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The Combined Effect of Advertisement and News Coverage in the Mexican Presidential Campaign of 2000.

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Abstract

Media effects in presidential campaigns have been difficult to find., mostly due to meassurment errors in survey data and the effect of competeing messages. In July 2000, the PRI lost the Presidency of Mexico after 71 years of continous rule. The election took place after many dramatic events and an unprecedented use of political communication. It is commonly assumed that this major change was produced by the media campaigns. In this article I explore the effects of political advertisement and media coverage on preferences during the presidential campaign in Mexico in 2000 using both individual and aggregate data. Preferences are taken from results to the trial ballot question in electoral polls. The intensity of the advertisement campaign is measured in gross rating points. The media coverage is taken from the monitoring of newscasts of the two national channels of the two major networks. I develop OLS regression models, with preferences as the dependent variable. Accumulated qualified news presence and ads differentials show a favorable effect for the candidate of the incumbent PRI. Nonetheless, their interaction has a negative sign. Once any of the campaign instruments, reached a certain point, the additional gain in the other produced diminishing returns. This means that their combination reached saturation points and diminishing returns. Increases in Labastida's ads differentials ended up producing negative effects on his preferences. No network effect was identified.

Resumen

Los efectos de los medios de comunicación en las campañas presidenciales han sido difíciles de documentar, principalmente por limitaciones en los instrumentos de medición y por el efecto combinado de los mensajes en competencia. El 2 de julio de 2000, el PRI perdió la Presidencia de la República después de 71 años de dominio continuo. La elección ocurrió después de varios eventos dramáticos y un uso sin precedente de la comunicación política. Hay cierto consenso en que este relevante cambio fue producto de las campañas publicitarias en los medios. En este artículo exploro los efectos de la publicidad y de la cobertura noticiosa en las preferencias electorales a lo largo de la campaña. Las preferencias corresponden al resultado a la pregunta electoral de encuestas electorales. La intensidad de la publicidad se mide a partir de los "Groos Rating Points" alcanzados por cada campaña. La presencia y calificación de las campañas en los medios noticiosos proviene del monitoreo de los dos principales noticieros de las dos cadenas principales. Se desarrollan modelos de regresión de mínimos cuadrados (OLS) con las preferencias como variable

dependiente. La presencia noticiosa y el diferencial en la difusión de comerciales políticos acumulados muestra un efecto favorable al candidato del PRI. Sin embargo, su interrelación tiene signo negativo. Una vez que uno de los instrumentos de campaña llegó a un punto, la ganancia adicional proveniente del otro instrumento produjo rendimientos decrecientes. Esto indica que la combinación alcanzó niveles de saturación y rendimientos decrecientes. Aumentos en el uso de la publicidad de Labastida terminaron produciendo efectos negativos en sus preferencias. No se encontró un efecto diferenciado de la cobertura noticiosa de las dos grandes cadenas.

Introduction

In July 2nd, 2000, the Institutional Revolutionary Party (PRI) of Mexico lost the Presidency after 71 years of continuous rule to Vicente Fox, the candidate of the Alliance for Change formed by the National Action Party (PAN) and the small "green" party. The triumph of Vicente Fox (43%) was made possible by support of the greens and the coordination of part of the opposition vote behind his candidacy. The PRI lost the majority of the popular vote in the mid-term election of 1997 (39%), but the oposition remained equally divided between PAN (27%), the Party of the Democratic Revolution (PRD, 26%) and a cadre of small parties (9%). In the presidencial election of 2000, PRI obtained almost the same proportion than in 1997 (37%), but Vicente Fox obtained 16 points more than the vote obtained by PAN in 1997, five from the ecologists, nine from PRD and two from the other small parties. The PRD lost nine points and the small parties six. The winner was the candidate of a coalition of parties that had never obtained more than 35% of the national vote.

The election took place after many dramatic events and an unprecedented use of political communication. To some, the demise of the PRI resulted from long standing structural trends crystallized into an extended desire for change that stem from years of one party rule and intensified by the profound disappointment in the ruling party provoked by the economic crisis of 1994-1995 and the events that followed. To others, these trends would have been insufficient to bring about the change in the presidency were it not for the charismatic candidate, Vicente Fox, and his media campaign.

This last argument implies that the intense and fiery campaign was an important if not the most significant cause of the change in the preferences of the Mexican voter in 2000. That is, it implies that a significant media effect occurred during the Mexican presidential campaign of 2000, an assumption that conflicts with the academic consensus about presidential campaigns. Based mostly on the study of the American presidential campaigns, forty years of research have repeatedly found that campaigns have minimal effects on voter's choices compared to contextual effects. Explanations of presidential elections have been found in the distribution of party identification or variations in the macroeconomy, rather than in the effects of campaigns (Tufte 1978, Rosenstone 1983, Lewis-Beck 1990, Lewis-Beck and Rice 1992, Gellman and King 1993, Fair 1996). That is to say, to argue for a significant effect of the campaigns would contradict the most common idea that they have minimal effects on voter's preferences and that, at most, they activate latent candidate preferences (see Finkel 1993 and Holbrook 1996, for a detailed review of these issues).

Several works have studied media influences in this election. Chapell Lawson and others did a panel study for the 2000 presidential election.

Moreno (2001) addresses the issue of the negative ads in the campaign. He concludes that negativity matters and, therefore, campaigns matter: the combined effects of both Fox's and Labastida's negativity may have accounted for a great deal of the eight points they exchanged between the beginning of the campaign in January and its conclusion in June. Lawson studies Television coverage. He concludes that the influence of television news coverage may have been powerful enough to swing the election for Fox. According to him, viewership of one major network, Televisión Azteca, was associated with a substantial increase in support for opposition candidate Vicente Fox and a corresponding slippage in support for ruling party nominee Francisco Labastida. Exposure to news on the traditionally pro-government Televisa network, by contrast, had a more muted effect (Lawson 2001). Using data form the tracking polls he did for the wining candidate, Vicente Fox, and rating data, Rafael Gimenez concluded that significant media effects occurred during the campaign (Giménez 2001a). Rafael Vergara finds evidence of strategic persuasion of the political communication on the constituency of the winning candidate (Vergara 2002).

In this paper I try to asses how and to what magnitude political ads and media coverage of the campaign had an effect on preferences during the campaign. The basic intent of the paper is to estimate the effect of the relative advantage achieved by each campaign on public preferences, the effect of the difference on the intensity and direction (positive minus negative) of the media coverage of the two major National news programs on preferences, and the combined effect of both instruments[1] .

Media use and media effects in political campaigns

The relevant aspect for this paper of the literature on media effects is that context and political communication do not act independent from each other. Indirect persuasion links one with the other. The public organizes the information it perceives in the environment using informational shortcuts that group together dispersed pieces of information. The activation of certain shortcuts facilitates the comprehension and evaluation of the complex reality and, in a cost reducing strategy, all persons will use those that are most accessible to them (See Lupia et al. 2000). Political communication aims to make some shortcuts more accessible than others. This is possible because, through the agenda setting process, the media stimuli make some issues more important than others and media attribute responsibility trough a priming process. Once this priming occurs, persuasion is possible. In every campaign, each candidate will try to make this priming process the basis of the

[1] Daron R. Shaw (1999) work on the effect of TV ads and candidate appearances on Presidential votes was the main source of inspiration for this work.

persuasion he or she has to exert in order to favorably modify the preferences of all or part of the electorate (Zaller 1992).

From this perspective, political persuasion can occur only through media effects. Nonetheless, media effects have been hard to document, not because they do not exist but as a result of poor measurement of the reception of mass communication and of the small variance in its content. To measure media effects it is necessary to develop models capable of capturing the effects of crosscutting communication, the effects of canceling messages. The key to understand media effects are the influence gaps resulting from competing messages, that is, among those individuals who receive and accept messages from one campaign but not from the other (Zaller 1996). "The voters most likely to be swayed by mass communications will not be those who receive the largest overall amount of communication, but the ones for whom the reception gap between competing messages is greater" (Zaller, 1996: 33).

The hypothesis followed in this paper is that, in the presidential campaign, paid and free media convinced part of the electorate to vote for Fox through an indirect process of persuasion. Overall, this was a priming effect that centered on the need and viability of change, reduced the uncertainty implicit in the possibility of an opposition party winning the Presidency for the first time, and reinforced the political identity of part of the electorate and convinced other part to strategically vote for an opposition candidate who was not necessarily its first option. Since political messages cancel each other out, this priming effect could be obtained either by a relative advantage in the reception of the advertising campaign or in the intensity and direction of the news coverage each candidate could generate or by the interaction of both. Finally, this persuasion occurred by a learning process made possible by the accumulation of information.

As mentioned, this paper is based on aggregate data. Even tough no particular methodological claim is made about the advantage of this kind of data over the individual data obtained through surveys, it is true that some problems related to the use of polls to find media effects are avoided. A common limitation of the findings based on individual data is that the inferences to the overall result of the social process under examination are sometimes weak or not sufficiently founded. Results obtained from individual data must be consistent with trends and changes observed in the aggregate data. All effort will be made to compare findings based on individual data. Another reason for using aggregate data is the availability of the information. For the first time it is possible to construct detailed time series of the preferences during the campaign, of an objective measure of the number of people reached by each ad, and of the intensity and direction of the news coverage and the number of people it reached. Nonetheless, the use of aggregate data introduces some legitimate concerns, the possibility of

measurement errors and false ecological inferences. When I use aggregate data no inference about individual motivations or effects is intended, so no ecological inference fallacy is made. I only try to explain variance in the dependent variable, preferences, which can be attributed to the independent variables, relative advantage in the public reached by each candidate's campaign and relative advantage in the intensity and direction of the presence of the candidates on the news programs. All studies based on indiviudal data should produce results at the individual level that are consistent with the aggregate level variance in preferences induced by the differentials in exposition to media stimuli.

General context, media coverage and advertisement use in the campaign.

Contexts and trends

The presidential election of 2000 followed more than a decade of transcendental structural change that modernized every aspect of the Mexican political and economic systems, among them all electoral rules and instruments. In the years prior to the election, many dramatic events occurred: the killing of the PRI presidential candidate in 1994, the most intense financial crisis in modern economic history in 1995, the prosecution of the brother of former President Carlos Salinas (1988-1994) on murder and corruption charges, and others.

The economic crisis that exploded on December of 1994 ended a period of relative economic stability, structural transformation, and very high levels of presidential approval. The peso lost 97% of its value in three months. In the first quarter of 1995, GNP dropped 12%. President Ernesto Zedillo (1994-2000) paid the toll. By March of 1995, only 36% of Mexicans approved of him, half the approval rate of former President Carlos Salinas in November of 1994 (77%)[2]. Zedillo's approval followed a slow but continuous upward trend. By November of 1996, the approval rate was above 58% and, with some variations, it continued to grow until the end of his administration (66%).

Political scandals became common events during this period and were portrayed as the distinctive feature of the PRI political class. In September of 1994, the General Secretary of the PRI was murdered. In January of 1995, at

[2] In 1989, the Office of the President of Mexico opened a Survey Research Unit to conduct public opinion research for the President. All these polls were deposited and made available for public use at the Centro de Investigacion y Docencia Economicas. All these poll data come from that source.

the same time that all economic indicators were plummeting, President Salinas's brother Raul was accused of the assassination. In one of the most bizarre examples of criminal investigation, he was finally convicted of being responsible for plotting the assassination. During the trial, it was known that he had more than a hundred million dollars in Swiss banks hidden under false names protected with official documents, and he also was accused on serious corruption charges.

In the July National mid term election of 1997, Zedillo's party was badly punished. The defeat of one of the longest ruling parties in Western democracies was consummated. The PRI lost the majority of the popular vote, control of the House of Representatives and the government of Mexico City which, for the first time, was up for election. Opposition vote though remained split between PAN and PRD almost in equal parts.

The most surprising event prior to the campaign was the President's decision to force on his party the open election of the PRI candidate to the Presidency. Since its inception in 1929, the President had selected every presidential candidate of the PRI, and the party formalized this choice in an irrelevant convention. Zedillo ended this practice. By the middle of 1999, the PRI announced that the selection of its candidate was going to be in an open primary in which all registered voters could participate. Four candidates ran for the candidacy and, in November, Francisco Labastida, who was first Agriculture and later "Gobernacion"[3] Secretary in the Zedillo Cabinet won by a very wide margin. Preferences for the winning candidate of the primary increased dramatically after this unprecedented event.

Since 1996 almost every economic indicator improved. As long as the electorate based its evaluation of the incumbent PRI on the short term rather than on the crisis of 1994 and its consequences, Francisco Labastida's chances were better. In a political system where no opposition party had ever held the Presidency, the uncertainty about their possible government was an important limitation. But at the time of the election the opposition had already won several governor races, and the majoritarian vote of 1997, even though it was for Congress, signaled that this limitation have been in some way overcome.

In December of 1999, six months before the National election PRI had around 50% of the preferences, PAN 35%, PRD 13% and the small parties the remaining two points. The ruling party had recovered the share of vote it obtained in 1994 at the expense of PRD.

[3] Gobernacion is the Secretary in charge of political affairs

The Campaigns

The political campaigns for the Presidency in fact started long before 2000. From his post as governor of Guanajuato, Vicente Fox promoted his determination to run in 2000, and practically forced his nomination on his party. With a constant media presence and political ads of the Guanajuato government aired nationally, Fox presented himself as a viable option for the Presidency. The PRD government of Mexico City followed the lead with a long promotional campaign also aired nationally. These campaigns competed with the heavy use of publicity by the federal government to publicize its achievements .

Political advertisements was used on an unprecedented and probably exaggerated scale in the presidential campaign. In 1996, a reform assured equal opportunity of access to paid media. As a result, for the first time in Mexico campaigns were "Americanized": all candidates hired professional political consultants and media strategists (many from the United States), TV dominated over any other media, images predominated over issues and the campaign was centered on the contenders instead of the parties. All together, political parties and candidates expend 1.2 billion pesos to air 330 political ads on TV (56%), radio (36%) and printed media (8%)[4] by any account a very large investment in paid airtime for any political campaign. Almost the same amount was invested in paid media in the American presidential campaign of 1992[5]. This means that 52 cents per capita were used in the USA in 1992, and 73 in the Mexican presidential campaign of 2000. The difference in per capita income between Mexico and the USA is at least threefold.

Labastida opened the paid media campaign with a clear commitment to fight corruption, followed by a bio ad based on his family tradition and his experience as governor of the state of Sinaloa. With this ad he began a series of extremely crude ads explicitly recognizing poverty and social problems and making direct pledges such as medical care for pregnant women and teaching English and computer skills in public schools. The motto of his campaign was "make power serve the people". This realistic and crude campaign style culminated in April with several ads with the basic idea that poor people had previously been invisible to the powerful, but Labastida was able to see and listen to the people. By the end of April, the first of two televised debates took place and Labastida lost badly. Major changes were introduced to the campaign team and strategy. The realistic style of the campaign prevailed,

[4] Instituto Federal Electoral, Comisión de Fiscalización de los Recursos de los Partidos Políticos y Agrupaciones Políticas Nacionales, "Proceso electoral federal, 1999-2000. Gastos de la propaganda por partido político o coalición en prensa, en radio y en televisión". Obtained directly in IFE.

[5] At the exchange rate at the time, 9.2 pesos per dollar, 1.2 billion pesos is equivalent to 130 million dollars. Roberts (1995:179) reports that 130 million dollars were spent in the American presidential campaign of 1992, mostly in paid airtime.

but crudeness was moderated and, above all, an attack campaign started showing Fox's flaws.

Labastida's communication centered on portraying a candidate different than the traditional political class, experienced and truthful, candid and determined to work for the people. The attack campaign against Fox aimed at diminishing his credibility. The principal limitation of this campaign strategy was twofold: on the one hand, the team close to him, and the endorsements he got during the campaign from old guard traditional leaders, did not support the idea of a new and different political character. On the other, by doing this, Labastida cancelled all possible benefit he could obtain from being the candidate of the incumbent party.

Fox's media campaign centered all issues on one simple idea, the convenience and viability of change. Fox's campaign opened with the most unconventional spot of the entire campaign, "*ya, ya, ya*", "enough already" or "time has come". With this spot his argument started to unfold: it is time to change, to bid farewell to the PRI, we can win because there are more of us, come join us in making the change that is beneficial to you. The spot also set an unconventional and irreverent tone that was a permanent characteristic of the entire campaign. This unconventional and irreverent tone was a risky move. The Mexican political system had been centered on the figure of the President producing a political culture of almost reverence to the institution. Certainly, the recurrent economic crises and the recent events surrounding the Salinas family had seriously deteriorated this image, but, nonetheless, the principal obstacle that Fox had to overcome was the uncertainty about his possible government. A vote against the PRI in some way implied an act of irreverence against the almost mythical figure of the President, and this campaign tone reinforced this attitude but, on the other hand, the desacralization of the Presidential figure portrayed a no presidential looking candidate, increasing the uncertainty about his likely performance as president, in exchange for a portrait of a confident and close to the people candidate. In the end, the net effect of this strategy was beneficial to Fox because it was directed to voters who had already voted against the PRI and offered them enough arguments to vote for Fox, mobilizing the strategic vote of the Cardenistas to defect from a candidate with no opportunity to win.

With a permanently nationalistic tone, Cuauhtemoc Cardenas' campaign, the candidate of the leftist PRD, centered on two arguments: the economic policies of the last decade are responsible for the increased poverty in Mexico, and both Labastida and Fox are the same. The main limitation of the campaign was the candidate himself, who was running for the third time and had a short but bad government in Mexico City to his credit. Neither the argument nor the character offered any novelty.

During the campaign, preferences for Labastida evolved in three periods. From January to the beginning of March he maintained a lead of 5 points average over Fox, probably with the impulse obtained by the unexpected open primary and the uncertainty about Fox. By the 12th week a roller coaster trend with three peaks begins, and by May 23th he looses the advantage to Fox and he stays behind for an average of three points, except for a few days at the end of June. See Figure 1.

FIGURE 1 ARROUND HERE.

The accumulated campaign advertisement differentials of Labastida minus Fox were unfavorable to Labastida in the two initial months of the campaign, but after that he was always ahead of Fox. This balance was always negative for him relative to the overall use of paid media of the entire opposition. See Figure 2.

FIGURE 2 AROUND HERE.

Media coverage

Perceived biases in the way one or various networks treat one or all candidates are a necessary condition for a network effect to occur. A bias can be introduced through images, better positioning of the favored candidate in the public agenda and priming him or her on it, or by a negative coverage of serious competitors. An effect occurs if the exposure to the biased media leads to individual changes in previous vote choices, that is, if exposure leads to persuasion. If sufficiently extended, this individual effect can define the aggregate result of an election.

There is not complete agreement on the way candidates were treated by the media during the campaign. The media, in particular electronic media, has passed in Mexico trough profound transformations that lead to increased independence. Two networks control 85% of the audience share of paid and open TV, Televisa and Televisión Azteca. Independent local networks have 9% and paid TV 7%. Direct TV access is not measured. Until the privatization of the government network in 1993, Televisa had almost the complete monopoly of open TV. Almost immediately, the new commercial network, TVAzteca, launched a strong competition to Televisa in every area. With many differences in the time of the day and the type of program, Televisa had at the time of the election in average a little over 60% of the share of audience

and Azteca had reached 24%[6]. During the campaign, Televisa's news programs in average nearly doubled the audience of Azteca (13% rating points versus 8%).

In 1996, a professional national audience measurement service was created. For the first time, competition among two commercial networks emerged and an objective measurement of this competition made it transparent. These changes in the open TV market had enormous consequences on all news programs. On the one hand, reporting became more common, but with a yellowish orientation and soft-news predominance. As in anywhere else, competition for audience trivialized news programs. On the other hand, government and the official party lost the privileged position they enjoyed in the old monopolistic days. The networks had to choose between better ratings and imposed or selfimpossed loyalty to the government and the official party.

The campaign was intensely covered by the media: more than two million seconds in national TV newscasts and 7.5 in radio were devoted to it (Berúmen 2000). In this election, four different sources monitored the electronic news programs during the campaign: the new autonomous Electoral Commission (IFE), the national newspaper *Reforma*, Alianza Cívica, a human rights NGO openly opposed to the government and the PRI, and Chapell Lawson. The Commission's monitoring was the only one with a real National coverage.

The IFE monitoring found an unbiased coverage of the two national news programs of the two major networks, and an important bias in favor of the PRI candidate in the local radio and TV news programs. The extent of the audience of these biased programs is so small compared to the national news programs that a possible effect was negligible. *Reforma* monitoring was centered on the two national news programs and reached the same conclusions than IFE, all major candidates received equal shares of time in the news. This means that Cardenas' share was higher than his party's electoral share in 1997, and Labastida's proportion of time was substantially lower. The tone of the coverage followed a similar pattern. Positive coverage of the three major candidates was similar with small biases. Televisa treated Cardenas somewhat more positively than Fox and Labastida, whereas Azteca was slightly biased to Labastida.

Alianza Cívica published some general comments and I did not have access to the specific daily accounts. Lawsons's monitoring results are substantially different from *Reforma* and IFE. (Lawson 2001). Lawson's analysis is based on a randomly selected sample of 40 news broadcasts of the two national news programs (20 from each program) during the period February 18 to June 30

[6] These data correspond to the average rating points obtained by each network in the first quarter of 2002. Ibope Agb, S. A.

(Lawson 2001: 11). According to his results, Televisa's coverage was strongly biased towards Labastida and Cardenas, and Azteca's to Fox and Cardenas. See Table 1. He concludes that "Fox received a balanced coverage from Television Azteca over the course of the campaign. Coverage on Televisa, by contrast, was biased in favor of Labastida" (Lawson 2001: 19). Since the selection of the programs analyzed was at random, the results are assumed to be similar to those drawn from the entire group of programs. That is, there is not any reason to expect a difference between the data of IFE and *Reforma* with Lawson's sample based analysis. The different conclusions among these sources do not depend on the specific dates of Lawson's sample. I compared IFE and *Reforma's* evaluations of the tone of coverage in the specific dates of Lawson's sample and the different conclusions stand. The different conclusions must result from methodological differences. See Table 1.

TABLE 1 ARROUND HERE.

News differentials are difficult to interpret because there is no registered evidence of the way messages were framed by the media as the campaign evolved. We only know the total time devoted to each candidate and its direction. See Figure 3. From weeks 1 to 17, Labastida conserved a competitive presence in the news with respect to the opposition. His balance remained close to zero or positive with a big favorable jump in week 12. In the 17th week, a dramatic change occurred, and with the exception of two weeks, Labastida could not recover the relative good position he had in the media at the beginning of the campaign. In week 17th, the first debate took place. Looking at the trend in the accumulated data, it is clear that the debate was indeed a turning point. Whereas Labastida's accumulated presence in the news always remained positive with respect to Fox, his position compared to the opposition in general dramatically changed in such a way that he never recovered. The debate brought other candidates to the fore in detriment of Labastida.

FIGURE 3 ARROUND HERE.

Aggregate data and models

Data

Preferences are taken from poll results for the trial ballot question. Between January and March, they are taken from poll results published by different

firms. Since no daily measurement was available, the missing days were filled in by a simple linear interpolation between one observation and the next. From March 7th to June 30th, two days before the election, preferences were taken from a daily tracking poll done by the firm Arcop for PAN and Fox[7]. Every day Arcop interviewed 200 persons in a national sample of households selected at random in a subsample of 20 electoral precincts. Every day 20 new electoral precincts were used to substitute every week the whole sample of precincts. Beginning in May, the rotation was increased to 40 precincts and 400 persons to renew the entire sample every three days. These daily sub-samples were substituted in a larger sample to obtain a partially new sample every day to estimate preferences. Daily samples were weighted to correct for biases in parameters such as urban-rural composition, age, schooling, gender, etc. The schooling parameters were taken from exit poll results (Gimenez 2001a and Gimenez 2001b).

The overall performance of published polls in the election was mixed. Most of them failed to predict Fox's victory, but it is fair to say that the polls produced the information strategic voters needed to make their choice. Since January it was clear that Cardenas did not have much chance in the election. Arcop's work, the main source of aggregate estimates of preferences in this paper did one of the most accurate estimates (Beltran 2001). In any case, polls might not be a perfectly accurate measure of preferences, but they captured changes correctly. That is a sufficient assumption for the modeling used in this article.

TV audience of both ads and news are taken from the audience meassurement service regularly done by private firms and estimated in rating points. All rating data used in this paper come from the audience meassurement service provided by the firm Ibope AGB Mexico, S. A.[8] The data are obtained from a National sample of 1,810 households in 27 cities. Ibope AGB Mexico is the Mexican subsidiary of the union of the Brazilian based market research company Ibope and the Italian media research company AGB, which is a strong competitor to Nielsen Media Research in many markets. The volume of advertisement is measured in gross rating points (GRPs). GRPs measure the percentage of TV sets in the sample that are tuned to channel *c* at the moment *t*. The system provides information every minute. Daily monitoring of advertisement presence makes it possible to estimate the GRPs reached by each ad every time it is shown. GRPs can be measured in terms of TV sets and in terms of persons with the use of the so called "people meters". In each household a device similar to a remote control is provided for each TV set, and all the people in the household are asked to register whenever they

[7] See Apendix I for the description of the survey methodologies.

[8] Audience exposure measurement was introduced in Mexico very recently. For some time Nielsen and Ibope AGB provided TV audience estimates in Mexico, but Nielsen closed down operations and Ibope remained the sole provider.

start watching the TV set and when they stop. I used GRPs in terms of households. Because the data on news coverage was measured in seconds, to put both series in a similar scale the length of the ad measured in seconds was multiplied by the GRPs.

The Electoral Commission and the *Reforma* national newspaper monitored electronic campaign news coverage. By far, the Commission monitoring was more extensive in number of radio and TV stations and therefore it produced better data in terms of coverage and total time devoted to campaign events. Unfortunately, the data on direction of the news produced by the Commission shows very small variance. Almost 90% of the coverage is qualified as "neutral" and hence is of very limited use in any model. The data gathered by *Reforma* covers only the two national channels of the main networks. The direction variable shows good variance in time, so these data suits better for modeling and were the data used in this paper. The data corresponds to the time dedicated to each candidate in the news programs of the two national channels broadcast between 6:00 to 10:00, 13:00 to 16:00, and 19:00 to 23:30 hours on weekdays, and 8:00 to 10:00 and 12:00 to 16:00 on Saturdays and 8:00 to 10:00 on Sundays. Each observation measures the total time in seconds dedicated to a campaign event of a candidate. Each event was qualified as positive, neutral or negative to the candidate. Total coverage is very similar for the three principal candidates, but there are some differences in the direction of the coverage, basically a small negative bias against Fox. Each data was multiplied by the average rating points of the newscast to make them comparable to the ads diffusion data.

Models

The whole intention of the analysis is to assess how and by what magnitude variance in the preferences for Labastida can be explained by variance in the campaign differentials of the two principal sources of political communication, political advertisements and candidates' appearances (positive or negative) on national news programs. The general form of the model is as follows:

$$Y_t = \left(\frac{PRI}{PRI + PAN} * 100\right)_t = \alpha + \beta_1 \left(\frac{PRI}{PRI + PAN} * 100\right)_{t-1} + \beta_2 (Adv_{PRI_i} - Adv_{PAN_i}) + \beta_3 \left(Cov_{PRI_i} - Cov_{PAN_i}\right) + \beta_4 ((Adv_{PRI_i} - Adv_{PAN_i}) * (Cov_{PRI_i} - Cov_{PAN_i})) + \beta_5 ((Adv_{PRI_i} - Adv_{PAN_i}) * Undecided_{t-1}) + \beta_6 ((Cov_{PRI_i} - Cov_{PAN_i}) * Undecided_{t-1}) + \beta_7 Undecided_{t-1} + \beta_8 PRD_{t-1} + \varepsilon_t$$

There are two groups of independent variables. In the first group are the measures of the campaign actions, public reached by TV advertisement (Adv) and the news coverage (Cov), qualified according to its direction. The length of each ad in seconds was multiplied by the GRPs it reached. The data on news coverage was multiplied by the average rating points of the newscast. Hence, both series are measured in GRPs by seconds.

Since I assume that messages of candidates cancel each other out, both variables are campaigning differentials, that is, the difference in audience reached by Labastida and Fox (or Labastida and all opposition candidates) through advertisements and news. In the case of news, the direction of the coverage is taken into account, so the variable corresponds to the difference in the balance of positive minus negative time devoted to each candidate multiplied by the average GRPs of the newscast. I expect that greater use of paid media and positive presence in the news of any candidate should positively correlate with greater support for him.

The second group of independent variables corresponds to the interactions between, first, advertisements and adjusted news activity, second, each campaign activity (Adv and Cov) and the percentage of undecided respondents to the tracking polls lagged one t and, third, the percentage of undecided voters and the percentage of preference for Cardenas alone lagged one t. "Undecided" includes both don't know and no answer in the polls. The interactions of campaign instruments are used to document the idea that they do not act independently, but that the combined effect of both, ads and presence in the newscasts, increases their capacity of persuasion. By introducing undecided and third candidate preferences lagged one t, I expect to capture the persuasion effect of the differential campaigning.

The models are estimated using ordinary least squares (OLS) techniques. The first independent term is the dependent variable lagged one *t* to control for the possibility that existing support is a function of prior support[9]. All the difference measures were rescaled so that they are all positive, because negative numbers cause erroneous expectations in the multiplicative

[9] Even though the introduction of this variable is founded and necessary, it raises some legitimate concerns about the fitness of the models, since it could happen that most of the variance is explained by this variable. This is not the case, the introduction of the self-regressed variable increases marginally the r-squared of the model.

interactions. For instance, a very small negative differential in advertisement, together with a large positive differential in evaluated news would render a very large negative number, giving very misleading information about the interaction. Rescaling eliminates negative numbers, but the differences in the amount of campaign differentials are measured.

Finally, dummy variables are used to differentiate two periods, the entire period and March 7th-May 21st, when preferences for Labastida followed a roller coaster pattern, but with a clearly negative trend. In total there are 179 daily observations and 26 week-points.

Results

Weekly model

Two models were tested depending on the definition of the campaign differentials. In the first one it was assumed that in any campaign the learning process occurs in specific time spans, and therefore I accumulated the data by week. The dependent variable is the weekly average of the Labastida's share of the vote, and the independent variables correspond to the campaign differentials accumulated on average in one week, and the weekly average of undecided and preference for the third candidate, both lagged one week.

Several models were run. In all cases the models explain very little of the variance (r^2 bellow 0.34). This means that the campaign differentials do not allow any inferences to be drawn from a single model, since most of the variance remains in no specified variables. In these models, context should explain more than campaign differentials.

The complete model that includes news, advertisement and its combined effect did not show any significant relationship. Nevertheless, some models including each activity alone show some statistically significant relationships that I report to explore some hypothesis. Some of these significant relationship occur between the advertisement differentials and preferences for Labastida both with respect to Fox and with the entire opposition. There was also a positive effect of the news presence differential, but only with respect to the Labastida share relative to the entire opposition.

In both cases, the sign of the coefficients of the advertisement effects are negative and the coefficient for the news is positive. This would mean that positive differentials for Labastida in the use of ad time would have diminished his preferences, a negative effect weakly compensated by his news differentials.

Labastida's use of advertisements was not uniform. In the last period (from weeks 17 to 26) he combined attack ads on Fox with some positive ads,

using most of his air-time on the negative ads. Using panel survey results, Moreno (2001) found a negative effect of Labastida's attack campaign on his preferences. I checked to see if the model would show different results for each period. Advertisement differentials show no relationship with preferences in the first period, and a negative one in the second one with the share of preferences for Labastida relative to the entire opposition. Thus, there are some grounds for Moreno's claim that negativity worked against Labastida.

In these models, both undecided and Cardenas' preferences lagged one week show significant estimators with negative signs. This means that, independently of the campaign differentials, a persuasion effect, a central aspect of Fox's strategy, occurred during the campaign.

Cumulative model

As mentioned before, all the previous models showed acceptable, but low r squares. Assuming that campaign effects occur only through a cumulative learning process of the information provided during the campaign, I used the accumulated value for the independent variables for every t.

This approach has two problems. The first one is the character of the independent variables when using their accumulated value. All accumulated data are by definition the product of a linear function, which can introduce some problems of specification to the linear regression model. I used the accumulated data because they are the result of the accumulation of differences in audiences reached by each candidate, and their change is not monotonous in time. Second, if it is reasonable to assume that communication does not have an immediate effect that can be observed every day, but rather unfolds as messages accumulate, some limit should be introduced to the accumulation effect, considering that messages, particularly ads, have diminishing effects as they are exhibited. I could have used only the accumulated audience reached by each ad, but this would suppose that every particular message was independent of the preceding one. Hence, in this model the dependent variable is the daily estimate of the Labastida's share of the vote, and the independent variables correspond to the accumulated campaign differentials. The explanatory value of the models increased dramatically (r^2 ranging between 0.82 and 0.86).

The model was run with the Labastida share of the Labastida-Fox total as dependent variable and the model did not capture any significant effect, neither in the entire period, nor in the period of major changes in Labastida's preferences (March 7th - May 21st).

A model based on Labastida's share relative to Fox and all opposition preferences, and Labastida minus all opposition campaign differentials was run. The three terms of the model relative to ads, news coverage and their

interaction have coefficients with $p \geq .05$ and $p \geq .01$, and the model shows very good fitness (r^2 of 0.86). The model for the specific period when Fox took the lead (March 7th, May 2nd) did not produce any significant coefficient. The size of the coefficients should not be interpreted as the actual size of the effect of advertisement or news presence differentials because they are very different in scale. The results are shown in Table 2.

TABLE 2 AROUND HERE.

Neither the undecided nor Cardenas preferences alone lagged one day showed any statistically significant coefficient, whereas in the weekly model they did. This is not contradictory. In this case the lagged period of one day is too short, and no effect occurs in such a short period of time.

The interactions between advertisement and adjusted news activity and the percentage of undecided respondents to the tracking polls lagged one day did not produce any significant estimator. Thus, the model failed to capture the expected persuasion effect of the differential campaigning on the undecided.

Interpretation

The model is not robust enough. It produces significant coefficients only for some of its terms, hence it has no predictive value; but it is sufficiently fitted to permit the identification of significant relationships and effects.

Accumulated advertisement differentials do not show any statistically significant effect when introduced alone. Accumulated qualified news presence differentials show a favorable effect for Labastida. Their interaction has a negative sign. What does this mean?

A very important assumption about the way communication effects work is proven. Once any of the campaign instruments, advertisement or news presence, reaches a certain point, any additional gain in the other one will not contribute to preferences, and will actually start showing diminishing returns. This does not mean that ads or news presence by themselves have a negative effect, it means that the combination of both reaches a saturation point and diminishing returns.

Following a stepwise procedure I looked for a more robust model. Only the interaction between ads and news explained variance in preferences.

It seems that increases in Labastida's ad differentials produced negative effects on his preferences. This was because most of the time the accumulated value of his presence in the newscasts had a positive differential both in terms of direction and quantity, and the effect shown by the negative coefficient of the interaction mentioned above made the resulting effect negative.

In the first 17 weeks, all opposition advertisement campaigns outnumbered Labastida by an average of 2,000 GRP with a maximum of 5,000 in the sixth week, when he did not air any ad. From the 17th week on, an intensive war for the available air-waves began. In the nine remaining weeks before the election, Labastida's campaign clearly outnumbered all the opposition campaigns in five, and almost equaled them in the other four, with a dramatic increase in the final week, when he outnumbered the opposition by almost 12,000 GRP. See Figure 2. From week 1 to 12, four messages dominated the air-waves: Labastida's pledge to fight corruption and the first realistic ad aimed to position him as a different and committed candidate, the first stage of Fox's campaign, "*ya, ya, ya…*", and Cardenas' direct attack on the government, "how dare they claim to have benefited the people". In the remaining five weeks that Labastida remained ahead but with a diminishing trend, he intensified his realistic campaign, with the offer of English and computer skills in public schools and the radical version of the "I do see you, I do listen to you" ad. Fox aired the strong attack with his farewell to the PRI ads (*Golondrinas*) and Cardenas made his nationalistic stand reaffirming his pledge to maintain the oil company in the government's hands[10].

In the following weeks, Labastida started the attack campaign against Fox together with some positive ads where crudeness was mitigated, but realism persisted. Fox responded with a very strong ad ("we do not forget they were responsible for…") that reminded of the worst moments in recent history, such as the 1968 student massacre and the economic crises, but by week 21, he continued the development of his main argument and the final phase was aired, "*México ya*", "come with us, we are a majority and the change is here". Probably concerned about a possible low turnout brought on by the idea that he had already won, he aired a direct invitation to vote. For a short time, Cardenas attacked Fox with an ad equating Fox and Labastida, reminding people that PAN voted with PRI to increase the VAT in 1996, and concluded with a character ad, "this is me", stressing his consistency.

If preferences are lagged three weeks with respect to the moment each of Labastida's ad series was aired, a very clear picture emerges. His crude and realistic ad campaign initiated the negative trend in preferences and the attack campaign stopped it. Why? First, this campaign style made no use of the advantages he had as an incumbent, considering that Zedillo at that time had good approval rates and the economy was doing reasonably well. Hence, this campaign was in many ways very similar to Fox's and Cardenas' ads where they were trashing the regime. Secondly, as I mentioned above, as long as the electorate based its evaluation of the incumbent PRI on the short term rather than on the crisis of 1994 and its consequences, or on a long term evaluation

[10] His father was the President who expropriated the oil companies in 1936.

of the long rule of the PRI, Labastida's chances were better. Fox and Cardenas took advantage of this situation and both of them set the long run as the framework for the evaluation of the incumbent party; and Labastida's campaign supported this claim with its crude recognition of long standing social problems that were the product of a distant and uncommitted political group. This combination was fatal to his campaign.

Did the attack campaign stop the negative trend of the preferences for Labastida, or did he reach some kind of "floor" where loosing additional support was extremely difficult? With the data I have I cannot answer this question. First, to sustain that Labastida's attack campaign stopped his fall would contradict Moreno's findings based on the use of panel survey data, and I do not have any better evidence to the contrary. Second, it is a fact that preferences for Labastida had reached the level of preferences the PRI obtained in July 1997. Thirdly, it could have been the combination of attack and positive campaigning that produced the change in the negative trend. I have no answer, but I prefer the hypothesis of the minimum level.

Labastida lost his relative advantage in the news after the first debate in the 17th week of the campaign. The literature on the effects of debates is very confusing. Political consultants claim they are crucial and academic literature tends to identify only short lasting effects. The candidates had agreed to two debates in the campaign. The first one took place on April 22nd and preferences for Labastida collapsed; he did not regain his positive position in the media until the 22nd week. That week Fox committed what was widely considered his worst mistake, which he twisted in his best media spin. By May 22nd, the campaign teams had not been able to agree on a second debate. In an impressive media event aired on national television and probably with the largest audience any political event had ever had in Mexico, the three candidates ended up in a public discussion about the debate. In that discussion Fox appeared irrationally stubborn demanding to have the debate that very day, repeating the word today ("*hoy*"), and the other two candidates insisted that the debate required time to be prepared. During the next two weeks, Labastida's balance in the media was slightly positive because the media trashed Fox for his stubbornness. This honeymoon with Labastida was short lived. Fox made his most brilliant move spinning the flaw to his advantage. The expression "*hoy*" (today) became a campaign motto for the rest of Fox's campaign, signaling his determination and the idea that it was time already to "take the PRI out of Los Pinos (the official residence)".

Summing up, no network effect can be documented, and a negative effect of the overuse of advertisement could have occurred against Labastida.

Network effects

The issue of possible bias and network effect on the electoral choice of voters is a very appealing hypothesis. In this case, findings based on aggregate data seem to be inconsistent with findings based on individual data.

The bias in coverage Lawson alone documents is the basis of his major conclusion, "Multinomial logit analysis of data from the Mexico 2000 Panel Study reveals that viewership of one major network, Television Azteca, was associated with substantial increase in support for opposition candidate Vicente Fox … influence of television news coverage may have been powerful enough to swing the election for Fox" (Lawson 2001:1).

The aggregate data analysis does not find any network effect. I tested the model used in the previous sections for the news treatment differentials of Televisa and Azteca separately, looking for specific network effects of the news coverage with no significant results in any model. The dependent variable is the Labastida's share of the vote, and the independent variables correspond to the campaign differentials accumulated, and the undecided and preference for the third candidate, both lagged one week. Both Televisa and Azteca coverage show statistically significant effects on the Labastida share of preferences (17.84 for Televisa and 71.93 for Azteca). The estimators are within the confidence intervals, that is, there is no significant difference among them. This is not consistent with Lawson's conclusions.

Why a documented individual network effect does not appear when using aggregate data? Because the individual data used by Lawson overestimates overall exposure to electronic news media.

With the same data used by Lawson and two national polls taken in February and June of 2000 with similar information, Lawson's finding of an increase in support for Fox among Azteca viewers is corroborated. But it is well known that self reported use of media is always exagerated (Zaller 1996). Comparing the actual audience of news programs as meassured by the audience meassurement service, the size of the population of non viewers of news programs is underestimated in the survey data. This error is what leads to a wrong conclusion.

The individual effect (the estimator of the logistic model) of watching TVAzteca versus not watching any news program is estimated as follows:

$$[P(Fox)/P(Labastida)]_{Azteca}/[P(Fox)/P(Labastida)]_{None} = \exp(\beta_{Azteca})$$

The model produced a statistically significative $\exp(\beta_{Azteca})$ of 7.8 in the panel wave of June. This "gain" favorable to Fox as an effect on the individual of watching news in TVAzteca is not a probability. The overall impact of this individual effect on the aggregate vote depends on the actual size of the audience of Azteca's news programs relative to the total population. In the panel wave of June this audience is estimated as 22% of the sample, versus 16% of non viewers.

This grossly overestimates Azteca's audience and underestimate non viewers. The actual proportions estimated by the audience measurement service is 9% viewers versus 77% non viewers. The overall impact of the individual effect on the population using the audience sizes estimated in the poll is:

$$\text{Azteca effect} = 7.8\left(\frac{22}{16}\right) = 10.73$$

The actual effect using the audience measurement service estimates is:

$$\text{Azteca effect} = 7.8\left(\frac{9}{77}\right) = 0.88$$

That is, the individual effect captured by the logistic model is insignificant in the aggregate vote. This explains why this documented individual effect does not appear in the analysis based on the aggregate data.

Conclusions

Based in aggregate level data, this research shows that media effects can be identified in the presidential campaign of Mexico in 2000, but much variance in preferences remains unexplained by these media effects alone. That means that the demise of the PRI resulted from a negative retrospective vote that created strong structural trends against it, but these trends would have been insufficient to bring about the change in the presidency were it not for media effects produced by the advertisement and the media coverage of the campaign. Variance in the size and direction of the effects of the media instruments present during the campaign did not produce variance in preferences on a timely fashion, they did occur through a cumulative learning process. Fox's campaign instruments and presence in the news media alone is insufficient to explain changes in preferences for the PRI candidate. Only the accumulated presence of all opposition instruments and presence in the media coverage of the campaign explain the decline in preferences for Labastida.

A clear priming effect induced both by paid and free media around the idea of change produced a significant change in vote choice among a significant number of Mexican voters. All opposition ads concurred on one single proposition: it was time for a change in Mexico and the long run performance of the incumbent PRI justified this claim. The incumbent PRI campaign contributed to this message by trying to portrait the candidate as different to the traditional PRI political class and renouncing to the short run approved performance of Zedillo. When Labastida had his best advantage in the media before the debate, his ad campaign cancelled any possible positive effect he could obtain from his incumbent status. When he began to lose this advantage after the debate, his dramatic increase in the use of ads worked against him because of the negative combined effect of news and ads. The public was saturated.

Even though there is no complete agreement about probable bias on the media coverage of the campaign by the two national networks, no network effect can be documented.

Some important lessons can be drawn about the general process of communication and the measurement of media effects in presidential campaigns.

Campaign differentials are a necessary condition for identifying effects because messages cancel each other out. Media effects occur among those individuals non-crosspressured who have received (not only been exposed to, but accepted) one message.

The general idea that communication takes place through a learning process is correct. It seems that the communication effects occur only

through a learning process by which information ends up having an effect in the long run. Then, effects are more likely to be measured using accumulated data instead of periodical data. In this paper, I assumed that this process of accumulation occurs in a linear way. This assumption is not precise enough. It would be necessary to identify the actual way the diminishing effects occur, ideally with each communication activity, to have a correct estimation of the accumulated effect of each of them.

Aggregate data is a necessary instrument of the actual reach of mass communication and should be used to put it in its real dimension and to properly estimate the overall influence of individual effects. Consistency between individual data effects and aggregate data consequences is a necessary condition of sound inferences.

Finally, political communication is a unified process where ads and news presence act together, and they multiply the diminishing returns effect of communication.

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Annex I. Surveys Methodologies and Report

Mexico 2000 Panel Study

The Mexico 2000 Panel Study consists of approximately 7,000 interviews in five separate surveys over the course of the campaign, using a hybrid panel/cross-sectional design. Its first round, conducted in February 19-27, polled a national cross-section of 2,400 adults. This sample was then randomly divided into two groups, the first of which was re-interviewed in the second round (April 28 to May 7). Because of attrition, this wave included approximately 950 respondents. In the third round (June 3-18), pollsters re-interviewed all of those in the second randomly selected subset of the first round, plus approximately 400 respondents interviewed in the second round. Finally, in the fourth round (July 7-16), pollsters re-interviewed as many of the participants as possible from all previous rounds. This included almost 1,200 respondents who had been interviewed in the second and third rounds, as well as just over 100 respondents who had only been previously interviewed in first. This panel sample was supplemented with a new cross-section of approximately 1,200 fresh respondents.

Interviews for the panel component of the project were conducted by the polling staff of *Reforma* newspaper, under the direction of Alejandro Moreno. Polling for the post-electoral cross-section was conducted by MORI de México, under the direction of Miguel Basañez and Pablo Parás. Both sets of surveys contain weights designed to make the original sample populations in both cross-sectional polls comparable to the background population.

Polling sites for the first round of the panel and the post-electoral cross-section were selected at random from the Federal Electoral Institute's (IFE) list of polling stations. Ten respondents were interviewed at each site, meaning that 120 sites were selected for the post-electoral cross-section and 240 for the first round of the panel. At each site, interviewers began at the address listed given by the IFE and polled potential respondents according to a pre-arranged formula, using age and gender quotas to secure a representative breakdown of respondents. For the second round of the panel, a randomly chosen sub-sample of sites from the first round was selected for re-interviewing. For the third round, interviewers polled all sites not included in the second round, plus a randomly chosen sub-sample of sites from the second round. In the fourth round, interviewers attempted to contact all respondents from the first round.

During the administration of the panel itself, supervisors employed the following method to ensure data reliability. In the first wave, interviewers recorded respondents' birth dates and (for those who agree to participate in

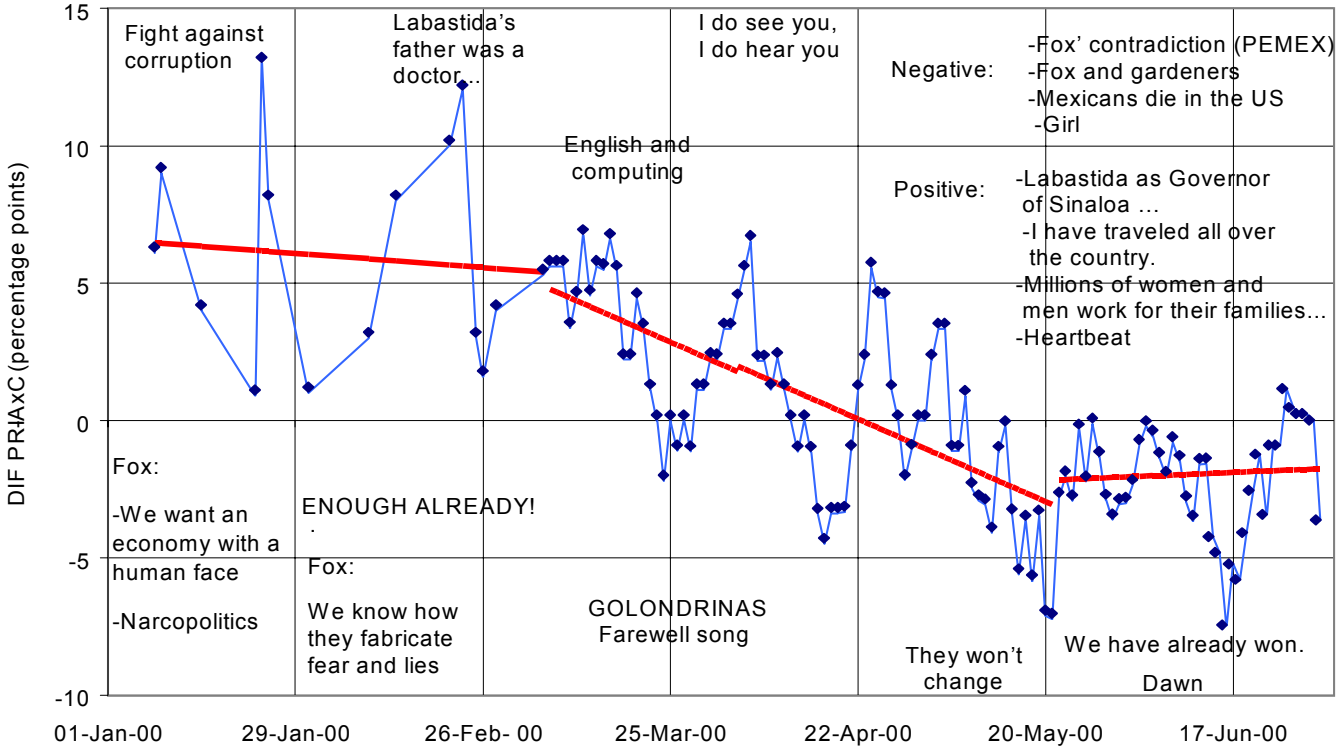
subsequent rounds) exact addresses. Immediately upon returning from the field, interviewers then surrendered all information to the administrator of the project. Before each subsequent round, interviewers were given the address, gender, month of birth, and year of birth (though not the day of the month) for each respondent they were to re-interview. At the start of the interview, pollsters again recorded respondents' complete birth dates, including the day of the month in which respondents were born. By matching days of the month in each round of the panel, supervisors were thus able to verify after the fact that interviewers did not inadvertently contact the wrong person in the household or (less likely) fabricate the interview. Following each wave of the panel, supervisors re-contacted up to 20% of respondents in each wave to verify the interviews (including both random checks and checks targeted at those respondents whose birthdates did not match up). Finally, after the entire panel set was assembled, key demographic indicators were matched and suspicious cases flagged for follow-up. Investigation of these cases led to the deletion of a small number of additional interviews, reducing the total number of respondents in the first round of the panel to 2,355. No information on response rates has been published.

Arcop´s tracking poll.

Arcop tracking poll consisted of 21 surveys of 1,400 interviews each one. Each poll was taken in a week period, 200 interviews per day. The first survey initiated on March 3rd and the last one in July 1st, one day before election day. During periods of presidential debates (April 26th to 28th and May 24th to 30th) and in the last two weeks of the campaign (June 19th to July 1st) the sample size was increased to 400 interviews per day instead of 200. To construct the daily tracking, after one week was completed, 200 interviews were substituted every day. One hundred polling sites were selected at random from the Federal Electoral Institute's (IFE) list of polling stations. Polling sites were selected through a systematic sampling with PPS, where the precinct-size corresponds to the number of registered voters in the precinct for the upcoming election. Twenty respondents were interviewed at each site. In each polling site an interview was attempted every five households following a random start method. Age and gender quotas were used to secure a representative breakdown of respondents. No record of response rates was kept.

Figure 1.

Advertising difference in electoral preference for PRI minus preference for the Alliance for Change (Alianza por el Cambio)



Sources: January 6th to March 6th, published surveys.
After March 7th: ARCOP

Figure 2.

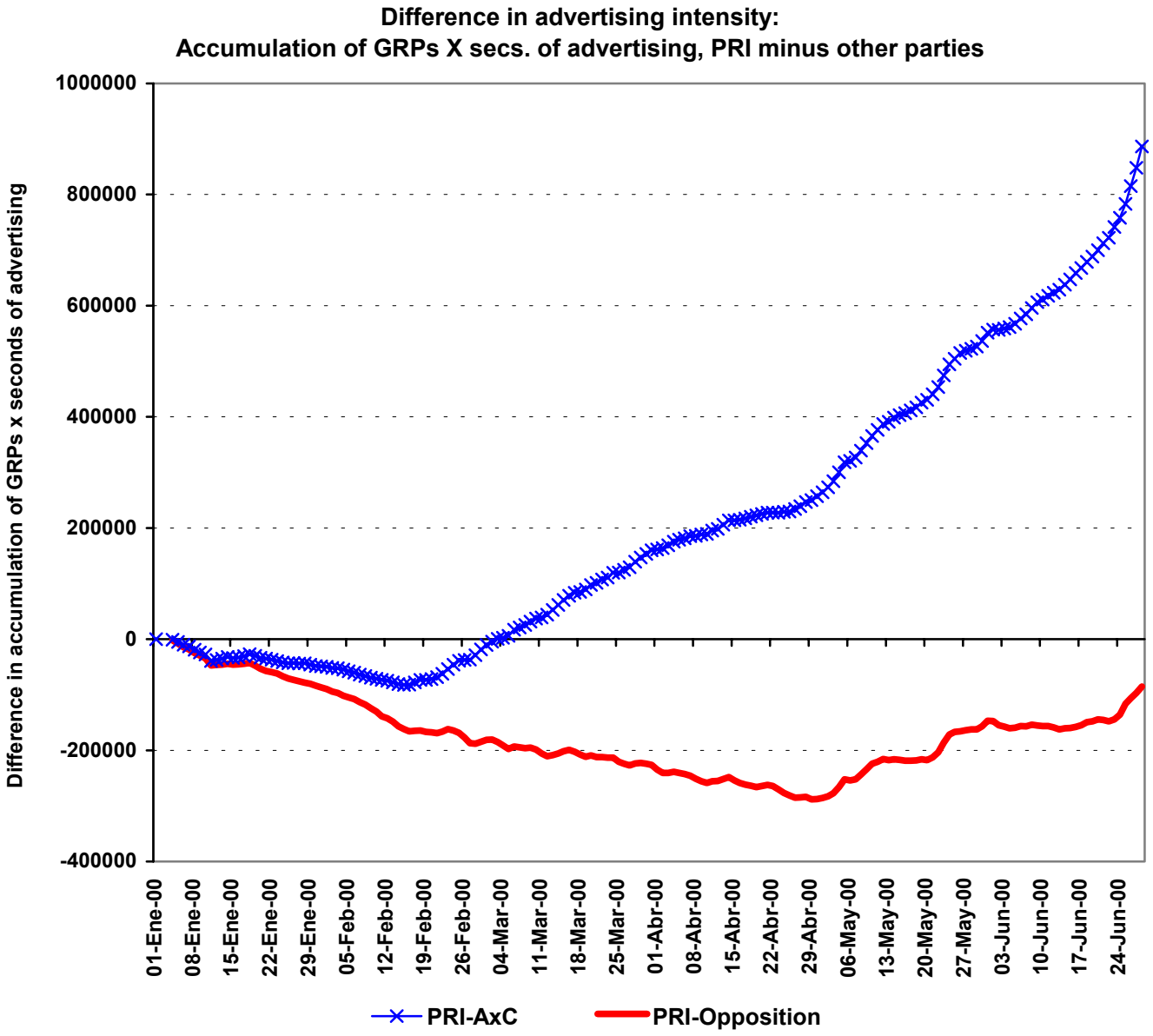

Difference in advertising intensity:
Accumulation of GRPs X secs. of advertising, PRI minus other parties
Difference in accumulation of GRPs x seconds of advertising
1000000
800000
600000
400000
200000
0
-200000
-400000
01-Ene-00
08-Ene-00
15-Ene-00
22-Ene-00
29-Ene-00
05-Feb-00
12-Feb-00
19-Feb-00
26-Feb-00
04-Mar-00
11-Mar-00
18-Mar-00
25-Mar-00
01-Abr-00
08-Abr-00
15-Abr-00
22-Abr-00
29-Abr-00
06-May-00
13-May-00
20-May-00
27-May-00
03-Jun-00
10-Jun-00
17-Jun-00
24-Jun-00
PRI-AxC
PRI-Opposition

Table 1. Favorable news coverage in time dedicated to the candidates by network according to Reforma and Chapell Lawson[1].

	Total coverage			Favorable coverage					
	Reforma [Jan 1-June 28]			Reforma [Jan 1-June 28]			Chappell Lawson[2]		
	Televisa %	Tv azteca %	Total %	Televisa %	Tv azteca %	Total %	Televisa %	Tv azteca %	Total %
FLO	33	36	35	42	48	45	59	36	na
FOX	36	38	37	33	34	34	36	46	na
CCS	30	26	28	41	31	36	42	44	na

[1] IFE information is not used because in average 98% of the coverage is reported as “neutral".

[2] Random selection of programs between February and June.

Dates selected: Feb 25, March 13,17,20,22,27; April 25; May 4, 8, 12; June 1, 13, 14, 28, 30.

naNot available.

Figure 3.

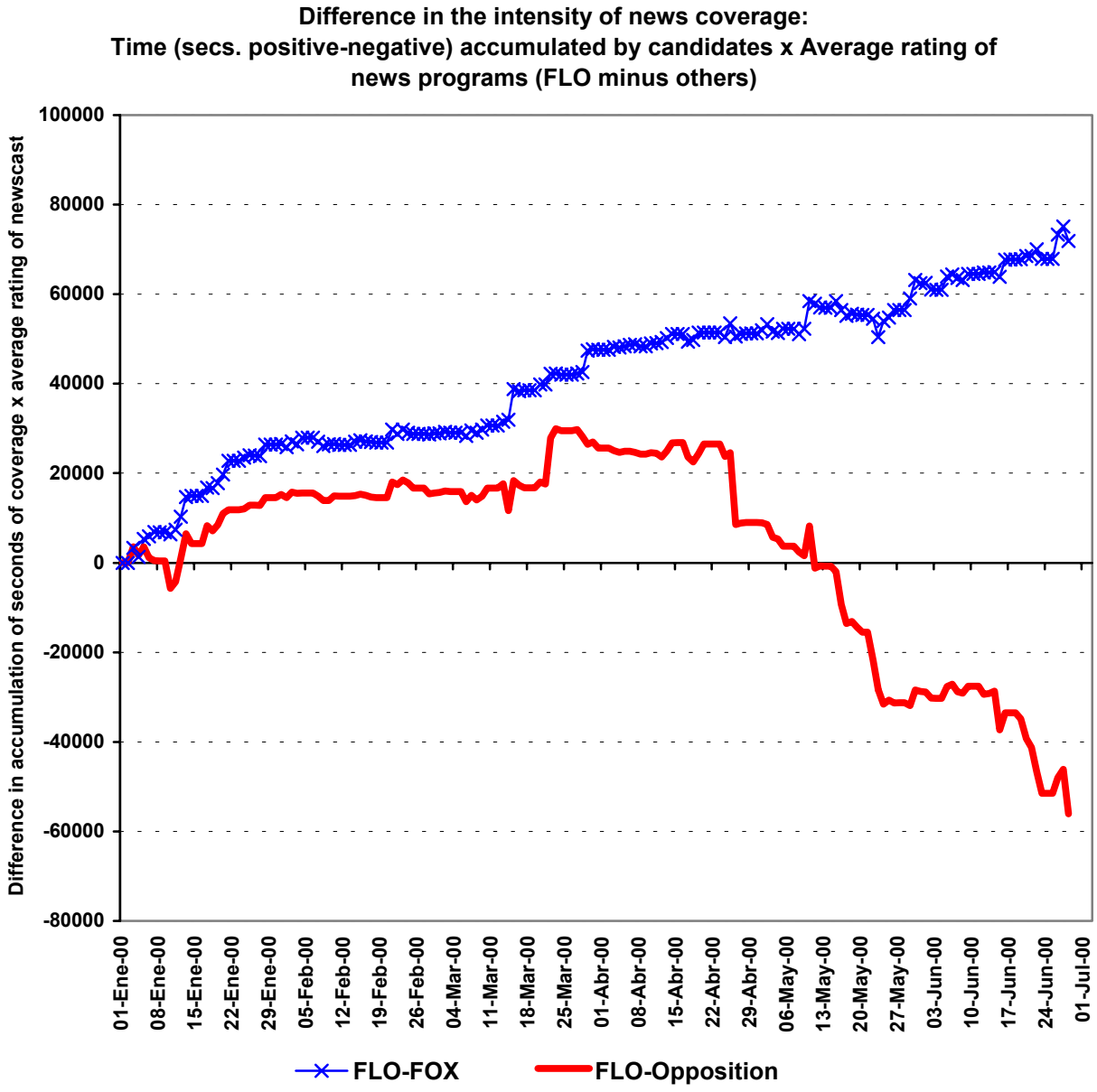

Difference in the intensity of news coverage:
Time (secs. positive-negative) accumulated by candidates x Average rating of news programs (FLO minus others)
Difference in accumulation of seconds of coverage x average rating of newscast
100000
80000
60000
40000
20000
0
-20000
-40000
-60000
-80000
01-Ene-00
08-Ene-00
15-Ene-00
22-Ene-00
29-Ene-00
05-Feb-00
12-Feb-00
19-Feb-00
26-Feb-00
04-Mar-00
11-Mar-00
18-Mar-00
25-Mar-00
01-Abr-00
08-Abr-00
15-Abr-00
22-Abr-00
29-Abr-00
06-May-00
13-May-00
20-May-00
27-May-00
03-Jun-00
10-Jun-00
17-Jun-00
24-Jun-00
01-Jul-00
FLO-FOX
FLO-Opposition

Table 2. MODEL SUMMARY

Linear Regression Model: Y_t=(%PRI-%Opposition)$_t$

	Variables[1]	Step 1.1 Advertising Exposure[2]: Coeff.	Stand. Error	Step 1.2 News Coverage Exposure[2]: Coeff.	Stand. Error	Step 2 Advertising and News Exposure[2]: Coeff.	Stand. Error	Step 3 Advertising, News and Advertising X News Exposure[2]: Coeff.	Stand. Error
	Constant	-1.74	(1.05)	-6.01	(1.84) **	-6.91	(2.09) **	-16.96	(5.36) **
V_1	(%PRI-%Opposition) $_{t-1}$	0.91	(0.04) **	0.80	(0.05) **	0.79	(0.06) **	0.74	(0.06) **
V_2	**Advertising Difference: (PRI-Oppos.) $_t$**	**0.30**	**(0.44)**			**0.45**	**(0.45)**	**6.34**	**(2.90) ***
V_3	**News Coverage Difference : (PRI-Oppos.) $_t$**			**4.38**	**(1.59) ****	**4.38**	**(1.60) ****	**16.29**	**(6.04) ****
V_4	**Advertising $_t$ X News Coverage $_t$ Difference**							**-7.39**	**(3.60) ***
P	**Period (Dummy, 1: Mar 7th-May 21st, 0: else)**								
PV_1	(%PRI-%Opposition) $_{t-1}$	-0.01	(0.07)	0.08	(0.09)	0.08	(0.09)	0.14	(0.10)
PV_2	Advertising Difference: (PRI-Oppos.) $_t$	0.75	(2.37)			-4.44	(4.91)	3.43	(13.56)
PV_3	News Coverage Difference: (PRI-Oppos.) $_t$			0.77	(1.93)	4.49	(3.96)	5.00	(4.45)
PV_4	Advertising $_t$ X News Coverage $_t$ Difference							-8.63	(15.80)
PV_5	Advertising X Undecided $_{t-1}$ Difference	-0.09	(0.26)			0.45	(0.51)	0.53	(0.54)
PV_6	News Coverage $_t$ X Undecided $_{t-1}$ Difference			-0.19	(0.35)	-0.43	(0.44)	-0.72	(0.90)
PV_7	Undecided $_{t-1}$	-0.02	(0.17)	0.08	(0.29)	0.00	(0.37)	0.15	(0.97)
	Adjusted R2	0.84	(2.41)	0.852	(2.35)	0.85	(2.36)	0.85	(2.33)
	F-statistic	161.94	**	171.563	**	113.87	**	95.83	**

[1] GRPs and News Coverage variables were reescalated divided by 100,000.

[2] GRPs * seconds on air.

* p<=.05 **p<=.01

(Period Analyzed: January 2nd-June 28th)

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