Appendix C
Venezuela Voters' Survey and the Maisanta Database

Our original data from Venezuela provide an important empirical referent discussed in the text. In this Appendix, we provide context and background on the electoral logic of social spending and clientelistic exchanges in contemporary Venezuela, describe the "Maisanta" database as well as our original survey data, and discuss several threats to valid inference in more detail than we do in the text.

C.1 EMPIRICAL CONTEXT: THE ELECTORAL LOGIC OF SOCIAL SPENDING IN VENEZUELA

C.1.1 The Recall Campaign of 2003–2004

Venezuelan politics in the contemporary period provides a particularly useful opportunity to study the electoral logic of social spending. First, the election of Hugo Chávez Frías in 1998 followed a period of party system decline and then of partisan realignment that had crystallized into a new set of political loyalties by around 2003. Second, beginning in late 2003, the government launched an intense electoral campaign against a recall referendum that threatened to remove Chávez from office in 2004. Third, also beginning in 2003, the incumbent government was endowed with a rapidly expanding budget (due to the oil price boom associated with the United States–led invasion of Iraq) that it used to create a range of targeted social programs. Finally, and perhaps most importantly from the social-scientific perspective, during the recall campaign, the Venezuelan government was able to exploit a remarkable source of individual-level data on political ideology and turnout propensity, which has also become widely publicly available in Venezuela. Together, these features make Venezuela a useful case for studying the relationship between ideology,

turnout, and distributive politics. In this section, we describe the empirical context, before turning to our data and analysis.

After a long political and economic crisis that followed a decline in government oil revenues during the 1980s and 1990s, and in the wake of the near-total collapse of electoral support for the two parties that had dominated Venezuelan politics for most of the democratic period after 1958, Hugo Chávez Frías was elected president in 1998. Electoral support for Chávez in 1998 came from a somewhat more diffuse group of voters in "class" terms than would be the case later in his presidency, and the new president was elected with a substantial mandate and very high initial approval ratings. However, continued low oil prices, together with the apparent inability to fulfill promises on public spending to relatively poor Venezuelans, implied substantially declining popularity rates for Chávez. The Venezuelan polity also became substantially polarized between pro-Chávez supporters and the political opposition, a polarization that crystallized in 2002 and 2003 – first with the failed coup attempt of April 2002, which was accompanied by violent confrontations in the streets of Caracas between pro- and anti-Chávez groups, and then in the nearly three-month general strike that was concentrated in the oil sector at the end of 2002 and beginning of 2003. Although managers and labor leaders in the state-owned oil company, along with other leaders of the strike, did not succeed in removing Chávez from power, the president's popularity was at an all-time low in the wake of the strike (see Figure C.1).

After the end of the strike, and given Chávez's low popularity at the time, the political opposition instead sought to take advantage of a clause in the new Venezuelan Constitution, approved by voters in 1999, that allowed the public to vote on a referendum to recall any elected official from office, once more than half of that official's term in office had transpired. The requirements were, first, that 20 percent of registered voters solicit a referendum by signing a petition, and, second, that a number greater than or equal to the number of voters who elected the official in the previous election vote to revoke the official's mandate (see Article 72, Constitución de la República Bolivariana de Venezuela).[1] Because Chávez had been re-elected as president in 2000, and given a six-year term for the presidency, the earliest possible date for a recall was the end of 2003 or beginning of 2004. In addition to the recall petition launched to recall Chávez from office, there was a petition drive intended to recall deputies from the opposition; however, although many voters signed recall petitions against opposition deputies, this referendum was not ultimately held, as the courts ruled that National Assembly elections were proximate enough that a recall was not warranted. The presidential recall was subject to some legal delays but was eventually held on August 15, 2004.

[1] An additional requirement was that at least 25 percent of registered voters had to vote in the recall referendum itself.

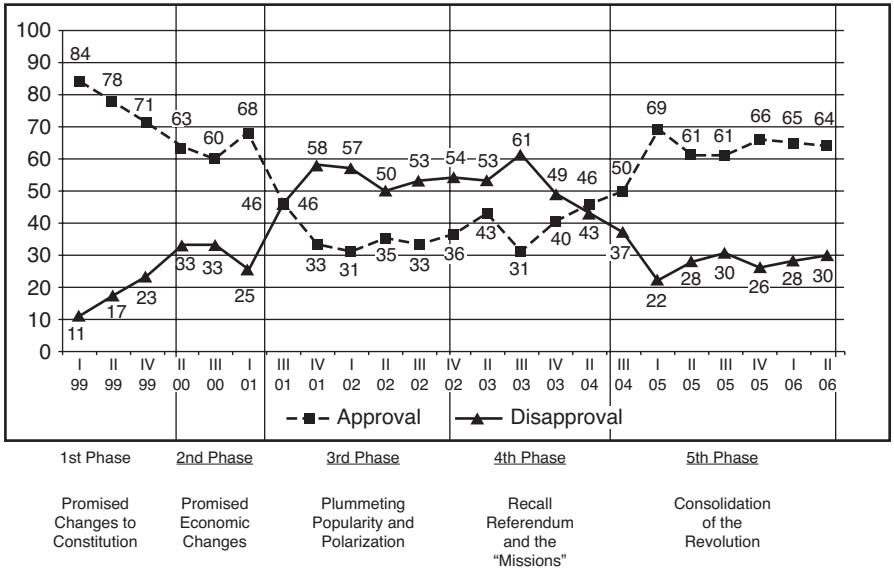

FIGURE C.1. Approval Ratings of Hugo Chávez (1999–2006). *Source*: KELLER y Asoc.: Estudios Nacionales de Opinión Pública, n = 1,200, 2nd quarter 2006.

At the time the recall referendum was launched, in early 2003, Chávez's approval had sunk to between 30 and 40 percent (Figure C.1); by the time the referendum was held on August 15, 2004, however, credible public opinion polls put Chávez's approval rating above 50 percent and his disapproval rating at around 35 percent. The "No" vote on the referendum (i.e., the vote to retain Chávez in office) then took nearly 60 percent of the vote.[2] After the recall, this president's popularity was clearly reinforced, with Chávez again taking around 60 percent of the vote in the presidential elections of December 2006, although in subsequent years he has sometimes faced fading public opinion ratings and additional electoral challenges. For present purposes, the key question centers

[2] Some members of the political opposition asserted (and continue to assert) that fraud took place in the recall elections of 2004, despite the fact that the results were certified by the Carter Center and other international observers after an audit of paper ballots in randomly selected voting centers. One allegation was that Chávez supporters on the National Electoral Council (CNE) knew the seed of the random-number generator in advance and thus could alter ballots in those voting centers not audited by election observers. Yet there is no credible claim that the audited voting centers were not themselves randomly selected, and the percentage of votes for the "No" in the audited sample were very close (and within the margin of sampling error) to the vote share reported by the CNE for the entire universe of voting centers. A simple extrapolation from the sample to the universe thus suggests that the argument for fraud is unconvincing. In addition, the "No" vote reported by the CNE closely tracked credibly public opinion polling in the days prior to the recall. For further discussion, see Carter Center 2004; for the view that the election involved fraud, see Hausmann and Rigobón 2004.

on explaining the recovery of the government's popularity between 2003 and 2004. What happened?

C.1.2 Targeted Social Spending Through the Missions

As other analysts have emphasized, at least part of the explanation for the Chávez government's restored popularity after 2003 is to be found in the establishment of the so-called "Missions," or social programs aimed at providing health care, adult literacy training, scholarships for high school degrees, subsidized food, and other goods and services to the Venezuelan population. Buoyed by positive developments in world oil markets beginning in spring 2003, as the United States–led coalition prepared to invade Iraq, and also by increased fiscal contributions by the oil parastatal PDVSA and international oil companies working in Venezuela, the fiscal coffers of the Venezuelan state swelled in 2003 and particularly in 2004 and 2005. Public spending nearly doubled in real terms between 2003 and 2006, rising from around Bs. 23 trillion in 2003 (measured in 2000 *bolívares*) to around 42 trillion in 2006 (MPD-SISOV 2005, 2006). Growth in social spending (on health care, education and other categories) was particularly marked, and the sharpest increases came after 2003; for instance, real social spending per capita as a whole rose more than 20 percent between 2003 and 2004. Real per capita spending on public education rose over 75 percent between 1998 and 2004, from 3.2 to 5.3 percent of GDP (Dunning 2008: 223–226). One important channel for this increased social spending was the so-called Missions.

The Missions comprise a panoply of social programs with differing aims and characters. Among the first important Missions was one called Barrio Adentro ("Neighborhood Within"), which was initially developed in collaboration with the office of the mayor of Caracas but was soon expanded nationwide by the central government; inter alia, this Mission puts Cuban doctors in the poorest Venezuelan neighborhoods as a means to provide primary and preventative care. The success of Barrio Adentro and other ventures apparently helped inspire the eventual proliferation of other Missions, from the network of subsidized supermarkets (Mission Mercal) to programs for adult literacy (Mission Robinson) and scholarships to finish high-school degrees (Mission Ribas). As previous analysts have emphasized, these programs differ along a range of dimensions. Some of the Missions, such as Mercal or Barrio Adentro, essentially provide local public goods (or at least goods that are broadly supplied and essentially non-excludable), whereas others provide benefits such as scholarships (Ribas and Robinson) that are highly targeted and highly excludable; we study the distribution of the benefits from the latter programs in the text.

We should be clear that we by no means assume at the outset that the Venezuelan Missions were intended to be used either for mobilization or persuasion of voters prior to, during, and after the recall referendum of 2004 – although the institutional detail we discuss later strongly suggests the

plausibility that this was the case. Nor do we presume that clientelist quid pro quos are necessarily involved; indeed, as discussed in Chapter 1, it is useful to probe the logic of broker-mediated distribution even in the absence of clientelism. The various Missions vary in the class basis of their appeal, but they are generally programs that benefit poorer Venezuelans, and some of them are akin to means-tested programs.[3] The fact that poorer Venezuelans disproportionately received benefits under the Missions might suggest that the programs are "targeted" politically, given the natural constituency of the Chávez coalition among poor voters, yet this is obviously not evidence that benefits were allocated by the incumbent with electoral goals in mind; to put the point bluntly, a politician maximizing a social welfare function for relatively poor voters might conceivably choose a similar distribution of benefits. Our null hypothesis in the text is that political variables – such as the partisan affiliation of individual voters – do not explain receipt of benefits under the program, once we have controlled for income or its correlates; we will be interested in whether we can reject the null in favor of the alternative hypothesis that variables such as political affiliation (more to the point here, incumbent perception of individual affiliation or tendencies) help to predict program participation, once income and other variables are controlled. The data can therefore help us distinguish the extent to which political or electoral logics played a role and, of greater interest to us, which political or electoral logics played a role.

C.1.3 The Structure of the Maisanta Command

The central pillar of the incumbent government's campaign against the recall was the so-called "Maisanta Command" ("*Comando Maisanta*"). According to a government website, the "strategic objectives" of the Maisanta Command were as follows (the phrasing in Spanish is in the footnotes):

> incorporate the base in the pursuit of votes; avoid [electoral] fraud; consolidate previous gains; attract indecisive sectors; neutralize the growth of the adversary; isolate the coup plotters; and incorporate the politically-excluded.[4]

Here we find a striking mix of apparent "loyal voter" and "swing voter" strategies.[5]

[3] The program with the broadest appeal is probably Mission Mercal, the chain of subsidized food stores, from which around 60 percent of Venezuelans report having benefited in public opinion surveys. Notwithstanding the breadth of benefits, the raison d'être of this Mission – the provision of cheap, subsidized food – suggests that they too will disproportionately benefit poorer voters.

[4] The original Spanish, in order of the bullet points, is as follows: "*incorporar a la base la búsqueda del voto; evitar el fraude; consolidar lo que se tiene; atraer el segmento indeciso; neutralizar el crecimiento del adversario; aislar a los golpistas; incorporar a los excluidos políticos*." http://www.gobiernoenlinea.ve/miscelaneas/maisanta1.html. Accessed September 2009; this page appears no longer to be active as of December 2012.

[5] For instance, the intention to "incorporate the base in the pursuit of votes," "consolidate previous gains," and also "incorporate the politically-excluded" (in the context of a Venezuelan politics in which unregistered, disenfranchized voters would tend to be poor and would also tend to support

Indeed, qualitative detail on the structure and objectives of the Maisanta Command suggests the intent to use information on political loyalties recorded in Maisant to boost the incumbent's vote share in the recall campaign – and, perhaps, to guide the distribution of resources. The organizational structure of the "Comando Maisanta" or Maisanta Command reveals at least the potential for substantial political direction in the allocation of resources and benefits. At the top, the National Maisanta Command included as its commander-in-chief (Jefe del Comando) the president, Hugo Chávez Frías; its other members included such leaders of the Chavista coalition as Diosdado Cabello (in charge of Logistics and, at the time, candidate for governor of the state of Miranda); William Lara (Organization; also a deputy in the National Assembly); Jesse Chacón Escamillo (Communications Strategy; also the Minister of Communication and Information); William Izarra (Ideology; also the founder of MBR 200, the predecessor organization of Chávez's Movimiento Quinta República, MVR); and Haiman El Troudi (Secretary and at the time Chávez's chief-of-staff). It is especially striking that Rafael Ramírez, then the Minister of Energy and Mines (now called the Minister of Popular Power of Energy and Petroleum) was designated as the head of "Electoral Mobilization and Missions" for the National Maisanta Command. With the conclusion of the strike that had crippled the oil sector for nearly three months at the end of 2002 and beginning of 2003, the increasing assertion of government control over the state-owned oil company PDVSA, and the rise in world oil prices in the wake of the United States–led invasion of Iraq, oil began to play a much more direct role in financing public spending than it had in earlier years after the election of Chávez in 1998; PDVSA began to finance the various Missions in enormous amounts, both through direct transfers to the various Missions as well as through transfers to various funds at the national social and economic development bank (BANDES).[6] Important for our analysis that follows, the Ribas Mission (which provides scholarships to allow students to finish high school) was administered by PDVSA and the Ministry of Energy and Petroleum, rather than the Ministry of Education. As one Venezuelan television ad has put it, "Now oil has many

Chávez; see Ortega and Penfold 2008 on this point) seems clearly to point to core voter strategies. However, the desire to "attract indecisive sectors" and "isolate the coup plotters" (presumably by attracting elements of the moderate opposition) seems to illustrate classic "swing voter" logics.

[6] In 2004, for instance, PDVSA reports having transferred, inter alia, Bs. 916 billion (around US$486 million, at the official exchange rate for 2004) to the Misión Ribas, which funds secondary education; Bs. 197 billion (US$105 million) as of May 2005 to Misión Barrio Adentro (Mission Neighborhood Within), the primary health care Mission that sends Cuban doctors to Venezuela to serve as primary care physicians in poor neighborhoods; Bs. 179 billion (US$95 million) to the Misión Mercal, a subsidized supermarket chain; and other funds for a technical education mission (Misión Vuelvan Caras), for a mission that has registered previously unregistered voters (Misión Identidad), for a mission that provides assistance to indigenous communities (Misión Guiacaipuro), and for the construction of the Bolivarian University of Venezuela (UBV) as well as scholarships for students at the university. Other sources report PDVSA's total social expenditures in recent years at over US$7 billion per annum. See Dunning 2008, Chapter Four, for further discussion and sources.

Missions" (Dunning 2008). One such mission, given Minister Ramírez's role in the National Maisanta Command, was very plausibly electoral mobilization or persuasion.[7]

The distribution of resources and the flow of information was in turn organized through lower-level units that supervised local activists – brokers, in the terms of our book. Under the National Maisanta Command in the organizational hierarchy of the Maisanta project appear the State Maisanta Commands, the Municipal Maisanta Commands, and the Maisanta Command for Large Precincts (Parroquias).[8] According to the government, the objectives of these state, municipal, and neighborhood units were, inter alia, to "obtain, administer, and distribute resources and materials necessary to lend support to the Mission [i.e., the Mission Florentino or Maisanta]; install and operate the platform of technological assistance of the Mission [the Maisanta user interface]; design instruments; teach and instruct; gather and process information; periodically emit reports; evaluate and follow the Mission; [and] report to the National Maisanta Command the status of the Mission."[9] Then, under these national, state, municipal, and district commands in the organizational hierarchy of the Comanda Maisanta appear the units that are described by the government itself as the "most important link of the Maisanta Command, at the level of the voting center," that is, the so-called Units of Electoral Battle (Unidades de Batalla Electoral, UBE).[10] These units were to be organized geographically around the sites that are chosen throughout the country by the National Electoral Council (CNE) as voting centers.[11] According to the government, the UBEs would incorporate as their members elements of "all the Bolivarian factors (Missions, political parties, social movements, student and youth fronts, community organizations, etc.)" and would have a leadership that would be "democratically elected (allowing) the natural leadership of the community to prevail."[12]

According to the government, the UBEs would have the following functions; inter alia, they would:

coordinate the work of the electoral patrols [described below]; create an inventory of resources and possibilities available in the area of influence of each voting center; attend politically to the electoral base organized by the patrols; mobilize voters, particularly on the day of the referendum; implement networks of social intelligence with the goal of

[7] As a further example, PDVSA's financing of the Identity Mission, which helped new voters register for the first time, is particularly striking in light of Minister Ramirez's role in the Maisanta Command.

[8] See http://www.gobiernoenlinea.ve/miscelaneas/maisanta/maisanta6.html.

[9] Quoted from http://www.gobiernoenlinea.ve/miscelaneas/maisanta/maisanta6.html. Accessed September 2009.

[10] Quoted from http://www.gobiernoenlinea.ve/miscelaneas/maisanta/maisanta8.html. Accessed September 2009.

[11] These voting centers are often located at primary or secondary schools as well as other sites; there is substantial variance in the number of voters that may vote at any individual voting center.

[12] Ibid.

detecting illicit activities on the part of the opposition; apply the instruments of public opinion investigation (sondeos de opinión); implement measures to estimate the vote intention on the day of the elections; identify the Bolivarian electoral potential in the area of the voting center; establish the electoral map, through a census of the community and the information that is received through the structure of the Maisanta Command; identify voters who do not have ID numbers [*cédulas*], those who are not registered in the electoral registry, or those who need a change of address[13] and mobilize them [to apply for *cédulas*].[14]

Finally, much of the work of the UBEs on the ground would be carried out by electoral "patrols" (patrullas) comprised of approximately 10 people each. These patrols would "work with a list of voters supplied by the UBE and visit house-by-house the voters included in the [Maisanta] database, giving to each compatriot all information associated with the [recall] process . . . [and] identify vote intentions."[15] It is thus clear that, among the raisons dêtre of the Maisanta software, the intended users of the interface included brokers at the grassroots level, including members of the electoral patrols. In addition to the fact that electoral patrols were supposed to "visit house-by-house the voters included in the database," as just noted, a "read-me" text file that accompanies the Maisanta user interface explains that the software's function:

> is to facilitate consultations by persons or groups of citizens of a voting center or any community. It serves as support for the mission and vision of the Battle of Santa Inés [i.e., the Maisanta Command]. The need to create this solution stems from different sources [including the need to] motivate electoral participation [and provide] technical support for the work of the patrols (UBEs).

Additional advantages supplied by the Maisanta software, according to the accompanying text document, include the ability it offers militants to "offer consultation services to the neighbors of your community" and the "low technical requirements" needed for its operation.

The organizational structure created by the Comando Maisanta was thus clearly intended to be used for voter mobilization and/or persuasion as well as for communication between local party militants and national leaders in the Chávez coalition. The question for analysis, though, is the extent to which the benefits of the Missions were allocated with electoral goals in mind – both during the recall campaign and, especially, in subsequent years – and whether and under what conditions they were used to "mobilize" loyal constituents or instead to "persuade" swing voters.[16] This is the question we have taken up in the text.

[13] I.e., voters whose addresses are outdated in the electoral registry.

[14] Quoted from http://www.gobiernoenlinea.ve/miscelaneas/maisanta/maisanta8.html. Accessed September 2009.

[15] Quoted from http://www.gobiernoenlinea.ve/miscelaneas/maisanta/maisanta9.html.

[16] Several recent papers have contributed to a small but growing recent literature on the electoral logic of social spending under the Venezuelan Missions; see Ortega and Penfold-Becerra 2006, Rosas and Hawkins 2008, and Penfold-Becerra 2006.

C.2 OUR DATA

In this section, we provide further detail on the Maisanta database and our Venezuela survey data analyzed in the text (see Chapters 2 and 4).

C.2.1 The Maisanta Database

Our first and principal source of data is the Maisanta database compiled by the Venezuelan government.[17] This database was based on the "Lista Tascón" compiled and published by a deputy in the Chávez coalition, Luís Tascón; the origins of the data appear somewhat unclear, although it has been alleged that the relevant data were sent by the president of the National Electoral Council (CNE) to President Chávez at the end of January or the beginning of February 2004.[18] More importantly for our purposes, the Lista Tascón may have also provided the initial basis for the construction of the much more extensive Maisanta database.[19] The Maisanta database and user interface eventually also became available to various groups of diverse political orientations and achieved wide public distribution in Venezuela.[20]

As discussed in the text (see Chapter 2), the Maisanta database represents a remarkable source of data on an incumbent's perceptions of individual voters' partisan leanings. The main aspect of the sophisticated software package is

[17] The full name for the database used by the Venezuelan government was the "Comando Maisanta, Batalla de Santa Inés" database. The "Batalla de Santa Inés" (Battle of Santa Ines) took place during the Federalist wars of the nineteenth century, when troops under the command of Ezequiel Zamora defeated one of the regional armies based in the western Andean region of Venezuela. According to the Venezuelan government's description, the electoral campaign so named would "guide revolutionary action oriented towards assuring electoral triumph in the national referendum of August 15, 2004, when the defeat of the national and foreign oligarchy by the sovereign people in the Battle of Santa Ines, masterfully directed by General Ezequiel Zamora, would be reenacted (in accordance with the collective imaginary of the Venezuelan people)." Quoted from http://www.gobiernoenlinea.ve/miscelaneas/maisanta1.html.

[18] One opposition blog presents a memo apparently signed by President Chávez and directed to the President of the National Electoral Council on January 30, 2004, which reads: "It is a pleasure to salute you in this opportunity whilst notifying you that I fully authorize Mr. Luis Tascón Gutierréz, ID No 9.239.964, to collect the certified copies of the forms utilized during the 2-A event, which took place between 11/28/03 and 12/1/03, whereby a group of citizens petitioned to activate a Recall Referendum on my mandate, as established in article 72 of the Bolivarian Republic of Venezuela." See http://www.vcrisis.com/index.php?content=letters/200509152101, accessed May 1, 2007.

[19] The link between the Lista Tascón and the Maisanta database is underscored by a text document, described in more detail later, that accompanies the Maisanta installation file and that is accessible through the Maisanta user interface; this document instructs users to look for updated versions of the software at www.luistascon.com, the website of Luis Tascón.

[20] After obtaining one version of the database from Francisco Rodríguez, then in the Economics Department at Wesleyan University, we subsequently purchased another copy on a CD-ROM from a street vendor in front of the National Assembly building in Caracas. The data are distributed in a series of Access files along with the user interface, which must be installed; the underlying files may be easily converted to standard statistical software packages.

a user interface that is readily searchable by people with relatively limited computing ability or knowledge; as we described earlier, one apparent purpose of this user interface was to facilitate the campaign work of party militants at the grassroots, neighborhood level. However, there are also additional records and databases that underlie the main user interface and that have also been useful to us in compiling data relevant to this inquiry.

The user interface constructed by the Chávez campaign is easily searchable either by ID number (*cédual* – the easiest and most accurate way to find individuals in the database) or by name (Figure 2.4 in the text). An individual hit using the Maisanta database reveals, in addition to the individuals cédula number, name, address, nationality,[21] and date of birth, the following records. First, a window in the upper-right hand portion of the screen indicates whether the individual signed the petition to establish the recall referendum against Chávez (an individual who did so is coded in the underlying Access database as an "opositor" or a member of the political opposition), did not sign any petition, or instead signed a petition to launch a recall referendum against certain opposition deputies in the National Assembly and other elected officials from the opposition (an individual who did so is coded as an "patriota" or "patriot"; we discuss these patriots or "contraopositores" later). Next, several boxes in the bottom-left of the screen give the following information: whether the individual is an "abstainer" or "abstencionista," whether the individual is deceased, whether the individual is a recipient of the Ribas Mission, and whether the individual is a participant in the Vuelvan Caras Mission.[22] Not displayed in the screen of Maisanta's user interface but available in the database's underlying files is another indicator, which we believe to report whether an individual participates in other Missions that existed at the time the Maisanta database was created.[23] Additional buttons on the interface give access to additional information. Perhaps most usefully, clicking on "Listar cédulas de mi Centro de Votación" gives the information on the screen for every voter who votes

[21] There are some foreign residents of Venezuela in Maisanta, perhaps because the Venezuelan Consitution gives adult foreigners who have lived in Venezuela for more than 10 years the right to vote in state, municipal and district (parroquia) elections; see Article 64 of the Constitución de la República Bolivariana de Venezuela, 1999. Another possibility is that Maisanta records as foreigners those individuals of foreign origin who have been naturalized as Venezuelan citizens under the terms of Article 33 of the Constitution and thus can vote in national (presidential and National Assembly) elections. We have not been able to confirm this topic; in our sample from the Maisanta database (discussed later), just under 1 percent of individuals are coded as foreigners (E for extranjeros rather than V for Venezolano).

[22] The Ribas Mission, as discussed elsewhere, is an educational program that provides scholarships for young adults and others wishing to complete their high school degrees (bachilleratos). The Vuelvan Caras Mission, since renamed Misión Che Guevara, is a program oriented toward inculcating socialist ideals.

[23] We have not been able to confirm the source of data for the three indicators of Mission participation included in Maisanta, but anecdotal evidence suggests that these were partly based on self-reports among people who registered for new cédulas under Misión Identidad; their reliability is suspect, and we do not analyze those data here.

TABLE C.1. *Variables in Maisanta*

Variable	Definition
Opposition	Signed a petition to launch a recall referendum against Chávez
"Patriot"	Signed a petition to launch a recall referendum against deputies of the opposition
Abstainer	Respondent is perceived as "abstainer" by Maisanta creators. Unclear how the government coded this; see text
Mission Ribas*	Participated in Ribas as of circa July 2004
Mission Vuelvan Caras*	Participated in Vuelvan Caras as of circa July 2004
Other Missions*	Participated in other Missions as of circa July 2004
Voting Center	Location of voting center, including access to individual and aggregate data on voting center

Other variables: name, address, bithdate, *cédula* number.
* Apparently based on self-reports.

at the current voters voting center; the software can therefore easily provide a snapshot of aggregate political tendencies in the voting center in question.

There are 12,394,109 individual records in the Maisanta database, which we believe to be the universe of registered voters eligible to vote in the referendum as of July 10, 2004, when the National Electoral Council closed the registration process for the August 15th referendum.[24] The important point about Maisanta is that it provides ex-ante measures of political ideology and turnout propensity: the indicators included in the database reflect the information set available to the government before it began its campaign against the recall referendum and as it rolled out the Mission social programs. Table C.1 describes the variables included in the Maisanta database that we use in our analysis.

C.2.2 Venezuela Voters' Survey

To gather data on benefit receipt, social program participation, and other variables, we administered a survey to a probability sample of 2,000 adults in

[24] This is difficult to assess with certainty, however, because the Maisanta database was apparently frequently updated between the time Chávez announced the formation of the Maisanta Command on June 6 and the close of voter registration on July 10, and we cannot be certain of the date our version of the Maisanta database was updated. The National Electoral Council (CNE) announced on the 15th of June, 2004, that 12,404,187 Venezuelan and foreign voters could particpate in the national referendum; however, July 10 was fixed as the final day on which voters could register and subsequently vote in the referendum on August 15, so additional voters likely came into the rolls and perhaps by this mechanisms into Maisanta after June 15, 2004. For all practical purposes, however, there can be little error from treating Maisanta as though it constitutes the universe of eligible voters at the time of the referendum. See the chronology at http://www.gobiernoenlinea.ve/miscelaneas/maisanta10.html.

the eight largest Venezuelan cities. The key to linking our survey questions to the Maisanta database was obtaining the unique personal identifier called the cédula. The cédula is a numerical identifier that is widely used in Venezuela not just for activities such as voting, paying taxes, and linking to social security records, but also for more mundane activities such as paying bills in restaurants; in terms of the frequency of use of the cédula in Venezuela and the level of privacy expectations associated with its disclosure, it is probably close to an individual telephone number in the United States, although as an instrument for linking data from multiple sources, it is more akin to a U.S. Social Security number.[25] We were able to obtain valid cédula numbers and merge them with the Maisanta database for about one-quarter of respondents; in the next section, we discuss threats to causal inference that might arise from missing data as well as other sources.

We focus in our analysis on receipt of benefits through participation in two targeted social programs, the Robinson Mission and the Ribas Mission. The former is an adult literacy program and the latter is a high-school equivalency program. Both provide scholarships to many of their participants; for example, payments under the Ribas Mission come in the form of "grants" (of Bs. 180,000 a month as of 2004, or about US$85 at official exchange rates) and "incentives" (of Bs. 200,000, or about US$94). Ribas and Robinson are only two of the Missions that provide benefits to Venezuelans, yet they best characterize the kind of benefits that may be targeted to swing voters or loyal constituents, following political criteria.

C.2.3 Threats to Causal Inference

When discussing inferences about the effects of voter ideology and turnout propensity on the likelihood of receiving a social benefit, it is useful to separate biases that may arise from survey nonresponse – in particular, our inability to match around three-quarters of the survey respondents to records in the Maisanta database – from other possible sources of bias, that is, those that could arise even with zero nonresponse. It turns out, however, that our attempts to confront these distinct issues will lead us to similar solutions.

First, the issue of nonresponse and missing data, always an issue with surveys, is especially important here: we only merged respondents' back to Maisanta using valid self-reported cédula numbers for about a quarter of the respondents. Table C.2 presents tests of covariate balance, across the 493 survey respondents whom we successfully matched to a record in the Maisanta dataset and the 1,508 respondents whom we could not match; in most of the latter cases, the respondent did not provide us with an accurate national identifier (cédula). In the jargon, this missing data is ignorable if it is statistically

[25] It is important to emphasize that the confidentiality of respondents' identity was maintained at every stage of our research, which was approved by Yale's Human Subjects' Committee.

TABLE C.2. *Covariate Balance Tests (Merged vs. Unmerged Respondents)*

Covariate	Merged Respondents	Unmerged Respondents	Difference of Means	*p* value
Age	49.2	44.1	5.1	**0.00**
	(0.7)	(0.4)	(0.8)	
Sex	38.3	39.0	−0.7	0.79
(% male)	(2.2)	(1.3)	(2.5)	
Household size	3.58	3.03	0.54	**0.03**
(adults over 18)	(0.20)	(0.13)	(0.26)	
Household income	5.97	6.50	−0.53	**0.00**
(ascending 1–12 scale)	(0.09)	(0.05)	(0.10)	
Household income pc	1.97	2.46	−0.49	**0.00**
(1–12 scale, normalized by household size)	(0.05)	(0.03)	(0.06)	
Education	4.6	5.1	−0.5	**0.00**
(ascending 1–11 scale)	(0.1)	(0.1)	(0.1)	
Self-identified social class	2.80	2.74	0.06	**0.05**
(ascending 1–4 scale)	(0.02)	(0.02)	(0.03)	
Works in public sector	24.2	15.8	−8.4	**0.01**
(% of employed workers)	(3.1)	(1.7)	(3.3)	
Oficialista	47.9	33.3	14.6	**0.00**
(% identifying with party in governing coalition)	(2.3)	(1.27)	(2.6)	
Oficialista2	76.4	70.6	5.8	0.07
(% identifying with party in governing coalition)	(1.8)	(1.8)	(3.1)	

The table compares the 493 survey respondents whom we successfully merged with Maisanta records to the 1,508 respondents whom we could not (in most cases due to respondents' failure to provide an accurate identifier or *cédula*). Oficialista and Oficialista2 are dummy variables equal to 1 for respondents who identify with any party that is part of the Chavez coalition; in the former, respondents who identify with no party are coded as zero, whereas in the latter, they are treated as missing. The *p* values are based on a two-tailed test; bolded entries are significant at the 0.05 level.

independent of income, political ideology, and other variables that may determine receipt of social benefits. This seems unlikely, however. Indeed, Table C.2 confirms that survey respondents who provided us with valid cédula numbers tend to be older, poorer, and less educated than those who refused, and they are also more likely to work in the public sector.

It is also true that people who provided valid identifiers also tended disproportionately to support the government (final two rows of Table C.2). However, this problem does not appear as egregious as we expected. We can investigate the relationship between government support and provision of the cédula in two ways. First, the final two rows of Table C.2 compare the reported party identification of our Maisanta-matched and unmatched survey

respondents. (The first variable, *Oficialista*, is a dichotomous indicator equal to 1 for respondents who identify with any party in the Chávez coalition, where 0 includes those who identify with other parties or with no parties; in the second row, *Oficialista2* drops respondents who identify with no party). Note that these are ex-post measures of political ideology, because they reflect what respondents told us in 2008 about the political party with which they identify; we obviously cannot use Maisanta to measure the political ideologue of survey respondents we could not match to the Maisanta records. Although we find that those who identify with one of the parties in the government coalition are more likely to have provided a valid identifier, it matters whether we code the approximately 45 percent of respondents who reported no party identification as being nongovernment supporters (as in the Oficialista variable) or instead exclude them and only compare respondents who identify with a government party to respondents who identify with a party of the opposition (as in the Oficialista2 variable). With the former measurement strategy, the difference between the Maisanta-matched and unmatched respondents is substantively large (14.6 percentage points) and statistically significant; with the latter, the difference is smaller (5.8 percentage points) and statistically insignificant. This suggests that missing national ID data come disproportionately from those who do not identify with a government party but also do not identify with the opposition. In other words, opposition supporters do not appear to be substantially less likely than government supporters to provide their identifiers.

Table C.3, which provides a second way of investigating the relationship between government support and provision of the cédula, confirms this finding. Here, we compare the distribution of ex-ante political ideology (as recorded in Maisanta) among those survey respondents who we were able to merge to Maisanta with the distribution in the population, that is, all registered voters in the Maisanta database. Note that only registered voters who were at least 23 years old in 2008, when we took our survey, could conceivably be included in Maisanta's list of registered voters as of 2003–2004; our merged sample thus comprises a sample (with possibly nonrandom missing data) from this group of voters. As the table shows, 28.46 percent of merged respondents and 24.64 percent of the Maisanta population are opposition voters: thus the proportion of signers of the petition to recall Chávez is similar in our merged sample and in the Maisanta population. Howevere for loyal voters, we have 26.42 percent of merged respondents and just 12.35 percent of voters in the Maisanta population. The difference is made up by swing voters, who comprise 45.12 percent of merged respondents and 63.01 percent of the random sample of Maisanta. This table suggests the same story as Table C.2: opposition voters are not disproportionately likely to withhold their cédulas, but the proportion of loyal voters is greater in our sample of merged respondents than in the Maisanta population. Note that respondents cannot manipulate the information about their political ideology that is contained in Maisanta: if a greater proportion of loyal voters appear in our sample of matched respondents than in a

TABLE C.3. *Does Political Ideology Predict the Missing Data? (Merged Respondents vs. Maisanta Population)*

	Core Voter ("Patriota")	Swing Voter ("No Firmó")	Opposition Voter ("Opositor")	*Total*
Merged Respondents	26.42% (N = 130)	44.92% (N = 221)	28.46% (N = 140)	100.00% (N = 491)
Maisanta Population	12.35% (N = 1,530,673)	63.01% (N = 7,809,528)	24.64% (N = 3,053,908)	100.00% (N = 12,394,109)

The first row of the table shows the distribution of political ideology as recorded in Maisanta (for those cases we were able to merge with the Maisanta database, N = 492). The second row of the table shows the distribution of political ideology in the universe of registered voters included in the Maisanta database (N = 12,394,109). Percentages may not sum to 100% due to rounding.

representative sample from the Maisanta database, it is because some other category of voters is underreporting cédulas (and not because loyal voters are overreporting). The evidence therefore confirms that swing voters (those who did not sign either recall petition) are the ones doing the underreporting.[26] Nonetheless, the results in Tables C.2 and C.3 suggest that, in general, the missing data are not missing at random. In some of the analyses in the text, we condition on variables that predict the missing data, such as those in Table C.2, in the hope that the missing data will be ignorable conditional on covariates. Yet this provides one potential limitation on the validity of causal inferences drawn from our analysis of the Maisanta data – which is why we also present analyses using self-reported ideology, where these threats to inference from missing data do not arise (yet other limitations present themselves there).

A distinct set of threats to causal inferences arises not from missing data but from another sort of confounding: possible self-selection into Mission participation. For example, one obvious issue is that eligibility for adult education and other targeted social programs of the government – which often carry a financial reward for participants – depends in part on income and education levels. We therefore need to control for such variables – that is, we need to compare individuals with similar income and education levels and ask, for these individuals, how ex-ante political ideology and turnout propensity shape

[26] We have also compared the distribution of the Maisanta political ideology measures and turnout propensity in our sample of matched respondents and in a simple random sample of records from the Maisanta data base. (When doing cross-tabs of ideology and turnout propensity, it is useful to work with a random sample from Maisanta: the database is so large that substantial computing power is required to work with the full database). Our analysis here too suggests that the percentage of loyal voters is similar in the matched sample and in Maisanta population. However, in the sample of merged respondents, the marginal distribution of potential voters (absencionistas) is 23.78 percent, whereas it is 44.13 percent in the random sample of records. Thus merged respondents are less likely to be abstencionistas than voters in the random sample. Because Maisanta has missing data on perceived abstention for about one-third of the cases, in Table C.3 we look at political ideology without conditioning on abstention.

ex-post participation and benefit receipt. We do have substantial capacity to match on observed confounders that predict benefit receipt and may predict political ideology. For example, education may be an important confounder: after all, eligibility for participation in a high-school equivalency program such as Ribas depends on not having completed high school. Our ability to match on political ideology would be limited if opposition voters (those who signed against Chávez) could not be readily found along lower-education groups (or, conversely, if pro-Chávez signers from the opposition only came from upper education groups). (In the jargon, this would occur if the distribution of the political ideology variable by education level did not have common support.) However, supplementary analysis shows this is not the case: the distribution of ex-ante political ideology, as by signing of recall petitions, is substantially similar for those who have completed high school and those whose secondary education remains incomplete. Moreover, many of the variables that predict missingness (Table C.2) likely also predict political ideology, abstention, and social benefit receipt.

In Table 2.2 in the text, we therefore use matching and logistic regression to condition on variables such as gender, age, education, whether the respondent is a public-sector worker, and geographic place of residence. If a voter with a particular ex-ante political ideology or turnout propensity is, on average, substantially more likely to participate in a targeted social program than a voter with a different ideology or turnout profile – even though the voters share the same values on gender, age, education, occupation, or place-of-residence variables – we can have greater confidence that ideology and turnout propensity have a causal effect on benefit receipt. The size of some of the effects we report suggest that there is an electoral logic to social spending in Venezuela, as hidden confounders would have to be large to explain these effects. Nonetheless, a major concern here is the possibility of selection on unobservables; that is, unmeasured factors that are related to political loyalties and that cause receipt of benefits through Mission programs. The possibility of such unobserved confounders is one reason we do not push conditioning strategies very far in the text. Instead, we present our evidence from Venezuela as strongly suggestive of a loyal-voter logic to distribution, but not as conclusive or fully dispositive. Instead we turn to other research designs in different contexts that help to address some of the threats to valid causal inference discussed here.