
Is it Worth Voting in Local Elections? Evidence from French Municipalities

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Résumé

Abstention increases in every election in France, especially for local ones, with voter turnouts that hardly reached 44% for the 2020 municipal elections and 35% for the 2021 regional elections. Is voting useful? Do political partisanship affect local decision making?

The empirical literature has assessed whether elected candidates behave differently with respect to their political family. On the one hand, some authors point out the existence of partisanship effects, more or less nuanced, on different economic outcomes (LEE, MORETTI et BUTLER 2004; PETTERSSON-LIDBOM 2008; LE MAUX, ROCABOY et GOODSPEED 2011; GERBER et HOPKINS 2011; de BENEDICTIS-KESSNER et WARSHAW 2016). On the other hand, several studies outline the lack of partisanship effect (FERREIRA et GYOURKO 2009; LEIGH 2008).

While most studies at the national or regional level conclude to a significant effect of partisanship on public expenditures, those on local governments are much more mixed. Heterogeneity may be one of the main reasons explaining the contradictory results. Heterogeneous treatment effect may be related to the size of the municipalities, which could explain the contradicting results obtained on the same database (but including different city population) between FERREIRA et GYOURKO (2009) and de BENEDICTIS-KESSNER et WARSHAW (2016).

In this paper, we analyze the partisanship effects on public expenditures at the French *commune* (Municipality) level for the political term following the 2008 elections. Unlike the existing literature, we use a Regression Discontinuity Design (RDD) based on the continuity assumption to evaluate the direct causal relationship between partisanship and municipality spending. The random assignment assumption broadly used in this field of economic studies was extensively challenged because of the use of arbitrary bandwidths to create a quasi-experiment. Moreover, this research design requires more hypotheses than the continuity assumption (see de la CUESTA et IMAI (2016) for a clear overview of the discussion).

Let $W = 0, 1$ be a treatment and $Y_i(0)$ and $Y_i(1)$ be potential outcomes for an individual i (e.g a municipality) and X the difference in vote shares of municipal parties. If we assume that the conditional expectations of potential outcomes are continuous in c , the causal effect at point c is

$$\mathbb{E}(Y(1) - Y(0)|X = c) = \lim_{x \rightarrow c^+} \mathbb{E}(Y|X = x) - \lim_{x \rightarrow c^-} \mathbb{E}(Y|X = x).$$

We estimate the causal effect of partisanship on public expenditures using robust non-parametric local polynomial regressions of orders 1 and 2 near the cutoff as recommended by (CALONICO, CATTANEO et TITIUNIK 2014). With the objective of increasing the precision of our estimates, we include several pretreatment covariates. Covariates are selected using post-lasso to avoid multicollinearity and optimize the inference efficiency. The post-lasso is a two-step regularization less biased than the widely used lasso (BELLONI et CHERNOZHUKOV 2013). We proceed as follows. First, we use a lasso on the public spending item to select variables not shrunked to zero. Then we introduce those variables in our polynomial regressions for the RDD estimates.

In order to inform the potential of heterogeneity due to size (Is it relevant to compare partisanship effects in a large city such as Lille, Bordeaux or Dijon with those in a small municipality of 3,500 inhabitants?), we build several clusters of French *communes*. The clusters are formed using a data-driven method to avoid endogeneous thresholds. Our nonsupervised method is based on hierarchical clustering to ease reproducibility and interpretation. We control for the false discovery rate of our polynomial estimations with the Benjamini-Hochberg correction (BENJAMINI et HOCHBERG 1995).

We show that left-wing and right-wing mayors differ significantly in their use of public funds in French *communes* of more than 3,500 inhabitants. Thus choosing one or another candidate has visible consequences on capital and current expenditures. Moreover, we find significant heterogeneous treatment effects, meaning that the choice of the mayor has an impact on public expenditures on average for any combination of size and density.

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