The effect of different models of local government’s head selection on quality of governance and socio-economic indicators

Kirill Kazantcev & Alexandra Rumyantseva

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March 13, 2020
Background: Russian local self-government financially dependent

- Median income and expenditure
- Share of grants in income, by type
2003 – Federal Law №131 introduced «council-manager» system of local government when head of the local administration is appointed

2014 – Amendments to the Law created new model which is more dependent of regional authorities (1/2 of the commission which chooses nominees is appointed directly by governor)

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- Democratic legitimacy: popular support as a leverage in relations with the region
Hypotheses

- Regional debt rose in recent years ⇒ federal government requires regions to decrease expenditure ⇒ governors transmit it to municipal level ⇒ more dependent heads of administrations decrease expenditure of municipal budgets.
- At the same time budget cuts should not trigger protests (informal KPI for governors) ⇒ less socially sensitive types of expenditure are more vulnerable to optimization.
- Appointed executives do not need to provide public goods to electorate ⇒ optimization of employment in public sector (also allows cut of expenditure).
- Indirect measures of efficiency of «managers»: income from municipal property, investment, grants.
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Social and Economic variables

- Source: Database of Municipal Indicators gathered by Russian Federal State Statistics Service
- Data was automatically retrieved from the website

Data on models of selection

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- Automated search of regular expressions through texts of official documents (93%) and handcoding (7%)

Result: panel dataset on cities and municipal districts from 2008 to 2018
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Result: panel dataset on cities and municipal districts from 2008 to 2018
Pseudo-experimental setting: some districts and cities changed the mode of selection (treatment group), some kept directly elected mayor (control group)

Problem: self-selection into treatment group $\Rightarrow$ endogeneity

Solution: Difference-in-Differences (DiD) research design, i.e. comparison of groups in pre- and post-treatment periods makes possible to control for unobserved differences indirectly.

Estimated equation is «two-ways» DiD:

$$y_{it} = \tau_t + \pi_i + \gamma \cdot Model \ change_{it} + \theta X_{it} + \varepsilon_{it}$$

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(1)
Selection models: time variation
Selection models: spatial variation
Expenditure composition

<table>
<thead>
<tr>
<th></th>
<th>Total expenditure</th>
<th>Exp. on education</th>
<th>Exp. on communal services</th>
<th>Sosial expend.</th>
<th>Stuff expend.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model change</td>
<td>-0.055** (0.022)</td>
<td>-0.031* (0.017)</td>
<td>-0.308*** (0.097)</td>
<td>-0.106* (0.060)</td>
<td>-0.056* (0.030)</td>
</tr>
<tr>
<td>Controls</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>R2</td>
<td>0.150</td>
<td>0.084</td>
<td>0.023</td>
<td>0.041</td>
<td>0.025</td>
</tr>
<tr>
<td>Nobs</td>
<td>13164</td>
<td>12993</td>
<td>12239</td>
<td>12985</td>
<td>11211</td>
</tr>
</tbody>
</table>

Public employment

<table>
<thead>
<tr>
<th></th>
<th>Municipal employees</th>
<th>Educational employees</th>
<th>Administrative employees</th>
<th>Other employees</th>
<th>Wage of muncip. employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model change</td>
<td>-0.035** (0.015)</td>
<td>-0.006 (0.010)</td>
<td>-0.024 (0.018)</td>
<td>-0.030* (0.016)</td>
<td>-0.011 (0.011)</td>
</tr>
<tr>
<td>Controls</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>R2</td>
<td>0.071</td>
<td>0.146</td>
<td>0.077</td>
<td>0.062</td>
<td>0.105</td>
</tr>
<tr>
<td>Nobs</td>
<td>13662</td>
<td>13378</td>
<td>13649</td>
<td>13577</td>
<td>13577</td>
</tr>
</tbody>
</table>
## Efficiency

<table>
<thead>
<tr>
<th></th>
<th>Total investment</th>
<th>Investment into municip.</th>
<th>Property income</th>
<th>Totall grants</th>
<th>Own income</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model change</strong></td>
<td>-0.051</td>
<td>-0.113***</td>
<td>-0.020</td>
<td>-0.110***</td>
<td>0.036</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
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<td>0.022</td>
<td>0.058</td>
<td>0.023</td>
<td>0.077</td>
</tr>
<tr>
<td><strong>Nobs</strong></td>
<td>13713</td>
<td>12978</td>
<td>12487</td>
<td>12455</td>
<td>12497</td>
</tr>
</tbody>
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Note: Kazantsev & Rumantseva (CAG)
Robustness check

- Estimation without imputation in control variables
- Estimation on the censored sample from 2008 to 2014
- Municipality-specific linear trends
- Results are generally consistent with several exceptions for models with linear trends. Besides, in expenditure models only effect on total expenditure and expenditure on communal services is always significant. For other types – effect is negative but not significant.
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Conclusion

- Robust result that appointed managers on average spend less than elected mayors
- Expenditure cuts where it is possible (overall negative effect but not significant for separate types of expenditure)
- No signs of relative efficiency of the city-managers. On the contrary, less investment and less money from the region
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