

INSTITUTIONAL DETERMINANTS OF REGIONAL GOVERNMENTS' VISIBILITY

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ABSTRACT

Existing literature highlights the importance of governments' visibility for a proper performance of accountability processes within democratic systems. When citizens don't know who is doing what, it is unlikely that their decisions voting for (or against) the incumbents are efficient. And this is particularly problematic within a multilevel system of government, in which different authorities share powers on the same areas. This paper contributes to the literature on the visibility of spending powers of sub-central governments by analyzing the determinants of citizens' attribution of responsibilities to Spanish regional authorities (Autonomous Communities).

Most of the previous research on this topic has focused on the impact of individual heterogeneity on the attribution of powers and evaluation of both policies and politicians, showing that individual traits such as human capital, age, race, political sophistication and ideology condition the accountability process. However, more recent research has showed that institutional clarity and some other external features that ease or disrupt the flow of information from public centers to citizens are also important drivers of the attribution of responsibilities.

Using two different data sets published by the Spanish Institute of Fiscal Studies (IEF) and the Spanish Center of Sociologic Research (CIS), we explore the impact of several institutional and environmental elements that could be affecting the (modest) improvement of visibility of regional governments in the last few years. Unlike previous research on the topic, this paper will focus on the "Don't know/No Answer" replies, in order to detect the main characteristics that underlie the high levels of no response in both surveys. Due to the qualitative nature of our dependent variables, both a logit and multinomial model will be used. Our findings show that the regional electoral cycle, the existence of a co-official language, the existence of a regional public TV station, and the economic crisis have influenced the visibility of regional governments.

JEL CODES: H71, H72, H77

KEY WORDS: Visibility, responsibility attribution, regional governments

1. INTRODUCTION

Economic literature (Musgrave, 1959; Oates, 1972; Buchanan, 1965) suggests a decentralized provision of public services to be more efficient than a uniform central provision, due to the proximity of sub-central governments to citizens using those services. According to Wlezien and Soroka (2011), proximity allows for two different types of advantages. First, it increases the weight of each citizen's vote in the collective decision process (*democracy argument*). Second, voters enjoy a larger share of information, so it becomes easier for them to ask for accountability (*citizenship argument*). In this context, citizens' preferences are better known by sub-central incumbents, who feel compelled to provide the most efficient level of public services according to those preferences.

However, the idea that decentralized power structures can erode citizens' ability to attribute powers to the different levels of government, impeding the expected accountability process and weakening democracy (Anderson, 2006; Arcenaux, 2006; Cutler, 2004 and 2008; Rudolph, 2003a and 2003b, etc.), is increasingly dominating the debate.

The Spanish is an interesting case that has called the attention of recent literature. The lack of regional governments' visibility –particularly significant in those areas with overlapped powers- has been extensively studied in the last few years (López and Rodrigo, 2014 and 2015; Herrero et al. 2015). In spite of the slow learning process that seems to have occurred (León and Ferrín, 2007; León, 2012), the share of citizens not being able to identify the level of government in charge of each public policy is still very high. This argument is reinforced by the strikingly high share of no response in most public polls.

Therefore, there seems to be a case to deepen the analysis of those elements conditioning that distorted perception of the institutional framework, in order to try to improve those that can allow a higher visibility of the vertical distribution of powers and a more efficient accountability process.

Previous literature has searched the institutional, social and individual drivers of the correct attribution of responsibilities. On the contrary, this paper will be focusing on the drivers of the incorrect attribution of powers and, more specifically, on the explanatory variables of the no response, which seems to be the extreme case of low visibility. The reason to proceed this way is that there could be a bias in the results of those papers that consider the no response "missing values".

To do so, two different data sets will be used. First, the "Fiscal Opinion and Attitudes of Spanish Citizens" poll (*Opiniones y Actitudes Fiscales de los Españoles*) published by the Spanish Institute of Fiscal Studies contained several questions regarding the visibility of the three different levels of government in its 2005, 2006, 2007 and 2010 waves. Second, the "Fiscal Policy and Public Opinion" poll (*Política Fiscal y Opinión Pública*) implemented by the Spanish Center of Sociological Research included similar questions during years 2000-2009 and 2011.

The paper is structured in five sections. The second one will offer the theoretical framework of responsibility attribution and the empirical literature review. The tested hypotheses and the

empirical strategy used in the paper will be offered in the third section. The most important results of the different estimations will be shown in section four. Section five summarizes the main conclusions.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

The responsibility attribution literature regarding multilevel governments has been extensively developed in the Political Science field, with the seminal works of Anderson (2006), Arceneaux (2006), Cutler (2004 and 2008) and Rudolph (2003a and 2003b). The starting point of this literature was the theory of the retrospective economic vote (Powell and Whitten, 1993): citizens evaluate whether the current economic situation is better or worse than at the beginning of the legislature, and vote for or against the incumbent accordingly.¹ This economic vote can be related to the voter's particular economic situation (*pocketbook voting*) or related to the national economic situation (*sociotropic voting*).

Information becomes a critical element of that accountability process. For accountability to take place, it is essential that citizens know which public agent is doing what and which have been the public policies implemented by each level of government. The transmission of that information to citizens is contingent on three basic questions, according to previous literature: institutional framework *clarity*, *saliency* and *framing* of public affairs in the political debate and media, and *credibility* of those agents transmitting the information.

1. Starting with *clarity*, it does seem impossible to have accountability if citizens do not know who to blame to. According to De Vries and Giger (2013), Cutler (2004 and 2008), Rudolph (2003b) and Anderson (2006), the clearer the institutional design, the more intense the economic vote will be. Previous literature has extensively studied which characteristics of the political system can influence responsibility attribution. For instance, when the legislative and executive powers are not clearly separated, citizens can struggle to identify which of them has taken those decisions affecting their respective welfares. For the same reason, coalition governments can blur political responsibility.

Checking the existence of economic vote in two Canadian Provinces, Cutler (2004) finds that voters are not always willing to assume the information costs of an intertwined institutional framework. When this happens, they tend to pay attention only to those issues in which the distribution of powers is clearer. Additionally, Cutler highlights the lack of temporal consistency of citizens' answers: being vulnerable to many environmental circumstances, they do not seem to crystalize.

Malhotra y Kuo (2008), Gómez and Wilson (2007) and Maestas *et al* (2008) also highlight the importance of the amount, clarity and internal organization of the information received by citizens when attributing responsibilities. Apparently, when information is scarce, partisan vote is activated.

The economic vote is more complex when two or more levels of government are at place, and even more in those cases in which several of them share powers over the same issue. Citizens'

¹ Rudolph (2003a) suggests that the economic vote can also be prospective, but even in that case, the evaluation of the recent past works as the basic input to construct citizens' expectations.

confusion can also be fostered by the existence of intergovernmental institutions. Anderson (2006) shows that the larger the real decentralized power, the lower the economic vote is. As a consequence of this, accountability is weakened, politicians having strong incentives to promote voters' confusion (Arcenaux, 2006; Hobolt and Tilley 2014a). In this context, Wlezien and Soroka (2011) find that when changes take place within Canadian federal expenditures, citizens react addressing also what Provincial governments are doing. Put it differently, voters do not distinguish who is doing what. Furthermore, Cutler (2008) observes that accountability in Canada only seems feasible in those policy areas in which the distribution of powers is clearer and more transparent. Similar conclusions can be found in Cutler (2013): only when one level of government implements a certain policy and the other does not react, when intergovernmental conflicts are low and information in media is abundant, are citizens capable of assigning responsibilities correctly. Schneider (2008) finds evidence that the lack of correspondence between what citizens believe and what the real distribution of powers is leads to a very negative view of what public agents do, thus biasing their voting decisions.

Hobolt and Tilley (2014a) analyze responsibility attribution within the European Union in five policy areas (economy, interest rates, health care, migration and climate change) with a multilevel methodology. Their results suggest that the institutional framework is highly relevant, considering citizens tend to attribute the EU larger responsibilities in those affairs in which it has exclusive powers, and smaller responsibilities in those areas with shared powers with the member States.²

Regarding the Spanish case, several recent papers have shown the low visibility of regional governments. Herrero et al (2015) highlight the high level of no response in national polls, thus suggesting a remarkable ignorance of the vertical distribution of powers in Spain. Moreover, and focusing on the respondents, the share of those who succeed in assigning powers to regional governments is very low, and extremely low in the case of taxes. However, León and Ferrín (2007), Lago and Lago (2010 and 2013) and León (2012) offer some evidence on citizens' learning process: the longer the devolution of powers, the higher the visibility of Autonomous Communities (ACs hereafter). Nevertheless, it seems that regional heterogeneity due to institutional characteristics has decreased with time (López and Rodrigo, 2015; León, 2010b).

León (2010b) and Herrero et al (2015) show that visibility is also affected by the kind of policies citizens are asked about. Accuracy in answers is larger when asked about monetary transfers than when asked about in-kind transfers. Differences are also observed among the latter, health care and education being closer and more visible than other public policies such as transportation or infrastructures.

It also seems that visibility tends to be larger when the level of decentralization is very low or very high, with one level of government predominating over the other (León, 2010a, 2010b and 2012). When institutional clarity is stronger, economic vote works better (León and

² Nevertheless, Hobolt and Tilley (2014b) show that, even when citizens can differentiate what are EU powers and national governments powers, they do not use European Parliament elections as a punishment tool for its bad performance, but as a way to signal their (dis)approval of their respective national governments.

Orriols, 2013). On the contrary, citizens struggle to visualize shared powers (León, 2015 and Herrero et al, 2015)

2. Even when institutional clarity exists, citizens absorb information through media, which are the ones that select and frame it. *Saliency* and *framing* of public policies will ultimately influence the amount of information reaching voters and will condition the ability of the latter to evaluate politicians.

Arcenaux (2006) analyzes responsibility attribution among the three levels of government (federal, regional and local) in three public issues (unemployment, education and traffic) in the USA. His results suggest that even though citizens know, in general terms, who is doing what, they only use that information to decide their vote when it is really salient. Voters pay more attention to those policies affecting them the most and it is in those cases when information can affect behavior (vote).

The importance of saliency is also shown in Lago and Cordero (2016). They study the effects of the economic crisis on the visibility of Spanish governments, showing that economic voting has increased after 2008. Besides, those effects are larger among those more strongly affected by the crisis.

3. Finally, the selection of relevant information by citizens is also conditioned by the *credibility* they assign to politicians and media. Although Ben-Porah and Shaker (2010) show the important role of media framing in the responsibility attribution process,³ they also suggest that the larger the personal interest in one issue, the bigger the resistance to absorb information contradicting the person's initial beliefs. In the same line, Hobolt *et al* (2013) demonstrate that British voters tend to attribute more credibility to the information channeled through their national government than to the one originated within an European institution. Therefore, it seems that source credibility has a critical role in the transmission of information when attributing blame.

In spite of the influence of clarity, saliency and credibility in responsibility attribution, empirical literature has extensively demonstrated that individual heterogeneity explains a big share of the amount of information absorbed by citizens. Age, gender, race, habitat, human capital, income and several other individual characteristics condition the way information reaches voters. Moreover, individuals' attitude also seems to be critical: partisan and group biases tend to reduce the use of information by citizens when they evaluate public policies and government responses to crises.

Regarding the Spanish case, the high-skilled, most concerned about politics and public affairs, and with a larger preference pro-decentralization, tend to better identify the level of government responsible for providing public services and collecting taxes (León and Ferrín, 2007; López and Rodrigo, 2013, 2014 and 2015).

³ More specifically, they find that responsibility attribution is different when information is offered with a general and abstract thematic framing, than when it is an episodically framed, channeled through specific people's experiences.

Gómez and Wilson (2007) and De Vries and Giger (2013) also highlight the strong influence of political sophistication. Heterogeneous information models suggest that those voters with a lower level of political sophistication blame themselves for their bad economic situation due to their lack of information, while those more sophisticated exert economic vote to a larger extent. On the contrary, heterogeneous attribution models (Gómez and Wilson, 2007) predict the opposite behavior: most informed individuals, knowing that some issues are out of reach of the government, tend to exert economic vote less. Nevertheless, the gap between both groups becomes smaller with the saliency of the issue, because the cost of acquiring information decreases (De Vries and Giger, 2013).

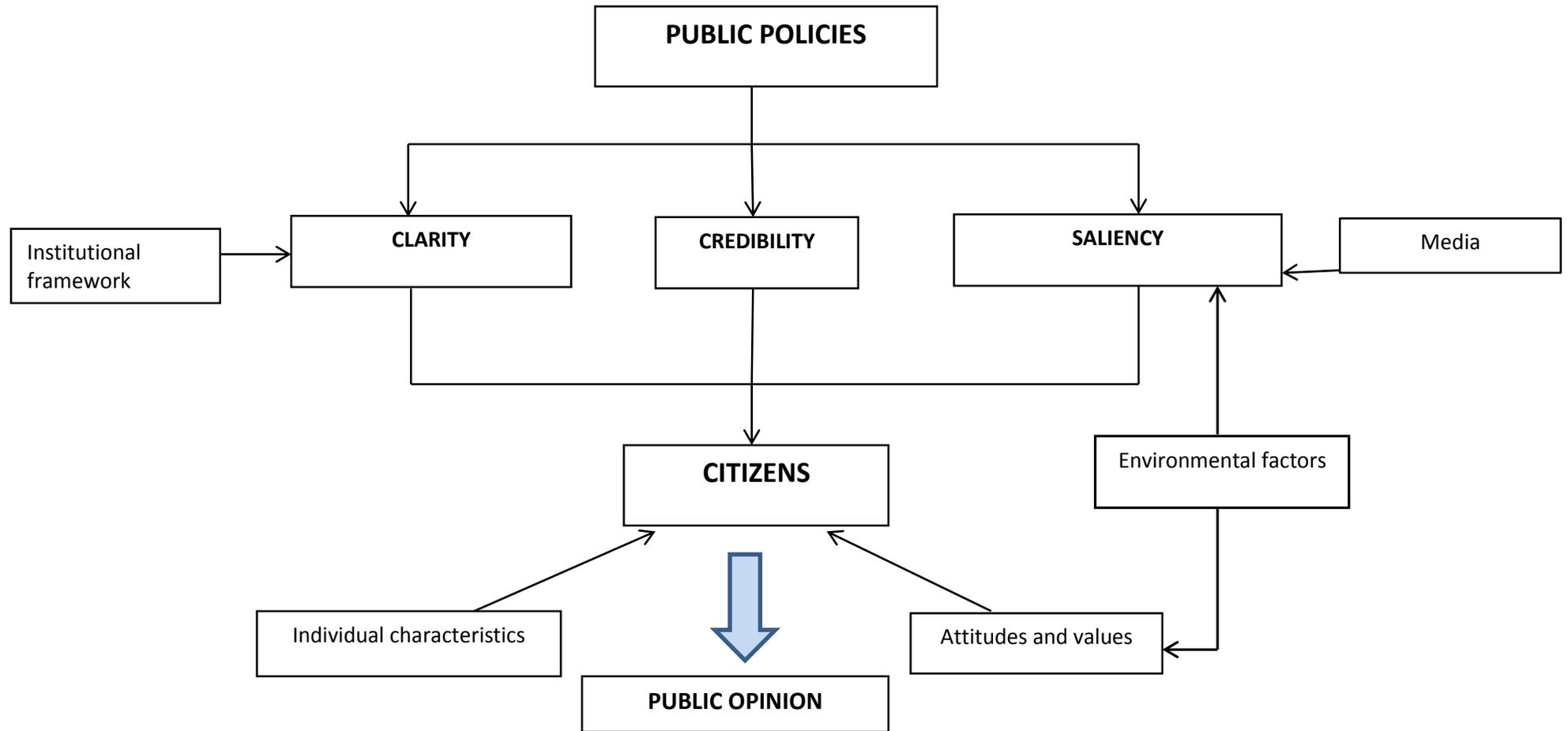
Citizens' attitude is also critical when attributing responsibility. The influence of partisan and group biases in the accountability process has been deeply analyzed in the literature. For instance, Brown (2008 and 2010), Tilley and Hobolt (2011) and Rudolph (2003a and 2003b) suggest that ideology conditions responsibility attribution: government partisans tend to attribute economic successes to incumbents, while opposition partisans do the same with economic failures.⁴ Furthermore, Maestas *et al* (2008) and Malhorta and Kuo (2008) show that republican voters tended to attribute responsibility to sub-central governments (with democrat incumbents) to a larger extent in the public management of hurricane Katrina, while democrat voters blamed the federal government (republican) more.

Rudolph (2003a) points out the possibility of the ideological bias being asymmetric. Nevertheless, it seems that partisan biases could be diminished by a well-designed institutional framework and more abundant information. According to Brown (2008 y 2010), political alignment affects the way citizens identify which level of government is ruling public policy in a way that they tend to use partisan shortcuts when having trouble to choose who to blame to in a context of divided federalism.

Apart from the ideological bias, Hobolt and Tilley (2014a and 2014b) find that citizens have a group bias related to their support of European institutions as well. Supporters of centralizing more powers in Brussels tend to attribute successful policies to the UE, while Eurosceptics tend to attribute them to their respective national governments. León (2010b) also shows that residents in the Basque Country are more successful in identifying the level of government supplying health care and education (the regional one), but struggle to identify the central administration as the provider of several national programs. Furthermore, León (2010b and 2015) suggest that citizens have a "predominant" level of government they tend to attribute most responsibilities to.

⁴ In an analysis of individual heterogeneity, Tilley and Hobolt (2011) show three different possible uses of information: 1) Government partisans ignore all negative information, while opposition partisans use it; 2) Both groups absorb the same information, but they process it in different ways; 3) They both absorb and process the information in the same way, but government partisans tend to attribute negative information to exogenous elements and positive information to governments decisions, while opposition partisans act in the opposite way.

RESPONSIBILITY ATTRIBUTION DETERMINANTS



3. THE VISIBILITY OF SPANISH REGIONAL GOVERNMENTS: EMPIRICAL STRATEGY

3.1. Hypotheses, dependent and independent variables

The purpose of this paper is to enlarge our knowledge about what is causing the extremely low visibility of Spanish regional governments. To do so, the subject of study will be those people who do not answer or answer incorrectly to questions about which level of government is in charge of providing health care and education services in Spain. The decision of choosing those services was based on their quantitative and qualitative importance within the regional public budget. They are supposed to be the closest and most visible ones for citizens.

Our dependent variable will be, in the first place, a dichotomous with the value of 1 when the person does not answer or misses the question and 0 otherwise. Including the non-respondents is based on the idea that those are the most extreme cases of low visibility regarding the vertical distribution of powers. Using a logit model, our target is to extract the institutional and environmental characteristics that condition visibility.

A second approach would be to classify respondents in four groups: 1) those who succeed in answering to both questions regarding health care and education (group 0); 2) those who only identify the level of government providing health care services (group 1); 3) those who do so only in the education question (group 2); and 4) those who fail to identify who is providing both services (group 3). The target, in this case, is to try to see whether each of those groups have different characteristics as compared to the other three. For that purpose, a multinomial logit model will be applied.

And yet a third approach to the same question will be to estimate another multinomial logit model in which the dependent variable will be constructed by classifying respondents in three groups. The reference group (0) would include those who do not answer the question, while group 1 would address those people failing to identify the competent level of government and group 2 would include those who succeed in answering the question. The final target of this estimation would be to detect whether there are significant differences between groups 0 and 1, considering that most previous literature has studied them from an aggregated perspective.

Regarding the explanatory variables, they can be classified in several groups:

1. First, it is important to consider that the political cycle increases saliency at certain points of time. A larger amount of information is available right before the elections and a deeper interest of citizens in public policy can be expected.

Hypothesis 1: the political cycle affects the visibility of governments.

To test this hypothesis, we will be including a dummy variable referred to the regional electoral cycle, with the value of 1 when it is an election year and 0 otherwise (*Elections*)

2. Another element that could affect regional governments' visibility in the long term is their presence in media. Rudolph (2003b) highlights that local media devote a larger share of their broadcasts to local information, including sub-central authorities' activity, thus contributing to a larger visibility.

Hypothesis 2: Regional TV stations increase visibility.

A dummy variable specified in two different ways will be included to test this hypothesis. First, it will take value 1 when the specific region had a TV station in that year, and 0 otherwise (*TVreg*). And second, and trying to address the fact that this media could have a long term effect, this variable will take value 1 for regions with a “first generation” regional TV station (those created during the 80’s), and 0 for the rest (*TVreg1G*).

3. When analyzing responsibility attribution, the visibility of education policy is systematically above the level obtained by health care policy. This could be a consequence of several factors. Among them, it could be the case that families have to put a special effort in choosing their children’s school and, in taking that decision, they have to consider whether they want a bilingual education or not (only in regions with a co-official language).

Hypothesis 3: co-official languages increase visibility.

To test this hypothesis, another dichotomous variable will be included, amounting 1 in those regions in which a co-official language exists (Balearic Islands, Catalonia, Valencia, Galicia, Navarre and the Basque Country), and 0 otherwise (*Language*).

4. Regarding the environmental elements that could affect the saliency of regional public policies, it is also important to address the fact that after the outbreak of the economic crisis in 2008, important cutbacks took place.

Hypothesis 4: the economic crisis increased visibility.

A dummy variable (*Crisis*) amounting 1 in 2010 (first year in which cutbacks were implemented) and 0 otherwise (2005, 2006 and 2007) was included in the estimations.

Other environmental elements related with political circumstances could affect visibility as well. Voters could struggle to identify which level of government is deciding public policies when there is political alignment (*Alignment*). For the same reasons, logrolling and coalitions make it more difficult to visualize agents taking decisions (*Coalition*).

Hypothesis 5: political alignment and coalition governments increase citizens’ confusion.

5. Several variables regarding individual and social characteristics will be used as controls: gender (*Gender*), age (*Age* and *Age*², to address an eventual nonlinear function), place of residence (*Rural*), human capital (*HCap*), ideology (*Ideology*), type of region (*Foral*), whether citizens are users of the service or not (*UserHe* and *UserEdu*), citizens evaluation of public services (*ServEval*) and their respective preference for centralization of the service (*CentHe* and *CentEdu*).

3.2. The econometric models

Due to the qualitative and dichotomous nature of our dependent variable, several Logit and Multinomial logit models will be estimated. These models solve the non-linearity problem, giving as outcomes the probability that a citizen *i* does not respond or fails to respond one question:

$$P[Y = 1|X] = \frac{e^{\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki}}}{1 + e^{\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki}}}$$

As a means of sensitivity test, a decomposition of the target group will be done, separating those who do not answer or answer incorrectly. The idea is to detect whether significant differences among them exist or not. Once those differences are contrasted, a multinomial model will be estimated, in which citizens will be clustered in four different groups: those who respond correctly to health care and education questions (0), those who correctly identify who is providing the health care question (1), those who only identify the level of government providing education services (2), and those who fail to respond both questions (3). This model estimates as much equations as groups exist (j) and the coefficients inform about the increase of probability of an outcome as compared to the reference group.

$$P_{ij} = \frac{e^{\beta_{0j} + \beta_{1j} X_{i1} + \beta_{2j} X_{i2} + \dots + \beta_{kj} X_{ik}}}{1 + \sum_{j=1}^{J-1} e^{\beta_{0j} + \beta_{1j} X_{i1} + \beta_{2j} X_{i2} + \dots + \beta_{kj} X_{ik}}}$$

Finally, we will estimate another multinomial logit model in which the dependent variable will be constructed by classifying respondents in three groups. The reference group (0) would include those who do not answer the question, while group 1 would address those people failing to identify the competent level of government and group 2 would include those who succeed in answering the question. The final target of this estimation would be to detect whether there are significant differences between groups 0 and 1, considering that most previous literature has studied them from an aggregated perspective.

4. RESULTS

Tables 1, 2 and 3 present the logit and multinomial model results. Regarding the first one, control variables have the expected signs and are significant in most of the cases. Age reduces the probability of no response or incorrect answer, but the relationship between both variable is nonlinear, becoming positive at a certain point. As previous research has suggested, men, high-skilled people, users and those who value services most tend to answer to a larger extent.

Pro-centralization citizens seem to be less informed about the vertical distribution of powers, revealing a bias-group similar to the one detected by León and Orriols (2014), with a higher probability of no response or incorrect answer. Furthermore, residents in “foral” territories tend to have a better perception of their regional governments, as it had already been tested in León (2010a).

Regarding our hypotheses, results show that regional elections increase citizens’ confusion (the odds ratio is 1.55 for health care and 1.40 for education services). This outcome, opposite to the expected one, could be explained by the blaming-each-other game of regional politicians during election campaign.

As for hypothesis 2, it seems that the existence of a first generation regional TV station clearly boosts the visibility of health care and education policies, thus reducing the probability to fail in attributing responsibility to regional governments (in those territories in which no co-official language exists). Our results suggest that those more exposed to local information reduce their probability of failure in a 31 and 26 percent for health care and education respectively.

On the contrary, the existence of a co-official language (hypothesis 3) in a region with no local TV station (only Balearic Islands and Navarre) seems to increase residents' confusion. Their probability of failing to identify the competent level of government is much bigger for both health care (the odds ratio amounts 3.08) and education (1.69) services. This outcome might be explained by the group bias we referred to above.

Nevertheless, including an interaction term in the two previous variables seems to generate a net positive effect on visibility: citizens living in a territory with co-official language and a regional TV station (Galicia, the Basque Country, Valencia and Catalonia) show a lower probability of failing the answer, with odds ratios of 0.46 and 0.52 for health care and education respectively.

The outbreak of the economic crisis in 2008 led to the implementation of important cutbacks in regional budgets, thus increasing sub-central governments' visibility (odds ratio of 0.52 in the case of health care and 0.48 for education policies). This effect is probably due to the higher saliency of regional decisions in media.

Finally, regarding political variables, we observe that political alignment of regional and central governments might foster citizens' confusion regarding health policy, but not that much in the case of education. However, coalitions at the regional level of government do not seem to affect visibility.

Nevertheless, results in Table 1 also suggest that there are systematic differences in the explanatory power of some institutional, environmental and individual characteristics on no response and incorrect answers. Regional elections, regional TV stations and the "foral" financing system of the Basque Country and Navarre have an impact on the probability of a failed answer, but they do not seem to influence no response. On the contrary, political alignment fosters no response, but does not have an effect on failing the answer.

In order to address group heterogeneity, a multinomial logit model was applied with the results shown in Table 2. The reference group (3) contains citizens that were not able to identify which level of government is providing health care and education services. We observe that regional elections and co-official languages reduce the probability of double success (group 0) with respect to the reference group (double mistake). However, regional TV stations and the economic crisis increase the probability of belonging to group 0. Political alignment and coalition governments do not explain differences between groups 0 and 3.

Regional elections do not affect the probability of belonging to group 1 (successful answer in health care) or 2 (successful answer in education) with respect to the reference group (3). Regional TVs and the economic crisis, on the other hand, increase the probability of belonging to those groups, while co-official languages affects in the opposite direction with group 1. Political alignment tends to reduce the probability of belonging to group 1, but does not affect the probability of belonging to group 2. Coalition governments, once again, seem to be irrelevant.

And finally, another multinomial logit was estimated in which the reference group (0) included non-respondents, group 1 included those who failed to answer the question and group 2

included the ones who correctly identified the competent level of government. Once again, we observe significant differences among the three groups. Environmental and institutional variables seem to be almost irrelevant, while individual characteristics have strong explanatory power when comparing groups 0 and 1. However, when comparing groups 0 and 2 results suggest quite the opposite: external characteristics have a higher impact than individual ones.

Table 1: RESPONSIBILITY ATTRIBUTION (LOGIT)

	No response + Incorrect answer Health Care	No response Health Care	Incorrect answer Health Care	No response + Incorrect answer Education	No response Education	Incorrect answer Education
Age	-.0484***	-.0934***	-.0166	-.0210*	-.1017***	.0116
Age ²	.0004***	.0010***	.0001	.0002*	.0011***	-.0001
Rural	.0705	.1408	.0314	.1765*	.0567	.1616*
Gender	-.0979	-.3413**	-.0011	-.0457	-.2240	.0074
HCap	-.3899***	-.8054***	-.2020**	-.3648***	-.8245***	-.2008**
User (He/Edu)	-.3221***	-.0414	-.3149***	-.0857	-.2855*	-.0240
ServEval	-.4490***	-.2001	-.3875***	-.2913***	-.3726**	-.1964**
Cent (He/Edu)	1.4104***	-.8392***	1.5651***	1.2086***	-1.0341***	1.3786***
Elections	.4422***	.0522	.4220***	.3990***	-.0442	.4094***
TVreg1G	-.3580***	-.0123	-.3528***	-.2892***	-.0520	-.2770***
Language	1.1268***	.8859***	.6605***	.5258**	.9538***	.1663
Crisis	-.6395***	-.9632***	-.4306***	-.7232***	-1.5639***	-.4659***
Foral	-.5934***	-.4746	-.4420**	-.5605***	-.4727	-.4092**
Alignment	.1278	.2649*	.0521	.0389	.3238*	-.0339
Coalition	-.0077	.2264	-.0900	.1926*	.2722	.1059
TV*Language	-1.49.9***	-.7351*	-1.0918***	-.8545***	-.8362**	-.5432**
N	5811	5811	5811	5811	5811	5811
LR Chi ² (16)	1104.15 (0.000)	210.93 (0.000)	1144.92 (0.000)	849.30 (0.000)	275.46 (0.000)	852.00 (0.000)

*P<0,05; ** P<0,01; ***P<0,001

Table 2: RESPONSIBILITY ATTRIBUTION (MULTINOMIAL LOGIT)
Reference Group: 3 (double failure)

	Group 0	Group 1	Group 2
Age	.0494***	.0379*	-.0042
Age ²	-.0005***	-.0004*	-.0000
Rural	-.1769*	.0408	-.1602
Gender	.1084	.0811	.0029
HCap	.5107***	.0197	.0149
UserHe	.4673***	.1479	.1996
UserEdu	.0401	.0363	.1372
ServEval	.4929***	.5288***	.2365*
CentHe	-1.3535***	-1.3325***	.5803***
CentEdu	-.5233***	.7108***	-1.3777***
Elections	-.5564***	-.1748	-.0902
TVreg1G	.4194***	.7054***	.5125***
Language	-1.0906***	-1.3053***	-.0946
TV*Language	1.5681***	1.3921***	.0632
Crisis	1.0058***	.7572***	.8741***
Foral	.8150***	.3336	.3083
Alignment	-.1058	-.3133**	-.1304
Coalition	-.1511	.2634*	-.1366
N	5811		
LR Chi ² (16)	1695.52 (0.000)		

*P<0,05; ** P<0,01; ***P<0,001

Group 0: double success; Group 1: success only in the health care question; Group 2: success only in the education question; Group 3: double failure

Table 3: RESPONSIBILITY ATTRIBUTION (MULTINOMIAL LOGIT)
Reference Group: 0 (No response)

	Health Care		Education	
	Group 1	Group 2	Group 1	Group 2
Age	.0744***	.1089***	.0992***	.1037***
Age ²	-.0008***	-.0011***	-.0011***	-.0011***
Rural	-.1023	-.1571	.0402	-.1408
Gender	.3165**	.3667***	.2148	.2324*
HCap	.6235***	.9331***	.6627***	.9547***
User (He/Edu)	-.1346	.2055	.2503*	.3068**
ServEval	-.0214	.4305***	.2417	.5035***
Cent (He/Edu)	1.4955***	-.0747	1.5899***	.2399
Elections	.1727	-.2985*	.2572	-.1816
TVreg1G	-.1515	.2328	-.0837	.2183
Language	-.4865	-1.5358***	-.7804**	-1.1932***
Crisis	.6580***	1.2135***	1.2143***	1.8174***
Foral	.0909	.6476*	.1535	.6683*
Alignment	-.2350	-.3291*	-.3242*	-.3248*
Coalition	-.2423	-.1819	-.1907	-.3430*
TV*Language	.0766	1.5559***	.4516	1.2409***
N	5811		5811	
LR Chi ² (32)	1388.11 (0.000)		1148.19 (0.000)	

*P<0,05; ** P<0,01; ***P<0,001

Group 0: no response; Group 1: incorrect answer; Group 2: correct answer.

5. CONCLUSIONS

Democratic systems need politicians being accountable to citizens. And for accountability to take place, it is essential that citizens are able to identify which public agent is taking collective decisions. That identification can be hindered by a number of circumstances such as the institutional framework, the political environment, the existence and operation of media, and the individual characteristics of voters, to name only a few.

This paper tries to contribute to the literature on the visibility of sub-central governments by presenting new evidence on the factors that influence responsibility attribution in Spain. Most of previous work on the topic has focused on the individual heterogeneity of voters and the influence of individual characteristics in the process of using information to decide the vote. On top of that, most of the existing research is focused on the characteristics of those individuals that succeed in identifying the competent level of government.

In this paper, however, we focused on the institutional and environmental characteristics that can affect the accountability process. Moreover, our groups of interest were both non-respondents and those who failed their answer, finding evidence that they are very heterogeneous groups. While the former are heavily influenced by individual characteristics, the latter are more affected by institutional and environmental factors.

We observe that regional elections tend to confuse citizens, probably due to the blaming game of regional politicians. On the contrary, regional TV stations favor a correct responsibility attribution. And more specifically, the longer the exposure of citizens to regional information, the easier to identify who is providing health care and education services. A co-official language seems to distort visibility, but if co-exists with a regional TV, a net positive effect of both variables on responsibility attribution can be expected.

Austerity policies applied during the crisis seem to have fostered the accountability process. This is probably due to the higher repercussion of public policy in the media. And finally, it looks like political alignment of both the central and regional government foster voters' confusion, while coalition governments at the sub-central government seem to be irrelevant.

BIBLIOGRAFÍA

ANDERSON, C. (2006): "Economic voting and multi-level governance: an individual-level analysis", *American Journal of Political Science*, 50(2), pp.449-463.

ARCENEUX, K. (2006): "The Federal Face of Voting: Are Elected Officials Held Accountable for the Functions Relevant to Their Office?", *Political Psychology*, 27(5), pp.731-754.

ÁREA DE SOCIOLOGÍA TRIBUTARIA (2006): "Opiniones y actitudes fiscales de los españoles en 2005", *Documentos de Trabajo*, IEF, nº 10/2006.

ÁREA DE SOCIOLOGÍA TRIBUTARIA (2007): "Opiniones y actitudes fiscales de los españoles en 2006", *Documentos de Trabajo*, IEF, nº 21/2007.

- ÁREA DE SOCIOLOGÍA TRIBUTARIA (2008): "Opiniones y actitudes fiscales de los españoles en 2007", *Documentos de Trabajo*, IEF, nº 15/2008.
- ÁREA DE SOCIOLOGÍA TRIBUTARIA (2011): "Opiniones y actitudes fiscales de los españoles en 2010", *Documentos de Trabajo*, IEF, nº 9/2011.
- BEN-PORATH, E. and L. SHAKER (2010): "New Images, Race, And Attribution In The Wake Of Hurricane Katrina", *Journal of Communication*, 60(3), pp.466-490.
- BROWN, A. (2008): "Partisanship, Blame, and Divided Federalism: How Voters Assess Gubernatorial Responsibility For The State Economy", 8th Annual State Policy and Politics Conference, Philadelphia, 30 y 31 de Mayo.
- BROWN, A. (2010): "Are Governors Responsible For The State Economy? Partisanship, Blame And Divided Federalism", *The Journal of Politics*, 72(3), pp.605-615.
- BUCHANAN, J. (1965): "An Economic Theory of Clubs", *Economica*, 32(125), pp.1-14.
- CUTLER, F. (2004): "Government responsibility and electoral accountability in federations", *Publius: The Journal of Federalism*, 34(2), pp.19-38.
- CUTLER, F. (2008): "Whodunnit? Voters and responsibility in Canadian federalism", *Canadian Journal of Political Science*, 41(3), pp. 627-654.
- CUTLER, F. (2010): "The space between worlds: federalism, public issues and election issues", *Regional & Federal Studies*, 20(4-5), pp.487-514.
- CUTLER, F. (2013): "Political Conditions For Voting With Responsibility Under Multi-Level Governance", European Consortium for Political Research General Conference, Burdeos, Septiembre 2013.
- DE VRIES, C. and N. GIGER (2013): "Holding Governments Accountable: Individual Heterogeneity in Performance Voting", *European Journal of Political Research*, 53 (2), pp.345-362.
- GÓMEZ, B. and J. WILSON (2007): "Help Us, Please! Attributions of Governmental Responsibility in the Wake of Hurricane Katrina", Annual Meeting of the Southern Political Science Association, New Orleans, January, 4-6, 2007.
- HERRERO, A.; M. GOENAGA; and J. RUIZ-HUERTA (2015): "Finanzas Autonómicas: Visibilidad, Transparencia y Atribución de Responsabilidades", *Papeles de Economía Española*, n.143, pp.185-204.
- HOBOLT, S. and J. TILLEY (2014a): "Who's in Charge? How Voters Attribute Responsibility in the European Union", *Comparative Political Studies*, 47(6), pp.795-819.
- HOBOLT, S. and J. TILLEY (2014b): *Blaming Europe. Responsibility Without Accountability In The European Union*, Oxford: Oxford University Press
- HOBOLT, S.; J. TILLEY; and J. WITTROCK (2013): "Listening To The Government: How Information Shapes Responsibility Attributions", *Political Behavior*, 35(1), pp. 153-174.
- LAGO, I. and S. CORDERO (2016): "The Bright Side of The Economic Crisis: The Attribution Of Political Responsibilities In Hard Times", *Canadian Journal of Political Science*, forthcoming.

- LAGO, I. and S. LAGO (2010): "Decentralization and electoral accountability", *Environment and Planning C: Government and Policy*, Vol.28, pp.318-334.
- LAGO, S. and I. LAGO (2013): "La Atribución de Responsabilidades Políticas en Estados Descentralizados", *Cuadernos Económicos del ICE*, 85, pp.44-63.
- LEÓN, S. (2010a): "Who is Responsible For What? Clarity of Responsibilities in Multilevel States: The Case of Spain", *European Journal of Political Research*, 50, pp.80-109.
- LEÓN, S. (2010b): "Leaking Accountability On The Way To Federalism? The Case Of Spain", *Working Papers*, Centro de Estudios Políticos y Constitucionales, n.120/2010.
- LEÓN, S. (2012): "How Do Citizens Attribute Responsibility in Multilevel States? Learning, Biases and Asymmetric Federalism. Evidence From Spain", *Electoral Studies*, n.31, pp.120-130.
- LEÓN, S. (Coord) (2015): *La Financiación Autonómica. Claves Para Comprender Un (Interminable) Debate*, Madrid: Alianza.
- LEÓN, S. and M. FERRÍN (2007): "La Atribución de Responsabilidades Sobre las Políticas Públicas en un Sistema de Gobierno Multinivel", *Administración & Ciudadanía*, n. 2(1), pp. 49-75.
- LEÓN, S. and L. ORRIOLS (2014): "Asymmetric Federalism, Clarity of Responsibility and Economic Voting. Evidence From Spain", European Political Science Association Conference, 2014.
- LÓPEZ, J. (2011): "Beneficios y Costes del Estado Autonómico", *Cuadernos Manuel Giménez Abad*, 1, pp. 34-42.
- LÓPEZ, J. and F. RODRIGO (2012): "¿Por qué los Españoles Son (Moderadamente) Autonomistas? Las Ganancias Regionales de Eficiencia y la Preferencia por la Autonomía", *Ekonomiaz*, 81, pp. 62-81.
- LÓPEZ, J. and F. RODRIGO (2013): "Nueva Evidencia Sobre Atribución de Responsabilidades Sobre los Servicios Regionales y Preferencia por la Descentralización", *Papeles de Trabajo*, Instituto de Estudios Fiscales, n.3/2013.
- LÓPEZ, J. and F. RODRIGO (2014): "Percepciones de los Ciudadanos sobre las Haciendas Regionales: Quién es y Quién Debería ser Responsable de los Servicios e Impuestos Autonómicos", *Revista de Economía Aplicada*, n.65, pp.1-28.
- LÓPEZ, J. and F. RODRIGO (2015): "Attribution Of Regional Responsibilities For Public Services And Citizen Support Of Decentralization: Evidence From Spain", *Revista Española de Investigaciones Sociológicas*, 152, pp.65-86.
- MAESTAS, C.; L. ATKENSON; T. CROOM; and L. BRYANT (2008): "Shifting the Blame: Federalism, Media and Public Assignment of Blame Following Hurricane Katrina", *Publius: The Journal of Federalism*, 38(4), pp. 609-632.

MALHOTRA, N. and A. KUO (2008): "Attributing Blame: The Public's Response To Hurricane Katrina", *The Journal of Politics*, 70(1), pp.120-135.

MUSGRAVE, R. (1959), *The Theory of Public Finance: a Study in Political Economy*. New York: Mcgraw-Hill

OATES W. E. (1972): *Fiscal Federalism*. New York: Harcourt Brace Jovanovich.

POWELL, G. and G. WHITTEN (1993): "A Cross National Analysis of Economic Voting: Taking Account of The Political Context", *American Journal of Political Science*, 37(2), pp.391-414.

RUDOLPH, T. (2003a): "Who's responsible for the economy? The formation and consequences of responsibility attributions", *American Journal of Political Science*, 47(4), pp.698-713.

RUDOLPH, T. (2003b): "Institutional context and the assignment of political responsibility", *The Journal of Politics*, 65(1), pp.190-215.

SCHNEIDER, S. (2008): "Who's To Blame? (Mis) Perceptions of the Intergovernmental Response To Disasters", *Publius: The Journal of Federalism*, 38(4), pp.715-738.

TILLEY, J. and S. HOBOLT (2011): "Is The Government To Blame? An Experimental Test of How Partisanship Shapes Perceptions of Performance and Responsibility", *The Journal of Politics*, 73(2), pp.1-15.

WLEZIEN, C. and S. SOROKA (2011): "Federalism and Public Responsiveness to Policy", *Publius: The Journal of Federalism*, 41(1), pp.31-52.