the Congress--whatever you are interested in determining.
3. Trial heat questions. You may wish to have a question "If the election for U.S. Senate (President of the U.S.) were being held today, would you vote for _____ or _____?" You could pair RMN with any number of Demo possibilities, with or without Wallace included (I would prefer the RMN vs. _____ vs. Wallace to come before the RMN vs. _____ item). We must remember that in Senate trial heats the question becomes a test of name identification as much as anything else, and in some respects this is true of the RMN vs. _____ items as well.
3. Congressional vote intention. You may wish to pull this item directly from the June survey. It must be worded so that no specific names are used because of the sampling problem: i.e. "If the election for Congress were being held today, would you vote for the Republican candidate or the Democratic candidate."
4. Demographic categories: you may wish to go along with the categories we have used with Chilton before: 5-way party identification, occupation, age, sex, and race.

Investigating the "mystique" of the Presidency and the RMN image. If the questionnaire is to be administered by telephone, I see only one way to get at this: an open-ended question along the lines of "What do you like (dislike) about RMN", or "Why do you approve (disapprove) of the way RMN is handling his job as President" (to follow the approve/disapprove question). This calls for a fairly complicated coding operation after the interviews are finished and the verbatim responses to the open-ended item are in. This is somewhat judgmental and it is expensive if done right. You will recall that I did a small analysis of the "Why do you approve (disapprove) item last spring, based only on 100 interviews. If the interviews are to be face-to-face and not telephone, other techniques are available: the semantic differential (which I believe we did last December), respondent-identification of key descriptive phrases (which I believe we did for the May survey), or use of other word-lists of phrase-lists which force the respondent to position RMN on some evaluative scale. These techniques simply are not suitable for telephone interviewing. One possible exception would be a forced choice between dichotomous phrases: e.g. (Which of these two best describes RMN? Strong and forceful, or weak and wishy-washy). I am not particularly attracted by that possibility because it doesn't allow the gradations and shadings in opinion available in face-to-face interviewing.

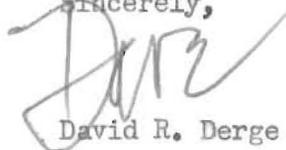
Seeking the causal factors in the approve/disapprove ratings. We discussed this briefly on the telephone. As I said last spring, I am dubious about attributing changes in this measurement to particular events or policies which happened to precede the rating or were concomitant. This applies to important public events or announcements, conservative/liberal policies, and so forth. I would rather have an open-end probing question following the approve/disapprove item and asking the respondent why he approves or disapproves, and possibly why he has changed (if he has). This avoids artificial correlations with events or actions which may not be causal.

What to do before the Doctor arrives. I recommend that you ask Bill Low, exec. dir. of the political division-RNC, to undertake the financial negotiations with Chilton if you decide to go on a state-by-state poll. He should ask Bob McMillan of Chilton to send him the volume pricing letter which I showed you last spring. McMillan and Alan Monroe can work out questionnaire content under general policy direction from you. If you have particular requirements for stratifying the sample these should be make clear to Monroe at the outset (he will then make it clear with McMillan). Keep in mind that in most states the Senatorial and House contests will not be fully underway or clarified in mid-summer--this speaks for doing most surveys nearer Sept. 1, when most campaigns move into high gear.

Concerning the ORC matter, I believe it would be useful for Tom Benham, Exec. V-P of ORC, to come to Washington and discuss this directly with you. I am sure he would be Willing to do this and it would produce better results than telephone conversations. I am sure Tom wants to make everything right and he has a good grasp of the policy implications of surveys.

Larry, I will be available by telephone wherever we go here, and will be pleased to do what I can by that method. Don't hesitate to call on me for whatever you need.

Sincerely,



David R. Derge