



# Partial non-response in political elite studies: an approach to parliamentary elites in Latin America

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## Abstract

This paper provides empirical evidence on the prevalence and explanation of partial non-response in surveys conducted among political elites. We use data from the Parliamentary Elites of Latin America (PELA) project, a face-to-face survey conducted in each Latin American country for each legislative period over the last 25 years. Given the scarce literature on partial non-response in relation to elites, we use some of the explanations found in citizen survey studies as a starting point. Taking into account the multilevel nature of the data (parliamentarians grouped into countries and legislative periods or waves), we have estimated a multilevel Poisson model with two levels. First level (individual) variables are: gender, age, education level, and legislative experience. Second level (contextual) variables are: country and survey wave. In a second model, we also included the gender of the research team as a control variable. Results show that variables explaining a higher rate of partial non-response in elites are, as with studies among the general population, the age and gender of the interviewee. Older representatives and female legislators tend to indicate ‘don’t know’ or ‘no answer’ more frequently than younger and male representatives. Furthermore, part of the variation in non-response rates can be attributed to the country and survey wave.

**Keywords** Partial non-response · Parliamentary elites · Quality · Surveys

## 1 Introduction

One of the main goals of survey research projects is to obtain high quality data. One way to measure the level of quality is assessing coverage bias, which is caused by the total or partial lack of response by members of the sample (Berg 2005). Total non-response refers to individuals who do not want to take part in the survey, while partial non-response refers to instances in which some individuals who agreed to participate did not respond to specific

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items or questions. Studies addressing survey quality have paid differentiated attention in favour of total coverage bias compared to partial non-response bias (Maestas et al. 2003). Likewise, much of the research on survey response problems has focused on the development and assessment of procedures and strategies to increase interviewee collaboration, pushing the treatment of partial non-response into the background (de Leeuw 2001; Rässler and Riphahn 2006; Sala and Lynn 2009; Yan and Curtin 2010). This gap in the literature is especially worrisome when, in some contexts, recent trends in item non-response are increasing while unit non-response rates are declining (Czajla and Beyler 2016, p. 10). Furthermore, most of the studies on survey and item non-response focus on citizens surveys, dedicating very little methodological effort to analysing elite survey strategies and quality in a more systematic fashion (Walgrave and Joly 2018, p. 2223).

In this study, we focus on the analysis of item non-response among political elites in Latin America, contributing to the understanding of the two aforementioned and understudied aspects of quality survey research. Specifically, we show the prevalence of item non-response among Latin American parliamentarians over the last two decades, and assess the factors at the individual and contextual level that influence such prevalence. Our results suggest that demographic variables such as age and gender, as well as the country and the time in which the survey is conducted help explain variation in partial non-response among elites. Ignoring the fact that some political elites are leaving survey questions unanswered, and failing to identify who is not represented in the valid responses, can have important consequences for the conclusions drawn from such political elite studies.

We structure the remainder of the paper as follows. We first address the implications of partial non-response (Sect. 2) and the importance of assessing item non-response in elite surveys (Sect. 3). Then, we outline our hypotheses (Sect. 4), describe the data (Sect. 5), and conclude by presenting and discussing the results and their implications (Sects. 6 and 7).

## 2 The problem of partial non-response

Both total and partial non-responses have the problems of reducing the sample size and increasing the sample error or the standard error of the estimate. Part of the sample is lost when partial non-response is eliminated from relevant categories to be analysed in statistical analyses (Morales 2000, p. 218), reducing the explanatory capacity of multivariate analyses used to test hypotheses. For example, regression analyses assume that models work equally for those who respond and those who do not respond, so inferences may not be correct (Montgomery et al. 2008). Additionally, in comparative studies, when non-available information differs from one country to another, the comparison may lose explanatory power.

According to Little and Rubin (2002), when partial non-response of a variable is both greater than 5% and not completely random, this non-response must be corrected when applying statistical analyses. The main corrections have been applied using three procedures: weighting, imputation, and/or detailed analysis of randomness in incomplete data (Stasny 2001; Baghal and Lynn 2015). Yet these corrections are not always implemented and the volume of non-response to questions used in research is largely not disclosed either. This entails a lack of transparency related to the data used.

This bias is even greater under two circumstances. Firstly, when non-response is not distributed randomly (Diaz de Rada 2013, p. 359). In other words, when there are systemic

differences between those who decide to take part in the survey and those who do not; and among those who respond to the questions and those who do not (Little and Schenker 1995). Secondly, when working with studies with a small N, such as those focusing on individual countries, political and economic elites, and political candidates, among others. This is the case of parliamentary elite studies, where the universe to be interviewed is generally small and losing part of the sample can significantly affect the analyses and results.

Achieving a high survey response rate from political elites is relevant as these actors are key informants who are difficult to reach given their limited time availability and because the changing political reality can influence their decision to express their opinions and assessments of the issues researched. Having less data available for analysis contributes to less valid results, especially if more item non-response results in more non-response error (Tourangeau et al. 2013, p. 6). Furthermore, responses from political elites have been used to define key concepts in political science, such as ideological and programmatic congruence (Devine and Ibenskas 2021) or political polarization (Hetherington 2001), among others. For instance, if we need to measure the distance between elites and voters, a high non-response in the survey items used to assess elite positions, or the absence of such information, would make the analysis of political congruence impossible. Similarly, failing to provide the amount of missing data and the type of post-stratification carried out may put into question the generalizability of the results.

Hence, many studies on non-response in elites tend to focus more on analysing strategies to increase survey participation rates (Goldstein 2003; Montgomery et al. 2008; Druckman and Lupia 2012; Vis and Stolwijk 2020) than on analysing partial non-response (Walgrave and Joly 2018). In sum, we would need to shift this tendency, and focus on the understanding of partial non-responses in political surveys, especially among elites. If reducing the number of respondents saying “I don’t know” or “I don’t answer” is our goal, we need more studies that assess the factors associated with those type of responses. These factors can as diverse as the respondents’ sociodemographic profiles, the questionnaire design, the interviewer’s characteristics or the topic addressed in the question. We know that while many survey items may exhibit no bias, others can lead to some (Czajla and Beyler 2016, p. 10), and therefore, it would very helpful to know which topics are associated with higher non-responses. This is especially relevant in, for example, the construction of indexes or the measurement of concepts in which, as aforementioned, elite survey data are crucial, such as political congruence or political polarization.

### 3 Non-response in political elite surveys

Although there is still some scepticism around the degree of reliability of responses provided by elites to surveys given their potential lack of sincerity or limitations to capture the specific nature of their opinions (Hoffmann-Lange 2008, p. 54), elite surveys are still considered a crucial tool for understanding their attitudes and behaviours (Maestas et al. 2003). Elite surveys are also essential when it comes to assessing how representative institutions work and how representation is understood and exercised. Simultaneously, elite surveys are an empirical source of data that assists us with finding relationships and providing explanations by replicating analysis (Rodríguez-Teruel and Daloz 2018, p. 95). Aggregated data, or roll call vote data, as a source of information, are insufficient when assessing how decision-makers representing citizens think, or when trying to learn what criteria (personal, party or social, for example) they consider when making political decisions.

Given that studies on parliamentary elites using surveys as a source of information are increasingly more frequent, both in case studies and comparative or geographical area studies (Best and Cotta 2000; Crowther and Matonyte 2007; Herrick 2010; Hubé and Verzichelli 2012; García et al. 2013; Ruostetsaari 2015), analysing the quality of this type of data is particularly relevant. Even more, knowing the patterns of item non-response in a given study is especially necessary when these types of responses can have troubling implications and potentially need item-specific non-response adjustments (Czajla and Beyler 2016, p. 49).

Taking all these considerations into account, the purpose of this study is to contribute to increasing the number of analyses on partial non-response in elite studies. We use data on parliamentary elites<sup>1</sup> to assess whether variables explaining partial non-response in general population surveys also explain the same phenomenon among political representatives.

## 4 Explanations for partial non-response and PELA

### 4.1 Cognitive and rational model

Theoretical approaches to explaining partial non-response are essentially related to a cognitive model and to a rational choice model. The former maintains that partial non-response can occur when knowledge or cognitive effort is required of the person interviewed and they do not want to assume it at that time (Tourangeau et al. 2000). This situation is more likely when the survey taps into issues with which the interviewee is not familiar or that are complex to understand due to the high level of knowledge required (Krosnick 1991).

In their work on which issues require more cognitive effort from citizens, Dillman et al. (2009) classify survey questions into three groups: attitudinal, on behaviours, and on specific personal elements. They find that, while questions that are more personal are the most sensitive ones, they are easier to answer and require less cognitive effort. Next come attitudinal questions, which cover issues on which an opinion has been formed; and finally, with a higher level of non-response, they find questions on behaviours. However, in studies surveying elites or experts, we expect respondents to have knowledge of or an opinion on the different issues covered in the survey. They are specialists in their field, and therefore we do not expect high non-response rates, as no extra knowledge is required.

The questionnaire applied to Latin American parliamentary elites (PELA) includes questions a wide range of topics: political experience and socialization, political and policy preferences, political parties, and evaluation of the democratic system. We could say that answering these questions does not require a great cognitive effort as they ask about the representatives' daily professional and personal life; and therefore, based on this cognitive model, we would be expecting low partial non-response rates in elite surveys.

The rational theoretical approach or model, meanwhile, focuses on the sensitivity of the issue addressed (Shoemaker et al. 2002), the effect of social desirability (Noelle-Neumann 1984), and the cost–benefit assessment of revealing an embarrassing or delicate attitude (Krosnick 2002, p. 99) taking into account their position as a political representative. This

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<sup>1</sup> Since 1994, the Parliamentary Elites of Latin America project by the University of Salamanca (PELA-USAL), Spain, has been conducting surveys aimed at parliamentarians from eighteen countries in the region in order to understand who legislators are, how they behave, what they have in common and what differentiates them both in their ideology and their programmatic issues. <https://oir.org.es/pela/>

position as a public figure would therefore guide the respondent's decision of answering or not a question after assessing its costs and benefits, as well as the direction of the answer, which might lead them to mention any of the options randomly. Social desirability and rational evaluation bias take on special relevance if combined with face-to-face surveying where the presence of an interviewer can cause the interviewee to feel controlled or judged. Thus, some authors insist on the importance of creating trust or rapport between the interviewer and interviewee, as well as of reducing social distance to minimise how the interviewer affects the responses (Riphahn and Serfling 2002). Reasons that are supposed to justify non-response among political elites also include their responsibility and visibility as public representatives, as well as concerns that interviewers might release their more personal (and not partisan) opinions, even when researchers promised response anonymity. Thus, elites are assumed to calculate the cost–benefit of giving an opinion or not on certain questions that could show a lack of party cohesion or coherence in a rational manner or that may endanger their expected responsibility towards their electorate.

Walgrave y Joly (2018) analysed partial non-response in studies of elites in Belgium, Canada, and Israel, concluding that national cultural codes governing what one can ask elites explains why non-response rates vary substantially between countries. While there were no significant differences between Belgium and Canada, the partial non-response rate in Israel was much higher, even to non-sensitive questions. This same argument differentiating between countries is highlighted by Vis and Stolwijk (2020), who identified structural discrepancies between countries in response rates. This may be a reflection of contrasts traditionally found in surveys among the general population in the same countries.

In the case of the PELA study, the research team conducts the surveys whenever national elections are held in the countries. It could be that some re-elected legislators previously interviewed or those with knowledge of results published prior to the survey may be aware of the content of the questionnaire, which places them in a different situation from those who are new to congress or do not know anything about the project. In this sense, and from a rational standpoint, some legislators may think that conveying their subjective assessments and opinions is a benefit or, on the contrary, they might assess the cost of participating in or responding to some issues. Taking the above into consideration, we include having previously been elected as legislator as an explanatory variable. Having more legislative experience is expected to afford knowledge of political dynamics, of rationally assessing party repercussions of conveying personal opinions distant from party opinions, and to increase the possibility of having previously taken part in the survey.

**H1** More experienced legislators will have a higher non-response rate than those elected for the first time.

## 4.2 Sociodemographic variables

Previous survey studies concur that individual variables explaining the higher partial non-response rate in general population surveys are gender (women), age (older), income (low), and education level (low) (Pickery and Loosveldt 1998; Riphahn and Serfling 2002; de Leeuw et al. 2003; Yan and Cutin 2010; Messer et al. 2012; Kassenboehmer et al. 2015). Also, a variety of studies on specific issues show that other variables such as occupation, race or ethnicity, health (Huisman et al. 1998), level of political information or knowledge or closeness to the party (Gooch and Vavreck 2016) influence partial response rates. Here, we use explanatory variables common to general population surveys to test whether

sociodemographic variables such as gender, age, and education level have an impact on elites' partial non-responses. Legislator profiles are not expected to be different from those of their voters. Therefore, the same sociodemographic explanations used in citizen survey studies should work to explain partial non-response among parliamentary elites.

**H2.1** Female legislators will have a higher partial non-response rate than male legislators.

**H2.2** Older legislators will have a higher partial non-response rate than young legislators.

**H2.3** Legislators with a lower level of education will have a higher partial non-response rate than legislators with a higher level of education.

### 4.3 Interviewers

Some researchers have highlighted the importance of the sociodemographic characteristics of the interviewers in face-to-face surveys (Pickery and Loosveldt 2002), being the gender of the interviewer a factor that influences partial non-response rates (Schräpler 2006). More specifically, there is usually a higher rate of partial non-response when the interviewer is female (Riphahn and Serfling 2002, p. 17). In addition, having a respondent and an interviewer of the same or different gender (Schräpler 2006) also impacts partial non-responses, being higher when both are women (Riphahn and Serfling 2002, p. 23). In the guide on how to interview elites, Harvey (2011, p. 433) maintains that interviewers play a highly significant role, as they must gain the trust of their interviewees to obtain quality data. Guaranteed anonymity of responses provided is a key element to all types of surveys. In the case of elites, this acquires particular relevance as their opinions and assessments have political and party repercussions.

In PELA, interviewers tend to be individuals linked to or part of the university research team in order to generate trust among parliamentarians, avoiding national interviewers. However, it is impossible to verify the relationship between the interviewer gender and the interviewee gender as this information is not available. Therefore, as an approximation to this possible effect, in one of our models, we include whether the interviews were conducted by a team of only men, only women, or mixed, as this is the only information available for all countries over time.

**H3** Interviews conducted by a team of female interviewers have a higher partial non-response rate than those conducted by a team of male interviewers.

### 4.4 Interview method and question format

Other factors explored in the literature to explain non-response rate in citizen surveys are question format and interviewing methods. Using an experiment, Gooch and Vavreck (2016) compare partial non-response rates in online and face-to-face surveys. They show that the presence of an interviewer in face-to-face surveys increases non-response rates. Around 40% of their research questions have significantly higher levels of partial non-response compared to self-administered surveys. Messer et al. (2012) reached similar conclusions when comparing online and mail survey methods. However, in a study comparing elites, Vis and Stolwijk (2020) found no significant differences between paper and online

interviews. However, they both confirm that face-to-face surveys have the highest response rates compared to other methods.

In the case of PELA, all questionnaires are face-to-face. The interviews are set up by contacting the interviewee in advance with a letter informing of the survey and inviting all legislators to participate. Thus, as there is no variation in the survey method, we do not include any hypotheses or expected effects.

Regarding question formats and whether items should include the categories 'don't know' and/or 'no answer', research using citizen survey experiments conclude that these do not make a difference when assessing partial non-response (Shoemaker et al. 2002). In the case of the PELA questionnaire, the options 'don't know' and/or 'no answer' are pre-coded in all items even though the interviewer does not offer them as a response option.

Instead, they will only be noted if spontaneously expressed by the legislator being interviewed. Therefore, partial non-response cannot, in principle, be associated to this refuge option, as it is not offered to the legislators being interviewed as a separate category of response.

Some mixed and experimental design studies assess how the combination of survey methods and question formats can affect non-response rates (Tourangeau and Smith 1996; Messer et al. 2012). Questions with multiple items, filters, and open-ended questions tend to have the highest non-response rates (Messer et al. 2012). Walgrave and Joly's research outcomes (2018) show that a good combination of open-ended and closed questions reduces partial non-response rates among elites. The PELA questionnaire includes a few open-ended questions, being the structured and closed ones the great majority. The reason for this is that since the study is conducted in many Latin American countries, comparing responses is vitally important, which is guaranteed with closed questions. In fact, all the questions selected for analysis in this study are closed, and therefore, we do not include any hypotheses related to question format, even though it is an explanatory factor used in citizen survey research.

## 5 Data and variables

As previously indicated, data used in this study come from the Parliamentary Elites of Latin America (PELA) project, which has a survey for each legislative period and country from the mid-1990s to date.<sup>2</sup> This analysis used a total of 8248 cases from 17 Latin American countries.<sup>3</sup> In order to assess partial non-response, we selected a set of 20 questions that have been part of the PELA questionnaire, with no changes in their wording, since the beginning of the project.

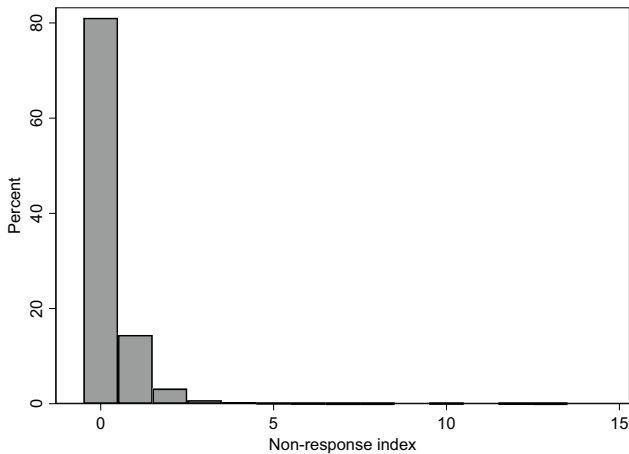
### 5.1 Measurement and analysis strategy

*Dependent variable* Our dependent variable is an index of *partial non-response* using a selection of 20 questions asked in 17 Latin American countries since the beginning of

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<sup>2</sup> Longitudinal, non-panel data. There is a sample design proportional to legislative results by political party for each country and legislature. For more information on the databases and interviews conducted by party, see <https://oir.org.es/pela/>.

<sup>3</sup> We excluded Brazil from the analyses given that its questionnaire did not contain questions comparable with other countries over time. For more details on distribution of cases by country, see the "Appendix".



**Fig. 1** Distribution of the partial non-response index

the PELA project. We consider ‘don’t know’ and ‘no answer’ responses as partial non-response. In other words, we built an index by adding number of ‘don’t know’ or ‘no answer’ responses that a parliamentary gives to any of those 20 items.

We did not consider the whole questionnaire as a reference to calculate the partial non-response rate given that its length (total number of questions and topics covered) was different in each wave. Therefore, we selected only questions that remained unchanged over time, and that had non-responses in the merged dataset.<sup>4</sup>

Figure 1 shows the distribution of the non-response index used as the dependent variable. Eighty percent of parliamentary representatives did not give any non-responses to any of the 20 questions included in the index; while less than 20% of those surveyed did not respond to one question, and 3% did not respond to three. Parliamentarians who did not respond to four or more questions were much less frequent. None gave more than 13 non-responses.

As the dependent variable is a count (number of times a non-response is given) in which zero is the most frequent value, we run a Poisson model<sup>5</sup> and, given the multilevel nature of the data—representatives grouped into countries, and surveys grouped into waves—we estimated a multilevel Poisson model.

The questions that make up the dependent variable tap into the following topics: Democracy (2 questions), elections (1 question), trust in institutions (10 questions), party discipline (3 questions), political representation (2 questions), and ideology (2 questions).

*Independent variables* Our analysis includes two types of independent variables: individual (first level) variables and contextual (second level) variables. Both types of variables

<sup>4</sup> The "Appendix" shows the question wordings of all the 20 items we used to build the partial non-response index ("Appendix" Table 5).

<sup>5</sup> We found that the Poisson model is the most suitable for the data, compared to a Negative Binomial model. When adjusting a negative binomial regression, conditional variance did not exceed the conditional mean, and therefore we opted in favour of the Poisson model. Moreover, the goodness of fit of the models here presented indicated that they are good models.

**Table 1** Independent variables distribution

	Distribution	N
Gender	Male = 80.04%, Female = 19.96%	8,146
Age	Mean(sd) and range 47.37 (sd = 9.97) 19–86	8,052
Education level	None = 0.29%, Primary = 2.09%, Secondary = 8.46%, Some College = 12.09%, College = 45.03%, Postgraduate = 32.03%	8,136
Legislative experience	Yes = 66.33%, No = 33.67%	8,081
Interview team gender	Male = 8.74%, Female = 51.62%, Mixed = 39.65%	7,612

represent explanatory factors of partial non-response rates widely used in citizen survey studies.

Personal characteristics (first-level independent variables) that have explained higher partial non-response rates in previous studies (Riphahn and Serfling 2002; de Leeuw et al. 2003; Yan and Cutin 2010; Messer et al. 2012; Kassenboehmer et al. 2015), and that we include here are: *gender* (1 = male, 0 = female), *age* and *level of education* (1 = none, 2 = primary, 3 = secondary, 4 = some college, 5 = college, 6 = postgraduate).

We also added a variable specific to our object of study: *legislative experience*. *Is this the first time you have been elected as a member of parliament?* (1 = yes, 0 = no). Our hypothesis is that having legislative experience can lead to a greater non-response rate given that knowledge of party and parliamentary life can make re-elected legislators aware of the challenges and conflicts that may arise between different interests and, as rational actors, choose to hide their true preferences and opinions.

The second-level independent variables we included in the analysis are *country* and *survey wave*. There are cultural, economic, and political characteristics associated with each country (17) that can explain the variability in these partial non-response rates. Likewise, the wave variable attempts to capture the effect of a series of elements associated with applying the same questionnaire in different countries (topics, length, etc.) across time or waves. Finally, as a way to assess the importance of the interviewers' characteristics when explaining non-response rates, we run a second model where we include the interview team gender (1 = Women, 2 = Men, 3 = Mixed) (Table 1).

## 6 Results and discussion

Partial non-response to the PELA study varies from country to country, and over time. Table 2 shows that in some countries the total percentage of non-response is relatively low—such as Honduras, where only 4.09% of legislators give at least one non-response to the 20 selected questions—while in other cases such as Ecuador, the non-response rate for these years is 42.59%. We observe differences over time, particularly if we compare the first and second wave with more recent surveys. For example, in Ecuador 78.18% of parliamentarians give at least one non-response in the late 1990s, while in 2017—the most recent survey—19.05% gave at least one non-response. Due to the influence the country context and passing of time could have on the non-response rates, we estimate two multi-level models to test the hypotheses mentioned above.

**Table 2** Partial non-response by country and wave (%)

	W.1	W. 2	W. 3	W. 4	W. 5	W. 6	W. 7	W. 8	W. 9	Total
Argentina		41.40	21.52	8.33	3.95	13.85				21.10
Bolivia		24.49	30.77	20.21	17.71	12.22				20.54
Chile		21.43	19.74	12.50	11.90	10.94				15.46
Colombia		17.65	22.34	7.07	27.17	6.76	12.12			15.88
Costa Rica		34.04	16.67	3.51	10.91	27.27	6.98			16.38
Ecuador		78.18	42.71	18.52		19.05				42.59
El Salvador		57.14	43.75	7.46	23.29	10.66	21.15	5.06		21.44
Guatemala	46.03	19.12	13.86	8.79		12.86				18.58
Honduras		9.86	3.13	6.59	2.22		0.00			4.09
Mexico		33.33		42.74	34.15	9.20	12.12		1.96	21.99
Nicaragua		32.79	12.00	14.49	37.50	16.95				21.86
Panama			0.00	16.42	3.13	17.39	5.26			8.14
Paraguay		20.31	20.75	2.86		9.80				13.03
Peru			17.33	20.00	4.41					14.35
Dom. Rep		44.55	33.02	13.70	2.67	5.17				23.00
Uruguay		23.08	34.88	3.95	7.25					17.67
Venezuela	0.00	23.23				9.09				17.47
Total	46.03	33.52	22.85	13.86	15.34	12.34	9.05	5.06	1.96	18.92

W wave

As previously indicated, to explain non-response among Latin American parliamentarians in the last 20 years, we have estimated two multilevel Poisson models. The first model includes individual variables such as previous experience as a legislator, gender, age, and education level. The second model adds the interview team gender, given the relevance literature affords to factors related to the interviewer. Although other studies have included interviewers as a second level variable (Pickery and Loosveldt, 1998) and have found that non-response variability is partly due to them, here we decided to include interviewers as a first level variable to assess to what extent and in what direction interviews characteristics help explain partial non-response. Ideally, we would have liked to know individual interviewer gender, i.e., the gender of the person interviewing each parliamentarian, but the only information available is the gender of the fieldwork team, and not for all countries in all waves. As they are multilevel models, we can observe how much additional variance can be explain by including country and wave as second-level variables.

We find that the sociodemographic variables gender and age are statistically significant factors explaining partial non-response among Latin American legislators in both models. Male representatives are less likely to say “I do not know” or “no answer” than female parliamentarians. Regarding age, results indicate that older legislators tend to give more non-responses than younger ones. These results are in line with results from studies on the general population. On the other hand, neither level of education nor prior experience in congress seems to be factors that determine a greater tendency to not respond (Table 3).

The second model highlights the possible importance of interviewer gender. Results suggest that when the interview team is all men, non-response among parliamentarians tends to be lower than when the team is all women, similar to what is found in citizen

**Table 3** Multilevel Poisson models

	Model 1			Model 2		
	IRR	SE	95% CI	IRR	SE	95% CI
Elected for the first time	1.015	.057	.908–1.134	1.039	.061	.925–1.168
Men	.822***	.052	.726–.931	.858**	.057	.752–.978
Age	1.007***	.002	1.00–1.012	1.010***	.002	1.004–1.016
Education						
Primary	.569	.283	.214–1.511	.578	.287	.218–1.531
Secondary	.778	.386	.293–2.06	.706	.349	.268–1.86
Some college	.515	.256	.194–1.36	.513	.253	.195–1.351
College	.568	.280	.216–1.49	.564	.276	.216–1.473
Postgraduate	.630	.311	.239–1.65	.641	.314	.245–1.678
Interviewer						
Men				.379***	.128	.194–.738
Mixed				01:21	.202	.874–1.68
Constant	.220***	.121	.074–.648	.206***	.111	.071–.595
Country level Var(_cons)	.578	.120	.384–.871	.460	.100	.300–.705
Survey wave Var(_cons)	.199	.179	.0345–1.156	.110	.087	.023–.519
N	6.218			5.760		
Wald chi2(8) = 36.94				Wald chi2(8) = 44.00		
Prob > chi2 = 0.0000				Prob > chi2 = 0.0000		
LR test vs. Poisson model: chibar2(01) = 809.16				LR test vs. Poisson model:		
Prob > = chibar2 = 0.0000				chibar2(01) = 624.43		
				Prob > = chibar2 = 0.0000		

\*\*\*p < 0.01, \*\* p < 0.05, \* p < 0.1

surveys. Finally, as the second level confidence intervals indicate, part of the variation in non-response rates may be attributed to the country and the wave of the study.

## 7 Conclusion

This article is one of the few examples of analysis of non-response among political elites in Latin America. Results indicate that, even though non-response tends to be lower among elites than the general population, some of the variables explaining non-response in the latter also explain non-response in the former. A lower rate of non-response could be attributed to the greater weight of the cognitive model compared to the rational model among elites that among the general population.

The results of this study show that, as occurs in citizen surveys, the interviewee’s age and gender influence the number of ‘don’t know’ or ‘no answer’ responses to the various items in the questionnaire. Specifically, male and younger parliamentarians tend to provide a lower number of non-responses. As for education level, and unlike among the general population, this variable does not have an impact on the number of non-responses that legislators give; possibly due to a lesser variation in the level of education among elites as most have a college degree.

In addition, our findings have broader implications for, on the one hand, studies or surveys that use parliamentarian elites as their unit of analysis; and on the other hand, for studies on item non-response. This article points out that studies that use political elites to measure and analyse key concepts in political science, such as ideological and programmatic congruence, political and partisan polarization, or issue salience, can see their results compromised if they use survey items with high non-response rates. In these cases, it is key that authors address the transparency and validity of their measurements, providing information about the prevalence of item-non response, and describing their treatment of incomplete data to guarantee the validity and reliability of their results. Failing to report the amount of missing data and the type of post-stratification carried out may put into question the generalizability of the results obtained from elite surveys. Here, we show that the amount of item non-responses is not that important in PELA, which does not jeopardize the quality of the database. Nonetheless, we do see some variability among the countries and over time, which merits further research.

Our results also have another implication for parliamentarian elite surveys, which are related to the role and characteristics of the interviewers. As other authors point out, item nonresponse is often the result of the interaction between two sources of survey errors, namely the interaction between an interviewer and a respondent (Haunberger 2014, p. 461). The results of our study showed that it is relevant to focus on the interviewer's selection process, and to pay special attention to the interviewer training; both are important aspects to take into account before starting to contact elites. This study has shown that higher item non-response is associated with specific interviewer characteristics, such as their gender. Even though we have not been able to assess the effect of the interviewer's gender individually, results suggest that the composition of the fieldwork team is important, especially when the whole team is comprised of men. These results are useful when informing researchers of the effects fieldwork logistics can have on data collection.

As we mentioned before, our study has also implication for survey research on item non-response and the treatment of incomplete data. Experimental designs are becoming more and more frequent in social science research. As Ciuk and Yost (2019) have shown "some experimental treatment conditions have the potential to produce higher noncompliance rates by producing much higher proportions of "don't know" and non-response to survey questions" (p.168), and "it seems to be common practice to either eliminate nonrespondents from all analyses or substitute average scores when conducting analyses of the experimental outcomes" (p.175). For this reason, this study puts forward the relevance of knowing more about item non-response since it represents non-compliance and questions some of the assumptions of experimental treatments.

Other implications for survey research on item nonresponse are related to data imputation models. Since, the amount of item non-response could be problematic when choosing the appropriate statistical treatment of incomplete data, more information about item non-response will lead to less imputation in a data set, to more data to investigate patterns of item nonresponse and to select the best treatment (de Leeuw et al. 2003, p. 154).

Finally, our analysis also has some limitations, the first one being the focus of the study (parliamentary elites in Latin America). It could be appropriate to check if our results hold in other geographical contexts, and with other political elites. Second, we did not have variables that linked the characteristics of the interviewee with their interviewer, but further analysis could assess the effect of sharing or not different demographic characteristics such as gender, or national origin. At the same time, we do not have information about the presence (or lack thereof) of a third person in the interview which could also condition or encourage non-response among respondents.

## Appendix

See Tables 4 and 5.

**Table 4** Distribution of cases and number of waves by country

Country	Cases	Number of waves
Argentina	548	6
Bolivia	540	6
Chile	514	6
Colombia	533	6
Costa Rica	364	7
Ecuador	559	6
El Salvador	585	8
Guatemala	525	6
Honduras	596	7
Mexico	1016	8
Nicaragua	310	5
Panama	304	5
Paraguay	295	5
Peru	432	5
Dom. Republic	516	6
Uruguay	375	5
Venezuela	236	3
Total	8248	

**Table 5** Topics and questions used to build the partial non-response index

Topic	Number of questions	Question text
Democracy	2	DEM1: First let's talk about democracy in (country). In your opinion, is democracy in (country) today: very stable, fairly stable, a little stable or unstable? DEM6: Some say that without parties there can be no democracy. To what extent—strongly agree, agree, somewhat agree, disagree—do you agree with this statement?
Elections	1	ELE1: In a context of broad party competition, to what extent—strongly agree, agree, somewhat agree, disagree—do you agree with the statement that elections are always the best way to express certain political preferences?
Trust in institutions	10	INST1: And in relation to the following people, groups and institutions, I would like to know what level of trust—a lot, some, little or none—do their actions in the public life of (country) deserve? Judiciary, Political parties, Employer organisations, Trade unions, Catholic church, Parliament, President of the Republic, Civil servants, Media, Police
Party discipline	3	DIS1: The issue voting discipline has traditionally elicited very diverse opinions. With which of the following opinions do you agree most? Voting discipline should always be demanded in the Parliamentary Group Each parliamentarian should be allowed to vote according to their own criteria Some issues should be subject to voting discipline and others not DIS2: Next, I would like to know to what extent—strongly agree, agree, somewhat agree, disagree—you agree with the following statement: “a political party should expel a parliamentarian who votes against party political discipline” DIS3: A parliamentarian elected from the lists of a specific party may sometimes then decide to break their tie to that political party. In these cases, what do you believe the parliamentarian should do? Maintain their seat and join another parliamentary group Resign from their seat so it can be taken by another candidate from the political party from whose list they were elected
Representation	2	REP1: What level of importance—very, some, little or none—do you give to achieving resources for your department when carrying out your parliamentary work? REP2: When there is a conflict of interest between your department and the position of your party, how do you normally vote? Always with the party Always according to department needs

**Table 5** (continued)

Topic	Number of questions	Question text
Ideology	2	ID1: As you will recall, the terms left and right are normally used when talking of politics. This card has a series of boxes from left to right, in which box would you place yourself considering your political ideas? ID2: And on this same scale, where would you place your party?

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**Data availability** The datasets and materials analysed during the current study are available (without restrictions) in the PELA repository. <https://oir.org.es/pela/>. The data citation is in the main article.

**Code availability** All the Stata code used for the data analysis associated with the current submission is available for the reviewers or editors upon request.

## Declarations

**Conflict of interest** The authors declare they have read the journal's policy and no competing interests exist.

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