

MORE ON SEASONAL DETERMINANTS OF TURNOUT: HOLIDAYS AND FRENCH PRESIDENTIAL ELECTIONS

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First draft. Please do not quote.

Abstract: This article aims to test a proposition widely spread among scholars and journalists according to which holidays would have an impact on electoral turnout. To our knowledge, this possibility has not been investigated in the French case yet. Our data, gathered for the last three presidential elections, strongly support a negative effect of holidays on turnout. Since turnout and left vote are linked, this negative influence helps to explain the defeat of the main left-wing candidate in 2002 even though it does not represent the single factor.

Keywords: seasonal factors; climate; weather; holidays; vote; presidential election; turnout; France



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"One can miss the first round, not its holidays."

Advertising slogan¹

In a previous paper, we emphasized the role of the climate in the determination of the electoral turnout in France (Ben Lakhdar and Dubois, 2006). Variables such as temperature, precipitation or sunshine have a strong and significant impact on the turnout at legislative elections.

Our purpose in this brief article is to assess the influence of another circumstantial variable on turnout: the holidays². This factor has been invoked to explain the large abstention at the first round of the French presidential election of 2002 (see, for example, the newspapers *Le Figaro* and *Libération* in the days following the ballot or INSEE Aquitaine, 2002). The causality is quite straightforward: people abstain because they are simply not at home on the voting day. In a more economic interpretation, they value more the fact to be on holidays far from their home than to stay at home in order to be present on the ballot day. Moreover, they cannot advance the work as an excuse since in France all the ballots hold on Sunday. In 2002, about 20 million of French were concerned by holidays and one estimated that about 4 to 5 million of them have left their home³. In a poll lead after the first round, 16 % of the abstainers said that they did not vote because "they were on holidays, gone away for the weekend or were out for a walk"⁴.

The holidays as a determinant of turnout have been identified long time ago by scholars. Numerous studies mention a possible link between holidays and turnout (e.g. Abrams, 1970; Turner, 1972; Denver and Hands, 1974; Crewe, 1975; Sigelman and Berry, 1982; Swaddle and Heath, 1989; Blondel et al., 1997) but formal tests are few (Blais et al., 2004; Anderson and Beramendi, 2006). In Blais et al. (2004), the authors introduce a dummy variable in their microanalysis of vote participation in Canada that worth 1 if the election holds in winter or in summer and 0 otherwise. This variable, that is interpreted as a proxy for holidays since holidays generally take place in these seasons in Canada, is significant and negative-signed. Anderson and Beramendi (2006) confirm this result in their analysis of the turnout in 14 OECD countries on the period 1980-2002. In this study, the holiday variable is a dummy that takes 1 if the election holds on a holiday, 0 otherwise. In a somewhat close problematic, Franklin (1996) shows that in countries that vote on Sunday people participate more.

In countries where the Election Day is a working day, setting the ballot on the weekend or on holiday has been proposed to decrease abstention (e.g. Squire et al., 1987; Green and

Shachar, 2000; Freeman, 2003; Just, 2005; Hill, 2006). But Gray and Caul (2000) show that set elections on a weekend or holiday when it was previously on a nonholiday is not relevant in explaining the trend of change in turnout in 18 OECD countries between 1950 and 1997. In Brazil, the Election Day is declared public holiday to facilitate the vote that is compulsory (Power and Roberts, 1995). But declared public holiday an Election Day may be dangerous if the Election Day is close to the weekend. Indeed, people can take an extended weekend that leads to a weak turnout as it was apparently the case in South Africa (Alence, 2004; Piombo, 2004).

As we can see through this short survey of the literature, the impact of holidays on turnout seems not having been tested in the French case yet. Our study aims to fill this gap⁵. Firstly, we present the setting of the French holidays. After having described the variables, the data and the methodology, we then show the estimations' results. One extension is explored before closing by some conclusive remarks.

The setting of holidays in France

In France, there are about 16 weeks of holidays.

In a general way, the holiday agenda is the following: the school year starts in September and the first two holiday weeks are in November (All Saints' Day holidays). The next holidays are in December and in January with Christmas and New Year Day holidays (two weeks). French schoolboys and schoolgirls have two holiday weeks in February, called "winter holidays", and two holiday weeks during April or May called "spring holidays". The end of the school year is in the early of July and eight weeks of holidays follow.

People have not the holidays at the same time because the holiday agenda is set up according three geographical areas ("zone" in French), called A, B and C. For the same type of holidays (winter, spring...), the holiday period is different from an area to the others. For instance, in 2005, spring holidays stretched from Saturday, April 8 to Sunday, April 23 for the area C and from Saturday, April 22 to Monday, May 8 for the area A.

The areas A, B and C are dispatched according to the school districts ("académies" in French) and were fixed by the decree of July, 24 1995. There are 26 school districts in Metropolitan France and they correspond to Region with few exceptions⁶. Departments of each area are shown in appendix (Table 5).

It must be underlined that the holiday agenda has changed several times since the 60's in both the date and the geographical division of the areas. It is only since the 1964-1965 school year that metropolitan France was divided in two, three or several areas, except for the 1971-1972 school year where there was a single area. Another exception was for the 1980-1981 and the 1981-1982 school years for which the holiday agenda was set up by each school district.

The Model

The dependent variable, noted *TURN*, is the turnout in the French departments for the first round of the three last presidential elections of the Fifth Republic.

The justification of the choice of the elections' type (presidential), the geographical level (departments) and the round (first) can be found in our previous paper. Our sample begins with the 1988 elections because, as we will see later, data for one important variable do not exist before 1982. They are then unavailable for the 1981 ballot.

The election dates in our sample are the following: April, 24 1988, April, 23 1995, April, 21 2002.

We retained six potential explanatory variables. The first one is a variable that catches the discontent due to the economic situation. The argument is that, in case of poor macroeconomic performances, voters who usually supported the incumbent prefer to abstain rather to vote against her. We have retained the unemployment rate to account for the economic situation. More precisely, *UNEM* is the difference in the departmental unemployment rate between the quarter prior the election and four quarters before (that is on one year). This measure is frequently retained in the French vote-functions literature (see for example Jérôme and Jérôme-Speziari, 2004). We expect a negative sign for the coefficient of *UNEM* since this variable traduces a discontent. Two remarks can be made. First, when macroeconomic records are poor, turnout could be higher since some voters that usually abstain go to polls to sanction the ruling majority. Second, *UNEM* expresses one particular form of discontent, namely an economic one. Others forms of discontent can be envisaged as for example a discontent linked to scandals or to the wearing effect of being in power.

According to a theory well documented elsewhere (see e.g. Lewis-Beck and Rice, 1983; Rice and Macht, 1987), a candidate has an advantage in the electoral territory of which she is native. This is the so-called "friends and neighbors effect". Because she is known by a lot of voters in her native area and since voters are proud to have a candidate born in the same region than theirs, she gets an additional support. This effect that is traditionally applied to the

vote may be transposed to the turnout. People that usually abstain can vote for a candidate with the same origins. We define then a variable, noted *LOC*, that takes 1 in the department from which a candidate is originating and 0 otherwise. We retained only the professional origin, that is the department where mandates were fulfilled. We also limited to the three main candidates for the first round since most of minor candidates do not have any mandate. Positive sign is expected for the coefficient of this variable.

Each first round of a presidential election generally presents, quantitatively speaking, a different political supply; the number of candidates varies. It was 9 in 1988 and 1995, and 16 in 2002. This can have two opposite effects on the turnout. On one hand, turnout can be higher since, for the potential voter, the probability to have her political sensibility represented increases. On the other hand, people can be embarrassed by this abundance of choice and may abstain in order to wait for the selection operated at the first round. To investigate a possible effect of the heterogeneity of the political supply, we have constructed a variable that is simply for each election of our sample the number of candidates at the first round. Due to the two aforementioned arguments, the sign of the coefficient of this variable is unknown.

The two following independent variables are the climatic variables on the Electoral day: temperature and precipitation. In order to take into account the geographical heterogeneity, we chose to withdraw the long term trend of our climatic data. Indeed, for example, 20 Celsius degrees are not experienced in the same way in a northern department than in a southern department. In order to erase these disparities and therefore to capture the exceptional character of some precipitations, temperatures or sunshine, we withdrew the "climatic standard" that is the monthly average on a thirty-years-period. We then use the following variables: *PREC* is the height in millimeters of precipitation fallen between 6 a.m. and 6 p.m. on the voting day and *TEMP* is the arithmetic mean of the temperature in Celsius degrees measured at 6 a.m. and 6 p.m. on the voting day. Both are expressed in difference with the long term tendency observed on the period 1961-1990⁷. We expect a negative sign for *PREC* and for *TEMP*, due to possible non-linearity, the expected sign is unknown⁸.

The second seasonal factor is the holidays. Since in our sample elections hold in late April, the sole holidays that may affect turnout are the spring holidays. The Table 1 brings their dates for each area.

[TABLE 1 ABOUT HERE]

By crossing this information with the one displayed above, one can see that two elections are concerned by the holidays: 1995 (all areas) and 2002 (areas A and C). We introduced a dummy variable, noted *HOL*, that worth 1 in departments belonging to areas on holidays, and 0 otherwise. Since ballots take place on Sunday in France and not a working day, we expect a negative sign for the coefficient of *HOL*. We can note that, by construction, this variable implicitly supposes that the behaviour toward holidays is identical from a department to another.

In relation with this last variable, it is interesting to mention here the possibility of a vote by proxy ("procuration" in French). Until 1993, the absence of the city of residence was not a case eligible for a vote by proxy. After the law of July, 6 1993, people on holidays⁹ and not present on the Electoral Day can ask for a vote by proxy providing they bring some justifications fixed by the decree of April, 18 1997. Finally, an edict of December, 8 2003 suppressed the obligation to produce written proof and replaced it by a declaration on one's honour. In 2002, aware of the difficulties entailed by the procedure and of the possible negative impact of holidays on turnout, the government has advocated in a circular letter (in date of March, 8) more a respect of the spirit of the legal clauses than the strict application of these clauses. Since the two elections concerned by holidays (1995 and 2002) held between the law of 1993 and the edict of 2003, the modifications of the procedure of the vote by proxy are then without any effect.

Numerous other variables explaining the turnout may exist (see, among others, Blais and Dobrzynska, 1998). These variables are essentially socio-demographic factors that affect turnout in the long run: age, level of education, religion, etc¹⁰. They explain why a department systematically has a higher turnout rate than another. To capture these spatial disparities, we estimate a fixed-effects model¹¹. In this kind of models, the intercept term varies from a department from another. This allows us to take into account the long run specificities of each department (see Dubois and Fauvelle-Aymar, 2004).

The model to estimate is¹²:

$$TURN_{i,t} = c_i + \alpha_1 UNEM_{i,t} + \alpha_2 LOC_{i,t} + \alpha_3 CAND_t + \alpha_4 PREC_{i,t} + \alpha_5 TEMP_{i,t} + \alpha_6 HOL_{i,t} + \varepsilon_{i,t}$$

Let us turn to the description of the sample and to the presentation of the estimation results.

Sample and Estimation Results

All the data for the variables mentioned above are readily available for all the French departments except with regard to the climatic variables. Indeed, the climatic standards are not available for several departments¹³ and the temperature is missing for one department in 1988¹⁴. We have then removed these departments from our sample. Furthermore, the departments Corse-du-Sud and Haute-Corse have been moved apart since, as mentioned before, they do not belong to the area A, B or C but to a specific one and we were not able to gather the dates of holidays for this area. Finally, our unemployment variable cannot be defined for the 1981 election since the departmental unemployment rates are not available before the fourth quarter of 1981. Our sample then includes 67 departments on 3 elections, that is a total of 201 observations¹⁵.

The tables 2 and 3 show some descriptive statistics and the correlations between explanatory variables¹⁶.

[TABLE 2 ABOUT HERE]

[TABLE 3 ABOUT HERE]

The estimation leads to¹⁷:

[TABLE 4 ABOUT HERE]

As one can see from column 1, all the explicative variables have the expected sign and are significant at a level of 10 % or more except *LOC* and *TEMP*. For the localism variable, that means that one does not participate more in department from which an important candidate is originating. For *TEMP*, it is a little bit more complicated. A possible explanation, as mentioned earlier, lies in the non-linear character of this variable. One can think that the sign of the coefficient is positive on one part of the sample and negative on the other part so that, on the entire sample, the coefficient is non significant. After having dropping these irrelevant variables, we obtain the results shown in column 2. They confirm an impact of the climate on the turnout with a strong negative influence of precipitation: 11 millimeters of precipitation more (compared to a normal day) lead to a decrease of the turnout of about 0.5 point. Our discontent variable, UNEM, indicated that when the departmental unemployment rate

increases of 1 point in the year preceding the presidential election, the turnout decreases of about 0.5 point¹⁸. The candidate variable has a negative sign and then attests of a "confusion effect" due to the multiplication of the candidates: 1 candidate more leads to a higher abstention rate of 1 point. Finally, our holidays variable is strongly significant: in departments where people are on holidays, the turnout rate is lower of about 1.7 points.

Further results: did holidays cost the final to the main left-wing candidate in 2002?

According to the literature, in France, abstention penalizes left-wing parties (see, among others, Fauvelle-Aymar *et al.*, 2000, and Ben Lakhdar and Dubois, 2006). The explanation may reside in the likeness of abstainers and left-wing voters. Indeed, these two groups present several common features as for example youth, weak attachment to the Catholic religion, or low study level (see Mossuz-Lavau, 1997). If this link between abstention and left-wing vote is correct, while having a depressive effect on the turnout, holidays would disadvantage the Left.

In 2002, the main left-wing candidate, Lionel Jospin, miss the second round for 372.310 votes. Indeed, he was 3rd at the first round with 4.398.824 votes, behind the incumbent President Jacques Chirac (5.386.471 votes) and the extreme-right candidate Jean-Marie Le Pen (4.771.134 votes)¹⁹. Since we have enlightened a strong negative effect of holidays on turnout, it is interesting to assess this influence in terms of vote and to see if holidays cost the participation at the second round to Lionel Jospin.

To do this, we have simply considered that the turnout rate was higher of 1.66 points in departments on holidays of our sample in 2002 (for the other departments, the turnout rate remains unchanged). We have then multiplied these new turnout rates by the figures of the registered voters²⁰. The new total obtained for voters is 29.000.785 against a previous value of 28.610.561. Then holidays has captured 390.224 voters. This figure is impressive but it is undervalued since our sample is composed of only 67 departments. If we applied the same method to all the metropolitan departments, we obtain a global turnout of 29.261.924 voters. According to this last number, 651.363 people did not vote because of the holidays²¹. The Louis-Harris poll mentioned in the introduction of the present paper tells a quite different story. If 16 % of the abstainers did not vote because they were on holidays, the holidays cost 1.700.504 votes in terms of turnout (the number of abstainers was 10.628.147), that is about

three times more than our estimate. This gap can be explained by the fact that our figure is *ceteris paribus*, not the poll's one. Indeed, in the poll, people could answer by citing several reasons for which they did not vote (the percentages for the various answers did not sum up to 100). In our study, the effect of holidays takes into account the effect of other determinants.

It is important to note that the figure of 651.363 does not only include left-wing voters and *a fortiori* Jospin voters. If the structure of the abstainers was the same than the actual electorate, 15.8 % would vote for him what represents 103.229 voters. We are then far from the 372.310 missing votes... But as we have mentioned earlier, the literature stresses that the structures of abstainers and voters are not identical and that potential left-wing voters prevail among the abstainers. Unfortunately, we have no information about the proportion of abstainers that would vote for Lionel Jospin if they have chosen to participate at the ballot. What is for sure is that this proportion has to be 57.2 % to change the second round (372.310 of 651.363). We can think that the true proportion is lesser and that holidays cannot explain in themselves the defeat of the left-wing candidate in 2002.

Conclusion

Holidays are often invoked by both scholars and journalists to explain a low turnout. By skimming through the literature, it is striking to note that formal tests are scarce and even non-existent in the French case. To fill this gap, we have built and estimated an econometric model of turnout at the first round of presidential elections. To control the possible effect of holidays, we used proxy for political supply, popular discontent, socio-demographic context and other seasonal factors as climatic conditions. The main result of our study is that holidays have a strong depressive effect on turnout. In departments concerned by holidays, the turnout rate is *ceteris paribus* lower of about 1.7 points.

Since it exists a positive link between turnout and Left vote, it is tempting to see if holidays have had an influence of the outcome of the first round in the past. To investigate this possibility, we have examined the case of the 2002 election for which the main left-wing candidate missed the second round for less of 400.000 votes. What emerges from this case study is that holidays explain a significant part *but a part only* of these missing votes.

A normative prescription of this result is quite obvious: a right-wing incumbent has to set the ballot during the holiday time to gather more votes. The left-wing opposition cannot

influence the holiday calendar but can promise in turn in her platform more holidays in order to enhance "holiday fanatics" to abstain... to go on holidays!

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Notes

¹ This slogan of a tour operator appeared in the newspaper *Libération* the day after the first round of the presidential election of 2002. It can be understood as a joke towards the candidates knocked out at the first round since the original sentence in French ("on peut rater le premier tour, pas ses vacances") can be translated "one can fail in the first round, not in its holidays".

² Here and hereafter, we mean by "holidays", holidays given by the administration to boys and girls who frequent primary school or high school. Holidays are then imposed and not chosen and, as a rule, parents with children provided with schooling go on holidays in accordance with the school calendar.

³ Source: newspaper *Les Échos*, April, 22 2002, page 3.

⁴ Source: polls institute Louis-Harris.

⁵ We have not tested the impact of holidays in our previous paper on turnout since no legislative ballot fallen during holiday time.

⁶ The regions Rhône-Alpes and Provence-Alpes-Côte d'Azur are divided in two school districts and the region Île-de-France is divided in three school districts.

⁷ Since the climatic standard for precipitation is the total of precipitation fallen during the month, we have divided this total by 30 to obtain a daily climatic standard. We can note also a possible endogeneity bias since the turnout at the 1988 election for example is explained in our model by a precipitation variable defined in relation to a climatic standard computed on a period that cover the year 1988. Nevertheless, we think that the variability of the climatic standard over time is negligible and finally the period on which they are computed does not matter. The endogeneity bias should then be non-existent. Same remark applies to the temperature variable.

⁸ See Ben Lakhdar and Dubois (2006) for a discussion on the non-linearity in the temperature variable.

⁹ The case of a simple weekend is not eligible.

¹⁰ For an econometric study that assesses the impact of these variables on turnout in the French case, see Fauvelle-Aymar and François (2005).

¹¹ Using the fixed effect model is equivalent to introduce one dummy variable by department. This departmental dummy is defined as 1 in a particular department for all the elections and 0 otherwise. Fixed effects are then palliative for socio-demographic variables that are not yearly available in France (they exist only for census years, that is, in our sample, 1990 and 1999).

¹² In our previous paper, we have introduced a trend that captured the political weariness that characterizes the French voter since more than thirty years. In the present case, this downward trend appears to be lightened. Indeed, the turnout rate has decreased from 83.2 % in 1978 to 65.1 % in 2002 for the legislative elections while it has diminished from 84.9 % in 1974 to 72.8 % in 2002 for the presidential ones. One can also note that the trend is not uniform with an inflexion in 1988 (the turnout rate was 81.5 % in 1981 and 82.0 % in 1988). Moreover, preliminary investigations indicated that the trend variable was highly correlated with the candidate variable (0.87). For all these reasons, we have chosen to exclude the trend from our analysis.

¹³ The following departments are concerned: 07, 08, 10, 15, 19, 22, 23, 24, 27, 32, 39, 41, 43, 48, 49, 50, 53, 55, 74, 79, 81, 82, 85, 88, 92, 93, 94. For practical reasons, here and hereafter, we indicate only the number of departments. The full list is displayed in appendix (table 5).

¹⁴ For the department 62.

¹⁵ In our previous paper, we had an additional climatic variable, namely the sunshine. The use of this variable reduced our sample since the climatic normal was available in few departments. This loss of observations was offset by a greater number of election dates (5) and we had a final sample of 215 observations. Here, as we are constrained by the number of elections (3), we have deleted the sunshine variable in order to gather more departments to insure a comparable sample size.

¹⁶ We just remind that climatic variables are expressed in difference with the climatic standard. The sources are the website <http://climatheque.meteo.fr> for the climatic variables, Météo France (1996) for the climatic standards, ministère de l'Intérieur for the turnout, INSEE for the unemployment rate, and the website <http://www.education.gouv.fr> for the holiday agenda. All the necessary information to built CAND and LOC can be easily found on the Internet.

¹⁷ Intercepts values (fixed effects) are not shown here for space consideration but are available upon request from the authors. We have systematically applied the White correction to make all our estimations robust to heteroskedasticity.

¹⁸ We note that we report a 10 % significativity level for the coefficient of this variable but that the actual p-value is 0.052.

¹⁹ These figures refer to Metropolitan France. The source is French Home Office (ministère de l'Intérieur).

²⁰ We have removed the two Corsican departments since, as mentioned earlier, we do not know if they were on holidays or not.

²¹ The sample rises from 67 departments to 94 (and not 96 due to the Corsican departments once again) while the cost in terms of turnout rises from 390.224 to 651.363. The difference between the two proportions can be explained by the fact that the sample used for the regressions do not include some densely-populated departments that were on holidays (92, 93, 94 for example).

References

- Abrams, M. (1970) 'The opinion polls and the 1970 British general election', *Public Opinion Quarterly* 34(3): 317-324.
- Alence, R. (2004) 'South Africa after Apartheid: The first decade', *Journal of Democracy* 15(3): 78-92.
- Anderson, C.J. and Beramendi, P. (2006) 'Income inequality and voter turnout in comparative perspective', mimeo.
- Ben Lakhdar, C. and Dubois, E. (2006) 'Climate and turnout in France', *French Politics*, forthcoming.
- Crewe, I. (1975) 'Reply to Hope's Note', *British Journal of Political Science* 5(2): 258-263.
- Denver, D.T. and Hands, H.T.G. (1974) 'Marginality and turnout in British general elections', *British Journal of Political Science* 4(1): 17-35.
- Dubois, E. and Fauvelle-Aymar, C. (2004) 'Vote functions in France and the 2002 election forecast', in M.S. Lewis-Beck (ed.), *The French voters: Before and after the 2002 election*, Palgrave Macmillan, pp.205-230.
- Blais, A. and Dobrzynska, A. (1998) 'Turnout in electoral democracies', *European Journal of Political Research* 33(2): 239-261.

- Blais, A., Gidengil, E. and Nevitte, N. (2004) 'Where does turnout decline come from?', *European Journal of Political Research* 43(2): 221-236.
- Blondel, J., R. Sinnott and Svensson, P. (1997) 'Representation and voter participation', *European Journal of Political Research* 32(2): 243-272.
- Fauvelle-Aymar, C., Lafay, J.-D. and Servais, M. (2000) 'The impact of turnout on electoral choices: An econometric analysis of the French case', *Electoral Studies* 19(2): 393-412.
- Fauvelle-Aymar, C. and François, A. (2005) 'Campaigns, political preferences and turnout: an empirical study of the 1997 French legislative elections', *French Politics* 3(1): 49-72.
- Franklin, M.N. (1996) 'Electoral participation', in L. LeDuc, R.G. Niemi and P. Norris (eds.), *Comparing democracies: Elections and voting in global perspective*, Thousand Oaks: Sage, pp.216-235.
- Freeman, R.B. (2003) 'What, Me vote?', NBER Working Paper 9896.
- Gray, M. and Caul, M. (2000) 'Declining voter turnout in advanced industrial democracies, 1950 to 1997: The effects of declining group mobilization', *Comparative Political Studies* 33(9): 1091-1122.
- Green, D.P. and Shachar, R. (2000) 'Habit formation and political behaviour: Evidence of consuetude in voter turnout', *British Journal of Political Science* 30(4): 561-573.
- Hill, L. (2006) 'Low voter turnout in the United States: Is compulsory voting a viable solution? ', *Journal of Theoretical Politics* 18(2): 207-232.
- INSEE Aquitaine (2002) 'Participation des Aquitains aux élections nationales de 2002', *Le quatre pages*, No. 113.
- Jérôme, B. and Jérôme-Speziari, V. (2004) 'Forecasting the 2002 elections: Lessons from a political economy model', in M.S. Lewis-Beck (ed.), *The French voter, before and after the 2002 elections*, Palgrave MacMillan, pp.178-204.
- Just, M. (2005) 'A theme of equality in campaigns and elections', *PS: Political Science & Politics* 38(1): 57-65.
- Lewis-Beck, M.S. and Rice, T.W. (1983) 'Localism in presidential elections: The home state advantage', *American Journal of Political Science* 27(3): 548-556.
- Météo France (1996) *Normales climatiques 1961-1990*, Météo France.
- Mossuz-Lavau, J. (1997) 'Les comportements électoraux', in J.-L. Parodi (ed.), *Institutions et vie politique*, Paris: Les cahiers français, La Documentation Française, pp. 147-152.
- Piombo, J. (2004) 'Politics in a stabilizing democracy: South Africa's 2004 elections', *Strategic Insights* 3(5).

- Power, T.J. and Roberts, J.T. (1995) ‘Compulsory voting, invalid ballots, and abstention in Brazil’, *Political Research Quarterly* 48(4): 795-826.
- Rice, T.W. and Macht, A.A. (1987) ‘Friends and neighbours voting in statewide general elections’, *American Journal of Political Science* 31(2): 448-452.
- Sigelman, L. and Berry, W.D. (1982) ‘Cost and the calculus of voting’, *Political Behavior* 4(4): 419-428.
- Squire, P., Wolfinger, R.E. and Glass, D.P. (1987) ‘Residential mobility and voter turnout’, *American Political Science Review* 81(1): 45-66.
- Swaddle, K. and Heath, A. (1989) ‘Official and reported turnout in the British general election of 1987’, *British Journal of Political Science* 19(4): 537-551.
- Turner, J.E. (1972) Review of ‘The British general election of 1970’ by David Butler and Michael Pinto-Duschinsky, *American Political Science Review* 66(2): 630-632.

Appendix

[TABLE 5 ABOUT HERE]

Table 1. Dates of spring holidays

School year	Area A	Area B	Area C
1987-1988	03/26-04/11	04/01-04/18	05/01-04/18
1994-1995	04/08-04/24	04/22-05/09	04/15-05/02
2001-2002	04/06-04/22	03/30-04/15	04/13-04/29

Table 2. Descriptive statistics

Variable	Minimum	Maximum	Mean	Median	Standard deviation
TURN	67,62	85,70	78,68	79,95	4,17
UNEM	-1,90	1,80	-0,40	-0,50	0,63
LOC	0,00	1,00	0,03	0,00	0,18
CAND	9,00	16,00	11,33	9,00	3,31
PREC	-3,72	48,74	0,70	-1,67	7,44
TEMP	-8,20	8,20	0,34	0,50	2,06
HOL	0,00	1,00	0,52	1,00	0,50

Table 3. Correlations between explicative variables

	UNEM	LOC	CAND	PREC	TEMP	HOL
UNEM	1.00	0.02	0.76	-0.14	0.44	0.00
LOC		1.00	-0.02	-0.05	0.03	0.02
CAND			1.00	-0.26	0.66	0.05
PREC				1.00	-0.33	0.20
TEMP					1.00	-0.04
HOL						1.00

Table 4. Estimates

Variables	(1)	(2)
UNEM _{i,t}	-0.46* (1.96)	-0.43* (1.88)
LOC _{i,t}	0.78 (0.71)	- -
CAND _t	-0.99*** (17.84)	-1.02*** (25.24)
PREC _{i,t}	-0.05*** (4.21)	-0.04*** (4.68)
TEMP _{i,t}	-0.06 (0.71)	- -
HOL _{i,t}	-1.67*** (10.17)	-1.66*** (10.51)
Adj. R ²	0.91	0.91
N	201	201

Student t are in brackets.

***Significant at 0.01 level

**Significant at 0.05 level

*Significant at 0.10 level

Table 5. The 96 metropolitan French departments: their number and area

No.	Department	Area	No.	Department	Area	No.	Department	Area
1	Ain	A	32	Gers	A	64	Pyrénées-Atlantiques	C
2	Aisne	B	33	Gironde	C	65	Hautes-Pyrénées	A
3	Allier	A	34	Hérault	A	66	Pyrénées-Orientales	A
4	Alpes-de-Haute-Prov.	B	35	Ille-et-Vilaine	A	67	Bas-Rhin	B
5	Hautes-Alpes	B	36	Indre	B	68	Haut-Rhin	B
6	Alpes-Maritimes	B	37	Indre-et-Loire	B	69	Rhône	A
7	Ardèche	A	38	Isère	A	70	Haute-Saône	B
8	Ardennes	B	39	Jura	B	71	Saône-et-Loire	B
9	Ariège	A	40	Landes	C	72	Sarthe	A
10	Aube	B	41	Loir-et-Cher	B	73	Savoie	A
11	Aude	A	42	Loire	A	74	Haute-Savoie	A
12	Aveyron	A	43	Haute-Loire	A	75	Paris	C
13	Bouches-du-Rhône	B	44	Loire-Atlantique	A	76	Seine-Maritime	B
14	Calvados	A	45	Loiret	B	77	Seine-et-Marne	C
15	Cantal	A	46	Lot	A	78	Yvelines	C
16	Charente	B	47	Lot-et-Garonne	C	79	Deux-Sèvres	B
17	Charente-Maritime	B	48	Lozère	A	80	Somme	B
18	Cher	B	49	Maine-et-Loire	A	81	Tarn	A
19	Corrèze	B	50	Manche	A	82	Tarn-et-Garonne	A
2A	Corse-du-Sud	-	51	Marne	B	83	Var	B
2B	Haute-Corse	-	52	Haute-Marne	B	84	Vaucluse	B
21	Côte-d'Or	B	53	Mayenne	A	85	Vendée	A
22	Côtes-d'Armor	A	54	Meurthe-et-Moselle	A	86	Vienne	B
23	Creuse	B	55	Meuse	A	87	Haute-Vienne	B
24	Dordogne	C	56	Morbihan	A	88	Vosges	A
25	Doubs	B	57	Moselle	A	89	Yonne	B
26	Drôme	A	58	Nièvre	B	90	Territoire de Belfort	B
27	Eure	B	59	Nord	B	91	Essonne	C
28	Eure-et-Loir	B	60	Oise	B	92	Hauts-de-Seine	C
29	Finistère	A	61	Orne	A	93	Seine-Saint-Denis	C
30	Gard	A	62	Pas-de-Calais	B	94	Val-de-Marne	C
31	Haute-Garonne	A	63	Puy-de-Dôme	A	95	Val-d'Oise	C