

Evaluation of Edison/Mitofsky Election System 2004
prepared by Edison Media Research and Mitofsky International
for the National Election Pool (NEP)

Table of Contents

Executive Summary	3
Glossary of Terms.....	7
Overview.....	11
Recommendations.....	15
Edison/Mitofsky Election System Development	18
Accuracy of Exit Poll Estimates	19
Evaluation of Samples	28
Evaluation of the Within Precinct Error (WPE)	31
Exit Poll Location Coverage.....	48
Exit Poll Interviewer Recruitment Process	49
Completion Rates.....	53
Survey Weighting	56
National Survey Weighting Gender Adjustment	58
Comparison of National Exit Poll with Cross Survey	59
Comparison of NEP exit poll results with other exit polls	64
Legal and Distance Issues.....	70
Absentee/Early Voter Telephone Surveys.....	72
Areas for Further Investigation in 2005.....	76

Executive Summary

On November 2, 2004, the Election System created by Edison Media Research and Mitofsky International for the National Election Pool (NEP) produced election estimates and exit poll data for analysis in 120 races in all 50 states and the District of Columbia. In addition, between January and March 2004, Edison and Mitofsky conducted exit polls for 23 Democratic Primaries and Caucuses. For every election, the system delivered on its main goals: there were no incorrect NEP winner projections, and the exit poll data produced on election day were used on-air and in print by the six members of the NEP (AP, ABC, CBS, CNN, FOX and NBC) as well as several dozen media organizations who subscribed to that data. However, the estimates produced by the exit poll data on November 2nd were not as accurate as we have produced with previous exit polls.

Our investigation of the differences between the exit poll estimates and the actual vote count point to one primary reason: in a number of precincts a higher than average Within Precinct Error most likely due to Kerry voters participating in the exit polls at a higher rate than Bush voters. There have been partisan overstatements in previous elections, more often overstating the Democrat, but occasionally overstating the Republican. While the size of the average exit poll error has varied, it was higher in 2004 than in previous years for which we have data. This report measures the errors in the exit poll estimates and attempts to identify the factors that contributed to these errors.

The body of this report contains the details of our analysis of the performance of the exit polls and the election system. In addition to the information included in this report, exit poll data from this election is being archived at the Roper Center at the University of Connecticut and at the Institute for Social Research at the University of Michigan and is available there for review and further analysis. This is the procedure that we have followed for all previous exit polls, which are also available at the Roper Center and ISR. The description of the methodology of the exit polls has already been posted on our Web site – www.exit-poll.net - along with all questionnaires used on election day and the completion rates nationally and by state.

Here is a brief summary of our findings:

1. Exit Poll Estimates

The exit poll estimates in the 2004 general election overstated John Kerry's share of the vote nationally and in many states. There were 26 states in which the estimates produced by the exit poll data overstated the vote for John Kerry by more than one standard error, and there were four states in which the exit poll estimates overstated the vote for George W. Bush by more than one standard error. The inaccuracies in the exit poll estimates were not due to the sample selection of the polling locations at which the exit polls were conducted. We have not discovered any systematic problem in how the exit poll data were collected and processed. Exit polls do not support the allegations of fraud due to rigging of voting equipment. Our analysis of the difference between the vote count and

the exit poll at each polling location in our sample has found no systematic differences for precincts using touch screen and optical scan voting equipment. We say this because these differences are similar to the differences for punch card voting equipment, and less than the difference for mechanical voting equipment.

Our detailed analysis by polling location and by interviewer has identified several factors that may have contributed to the size of the Within Precinct Error that led to the inaccuracies in the exit poll estimates. Some of these factors are within our control while others are not.

It is difficult to pinpoint precisely the reasons that, in general, Kerry voters were more likely to participate in the exit polls than Bush voters. There were certainly motivational factors that are impossible to quantify, but which led to Kerry voters being less likely than Bush voters to refuse to take the survey. In addition there are interactions between respondents and interviewers that can contribute to differential non-response rates. We can identify some factors that appear to have contributed, even in a small way, to the discrepancy. These include:

- Distance restrictions imposed upon our interviewers by election officials at the state and local level
- Weather conditions which lowered completion rates at certain polling locations
- Multiple precincts voting at the same location as the precinct in our sample
- Polling locations with a large number of total voters where a smaller portion of voters was selected to be asked to fill out questionnaires
- Interviewer characteristics such as age, which were more often related to precinct error this year than in past elections

We plan further analysis on the following factors:

- Interviewer training and election day procedures
- Interviewing rate calculations
- Interviewer characteristics
- Precinct characteristics
- Questionnaire length and design

We also suggest the following changes for future exit polls:

- Working to improve cooperation with state and local election officials

- Improvements in interviewing training procedures
- Changes in our procedures for hiring, recruiting and monitoring interviewers

Even with these improvements, differences in response rates between Democratic and Republican voters may still occur in future elections. However, we believe that these steps will help to minimize the discrepancies.

It is also important to note that the exit poll estimates did not lead to a single incorrect NEP winner projection on election night. The Election Night System does not rely solely on exit polls in its computations and estimates. After voting is completed, reported vote totals are entered into the system. Edison/Mitofsky and the NEP members do not project the outcome of close races until a significant number of actual votes are counted.

As in past elections, the final exit poll data used for analysis in 2004 was adjusted to match the actual vote returns by geographic region within each state. Thus, the discrepancy due to differing response rates was minimized and did not significantly affect the analysis of the vote. The exit polls reliably describe the composition of the electorate and how certain demographic subgroups voted.

2. Survey Weighting

Early in the afternoon on November 2nd, preliminary weightings for the national exit poll overstated the proportion of women in the electorate. This problem was caused by a programming error involving the gender composition that was being used for the absentee/early voter portion of the national exit poll. This error was discovered after the first two sets of weighting; subsequent weightings were corrected. This adjustment was made before NEP members and subscribers used exit poll results on-air or in print.

After election day, we adjusted the exit poll analysis data in three states (Tennessee, Texas, and Washington) to more accurately reflect the proportion of absentee ballots that came from each geographic region in those states. We have implemented a change to the survey weighting program to take into account the geographic distribution of the absentee votes in the future.

3. Technical Performance

While the computer system performed well for most of the night, a database server problem led to NEP member and subscriber screens “freezing up” shortly after 10:35 PM ET election night. This problem caused disruptions in the system until shortly after midnight when we switched to a backup server for the rest of the night. There was a second occurrence of this problem at approximately 2:45 AM ET. Details of the data server problems and other technical issues are outlined in the technical performance report being distributed to the NEP Technical Committee. We have isolated the reasons

behind the database server problem and list several recommended technical changes in this report to help avoid a repeat of this problem in future elections.

Glossary of Terms

Absentee/Early Voter Telephone Surveys

Absentee/Early Voter Telephone Surveys were conducted in 13 states that had a high proportion of absentee/early voters. The estimates from these surveys were used to adjust the exit poll estimates from election day to account for the absentee/early voters who can not be interviewed at the polling location on election day. The questionnaire responses in these surveys were also incorporated in the survey analysis in the 13 state surveys and the national survey.

Age-Race-Sex adjustment

An Age-Race-Sex adjustment is performed based upon the refusals and misses from sample voters that are observed by the interviewers at each polling location. The age, race and gender compositions in the exit poll results are adjusted to account for the differing completion rates of these demographic groups.

Best Survey Estimate

The Best Survey Estimate is the computation with the lowest SEDF (Standard Error on the Difference) using only the exit poll tallies.

Completion Rate

The Completion Rate is the percentage of sample voters who agree to fill out the questionnaire. The rate equals completed questionnaires divided by completed questionnaires plus refusals plus missed voters who were in the sample.

Composite Estimate

The Composite Estimate is a weighted average of the Prior Estimate and the Best Survey Estimate. The Composite Estimate is most often the estimate used in the survey weighting process to create the exit poll analysis data during election day before the actual vote is reported.

County Model

The County Model is a set of computations based upon the county data that is being reported by the Associated Press.

Critical Value (Crit)

The t-score is the ratio of the estimated difference between the two leading candidates and the standard error on the difference (SEDF). A critical value occurs when this ratio is 2.6 or more. The critical value increases when there are 40 or fewer sample precincts. This critical value is the first of several criteria for a "Call Status." It means there is a .995 statistical probability that the leader is the winner. It only accounts for sampling error in the estimate. It does not account for other possible sources of error or statistical bias.

Cross Survey

Cross Survey is a procedure through which state surveys are combined to form estimates of survey characteristics. When state surveys are combined in this way, the respondent weights are adjusted so that each state survey is represented in its correct proportion of the total. The Cross Survey is different from the National Survey. The Cross Survey only includes questions common to the state surveys.

Decision Screens

These screens provide the details for the 14 different estimates that are computed for each election day race. In addition, these screens include details on estimated candidate votes with and without exit poll results, with and without absentee votes factored in, sampling errors for all estimates, estimates by stratum, and quality control information.

Integrated Model

The Integrated Model is a computation based upon a composite of the estimates from the Sample Precinct Model and the County Model.

Interviewing Rate

Each exit poll interviewer is assigned an Interviewing Rate that is used to select sample voters as they leave the polling place. The interviewing rate is defined as the number of voters that the interviewer counts between sample voters. An interviewing rate of “1” means that the interviewer will approach every voter; an interviewing rate of “10” means that the interviewer will approach every 10th voter.

Miss Rate

The Miss Rate is the percentage of voters designated to be in the sample that are missed by the interviewer because the interviewer could not physically approach the voter and ask them to fill out a questionnaire.

National Exit Poll (National Survey)

The National Exit Poll is based upon the results from a national sample of 250 polling locations. These 250 locations are a sub-sample of the 1,480 locations that are in the state samples. In addition, 500 telephone interviews of absentee/early voters in 13 states with a high proportion of absentee/early voters were included in the National Exit Poll results. There were four different versions of the national exit poll questionnaire. One-fourth of the sample at every national exit poll location was asked to complete each version of the national questionnaire.

Prior Estimate

Prior Estimates are based upon pre-election surveys conducted in each state. The Prior Estimate is used in combination with the Best Survey Estimate during election day to create a Composite Estimate.

Projections

A projection is based on an estimate of the vote. The first of many requirements for projecting a winner is that the leading candidate is estimated to be ahead of his or her

nearest challenger by a margin that is sufficiently larger than the standard error. That margin would have to be 2.6 (at a minimum) times the standard error on the difference between the two candidates. The probability of incorrectly concluding that the leading candidate is ahead is .005.

Refusal Rate

The Refusal Rate is the percentage of sampled voters who are approached by the interviewer, but who refuse to fill out the questionnaire.

Sample Precinct Model

The Sample Precinct Model is a set of computations under different assumptions that use either precinct level exit poll results or actual vote returns. The exit poll results and actual vote returns may be used separately or in combination.

Standard Error on the Difference (SEDF)

We select only one sample of precincts per state out of the many different samples that could have been selected. Each possible sample will have a slightly different estimate of the election result. A standard error is a measure of the variation in all those possible results. While most samples have results that are close to the average for all the samples, it is theoretically possible that the one sample we selected differs from the overall average. The standard error tells us the likelihood of having a sample that differs from the overall average by given amounts. For making projections we are interested in the Standard Error on the Difference (SEDF). It is computed on the difference between the top two candidates for each estimate.

Survey Call 1, 2, 3

Exit poll interviewers call in the results of their interviews to our telephone centers three times during election day. The first call – Call 1 – is shortly before noon local time. Call 2 is in the late afternoon. The last call – Call 3 – is during the last hour before the time the polls close. The exit poll is not complete until the Call 3 interviews are used in the computations.

Survey Weighting

Survey Weighting is the process by which the respondents in each survey are weighted for the exit poll analysis. This weighting process takes into account the probabilities of selection of the precinct and the sample voters within each sample precinct, the age-race-sex adjustment for non-interviews, the best estimate of the candidate vote percentages from each geographic region, and if applicable the portion of the vote that is being cast by absentee/early voters.

t-score

For the value of the “t-score” see the definition of the Critical Value, which is defined above. The “t” refers to a distribution of probabilities for these scores for small samples.

Within Precinct Error (WPE)

Within Precinct Error (WPE) is an average of the difference between the percentage margin between the leading candidates in the exit poll and the actual vote for all sample precincts in a state. The signed WPE gives the direction of this error; in this report a negative WPE represents a Democratic overstatement in the exit poll and a positive WPE represents a Republican overstatement in the exit poll. The absolute WPE represents the total error.

Overview

On election day this past November, the Election System created by Edison Media Research and Mitofsky International delivered election estimates and exit poll data for analysis in 120 races in all 50 states and the District of Columbia. Between January and March 2004 Edison/Mitofsky conducted exit polls for 23 Democratic Primaries. For each election, results were delivered in a timely manner and the system successfully delivered data to the members and the subscribers.

The Edison/Mitofsky Election System delivered on its two main tasks – there were no incorrect NEP winner projections, and the system delivered exit poll and election estimates for every state on election day. As with any complex real-time data collection and computation system of this magnitude there were complications on election day. The estimates produced by the exit poll data on election day were not as accurate as we have produced with previous exit polls. This report identifies the factors which contributed to these errors. We have learned from our experience in 2004 and we will use that knowledge to help us in the preparation and operation of the system for future elections.

Here we summarize the performance of the Election Day System. Each item is detailed in later sections of the report.

Accomplishments:

The exit poll location coverage was almost complete. Out of 1,480 exit poll locations, we gathered data from more than 99% of the locations – seven polling locations had no interviewer, and four polling locations had no data collected because our interviewers were unable to conduct interviews due to distance restrictions enforced by local election officials at the polling place.

The computations operated successfully throughout election day. The sample precinct estimates with vote returns were accurate, as were the county model estimates and the Integrated Model. While some estimates using the exit poll data differed from the final actual vote, the exit poll estimate computations and questionnaire processing worked according to the specifications. In this report we examine the accuracy of these estimates, and in the next few months we plan an in-depth evaluation of the various computations to measure their accuracy throughout election day. These areas of further investigation are listed later in this report.

With a few exceptions that are detailed in the body of the report, the survey weightings were delivered on schedule until the database server problem beginning at 10:35 PM ET.

We interviewed absentee and early voters in 13 states for both state and national surveys. These data were successfully combined with the election day voters interviewed in the exit poll. We are suggesting improvements to make this process yet better.

Communication of data through the feeds to the NEP members was maintained throughout election day except for the period of time during which we switched over to the backup system following the database server problem.

Edison/Mitofsky communicated correct race calls through the feeds and the message system for each race on election night. All races were called correctly including 74 winners projected at the time the polls closed.

The election computer system supported approximately 650 users without seriously overloading the capacity of the computer hardware assigned to the task.

In addition to the experience of the leaders of this operation, we now have a large trained staff that we intend to retain through future election cycles.

In short, we have constructed an election system that works and a team dedicated to running it. We were tasked with delivering an enormous amount of data to a large number of users on election day, and in that effort we succeeded.

Election Day Problems:

The exit poll estimates in this year's general election in many states and in the national survey had a sizeable overstatement of the estimated percentage of the vote for John Kerry. All evidence is that this is attributable to "Within Precinct Error" (WPE) and not to any systematic problems in the sampling or the way the data was processed after it was received from the exit poll interviewers. We report on the initial findings of our investigation in this report, and we have identified several factors that contributed to the size of the WPE. Later in this report we examine the history of WPE and the several possible factors contributing to WPE, including those we can control for in the future, and those factors that are more difficult to control, especially differential non-response by Republican vs. Democrat voters. While the estimates in the primaries were more accurate, we need to do more investigation into the causes of the statistical skew in the exit poll data for the general election.

Preliminary weightings for the National Exit Poll overstated the proportion of women in the electorate. This error was discovered and corrected on election day by externally adjusting the male-female breakout in the National Survey to match the male-female breakout from the cross survey weighted average of all of the state surveys combined (54% Female/ 46% Male). We have identified the cause as a problem in the way that the national survey weighting program dealt with the absentee/early voter telephone portion of the national survey, and this problem has been corrected.

After election day, we needed to re-weight the state surveys from Tennessee, Texas and Washington because the exit poll size and vote in geographic areas within a state did not match the actual final vote returns. Because we had not been certain that the absentee

survey respondents would be identified by geographic area, the state survey weighting spec did not include the respondents from the absentee/early voter telephone surveys in the geographic forcing portion of the weighting procedure. This caused the state surveys in certain states, where at least half of the voters cast absentee or early ballots, to deviate from the actual vote by geographic region. This was an issue only in the Tennessee, Texas, and Washington surveys. The state survey weighting spec will be adjusted to deal with this issue in the future.

On the technical side, the biggest problem was a database server problem that led to the screens “freezing up” shortly after 10:35 PM ET on election night and later at 2:45 AM ET. In the Technical Performance Report we discuss the changes we will make for the future. In dealing with the database server problem, the switch to the backup server took longer than it had during testing. After the switch, one of the backup servers was requesting data from the original database. As a result, some screens did not appear to be in sync with other screens. In the Technical Performance Report, we address the operational and technical changes that will avoid a repeat of these problems.

Items for further investigation:

We are in the process of an in-depth evaluation of the exit poll process in Ohio and Pennsylvania. We will verify every piece of data that was used in the system for the estimates in these states – both current data on election day and past data used in the computations. We will report in detail on the recruiting of each individual exit poll interviewer. We will follow up with in-depth interviews with the exit poll interviewers in the precincts in which we saw the largest errors in an attempt to determine if there were any factors that we have missed thus far in our investigation of Within Precinct Error.

Since election day there has been discussion about the differences between the National Exit Poll and the estimates from the Cross Survey from all state surveys. Some estimates differ by several points among certain demographic groups, most noticeably among Hispanics. These differences appear mostly among demographic groups that are both relatively small (8% or less of the voting population) and those that tend to be geographically concentrated. We discuss in detail later in this report possible ways of dealing with the cluster effects that cause these differences between the National Exit Poll and Cross Survey estimates.

In this evaluation report, we examine the performance of the system. We believe that the positives greatly outweigh the negatives. However, we share the members’ desire for an even more reliable operating system and more accurate data on election day. Now that we have a fully operational election system in place we will be concentrating during the next few months on evaluating every aspect of the data collection and data processing with the aim of implementing changes to improve the accuracy of the data that is presented on election night.

To achieve that goal we have detailed many aspects of the data collection, data processing, and systems operation for the 2004 Elections. We have noted the areas where the system can be improved and we have made recommendations for implementing these improvements. We look forward to the input of the members in this process and we plan to work together with the members in the next few months to put a plan in place to ensure that the election system serves the needs of all of the news organizations in future elections.

Recommendations

Our goal is to have smoother and more accurate election nights in the future. After two months of study we recommend the following changes in what we do and how we function. We believe these recommendations will result in improvements for NEP and the subscribers.

IMPROVING OUR ESTIMATES

Exit Poll Errors

One way to reduce error is to take additional steps to keep the interviewers focused on strictly following their interviewing rates in order to properly sample voters within each polling location. This will be made an even greater priority in the future. We will develop additional steps in the recruiting and training process to make certain that the interviewers are following the detailed instructions that we give them.

Another way to potentially reduce the overall error in the exit poll is to improve the completion rates. We plan to examine more closely how the size, design and layout of the questionnaires may affect the percentage of sampled voters who choose to complete the exit poll questionnaire.

While we have identified factors that we can control in order to lessen Within Precinct Error, we cannot eliminate the possibility of any statistical bias based upon differential non-response by Democratic and Republican voters. We plan to identify indicators in the exit poll data that will give those who are using the exit poll data an early warning that there may be the possibility of Within Precinct Error in the exit poll estimates.

Recruiting Exit Poll Interviewers

We plan to make enhancements to recruiting exit poll interviewers.

- We will use augmented recruiting methods to reduce the proportion of students and young adults as interviewers.
- We will add a standardized training script for all individual training phone conversations that occur prior to our main training/rehearsal call.
- We will evaluate other training techniques such as the video training guide and interviewer tests.
- We will use the Internet more effectively as an interviewer training tool.

Distance Issues

We need to be more proactive in gaining cooperation from state and local election officials who try to impose distance restrictions of 50 feet or more on exit poll interviewers. Compared to the 2000 data collected by VNS, more than twice as many of our exit poll interviewers in 2004 reported that they were forced to stand more than 50 feet away from the polling location. There is convincing evidence that both the response rates and the accuracy of the exit poll data decrease once an interviewer is forced to stand more than 50 feet away from the polling location. The priority states in our efforts should be Arizona, Florida, Minnesota, Nevada, New Mexico, Ohio and South Dakota, which all tried to impose distance requirements greater than 50 feet on exit poll interviewers during this election.

IMPROVING OUR COMPUTER SYSTEM

We plan to make the following changes in the operations and technical features of the computer system:

We will have one dedicated person on both the decision and technical conference bridge when there are any problems with the system so that there is no confusion in communication. That person will have no other system responsibilities.

Technical changes will include testing the system with at least twice the number of users and a compressed time during simulations. Testing will also include twice the expected data as on election day. This may have exposed the database server problem we experienced with the screens “freezing up” starting at 10:35 PM.

We plan to use more sophisticated monitoring tools for the database on election night that will pinpoint hot spots for us prior to any problems occurring.

The only circumstance where untested code will be executed on election night is to correct a problem causing the system not to function. Otherwise no untested code will be executed as long as the system is up and running.

During failover we will isolate each data center so that all primary servers point to the primary database server and all backup servers point to the backup database server. This eliminates the need for running scripts for this purpose.

IMPROVING THE ANALYSIS

National Exit Poll and Cross Survey

We will look for ways to better achieve consistency between the Cross Survey results for a few selected characteristics and the National Exit Poll.

If we want to improve the National Exit Poll estimates for minority groups or other characteristics that are highly clustered, we need to increase the number of polling locations in the National Sample or oversample polling locations with the characteristics of interest.

Absentee/Early Voter Telephone Surveys

Ideally, the state absentee/early voter telephone survey sample sizes should be increased in the states where absentee vote is a large proportion of the total vote. With only 500 respondents in 2004 representing nearly one-fifth of all voters nationally who voted early or by absentee, the results of the national and regional breakouts for some of the smaller demographics are based upon sample sizes that are too small.

OTHER IMPROVEMENTS

Dealing with the Leaking of NEP Exit Poll Data

The decision by the NEP members to withhold the distribution of exit poll information within their organizations until 6PM ET on election day will help prevent, or at least delay, the use of exit poll data before poll closing by those who have not purchased the data. We will work closely with the NEP members to develop security measures deemed appropriate to implement this policy.

Subscribers

In the general election several subscribers felt that they were not given the same guidance about possible inaccuracies in the exit poll estimates that we had given the NEP members. On Election Day, at 4:30 PM ET, we convened a conference call with the Decision Teams of the NEP members and cautioned them that we expected sizeable errors in the exit polls in nine states; in seven states (Connecticut, Delaware, Minnesota, New Hampshire, Pennsylvania, Vermont and Virginia) we suspected that the exit poll estimates were overstatement of the vote for Kerry; in two states (South Dakota and West Virginia) we suspected an overstatement of the Bush vote. We made these warnings based upon the discrepancies between the exit polls and our prior estimates in these nine states. We made a mistake in not sharing with the subscribers our concerns about the accuracy of the exit poll estimates in those nine states. In the future we will need to make sure that whatever guidance we share with the NEP members is also communicated to the subscribers so that they can feel comfortable using the data.

Edison/Mitofsky Election System Development

In January 2003, the six members of the National Election Pool (NEP) asked Edison Media Research and Mitofsky International to design and implement a full exit poll and election projection system that would be operational for the 2004 Presidential Election. We believe that we have accomplished a lot in a short period of time.

We have designed, developed and implemented a fully operational custom computer system. This system gathers exit poll and vote count data; it processes exit poll data for analysis and election computations for estimates and projections; it delivers all of this data to the six NEP members (and several dozen subscribers) simultaneously; and it handles the data load and the user load of nearly 650 simultaneous users. In less than twelve months the system was up and running for 23 Democratic Primaries and Caucuses during a nine-week period from the Iowa Caucuses on January 19, 2004 through the primaries on March 9, 2004. On November 2, 2004 the system collected, processed and distributed data for 120 races in all 50 states. Between the primaries and the general election more than 140 races were projected without one incorrect winner being declared by NEP in any race.

In addition, we met all of the development milestones on schedule.

The system, though, is not yet perfect. In this report we detail areas that we intend to improve for the next election cycle. However, we do not want to lose sight of the fact that the six NEP members now have what they did not have for the previous election cycle – a fully operating exit poll and election projection system.

Accuracy of Exit Poll Estimates

The exit poll estimates for president on election day overstated the actual share of the total vote received by the Democratic candidate by more than one standard error in more than half of the states. Some of these errors were small and some were large, but in a presidential race as close as 2004, even the smallest overstatement of the Democratic vote led to an expectation during election day that differed from the actual results.

In order to diagnose the potential causes of these differences, we first need to measure the error in the exit poll estimates on election day. The tables on the following pages include the survey estimates for each of the President and Senate races that were calculated at the time of the Call 3 exit poll weighting. The Best Geo Estimator is the estimate with the lowest Standard Error on the Difference (SEDF) using the cumulative precinct tallies for each candidate. This would be the best estimate that was displayed on the Decision Screens for the members’ decision teams to review.

Comparison of Survey Estimates vs. Actual Results:

Best Geo Survey Estimate vs. Actual Results - Presidential Races (All States)

	Average Error on Difference	Average Absolute Error on Difference	# of states with Dem overstated by t-score>1	# of states with Rep overstated by t-score>1	# of states with Difference of t-score<=1
Call 3	-5.0	6.1	26	4	20
Call 2	-5.3	6.5	22	3	25
Call 1	-5.2	6.6	19	2	28

Best Geo Survey Estimate vs. Actual Results - Senate Races (32 states)

	Average Error on Difference	Average Absolute Error on Difference	# of states with Dem overstated by t-score>1	# of states with Rep overstated by t-score>1	# of states with Difference of t-score<=1
Call 3	-3.6	5.4	14	3	15
Call 2	-2.8	5.4	13	1	18
Call 1	-2.7	5.9	9	2	20

Note: The above analysis does not include the Oregon president and senate races where all interviews were done by telephone; the Idaho senate race which was unopposed, and the California president and senate race for Call 1.

On average, the exit poll estimates demonstrated an overstatement of the Democratic vote in both the President and Senate races. The average overstatement was slightly larger for Kerry in the Presidential race than for the Democratic Senate candidates.

In the 32 states with exit poll estimates for both a Presidential race and a Senate race the average error on the difference between the top two candidates was 5.0 points in the Democratic direction for President and 3.6 points in the Democratic direction for Senate.

Comparison of Composite Estimates vs. Actual Results:

The Composite Estimator includes the Best Survey Estimate and the Prior Estimate based upon the pre-election polls. The Composite Estimator is the one that was used in the exit poll weighting and these estimates would represent the statewide numbers that were being displayed on the exit poll analysis screens that were being used by the NEP members and the subscribers.

The errors in the Composite Estimates were slightly lower than those in the Best Survey Estimate since the Composite Estimate includes the Prior Estimate, which is based upon analysis of the available pre-election surveys in each state. The average weighted state survey results, available shortly after poll closing, differed from the final actual vote by 3.6 points on the Bush-Kerry difference.

Composite Estimate vs. Actual Results - Presidential Races

	Average Error on Difference	Average Absolute Error on Difference	# of states with Dem overstated by t-score>1	# of states with Rep overstated by t-score>1	# of states with Difference of t-score<=1
Call 3	-3.6	4.5	29	3	18
Call 2	-4.0	4.4	25	0	25
Call 1	-3.2	3.6	17	0	32
Prior	-2.0	3.1	10	2	39

Composite Estimate vs. Actual Results - Senate Races

	Average Error on Difference	Average Absolute Error on Difference	# of states with Dem overstated by t-score>1	# of states with Rep overstated by t-score>1	# of states with Difference of t-score<=1
Call 3	-2.5	4.7	18	3	12
Call 2	-1.9	4.5	15	5	13
Call 1	-1.4	5.0	13	6	12
Prior	-0.3	7.5	9	8	16

Comparison of National Exit Poll vs. Actual Results:

The national exit poll had a similar Kerry overstatement. The weighted national survey numbers showed Kerry with 51% and Bush with 48%. The final national popular vote margin ended up being 2.5% for Bush. Thus, the national exit poll had an error of 5.5 points on the difference in the Democratic direction which is similar to the 5.0 average from the state surveys.

Comparison of Best Geo Estimate and Composite with the Final Election Result for President - Call 3

Estimated Difference and Final Margin are positive when Democrat (Kerry) leads and negative when Republican (Bush) leads

State	Race	Call	Final Margin	Best Geo Estimator:							Composite Estimator:						
				Leader	Estimate	Estimated Difference	Estimated Error (SEDF)	Actual Error	Absolute Error	t-score	Leader	Estimate	Estimated Difference	Estimated Error (SEDF)	Actual Error	Absolute Error	t-score
Alabama	President	3	-25.6	Bush	57.5	-15.5	8.3	-10.1	10.1	-1.2	Bush	58.7	-18.1	4.3	-7.5	7.5	-1.8
Alaska	President	3	-25.6	Bush	57.4	-16.2	4.1	-9.4	9.4	-2.3	Bush	58.8	-19.8	3.1	-5.8	5.8	-1.9
Arizona	President	3	-10.5	Bush	53.5	-7.0	4.5	-3.5	3.5	-0.8	Bush	53.2	-6.4	3.7	-4.0	4.0	-1.1
Arkansas	President	3	-9.7	Bush	52.4	-5.6	4.6	-4.2	4.2	-0.9	Bush	52.2	-5.2	3.0	-4.5	4.5	-1.5
California	President	3	10.0	Kery	56.5	13.0	3.1	-3.0	3.0	-1.0	Kery	56.5	13.0	4.0	-3.0	3.0	-0.8
Colorado	President	3	-4.7	Bush	52.5	-5.5	1.0	0.9	0.9	0.8	Bush	51.4	-3.7	2.0	-1.0	1.0	-0.5
Connecticut	President	3	10.4	Kery	59.3	19.7	3.7	-9.4	9.4	-2.6	Kery	58.1	17.6	3.1	-7.3	7.3	-2.3
Delaware	President	3	7.6	Kery	61.5	23.6	5.7	-16.0	16.0	-2.8	Kery	57.7	16.5	3.9	-8.9	8.9	-2.3
District of Columbia	President	3	79.8	Kery	91.1	83.0	3.4	-3.1	3.1	-0.9	Kery	90.2	81.8	2.6	-1.9	1.9	-0.7
Florida	President	3	-5.0	Bush	50.3	-1.1	1.6	-3.9	3.9	-2.4	Bush	50.1	-0.8	1.6	-4.3	4.3	-2.7
Georgia	President	3	-16.6	Bush	56.5	-13.0	4.3	-3.7	3.7	-0.9	Bush	57.1	-14.1	3.2	-2.5	2.5	-0.8
Hawaii	President	3	8.7	Kery	56.5	13.1	8.2	-4.3	4.3	-0.5	Kery	53.6	7.2	4.8	1.6	1.6	0.3
Idaho	President	3	-38.1	Bush	69.1	-38.2	3.1	0.0	0.0	0.0	Bush	68.3	-36.7	4.3	-1.4	1.4	-0.3
Illinois	President	3	10.1	Kery	57.5	14.9	3.9	-4.8	4.8	-1.2	Kery	57.0	14.1	3.3	-3.9	3.9	-1.2
Indiana	President	3	-20.7	Bush	59.6	-19.1	3.0	-1.6	1.6	-0.5	Bush	58.8	-17.5	3.1	-3.2	3.2	-1.0
Iowa	President	3	-0.7	Kery	50.0	1.0	2.5	-1.6	1.6	-0.7	Kery	50.0	1.0	2.2	-1.6	1.6	-0.7
Kansas	President	3	-25.4	Bush	62.8	-26.2	3.8	0.8	0.8	0.2	Bush	64.6	-30.2	3.2	4.8	4.8	1.5
Kentucky	President	3	-19.9	Bush	58.6	-18.0	2.8	-1.9	1.9	-0.7	Bush	58.3	-17.4	2.5	-2.4	2.4	-1.0
Louisiana	President	3	-14.5	Bush	56.3	-13.1	6.2	-1.4	1.4	-0.2	Bush	54.8	-10.5	3.2	-4.0	4.0	-1.2
Maine	President	3	8.8	Kery	54.3	9.7	2.7	-0.9	0.9	-0.3	Kery	53.9	9.5	2.1	-0.7	0.7	-0.3
Maryland	President	3	13.0	Kery	59.4	19.7	4.3	-6.7	6.7	-1.5	Kery	56.6	14.1	3.3	-1.1	1.1	-0.3
Massachusetts	President	3	25.2	Kery	66.3	32.7	6.9	-7.5	7.5	-1.1	Kery	65.7	31.5	4.4	-6.3	6.3	-1.4
Michigan	President	3	3.4	Kery	51.8	4.5	2.1	-1.1	1.1	-0.6	Kery	51.9	4.8	1.7	-1.4	1.4	-0.8
Minnesota	President	3	3.5	Kery	56.7	14.3	3.6	-10.8	10.8	-3.0	Kery	53.7	8.8	2.7	-5.3	5.3	-2.0

Mississippi	President	3	-20.0	Bush	53.2	-7.0	9.8	-13.1	13.1	-1.3	Bush	56.0	-12.6	3.6	-7.4	7.4	-2.0
Missouri	President	3	-7.2	Bush	52.2	-4.4	3.3	-2.7	2.7	-0.8	Bush	52.1	-4.3	2.5	-2.9	2.9	-1.2
Montana	President	3	-20.5	Bush	59.9	-22.1	10.2	1.6	1.6	0.2	Bush	60.0	-22.8	5.2	2.3	2.3	0.4
Nebraska	President	3	-33.4	Bush	61.7	-24.2	4.8	-9.2	9.2	-1.9	Bush	62.6	-26.5	3.8	-6.9	6.9	-1.8
Nevada	President	3	-2.6	Kery	49.3	1.4	3.7	-4.0	4.0	-1.1	Kery	48.9	0.6	3.0	-3.2	3.2	-1.1
New Hampshire	President	3	1.4	Kery	57.1	15.0	2.8	-13.6	13.6	-4.9	Kery	55.1	11.2	2.1	-9.9	9.9	-4.6
New Jersey	President	3	6.8	Kery	58.4	18.2	5.4	-11.5	11.5	-2.1	Kery	55.3	12.5	3.0	-5.7	5.7	-1.9
New Mexico	President	3	-0.8	Kery	51.7	4.2	3.0	-5.0	5.0	-1.7	Kery	50.8	2.8	2.2	-3.6	3.6	-1.7
New York	President	3	17.4	Kery	65.1	31.3	3.7	-13.9	13.9	-3.8	Kery	63.1	27.6	2.9	-10.3	10.3	-3.5
North Carolina	President	3	-12.4	Bush	51.8	-3.6	3.4	-8.8	8.8	-2.6	Bush	51.9	-3.8	2.9	-8.6	8.6	-3.0
North Dakota	President	3	-27.4	Bush	66.7	-34.4	4.0	7.1	7.1	1.8	Bush	64.9	-31.6	3.3	4.2	4.2	1.3
Ohio	President	3	-2.1	Kery	53.2	6.5	3.9	-8.6	8.6	-2.2	Kery	51.7	3.4	2.6	-5.5	5.5	-2.2
Oklahoma	President	3	-31.1	Bush	65.8	-31.7	1.9	0.5	0.5	0.3	Bush	65.4	-30.8	1.6	-0.3	0.3	-0.2
Pennsylvania	President	3	2.3	Kery	56.9	13.8	3.6	-11.5	11.5	-3.2	Kery	54.2	8.5	2.7	-6.2	6.2	-2.3
Rhode Island	President	3	20.8	Kery	62.4	26.1	5.3	-5.3	5.3	-1.0	Kery	63.2	28.3	3.2	-7.5	7.5	-2.4
South Carolina	President	3	-17.1	Bush	52.4	-6.0	3.9	-11.1	11.1	-2.8	Bush	53.8	-8.7	3.3	-8.4	8.4	-2.6
South Dakota	President	3	-21.5	Bush	63.2	-28.3	3.3	6.8	6.8	2.0	Bush	61.5	-24.7	2.6	3.2	3.2	1.2
Tennessee	President	3	-14.3	Bush	58.5	-18.2	3.0	3.9	3.9	1.3	Bush	57.6	-16.3	2.4	2.0	2.0	0.8
Texas	President	3	-22.9	Bush	63.5	-27.0	3.4	4.1	4.1	1.2	Bush	62.9	-25.8	3.5	2.9	2.9	0.8
Utah	President	3	-45.5	Bush	69.2	-39.3	3.7	-6.2	6.2	-1.7	Bush	68.3	-38.4	3.2	-7.1	7.1	-2.3
Vermont	President	3	20.1	Kery	67.0	36.6	3.0	-16.5	16.5	-5.5	Kery	64.5	31.7	2.7	-11.6	11.6	-4.3
Virginia	President	3	-8.2	Kery	50.2	0.5	5.8	-8.7	8.7	-1.5	Bush	51.9	-3.9	3.3	-4.3	4.3	-1.3
Washington	President	3	7.2	Kery	54.9	10.7	2.6	-3.5	3.5	-1.4	Kery	54.1	9.5	2.9	-2.3	2.3	-0.8
West Virginia	President	3	-12.8	Bush	57.4	-15.8	4.9	3.0	3.0	0.6	Bush	54.2	-9.3	3.1	-3.5	3.5	-1.1
Wisconsin	President	3	0.4	Kery	52.5	5.7	3.2	-5.3	5.3	-1.7	Kery	49.6	0.4	2.4	-0.1	0.1	0.0
Wyoming	President	3	-39.7	Bush	63.6	-29.1	8.5	-10.6	10.6	-1.3	Bush	66.4	-34.8	4.6	-4.9	4.9	-1.1

Average	-5.0	6.1	-1.2	-3.6	4.5	-1.2
St. Dev		1.511				1.308

Senate States	Average	-5.0	6.0	-1.4	-3.7	4.6	-1.3
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Comparison of Best Geo Estimate and Composite with the Final Election Result for Senate - Call 3
Estimated Difference and Final Margin are positive when Democrat leads and negative when Republican leads

Best Geo Estimator:											Composite Estimator:						
State	Race	Call	Final Margin	Leader	Estimate	Estimated Difference	Est Error (SEDF)	Actual Error	Absolute Error	t-score	Leader	Estimate	Estimated Difference	Est Error (SEDF)	Actual Error	Absolute Error	t-score
Alabama	Senate	3	-35.2	Shel	63.3	-26.6	8.3	-8.6	8.6	-1.0	Shel	63.4	-26.7	4.5	-8.5	8.5	-1.9
Alaska	Senate	3	-3.1	Know	50.1	0.1	4.2	-3.2	3.2	-0.8	Know	50.6	1.1	2.9	-4.2	4.2	-1.5
Arizona	Senate	3	-56.1	McCa	77.9	-55.8	3.3	-0.3	0.3	-0.1	McCa	75.0	-50.0	3.2	-6.1	6.1	-1.9
Arkansas	Senate	3	12.0	Linc	55.4	10.8	4.6	1.2	1.2	0.2	Linc	56.8	13.5	3.7	-1.5	1.5	-0.4
California	Senate	3	20.3	Boxr	60.9	21.7	2.7	-1.4	1.4	-0.5	Boxr	59.3	18.5	3.1	1.8	1.8	0.6
Colorado	Senate	3	4.3	Salz	52.2	4.3	1.0	0.0	0.0	0.0	Salz	51.9	3.8	2.0	0.5	0.5	0.2
Connecticut	Senate	3	33.7	Dodd	74.1	48.1	3.9	-14.4	14.4	-3.7	Dodd	72.2	44.4	3.2	-10.7	10.7	-3.3
Florida	Senate	3	-1.1	Cast	51.4	2.8	1.7	-3.9	3.9	-2.3	Cast	51.1	2.1	1.6	-3.2	3.2	-2.0
Georgia	Senate	3	-18.0	Isak	57.5	-14.9	4.4	-3.1	3.1	-0.7	Isak	56.5	-13.0	2.8	-5.0	5.0	-1.8
Hawaii	Senate	3	54.5	Inoy	72.9	45.8	5.7	8.7	8.7	1.5	Inoy	69.6	39.2	4.1	15.3	15.3	3.7
Illinois	Senate	3	42.9	Obam	73.8	47.6	4.5	-4.7	4.7	-1.1	Obam	71.7	43.5	3.1	-0.6	0.6	-0.2
Indiana	Senate	3	24.3	Bayh	62.8	25.6	2.9	-1.3	1.3	-0.5	Bayh	63.6	27.1	3.1	-2.8	2.8	-0.9
Iowa	Senate	3	-42.5	Gras	72.4	-44.8	2.9	2.3	2.3	0.8	Gras	71.0	-42.1	2.5	-0.4	0.4	-0.2
Kansas	Senate	3	-41.9	Brwb	74.6	-49.2	5.4	7.3	7.3	1.3	Brwb	73.1	-46.2	3.5	4.3	4.3	1.2
Kentucky	Senate	3	-1.4	Mong	50.1	0.2	2.5	-1.6	1.6	-0.7	Bung	50.8	-1.5	2.1	0.1	0.1	0.1
Louisiana	Senate	3	-21.7	Vitr	53.8	-28.0	4.5	6.3	6.3	1.4	Vitr	51.3	-26.2	3.3	4.5	4.5	1.3
Maryland	Senate	3	31.1	Mikl	64.9	29.8	5.9	1.3	1.3	0.2	Mikl	63.5	26.9	4.2	4.2	4.2	1.0
Missouri	Senate	3	-13.3	Bond	54.6	-9.2	2.2	-4.1	4.1	-1.8	Bond	54.8	-9.5	2.1	-3.8	3.8	-1.8
Nevada	Senate	3	26.0	Reid	64.2	31.5	3.3	-5.5	5.5	-1.7	Reid	63.5	30.2	3.0	-4.2	4.2	-1.4
New Hampshire	Senate	3	-32.6	Greg	60.2	-20.4	3.3	-12.2	12.2	-3.7	Greg	60.6	-21.2	2.9	-11.4	11.4	-4.0
New York	Senate	3	46.0	Shmr	77.9	58.8	3.6	-12.8	12.8	-3.6	Shmr	73.0	51.8	2.4	-5.8	5.8	-2.4
North Carolina	Senate	3	-4.6	Bowl	50.4	0.8	3.5	-5.4	5.4	-1.6	Bowl	50.1	0.1	2.6	-4.7	4.7	-1.8
North Dakota	Senate	3	36.4	Dorg	71.2	42.4	4.1	-6.0	6.0	-1.5	Dorg	66.4	32.9	3.4	3.5	3.5	1.0

Ohio	Senate	3	-27.8	Voin	56.4	-12.7	4.1	-15.1	15.1	-3.7	Voin	56.7	-13.5	3.2	-14.3	14.3	-4.5
Oklahoma	Senate	3	-11.6	Cobr	56.4	-12.8	2.4	1.2	1.2	0.5	Cobr	54.7	-9.4	2.0	-2.2	2.2	-1.1
Pennsylvania	Senate	3	-10.8	Spec	47.2	-0.5	3.9	-10.3	10.3	-2.6	Spec	50.5	-6.6	2.8	-4.2	4.2	-1.5
South Carolina	Senate	3	-9.6	DeMn	50.9	-1.8	4.4	-7.8	7.8	-1.8	DeMn	51.1	-2.3	2.8	-7.3	7.3	-2.6
South Dakota	Senate	3	-1.2	Thun	51.1	-2.2	3.5	1.0	1.0	0.3	Thun	50.6	-1.3	2.6	0.1	0.1	0.0
Utah	Senate	3	-39.6	Benn	68.0	-36.1	3.4	-3.5	3.5	-1.0	Benn	67.4	-34.7	2.6	-4.9	4.9	-1.9
Vermont	Senate	3	46.1	Leah	78.2	56.5	4.0	-10.4	10.4	-2.6	Leah	75.0	50.1	3.4	-4.0	4.0	-1.2
Washington	Senate	3	12.3	Mury	58.8	17.5	3.0	-5.2	5.2	-1.8	Mury	57.5	15.1	2.5	-2.8	2.8	-1.1
Wisconsin	Senate	3	11.3	Fein	57.4	14.9	3.7	-3.6	3.6	-1.0	Fein	57.0	14.1	3.1	-2.8	2.8	-0.9
							Average	-3.6	5.4	-1.0							
							St. Dev			1.49							
														-2.5	4.7	-1.0	1.657

Comparison of Democratic Primary Survey Estimates vs. Actual Results:

On average, we did not see errors of this magnitude in the exit poll estimates from the 2004 Democratic Primaries. The table on the next page shows the best survey estimates and the actual results for the top three candidates in the 22 Democratic Primary exit polls that were conducted from January to March 2004. The average error on the candidate in the primaries was 1.9 points. Three exit polls contributed most to this error – Florida, Texas and Vermont. In Florida and Texas, the NEP absentee telephone surveys were cancelled after John Edwards withdrew from the race. Candidates who had withdrawn did better among the absentee/early voters than among election day voters in these states. Thus, the election day estimates in Florida and Texas overstate the total vote for Kerry including the absentees. In Vermont there was a significant (6%) write-in vote for John Edwards who was not on the ballot and thus was not included in the exit poll estimate computations. Note that since most primaries had more than two major candidates the analysis in this section is on the error in the estimate on the candidate. All other analysis in this report is on the difference between the two major candidates.

The smaller error in the Democratic primaries is yet another indication that the errors in the 2004 General Election exit polls were due to differences in how Democrats and Republicans responded to the exit polls in this election.

Exit Poll Results from the 2004 Democratic Presidential Primaries
Comparison of Best Exit Poll Estimate and Actual Result for Top 3 candidates

State	Candidates	# of Precincts	Best Exit Poll Est	Actual Result	Difference	Absolute Difference
New Hampshire	Kerry	40	36.0	38.4	-2.4	2.4
	Dean		29.4	26.3	3.1	3.1
	Edwards		12.4	12.1	0.3	0.3
Arizona	Kerry	35	42.8	42.6	0.2	0.2
	Clark		25.9	26.5	-0.6	0.6
	Dean		14.7	14.0	0.7	0.7
Delaware	Kerry	30	49.6	50.4	-0.8	0.8
	Lieberman		11.7	11.1	0.6	0.6
	Edwards		10.4	11.0	-0.6	0.6
Missouri	Kerry	35	50.6	50.6	0.0	0.0
	Edwards		24.3	24.6	-0.3	0.3
	Dean		10.9	8.7	2.2	2.2
Oklahoma	Clark	35	29.5	29.9	-0.4	0.4
	Edwards		30.6	29.5	1.1	1.1
	Kerry		28.8	26.8	2.0	2.0
South Carolina	Edwards	40	45.1	45.1	0.0	0.0
	Kerry		28.8	29.8	-1.0	1.0
	Sharpton		9.5	9.7	-0.2	0.2
Tennessee	Kerry	32	42.5	41.0	1.5	1.5
	Edwards		28.9	26.5	2.4	2.4
	Clark		18.7	23.1	-4.4	4.4
Virginia	Kerry	35	53.0	51.5	1.5	1.5
	Edwards		25.6	26.6	-1.0	1.0
	Clark		9.5	9.2	0.3	0.3

Exit Poll Results from the 2004 Democratic Presidential Primaries
 Comparison of Best Exit Poll Estimate and Actual Result for Top 3 candidates

State	Candidates	# of Precincts	Best Exit Poll Est	Actual Result	Difference	Absolute Difference
Wisconsin	Kerry	40	36.9	39.6	-2.7	2.7
	Edwards		36.2	34.3	1.9	1.9
	Dean		17.8	18.2	-0.4	0.4
California	Kerry	44	63.5	64.4	-0.9	0.9
	Edwards		23.8	19.8	4.0	4.0
	Dean		5.2	4.2	1.0	1.0
Connecticut	Kerry	20	65.1	58.3	6.8	6.8
	Edwards		22.0	23.7	-1.7	1.7
	Lieberman		2.3	5.2	-2.9	2.9
Georgia	Kerry	35	50.6	46.8	3.8	3.8
	Edwards		39.4	41.4	-2.0	2.0
	Sharpton		6.8	6.2	0.6	0.6
Maryland	Kerry	30	59.8	59.6	0.2	0.2
	Edwards		26.2	25.6	0.6	0.6
	Sharpton		5.7	4.5	1.2	1.2
Massachusetts	Kerry	20	71.0	71.7	-0.7	0.7
	Edwards		18.7	17.6	1.1	1.1
	Kucinich		3.0	4.1	-1.1	1.1
New York	Kerry	41	60.4	60.8	-0.4	0.4
	Edwards		19.5	20.0	-0.5	0.5
	Sharpton		11.3	8.0	3.3	3.3
Ohio	Kerry	36	53.1	51.8	1.3	1.3
	Edwards		34.1	34.1	0.0	0.0
	Kucinich		10.2	9.0	1.2	1.2
Rhode Island	Kerry	20	71.2	71.5	-0.3	0.3
	Edwards		20.4	18.6	1.8	1.8
	Dean		3.7	4.0	-0.3	0.3
Vermont	Dean	20	66.8	53.6	13.2	13.2
	Kerry		27.9	31.6	-3.7	3.7
	Kucinich		5.3	4.1	1.2	1.2
Florida	Kerry	42	82.1	77.2	4.9	4.9
	Edwards		8.5	10.0	-1.5	1.5
	Sharpton		2.4	2.8	-0.4	0.4
Louisiana	Kerry	21	71.4	69.7	1.7	1.7
	Edwards		17.5	16.1	1.4	1.4
	Dean		6.3	4.9	1.4	1.4
Mississippi	Kerry	22	83.0	78.4	4.6	4.6
	Edwards		6.1	7.3	-1.2	1.2
	Sharpton		3.5	5.2	-1.7	1.7
Texas	Kerry	35	78.5	67.1	11.4	11.4
	Edwards		10.2	14.4	-4.2	4.2
	Dean		5.0	4.8	0.2	0.2
Average						1.9

Evaluation of Samples

To determine the possible sources of the errors in the exit poll estimates, we began by examining the precinct samples. We conclude that, on average, the precinct samples did not contribute to the error of the exit poll estimates in the Kerry direction.

The table on the following pages shows the vote estimates computed using the actual vote returns for each precinct in our samples. The first set of estimates is from the precincts that were in the exit poll sample. The second set of estimates is from the larger vote count precinct samples. The exit poll sample is a sub-sample of the precinct samples, although in some states the two samples were the same.

It should also be noted that these sample precinct model computations include absentee vote adjustments for the states in which the absentee/early vote is not reported at the precinct level.

The average error on the vote estimates using actual precinct returns for the full samples was 0.31 percentage points in the Bush direction. For the exit poll samples the vote estimates using the actual precinct returns was 0.43 percentage points in the Bush direction.

**Comparison of Best SPM Estimate Using Precinct Reported Vote in Exit Poll and Full Samples with the Final Election Result:
Estimated Difference and Final Margin are positive when Democrat (Kerry) leads and negative when Republican (Bush) leads**

Presidential Races Only

State	Race	Final Margin	Best SPM Reported Vote in Exit Poll Sample:						Best SPM Reported Vote in Full Sample:					
			Leader	Estimate	Estimated Difference	Estimated Error (SEDF)	Actual Error	t-score	Leader	Estimate	Estimated Difference	Estimated Error (SEDF)	Actual Error	t-score
Alabama	President	-25.6	Bush	63.6	-27.4	1.6	-1.8	-1.1	Bush	62.2	-24.7	1.2	0.9	0.8
Alaska	President	-25.6	Bush	61.8	-25.4	1.3	0.2	0.2	Bush	61.8	-25.4	1.3	0.2	0.2
Arizona	President	-10.5	Bush	54.1	-8.2	2.4	2.3	1.0	Bush	54.1	-8.2	2.4	2.3	1.0
Arkansas	President	-9.7	Bush	53.0	-6.4	1.4	3.3	2.4	Bush	53.7	-7.9	1.0	1.8	1.8
California	President	10.0	Kery	53.6	7.3	1.9	-2.7	-1.5	Kery	55.3	10.5	1.7	0.5	0.3
Colorado	President	-4.7	Bush	52.1	-5.0	2.7	-0.3	-0.1	Bush	51.8	-4.5	2.6	0.1	0.1
Connecticut	President	10.4	Kery	54.9	10.6	2.1	0.3	0.1	Kery	55.6	12.0	1.2	1.7	1.3
Delaware	President	7.6	Kery	53.8	8.2	2.0	0.6	0.3	Kery	52.9	6.3	1.0	-1.2	-1.3
District of Columbia	President	79.8	Kery	90.1	80.8	1.4	1.0	0.7	Kery	90.1	80.8	1.4	1.0	0.7
Florida	President	-5.0	Bush	51.0	-2.4	1.7	2.6	1.6	Bush	51.1	-2.6	1.5	2.4	1.5
Georgia	President	-16.6	Bush	58.1	-16.2	1.3	0.4	0.3	Bush	57.8	-15.5	1.3	1.1	0.9
Hawaii	President	8.7	Kery	55.1	10.3	2.9	1.5	0.5	Kery	55.2	10.4	3.0	1.6	0.6
Idaho	President	-38.1	Bush	71.4	-42.8	1.3	-4.7	-3.5	Bush	71.4	-42.8	1.3	-4.7	-3.5
Illinois	President	10.1	Kery	56.1	12.2	1.8	2.1	1.1	Kery	54.9	9.8	1.2	-0.4	-0.3
Indiana	President	-20.7	Bush	60.8	-21.5	1.6	-0.9	-0.5	Bush	59.6	-19.3	1.3	1.4	1.1
Iowa	President	-0.7	Bush	49.9	-0.7	1.8	-0.1	0.0	Bush	49.6	-0.1	1.7	0.6	0.3
Kansas	President	-25.4	Bush	65.3	-31.4	1.7	-6.0	-3.5	Bush	65.3	-31.4	1.7	-6.0	-3.5
Kentucky	President	-19.9	Bush	59.1	-18.6	1.8	1.3	0.7	Bush	59.5	-19.4	1.4	0.4	0.3
Louisiana	President	-14.5	Bush	56.8	-14.1	1.4	0.4	0.3	Bush	56.6	-13.5	1.1	1.0	0.9
Maine	President	8.8	Kery	52.6	6.5	1.1	-2.3	-2.0	Kery	53.2	7.6	0.7	-1.2	-1.8
Maryland	President	13.0	Kery	54.1	8.7	1.4	-4.3	-3.0	Kery	54.5	9.5	1.7	-3.5	-2.0
Massachusetts	President	25.2	Kery	63.4	26.9	2.1	1.7	0.8	Kery	63.4	26.9	2.1	1.7	0.8

Michigan	President	3.4	Kery	50.9	2.6	1.3	-0.9	-0.7	Kery	51.1	3.0	1.2	-0.4	-0.4
Minnesota	President	3.5	Kery	52.0	4.7	1.0	1.2	1.2	Kery	51.9	4.5	0.7	1.1	1.4
Mississippi	President	-20.0	Bush	62.3	-25.0	1.8	-4.9	-2.7	Bush	62.3	-25.0	1.8	-4.9	-2.7
Missouri	President	-7.2	Bush	55.0	-10.0	1.1	-2.8	-2.4	Bush	54.5	-9.0	0.9	-1.8	-1.9
Montana	President	-20.5	Bush	61.6	-24.6	2.8	-4.1	-1.5	Bush	61.6	-24.6	2.8	-4.1	-1.5
Nebraska	President	-33.4	Bush	66.1	-33.0	1.6	0.4	0.2	Bush	66.1	-33.0	1.6	0.4	0.2
Nevada	President	-2.6	Bush	49.9	-1.3	2.5	1.3	0.5	Bush	50.3	-2.1	2.4	0.5	0.2
New Hampshire	President	1.4	Bush	49.9	-0.4	0.9	-1.8	-2.1	Kery	50.4	1.5	0.6	0.1	0.1
New Jersey	President	6.8	Kery	53.4	7.4	1.9	0.7	0.4	Kery	52.4	5.3	1.4	-1.5	-1.0
New Mexico	President	-0.8	Kery	49.9	0.5	2.7	1.3	0.5	Kery	50.5	1.7	2.6	2.5	0.9
New York	President	17.4	Kery	58.0	18.1	2.1	0.7	0.3	Kery	58.1	17.9	1.5	0.5	0.3
North Carolina	President	-12.4	Bush	56.4	-12.8	1.7	-0.4	-0.2	Bush	55.9	-11.9	1.6	0.5	0.3
North Dakota	President	-27.4	Bush	64.1	-29.5	2.3	-2.1	-0.9	Bush	64.1	-29.5	2.3	-2.1	-0.9
Ohio	President	-2.1	Bush	51.6	-3.2	1.1	-1.1	-1.0	Bush	50.8	-1.6	1.0	0.5	0.5
Oklahoma	President	-31.1	Bush	65.0	-30.0	1.1	1.2	1.0	Bush	65.0	-30.0	0.8	1.1	1.3
Pennsylvania	President	2.3	Kery	52.1	4.1	0.8	1.8	2.2	Kery	52.3	4.5	0.7	2.2	3.1
Rhode Island	President	20.8	Kery	59.8	20.5	2.5	-0.2	-0.1	Kery	60.0	20.8	2.4	0.0	0.0
South Carolina	President	-17.1	Bush	57.7	-15.8	1.5	1.3	0.9	Bush	58.4	-17.1	1.0	0.0	0.0
South Dakota	President	-21.5	Bush	61.2	-23.7	1.5	-2.2	-1.5	Bush	60.4	-22.0	1.0	-0.5	-0.5
Tennessee	President	-14.3	Bush	59.2	-19.7	2.7	-5.3	-1.9	Bush	59.3	-19.8	2.6	-5.4	-2.0
Texas	President	-22.9	Bush	64.3	-28.5	2.9	-5.7	-1.9	Bush	64.1	-28.2	2.8	-5.4	-1.9
Utah	President	-45.5	Bush	71.6	-44.5	1.9	1.1	0.6	Bush	71.6	-44.5	1.9	1.1	0.6
Vermont	President	20.1	Kery	60.4	22.4	2.0	2.3	1.1	Kery	59.3	20.0	0.9	-0.1	-0.1
Virginia	President	-8.2	Bush	53.4	-6.8	1.1	1.4	1.3	Bush	54.1	-8.2	0.9	0.0	0.0
Washington	President	7.2	Kery	54.0	9.0	2.8	1.8	0.7	Kery	54.0	8.9	2.8	1.7	0.6
West Virginia	President	-12.8	Bush	54.8	-10.2	1.4	2.7	1.9	Bush	55.2	-11.1	1.0	1.7	1.7
Wisconsin	President	0.4	Kery	50.6	1.7	1.4	1.3	0.9	Kery	49.9	0.2	0.8	-0.2	-0.3
Wyoming	President	-39.7	Bush	71.8	-44.8	2.0	-5.1	-2.6	Bush	71.6	-44.3	2.0	-4.6	-2.3

Actual Error Mean: -0.43

t-score Mean: -0.22

t-score Standard Deviation: 1.48

Actual Error Mean: -0.31

t-score Mean: -0.08

t-score Standard Deviation: 1.38

Evaluation of the Within Precinct Error (WPE)

As we have shown in the previous section, most of the error in the exit poll estimates was not caused by the sample of precincts. The samples produced very good estimates of the final vote count when the vote returns, rather than exit poll results, were used to make the estimates. The additional error in the exit polls must be caused by errors that occurred *within* the precincts from sampling voters. This is called WPE, Within Precinct Error. It is *not* the total error in an estimate from an exit poll. Other parts of the estimating process may increase or decrease the final statistical error. The WPE is only one component of the error. This section examines that source of error.

For the 1,460 exit poll precincts where we have both exit poll tallies and final vote returns, we calculated an average WPE of -6.5 on the difference between Kerry and Bush. (The sign is “+” when Bush is overstated and “-” when Kerry is overstated.) In other words, on average the exit poll results from each precinct overstated the Kerry-Bush difference by -6.5 points. This is the largest WPE that we have observed on a national level in the last five presidential elections, greater than the next largest WPE, which occurred in the 1992 VRS exit polls when the average WPE on the Clinton-Bush difference was -5.0 points.

First, we will describe the process of calculating WPE. Within each precinct a sample of voters is selected. Theoretically, the within precinct sampling errors across all precincts should average close to zero if the sample is very large. If it did, what remained would be mostly a statistical bias. The -6.5 percentage points of WPE in this election is mostly the statistical bias. There is statistical bias when the exit poll consistently overstates one candidate.

The absolute value of the WPE does not average out the sampling error. It is included in the absolute WPE along with the bias. The within precinct sampling error on the difference averages 10.3 percentage points per precinct. This calculation is based on 114,559 sample voters at the 1,460 precincts in our state and national samples. The large sampling error per precinct makes comparisons with the official precinct vote for a single precinct not very useful. However, estimates of a state based on the entire sample can provide reliable results, provided there is little or no statistical bias. The bias component in 2004 is most of the -6.5 percentage points cited above. The mean absolute WPE per precinct is 14.4. It is possible to have a large sampling error and no statistical bias. The 2004 problem is the statistical bias. In other years, when the statistical bias was smaller, the overall error has been almost as large as it is in 2004.

We also analyze the impact of different factors on the completion rates reported at each polling location. The average completion rate for all exit poll precincts was 53%. While we cannot measure the completion rate by Democratic and Republican voters, hypothetical completion rates of 56% among Kerry voters and 50% among Bush voters overall would account for the entire Within Precinct Error that we observed in 2004.

WPE – 1988-2004

The table below shows the Average WPE by state for the presidential races from 1988 to 2004. There is some correlation of WPE by state in 2004 to the past elections especially with 2000 and 1992. The past WPE is not always predictive of the direction and size of the WPE but some states seem to be more consistent in demonstrating an average WPE in the Democratic direction. Seven of the ten states with the largest WPE in 1992 were also among the fifteen states with the largest WPE in 2004 (California, Connecticut, Delaware, Maryland, New Hampshire, New Jersey and Vermont). While much attention has been paid to the size of the overstatement in Florida, Ohio and Pennsylvania, it is important to note that there were several other states with a higher WPE – Alabama, Connecticut, Delaware, Mississippi, New Hampshire, New York, North Carolina and Vermont.

Correlation of State Presidential WPE Averages Between Past Years:

	2000	1996	1992	1988
2004	0.48	0.19	0.35	0.30
2000		0.05	0.12	0.23
1996			0.15	0.26
1992				0.29

Average Within Precinct Error (WPE) For Presidential Races 1988-2004 (see note below)

st	STATE	2004				2000		1996		1992		1988	
		Overlay	Model WPE	IM WPE	WPE	Overlay	WPE	Overlay	WPE	Overlay	WPE	Overlay	WPE
1	AL	10	-19.5	-10.0	-11.3	14	-5.5	16	-2.4	15	-1.2	38	0.0
2	AK	25	-10.9	-9.3	-9.6	.	.	.	.	.	.	19	-1.2
3	AZ	30	-6.8	-0.3	-4.6	.	.	19	-7.7	16	-6.6	.	.
4	AR	31	-1.0	-1.3	-0.5	18	-3.2	22	1.5	10	-7.8	49	0.8
5	CA	30	-13.8	-11.6	-10.9	26	-3.8	37	-4.7	41	-8.5	92	-3.8
6	CO	34	-5.3	-6.1	-6.1	13	-5.6	23	-1.5	26	-7.2	46	-3.0
7	CT	11	-15.8	-16.0	-15.7	20	-0.9	20	4.2	25	-8.3	39	-5.2
8	DE	11	-16.3	-15.9	-15.9	21	-7.1	15	-1.3	11	-7.3	23	-1.8
9	DC	11	-2.6	-2.8	-3.4	.	.	.	.	.	.	.	.
10	FL	51	-8.0	-7.8	-7.6	39	-0.6	35	-0.6	25	-5.5	49	-2.4
11	GA	31	-2.2	-1.3	-2.2	27	-5.6	26	3.3	20	-6.5	47	1.8
12	HI	11	-4.2	-8.2	-4.7	.	.	.	.	.	.	17	-0.6
13	ID	11	0.4	-4.0	-1.0	7	2.5	12	-3.5	9	-0.5	.	.
14	IL	26	-4.0	-3.5	-4.4	28	-6.4	23	1.2	34	-6.1	67	-2.6
15	IN	21	-1.8	-2.2	-1.5	10	-3.6	24	-2.0	15	-6.8	26	-9.2
16	IA	41	-2.4	-3.0	-3.0	19	3.0	21	0.3	16	-2.0	40	-0.6
17	KS	11	-1.5	-1.1	-1.7	11	-4.4	19	-3.2	11	-3.4	48	-3.6
18	KY	16	0.5	-0.4	0.1	22	4.4	27	1.0	26	-3.9	19	-1.0
19	LA	35	-3.8	-2.6	-3.8	19	-0.6	18	6.5	26	1.0	59	-2.4
20	ME	31	-3.5	-4.0	-3.8	19	-2.1	26	-4.4	18	-5.1	28	-6.4

21	MD	16	-8.8	-7.3	-8.1	19	-4.3	13	-3.6	19	-8.1	38	-5.2
22	MA	11	-6.6	-7.7	-5.8	14	-4.3	36	-3.3	20	-7.1	41	-6.8
23	MI	46	-6.6	-6.4	-6.3	36	-2.2	20	-3.5	36	-4.9	64	-1.2
24	MN	41	-10.8	-9.2	-9.3	28	0.5	26	1.7	23	-6.4	40	1.2
25	MS	11	-15.6	-18.5	-11.3	12	-3.2	14	-0.3	15	-5.1	47	0.2
26	MO	45	-5.2	-5.8	-5.8	28	1.8	18	-5.8	30	-8.6	48	-0.6
27	MT	11	-5.7	2.6	1.8	14	3.2	15	-2.4	10	0.7	31	-4.4
28	NE	11	-8.0	-8.7	-8.1	10	-4.1	14	-6.5	11	-2.8	10	-5.0
29	NV	36	-15.6	-9.9	-10.1	25	-6.0	.	.	2	2.1	28	-3.0
30	NH	33	-15.6	-14.0	-13.6	25	-2.4	19	-12.2	16	-10.1	29	-6.0
31	NJ	25	-10.2	-9.1	-9.7	27	-0.4	26	-1.9	31	-11.2	54	-4.2
32	NM	31	-8.4	-8.0	-7.8	13	5.1	15	-7.0	19	-6.3	28	-6.6
33	NY	25	-11.9	-12.2	-11.4	40	-3.3	25	2.1	35	-4.6	48	-7.2
34	NC	36	-12.0	-11.9	-11.3	25	-9.8	35	-6.5	29	-4.2	46	-0.4
35	ND	11	5.1	1.7	5.2	16	2.0	16	-2.0	11	-4.2	39	-1.6
36	OH	45	-11.2	-10.6	-10.9	26	-1.0	34	-3.1	33	-4.4	44	-1.6
37	OK	26	1.4	1.2	1.9	10	4.7	21	2.0	21	-4.7	20	5.6
38	OR	.	.	.	.	.	.	28	-2.4	16	-13.6	37	-7.4
39	PA	46	-11.0	-8.4	-8.8	37	-0.8	31	-3.6	34	-2.0	70	-0.8
40	RI	11	-5.3	-5.3	-4.7	21	-0.4	16	-1.1	11	-9.0	9	0.2
41	SC	30	-9.3	-9.7	-10.0	14	-3.5	23	-2.8	21	-2.0	33	-1.4
42	SD	34	4.0	5.1	4.2	12	-0.9	19	-2.3	14	2.8	36	-1.0
43	TN	21	0.0	-1.3	-0.5	19	2.2	18	-3.0	14	-6.8	47	1.0
44	TX	16	-3.0	-7.6	-4.8	13	-0.4	38	-0.6	31	-2.8	93	0.8
45	UT	11	-1.9	-4.3	-6.4	7	1.0	12	-3.5	12	-2.2	.	.
46	VT	11	-17.1	-15.2	-15.0	16	0.4	16	-5.0	15	-8.6	30	-5.8
47	VA	21	-7.0	-8.7	-7.9	36	-2.0	20	-6.5	16	-3.5	50	0.6
48	WA	30	-8.7	-8.0	-8.4	7	-3.7	12	-2.0	12	-5.5	25	-5.4
49	WV	38	4.7	5.9	5.8	20	4.5	16	-2.6	8	-3.2	26	-0.2
50	WI	41	-5.7	-4.8	-4.7	34	2.4	19	-2.8	31	-2.5	60	2.2
51	WY	11	-8.2	-7.0	-4.3	16	-1.0	21	-3.9	11	-5.9	9	1.0

¹Note: WPE values are on the Dem-Rep difference. A negative WPE value indicates that the Democratic candidate vote was overstated.

The column definitions are:

1. 'WPE' is the statewide WPE computed using the method used at VNS prior to 2002. In this method, the four extreme precincts were removed and then the precinct WPE values were averaged.
2. 'Model WPE' is the statewide WPE computed using the SPM after removing the extreme precincts (see Statistical Spec for details). This is the WPE value on the Decision Summary screen.
3. 'IM WPE' is the statewide WPE computed using the average of each precinct's WPE. Extreme precincts have not been removed. This is the WPE value on the Input Management screen.
4. 'Overlay' is the number of overlaid precincts (both exit poll and reported vote) after the extreme precincts have been removed.

Since election day we have examined information from all 1,480 exit poll precincts in our samples, including all of the exit poll data from election day. This includes presidential vote tallies; questionnaires by demographics; refusals and misses by demographic, etc. There were only 20 precincts where we were unable to get the vote returns from the precinct in our exit poll sample.

Note: The WPE values do not measure just the error of the exit poll in precincts that contain significant absentee vote. When absentees were greater than 15 % statewide, we removed precincts from this study that had the absentees merged with the precinct vote. In these precincts we cannot obtain counts of the election day vote separate from the absentee vote. Also, not included in this study are any precincts with fewer than 20 interviews as well as three additional precincts with large absolute WPE (112, -111, -80) indicating that the precincts or candidate vote were recorded incorrectly. Out of the 1,480 exit poll precincts, 1,250 were included in the analysis that follows.

COMPARISON TO RECENT ELECTIONS

The following table displays a count of exit poll precincts grouped by the size and direction of our current computation of the WPE for all 1,460 exit poll precincts:

Number of Precincts With:	2004		2000		1996	
	N	%	N	%	N	%
WPE < -5 (Dem Direction)	767	53	394	36	465	39
-5 < WPE < 5	341	23	374	34	439	36
WPE > 5 (Rep Direction)	352	24	315	29	305	25

In 2004, the Kerry-Bush difference within precinct was overstated by more than 5 percentage points in 53% of the precincts. More than twice as many precincts overstated Kerry than overstated Bush.

The following table summarizes the WPE for the 1988-2004 presidential elections:

For the Precinct WPE:	2004	2000	1996	1992	1988
Average	-6.5	-1.8	-2.2	-5.0	-2.2
Average Absolute Value	14.4	11.3	9.9	NA	NA
Standard Deviation	18.2	16.8	13.3	NA	NA

This table shows that the WPE is larger than it had been. The variation of the WPE (standard deviation) is not nearly as large as the difference in the average WPE. What this means is that the errors in 1996 and 2000 were more random, while the errors in 2004 were much more in one direction. While WPE is clearly greater in this election, it is really the direction of the WPE that changed the most. Between 2000 and 2004, the average WPE increased more than 3 times resulting in a Democratic overstatement but the average absolute value of the WPE increased 1.3 times.

As the WPE was largest in the 1992 and 2004 elections, it is appropriate to analyze the factors that these two elections have in common. The 1992 and 2004 elections had the highest voter turnout among the last five elections. Also, pre-election polling showed that voters reported paying more attention to these presidential campaigns than other recent elections.

Election Year	WPE	Voter Turnout (%VAP)	% paying a lot of attention to campaign*
2004	-6.5	55.3%	66%
2000	-1.8	51.3%	49%
1996	-2.2	49.1%	40%
1992	-5.0	55.2%	68%
1988	-2.2	50.2%	49%

* Source: CBS News national polls from late October of each year
 Question: How much attention have you been able to pay to the Presidential campaign - a lot, some, not much, or no attention so far?

We need to further investigate the possible relationship between increased voter turnout and high levels of voter interest with the increased size of WPE to see if these factors are contributing to partisan differences in response rates in the exit polls.

A. NON-INTERVIEWER EFFECTS

1. Interviewing Rate:

The interviewers are instructed to sample the voters as they leave the polling place by following an interviewing rate. The interviewing rate is defined as the number of voters that the interviewer counts in order to select a voter to approach. In other words an interviewing rate of “1” means that the interviewer will approach every voter; and interviewing rate of “10” means that the interviewer will approach every 10th voter.

The statistical bias generally gets worse as the interviewing rate increases. This occurs at polling locations where a large number of people are voting, either because our sample precinct is large or because other precincts in addition to our sample precinct may be voting at the same polling place. The increased WPE in these precincts could suggest that some interviewers do not follow the interviewing rate exactly. As the interviewing rate increases so does the potential for interviewers to exercise more of their own judgment on whom they will approach in order to participate in the exit poll. However, the data also show a WPE in the Kerry direction still exists even in precincts where the interviewer was instructed to ask every single voter to participate in the exit poll (and the interviewer had no option in the selection of the respondent). In precincts with an interviewing rate of “1”, there was still a WPE in the Kerry direction of almost 4 points. Again, this indicates that a portion of the WPE is coming from differential non-response.

Interviewing rate at the beginning of election day*	mean WPE	median WPE	mean Abs(WPE)	N
1	-3.9	-4.5	14.0	142
2	-3.3	-3.7	11.9	144
3	-6.7	-4.9	14.1	178
4	-7.0	-7.2	13.4	136
5	-6.9	-5.1	13.9	159
6	-8.4	-9.4	15.0	101
7	-7.0	-7.4	12.6	80
8	-7.1	-4.5	13.3	62
9	-5.7	-5.8	11.0	50
10	-10.5	-9.7	15.4	198

*1 = attempt to interview every voter, 2 = every other voter, 3 = every third voter, etc.

There is no significant relationship between completion rates and interviewing rate. :

Interviewing rate at the beginning of election day	Completion Rate	Refusal Rate	Miss Rate
1	0.54	0.35	0.12
2	0.49	0.37	0.14
3	0.50	0.38	0.12
4	0.53	0.36	0.11
5	0.54	0.35	0.11
6	0.56	0.35	0.09
7	0.58	0.32	0.11
8	0.54	0.39	0.08
9	0.62	0.29	0.08
10	0.56	0.35	0.09

2. Precinct Partisanship:

When the precincts were grouped based on their vote (high Kerry through high Bush), the high Bush precincts have the greatest statistical bias. The average signed WPE increases sharply with the increase in the Bush vote. A small Bush overstatement exists in the highest Kerry precincts. The analysis is more meaningful if the precincts where Kerry and Bush received more than 80% of the vote are ignored. In the highest Kerry precincts there is little room for overstatement of his vote. Similarly the highest Bush precincts have more freedom to only overstate Kerry rather than Bush. The three middle groups of precincts show a relatively consistent overstatement of Kerry.

Precinct partisanship	mean WPE	median WPE	mean Abs(WPE)	N
High Dem (Kerry \geq .80)	0.3	-0.4	8.8	90
Mod Dem (0.60 \leq Kerry $<$.80)	-5.9	-5.5	13.4	165
Even (0.40 \leq Kerry $<$.60)	-8.5	-8.3	15.2	540
Mod Rep (0.20 \leq Kerry $<$.40)	-6.1	-6.1	13.2	415
High Rep (0.00 \leq Kerry $<$.20)	-10.0	-5.8	12.4	40

There was no significant difference between the completion rates and the precinct partisanship:

Precinct partisanship	Completion Rate	Refusal Rate	Miss Rate
High Dem (Kerry \geq .80)	0.53	0.35	0.12
Mod Dem (0.60 \leq Kerry $<$.80)	0.55	0.33	0.12
Even (0.40 \leq Kerry $<$.60)	0.52	0.37	0.11
Mod Rep (0.20 \leq Kerry $<$.40)	0.55	0.35	0.10
High Rep (0.00 \leq Kerry $<$.20)	0.56	0.33	0.11

3. Interviewer distance from exit:

The average WPE was smaller when the interviewers were able to stand inside the polling location or within at least 25 feet of the entrance.

Distance	mean WPE	median WPE	mean Abs(WPE)	N
Inside	-5.3	-4.2	11.8	416
Right outside the entrance	-6.4	-7.5	13.4	207
10 to 25 feet away	-5.6	-4.2	14.0	220
25 to 50 feet away	-7.6	-7.3	14.8	150
50 to 100 feet away	-9.6	-10.3	17.7	97
More than 100 feet away	-12.3	-12.1	16.7	37

When the interviewer was forced to stand away from the precinct entrance the completion rates dropped and both the refusal and miss rates increased:

Distance	Completion Rate	Refusal Rate	Miss Rate
Inside	0.59	0.33	0.09
Right outside the entrance	0.54	0.36	0.10
10 to 25 feet away	0.53	0.36	0.11
25 to 50 feet away	0.51	0.37	0.13
50 to 100 feet away	0.45	0.39	0.16
More than 100 feet away	0.43	0.39	0.18

4. Ability to approach every voter:

As expected, if the interviewers said that they were able to approach all voters, the average WPE was smaller. The precincts with more difficult to reach voters produced more error.

Possible to approach every voter?	Mean WPE	median WPE	mean Abs(WPE)	N
Yes	-6.0	-5.2	13.3	790
No	-8.0	-7.6	14.6	310

The completion rate was slightly lower when the interviewers said that they were not able to approach all voters. Note that the miss rate in these precincts only includes the voters

that the interviewer could see but could not interview. In many cases the distances were far enough that the interviewer could not see every voter as they exited the polling place.

Possible to approach all voters?	Completion Rate	Refusal Rate	Miss Rate
Yes	0.55	0.35	0.10
No	0.51	0.36	0.13

5. Cooperation by polling place official:

In precincts where the interviewer said that the polling place official was not cooperative, the average WPE was greater.

Was the precinct official cooperative (according to interviewer)?	mean WPE	median WPE	mean Abs(WPE)	N
Cooperative	-6.4	-6.0	13.5	1017
Not cooperative	-8.0	-7.7	15.6	87

The completion rate was also lower for these precincts:

Was the precinct official cooperative (according to interviewer)?	Completion Rate	Refusal Rate	Miss Rate
Cooperative	0.55	0.35	0.10
Not cooperative	0.46	0.38	0.15

6. Cooperation by voters:

In precincts where the interviewer said that the voters were not cooperative, the WPE was greater.

Were the voters cooperative (according to interviewer)?	mean WPE	median WPE	mean Abs(WPE)	N
Cooperative	-6.2	-5.8	13.4	1007
Not cooperative	-10.2	-10.0	16.7	94

The completion rate was also much lower in these precincts:

Were the voters cooperative (according to interviewer)?	Completion Rate	Refusal Rate	Miss Rate
Cooperative	0.56	0.34	0.10
Not cooperative	0.34	0.51	0.15

7. Interference at the precinct by non-election officials:

There was no significant difference in the WPE for precincts where the interviewer said that non-election officials (like poll watchers and lawyers) interfered with the exit poll.

Did any other people (poll watchers, lawyers, etc) interfere with interviewing?	mean WPE	median WPE	mean Abs(WPE)	N
Yes	-5.5	-5.9	14.1	67
No	-6.6	-6.3	13.6	1036

Even though there was not much difference in the average WPE, the completion rate was lower in the precincts where the interviewer said that a non-election official interfered:

Did any other people (poll watchers, lawyers, etc) interfere with interviewing?	Completion Rate	Refusal Rate	Miss Rate
Yes	0.48	0.39	0.12
No	0.54	0.35	0.11

8. Size of place:

Precincts in cities and the suburbs had larger average WPE than precincts in rural areas or small towns.

Size of Place	mean WPE	median WPE	mean Abs(WPE)	N
Over 500,000	-7.9	-5.9	12.1	105
50,000 to 500,000	-8.5	-7.7	14.3	236
Suburbs	-8.1	-7.9	14.3	487
10,000 to 50,000	-4.9	-5.0	12.8	126
Rural	-3.6	-3.6	13.4	296

The completion rates are only slightly higher for small towns and rural areas:

Size of Place	Completion Rate	Refusal Rate	Miss Rate
Over 500,000	0.52	0.34	0.14
50,000 to 500,000	0.54	0.35	0.11
Suburbs	0.53	0.37	0.11
10,000 to 50,000	0.57	0.33	0.09
Rural	0.55	0.34	0.11

9. Polling place Equipment:

Some have suggested that the exit poll data could be used as evidence of voter fraud in the 2004 Election by showing error rates were higher in precincts with touch screen and optical scan voting equipment. Our evaluation does not support this hypothesis. In our exit poll sample overall, precincts with touch screen and optical scan voting have essentially the same error rates as those using punch card systems. In the larger urban areas these systems had lower WPEs than punch card precincts.

WPE in precincts with any type of automated voting system is higher than the average error in paper ballot precincts. These errors are not necessarily a function of the voting equipment. They appear to be a function of the equipment's location and the voters' responses to the exit poll at precincts that use this equipment.

Type of equipment used at polling place	mean WPE	median WPE	mean Abs(WPE)	N
Paper Ballot	-2.2	-0.9	11.2	40
Mechanical Voting Machine	-10.6	-10.3	16.3	118
Touch Screen	-7.1	-7.0	14.8	360
Punch Cards	-6.6	-7.3	14.2	158
Optical Scan	-6.1	-5.5	12.6	573

The value of the WPE for the different types of equipment may be more a function of where the equipment is located than of the equipment itself. The larger urban areas had higher WPEs than the rural/small towns. The low value of the WPE in paper ballot precincts may be due to the location of those precincts in rural areas, which had a lower WPE than other places.

Size Of Place	Type of equipment used at polling place	mean WPE	median WPE	mean Abs(WPE)	N
Urban Areas (> 50,000)	Paper Ballot	-6.0	-11.5	15.7	5
	Mechanical Voting Machine	-12.7	-12.5	16.8	92
	Touch Screen	-7.5	-7.6	14.8	272
	Punch Cards	-9.3	-10.0	15.2	108
	Optical Scan	-7.2	-5.8	12.3	350
Rural/Small Town Areas (< 50,000)	Paper Ballot	-1.6	-0.6	10.5	35
	Mechanical Voting Machine	-3.2	-5.4	14.7	26
	Touch Screen	-6.0	-4.8	14.8	88
	Punch Cards	-0.8	-1.7	12.0	50
	Optical Scan	-4.4	-5.0	13.2	223

Size Of Place:	Type of equipment used at polling place:					Total
	Paper Ballot	Mechanical Voting Machine	Touch Screen	Punch Cards	Optical Scan	
Over 500,000	0	11	43	6	45	105
50,000 to 500,000	0	15	76	30	114	235
Suburbs	5	66	153	72	191	487
10,000 to 50,000	2	8	38	19	59	126
Rural	33	18	50	31	164	296
Total	40	118	360	158	573	1249

10. Weather:

The WPE was slightly greater in precincts where the interviewer said that the weather affected the ability to conduct interviews.

Did the weather affect interviewing?	mean WPE	median WPE	mean Abs(WPE)	N
Yes	-7.3	-8.2	14.8	259
No	-6.2	-5.6	13.3	844

The completion rate was lower at precincts with weather issues:

Did the weather affect interviewing?	Completion Rate	Refusal Rate	Miss Rate
Yes	0.48	0.41	0.12
No	0.56	0.34	0.10

11. Number of precincts at polling place:

The WPE was greater when there were three or more precincts at the polling place.

Some of the additional error for these precincts could be due to two sources:

- i) the interviewer was not able to interview voters only from the sample precinct;
- ii) either the reported vote or the exit poll is not only from the sample precinct alone.

Other precincts at the polling place may be included in either the exit poll and/or the vote returns. We may be measuring a lack of consistency between the exit poll and the vote.

Further study is required to clarify this situation.

Number of precincts at polling place	mean WPE	median WPE	mean Abs(WPE)	N
1 precinct	-6.3	-5.8	13.2	888
2 precincts	-6.1	-6.9	14.0	201
3 precincts	-8.3	-7.8	15.1	95
4 or more precincts	-13.6	-10.8	18.8	66

The completion rate was not affected by the number of precincts at the polling place:

Number of precincts at polling place	Completion Rate	Refusal Rate	Miss Rate
1 precinct	0.54	0.36	0.11
2 precincts	0.54	0.35	0.11
3 precincts	0.54	0.35	0.11
4 or more precincts	0.54	0.35	0.11

12. Swing states:

The WPE was greater in the more competitive “swing” states. For this analysis, the following were considered swing states: Colorado, Florida, Iowa, Michigan, Minnesota, Nevada, New Hampshire, New Mexico, Ohio, Pennsylvania, and Wisconsin.

Swing state	mean WPE	median WPE	mean Abs(WPE)	N
Precinct not in a swing state	-6.1	-5.1	13.1	776
Precinct in a swing state	-7.9	-8.6	14.8	474

Swing state	Completion Rate	Refusal Rate	Miss Rate
Precinct not in a swing state	0.56	0.34	0.10
Precinct in a swing state	0.50	0.38	0.11

This indicates that voters in the swing states (who were exposed to more paid advertising and media coverage than voters in non-swing states) were less likely to respond to the exit poll: but among those who did, more likely to be Kerry voters.

B. INTERVIEWER EFFECTS

1. Completion Rates:

Low completion rates have the potential to affect the total error in the exit poll by producing a statistical bias. The correlation between the overall completion rate and the signed WPE in a precinct was not significant (0.05), which shows no effect on the statistical bias from the overall completion rates. There also is a small correlation between the completion rates and the absolute WPE (-0.15). This does not rule out a difference in the completion rates for all Kerry voters or all Bush voters. There well may be a difference in these two rates.

WPE Category	Completion Rate	Refusal Rate	Miss Rate	N
WPE < -15	0.51	0.37	0.12	351
-15 < WPE < -5	0.55	0.34	0.10	315
-5 < WPE < 0	0.57	0.33	0.10	163
0 < WPE < 5	0.55	0.35	0.10	138
5 < WPE < 15	0.53	0.36	0.11	187
WPE > 15	0.50	0.38	0.12	94

The correlation between the WPE (both signed and absolute) and the difference in completion rates for voters under and over 30 and for the difference between males and females was computed. None of these correlations were significant (all were below 0.06).

2. Interviewer Age:

Older interviewers had lower WPE than the youngest interviewers. They also had better completion rates. This does not necessarily mean that the younger interviewers did poorly at their task. It does indicate that in this election voters were less likely to complete questionnaires from younger interviewers.

Interviewer Age	mean WPE	median WPE	mean Abs(WPE)	N
24 and under	-7.4	-8.6	15.0	430
25-34	-8.2	-7.2	13.4	182
35-44	-4.0	-3.9	13.4	167
45-54	-6.3	-4.7	12.5	191
55-64	-7.0	-5.8	12.6	143
65 and over	-3.7	-5.4	12.9	68

The relationship between interviewer age and the WPE holds when controlling for interviewer gender and education:

Gender	Interviewer Age	mean WPE	median WPE	mean Abs(WPE)	N
Men	Under 35	-7.7	-8.9	14.6	248
	35 or older	-5.9	-4.5	13.4	196
Women	Under 35	-7.7	-7.9	14.5	364
	35 or older	-5.3	-4.7	12.6	373

Interviewer Education	Interviewer Age	mean WPE	median WPE	mean Abs(WPE)	N
High school or less	Under 35	-5.9	-8.1	16.0	96
	35 or older	-1.6	-1.2	13.0	81
1 to 3 years of college	Under 35	-8.1	-8.9	14.8	301
	35 or older	-6.2	-3.9	12.9	225
Four year college degree	Under 35	-7.0	-6.9	13.2	110
	35 or older	-5.7	-4.9	12.3	111
Some graduate credits	Under 35	-9.7	-10.5	12.7	29
	35 or older	-2.5	-4.0	11.4	42
Advanced Degree	Under 35	-9.1	-5.9	12.9	29
	35 or older	-7.6	-5.1	13.2	94

The completion rates were higher for precincts with older interviewers:

Interviewer Age	Completion Rate	Refusal Rate	Miss Rate
24 and under	0.50	0.39	0.12
25-34	0.52	0.38	0.11
35-44	0.53	0.35	0.12
45-54	0.57	0.32	0.10
55-64	0.61	0.31	0.08
65 and over	0.61	0.29	0.10

Also, the relationship between interviewer age and completion rates is approximately the same even within the different voter age groups. Younger interviewers tend to have lower completion rates regardless of the voter's age:

Interviewer Age	Overall Completion Rate	Age 18-29 Completion Rate	Age 30-59 Completion Rate	Age 60+ Completion Rate
24 and under	0.50	0.53	0.52	0.39
25-34	0.52	0.56	0.54	0.42
35-44	0.53	0.55	0.55	0.42
45-54	0.57	0.58	0.60	0.47
55-64	0.61	0.61	0.64	0.53
65 and over	0.61	0.60	0.64	0.54

This information confirms what we found in our post-election survey of our exit poll interviewers. We asked each interviewer how cooperative they found the local polling place officials and how cooperative they found the voters at their location. Younger interviewers were much less likely to report that the voters at their location were very cooperative. Again, this is an indication that there is an interaction between the voters and younger interviewers that contribute to lower completion rates and higher WPE.

How cooperative did you find the polling place officials at your location?

		Age of Interviewer				
	Total	18-24	25-34	35-44	45-54	55+
Very cooperative	71%	63%	71%	73%	74%	80%
Somewhat cooperative	21%	28%	19%	18%	19%	12%
Not very cooperative	7%	7%	9%	7%	6%	6%
Actively tried to keep you from doing your work	2%	2%	1%	2%	1%	2%

How cooperative did you find the voters at your location?

		Age of Interviewer				
	Total	18-24	25-34	35-44	45-54	55+
Very cooperative	44%	27%	36%	46%	56%	69%
Somewhat cooperative	46%	58%	54%	46%	40%	26%
Not very cooperative	9%	14%	10%	8%	4%	5%
Actively tried to keep you from doing your work	0%	1%	0%	0%	0%	0%

3. Interviewer Gender:

The average WPE was slightly greater in precincts with male interviewers:

Gender	mean WPE	median WPE	mean Abs(WPE)	N
Men	-7.1	-7.2	14.1	466
Women	-6.6	-5.8	13.5	775

The relationship between interviewer gender and the WPE does not hold when controlled for interviewer age. There is little difference between precincts with male or female interviewers when separated into groups depending on whether the interviewer was over or under 35:

Interviewer Age	Gender	mean WPE	median WPE	mean Abs(WPE)	N
Under 35	Men	-7.7	-8.9	14.6	248
	Women	-7.7	-7.9	14.5	364
35 or older	Men	-5.9	-4.5	13.4	196
	Women	-5.3	-4.7	12.6	373

There was no significant difference between the gender of the interviewer and completion rates:

Gender	Completion Rate	Refusal Rate	Miss Rate
Men	0.53	0.36	0.11
Women	0.54	0.35	0.11

4. Interviewer education:

The absolute WPE decreased slightly when the interviewer had more education. However, the statistical bias was highest among those with post-graduate education. They had a significantly greater overstatement of Kerry than any other group. Those with High School education or less had a lower overstatement of Kerry but a higher absolute error.

Interviewer Education	mean WPE	median WPE	mean Abs(WPE)	N
High school or less	-3.9	-4.6	14.7	177
One to three years of college	-7.3	-7.0	14.0	526
Four year college degree	-6.3	-6.3	12.8	222
Some graduate credits	-5.4	-5.9	11.9	71
Advanced degree such as MA, MBA or PhD	-7.9	-5.2	13.1	123

The completion rates tend to be slightly higher in precincts with more educated interviewers:

Interviewer Education	Completion Rate	Refusal Rate	Miss Rate
High school or less	0.52	0.36	0.11
One to three years of college	0.53	0.37	0.11
Four year college degree	0.55	0.34	0.11
Some graduate credits	0.57	0.34	0.10
Advanced degree such as MA, MBA or PhD	0.60	0.32	0.08

5. When the interviewer was hired:

Interviewers hired well in advance of the election had lower errors than late hires. Precincts with an interviewer hired within a few days before the election had a greater average WPE:

When was the interviewer hired?	mean WPE	median WPE	mean Abs(WPE)	N
At least a week before the election	-6.5	-5.9	13.5	1154
Within a few days before election or on election day	-9.5	-10.1	16.3	82

The completion rate also was lower for these precincts:

When was the interviewer hired?	Completion Rate	Refusal Rate	Miss Rate
At least a week before the election	0.54	0.35	0.11
Within a few days before election or on election day	0.48	0.40	0.13

6. Interviewer training:

Precincts where the interviewer said that they were trained “very well” had less WPE:

How well did the interviewer say they were trained?	mean WPE	median WPE	mean Abs(WPE)	N
Very well	-6.4	-5.7	13.4	862
Somewhat or not very well	-7.0	-7.8	14.3	239

The completion rate was also slightly lower for those interviewers who said that they were not very well trained:

How well did the interviewer say they were trained?	Completion Rate	Refusal Rate	Miss Rate
Very well	0.55	0.35	0.10
Somewhat or not very well	0.52	0.36	0.12

Summary of WPE

Our objective is to identify precinct characteristics, interviewer characteristics and other factors that contributed to higher error in 2004. These findings are not always the same as those from earlier elections. While we believe we can reduce the statistical bias in the exit polls we do not believe anything we have identified so far will completely eliminate it. The initial review of the data show indications that the following factors should be investigated further:

- WPE and absolute error increase significantly once interviewers are more than 25 feet away from the polling place.
- Precincts with younger interviewers have higher WPE than precincts with older interviewers although there is evidence that this is caused by the interaction of voters with younger interviewers.
- Interviewers with less education have lower WPEs but a higher absolute error. Interviewers with advanced degrees have a higher average WPE than those with less education.
- Interviewers in large precincts, and where a smaller proportion of all voters are selected, have a higher WPE.

There are several changes in the exit poll process that might lessen the WPE. Only further experimentation will confirm this:

First, legal remedies need to be pursued to lessen the distances that voting officials are enforcing upon our interviewers, especially those greater than 50 feet.

Second, the exit poll interviewer recruiting process needs to take greater account for the age of the interviewers. Measures also need to be put in place to make sure that interviewers are hired more than two weeks before Election Day to allow time for additional training.

Third, the exit poll interviewer training process needs to be enhanced in order to confirm that the interviewers understand the most important aspects of the selection of respondents. More effort should be made in ensuring the interviewer follows the assigned interviewing rate.

Fourth, we should experiment with the use of shorter questionnaires in tandem with long-form questionnaires. One way would be administering short questionnaires to every other exit poll voter, thereby improving the tallies. The tallies from these short questionnaires could then be included with the results from the long-form questionnaires.

Exit Poll Location Coverage

The total number of exit poll locations in the 50 samples (49 states plus D.C.) was 1,480.

We received data from all but 11 polling locations. Seven polling locations had no interviewer and in four polling locations our interviewer was prohibited from conducting interviews due to legal and distance restrictions:

There were 62 polling locations in which a replacement interviewer was sent on election day to replace an interviewer who did not show up or to replace an interviewer who had to leave for some reason. Since some of the replacements arrived late, some exit poll calls were not made from some of these polling locations.

There were 25 polling locations where one or two calls were missed because interviewers arrived late or because legal and distance restrictions prohibited interviews from being conducted:

There were 62 polling locations that had missing data on election day because of problems that interviewers had with telephone access or the input system. The tallies and Refusals and Misses from these polling locations are included in the post-election day exit poll file that was used to evaluate the WPE.

Exit Poll Interviewer Recruitment Process

Overview:

Edison/Mitofsky recruited exit poll interviewers in 29 states: AK, AZ, CA, CT, DE, DC, FL, HI, IL, IA, KY, LA, MD, MA, MS, MO, NH, NJ, NM, NY, OH, OK, RI, SC, TN, TX, VT, VA, WI. Recruitment for these states was divided among seven State Coordinators, with one specific coordinator responsible for each state. These same coordinators had been responsible for research in the states they recruited and in most cases the same recruiter was used for both the Presidential Primary and the General Election.

The firm of Blum & Weprin was responsible for recruitment in the remaining 21 states: AL, AR, CO, GA, ID, IN, KS, ME, MI, MN, MT, NE, NV, NC, ND, PA, SD, UT, WA, WV, WY. Blum & Weprin had a staff of 14 people recruiting these states. A single person was responsible for each state, and in many cases those coordinators lived in the states where they were recruiting.

Among all interviewers, 23% (339 interviewers) had previously worked as an exit interviewer in one or more previous election. Among that group, 63% (214) had worked for Edison/Mitofsky during the 2004 Presidential Primaries.

In addition to recruiting former Edison/Mitofsky exit poll interviewers and final vote count reporters, other common sources for recruitment were (in order of frequency):

- Recommendations from current and former interviewers
- Recommendations from college professors
- Career Centers and Departments of Labor
- Former VNS interviewers
- Job postings on Craigslist.com
- Recommendations from election officials

Hiring Timeline:

According to our post-election exit poll interviewer telephone survey, 86% of interviewers were hired two weeks or more before the election. The data showed that 7% of the staff had been hired “within a few days of election day.”

Training Process:

Each interviewer went through a multi-step training system:

- 1) Hiring call: On the call where the interviewer was officially hired, they were given a general overview of the job. They were told the hours, the outline of their day including responsibility for “a check-in and three results calls”.

They were also given a general description of both the Interviewing Rate and the process of tracking Refusals and Misses.

- 2) Election Day Mailing: Most interviewers received all their election day materials (with the exception of final questionnaires in several states and in National Precincts) one week prior to their scheduled Training/Rehearsal Call. This package was sent via FedEx and included the Interviewer Manual, Tally Sheets, Refusals and Misses Sheets and special instructions relating to election laws in their state. National Precinct interviewers were also provided additional training materials relating to multiple questionnaire versions and the “breaking news question.”
- 3) Training/Rehearsal Call: All interviewers were required to take part in a Training/Rehearsal Call. This call took on average 20 minutes to complete and included a detailed question and answer dialogue on all facets of the job. It also included a practice run through entering rehearsal tallies, refusals and misses and total ballots.

Operators at our two telephone call centers answered Training/Rehearsal calls using a Computer Assisted Telephone Interviewing (CATI) programmed dialogue. A staff of Edison/Mitofsky supervisors was on hand and in most cases got on the phone with each interviewer before the call was ended. In addition, the call dialogue instructed the operator to alert a supervisor whenever a question or problem arose.

These calls were scheduled for October 25th and 26th, 2004 with each interviewer assigned a particular day and given an 8-hour window to place the call. October 27th was reserved as a third “back-up” rehearsal day for any interviewers hired too late to participate over the first two days, or for those who missed their scheduled calls the previous two days.

According to our survey of exit poll interviewers, 80% of exit poll interviewers participated in one of these formal rehearsal calls between October 25th and October 27th. The remainder was trained on a one-on-one basis with their recruiter.

- 4) Pre-Election reminder call: All interviewers received a final reminder call some time between October 29th and November 1st. Their intention to work election day was confirmed and they were given a chance to ask any questions they had relating to the materials they had received or their election day tasks.
- 5) National Precinct Interviewer’s “Breaking News Question” Call: All National Precinct interviewers (as well as any back-up who might fill that roll) were Called on October 31st or November 1st to be told the “Breaking News” question that they would need to fill in on their blank questionnaires.

Back-up Interviewers

A back-up interviewer was assigned to each exit poll location. In some case it was a one-for-one back-up system; in others, one back up “covered” several potential polling locations within a close geographic area. In general, these back-ups were hired with the understanding that they would work election day in some capacity and were paid a substantial base pay to be on call all day. They were promised an increase in pay if they were assigned a polling location to survey.

On election day, 62 of these back-ups were assigned to replace or to relieve the “frontline” exit poll interviewer for a polling location – representing 4% of all exit poll polling locations covered.

Post-election evaluation:

Exit poll interviewers were instructed to return their completed questionnaires and tally sheets. We received questionnaires from 1,389 exit poll polling locations – 95% of those covered. We have determined that the 80 sets of questionnaires that were not returned have either been misplaced by the interviewer, lost by the postal service, or in some cases destroyed.

In addition we conducted a follow-up telephone interview with our exit poll interviewers in the three weeks following election day. In total we were able to contact 1,350 interviewers (92%). For the remaining interviewers we have filled in as much information as we could from the records of the recruiting process – age, gender, date hired etc.

The following is the profile of our exit poll interviewers based upon the information that we have gathered:

Male	37%
Female	63%

Age	
18-24	35%
25-34	15%
35-44	14%
45-54	16%
55-64	13%
65+	6%

Median Age: 34 years old

Race:	
White	72%
African-American	7%
Hispanic	3%
Asian-American	1%
Other	4%
No Answer	12%

Education:	
High School or less	15%
1-3 years of college	41%
College graduate	17%
Some graduate school	6%
Advanced degree	10%
No Answer	11%

Suggested Changes for Future Recruiting of Exit Poll Interviewers:

The procedures we used for recruiting and training succeeded in achieving a 100% location coverage rate in the primaries and a 99% location coverage rate in the general election. We also had no evidence of any systematic errors in the exit poll data from the primaries in 2004 nor in any elections we covered in 2002 and 2003.

However, based upon the Within Precinct Error that was observed in the 2004 general election we plan to make some enhancements to the exit poll interviewer recruiting process.

- We will use recruiting methods that reduce the number of students and young adults we use as interviewers.
- In addition to the standardized rehearsal and training dialog, we will add a standardized pre-rehearsal training script for all individual phone training conversations.
- We will evaluate other training techniques such as a video training guide and interviewer tests and use the Internet more effectively as an interviewer training tool.

Completion Rates

In the table on the next pages, the completion, refusal, and miss rates as well as the demographic completion rates are displayed for each state and nationally.

The overall completion rate was computed by a weighted average of the precinct rates. The precinct completion rate is equal to the number completed questionnaires divided by the number of attempts (completed questionnaires + total refusals and misses). The refusal and miss rates were computed in a similar manner.

Note that because the questionnaires are subsampled, the age, race, and gender completion rates may be slightly inconsistent with the overall completion rate.

State	Overall Completion Rate	Refusal Rate	Miss Rate	Completion rate: 18-29	Completion rate: 30-59	Completion rate: 60+	Completion rate: Non- black	Completion rate: Male	Completion rate: Female
All Precincts	53.2	35.8	11.0	55.3	55.6	43.0	53.2	51.4	54.7
National Survey	52.8	37.2	10.1	55.2	55.2	41.7	53.1	51.0	54.6
Alabama	58.3	31.9	9.8	52.6	62.8	50.6	57.0	57.2	60.0
Alaska	53.2	36.9	9.9	51.9	55.1	48.3	53.0	51.0	55.0
Arizona	57.3	28.4	14.3	61.2	60.5	46.0	57.2	57.0	58.5
Arkansas	60.2	31.1	8.7	68.7	59.5	55.4	56.6	55.2	61.7
California	50.5	35.9	13.5	51.2	54.1	43.1	51.8	51.2	52.4
Colorado	55.5	34.9	9.6	56.5	58.0	46.4	55.0	54.8	55.8
Connecticut	51.0	37.5	11.5	49.9	51.9	48.7	51.2	48.5	53.3
Delaware	57.5	25.8	16.7	59.5	61.4	48.4	55.7	54.4	60.1
D.C.	53.5	30.8	15.7	46.3	58.7	48.3	59.4	50.7	55.7
Florida	49.0	40.3	10.8	50.0	51.4	39.0	50.2	47.9	50.2
Georgia	63.9	27.8	8.3	63.2	65.3	51.6	64.1	61.3	63.3
Hawaii	53.4	34.5	12.1	58.7	55.0	42.9	53.0	50.1	56.3
Idaho	63.2	30.8	6.0	64.9	65.3	53.8	62.9	58.2	67.8
Illinois	51.9	37.8	10.3	54.0	53.6	44.4	52.8	49.6	55.1
Indiana	38.6	41.3	20.1	41.9	41.5	28.2	40.5	37.0	40.1
Iowa	52.6	38.2	9.1	55.6	56.8	41.1	52.0	50.6	54.4
Kansas	64.5	27.6	7.9	68.8	64.3	57.4	64.2	61.2	66.9
Kentucky	52.6	38.6	8.8	58.0	54.8	44.5	53.3	51.4	53.8
Louisiana	47.8	40.1	12.1	54.8	49.9	36.7	46.2	45.0	48.5
Maine	61.3	30.8	8.0	63.0	65.2	53.4	62.4	59.0	66.5
Maryland	59.4	33.0	7.6	56.6	62.1	51.1	63.5	56.3	61.7
Massachusetts	56.5	30.6	12.9	55.0	59.7	50.9	56.7	54.3	58.4
Michigan	50.2	39.4	10.4	51.3	52.2	38.1	51.7	50.3	50.9
Minnesota	45.3	40.0	14.7	47.3	47.3	37.0	44.9	44.0	46.6
Mississippi	49.6	38.9	11.5	47.4	55.4	35.5	53.6	51.2	48.9

Missouri	47.0	44.1	8.8	53.0	48.8	36.4	46.8	46.4	48.0
Montana	63.0	29.7	7.3	63.6	64.6	55.9	62.2	61.8	64.7
Nebraska	66.5	25.1	8.4	69.9	67.7	59.0	66.3	63.8	69.2
Nevada	49.1	34.9	16.0	52.8	53.4	36.1	48.3	47.2	50.5
New Hampshire	44.0	46.0	9.9	44.4	47.7	32.7	43.9	42.6	45.8
New Jersey	59.7	29.8	10.5	65.9	61.6	52.8	61.3	55.9	62.9
New Mexico	56.9	32.3	10.8	60.0	58.7	42.0	56.1	56.1	57.1
New York	57.9	33.5	8.6	59.5	58.7	53.1	57.2	55.8	60.2
North Carolina	52.6	36.5	10.9	54.8	56.9	39.0	51.0	51.0	53.7
North Dakota	63.0	27.0	10.0	63.0	66.6	48.6	63.0	58.5	66.6
Ohio	44.1	42.5	13.3	48.1	47.3	31.6	45.8	42.9	45.7
Oklahoma	53.2	34.5	12.3	54.1	57.2	42.3	53.7	50.7	55.6
Pennsylvania	46.8	41.3	11.9	53.3	47.6	36.0	48.4	46.0	47.3
Rhode Island	44.2	42.2	13.6	42.3	47.5	34.6	43.5	41.7	44.9
South Carolina	59.4	28.8	11.8	61.9	62.0	47.2	57.3	56.2	61.6
South Dakota	42.7	35.6	21.7	43.6	46.5	31.6	41.9	41.1	43.8
Tennessee	66.7	24.6	8.7	71.6	67.0	48.6	67.8	65.5	67.5
Texas	58.3	28.6	13.1	65.8	58.3	35.6	58.1	57.1	59.4
Utah	59.6	32.0	8.4	58.1	61.9	50.3	59.3	58.5	60.0
Vermont	53.1	38.8	8.1	47.6	56.8	44.2	53.4	51.6	54.8
Virginia	56.4	35.3	8.3	54.2	60.1	44.4	56.8	53.6	59.1
Washington	53.8	38.8	7.3	57.4	54.4	45.5	53.3	50.4	57.2
West Virginia	48.7	43.0	8.3	51.7	51.8	41.7	48.3	48.4	49.4
Wisconsin	55.3	35.6	9.1	57.0	56.5	46.7	55.1	53.2	57.1
Wyoming	66.0	26.1	7.9	63.7	68.7	52.2	65.0	65.1	65.5

Survey Weighting

State crosstab releases on election day

For the most part survey weighting ran smoothly on election day. Overall, out of 151 scheduled state crosstab releases, 136 – or 90 percent – were released early, on-time or within ten minutes of the scheduled time.

State crosstabs released later than scheduled on election day

On election day, 15 state crosstabs were released ten or more minutes after their scheduled release time. Of these, six were between ten minutes and thirty minutes late, and nine were over one hour late. These late releases were not evenly spread throughout the day, ten of them occurred during Call 1, one during Call 2, and the remaining seven were during Call 3.

A brief telephone service disruption at our Los Angeles phone room at approximately 11:30AM ET/8:30 AM PT led to most of the late Call 1 releases. The four states most significantly affected were Illinois, Pennsylvania, Texas and Vermont where the interviewers were scheduled to make their first data call to the L.A. phone room at that time. Crosstabs in these four states were released over an hour later than their scheduled time while the data entry caught up in these states. Edison/Mitofsky sent an e-mail warning that the Call 1 crosstabs for these four states would be released late to survey committee members at 12:59 PM ET. There were too few respondents in the system to release these crosstabs at their scheduled time. In all cases, the extra time allowed the data entry for these four states to catch up and nearly doubled the number of respondents in the system when the first call weighting was completed.

Call 1 data releases were delayed in four other states (CA, MN, NV and NM) while the survey weighters were making sure that subsequent states calling in to the L.A. phone room were back on schedule. While these states were not as seriously influenced and included enough data to be released, survey weighters were more cautious in reviewing the number of questionnaires in these states before releasing them. The longest delay in this group was 16 minutes for New Mexico. A small number of respondents (only 367 at the scheduled weighting time) and a large number of races used in the forcing caused the sole late release for Call 2, in Vermont. The survey weighters took additional time to review the weighted data for all four statewide races.

During Call 3, five late releases were due to the database server problem that occurred at 10:35 PM ET. Data for Hawaii, Washington, California and Idaho were in the system at the time of the problem, but crosstabs could not be released until the system returned, causing delays of approximately ninety minutes. Call 3 data for Alaska were not entered until the system came back up, so even though the system was available by the time the Alaska crosstabs were due to be released, the data were unavailable for another ninety minutes.

An issue with the weighting program caused attempts to weight the Call 3 Florida data to bypass all forcing, and the survey data release was delayed until the problem was corrected.

National crosstab delays on election day

There were eight scheduled national crosstab releases for election day. Of these eight, one (scheduled for 10:50 PM ET) was not delivered at all due to the database server problem, and three were delivered more than ten minutes late.

All three late releases were largely due to additional adjustments made to the data to adjust the gender distribution after the normal weighting procedure. Taking this step added 15 minutes to the weighting process, although scheduled call times were unchanged.

Survey weightings after poll closing

The database server problem caused a delay in the survey weightings that were to be done to adjust the exit poll estimates once estimates based upon the sample precincts and county vote were available. These weightings would have begun once the remaining Call 3 weightings had been completed but the database server problem at 10:35 PM ET delayed these weightings until after 12:30 AM ET.

National Survey Weighting Gender Adjustment

Early in the afternoon on November 2nd, preliminary weightings for the national exit poll overstated the proportion of women in the electorate. The problem was caused by a programming error involving the gender composition that was being used for the absentee/early voter portion of the national exit poll. The target proportion for the national absentee age-race-sex responses was not being computed correctly. The weighting problem that led to the original waves of the national exit poll showing 58% of the national voters were female.

To correct this problem beginning with the 7:30 PM ET national survey weighting on election day, the gender split in the national survey was forced outside the election system to a male-female distribution of 46% / 54%. This correction was based on the male/female distribution in the cross-survey of all of the state surveys.

At this point, the male-female distribution from the system weighting (prior to the external forcing) was 44%/56% male/female. The weights from the election system were exported to an external weighting program. This program had been fully tested and used in prior elections. The respondent weights from the system were forced to the target 46/54 male/female ratio while keeping constant the regional sizes and presidential vote distribution from the survey.

All of the national weightings after the 7:30 PM ET weighting were also forced externally to cross-survey male-female distributions.

Comparison of National Exit Poll with Cross Survey

The NEP National Exit Poll is based upon a total of 12,219 respondents - 11,719 election day interviews at 250 polling locations and an additional 500 telephone interviews of absentee/early voters.

The Election System also allows the members to combine the results of all state surveys through a process called "Cross Survey." Cross Survey gives a survey analyst the ability to combine the results of common questions across different state surveys by adjusting the relative sizes of the state samples to represent the total number of voters in each state. By using Cross Survey for all 51 state surveys, the total sample size increases to 75,537 respondents – 69,719 election day questionnaires at 1,469 polling locations and an additional 5,818 telephone interviews of absentee/early voters.

For the 12 questions that were on all 51 state questionnaires, we have compared the results of the National Exit Poll with the Cross Survey weighted average of all 51 state surveys. That table is on the next two pages of this report.

Between these two methods of estimating national numbers, the results of each question differ by one point or less except for two groups: the National Exit Poll estimates that the 65-74 age group comprised 11% of the total voters and the Cross Survey has that group at 9%; in the National Exit Poll 25% of the respondents said that their vote for President was a vote against the opponent while 28% of the respondents in Cross Survey gave that answer.

While the estimates from the two sources differ somewhat, it is incorrect to conclude that one estimate is correct and the other estimate is incorrect. All estimates are within sampling error of each other.

In comparing how each group voted using these two methods, we observe consistency on most items. Even the responses for non-demographic items such as Party ID, Political Philosophy, Bush Approval and Iraq Approval show a very consistent vote for President in both the National Exit Poll and the Cross Survey.

The characteristics that differ most are more highly clustered in a few precincts and have much larger sampling errors than most other characteristics.

	% voting for Bush	
	National Exit Poll	Cross Survey
Hispanic	44%	40%
Asian	44%	39%
Age 75+	45%	48%
Jewish	25%	22%
Mormon	80%	76%
Muslim	6%	13%
Income >\$200,000	63%	60%

Comparison of exit poll results from the National Sample and the Cross Survey weighted average of the State Surveys

November 2004 - NEP Exit Polls conducted by Edison Media Research and Mitofsky International

Question		National Exit Poll			Cross Survey Results		
		Total	Kerry	Bush	Total	Kerry	Bush
Gender	Male	46	44	55	46	46	53
	Female	54	51	48	54	50	49
Race	White	77	41	58	78	41	58
	Black	11	88	11	11	86	13
	Hispanic	8	53	44	7	58	40
	Asian	2	56	44	2	61	39
	Other	2	54	40	2	57	40
Age	18-29	17	54	45	18	55	44
	30-44	29	46	53	29	45	53
	45-49	30	48	51	30	47	52
	60+	24	46	54	22	47	52
Age	18-24	9	56	43	10	56	42
	25-29	8	51	48	8	53	45
	30-39	18	47	51	18	47	52
	40-44	11	44	55	11	43	56
	45-49	11	46	53	11	46	53
	50-59	19	49	50	19	48	51
	60-64	8	42	57	8	45	54
	65-74	11	44	55	9	46	53
75+	5	54	45	5	51	48	
Income	<\$15k	8	63	36	8	61	37
	\$15-\$29k	15	57	42	14	56	43
	\$30-\$49k	22	50	49	22	49	49
	\$50-\$74k	23	43	56	23	44	55
	\$75-\$99k	14	45	55	14	44	54
	\$100-\$149k	11	42	57	11	46	54
	\$150-\$199k	4	42	58	4	43	56
	\$200k+	3	35	63	4	39	60
Religion	Protestant	31	37	62	32	36	63
	Catholic	27	47	52	26	49	50
	Mormon	2	19	80	2	23	76
	Other Christian	21	47	52	21	46	53
	Jewish	3	74	25	3	77	22
	Muslim	1	92	6	1	86	13
	Something Else	6	72	25	6	70	27
	None	10	67	31	10	69	29

Party Identification	Democrat	37	89	11	37	88	12
	Republican	37	6	93	37	7	93
	Independent	22	50	47	21	51	46
	Something Else	4	47	49	5	47	48
Political Philosophy	Liberal	21	85	13	21	85	14
	Moderate	45	54	45	46	55	44
	Conservative	34	15	84	34	16	83
Bush Job Approval	Approve	53	9	90	52	8	92
	Disapprove	46	93	6	47	93	5
Bush Job Approval	Strongly Approve	33	5	94	32	4	96
	Somewhat Approve	20	15	83	20	14	85
	Somewhat Disapprove	12	80	18	12	81	16
	Strongly Disapprove	34	97	2	34	97	1
Iraq	Approve	51	14	85	51	13	86
	Disapprove	45	87	12	45	87	11
Financial Situation	Better	32	19	80	32	19	80
	Worse	28	79	20	28	81	18
	Same	39	50	49	38	49	50
Vote For Candidate	For Candidate	69	40	59	68	39	60
	Against Opponent	25	70	30	28	69	30
Time of Decision*	Today	5	52	45	5	53	43
	In the last 3 days	4	55	42	4	54	43
	Sometime last week	2	48	51	3	53	45
	During the last month	10	54	44	11	55	42
	Before that	78	46	53	77	46	53
Time of Decision*	Within last 3 days	9	53	44	9	54	43
	One week before or earlier	91	47	52	91	48	51

* Note: Time of Decision question was only asked to election day voters.

These demographic groups have two things in common: each group represents 8% or less of the total number of voters, and each group tends to be concentrated geographically and thus would be more affected by any “clustering effects” in the precincts selected for the National Exit Poll sample. A National Sample of 250 precincts can do a good job estimating all of the broad characteristics of the electorate, but it is not designed to yield very reliable estimates of the characteristics of small, geographically clustered demographic groups. These groups have much larger design effects and thus larger sampling errors.

A detailed look at the distribution of plurality Hispanic precincts in the National Exit Poll Sample demonstrates how this clustering effect can influence the estimate of Hispanic voting in the National Exit Poll. Out of the 250 precincts in the national sample, 11 were plurality Hispanic precincts representing about 4% of the sample. This seems to be a reasonable number of precincts based upon the total population of Hispanics and the percentage of Hispanics that would live in predominantly Hispanic areas.

The issue is the distribution of these 11 precincts – four in Florida and one each in California, Colorado, Illinois, New Jersey, New York, Ohio and Texas – three of the four in Florida are in Miami-Dade County and two of them appear to be majority Cuban based upon the questionnaire responses from those precincts. Cuban voters tend to vote more Republican than other Hispanic voters.

Hispanic Vote by Region

National Exit Poll vs. Cross Survey

Region	National Exit Poll			Cross Survey Results		
	Total	Kerry	Bush	Total	Kerry	Bush
National	8	53	44	7	58	40
Northeast	7	68	28	6	70	29
Midwest	5	64	32	3	67	31
South	9	35	64	8	46	53
West	13	58	39	14	62	35

Comparing the regional breakout of the Hispanic vote, one can see the “clustering effect” that these two majority Cuban precincts have on the estimate of the Hispanic vote in the South in the National Exit Poll versus the Cross Survey Results. Since the National Exit Poll sample has only five plurality Hispanic precincts in the South, the number of Cuban precincts can make a difference in the estimate of the Hispanic vote in the region. If we want to improve the National Exit Poll estimate for Hispanic vote (or Asian vote, Jewish vote or Mormon vote etc.) we would either need to drastically increase the number of precincts in the National Sample or oversample the number of Hispanic precincts.

There is another difference between the National Exit Poll and the Cross Survey in the measurement of Hispanics. In 24 states and the national survey, respondents are first asked a race question with Hispanic as a choice along with White, Black, Asian and Other. In addition a separate “Hispanic or Latino” question is asked and any respondent who selects Hispanic for either or both questions is coded as Hispanic. Note that in

Florida the question asks “Hispanic or Cuban” and in some other states it asks “Hispanic or Mexican.”

In the remaining 27 states only the race question is asked. Thus, in the Cross Survey analysis we are comparing a different definition of Hispanic in these 27 states from the National Survey. Examining the National Survey for these 27 states the Hispanic voters as defined by the race question alone comprise 2% of the vote in these states and voted 42% for George W. Bush. When the Hispanic voters are defined by using both questions, the Hispanic composition increases to 4% of the vote in these states and Hispanics voted 49% for George W. Bush. Hispanics who select “White” for the race question but also answer that they are of Hispanic descent are more likely to have voted for Bush and this accounts for some of the overall difference that we see in the Hispanic vote in the National Survey vs. the Cross Survey.

There are three other sources on the national Hispanic vote. The L.A. Times National Exit Poll showed that 45% of Hispanics voted for Bush. The National Annenberg Election Survey in October and November 2004 showed 41% of Hispanics voting for Bush up from the 35% they reported in 2000.

The William C. Velasquez exit poll concluded that 31.4% of Hispanics voted for Bush. However, the sampling for this exit poll was limited to 56 predominantly Hispanic precincts in 14 states. The NEP National Exit Poll shows that Bush only received 29% of the vote among Hispanics living in urban areas with populations over 500,000. This makes us suspect that the Velasquez exit poll sample over-represents Hispanics who live and vote in predominantly Hispanic areas.

The bigger question is how to handle the differences between the National Exit Poll and the Cross Survey results. As the Cross Survey results are based upon five times the number of interviews it would appear that the Cross Survey results are the better estimate. However, it is not that simple. The distribution of interviews by state in the Cross Survey analysis is based upon the precinct sample sizes allocated to the states based upon their competitiveness, which does not necessarily correlate to the size of the state. When Cross Survey is adjusted for the total vote in each state, the respondents in large states like California and Texas can be weighted up by a magnitude of 4 or 5 and respondents in small states like New Mexico and West Virginia can be weighted down by a magnitude of 4 or 5. This disparity in the weights per respondent does add to the sampling error of the estimates.

Regardless of this effect, there are many operational issues to be resolved before we can design a system to match the results from the results from the National Survey and the Cross Survey on election day. We will explore this problem further.

Comparison of NEP exit poll results with other exit polls

As another validation of the demographic distribution in the NEP exit poll, we compared the NEP exit polls with other exit polls that were conducted on the same day. The L.A. Times conducted a national exit poll and an exit poll in California. Market Shares conducted an exit poll in Wisconsin.

For the common questions we have compared the results of the NEP polls with the other exit polls that were conducted. Please note that in some cases the question wordings are slightly different and this can account for some of the differences in the results. This is especially true with how the L.A. Times measures the number of Hispanics. The L.A. Times just asks one race question. The NEP questionnaires have an additional question for Hispanic, and the results combine the responses to the race question and the Hispanic question to measure the total number of Hispanics.

There are other differences between the survey methodologies that may account for some of the differences in results. The NEP surveys have an age-race-sex non-response adjustment. This could account for the fact that the NEP surveys have an age distribution that is slightly older than the other exit polls.

Even accounting for these differences in question wording and sampling methodology, comparing the results of the surveys show that they are consistent.

It is worth noting the L.A. Times reported that 45% of Hispanics nationally voted for George W. Bush, which is almost exactly the percentage (44%) that the NEP National Exit Poll showed. The L.A. Times National Exit Poll is based upon a sample of 135 precincts nationally so it likely has even more of the clustering effects that were discussed in the previous section comparing the NEP National Exit Poll with the Cross Survey results.

Comparison of NEP National Exit Poll and Los Angeles Times Exit Poll November 2, 2004

	NEP National Exit Poll			L.A. Times National Exit Poll		
	% of voters	Bush	Kerry	% of voters	Bush	Kerry
Gender						
Men	46	55	44	49	53	46
Women	54	48	51	51	49	50
Gender & Marital Status						
Married Men	30	60	39	31	59	40
Single Men	16	45	53	16	40	58
Married Women	32	55	44	30	57	42
Single Women	22	37	62	19	35	64
Age						
18-29	17	45	54	20	43	55
30-44	29	53	46	32	52	47
45-64	38	52	47	36	54	45
65 or older	16	52	47	12	55	45
Race *						
White	77	58	41	79	57	42
Black	11	11	88	10	14	86
Latino	8	44	53	5	45	54
Asian	2	44	56	3	34	64
Religion						
Protestant	54	59	40	51	61	38
Catholic	27	52	47	25	55	44
Jewish	3	25	74	4	26	74
Religious Attendance						
Weekly or more	41	61	39	42	65	34
Less than that	54	44	55	58	42	57
Gun ownership						
Own guns	41	63	37	36	65	34
Don't own any	59	43	57	64	43	56
Voting status						
First-time voter	11	46	53	11	42	57
Voted before	89	51	48	89	53	46
Union household						
Union households	24	40	59	27	43	56
Non-union households	76	55	44	73	54	45

Sexuality						
Heterosexual	96	53	46	96	53	46
Gay/lesbian/bisexual	4	23	77	4	17	81

* Note: L.A. Times asks just one race/ethnic question; NEP combines this question with a separate "Are you Hispanic?" question

Comparison of NEP California Exit Poll and Los Angeles Times California Exit Poll November 2, 2004

	NEP California Exit Poll			L.A. Times California Exit Poll			NEP California Exit Poll		L.A. Times California Exit Poll		NEP California Exit Poll		L.A. Times California Exit Poll	
	President			President			Senate		Senate		Prop 71		Prop 71	
	% of voters	Bush	Kerry	% of voters	Bush	Kerry	Boxer	Jones	Boxer	Jones	Yes	No	Yes	No
Gender														
Men	49	47	50	48	45	53	53	44	55	41	58	42	60	40
Women	51	41	57	52	42	57	65	34	62	34	61	39	59	41
Age														
18-29	22	39	58	20	38	61	64	33	63	30	63	37	64	36
30-44	28	46	52	29	44	54	58	40	56	39	46	44	58	42
45-64	34	46	51	39	47	52	56	39	56	41	59	41	56	44
65 or older	16	43	55	12	42	57	57	40	63	35	61	39	62	38
Race *														
White	65	51	47	65	52	47	51	47	51	45	58	42	56	44
Black	6	18	81	7	14	84	86	14	83	13	61	39	68	32
Latino	21	32	63	14	31	68	73	23	71	23	63	37	61	39
Asian	4	34	66	9	35	64	76	24	66	29	64	36	72	28
Religion														
Protestant	44	60	38	46	59	40	46	53	43	53	50	50	47	53
Catholic	28	35	63	26	41	59	67	29	64	32	63	37	61	39
Jewish	4	19	78	5	20	80	79	20	87	12	86	14	77	23
Voting status														
First-time voter	13	34	63	11	40	59	70	27	63	31	68	32	61	39
Voted before	87	46	52	89	45	54	57	41	57	39	58	42	58	42
Union household														

Union households	27	39	58	31	39	60	63	35	63	33	60	40	60	40
Non-union households	73	47	51	69	47	51	56	41	56	40	59	41	59	41

* Note: L.A. Times asks just one race/ethnic question; NEP combines this question with a separate "Are you Hispanic?" question

Comparison of NEP Wisconsin Exit Poll and Market Shares Wisconsin Exit Poll November 2, 2004

	NEP Wisconsin Exit Poll President			Market Shares Wisconsin Exit Poll President			NEP Wisconsin Exit Poll Senate		Market Shares Wisconsin Exit Poll Senate	
	% of voters	Kerry	Bush	% of voters	Kerry	Bush	Feingold	Michels	Feingold	Michels
Gender										
Men	47	46	52	45	48	50	52	48	51	47
Women	53	53	46	55	53	45	58	42	58	40
Age										
18-29	20	57	41	21	58	39	56	42	61	37
30-39	18	44	54	20	44	54	50	48	49	49
40-49	25	47	53	22	46	52	53	46	51	48
50-64	24	50	49	25	53	45	57	42	57	42
65 or older	14	54	46	13	54	44	57	43	54	42
Race										
White	90	47	52	91	50	48	53	47	53	44
Black	5	86	14	5	85	13	83	17	84	14
Party Identification										
Democrat	35	93	7	43	94	5	93	7	92	6
Independent	27	53	45	16	53	40	62	37	60	34
Republican	38	8	91	41	5	94	14	86	11	87
Voting status										
First-time voter	10	58	41	10	61	34	57	41	64	31
Voted before	90	49	50	90	51	47	54	45	54	44

Legal and Distance Issues

Legal and distance issues were a major concern in several states.

The most important state was Ohio in which we were forced to file suit against the Secretary of State of Ohio the day before the election. Five days before election day the Ohio Secretary of State told county election officials to keep all exit poll interviewers at the 100-foot electioneering distance. He had previously stated in writing that exit polling was *not* electioneering and that no Ohio statute regulated the distance from the polling place for conducting exit polls. During the summer the Ohio director of elections had assured us there was no change in the Secretary of State's position.

Our suit was filed the day before the election. We were successful in overturning the Secretary of State's ruling, but the court ruling did not occur until 10:30 PM on the night before the election. Although we were able to contact all of our interviewers before the polls opened, many Ohio election officials at our polling places did not know of this ruling when the polls opened and many of our interviewers in Ohio were delayed in starting their interviews until the local election official was informed of this ruling. The last local election official did not permit our interviewer to begin work until close to 5 PM.

There were 69 polling locations in which our legal team dealt with legal and distance issues on election day. The highest number was in Ohio (14) but there were several other states with a significant number of legal issues – Arizona (3); Colorado (3); Illinois (4); Iowa (5); Minnesota (5); New Jersey (8); South Dakota (3); West Virginia (4). It is important to note that in several states with very restrictive exit polling laws (particularly Minnesota and South Dakota), many interviewers did not report their situation as a "legal problem" because they had been trained to anticipate the distance requirement and to attempt to do their jobs as best they could.

From our post-election survey, the exit poll interviewers reported the distances that they were forced to stand from the polling location on election day:

Location of Interviewer	# of polling locations	mean WPE *	Miss Rate
Inside the Building	506 38%	-5.3	9%
Right outside the entrance	235 17%	-6.4	10
10-25 feet away	239 18%	-5.6	11
25-50 feet away	165 12%	-7.6	13
50-100 feet away	148 11%	-9.6	16
More than 100 feet away	53 4%	-12.3	18

* mean WPE based upon analysis of 1,250 exit poll precincts included in evaluation of WPE earlier in this report

The percentage of polling locations in which our exit poll interviewers were forced to stand 50 or more feet away was more than double the number that VNS experienced in 2000. According to the VNS records only 6% of their interviewers were forced to stand 50 feet or more from the polling place in 2000 as opposed to 15% in 2004.

There were several states, before election day, that we knew were planning on enforcing an interviewing distance greater than 50 feet. In these states and several others, a large portion of our interviewers were forced to stand 50 feet or further from the polling place:

<u>State</u>	<u># of interviewers standing more than 50 feet from the polling location</u>
Arizona	29 polling locations
Colorado	6 polling locations
Florida	14 polling locations
Indiana	6 polling locations
Louisiana	9 polling locations
Minnesota	18 polling locations
Nevada	24 polling locations
New Mexico	13 polling locations
Ohio	8 polling locations
South Dakota	23 polling locations

More than one-quarter of all interviewers (27%) reported that they were not able to be in a position to approach every voter as they were exiting the polling location. Among those who were standing more than 50 feet away from the polling location, more than half (53%) told us that they were not in a position to approach all voters as they left the polling place.

In addition to problems with local election officials, about 5% (79) of our exit poll interviewers reported that they experienced interference from other people at the polling place such as poll watchers, lawyers or electioneers that limited their ability to conduct surveys on election day. A handful of our interviewers experienced some sort of sabotage including voters who stole questionnaires, voters who spoiled questionnaires by spilling liquids on them, and in a few instances our interviewers were escorted from the polling place by police officers.

With the information that we have gathered on election day and since, we have convincing evidence that can be used to demonstrate that both the response rates and the accuracy of the exit poll data decrease once an interviewer is forced to stand more than 25 feet away from the polling location.

Absentee/Early Voter Telephone Surveys

As many states have not yet reported the vote among absentee and early voters, it is not possible to evaluate all of the estimates produced by the absentee telephone surveys. Once that vote data is available we will do a full evaluation of the estimates produced by the absentee/early voter telephone surveys.

In this report we discuss our preliminary evaluation of the absentee/early voter telephone surveys. It appears that the sample sizes of these surveys were in most cases sufficient to make statewide estimates of the vote that were used to adjust the vote estimates. However, in comparison to the sample sizes of the election day exit polls, the sample sizes of the absentee/early vote telephone surveys are probably not sufficient to accurately measure many of the demographic subgroups in the analysis. In that section of the report we recommend increasing the sample sizes of these telephone surveys.

We can compare the survey estimates with the actual absentee vote returns in three states (North Carolina, Oregon and Texas).

	Absentee Telephone Survey Estimate		Absentee Final Vote		Diff
North Carolina President	Bush (R)	51%	Bush (R)	53.2%	-2.2%
	Kerry (D)	49%	Kerry (D)	46.5%	+2.5%
			Other	0.3%	
Senate	Burr (R)	48%	Burr (R)	49.8%	-1.8%
	Bowles (D)	52%	Bowles (D)	49.2%	+2.8%
			Other	1.0%	
Governor	Easley (D)	58%	Easley (D)	55.6%	+2.4%
	Ballantine (R)	42%	Ballantine (R)	43.2%	-1.2%
			Other	1.2%	
Oregon President	Kerry (D)	53%	Kerry (D)	51.4%	+1.6%
	Bush (R)	47%	Bush (R)	47.2%	-0.2%
			Other	1.2%	
Senate	Wyden (D)	69%	Wyden (D)	63.4%	+5.6%
	Kin (R)	31%	King (R)	31.7%	-0.7%
			Other	4.9%	
Measure 33	No	56%	No	57.2%	-1.2%
	Yes	44%	Yes	42.8%	+1.2%
Measure 36	Yes	54%	Yes	56.6%	-2.6%

	No	46%	No	43.4%	+2.6%
Texas					
President	Bush (R)	65%	Bush (R)	62.7%	+2.3%
	Kerry (D)	35%	Kerry (D)	36.8%	-1.8%
			Other	0.5%	

Optimum size of absentee phone samples:

The sample sizes for the absentee telephone survey samples seem to be sufficient to make relatively accurate estimates of the vote among absentee/early voters that were used in the computations.

We suggest the size of the telephone samples be increased for the states where the absentee vote is a significant share of the total vote. The rationale is as follows: When the absentee telephone survey respondents are merged in with the election day exit poll respondents the absentee telephone survey respondents in every state except California had to be weighted up by a factor of between 2 and 3. This increased the sampling error over what it would have been if the size of the telephone surveys had been proportional to the size of the exit poll interviews. This affected both the analysis tabulations and the estimates. If the telephone respondents are a small proportion of the total voters the additional weighting factor is probably not significant. However, when the telephone survey represents a significant share of the total vote the increased weighting factor will increase the total sampling error substantially.

Ideally, the absentee telephone survey sample sizes should be roughly doubled in the states where absentees are a large proportion of the total vote.

Additionally, the decision to administer all of the questions from the four versions of the national survey to all of the respondents in the national absentee telephone survey added a complication to the processing of the exit poll. Each national absentee telephone survey respondent had to be entered as four respondents – once for each version. This meant that in states with absentee surveys the unweighted sample sizes shown in the crosstab screens counted these respondents four times. The correct sample sizes were available on the methodology pages of each survey. In retrospect, it would have been better to have conducted 2,000 interviews, with one-quarter of the respondents getting just the questions from each version of the national questionnaire.

With only 500 respondents representing 16% of all voters nationally, the results of the national and regional breakouts for some of the smaller demographics are based upon some very small sample sizes. For instance, the number of Hispanic absentee telephone interviews conducted in the southern region was 14, and these 14 interviews were weighted to reflect approximately 20% of the Hispanic vote in the South.

This table shows that in most states in which we conducted absentee/early voter telephone surveys, the respondents in the telephone surveys needed to be weighted up often by a factor of 2 or 3. We are recommending that in the future the sample sizes for the state absentee/early voter telephone surveys be increased by 50% and that the National absentee/early vote telephone survey sample size be at least 1500.

State	Absentee N (incl. Nat'l q's)	Exit Poll Election Day N	% absentee (unweighted)	% absentee (weighted)
ARIZONA	381	1500	20%	40%
CALIFORNIA	474	1541	24%	30%
COLORADO	477	2024	19%	55%
FLORIDA	376	2384	14%	27%
IOWA	345	2146	14%	30%
MICHIGAN	324	2198	13%	20%
NEVADA	465	1716	21%	50%
NEW MEXICO	371	1609	19%	50%
NORTH CAROLINA	299	1800	14%	25%
TENNESSEE	333	1352	20%	47%
TEXAS	346	1237	22%	51%
WASHINGTON	676	1387	33%	73%
NATIONAL	500	11719	4%	16%

Areas for Further Investigation in 2005

We have compiled a list of further areas of investigation that we will be pursuing in-depth during 2005 in preparation for the next round of national elections in 2006 and 2008. Some of these will be continued analysis of items that we have already investigated for this report. We will be evaluating many areas of the computations with the goal of proposing adjustments to improve both the accuracy of the estimates and, as importantly, the accurate computation of the estimated error in each computation. In addition, we plan to conduct complete studies on the absentee vote estimates and the demographics measured in the exit poll surveys.

Computations:

1. Evaluate WPE computation methods used in the 2004 election (average precinct WPE values compared to using the Simple Geo to estimate the WPE).
2. Evaluate the Best WPE adjusted estimator in order to determine at what point the WPE adjustment is improving the Best SPM estimate.
3. Evaluate the Missing Data Factors (MDF) using the 2004 data. Also, evaluate the Best SPM estimates using different amounts of reported vote.
4. Evaluate the Best SPM stratum estimates using the precinct vote compared to the final results.
5. Re-evaluate the County Model SEDF.
6. Evaluate turnout estimates – add screens to summarize state turnout estimates and add the ability to send approved turnout estimates in the member data feed

Absentee/Early Voter Telephone Surveys (13 states plus the national):

1. Compare vote estimates from telephone surveys with actual reported absentee/early vote returns.
2. Redesign survey weighting spec to include forcing by candidate by geo stratum including absentee survey respondents.
3. Evaluate Oregon telephone sample design – Comparing RDD and RBS portions.
4. Evaluate the effect of the large weights needed in most states to adjust the size of the absentee portion of the surveys and make recommendations for future telephone sample sizes.
5. Evaluate demographics of absentee surveys with election day surveys and compare to the demographics of absentee voters from actual voter lists where possible.

National Survey:

1. Evaluate regional estimates used for forcing.
2. Compare demographics in national survey with cross-survey results.
3. Evaluate the effect of computing a national composite estimate with a prior and a national absentee adjustment.
4. Evaluate age-race-sex non-response adjustment for the national survey.
5. Evaluate national survey precinct sample.

State Surveys:

1. Continue evaluation of Within Precinct Error.
2. Evaluate age-race-sex non-response adjustment.
3. Evaluate demographics (especially Black and Hispanic compositions) and compare them with past VNS surveys.
4. Compare demographics from state surveys against vote files in the states where age, race and sex distributions of actual voters are available.
5. Evaluate the correlations between exit poll tallies and past vote data as a potential indicator of candidate bias in the exit polls.
6. Evaluate interviewing rate and subsampling calculations.
7. Evaluate use of Spanish language surveys in each state.