

# Space in contentious politics: Protest supply and individual level mobilisation

Camilo Cristancho<sup>o</sup>, Eva Anduiza\* and Sheila González\*

<sup>o</sup> Universitat de Barcelona

\* Universitat Autònoma de Barcelona<sup>1</sup>

## Abstract

To what extent do people participate more if they have a larger supply of protest events around them? We explore whether the supply of protest events mobilizes individuals to participate in demonstrations by geo-localizing both individuals and events. We expand on the existing literature on individual demonstrators and staging organisations by focusing our attention on the relationship between individual characteristics and their protest environments. Analyses from a representative survey of Barcelona and protest event data between 2010 and 2016 show that distance to protest events and the density of contentious activity is relevant in explaining participation in protest for some types of events. Cost deters participation even for individuals that care about the issue involved or those who sympathize with the staging organisations, except for the case of austerity related events, where individuals are indifferent to travel longer distances to protest events.

Keywords: protest, political participation, political inequality, spatial politics

FIRST DRAFT – Comments welcome

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## **Introduction**

In this paper we explore how the supply of protest events affects individuals to participate in contentious action. So far the literature that has addressed mobilisation has either focused on the behaviour of political actors (organization, mobilizing structures), or on the characteristics of individual citizens (their resources, degree of social integration, linkage to political organizations, reports on contacts by political actors). In this paper we take a novel approach in which we combine information on the supply of protest events carried out by political organisations and individual level data. By geo-localizing both individuals and events we are able to assess to what extent the supply of protest events can mobilize citizens to participate beyond the ballot box. The issue is relevant in a context in which technology has compressed time and space, and hence could lead us to expect that space should matter less for political participation (Harvey, 1989).

## **Mobilisation and participation**

The literature on political participation has paid surprisingly little attention to political mobilization and to the supply side of politics. Most of the existing studies that aim to explain under what conditions citizens chose to participate in political activities have focused on the characteristics of the citizen: the level of socioeconomic resources, civic skills, and attitudinal motivations (such as interest in politics or partisanship) have been considered the main correlates of political participation. The connection between the individual and the political environment has also been measured through individual characteristics, such as the level of organisational involvement, attention paid to campaigns, or being the recipient of a mobilisation action.

Most of the works that focus on the consequences of mobilisation have looked at electoral turnout. Based either on observational evidence (for example Rosenstone & Hansen, 1993) or on experimental evidence (for instance Gerber & Green, 2001; Green, Gerber, & Nickerson, 2003) they have concluded that mobilization is an important driver of participation. Rosenstone and Hansen conclude that being a member of a political organisation, or being contacted by a party, among other reasons, increase electoral turnout. Geber and Green have concluded that face to face mobilisation is more effective than phone calls.

The analysis of the supply side of participation is present particularly among social movement studies. In this case the focus is mostly on organisations and events, and when individuals are considered they are often selected on the dependent variable, that is, only participants are considered. These studies focus on the messages put forward by political actors to attract attention, on the turnout achieved, duration, location, claims, and immediate consequences (Koopmans & Rucht, 1995; Tarrow, 1998). In this perspective the analysis is rarely conducted at the individual level, but when this is done (Norris, Walgrave, & Van Aelst, 2005; Verhulst & Walgrave, 2009) attention is concentrated on protesters and organizers, while non-participants are left out of the analysis.

We are left with a situation in which “the focus is typically directed either towards the importance of analytically isolated individuals or toward the importance of supra-individual macroenvironments” (Huckfeldt, 2014, 44). This paper aims to contribute to a more nuanced picture by analysing individual likelihood of participating when considering the supply of opportunities for participation. We look at the role that protest events located in a geographical space play in explaining citizens’ political participation by explaining individual behaviour as a function of the supply of protest events that is present in the context where the individual lives.

### **Space and participation**

Previous research has emphasized the importance of space in the understanding of contentious politics (Martin & Miller, 2001; Sewell, 2001). Following Tilly, we expect that “time distance costs and spatial configurations present opportunities and constrains to participate in public claim making” (Tilly, 2000). However, at the same time, space is often taken for granted and unproblematised, with evidence based only on single case studies (Sewell, 2001). As Tilly himself acknowledges, the authors’ of *The Dynamics of Contention* have failed to spell out the implications of the mechanisms of contentious politics to space, place and scale (Tilly, 2003).

We follow Sewell’s distinction between space as an abstract, three-dimensional unbounded extension, and as a concrete, definite location. Within the former perspective, we identify *place* and *time-distance* as the two most useful interpretations of space for our purposes. On the one hand, we identify the place where the individual lives, and the place where protest events take place, so that we can analyse the implication of living in *places with different levels of density* in the supply of protest *events*. On the other hand, we also analyse space as time-distance from the individual to the supply of protest events. This would be equivalent to the dimension of proximity defined by Tilly, and would allow us to analyse the consequences of having *different distances* to the supply of protest events.

There may be several mechanisms involved in the expected effect of density and distance in the supply of protests over the likelihood of participation.

First, there is the cost argument: individuals will be more likely to participate if the available choice of options is close to them. Second, there may be an issue of information: individuals that are close to protest events are more likely to access information regarding both the issues involved and the opportunities to participate. Political information is an important predictor of participation. Third, the availability of opportunities should increase the chance of participation. A higher number of protest events taking place nearby will provide more chances to attend an event that provides convenient conditions. Fourth, living in a context where protest events are numerous and close makes it more

likely that individuals receive stimuli for participation, that is, that someone asks them to join in (Verba, Schlozman, & Brady, 1995). Fifth, there may be a propinquity effect: just as individuals are more likely to engage in relationships with people they meet often (Festinger, Back, & Schachter, 1950), individuals are expected to be more likely to engage in protests that they encounter often. Individuals are responsive to mobilisation as well as to their own perceptions of how others in their close networks and neighbourhoods are likely to act. Most people will behave accordingly as they want to fit in with their peer groups and communities (Pattie & Johnston, 2013).

Additionally, geographical space must be analysed together with social space (Huckfeldt, 2014). For this reason, the density of and distance to the geographical supply of protest events may be enhanced (or even conditioned) to the presence of social and political closeness between the individual and the organisations staging protest events. This means that the supply of protest events should affect the likelihood of participation mainly for those individuals that care about the issue associated with the protest event, and also for those that show sympathy for the organisation staging the event. While the relationship between individuals and mobilising organizations have been subject of a large number of studies, issue-specific patterns have deserved far less attention. A recent piece has identified that participation across issues may differ significantly, and that issue-specific motivations are relevant in explaining different levels of participation across different groups (Holbrook, Sterrett, Johnson, & Krysan, 2015).

Previous research has dealt broadly with these matters. Yet, no study to our knowledge addresses directly the relationship between protest supply and political participation. A study of individuals geolocalized in large cities in the US finds that political participation shows a clustered structure, that cannot be explained entirely by social network involvement, individual characteristics or aggregate level factors (Cho & Rudolph, 2008). These findings suggest a geographical diffusion process that is independent from individuals' social spaces. Although the authors suggest an "elite-effect", this is only roughly tested through aggregate indicators of the municipality level and does not take into account protest events or any other indicator of the supply side of participation.

Conversely Wallace and collaborators focus precisely on the supply side. They show that frequency of contact with existing (small) protests brings cognitive effects to citizens (Wallace, Zepeda-Millán, & Jones-Correa, 2014). They argue that when people witness, hear about or become aware of protests they can develop a larger sense of political efficacy. Their data confirm this expectation linking number of close (small size) protests and individual levels of political efficacy. Unfortunately the argument is not carried forward to participation, nor are interaction effects considered.

More importantly, the exposed arguments on the importance of spatial conditions have not considered issues of scale. It is not clear whether this arguments are valid for a nation-wide, regional or urban context, or whether attributes such as the size, density or mobility within cities affect how individuals perceive distance and opportunities for political

action. Cities with higher density and good mobility should make individuals less concerned of distance as a cost for action. Furthermore, peer effects have been shown to be smaller in high density networks (Bramoullé, Djebbari, & Fortin, 2007). These considerations on the scale and particular conditions of spatial effects are especially relevant for understanding the dynamics of contentious politics in European cities.

## **Expectations**

We have several general expectations that produce a number of hypotheses. At this stage our approach is exploratory.

Ex 1. The supply and location of political events across space matters for political participation

- *The smaller the average distance of individuals to protest events, the larger the probability of participation*
- *The larger the number of protest events in a close distance, the larger the probability of participation*

Ex 2. The effect of protest supply and location is conditioned by issue concerns. Expectations 1 is valid only for individuals that are concerned about the issue that motivates the event.

- *Distance and density of supply will matter for participation when the individual cares about the issue.*

Ex 3. The effect of protest supply and location is conditioned by links with the staging organisations. Expectation 1 is valid only for individuals that are close to the organization that hosts the event.

- *Distance and density of supply will matter for participation when the individual sympathises with the organisation that hosts the event.*

## **Data and Methods**

In order to test our hypotheses we rely on data from an original survey of 1500 individuals in Barcelona and protest event data from 1720 newspaper articles reporting protest events taking place in Barcelona between January 2010 and April 2015.

We choose the urban setting as a testing ground for the proposed questions on spatial effects on political engagement. The urban area is more self-contained than other settings and the density and complexity of its associational life makes it easier to draw population boundaries. The selected time period is mainly characterized by extraordinary forms of contentious action as it involves the active mobilization of the Indignados, anti-austerity protest and covers a relatively high salience period of the Catalan nationalist issue.

The survey was conducted between May 9<sup>th</sup> and June 9<sup>th</sup> 2016 on a sample of 1500 respondents, older than 18, living in Barcelona. The stratified sample is based on 60 zones, corresponding to the 73 neighbourhoods in the city that result from grouping those with less than 8000 inhabitants. Distribution of the interviews responds to a proportional allocation, through a random selection of non-contiguous census tracts within each neighbourhood. Within this census tracts, households were randomly selected and within the household, the respondent was selected according to a quota-system based on age (18-29, 30-44, 45-59, > 60), gender (men-women) and city district. We dropped off our analysis 217 individuals who did not reside in their neighbourhoods since 2011.

The protest event analysis systematically describes 601 events using news stories from the most influential national newspapers. A manual content analysis performed by five coders was combined with dictionary coding and labelling techniques for the extraction of data from the text (Hutter, 2013; Allan et al. 1998)<sup>2</sup>. News articles were retrieved for the period between January 2010 to April 2016 using the terms [neighbourhood name]” AND (protest\* OR manifest\* OR concentr\*) from the Factiva database for all sources in the Spanish press. 3500 articles were reviewed, of which 1720 referred to a protest event and subsequently coded. Several articles referred to the same event so final events were selected according to the most complete information and keeping the outlets with larger circulation. Missing data was replaced with the information provided by other articles referring to the same event when available.

We focus our analyses on four organisations that have lead the most salient issues in Barcelona over the period of study: The 15M or *Indignados* for the corruption issue, the *Assemblea Nacional Catalana* and *Òmnium Cultural* for the Catalan issue (ANC/Omnium), the *Plataforma de Afectados por las Hipotecas* for the housing/eviction issue (PAH), and the *Federación de Asociaciones de Vecinos de Barcelona* for the neighbourhood issues (FAVB). We also analyse participation by type of issue, independently of the staging organisations. Anti-austerity, corruption and Catalan nationalism events are studied for individuals who signalled this issues as most important problems. Events for the analyses are selected according to these staging organisations and weighted by reported turnout as presented in tables 1 and 2 and figure A1.

**Table 1- Number of protest events by staging organisation and turnout**

| <b>Turnout<br/>Staging<br/>Organisation</b> | <b>Less<br/>than<br/>100</b> | <b>Between 101<br/>and 500</b> | <b>Between<br/>501and 5000</b> | <b>Between 5001<br/>and 50000</b> | <b>More<br/>than<br/>50000</b> | <b>Total</b> |
|---|------------------------------|--------------------------------|--------------------------------|-----------------------------------|--------------------------------|--------------|
| 15M   | 28                           | 9                              | 16                             | 10                                | 5                              | 68           |
| ANC/Òmnium                                  | 1                            | 6                              | 8                              | 2                                 | 5                              | 22           |
| FAVB  | 4                            | 3                              | 6                              | 0                                 | 1                              | 14           |
| PAH   | 18                           | 3                              | 1                              | 0                                 | 0                              | 22           |
| Others                                      | 248                          | 98                             | 70                             | 43                                | 16                             | 475          |
| <b>Total</b>                                | <b>299</b>                   | <b>119</b>                     | <b>101</b>                     | <b>55</b>                         | <b>27</b>                      | <b>601</b>   |

<sup>2</sup> A detailed description of the coding process is presented in the online Appendix

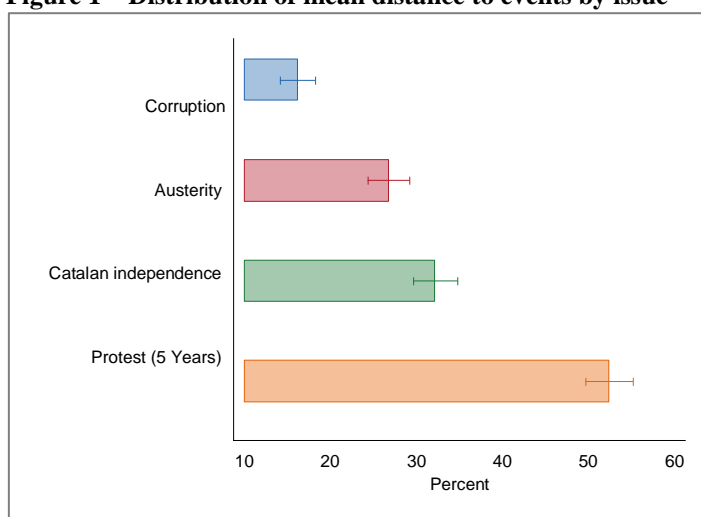
**Table 2- Number of protest events by issue and turnout**

| Issue \ Turnout | Less than 100 | Between 101 and 500 | Between 501 and 5000 | Between 5001 and 50000 | More than 50000 | Total |
|-----------------|---------------|---------------------|----------------------|------------------------|-----------------|-------|
| Corruption      | 13            | 3                   | 4                    | 0                      | 0               | 20    |
| Austerity       | 84            | 28                  | 28                   | 37                     | 15              | 192   |
| Housing         | 39            | 15                  | 7                    | 0                      | 2               | 63    |
| Catalan Indep.  | 2             | 9                   | 7                    | 3                      | 7               | 28    |
| Neighborhood    | 50            | 26                  | 12                   | 2                      | 0               | 90    |
| Others          | 111           | 38                  | 43                   | 13                     | 3               | 208   |
| Total           | 299           | 119                 | 101                  | 55                     | 27              | 601   |

### Variable operationalisation

Protest participation was measured using the recall for participating in demonstrations and sit-ins in the last five years as a dichotomous variable. 52.45% of respondents report having taken part in at least one demonstration or sit-in for all the issues and the percentage varies by issue-specific demonstrations as reported in figure 1<sup>3</sup>.

**Figure 1 – Distribution of mean distance to events by issue**



Regarding our main independent variable, we calculated the distance between respondent’s residence and all the protest events using 'Vincenty Ellipsoid distances weighed by event turnout<sup>4</sup> (Hijmans, 2016). Using these distances we calculated supply

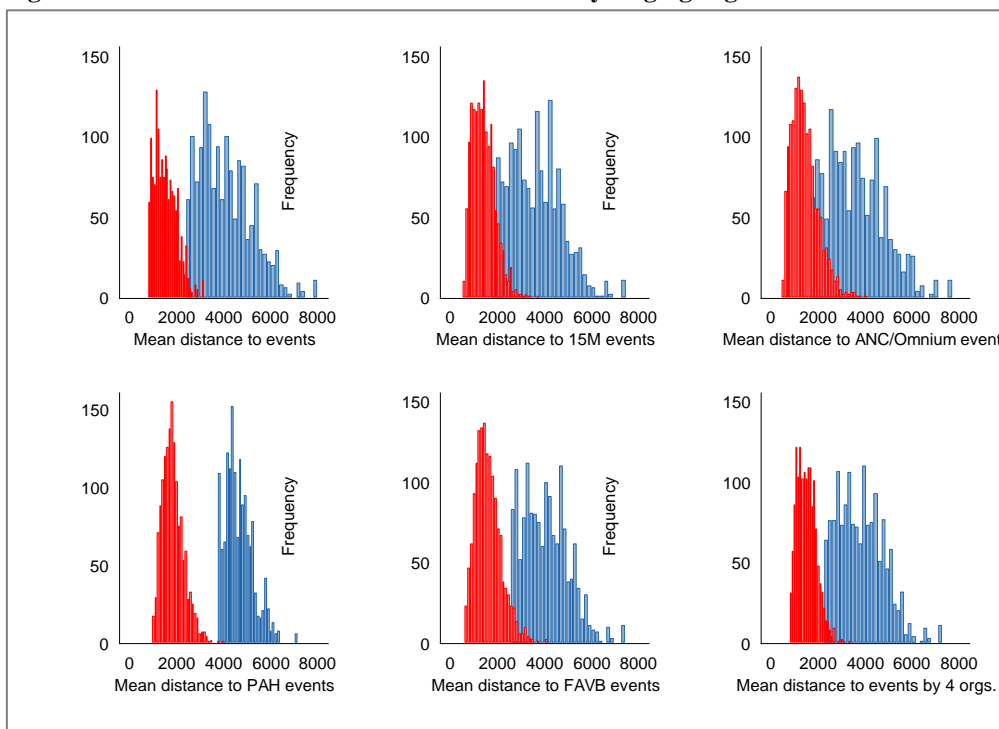
<sup>3</sup> The survey included two questions. The first one asked for recall of participating in the last five years in demonstrations or sit-ins on seven issues (Corruption, Austerity, Eviction, Strike, Catalan independence, Mayday, Neighborhood issues). A second question followed by asking “And, in total, in how many demonstrations or concentrations have you participated in the last 5 years?” Individuals who responded they didn’t remember were asked to give an estimate. This second question is more similar to the usual questions asked in surveys. The percentage of participants is high, but one has to take into account the urban sample frame as well as the 5 year reference.

<sup>4</sup> We estimated turnout as an average of the figures reported by staging organizations, media accounts and police reports. We then used five categories for turnout: Less than 100, between 101 and 500, between 501 and 5000, between 5001 and 50000, and more than 50000. 31% of events that did not report turnout figures were taken as having less than 100 attendants. We used linear weights for distance based on these turnout categories.

indicators for each respondent based on the mean distance to all events and the supply of events within a 1.5 kilometre radius (which is considered to be walking distance when determining local service provision). These indicators were calculated for each type of event (all events, or staged by each of the 4 organisations considered in our study) and replicated by similar indicators that were linearly weighted by the turnout of the events in five categories (as reported in table 1).

Average distance to events varies roughly between 2.4 and 8 kilometres for all the events in Barcelona and these figures change slightly when considering each subset of events staged by the four organisations considered in our study.

**Figure 2 – Distribution of mean distance to events by staging organization**



Blue bars show average distances and red bars average distances weighted by turnout.

In order to tap issue importance we use a conventional most important problem (MIP) battery. Individuals were asked to identify from a list of issues which one had been the most important problem(s) for the City of Barcelona during the last 5 years. The list included these nine issues: social policies, housing, tourism, political corruption, relationship between Catalonia and Spain, neighbourhoods’ degradation, economical situation, job insecurity and immigration. Individuals had to identify the most important problem; then they were asked for the second most important problem and, finally, the third one. We then use MIP as dichotomous variable; it refers to the issue that it has been selected as first, second or third most important problem for the city of Barcelona. The analyses include three issues, resulting for the coding of those answers: corruption, Catalan independence and neighbourhood issues (which includes the degradation of neighbourhoods and tourism).



In order to assess the effect of *sympathy towards organizations* on the probability to protest, we have dichotomised *Sympathy/No sympathy*, from a direct question: “Do you sympathise with this association?” Yes is coded as 1, No and Neither Yes nor No as 0 for each of the four organisations considered in the study.

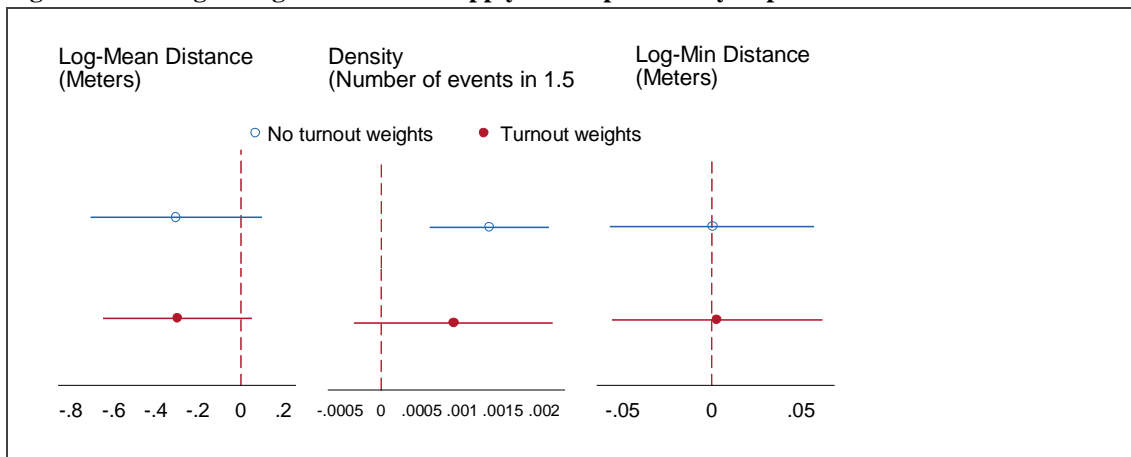
## Analysis

We model the probability of taking part in a demonstration in the last five years as a function of the distance and density of protest events. A second set of models accounts for subgroups of issue-specific participation for individuals that report interest in austerity, corruption and Catalan independence issues.<sup>5</sup> A third set of models deals with subgroups of individuals who sympathize with either of the four organisations considered. The analyses use neighbourhood fixed effects models and were replicated for indicators of supply weighted by event turnout using linear weights for the five turnout categories presented in tables 1 & 2<sup>6</sup>.

## Results

Our results are in the expected direction for mean distance and density, but the coefficients are not statistically significant, except for unweighted density.

**Figure 3 - Average marginal effects of supply on the probability to protest**



Controls by age, gender, education and income. Neighbourhood fixed effects. The complete regression results are presented in table A3 in the Appendix.

Looking into the predicted probabilities of demonstrating, Figure 4 shows that for an individual that is very close to all protest events (an average distance of 2,4 Km.) her probability for demonstrating is around 0.65 while individuals who have the largest

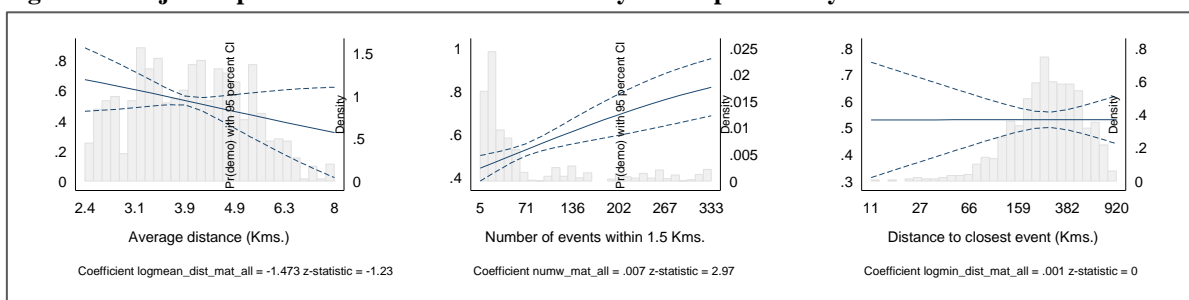
<sup>5</sup> We leave neighborhood events out of the issue specific analyses because they involve a number of heterogeneous issues that are difficult to consider as belonging to the same category. They are kept in the overall analysis.

<sup>6</sup> Figures for average marginal effects and estimations calculated with demographic controls and neighborhood fixed effects are presented in the results section and complete tables are available in the appendix.

average distances (8 Km.) the probability is around 0.4. However, this change in almost 20% is not significant.

The number of events within a 1.5 kilometre radius shows a positive effect on the likelihood of participating. People that have the lowest number of events around them (5 protest events have taken place at a walking distance from their homes) show a probability of participating of 0.45. Half the sample have had 30 events or less at a walking distance, with an associated probability close to 0.50. Individuals that have the largest supply of events around them (between 240 and 333 events, less than 10% of the sample) show a probability of participating of almost 0.80.

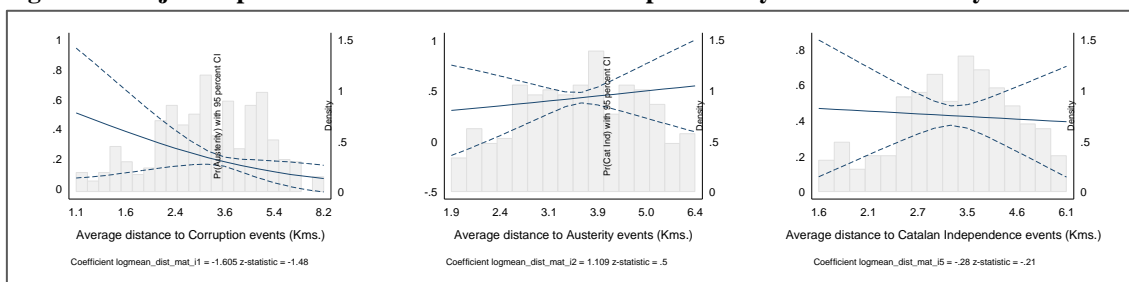
**Figure 4 – Adjusted predictions of distance and density on the probability to demonstrate**



Regression results are presented in table A4 in the Appendix.

In a second stage of our analysis, we consider issue interest and issue-specific participation. We find partial support for our second set of expectations (H2) as the results vary between cases as reported in tables A4, A5 and A6. To graphically illustrate this result, Figure 5 shows the probability to participate in events regarding different issues by average distance. The relationship follows the expected direction as the shorter the distance to corruption and Catalan independence events imply a higher probability of demonstrating. However, the direction is opposite in the case of austerity related events.

**Figure 5 – Adjusted predictions of mean distance on the probability to demonstrate by issue**

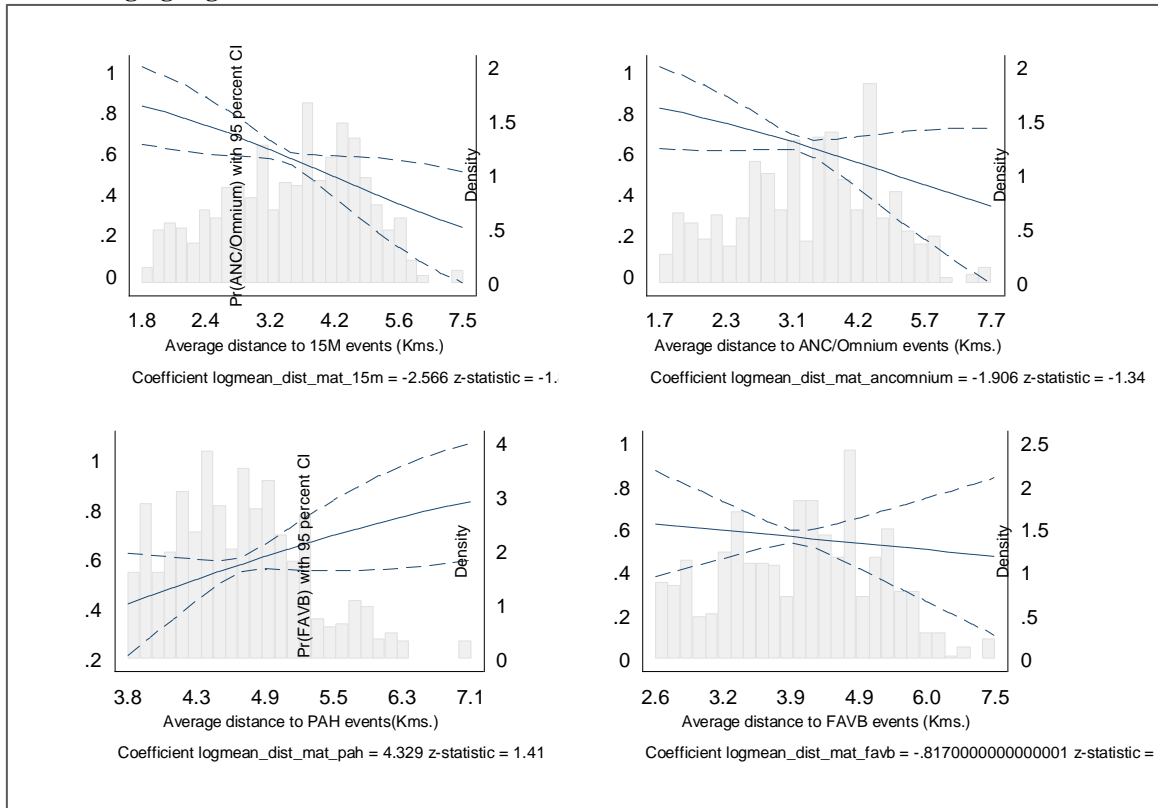


Regression results are presented in table A5 in the Appendix.

We finally tested whether distance was a concern for individuals that sympathise with organisations staging the events. Figure 6 shows the expected negative relationship between distance and probability to demonstrate for three of the organisations (15M, ANC, FAVB). The relationship is significant for the 15M sympathisers. This result could be reflecting the fact that the 15M events mobilised *unusual* demonstrators (Anduiza, Cristancho, & Sabucedo, 2013) who could be more sensitive to the cost of attending

distant events, or the fact that the Indignados spread out their protest to neighbourhood actions once they were evicted from the squares. For individuals that express sympathy towards the PAH, their probability to demonstrate is positively related to distance. This may be reflecting the fact that the events staged by the PAH usually take place in peripheral neighbourhoods with higher eviction rates. In this case, the more committed activists who are willing to stop an eviction, do not mind travelling long distances in order to demonstrate.

**Figure 6 – Adjusted predictions of mean distance on the probability to demonstrate by sympathy toward staging organisations**



## Discussion

This study provides empirical evidence to test central propositions set forth in rational choice literature regarding participation in political protest. Our results challenge the contention that costs, defined in spatial terms, are a major conditioning factor of participation in protests. Our evidence shows that the perception of distance as cost depends on the nature of the event and on individual attributes. Issue-specific interests and social distances, such as sympathy for organisations staging the protest events, are a relevant factor in explaining participation in protest in a highly dense urban context. We find that those living closest to protest events seem to be as likely to demonstrate as those living farther away in austerity related issues.

This study moves forward our knowledge on the rational explanations of collective action by combining self-reported data on behaviour with data on the supply of opportunities

for political action. Our approach makes a significant contribution by its finding that behavioural responses are not always consistent with rational calculus of cost. In this case, the probability of demonstrating was explained by distance to events only in some circumstances.

The fact that distance is not always meaningful in explaining protest behaviour seems a counter-intuitive result when following rational action theories. However, the literature has long suggested that the major cost of protest comes from the risk involved in events turning violent. Our focus on a context with high levels of peaceful contentious action, such as Barcelona, makes it possible to deal exclusively with distance related costs. However, Barcelona has also two particular conditions that complicate our analyses: a high level of protest events as compared to other Spanish and European cities; and a high density (third densest city in central Europe) with good mobility conditions<sup>7</sup>. These attributes could weaken the effect of distance as a perceived cost as they imply a rich offer of events and make time-distance considerations less important. Further research in contexts with urban sprawl and a less normalised protest culture may provide additional evidence for our contentions.

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<sup>7</sup> Ranks 14/56 in the ADL mobility score for central Europe - [http://www.adlittle.com/fileadmin/editorial/downloads/ADL\\_Future\\_of\\_urban\\_mobility\\_ranking\\_visual\\_by\\_region.pdf](http://www.adlittle.com/fileadmin/editorial/downloads/ADL_Future_of_urban_mobility_ranking_visual_by_region.pdf)

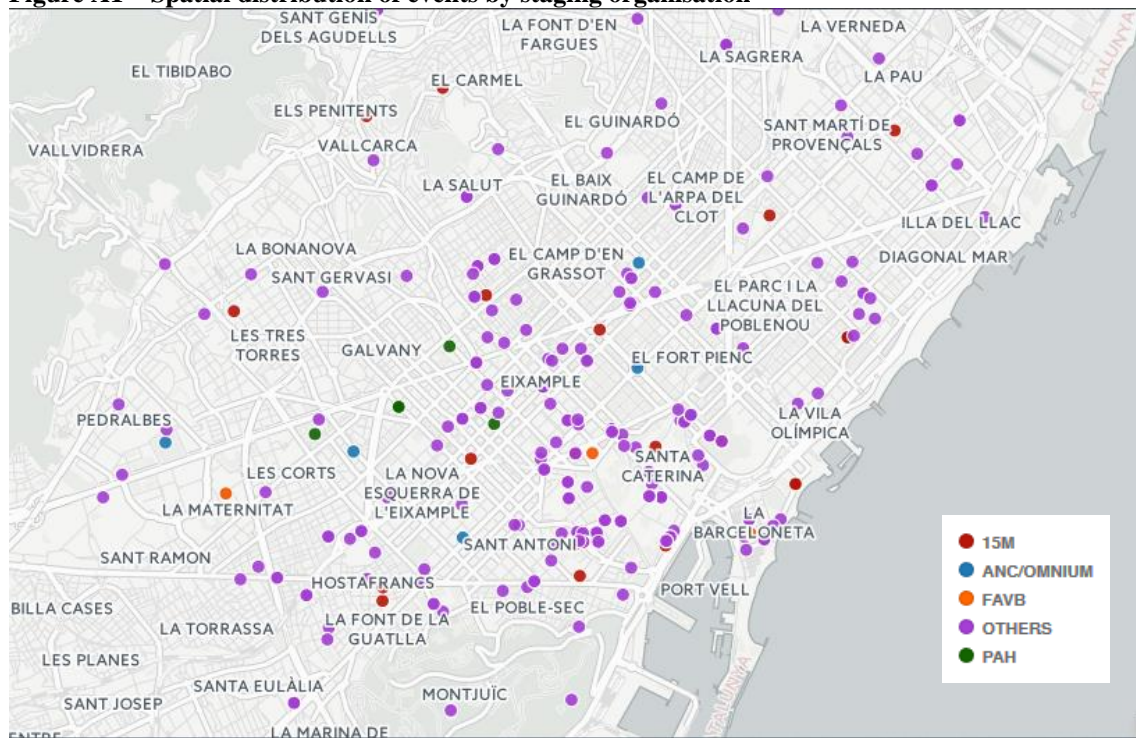
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## Appendix

Figure A1 – Spatial distribution of events by staging organisation



**Table A1 – Individual level data: descriptive statistics**

|               | <b>Freq.</b> | <b>Percent</b> | <b>Cum.</b> |
|---------------|--------------|----------------|-------------|
| <b>Gender</b> |              |                |             |
| Men           | 700          | 46.67          | 46.67       |
| Women         | 800          | 53.33          | 100.00      |

|             |     |       |        |
|-------------|-----|-------|--------|
| <b>Age</b>  |     |       |        |
| 18 to 29    | 226 | 15.07 | 15.07  |
| 30 to 44    | 433 | 28.87 | 43.93  |
| 45 to 59    | 362 | 24.13 | 68.07  |
| 60 or older | 479 | 31.93 | 100.00 |

|                    |     |       |        |
|--------------------|-----|-------|--------|
| <b>Education</b>   |     |       |        |
| No basic studies   | 69  | 4.61  | 4.61   |
| Compulsory studies | 293 | 19.57 | 24.18  |
| Upper Secondary    | 566 | 37.81 | 61.99  |
| Tertiary           | 569 | 38.01 | 100.00 |

|                  |     |       |        |
|------------------|-----|-------|--------|
| <b>Income</b>    |     |       |        |
| 750€ or less     | 127 | 10.73 | 10.73  |
| 750€ to 950€     | 92  | 7.77  | 18.50  |
| 950€ to 1200€    | 173 | 14.61 | 33.11  |
| 1200€ to 1400€   | 124 | 10.47 | 43.58  |
| 1400€ to 1700€   | 120 | 10.14 | 53.72  |
| 1700€ to 2100€   | 122 | 10.30 | 64.02  |
| 2100€ to 2300€   | 84  | 7.09  | 71.11  |
| 2300€ to 2750€   | 111 | 9.38  | 80.49  |
| 2750€ to 3550€   | 117 | 9.88  | 90.37  |
| More than 3.550€ | 114 | 9.63  | 100.00 |

|  | <b>Freq.</b> | <b>Percent</b> | <b>Cum.</b> |
|--|--------------|----------------|-------------|
| <b>Sympathy for staging organization</b> |              |                |             |
| 15M                                      | 1272         | 84.29          | 100.00      |
| ANC / Òmnium                             | 1066         | 70.64          | 100.00      |
| PAH                                      | 1210         | 80.19          | 100.00      |
| AVB                                      | 1133         | 75.08          | 100.00      |

|                               |     |       |        |
|-------------------------------|-----|-------|--------|
| <b>Most Important Problem</b> |     |       |        |
| Social policies               | 519 | 34.39 | 100.00 |
| Catalonia-Spain               | 476 | 31.54 | 100.00 |
| Corruption                    | 873 | 57.85 | 100.00 |
| Housing                       | 556 | 36.85 | 100.00 |
| Neighbourhood                 | 285 | 18.89 | 100.00 |



**Table A2 - Protest Event Data: descriptive statistics**

|                  | <b>Freq.</b> | <b>Percent</b> | <b>Cum.</b> |
|------------------|--------------|----------------|-------------|
| <b>Organizer</b> |              |                |             |
| 15M              | 68           | 11.28          | 11.28       |
| ANC/Omnium       | 22           | 3.65           | 14.93       |
| FAVB             | 14           | 2.32           | 17.25       |
| Others           | 477          | 79.10          | 96.35       |
| PAH              | 22           | 3.65           | 100.00      |
| <b>Turnout</b>   |              |                |             |
| Less than 100    | 301          | 49.92          | 49.92       |
| 101-500          | 118          | 19.57          | 69.49       |
| 501-5000         | 102          | 16.92          | 86.40       |
| 5001-50000       | 55           | 9.12           | 95.52       |
| More than 50000  | 27           | 4.48           | 100.00      |

Table A3 – Supply effects on the probability to protest (Marginal effects)

|                        | P(dem - 5yr)      | P(dem - 5yr)      | P(dem - 5yr)             | P(dem - 5yr)           | P(dem - 5yr)         | P(dem - 5yr)        |
|------------------------|-------------------|-------------------|--------------------------|------------------------|----------------------|---------------------|
| Mean distance (log)    | -0.302<br>(0.246) |                   |                          |                        |                      |                     |
| Density (1.5 km)       |                   | -0.295<br>(0.213) |                          |                        |                      |                     |
| Min distance (log)     |                   |                   | 0.00133***<br>(0.000440) |                        |                      |                     |
| Mean distance (log) LW |                   |                   |                          | 0.000882<br>(0.000739) |                      |                     |
| Density (1.5 km) LW    |                   |                   |                          |                        | 0.000117<br>(0.0348) |                     |
| Min distance (log) LW  |                   |                   |                          |                        |                      | 0.00304<br>(0.0359) |
| Observations           | 977               | 977               | 977                      | 977                    | 977                  | 977                 |

Controls by age, gender, education, income and neighbourhood fixed effects

Standard errors in parentheses

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

Table A4 – Supply effects on the probability to protest in Corruption demonstrations for issue interested (Marginal effects)

|                        | P(corrup)         | P(corrup)            | P(corrup)          | P(corrup)           | P(corrup)           | P(corrup)             | P(corrup)           | P(corrup)           |
|------------------------|-------------------|----------------------|--------------------|---------------------|---------------------|-----------------------|---------------------|---------------------|
| Mean distance (log)    | -0.217<br>(0.145) |                      |                    | -0.389**<br>(0.191) |                     |                       |                     |                     |
| Density (1.5 km)       |                   | 0.0153*<br>(0.00906) |                    |                     |                     |                       |                     |                     |
| Min distance (log)     |                   |                      | 0.0567<br>(0.0916) | 0.195<br>(0.121)    |                     |                       |                     |                     |
| Mean distance (log) LW |                   |                      |                    |                     | -0.0356<br>(0.0962) |                       |                     | -0.0119<br>(0.0959) |
| Density (1.5 km) LW    |                   |                      |                    |                     |                     | -0.00214<br>(0.00822) |                     |                     |
| Min distance (log) LW  |                   |                      |                    |                     |                     |                       | -0.0696<br>(0.0521) | -0.0684<br>(0.0530) |
| Observations           | 505               | 505                  | 505                | 505                 | 505                 | 505                   | 505                 | 505                 |

Controls by age, gender, education, income and neighbourhood fixed effects

Standard errors in parentheses

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

Table A5 – Supply effects on the probability to protest in Anti-austerity demonstrations for issue interested (Marginal effects)

|                        | P(austerity)     | P(austerity)           | P(austerity)        | P(austerity)        | P(austerity)     | P(austerity)          | P(austerity)       | P(austerity)       |
|------------------------|------------------|------------------------|---------------------|---------------------|------------------|-----------------------|--------------------|--------------------|
| Mean distance (log)    | 0.206<br>(0.414) |                        |                     | 0.282<br>(0.429)    |                  |                       |                    |                    |
| Density (1.5 km)       |                  | -0.000675<br>(0.00230) |                     |                     |                  |                       |                    |                    |
| Min distance (log)     |                  |                        | -0.0577<br>(0.0762) | -0.0691<br>(0.0781) |                  |                       |                    |                    |
| Mean distance (log) LW |                  |                        |                     |                     | 0.273<br>(0.360) |                       |                    | 0.184<br>(0.360)   |
| Density (1.5 km) LW    |                  |                        |                     |                     |                  | -0.00100<br>(0.00332) |                    |                    |
| Min distance (log) LW  |                  |                        |                     |                     |                  |                       | 0.125*<br>(0.0651) | 0.120*<br>(0.0657) |
| Observations           | 274              | 274                    | 274                 | 274                 | 274              | 274                   | 274                | 274                |

Controls by age, gender, education, income and neighbourhood fixed effects

Standard errors in parentheses

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

Table A6 – Supply effects on the probability to protest in Catalan independence demonstrations for issue interested (Marginal effects)

|                        | P(Cat ind)         | P(Cat ind)          | P(Cat ind)       | P(Cat ind)        | P(Cat ind)         | P(Cat ind)         | P(Cat ind)          | P(Cat ind)          |
|------------------------|--------------------|---------------------|------------------|-------------------|--------------------|--------------------|---------------------|---------------------|
| Mean distance (log)    | -0.0552<br>(0.259) |                     |                  | -0.333<br>(0.325) |                    |                    |                     |                     |
| Density (1.5 km)       |                    | 0.00619<br>(0.0114) |                  |                   |                    |                    |                     |                     |
| Min distance (log)     |                    |                     | 0.111<br>(0.111) | 0.198<br>(0.144)  |                    |                    |                     |                     |
| Mean distance (log) LW |                    |                     |                  |                   | -0.0881<br>(0.173) |                    |                     | -0.0628<br>(0.178)  |
| Density (1.5 km) LW    |                    |                     |                  |                   |                    | 0.0166<br>(0.0110) |                     |                     |
| Min distance (log) LW  |                    |                     |                  |                   |                    |                    | -0.0546<br>(0.0824) | -0.0469<br>(0.0850) |
| Observations           | 264                | 264                 | 264              | 264               | 264                | 264                | 264                 | 264                 |

Controls by age, gender, education, income and neighbourhood fixed effects

Standard errors in parentheses

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

Table A7 – Supply effects on the probability to protest in demonstrations staged by 15M (Marginal effects)

|                        | P(Dem - 5yr)        | P(Dem - 5yr)          | P(Dem - 5yr)          | P(Dem - 5yr)         | P(Dem - 5yr)      | P(Dem - 5yr)           | P(Dem - 5yr)        | P(Dem - 5yr)        |
|------------------------|---------------------|-----------------------|-----------------------|----------------------|-------------------|------------------------|---------------------|---------------------|
| Mean distance (log)    | -0.573**<br>(0.263) |                       |                       | -0.398<br>(0.275)    |                   |                        |                     |                     |
| Density (1.5 km)       |                     | 0.00520*<br>(0.00312) |                       |                      |                   |                        |                     |                     |
| Min distance (log)     |                     |                       | -0.158***<br>(0.0564) | -0.131**<br>(0.0591) |                   |                        |                     |                     |
| Mean distance (log) LW |                     |                       |                       |                      | -0.152<br>(0.117) |                        |                     | -0.132<br>(0.118)   |
| Density (1.5 km) LW    |                     |                       |                       |                      |                   | 0.0000760<br>(0.00300) |                     |                     |
| Min distance (log) LW  |                     |                       |                       |                      |                   |                        | -0.0464<br>(0.0385) | -0.0389<br>(0.0391) |
| Observations           | 840                 | 840                   | 840                   | 840                  | 840               | 840                    | 840                 | 840                 |

Controls by age, gender, education, income and neighbourhood fixed effects

Standard errors in parentheses

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

Table A8 – Supply effects on the probability to protest in demonstrations staged by ANC/Omnium (Marginal effects)

|                        | P(Dem - 5yr)      | P(Dem - 5yr)         | P(Dem - 5yr)       | P(Dem - 5yr)        | P(Dem - 5yr)         | P(Dem - 5yr)        | P(Dem - 5yr)       | P(Dem - 5yr)         |
|------------------------|-------------------|----------------------|--------------------|---------------------|----------------------|---------------------|--------------------|----------------------|
| Mean distance (log)    | -0.382<br>(0.257) |                      |                    | -0.664**<br>(0.296) |                      |                     |                    |                      |
| Density (1.5 km)       |                   | 0.0301**<br>(0.0120) |                    |                     |                      |                     |                    |                      |
| Min distance (log)     |                   |                      | 0.0696<br>(0.0628) | 0.149**<br>(0.0714) |                      |                     |                    |                      |
| Mean distance (log) LW |                   |                      |                    |                     | -0.160**<br>(0.0811) |                     |                    | -0.177**<br>(0.0834) |
| Density (1.5 km) LW    |                   |                      |                    |                     |                      | 0.0108<br>(0.00679) |                    |                      |
| Min distance (log) LW  |                   |                      |                    |                     |                      |                     | 0.0126<br>(0.0429) | 0.0366<br>(0.0441)   |
| Observations           | 714               | 714                  | 714                | 714                 | 714                  | 714                 | 714                | 714                  |

Controls by age, gender, education, income and neighbourhood fixed effects

Standard errors in parentheses

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

Table A9 – Supply effects on the probability to protest in demonstrations staged by PAH (Marginal effects)

|                        | P(Dem - 5yr)     | P(Dem - 5yr)        | P(Dem - 5yr)       | P(Dem - 5yr)       | P(Dem - 5yr)        | P(Dem - 5yr)         | P(Dem - 5yr)       | P(Dem - 5yr)        |
|------------------------|------------------|---------------------|--------------------|--------------------|---------------------|----------------------|--------------------|---------------------|
| Mean distance (log)    | 0.477<br>(0.576) |                     |                    | 0.410<br>(0.582)   |                     |                      |                    |                     |
| Density (1.5 km)       |                  | 0.0310*<br>(0.0183) |                    |                    |                     |                      |                    |                     |
| Min distance (log)     |                  |                     | 0.0497<br>(0.0578) | 0.0434<br>(0.0587) |                     |                      |                    |                     |
| Mean distance (log) LW |                  |                     |                    |                    | -0.0437<br>(0.0764) |                      |                    | -0.0574<br>(0.0771) |
| Density (1.5 km) LW    |                  |                     |                    |                    |                     | 0.00296<br>(0.00669) |                    |                     |
| Min distance (log) LW  |                  |                     |                    |                    |                     |                      | 0.0447<br>(0.0425) | 0.0496<br>(0.0429)  |
| Observations           | 826              | 826                 | 826                | 826                | 826                 | 826                  | 826                | 826                 |

Controls by age, gender, education, income and neighbourhood fixed effects

Standard errors in parentheses

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



Table A10 – Supply effects on the probability to protest in demonstrations staged by FAVB for sympathisers (Marginal effects)

|                        | P(Dem - 5yr)      | P(Dem - 5yr)        | P(Dem - 5yr)        | P(Dem - 5yr)       | P(Dem - 5yr)        | P(Dem - 5yr)         | P(Dem - 5yr)       | P(Dem - 5yr)        |
|------------------------|-------------------|---------------------|---------------------|--------------------|---------------------|----------------------|--------------------|---------------------|
| Mean distance (log)    | -0.203<br>(0.304) |                     |                     | -0.218<br>(0.327)  |                     |                      |                    |                     |
| Density (1.5 km)       |                   | 0.00808<br>(0.0209) |                     |                    |                     |                      |                    |                     |
| Min distance (log)     |                   |                     | -0.0102<br>(0.0742) | 0.0103<br>(0.0805) |                     |                      |                    |                     |
| Mean distance (log) LW |                   |                     |                     |                    | 0.164**<br>(0.0711) |                      |                    | 0.150**<br>(0.0745) |
| Density (1.5 km) LW    |                   |                     |                     |                    |                     | -0.0111<br>(0.00866) |                    |                     |
| Min distance (log) LW  |                   |                     |                     |                    |                     |                      | 0.0587<br>(0.0455) | 0.0304<br>(0.0476)  |
| Observations           | 780               | 780                 | 780                 | 780                | 780                 | 780                  | 780                | 780                 |

Controls by age, gender, education, income and neighbourhood fixed effects

Standard errors in parentheses

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