



# Campaigns, Political Preferences and Turnout: An Empirical Study of the 1997 French Legislative Elections

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The purpose of this paper is to assess the importance of electoral campaigns for explaining turnout, and to evaluate more precisely the influence of electoral expenditures and of the multiplication of candidatures. The study of these two determinants also proposes to control for the influence of the structural determinants of the vote, notably standard socio-economic variables, as well as for the influence of the voter partisan preferences, whose impact on turnout is rarely taken into account. After a theoretical analysis of the determinants of electoral abstention, we propose an empirical analysis of the participation at the legislative constituency level for the French elections of 1997.

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## Introduction

The role and relevance of the electoral campaign in the theoretical and empirical study of the determinants of electoral choice and turnout vary significantly. According to Herr (2002), one may distinguish three different positions: the campaign has no influence on the outcome of the contest (see especially Markus, 1992; Gelman and King, 1993); the sole impact of the campaign is to activate the latent predisposition of the voters<sup>1</sup> (Bartels, 1993; Finkel, 1993); and lastly, campaigns play a minor role compared to the other determinants but can make, in the end, the difference (Holbrook, 1994, 1996; Petrocik, 1996; Shaw and Roberts, 2000).

Concerning the French political process, the impact of the electoral campaign on the voters' mobilization has not been taken into account in spite of the fact that, on the one hand, the reduction of ideological differences between parties (Lafay, 1993) has tended to emphasize the events of the campaign itself, and that, on the other, the choice of the voters seems to take place later and later during the electoral process (Cayrol, 1985).



The aim of this paper is to offer an empirical analysis, for France, of the influence of the campaign on turnout in legislative elections. Two variables facilitate the quantitative examination of campaigns in the case of the French legislative elections: campaign spending and the candidates. The total amount of campaign expenditures at the constituency level offers a good proxy measure for the intensity of the engagement of the candidates during the campaign. And the total number of candidates in competition, which fluctuates from one election and one constituency to another, measures the importance and the diversity of the electoral offer.

To assess the empirical impact of these two factors, it is necessary to control for the influence of the structural determinants of electoral turnout, that is, those that are not influenced by the campaign. Among these structural factors, there are firstly the socio-economic characteristics of the constituency electorates. These determinants of turnout are those more traditionally used in sociological analyses of elections. Secondly, the partisan affiliation of the voters may also influence the turnout decision. Controlling for the socio-economic features of constituencies and for their historical partisan coloration should permit us to assess more accurately the impact of the campaign variables.

The paper is organized as follows. In the following section, we propose a theoretical analysis of the impact on turnout of the two main elements of the electoral campaign; that is, the *electoral offer* (number of candidates) and *campaign expenditures*. The influence of structural variables, especially of partisan preferences, is also studied. The main theoretical propositions are then tested through an empirical analysis on aggregate legislative districts data on turnout for the 1997 French legislative elections. After a presentation of the variables used in the empirical study, the results are discussed. Finally, the last section presents some possible extensions of our research.

### **Electoral Campaigns, Abstention through *Indifference* and *Alienation*, and Structural Determinants of the Vote**

The economic analysis of turnout stresses the idea that voters do a simple utilitarian and rational calculation in order to determine their participation (Downs, 1957). This analysis, and more generally the spatial analysis of elections, allows us to explain the decisions of turnout and abstention (Smithies, 1941; Davis *et al.*, 1970).

Two sorts of abstention can be distinguished (Anderson and Glomm, 1992). On the one hand, there is *abstention by alienation* that corresponds to a situation where the voters abstain from electoral participation because of a distance between their preferences and the positions adopted by the different candidates that is too large. On the other hand, there is *abstention by*



*indifference*, a situation where the voters do not discern any meaningful differences between the positions of the candidates that incite them to participate. Since the voters base their electoral choice on the differential of expected satisfaction of the proposed platforms, the lack of differentiation between the candidates induces abstention.

The characteristics of the campaign have an important influence on these two forms of abstention.

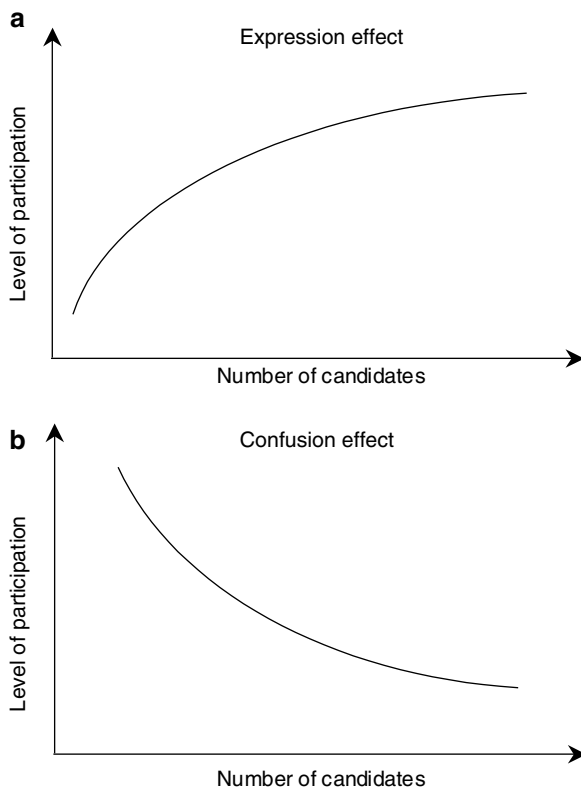
### **The electoral offer**

The number of candidates running at a ballot helps to determine the configuration of the *electoral offer*. This offer may exercise two different influences on turnout. On the one hand, one may expect that an increase in the number of candidates reduces abstention due to both indifference and alienation. Whatever the aim of the voters when they participate<sup>2</sup> — to increase the probability of election of one select candidate or to express political preferences — a larger number of candidates leads to an increase of these potential benefits. Indeed, as the number of candidates increases, the more the probability increases that the distance between the individual voter's preferred position and the position taken by any candidate decreases, *ceteris paribus*.

Therefore, abstention by indifference and by alienation are reduced since the position of at least one candidate is closer to the voter's bliss-point and since there is an increased expectation of at least one candidate whose program is different from the others. This effect of the electoral offer that can be called the *expression effect* is not linear. In other words, it is reasonable to expect that the increase of the number of candidates exerts a progressively weaker influence on the increase in turnout. Therefore, the expression effect can be represented as a concave curve (Figure 1a), linking the level of participation and the number of candidates.

On the other hand, the profusion of candidates may also have a negative impact on turnout. The increase of the number of candidatures makes it harder for voters to distinguish between the candidates in competition. This leads to an increase of the complexity of the decisions of participation and vote.<sup>3</sup> In other words, the multiplication of the candidatures and the confusion that it creates increases the information costs of voters and therefore decreases turnout. The diminution of turnout is smaller and smaller with the increase of the number of candidates. Therefore, one can represent a *confusion effect* curve that depicts a convex decreasing level of participation with the increase of candidatures (Figure 1b).

It is *a priori* impossible to know the relative strength of these two opposite effects and therefore the final effect of the number of candidates on turnout. If



**Figure 1** The different influence of the number of candidates on individual participation: (a) expression effect and (b) confusion effect.

the *expression effect* dominates, the relationship between the number of candidates and turnout is positive. If the *confusion effect* dominates, there is a negative relationship. Finally, it is possible to have a U-curve (or inverted U-curve) depending on whether one or the other of the two effects temporarily dominates. It is only the empirical analysis that can allow us to estimate the exact nature of the relation between the number of candidates and turnout.

### Campaign expenditures

Campaign spending can have several consequences on turnout. Firstly, these expenditures allow campaigns to produce and to diffuse knowledge about the candidates: information on their program, on their position concerning the



electoral issues, or on their political or personal characteristics. Thus, this information reduces voters' uncertainty given the decrease in their cost of acquiring knowledge (Abrams and Settle, 1976; Judge and Hampson, 1980; Chapman and Palda, 1981).

Secondly, information increases the ability to differentiate between the candidates, no matter whether the voter's evaluation is based on political positions or on personal characteristics.<sup>4</sup> The differentiation of the candidates leads to a reduction of abstention due to indifference. The more the voters possess information on the candidates, the more they are able to differentiate them.

The aim of campaign spending for the candidates is an increase of the vote share. The impact of electoral spending is increasingly weak as the level of expenditures rises. This implies that the candidate's spending return is decreasing.<sup>5</sup> Aggregated at the constituency level, the total expenditure has a similar effect, but the overall impact is superior to the simple addition of candidate effects.<sup>6</sup> Therefore turnout increases with total expenditures in a constituency, the return of this spending decreasing (François, 2003).

Previous empirical studies on the impact of electoral expenditures on turnout generally conclude in favor of a positive relationship<sup>7</sup> (notably Seidle and Miller, 1976; Chapman and Palda, 1981, 1983; Patterson and Caldeira, 1983; Caldeira and Patterson, 1985; Denver and Hands, 1985; Cox and Munger, 1989). The estimated shape of the relationship can be linear or can correspond to an increasing concave theoretical function, with specifications of the spending variable based on a second-order polynomial or on the natural logarithm.

### **Socio-economic determinants**

In addition to the substantive determinants of turnout discussed above and that vary at each election, there are structural determinants: the first is socio-economic, and the second belongs to the political process. It is necessary to control for the influence of these structural factors to assess the impact of the electoral campaign accurately.

### **Socio-economic factors and partisan preferences**

The analysis of the socio-economic determinants of turnout corresponds to the mainstream research in political science and especially in electoral sociology (Héran, 1997; Chiche and Dupoirier, 1998; Highton and Wolfinger, 2001). This literature is mainly based on the study of the variables of age, occupation, and of education level (Leighley, 1995). Its essential hypothesis is that these



variables tap the political and economic integration of the voters, which strongly determines their participation.

The second structural factor studied in this paper has been largely neglected in the literature on abstention. It is the relationship between the partisan preferences of the voters and their electoral participation. On this issue, there seems to be a gap between the theoretical models explaining turnout and the empirical research that has been done on this subject. In the theoretical literature, it is generally assumed that the choice to participate in an election (i.e., the decision 'to vote or not') is simultaneous with the electoral choice (i.e., the decision 'how to vote'). In the empirical models, the decision to turnout and the decision of vote-choice are a sequential process: voters are supposed to decide in a first stage if they participate or not, and in a second stage, to decide for whom to vote. Therefore, in this logic, the questions of turnout and electoral choice are considered as completely independent.

In other words, in the logic of a non-sequential vote, the choice to vote for one or the other candidate or party, or not to vote, belongs to the same choice process. Fauvelle-Aymar *et al.* (2000) attest that, at least for French elections, there is an interdependence between expected result and turnout. This suggests that partisan factors do influence turnout. When the popularity of the left is high, turnout increases, and the electors vote more for the left; conversely, turnout decreases when the popularity of the left is low.

Our purpose in this paper is to refine this analysis in taking the partisan tendency of the voters directly into account (and not, as in the previous study, the popularity of the political parties). If partisan factors do have an influence on turnout, then it is necessary to control for them in order to assess the impact of the electoral campaign on voter participation.

The integration of political preferences is one of the originalities of this paper, at least concerning the French case. The question of a possible relationship between turnout and partisan preferences or choices has not been the subject of any empirical study based on French electoral data. Thus, the classic work of Subileau and Toinet (1993) on abstention in France does not mention at all the possibility of this kind of relationship.<sup>8</sup> Nevertheless, as will be evident below, since this present study uses aggregate data (and not survey data), it does not have a direct measure of the political preferences of individual voters but employs a measure of the prior partisan coloration of the district.

In sum, this study tries to test the influence of the electoral campaign on turnout, through the introduction of variables measuring the electoral spending and the number of candidates while controlling for the structural determinants of participation, and especially for the partisan tendency in the district.



## Presentation of the Empirical Study

The empirical study concerns participation in 554 French legislative districts at the first round of the 1997 legislative elections.<sup>9</sup>

### Database presentation

The empirical analysis is based on aggregate electoral district data. More precisely, the dependent variable is the rate of turnout in the different electoral districts at the 1997 legislative elections. Such an approach is in contrast to the usual analysis of voting behavior that studies the electoral phenomenon at the level of the individual voter using survey data.<sup>10</sup> The use of aggregate data offers some advantages. In particular, these data are free of survey and sampling errors. Nevertheless, the use of aggregate data has some limitations. In particular, in order to avoid an ecological fallacy, we note that these aggregate data do not allow us to make inferences about individual behavior.

The choice of the legislative elections of 1997 is due to considerations of data availability, in particular concerning electoral expenditures. The obligation for the candidates to publish their campaign accounts was instituted for the 1993 legislative elections. Between this election and those of 1997, the legislation concerning electoral finance was deeply modified,<sup>11</sup> preventing any study based on temporal data.<sup>12</sup> Therefore, we have chosen a design based on cross-sectional data and to use only the 1997 legislative elections.

The particular characteristics of legislative elections (among all the different types of French elections) provide other advantages. These elections are at the same time general and local: even though the vote takes place in national legislative constituencies, we avoid having to study the influence of local idiosyncrasies that are particularly difficult to quantify in an empirical analysis.<sup>13</sup>

Moreover, the legislative elections of 1997 present the advantage of being close to the last national census (1999), thus offering an important quantity of information on the demographic and socioeconomic features of the electoral districts.<sup>14</sup>

Therefore, the empirical analysis considers the rate of turnout in the 554 electoral districts at the first round of the legislative contest. It is defined as the number of voters (including those who cast blank or spoiled ballots) as a percentage of total registered voters in the district.

The average turnout rate for the 554 districts is about 68% at the first ballot (Table 1). Although the levels of turnout are relatively homogeneous for the country as a whole (low variance), some districts experienced a very high rate (almost 84% at the first ballot in the third district of Pas-de-Calais) while in



**Table 1** Turnout at the 1997 legislative elections

	<i>No. of district</i>	<i>Average</i>	<i>Standard deviation</i>	<i>Min</i>	<i>Max</i>
Turnout	554	68.24	4.04	56.38	84.01

others the abstention rate climbed over 40% (43.6% in the second district of the Alpes-Maritimes).

### The empirical equation

The function to test is the following:

$$\text{Part}_j = f(\text{Ss}_j, \text{Sp}_j, \text{Ce}_j, \text{Cc}_j)$$

where the rate of participation at the first round in the  $j$  district ( $\text{Part}_j$ ) is explained by the structural socio-economic characteristics of the district ( $\text{Ss}_j$ ), by the structural political characteristics ( $\text{Sp}_j$ ), as well as by the variables concerning the electoral campaign, which are the level of expenditures in the district ( $\text{Ce}_j$ ) and the number of candidates ( $\text{Cc}_j$ ). These represent the four groups of explanatory variables included in the estimations.

#### *The structural socio-economic variables (Sse<sub>j</sub>)*

Concerning the socio-economic determinants of turnout, they are introduced to control for the characteristics of the districts<sup>15</sup> (Table 2). The main findings of the electoral sociology literature concerning these socio-economic factors are that abstention is largely explained by low levels of political integration (a lack of interest in politics), itself induced by a lack of social insertion of the voter (Leighley and Nagler, 1992; Subileau and Toinet, 1993; Jaffré and Muxel, 1997; Martin, 2000).

Three categories of socio-economic indicators are used in our study. First, the level of education of the electorate is approximated by the percentage of the population in the district that has no diploma (variable NoDiploma). The expectation is that voters without a diploma participate less since they are less socially integrated.

Second, the occupation structure of the districts is characterized by six variables that measure the percentage of the active population in the agricultural sector (Farmer), the percentage of workers (Worker), of employees (Employees), of sale, service and related occupations (Sale), of office occupations (Office), and of executives (Executive).<sup>16</sup> The Executive variable is excluded from the regressions to avoid a singular matrix.<sup>17</sup> As it is generally argued that the farmer tends to participate more, one can expect the sign of the



**Table 2** The socio-economic explanatory variables<sup>a</sup>

	<i>Average</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Expected sign</i>
Farmer	3.04	3.48	0	20.96	+
Worker	26.16	8.43	3.72	46.95	?
Employee	28.89	3.59	16.53	41.18	–
Sale	6.73	1.92	3.01	14.06	?
Office	22.67	3.61	14.00	30.65	–
Executive	12.51	8.21	4.53	52.39	?
age21	5.18	1.02	2.78	9.05	+
age2124	6.36	2.11	3.55	17.14	–
age2539	27.73	3.31	20.70	38.73	–
age4059	38.12	2.40	24.01	40.44	–
age6074	17.61	3.18	8.53	25.67	–
age74	10.0	2.66	3.47	19.21	–
NoDiploma	20.13	5.03	7.80	36.65	–

<sup>a</sup>As indicated in the text, one cannot forecast the signs of the coefficients associated with the occupation variables. Therefore, the column indicating the expected sign for these variable gives, in this case, the average expected sign. For example, one expects that the districts where there is a high proportion of farmers to participate more and that those with a high proportion of workers to participate less.

coefficients associated to this variable to be positive. Table 2 presents the expected signs for the coefficients of the other occupation variables.

Further, the age demographics of the population are also introduced through six variables corresponding to the age categories of the less than 21 years old (Age21), of the 21–24 years old (Age2124), of the 25–39 years old (Age2539), of the 40–59 years old (Age4059), of the 60–74 years old (Age6074), and of the more than 74 years old (Age74). The variable excluded from the regression is Age21–24.<sup>18</sup> Traditionally, it appears that abstention is more frequent among young age cohorts (Highton and Wolfinger, 2001), and then decreases with age, until it increases again for the elderly.

### *The structural political variables ( $Sp_j$ )*

As our study considers aggregate, not survey, data, we do not have a direct measure of the political preferences of voters. Nevertheless, it may be assumed that the electoral results in a constituency are an approximation of these partisan preferences. They reflect the historical strength of each party in the constituency, that is, the long-run propensity of the electorate to favor a particular party.



**Table 3** Historical strength of the left parties

	<i>Average</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Expected sign</i>
Left	44.17	9.37	14.50	78.00	?

There are different possible measures of the partisan tendency of the electoral districts. We choose to employ the average vote share of left parties<sup>19</sup> at the first round of the legislative elections of 1988 and 1993<sup>20</sup> (Left variable).

On average, the left received 44% of the ballots at the first tour of both elections, with a maximum of 78% in the 12th district of Pas-de-Calais and a minimum of 14.5% in the 15th district of Paris (Table 3). The standard deviation represents about one quarter of the average value (coefficient of variation of 0.21), which indicates a wide diversity of the political preferences of the constituencies.

#### *The candidates in the districts*

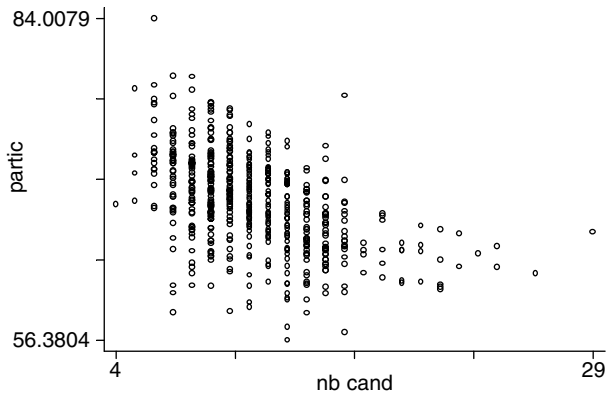
The number of candidates in competition influences the electoral campaign. Candidatures have been growing significantly in French legislative elections. In 1988, 2788 candidates were in competition for the 555 districts of the France metropolitan, which represents an average of 5 candidates by district. In 1993, they were 5139 (9.2 on average), against 6214 and 8234 in 1997 and 2002, corresponding to 11.2 and 14.8 candidates by district, respectively.<sup>21</sup> Thus, the elections of 1997 took place during a real upwards trend.

Among the 6197 candidates present in the 554 districts, 50% were affiliated with left political parties, and 40% with right parties (Table 4). Within the ideological blocs, the candidates of the Left Coalition were the most numerous

**Table 4** Distribution of the candidates by partisan affiliation

<i>Partisan affiliation</i>	<i>ext. L.</i>	<i>L. coal.</i>	<i>var. L.</i>	<i>R. coal.</i>	<i>var. R.</i>	<i>ext. R.</i>	<i>Others</i>	<i>Total</i>
No. of cand.	689	1,652	735	618	1,137	634	732	6,197
%	11.12	26.66	11.86	9.97	18.35	10.23	11.81	100
By district	1.24	2.98	1.33	1.11	2.05	1.14	1.32	11.19
	L: 3,076 (49.6%)			R: 2,389 (38.5%)				

ext.: extreme; coal.: coalition; var.: various; L.: left; R.: right. The left-wing coalition generally applies a mechanism of automatic withdrawal at the second round in favor of the candidate that is in the best place at the first round and regroups the candidates of the PC, of the PS, of the green parties, of the MDC (Mouvements des Citoyens), of the Radicaux de gauche, and of some various left parties. The right-wing coalition generally agrees on an unique candidacy at the first round and it consists of the candidates from the UDF and the RPR.



**Figure 2** Turnout and the number of candidates in each district.

whereas it was those classified as ‘various right’ (*divers droite*) candidates that were the most represented on the right. The average number of candidates per constituency was about 11, the minimum being 4 and the maximum 25; the variance is relatively high (standard deviation 3.45).

The quantitative measure of the electoral offer is taken into account through the variable ‘Nbcand’ that represents the number of candidates present at the first round of the election in each constituency. Considering the two theoretical effects of opposite signs explained before, the expected sign is unknown. If the estimated sign is positive it means that the *expression effect* prevails over the *confusion effect*, and if the sign is negative it represents the opposite condition. Figure 2 shows the relationship between turnout and the number of candidates. It suggests that this relation is decreasing<sup>22</sup> but it remains to control for the influence of the other explanatory variables.

The figure also seems to indicate that the relation between turnout and the number of candidates is convex. Therefore, the actual variable included in the estimations is the natural logarithm of the number of candidates.

### *Campaign expenditures ( $Ce_j$ )*

The data used are the aggregate campaign spending of the 6,197 candidates running in the 554 districts of the 1997 legislative elections. These expenditures correspond to the total amount of electoral campaign spending since it is impossible to distinguish between first and second round spending. It means that a part of these expenditures concerns the second ballot. However, it is a reasonable assumption that the major part of this spending is prior to the first round. In any case, since the period between the two rounds (1 week)



**Table 5** Electoral spending by district (in FF)

	<i>Average</i>	<i>Standard deviation</i>	<i>Min</i>	<i>Max</i>
Spend <sub><i>j</i></sub>	839,389	183,704	410,713	1,689,631

corresponds to a fixed (and comparatively small) portion of the official campaign, it is sufficient to assume that the spending between the first and the second rounds represents a constant fraction in each district.<sup>23</sup>

The amount of the campaign spending varies significantly across constituencies. The average level of spending (840,000 FF) corresponds roughly to half of the maximal amount, reached in the ninth district of the Hauts-de-Seine and to double the minimal amount, in the fourth district of the Hauts-de-Seine (Table 5).

As indicated before, we expect that the relation between aggregate electoral spending and turnout is not linear. It is therefore necessary to take the natural logarithm of the spending variable to estimate an increasing and concave function that is with decreasing returns.<sup>24</sup>

## Empirical Results

The tables in the following section present the results obtained for the estimation of the rate of turnout in the 554 electoral districts. The estimation method used is Ordinary Least Squares. In order to limit the possible problem of heteroscedasticity, the standard errors of the coefficients have been estimated using White's (1980) consistent estimator.

Globally, the results of the estimations are satisfactory. Our different explanatory variables account for about 55% of the variance (the adjusted  $R^2$  is about 0.55 in all the regressions). The next section presents a general discussion of these results. Then, more detailed analyses are discussed concerning the impact of the prior partisan preferences of the constituency and of the effects of the campaign spending.

### General results

Table 6 presents the results for the different categories of explanatory variable.

Concerning the structural socio-economic variables, the results globally conform to expectations. The level of turnout is negatively associated with the proportion of the population having no diploma, the coefficient being highly significant. It also appears that constituencies with a high percentage of the population between 18 and 21 years old have a higher rate of participation

**Table 6** Estimation of turnout at the first round of the parliamentary elections of 1997

<i>Independent variables</i>	<i>Model (1)</i>	
	<i>Coefficients</i>	<i>Student's t</i>
Constant	231.315***	(6.59)
Spend	1.218**	(2.20)
Nbcand	-1.223**	(-2.10)
Left	0.110***	(7.38)
Farmer	0.480***	(7.40)
Worker	0.105***	(3.29)
Employee	-0.305***	(7.96)
Sale	-0.76	(0.77)
Office	0.134**	(2.18)
NoDiploma	-0.138***	(-2.93)
Age2124	-2.069***	(-3.88)
Age2539	-1.410***	(-4.46)
Age4059	-1.261***	(-3.19)
Age6074	-1.295***	(-3.65)
Age74	-1.194***	(-3.43)
Adjusted $R^2$	0.582	
$F$	65.22***	
$N$	554	

Dependent variable: turnout at the first round.

Estimation with ordinary least squares.

The  $t$ -ratios are corrected by the method of White (1980).

\*\*\*The coefficient is statistically significant at the 1 per cent level.

\*\*The coefficient is statistically significant at the 5 per cent level.

\*The coefficient is statistically significant at the 10 per cent level.

those where the population is more aged. Participation is relatively higher in agricultural constituencies, as is also the case for those with higher proportions of workers.

Concerning the impact of the number of candidates, the results show that this coefficient has a negative sign and that it is highly significant (at the 0.01 level in regression 1). In other words, our estimation demonstrates that turnout at the first round of the 1997 legislative elections is especially low in districts with a high number of candidates present at the first round. It suggests that the *confusion effect* induced by the increase of the number of candidates dominates the *expression effect*.



To assess the robustness of the results, we ran different functional forms.<sup>25</sup> First, we estimated the influence of the number of candidates by directly introducing this variable in its untransformed state (and not in the logarithmic form employed in the previous regression model). We also estimated a polynomial relation. It can be seen that the logarithmic estimation is preferable (the value of the  $R^2$  is a little higher). It means that the relation is convex rather than linear: the negative effect of the increase in the number of candidates on turnout diminishes with the increase in the number of candidates. And the negative *confusion effect* decreases with the increase in the number of candidates.

### Impact of the structural political determinants

Table 7 shows the results of the main estimation concerning the prior partisan tendency of constituencies.

First of all, we note that the rate of turnout is especially high when the constituency reflects a stronger left partisan tendency (Table 6).<sup>26</sup> Otherwise, if the fact that the left won the legislative elections (measured by a majority of seats at the Assembly) in 1997 is considered, the results obtained here are close to that of Fauvelle-Aymar *et al.* (2000), where the authors demonstrate that when the probability of the victory of the left is high, turnout increases and voters are more inclined to vote in favor of parties of the left.

To assess the stability of our results, we reran the previous regression models using different measures of the partisan tendency of constituencies: the average vote share of the parties of the left in the first round of the 1988 and 1995 presidential elections,<sup>27</sup> the average vote share over the two ballots of these presidential elections, and the vote share at the first round of the 1993 legislative elections (and not the average of 1988 and 1993 as in Table 6). The results (not presented here for reasons of space) are slightly different from the base model; all the coefficients associated with the 'left' variables are positive and highly significant.

Then, we estimated a set of models where we distinguished more precisely the partisan tendency of the constituencies (Table 7). We introduced new variables measuring the average vote share of political parties in the first round of the legislative elections of 1988 and 1993. For the parties of the left, we distinguished between parties of the extreme left, the PC, the PS, and the green parties.<sup>28</sup> And on the right, we separated out the parties of traditional right and the extreme right parties.

The results reveal some interesting relationships with regard to the influence of the prior partisan tendency of constituencies on turnout. As surmised, the rate of turnout is higher in left-leaning constituencies. However, the presence of a relatively strong extreme left electorate<sup>29</sup> does not have any influence on the

**Table 7** Influence of the historical partisan tendency of the district

<i>Independent variables</i>	<i>Model (2)</i>		<i>Model (3)</i>	
Constant	158.183***	(4.56)	157.353***	(4.27)
Spend	0.989*	(1.795)	1.648***	(2.809)
Nbcand	-1.049*	(-1.83)	-0.630	(-1.02)
Extreme Left	0.029	(0.38)	—	—
PC	0.091***	(4.66)	—	—
PS	0.110***	(4.67)	—	—
Green	-0.187	(-1.44)	—	—
Right	—	—	-0.094***	(-3.73)
Extreme right	—	—	-0.375***	(-4.90)
Farmer	0.510***	(7.44)	0.432***	(5.90)
Worker	0.122***	(3.60)	0.100***	(2.98)
Employee	-0.278***	(7.17)	-0.238***	(6.52)
Sale	-0.086	(0.84)	-0.114	(1.06)
Office	0.174***	(2.68)	0.216***	(3.31)
NoDiploma	-0.150***	(-3.06)	-0.041	(-0.70)
Age2124	-1.617***	(-3.06)	-1.766***	(-3.18)
Age2539	-1.156***	(-3.66)	-1.235***	(-3.79)
Age4059	-0.930***	(-2.38)	-0.977**	(-2.38)
Age6074	-0.996**	(-2.83)	-1.062***	(-2.85)
Age74	-0.968***	(-2.78)	-0.987***	(-2.77)
Adjusted $R^2$	0.574		0.572	
$F$	44.78***		61.29***	
$N$	554		554	

Dependent variable: turnout at the first round.

Estimation with ordinary least squares.

The  $t$ -ratios (corrected by the method of White (1980)) are given between parenthesis.

\*\*\*The coefficient is statistically significant at the 1 per cent level.

\*\*The coefficient is statistically significant at the 5 per cent level.

\*The coefficient is statistically significant at the 10 per cent level.

rate of turnout, since the coefficient associated with the 'extreme left' variable is not significant at all (regression 2 in Table 7). We obtained the same result concerning the green vote. The table shows that the presence of an important green electorate does not exercise any significant influence on turnout.<sup>30</sup>

In sum, it is essentially the presence of a relatively strong electorate of the traditional left parties (PC and PS) that influences turnout. The coefficients of these two variables are about 0.1: when the average value of the votes for these two parties increases by 1 point, the turnout only increases by 0.1 point (or by 0.2 point if one sums these two coefficients).



With regard to support for the right-wing at the constituency level (regression 3 of Table 7), we confirmed the previous results. Electoral participation is significantly lower in these districts. The effect is especially important for constituencies where the parties of the extreme right do well. Indeed, each increase of 1 point on average for these parties during the previous legislative elections results in a reduction in turnout of almost 0.38 point, *ceteris paribus*. These findings may be explained by the fact that it is in the areas having the greatest problems of social integration that turnout is the lowest and the extreme right does the best. Support for this explanation can be found in the fact that the coefficient associated with the variable ‘NoDiploma’, which can be considered a good indicator of social integration problems, loses all significance when the ‘extreme right’ variable is introduced in the regression (see regression 3, Table 7).

When the constituencies vote more in favor of the traditional right parties, the negative influence on turnout is similar, in absolute value, to that of the socialist party (regression 2). An increase of one percentage point in the vote for them leads to a reduction of the rate of turnout on the order of 0.1 point.<sup>31</sup>

### **The impact of campaign spending**

The results presented in the first estimation (Table 6) show that the amount of campaign spending has an important influence on turnout. All things being equal, the districts where these expenditures are the greatest witness the highest rates of turnout. Moreover, the marginal return of campaign spending in terms of turnout decreases, since the specification with the natural logarithm is more significant.<sup>32</sup>

We refined these results by distinguishing campaign spending according to its partisan origin. Indeed, a relationship seems to exist between spending and the partisan complexion of the constituency, since the coefficient associated with the spending variable is lower and less significant when one introduces the parties of the left variables (regression 2, Table 7) than when it is the parties of the right variables that are introduced (regression 3, Table 7). This effect may be masking a differential impact of the expenditure according to its political origin.

First, we distinguished between the constituencies according to their prior partisan tendency and created two binary variables: *L* that takes the value 1 in left-leaning constituencies (0 otherwise) and *R* that is 1 in right-leaning districts (0 otherwise). Left Districts (where *L* = 1) corresponds to the 269 constituencies for which the ‘Left’ variable<sup>33</sup> is superior to the national average (44.17%), and therefore indicates constituencies where the electorate has a long-run propensity to favor the left parties. The districts below the national average are qualified as right districts. Then we multiplied these binary variables with





our variable of total expenditures (Spend), giving rise to two new variables: 'LSpend' that is the natural logarithm of the total expenditures when the district has a left-leaning partisan tendency (zero otherwise), and 'RSpend' that is the same variable for the districts where the right-wing parties have been more influential (zero otherwise). The distinction between these two variables permits us to verify the existence or not of a potential variation in the impact of the expenditures according to the prior political preferences of the constituency.

In a second refinement, we distinguished, within constituencies, between expenditures of left-wing candidates (SpendL) and expenditures of those of the right (SpendR).<sup>34</sup> The aim was to illuminate the potential differential impact of campaign spending on turnout according to its political origin.

Finally, in a third model, we merged the two previous models, creating four variables: the variable LSpendL corresponds to left-wing candidate campaign spending in left-leaning districts, LSpendR to the right-wing candidate spending in left-leaning districts, RSpendL to left-wing candidate spending in right-leaning districts, and finally RSpendR to right-wing candidate spending in right-leaning districts (see Table 8).

Before presenting the results, it is important to note that when campaign expenditures are differentiated by the party, multicollinearity may occur if the 'Left' variable is included.<sup>35</sup> To avoid this problem, which generates instability in the estimated coefficients, we excluded the 'Left' variable from the regressions concerning the expenditures according to their political origin. Table 9 presents the results of these new models.

First, it can be noticed that both the left- and right-leaning districts appear to have the same sensitivity to campaign expenditures (in regression 5, the estimated coefficients associated with the variable LSpend and RSpend are not statistically different<sup>36</sup> and both are highly significant).

Second, it appears that the influence of campaign expenditure on turnout is based preponderantly on the electoral spending of the left candidates. Indeed, when expenditures are distinguished according to their political origin (regression 6), it can be seen that the coefficient associated with the variable SpendR is not significant at all.<sup>37</sup>

**Table 8** News spending variables

<i>Spending's political origin</i>	<i>District's historical preferences</i>	
	<i>Left</i>	<i>Right</i>
Left	LSpendL	RSpendL
Right	LSpendR	RSpendR

**Table 9** Impact of campaign expenditures on turnout

<i>Independent variables</i>	<i>Model (4)</i>	<i>Model (5)</i>	<i>Model (6)</i>
Constant	185.439*** (5.23)	168.015*** (4.55)	191.521*** (5.23)
Nbcand	-1.083* (-1.86)	-0.915 (-1.48)	-1.142** (-1.97)
LSpnd	1.437*** (2.64)	—	—
RSpnd	1.314** (2.41)	—	—
SpendL	—	1.426*** (5.12)	—
SpendR	—	-0.041 (-0.09)	—
LSpndL	—	—	1.127** (2.20)
RSpndL	—	—	0.734** (2.47)
LSpndR	—	—	0.352 (0.64)
RSpndR	—	—	0.618 (1.23)
Farmer	0.490*** (7.25)	0.497*** (7.04)	0.490*** (7.25)
Worker	0.112*** (3.43)	0.112*** (3.43)	0.112*** (3.43)
Employee	-0.275*** (7.21)	-0.236*** (6.14)	-0.275*** (7.21)
Sale	-0.151 (1.56)	-0.214** (2.21)	-0.151 (1.56)
Office	0.154** (2.25)	0.130* (1.88)	0.154** (2.25)
NoDiploma	-0.133*** (-2.92)	-0.125*** (-2.72)	-0.136*** (-3.01)
Age2124	-2.073*** (-3.88)	-1.795*** (-3.26)	-2.150*** (-3.97)
Age2539	-1.432*** (-4.48)	-1.295*** (-3.99)	-1.474*** (-4.552)
Age4059	-1.297*** (-3.26)	-1.070*** (-2.61)	-1.351*** (-3.19)
Age6074	-1.255*** (-3.52)	-1.019*** (-2.79)	-1.305*** (-3.61)
Age74	-1.232*** (-3.51)	-1.108*** (-3.06)	-1.270*** (-3.55)
Adjusted $R^2$	0.572	0.546	0.573
$F$	59.58***	57.96***	52.28 ***
$N$	554	554	554

Dependent variable: turnout at the first round.

Estimation with ordinary least squares.

The  $t$ -ratios (corrected by the method of White (1980)) are given between parenthesis.

\*\*\*The coefficient is statistically significant at the 1 per cent level.

\*\*The coefficient is statistically significant at the 5 per cent level.

\*The coefficient is statistically significant at the 10 per cent level.

This result concerning the impact of campaign spending by the right-wing candidates is confirmed in regression 7 where it can be seen that neither of the coefficients associated with the campaign expenditures of right-wing candidates (LSpndR and RSpndR) in both types of constituencies are significant. In other words, our econometric results show that campaign spending by right-wing candidates does not have any influence on turnout, whether we consider the left or the right constituencies.



Concerning the expenditures of left-wing candidates, it may be noticed that they have a higher impact in left-leaning constituencies than in the right-leaning ones. Indeed, the coefficient associated with the variable 'LSpendL' is greater than the one associated with the variable 'RSpentL' (regression 7). If it is true that the increase in turnout generated by these expenditures leads to an increase of votes in their favor,<sup>38</sup> it would mean that left-wing candidates have more interest in spending in left-leaning districts and that the main effect of their campaign expenditures is to mobilize their own electorate. The results demonstrate that the capacity to mobilize exists. Left-wing candidates spend less than those on the right, but an increase in their campaign expenditures leads to an increase in turnout.

The differential return in terms of turnout of the electoral spending of left- and right-wing candidates can be explained by two factors. First, this differential may be based on the fact that the right candidates spend more on average than the left candidates. As the marginal return of the expenditures decreases with the level of spending, they exhausted the effects. Second, the differential can be explained by a difference in the influence of the spending of the left-wing candidates. These expenditures may have a greater impact on voter mobilization than the spending of the candidates of the right.

## Conclusion

This study offers a more complete analysis of the determinants of electoral turnout in the French case. If the results concerning the influence of the socioeconomic characteristics of the voters confirm those of previous studies, we have shown that other factors, largely neglected in the traditional analyses of electoral sociology, play a considerable role in determining levels of turnout. As regards the structural variables, this analysis shows that prior partisan coloration of constituencies influences abstention. Globally, it is in the constituencies where left-wing parties (and more precisely the PS and the PC) get their best score that the voters participate more.

This study also tried to estimate the influence of substantive variables reflecting the electoral campaign. Concerning the number of candidates, our estimations show that the *electoral offer* exercises a negative influence on turnout. The *confusion effect* induced by a high number of candidates more than compensates for the *expression effect*. With regard to campaign spending, money spent contributes very clearly to increased electoral participation. But it is essentially the expenditures of candidates of the left that have a significant impact. And this influence is more important in the constituencies where historically the left has had a good electoral showing.



Therefore, this study points to the impact of the electoral campaign on the decision by voters to participate or not, which, subsequently, influences their electoral decision. Turnout is governed not only by structural determinants, which do not vary much from one election to another, but also by substantial factors that the political parties directly control and that may.

It is important to note that this analysis ignores other substantial variables that may exercise an influence on turnout. Most obviously, no economic variables are included, whereas the economic situation is well known to exercise a meaningful impact on electoral outcomes.<sup>39</sup> For example, if it is supposed that on the one hand a deterioration of the economic situation leads the voters to punish the incumbent, but that on the other, the voters may not impose on themselves too great ideological costs by voting for the opposition (if they are partisan supporters of the incumbent party) then abstention should increase in periods of poor economic performance. This proposition deserves an empirical study but unfortunately economic data are lacking at the level of the legislative districts.<sup>40</sup>

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### Notes

- 1 In other words, the sole role of the electoral campaign is to mobilize voters whose electoral choice are already made, according to their partisan predisposition.
- 2 Which represents the value of turnout for the voter.
- 3 See, in particular, Martin (2000), p. 205 and f.
- 4 This result is valid even when the information produced by the candidates is ambiguous and increases the uncertainty of the voters on the candidate's political position because the strategy of ambiguousness is relevant only when it consists of a communication on the characteristics of the candidates and therefore when it leads to an increase of the total amount of information. The strategy of ambiguousness only leads to a modification of the criteria of evaluation of the voters (Conover and Feldman, 1989; Alvarez, 1997).
- 5 For the French electoral process, see Palda and Palda (1998), Foucault and François (2002), and François (2003).
- 6 This effect of aggregation can be explained by the fact that the informational benefits of the campaign spending are not concentrated (Coleman and Manna, 2000; Coleman, 2001).
- 7 There are, at least, two exceptions. The studies of Craig and Soley (1989) and of Craig *et al.* (1988) conclude that the total amount of expenditures does not have any impact on turnout even if the individual expenditures increase the vote shares of the candidate (this study considers the American elections for the Senate and the Congress).
- 8 A certain number of Anglo-Saxon studies exist in this domain. One can mention the works of DeNardo, in particular, his article of 1980 (DeNardo, 1980), Tucker *et al.* (1986), Knack (1994), and Nagel and McNulty (1996).



- 9 For obvious reasons, the explanation of turnout in the DOM-TOM (overseas territory) has been excluded from the analysis because one can think that it is influenced by particular determinants. Metropolitan France consists of 555 electoral districts, but the election was cancelled in the first district of the Ain and therefore, the spending accounts of the candidates present to this election have not been published.
- 10 For studies of turnout based on aggregate data, see, for example, Gilliam (1985).
- 11 The main modifications have been an important reduction of the expenditure ceilings by district whose amount depends on the number of inhabitants in the district; an interdiction of private financing, and the institution of a public financing (which takes the form of a reimbursement of campaign spending under certain conditions).
- 12 Besides, it is necessary to note that we only have electoral expenditures data for three legislative elections (1993, 1997 and 2002) and only two of them (1997 and 2002) were under the same campaign finance legislation.
- 13 To study list system elections (as the French regional elections for example) totally permits an avoidance of this problem of 'localism'. At the same time, this type of election is not appropriate to our empirical aim. Indeed, one cannot, by definition, study the candidates' spending behavior for these elections since the campaign expenditures are those of the parties and not of the candidates (and known only at the national level).
- 14 Answering to the demand of the deputies, the INSEE (National institute of statistics) has created a CD-ROM providing the different 1999 census variables at the electoral district level.
- 15 For a more detailed analysis of the impact of the socio-economic variables on turnout, see Fauvelle-Aymar and François (2004); François (2003).
- 16 This nomenclature is the one used in the 1999 census. We assume that the occupation structure was the same in 1997.
- 17 Since the sum of the occupation variable is 100.
- 18 Since the sum of the age variable is 100.
- 19 Our measure includes all the left parties, that is, extreme left, the communist party (PC), the socialist party (PS), the different small parties of the left center (such as the 'radicaux de gauche'), and all the green parties. By construction, the left variable is therefore equal to 100 less the votes received by all the right parties (including the 'Front National — FN').
- 20 As we will see later, the results are not modified when one introduces in the regression other measures of the partisan affiliation of electoral districts.
- 21 The growth of the candidatures is explained by the regulation concerning public funding of the political parties.
- 22 Therefore, the confusion effect seems to be superior to the expression effect.
- 23 There are seven districts where there was no second round in 1997. To assure the robustness of our empirical results concerning the campaign expenditures, we also run the regressions without these districts. The results are not changed at all.
- 24 The use of other techniques of linearization of the expenses (the second-order polynomial and the square root) gives strictly equivalent results.
- 25 The results are not presented here in order to shorten the presentation.
- 26 The results are logically the same if one introduces a variable measuring the right partisan historical tendency of the district instead of the 'Left' variable measuring the left partisan tendency. The only difference is the sign of the estimated coefficient that becomes negative.
- 27 We continue to consider a broad definition of the left here, as including all the left candidates.
- 28 The sum of this different vote share is almost equal to the former 'left' variable (to have precisely the same value, it would be necessary to take account of the vote share of the various left parties).



- 29 The average vote share of the extreme left parties for all the districts at the first round of the legislative elections of 1988 and 1993 is 1.1% with a maximum rate of 10% (and minimum of 0% when no candidate of these parties is present).
- 30 The average vote share of the green parties is 2.72% with a maximum of 7.69%.
- 31 Although the results are not presented here, we distinguished within the traditional right the vote share of the RPR and the one of the UDF. The estimated coefficients of these two variables are almost identical, of the order of 0.045.
- 32 To save place, the results with other functional specification are not presented in the table.
- 33 That is, the average vote share of the left parties at the first round of the legislative elections of 1988 and 1993.
- 34 There is absolutely no correlation between these two variables of expenditures (the value of the linear coefficient of correlation is 0.02).
- 35 This is logical since the variables 'SpendL' and 'SpendR' are constructed from this 'Left' variable.
- 36 A Wald test for the equality of the estimated coefficients indicates that one can reject the hypothesis of equality at the 1 per cent level.
- 37 One can notice that the coefficient associated with the 'number of candidates variable' is no longer significant. Its exclusion from the regression 6 and 7 does not modify the results concerning the spending variables.
- 38 The study of Foucault and François (2002), which analyses how campaign expenditures turn into votes, does not examine the differential of productivity of these expenditures according to their political origin.
- 39 The variables generally introduced in the empirical studies are the rate of unemployment and the economic growth rate. For a presentation of these studies in the case of the French elections, see Dubois and Fauvelle-Aymar (2004); Lewis-Beck and Stegmaier (2000).
- 40 The economic performance variables are mainly available at the national level.

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