All for one? The common-pool problem in single-district electoral politics

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Centrals tasks within the transport economics discipline have traditionally been (1) to estimate the economic impact of infrastructure investments or other transportation measures and (2) give normative recommendations about which projects should be chosen, based on a cost-benefit perspective. Under what conditions actual decisions will follow such recommendations is often the topic of informal discussions among practitioners. An increasing number of studies have also shown that policy makers’ choices of infrastructure projects do not comply very well with cost-benefit calculations (Nyborg 1998, Odeck 2010, Welde et al. 2013).

This calls for an investigation of how political and institutional factors affect policy outcomes within the transportation field. Identifying such explanations is important for at least two reasons: First, if the effect of a policy measure depends on the decisions of political agents, project appraisal at one level (e.g. the national government) should take into the account the behaviour of agents at other levels (e.g. local governments or governmental agencies). Second, such insights could help in the design of political institutions, for instance how responsibilities should be allocated across different levels of government or how investments should be funded.

Seen from the perspective of academics working within political economy and political science, transportation policies could be particularly interesting objects of study because of their strategic features. In many cases, politicians enjoy considerable freedom in choosing the distribution of resources, and there are few official standards defining the ‘sufficient’ level of access to transportation for a group or a geographical area. Also, the policy measures often consist of large one-time investments which bind resources for a long period. Studies using transportation investments as the object of study, but which have a more general perspective include the ones by Knight (2005) and Helland and Sørensen (2009).

One simple, but influential theory within political economy is the one by Weingast et al. (1981) considering the provision of a local public good by a central political body consisting of locally elected representatives. They show that if each legislator autonomously decides on the level of provision of the public good in his or her area, the result will be over-spending in the aggregate because everyone only partly takes into account the opportunity cost (higher taxation or less spending on other purposes). One example of such a good could be roads, particularly those roads which benefit the people living in a certain area more than the economy as a whole.

The result of Weingast et al. potentially has strong implications for how responsibilities should be allocated across levels of government and how institutions should be designed. However, the empirical evidence is still limited. Several authors have tested the implication of the model that aggregate spending increases in the number of different districts, using the number of seats in the elected body as the explanatory variable (Gilligan and...
Matsusaka 1995, Bradbury and Crain 2001, Baqir 2002, Petterson-Lidbom 2012). It is however not clear if this variable really captures how different geographical interests are represented. Some of the studies are also vulnerable to omitted variables.

Others have criticized the model’s assumption that each elected representative autonomously decides the level of spending in his or her district (‘universalism’). Saarimaa and Tuukiainen (2013) instead study a setting where such complete free-riding is possible, namely Finnish municipalities who have already agreed to merge. They find that the smaller municipalities exploit the temporary benefits by increasing their debt level, consistent with the mechanism in the model. However, the potential implications are much stronger if we find evidence of the same effect within a permanent political body, even if the underlying bargaining structure is not clear.

In my paper I test whether an elected body will spend less on local public goods the less geographically fragmented it is, that is, the larger are the districts which the elected representatives represent. For this I use data on geographical representation in the regional councils (‘fylkesting’) in Norway and spending on regional roads (‘fylkesveier’). The 18 regional governments are responsible for a large network of roads (about 44,000 kilometers) which are mainly used for local travel within the regions and hence should be regarded as local public goods. While the size of the total budget of the regional government is more or less fixed, more spending on local road projects will imply less spending on other purposes.

The representation in the regional council of large vs. small municipalities, measured by population, varies over time because all council representatives are elected in an at-large election with the region as the electoral district. How well one municipality will be represented hence depends on the candidate rankings of the political parties. Even though representatives do not formally represent only their home municipality, Fiva and Halse (2014) find in a related paper that representation does matter for the geographical distribution of regional government spending.

To account for the possibility that representatives from large and small municipalities could also differ in their preference for the public good, I include other characteristics of the elected representatives and their home municipalities, as well as party representation, as control variables. I also control for demographic characteristics of the population.

I find that when the larger municipalities occupy more seats in the regional council, spending on regional roads decreases. I find no evidence that this effect can be explained by other characteristics of the representatives, indicating that size in itself matters. This is consistent with the theoretical prediction that larger municipalities to a larger extent take into account the opportunity cost of spending on local projects. The estimates, which are fairly stable across specifications, suggest that when the average representative comes from a municipality which accounts for 1 percentage point more of the regional population, spending on roads decreases by 2-3 percent. I also find that lower fragmentation is associated with higher spending on cultural services. This effect however disappears when I control for other characteristics of the represented municipalities.

My empirical strategy has the strength that I can control for all time-invariant region characteristics (using region fixed effects), as well as aggregate shocks (using time fixed
effects). Still, there could be unobserved time-varying factors which are correlated with both representation and spending. For instance, more (less) spending on roads in one period could motivate politicians from larger (smaller) municipalities to work harder to be nominated in the next election. However, this should not be the case if representation did not matter at all, implying that at least part of the estimated effect found is due to the causal effect of representation on spending.

My study improves on the previous literature in that I use a measure of fragmentation (weighted municipality size) which is more closely related to the mechanism in the model by Weingast et al. than the number of electoral seats, which other have used. Furthermore, I study large geographical entities (regions) in which different local interests are likely to play a role, and use data on a good (regional roads) which can be distributed within the region to please such local interests. In further work I hope to look more into the underlying mechanism to better assess whether the effect is indeed due to the incentives of politicians as postulated by the model.

References:


