

Nonresponse in Exit Poll Methodology: A Case Study in Mexico

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Introduction

Exit poll methodology has become an effective and widely used design in survey methodology since the 1970s, mainly in the United States (Mitofsky, 1991, 1995). In addition to being used in the U.S., exit polls are currently employed in other democracies, both advanced and emerging. Exit polls even play an important role in external validation of the official results. The fact that exit polls have been used in other countries allows for the analysis of their different features. One of these important elements is nonresponse rates; in particular, refusals (sampled voters reluctant to participate). This paper addresses issues such as the impact of nonresponse rates on the level of exit poll errors, as well as an exploratory analysis to find out who tends to be a nonrespondent. Four state-level exit polls conducted in Mexico under the authors' supervision are analyzed in this paper¹.

Some theoretical aspects of exit poll methodology

Data collection methods

Since the beginning of the first exit poll-Kentucky gubernatorial election of November 1967 (Mitofsky, 1991)-exit polling data in the U.S. has exclusively been collected using self-administered methods, i.e., interviewers hand ballots to every k_{th} voter leaving the polling place. During the self-administered process, interviewers approach potential respondents and, after a brief introduction, provide a ballot on a pad with a pen so the respondent can fill it out. After completion, respondents drop it in a ballot box next to the interviewer. In the early exit polls only ballots were given out; however, after Mitofsky's suggestion of lengthening the ballot, demographic questions as well as relevant political questions concerning the electoral race were added (Mitofsky, 1991).

This data collection method has two assumptions: (1) voters can read and understand questions well enough to give a reasonable answer; and (2) self-administered ballots minimize socially desirable responses. While the first hypothesis is taken from granted and it has not been explicitly mentioned in the exit polling papers, the sec-

ond assumption has been discussed by several authors such as Frankovits (1992), Levy (1983), and Mitofsky (1991). As Bishop and Fisher (1995) pointed out, the idea of self-administered questionnaires as an attenuating condition of socially desirable responses was not empirically tested in the early days of exit polls; nevertheless, pollsters extended some public opinion findings to the exit poll methodology field. A formal experiment on face to face vs. self-administered ballots was done in 1992 (Bishop & Fisher, 1995). The results show that respondents in the face to face condition refused to reveal the candidate whom they voted for in the presidential election, at a higher rate than those in the self-administered condition. An important finding is that the secret ballot technique was more accurate in estimating the final outcome on the most socially sensitive issue of the ballot: a vote against a tax levy for elderly services. Similar results were found by Traugott and Price (1992) concerning the 1989 State of Virginia gubernatorial race. They found that the failure of correctly predicting the election outcome was more related to the face-to-face data collection method employed by the survey organization, than to the sampling design. All these findings suggest that a self-administered ballot design is a better methodology to collect data in exit polling than an interviewer-administered methodology.

Not all aspects of data collection are under the researcher's control (Couper & Groves, 1996; Groves & Couper, 1998). Consider, for example, social environment and respondent characteristics, therefore the researcher can only adapt the best research methodology in order to maximize the quality of the data collection. One of these characteristics is the literacy level of the target population. Since a self-administered questionnaire requires that the respondent (voter) can read and comprehend questions, low literacy levels preclude the use of a self-administered instrument. If such instruments are used, they can create biased results.

This is an important issue in other contexts different from the US, because in those contexts it is not possible to assume that potential respondents have adequate reading skills to answer questions without interviewer assistance. Therefore, exit polling in countries outside the U.S. is dramatically different (e.g. Mexico)². To provide an example of this difference, when Mitofsky did the first

¹ *Acknowledgments:* We want to thank Bob Groves for suggestions about the structure of this paper and Allan L. McCutcheon for his input on the data analysis.

² A low level of education can be an issue for some minorities in the US as well. For example, in an exit poll of Mexican-American voters in Chicago (Michelson & Pallares, 2001) the research team gave the voter the option to complete the exit poll either face to face or in self-administered mode (M. R. Michelson, personal communication, April 3, 2005)

tests of exit poll in 1976 in the U.S. the national median school years completed was 11.8 for persons 15 years old and over (U.S. Census Bureau, 2000) and nowadays is 12.1; in Mexico, for 2004, the national estimated average for persons aged 15 or older was about 8.04 years of education (SEP, 2004). Unlike the U.S., interviewer-administration mode is critical in the Mexican context. Due to voters' weak abilities to read and write, a mixed mode data collection method helps minimize possible biases and increase exit poll data quality.

Nonresponse in exit polling methodology

In addition to possible data collection effects in exit poll estimates, there are other possible sources of error. Among these, nonresponse rate has been often mentioned. Conventionally, in survey research the levels of nonresponse should be taken into account for estimating parameters of interest (Cochran, 1963; Lohr, 1999). Little and Rubin (1987) have proposed three categories to classify absences or nonresponse in survey sampling: missing data completely at random, missing at random given covariates, and nonignorable nonresponse. (a) Missing data completely at random. In this case, nonresponse is not related with the variables of interest and thus the gathered sample can be considered a random sub sample of variable size. This mechanism is adopted implicitly when the nonresponse is ignored without modeling. (b) Missing at random given covariates. The absence of answer depends on observed characteristics (such as race, sex, and age) of potential respondents, but the variable of interest is not different within segments, allowing modeling of the nonresponse. With enough information and just after modeling, this kind of nonresponse can be ignored (c) Nonignorable nonresponse. If the probability of not answering depends on the variable of interest and if it cannot be explained completely by means of the well-known information of the sample or modeling, then the nonresponse is not ignorable.

The main concern is about nonignorable nonresponse because inferences can have serious faults if the average of the nonrespondent segment differs significantly from the average of respondents in the same segment regarding the parameter of interest. Unfortunately, in most cases it is highly expensive to take a sample from nonrespondents in exit polls in order to verify if true differences between respondents and nonrespondents exist. As an initial step toward the study of nonresponse in exit polls, it is important to determine the type of nonresponse. In exit polls there are two kinds of nonrespondents: refusals and misses (Merkle & Edelman, 2002). A refusal occurs when a sampled unit (k_{th} voter) does not respond to the request to be surveyed. A miss happens when the interviewer is too busy to approach the selected voter or when the voter does not pass the interviewer. According to Merkle and Edelman (2002), about three-fourths of nonresponse consists of refusals and about a quarter are misses. Thus, more time and effort should be

devoted to the analysis of the former than the latter, because it can be argued that misses are more likely to occur at random than refusals, which clearly imply an explicit reluctance from the k_{th} voter.

Setting aside the "misses" part in nonresponse (assuming that it is missing data at random), two concerns about refusals can be considered: (1) those who refuse to participate may have different voting behavior from those who were actually interviewed and (2) refusals during the exit poll (meaning low response rates) may decrease precision in exit poll estimates because they lower the final n . In order to test the first statement, it is necessary to take a sample of those who refused to participate during the exit poll. This kind of sample can be expensive and somewhat inconclusive (i.e., if a sample of nonrespondents were taken, it could still have nonrespondents, still leaving uncertainty about the hypothetical behavior of true nonrespondents). On the other hand, the statement about the relationship between refusals and an exit poll's precision can be better approached for studying. Indeed, Merke and Edelman (2002) examined the relationship between response rates and survey error in exit polls³. Interestingly, Merke and Edelman did not find evidence to validate the assumption that high response rates imply a lesser degree of exit poll error.

Since it can be argued there is no effect because of nonresponse, it is necessary to investigate what the main sources of nonresponse are.

Interviewer effects on exit polls

In self-administered exit polls -widely used in the U.S.- interviewers are basically handing questionnaires out, they do not conduct interviews. Interviewers' skills primarily reside in approaching the selected respondent, establishing a minimal rapport, and gaining some trust in order to complete the questionnaire. Other skills have less to do with interpersonal relation; they include precision while reporting results, computational skills, and a positive attitude for following directions. Despite the fact that exit poll interviewers are not strictly conducting interviews, there are elements related with nonresponse. For instance, Merkle and Edelman (2002) found that the age of the interviewer was a significant predictor of response rate for both the 1992 and 1996 U.S. exit polls. Older interviewers experienced fewer refusals. On the other hand, interviewer dress (casual vs. more conservative neatly pressed clothing) was not related to response rates in the 1996 exit poll. Other noteworthy results for both elections years were that interviewer experience was not related to response rate, and that there was no interaction between the race of the interviewer and the response rates. One explanation for the latter is that fre-

³ Signed error can be seen as a way to measure survey error in exit polls. Later in this paper, signed error will be computed by subtracting the exit poll data's difference between the first and the second place from the Quick Count (Conteo rapido) Data's difference between the first and the second place, in each precinct.

quently interviewers are matched to precincts with similar racial backgrounds. Lastly, no interviewer gender effect was found. After the 2000 election in the U.S., the Research Triangle Institute (RTI) was asked to evaluate the procedures and operations used by Voter News Service (VNS) to estimate the outcome of the election (Biemer et al., 2003; Mitofsky, 2003); to our interest, RTI was worried about the decline of response rates in the last years (60% in 1992, 55% in 1996, and 51% in 2000).

Among its recommendations, RTI advised launching an ongoing research program to increase exit poll response rate and to enhance quality of the interviewers' behaviors. In 2004 more data was collected about the interviewers and a portion of the report to the National Election Poll was devoted to interviewer effects (Edison Media Research and Mitofsky International, 2005). The effects are computed in relation to the Within Precinct Error (WPE). The 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. Older interviewers had lower WPE's than younger interviewers, and they had also higher completion rates. Younger interviewers tend to have lower completion rates regardless of the voter's age. Completion rates tend to be slightly higher in precincts with more educated interviewers and for precincts where the interviewers were hired well in advance. Precincts where the interviewers said that they were trained "very well" had less WPE as did precincts where the interviewers were hired well in advance. Finally, the relationship between gender and WPE did not hold when controlling for interviewer age.

Election Day factors

Election Day factors are defined as those noninterviewer effects that have an impact on the quality of exit polls, primarily on the response rate. Those factors are generally out of the researcher's control, and can only be taken into account for later adjustments. In the U.S., interviewing position at the polling place (closeness to the polling place) has long been recognized as the main factor that can have a dramatic effect on response rates and miss rates. Other factors that have a high level of importance in predicting refusals and miss rates are problems with officials, troubles keeping up with the interviewing rate, and the number of exits in the polling station (Merkle & Edelman, 2002). In the 2004 election the response rate ranged from 59% if the interviewer was inside the precinct, to 43% if he/she was more than 100 feet away with an average around 54%⁴. A similar pattern was observed when the interviewer had problems with officials. Other Election Day factors that were measured in the 2004 U.S. election and had an impact on

the cooperation rate were: ability to approach every voter, interference at the precinct by non-election officials (poll watchers, lawyers, etc), weather, and precinct's levels of competitiveness, i.e, swing states (Edison Media Research and Mitofsky International, 2005).

Data and Methods

During 2004 and 2005, four state-level exit polls were conducted in Mexico by Parametria SA de CV, an independent Mexico City-based polling firm. These exit polls are analyzed in this paper. On September 5th, 2004, the gubernatorial election in the state of Veracruz was held. On November 14th, the state of Tlaxcala and the State of Puebla held gubernatorial elections. On February 6th, 2005, the State of Guerrero's gubernatorial race was held. In these elections, the major parties running were: the National Action Party (PAN), the Institutional Revolutionary Party (PRI), and the Party of the Democratic Revolution (PRD). The results of these races are shown in Table 1. (CEEGRO, 2005; IFE, 2004).

Considering that the differences between the first and the second place finishers was less than 1% in both Veracruz and Tlaxcala, and that the elections of Guerrero and Puebla were won by more than 12%, it can be said that the exit poll estimates were quite good, allowing a reliable sample for our analysis. In these four exit polls, the sampling method was the same. On average, 100 precincts were randomly drawn in each state. It was a multistage sample using a probability-proportionate-to-size sampling technique and Electoral Sections (precincts) were considered primary sampling units. During the voting day, within each of the sampled clusters, a systematic skip with a random start was utilized in order to conduct an interview with every k_{th} voter.

Taking into consideration the strength of each data collection method and given the low literacy level of the voters, a mixed-mode data collection method in each state was used. Outside each of the sampled voting places, an interviewer administered questionnaires face to face. As mentioned earlier, the reason for choosing a face-to-face interview is the low educational level (reading skill) of the population in the country. The exit polls were conducted as follows: (1) the interviewer approached the k_{th} voter after exiting the voting place and introduced him/herself explaining the purpose of the interview. (2) A face to face interview took place asking for demographic data, government approval, highest grade in school, self perception of social stratum and political awareness questions. (3) At this point, a simulated ballot was given to the respondent who filled it out in a self-administered mode and then placed it in a portable ballot box carried on the interviewer's shoulder. This ballot was a black-and-white reproduction of the official ballot, containing candidates' names and political parties' logotypes. (4) The interview is then concluded with some more demographic questions in a face-to-face

⁴ The final average response rate is not reported in the Edison media Research Report, but it can be inferred from page 37.

mode. The entire procedure tries to minimize social desirability even if it cannot be eliminated completely (De Maio, 1984), allowing at the same time collection of additional information. The average time to complete the interview was about 12 minutes⁵.

In order to keep track of those k_{th} voters who refuse to participate, each interviewer was given a worksheet, which was attached to the back of their pads. To the best of their ability, the interviewers recorded age (coding either younger or older than 40) and gender of those who refused to participate by observation alone. Moreover, a survey among interviewers concerning problems during the exit poll was conducted at the end of the Election Day. Interviewers were asked about problems with Electoral Officials and Political Parties' Representatives, conflicts in general, number of polling place's exits, distance from the polling place, troubles keeping up with the interviewing rate, problems understanding the question's wording, if they received a proper training, experience as interviewer, and demographic questions. Unfortunately this survey was only conducted in the last exit poll (State of Guerrero), nonetheless, there were sufficient elements to be analyzed.

Results

One of the biggest concerns about exit poll methodology concerns response rates and refusals. One of the most important questions is who the nonrespondents are and how they behave. The first question can be better answered than the second one. In our Mexican case study, our evidence suggests there is a group which is more likely to refuse in exit polls: men age 40 or older, in particular those living in rural or mixed areas⁶. As can be seen in Table 2, men 40 years old or more are more likely than women of the same age to refuse to be interviewed. These findings are congruent with previous findings in the U.S. which illustrates that women's response rates are slightly higher than men's response rates (Groves & Couper, 1998).

This group of nonrespondents (men age 40) was different from each group in Veracruz ($X^2=38.05$), Tlaxcala ($X^2=18.68$), and Guerrero ($X^2=19.90$). In Puebla it was not different ($X^2=2.35$) (table 2). The chi square test for this table assumed for the expected values $p_1=p_2=p_3=p_4=1/4$ versus the observed distributions in each column.

⁵ A data center facility located in Mexico City was prepared to receive the telephone calls from the field team. Interviewers were calling, through a free toll number, to report questionnaire by questionnaire, including ballots. Given that voting places were open from 8:00 hrs to 18:00 hrs, there were three waves of data transmissions. The first was around 10:30hrs, the second, 13:30 hrs and the third one about 17:00 hrs. Data entry personnel at the facility data center received telephone calls and the information was entered by means of *ad hoc* computer software.

⁶ Mixed areas are a combination of urban and rural areas.

When controlling for urbanicity (results not shown), it is observed that in Veracruz, Guerrero and Puebla this difference remains, however it was not the case in Tlaxcala. Furthermore, in rural precincts, the proportion of refusals of men age 40 or more, was bigger than observed proportions for other groups in the states with significant chi squares.

Looking at response rates (Table 3), the evidence is consistent with previous tables, i.e., people age 40 or older are less likely to participate in exit polls, especially those living in rural areas. A possible theoretical explanation from the U.S.' literature is that women tend to play a more active role in societies for keeping social relationships (Groves & Couper, 1998); however, there could be alternative explanations for the Mexican case.

The immediate question is how this nonrespondent group (men 40+) differs from the respondent group in the same segment. To be able to address this question, a sample of nonrespondents should be taken; however, this effort is highly expensive and could have problems of sampling validation. In an effort to explore some differences of this group from the rest of the population, a test on a single proportion (one sample) was performed. The assumption to perform this analysis is that nonresponse is missing at random given covariates.

As can be seen in table 4, it seems that those who refuse tend to support either PAN or PRD (holding mostly positive signs) rather than PRI (mostly negative signs). In Tlaxcala and Puebla, the negative differences (2.7 and 1, respectively) were not significant, but the negative difference in Guerrero was significant. It is possible that this group of nonrespondents does not like to report that they prefer to vote for PAN or PRD; in other words, probably they do not like to report that they least support PRI. But again, this analysis has limitations as it was not considered an actual sample of nonrespondents.

Regardless of such possible differences in terms of voting behavior between respondents and refusals, the immediate question concerns the possible effects of response rates on the exit polls' levels of error. In order to examine such relationship, the signed error represents the exit poll error (Merkle & Edelman, 2002). The signed error was computed subtracting the exit poll data's difference between the first and the second place, from the Quick Count Data's difference between the first and the second place, in each precinct. Here the Quick Count is a proxy variable of the Official Count. It is a reasonable assumption as long as the Quick Count estimates were sufficiently close to the Official Counts in each election, at the precinct level (results reported in table 1).

Figures 1a to 1e present the relationship between response rates and signed error. As can be seen, there is no evidence to support the argument that the higher the response rate, the more accurate the exit poll estimates. Our evidence suggests there is no relationship between response rates and signed error. Several models (linear,

quadratic and cubic) were tested to fit this data, but none of them properly adjusted. It may also be worthy notice that simple Pearson correlations for the signed error as well as for the absolute error (the absolute difference) were not significant (Table 5).

These findings are consistent with the literature mentioned earlier. It seems that increases in the response rate do not necessary lead to more accuracy in exit poll estimates. Each dot in the graph (Figures 1a to 1e) represents a sampled precinct. The last level-aggregated graph (Figure 1e) combines the four samples.

Setting aside the fact that response rates do not necessarily improve exit poll estimates, it is still necessary to explore and understand elements behind refusals. Thus, to investigate possible elements related with refusals, a Poisson regression model was run using data from the survey conducted among interviewers, which was collected only among Guerrero's exit poll interviewers.

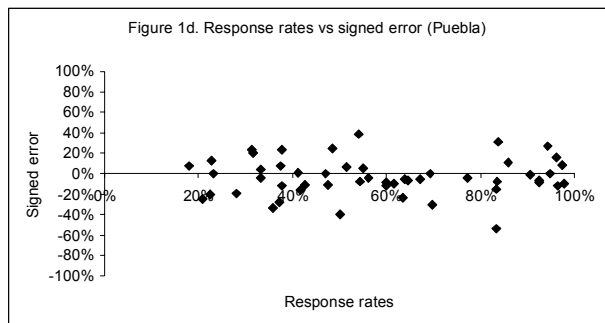
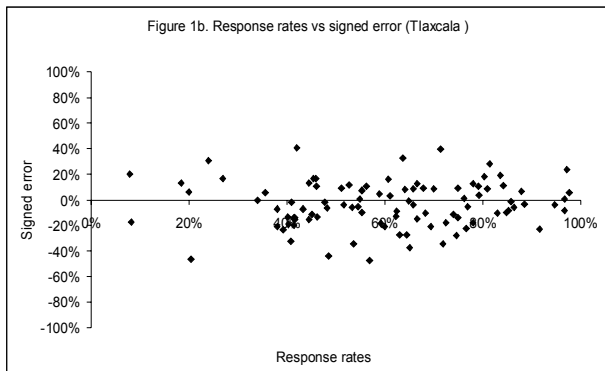
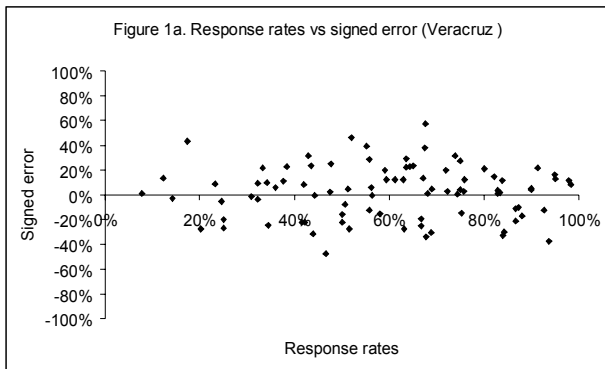
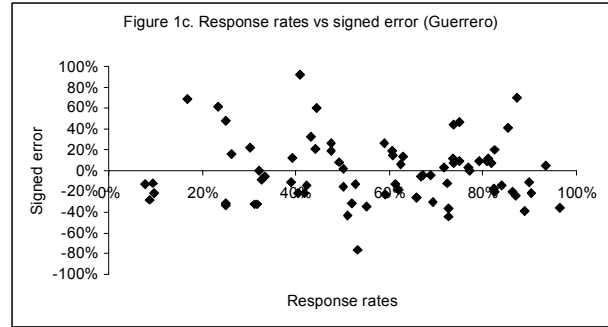


Table 6 shows coefficients for this Guerrero's refusal model. Since the dependent variable is the number of refusals (count) the most appropriate regression is Poisson (Agresti, 1996). Our evidence suggests that in Mexico, two Election Day factors have a significant impact on refusals for exit polling: the distance from the polling stations (measured in meters), and the problem with officials. In the first case the more the distance, the more the number of refusals. In the second case (problems with officials) we have a negative sign that can seem counter-intuitive to explain. At a second look we hypothesized that when there are problems with official the interviewers spend time discussing with them thus not doing any interview and for this reason not having any refusals. The final outcome is having less refusal because the do less interviews, thus explaining the negative sign of the coefficient.

When we consider interviewer characteristics age (measured in years) education, (measured in 4 classes), gender and experience (measured in years they have doing interviews) are significant predictors of the number of refusals. The more educated the interviewer, the more experienced, the higher the response rates. These elements maintained a significant negative sign in the relation with refusals. Gender had a significant role for modeling refusals; specifically, male interviewers were less likely to get refusals. Lastly, age had a significant effect in predicting refusals). The older the interviewer the higher the number of interviewers controlling for everything else. This results is in the opposite direction from the U.S. case where older interviewers get less refusals. At the moment we are investigating possible explanations for this effect.

As a consequence, the ideal profile for an interviewer, at least taking into account the evidence gathered from the Guerrero exit poll, is male, experienced, educated, and, younger⁷. Elements directly related to the interviewer are critical factors in explaining refusals in Mexico. These conclusions make sense under the current Mexican practices for conducting exit polls. In Mexico, exit poll interviewers usually have a regular job as inter-

⁷ The average education level was 11 years of education (high school senior), 2.3 years of experience and average age of 25 years.

viewers and they are not just hired just during exit polls, as is the case in the U.S. (Edison Media Research and Mitofsky International, 2005). Also, in Mexico most of the social survey research is conducted in a face to face mode, because of coverage problems (only roughly 45% of households have a land line phone). These conditions and the fact that exit polls have a real interviewer-interviewee interaction, can explain the importance of interviewers.

Conclusions

In recent times, exit poll methodology has been widely used in both well-established and emergent democracies. Applying this methodology to other contexts different from the U.S. allows researchers to better understand weaknesses as well as potential strengths. This paper addressed issues regarding nonresponse; in particular, refusals in the Mexican context were analyzed. By means of information collected in four Mexican state-level exit polls conducted by Parametria in 2004 and 2005 it is possible to arrive at some conclusions. (1) Mixed mode data collection methods (interviewer-administered and self-administered) work quite well for collecting data in contexts where voters have weak reading and writing skills. Exit poll results gathered using these mixed modes are pretty close to the population parameter. (2) There is a specific group of the population which refuses to be interviewed during exit polls. Males age 40 and older, mainly living in rural areas, are more reluctant to participate in exit polls than the rest of the population. It is not possible to verify if they truly have a different voting behavior from the respondents belonging to the same segment (a representative nonrespondent sample would be needed). However, it is hypothesized that refusals are missing data at random given covariates. Such a hypothesis implies that it is possible to determine their voting behavior by considering preferences from the respondent group holding the same demographic characteristics. (3) Lastly and more important, there is no relationship between response rates and exit poll errors. As a consequence, higher response rates do not necessarily mean less error in exit polls or vice versa. It can be said that refusals are given at random and there is not a pattern that makes us believe there is a consequence due to refusals. (4) Election Day factors are not significant elements in explaining refusals. However, interviewer effects are certainly significant. In particular, factors such as gender, education and experience are critical to understanding refusals in exit polls.

As a corollary, it can be said that in Mexico there are several components under researcher control. For instance, in terms of cost-benefits analysis, it is more efficient to allocate resources to hiring better qualified interviewers rather than increasing the sample size in each sampled precinct.

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Note: the full paper is available in the working paper section of the University of Nebraska, Lincoln, Survey Research and Methodology website: <http://sram.unl.edu>

Tables

Table 1. Exit poll and Quick Count Estimates versus Official Results by State (percentages)

Party	Veracruz			Tlaxcala			Puebla			Guerrero		
	Exit poll	Quick count	Offic. count	Exit poll	Quick count	Offic. count	Exit poll	Quick count	Offic. count	Exit poll	Quick count	Offic. count
National Action Party (PAN)	34.8	34.3	33.7	34.0	34.8	34.8	38.2	37.3	36.0	6.8	1.6	1.1
Institutional Revolutionary Party (PRI)	38.5	35.9	34.6	37.6	33.2	33.9	48.2	48.1	49.6	42.4	41.8	42.1
Party of the Democratic Revolution (PRD)	26.7	27.3	28.1	28.4	28.1	28.3	9.0	4.8	5.6	50.8	54.3	55.1
Other parties	-	-	-	-	-	-	4.7	5.7	5.6	-	-	-
Null votes or cand. non registered	-	2.5	3.6	-	3.9	3.0	-	4.1	3.2	-	2.3	1.6
Average dev. from results	2.1	-	-	1.5	-	-	2.0	-	-	3.4	-	-
Sample size	3,348	NA	NA	3,720	NA	NA	2,484	NA	NA	3,267	NA	NA

Note: the Quick Count (Conteo rapido) is the vote tally summary using the same exit poll's sample, that is performed when the polling places close.

Table 2. Percentages of Refusals in Exit Poll by State

Group	Veracruz	Tlaxcala	Puebla	Guerrero
Male (≤ 40 years)	26.0	21.1	23.6	22.8
Male (> 40 years)	30.3	27.5	25.9	29.7
Female (≤ 40 years)	22.6	25.0	24.8	22.4
Female (> 40 years)	21.1	26.4	25.7	25.1
χ^2	38.05**	18.68**	2.35	19.90**
Sample size	1,908	1,918	1,688	1,497

* $p < 0.1$, ** $p < 0.05$

Table 3. Response Rate by Voter Age and Gender and by Type of Precinct (percentages)

Variable	Veracruz	Tlaxcala	Puebla	Guerrero
Age				
18-40	64	66	61	71
41 +	57	58	52	60
Gender				
Male	60	62	58	66
Female	62	63	55	66
Type of precinct				
Urban	64	63	64	66
Rural / Mixed	57	61	49	66
Total	61	62	57	66

Response rate = Completed Questionnaires / [Completed Questionnaires + Refusals]

Table 4. Difference Between Nonrespondents (Male >40) versus Rest of the Sample by Party and State (percentages)

	Veracruz	Tlaxcala	Puebla	Guerrero
National Action Party (PAN)	0.7	2.6	-1	2.5**
Institutional Revolutionary Party (PRI)	-1.3	0.8	-1.5	-6.8**
Party of the Democratic Revolution (PRD)	3.1*	-2.7	2.7**	8.2**

*p<.10, **p<0.05

Table 5. Pearson Correlation Coefficients Between Response Rates and Signed Error, and Absolute Error

Pearson correlation	Aggregate level	Veracruz	Tlaxcala	Puebla	Guerrero
Signed error vs. response rate	-.020	-.039	.061	-.061	-0.057
<i>p-value</i>	.736	.705	.544	.648	.613
Absolute error vs. response rate	-.095	.041	-.144	.185	-.161
<i>p-value</i>	.116	.695	.153	.164	.152

Table 6. Poisson Regression Model (State of Guerrero)

Dependent variable: Refusals	Coef	Std. Error
Election Day Factors		
Distance while surveying	0.071**	0.020
Problems with polling place's officials	-5.882**	1.838
Problems with political parties' representatives	1.361	0.814
Trouble keeping up with the interviewing rate	-0.757	0.420
Interviewer Characteristics		
Age	0.050**	0.012
Education	-0.803**	0.119
Gender (1=Male)	-1.287**	0.211
Interviewing experience (years as interviewer)	-0.610**	0.100
(Constant)	7.580**	0.844

LR $\chi^2 = 177.81$; Pseudo $R^2 = 0.774$ (p=.000) Log likelihood = -25.957 **p<0.001