Can young politicians influence policy in a gerontocracy?

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Motivation - OK Boomer?

Intergenerational divisions in the political arena:

- Recent crises: Climate change, Brexit, Covid-19, ...
- Local level: Compatibility of family and work, ...
- The young have little political weight in ageing societies

On top: Policymakers are typically relatively old

- 17.5% of national parliamentarians are below 40 years

Research question:
Can young politicians influence policies at the local level?

Literature Review

Broad literature on the role of policymakers' age:

- Theoretical: Poutvaara (2003), Montén and Thum (2010)
- Central government: Curry and Haydon (2018)
- Political Business Cycles: Alesina et al. (2019)
- Mayors: McClean (2021)
- Legislative speeches: Fiva, Nedregård, and Øien (2021)

Evidence on policy preferences by age:

- e.g. Sørensen (2013), Busemeyer and Lober (2020)

$\longrightarrow$ Limited *causal* evidence on the impact of young members of the *legislative* on policies at the local level

Setting and Data

Election Data - Bavarian Local Councils

- Hand-collected data from **open list municipality elections in Bavaria** (1996, 2002, 2008, 2014, *2020*)
- Data includes name, list, initial list rank, final rank, and votes
- **Age** is available for about 40% of all candidates

Descriptive Statistics: Age of council(or)s

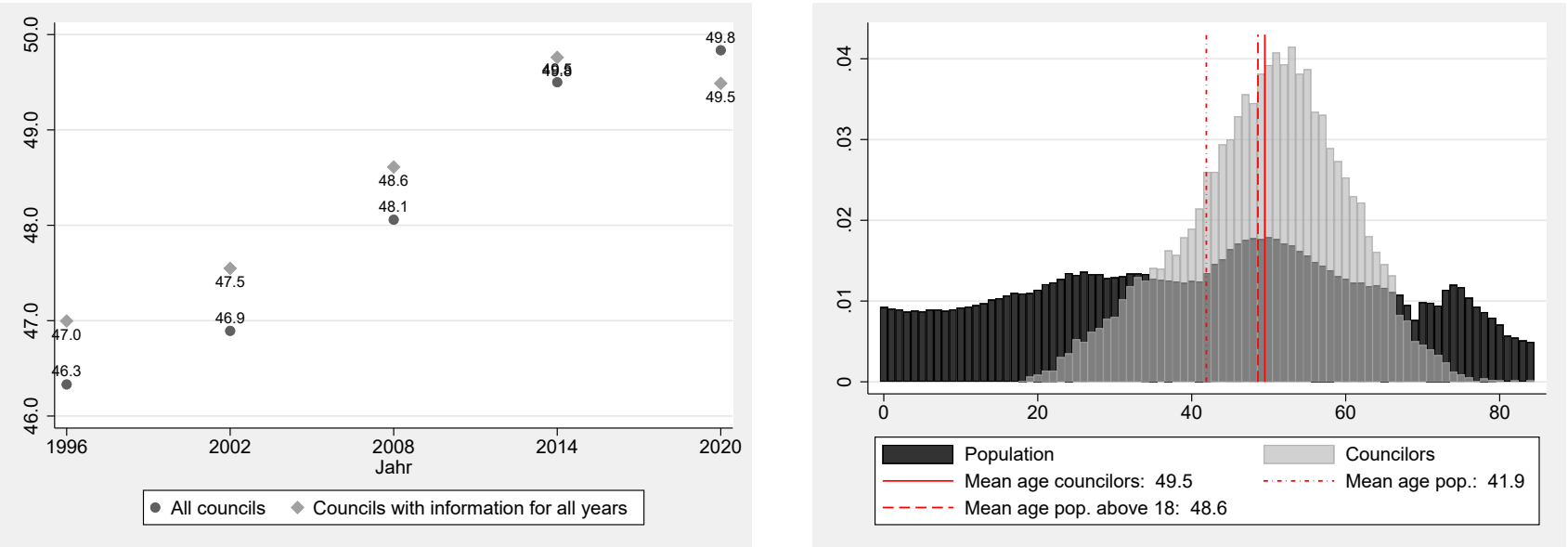


Figure: Descriptive Statistics: Age of council(or)s

Notes: Average age of councils over time (left); Age structure of councilors and Bavarian population as of 2014 (right)

Policy Impact - Fiscal Outcome Variables

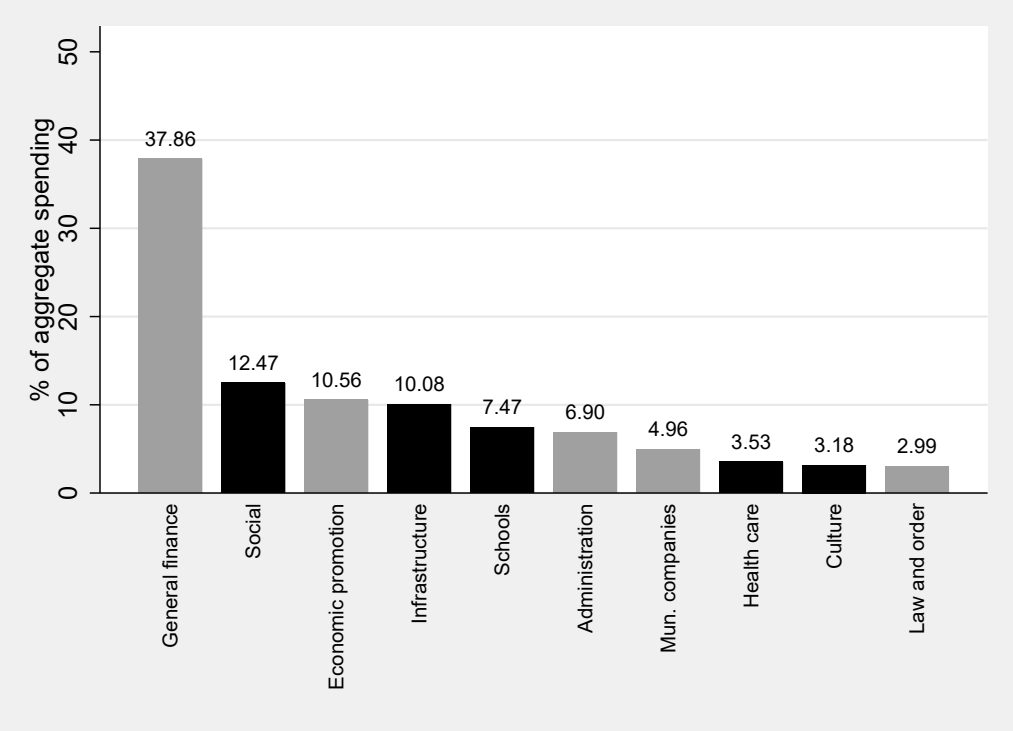


Figure: Share of spending on various spending categories

- We take the share of spending by category / overall spending
- In addition: Subcategories of spending on schools and social spending, especially **child care** (52% of social spending)

Empirical strategy

Naïve estimation approach

We want to estimate the following relationship...

$$y_{i,t} = \alpha + \beta \, \textit{Young councilor share}_{i,t} + \lambda_i + \gamma_t + \epsilon_{i,t}. \qquad (1)$$

...that relates younger councils to different municipal spending outcomes: Do younger councilors affect policy choices?

But: share of young councilors is likely related to unobservable municipality characteristics

$\longrightarrow$ OLS coefficients are biased

Solution: IV approach

Share of young victories in races for last seats = instrument

- Open-list system $\longrightarrow$ races for the last seat a list obtains
- In these races, candidates of different age compete
- If the younger of the two wins, number of young councilors $\uparrow$
- Ending up in such a race and winning are quasi-random

How to define young victories?

Candidate below or equal to **40** competes with candidate above

Age difference

Solution: IV approach

First stage:

$$\textit{Young councilor share}_{i,t} = \alpha + \beta\, \textit{Young victory share}_{i,t} + \lambda_i + \gamma_t + \upsilon_{i,t} \quad (2)$$

- Relevance: Young victories in races for the last seat increase the number of young councilors
- Exclusion restriction: Final list rank of candidates and individual vote share unknown in advance and thus unrelated to municipality characteristics

IV Validity

Validity I: Quasi-random victories

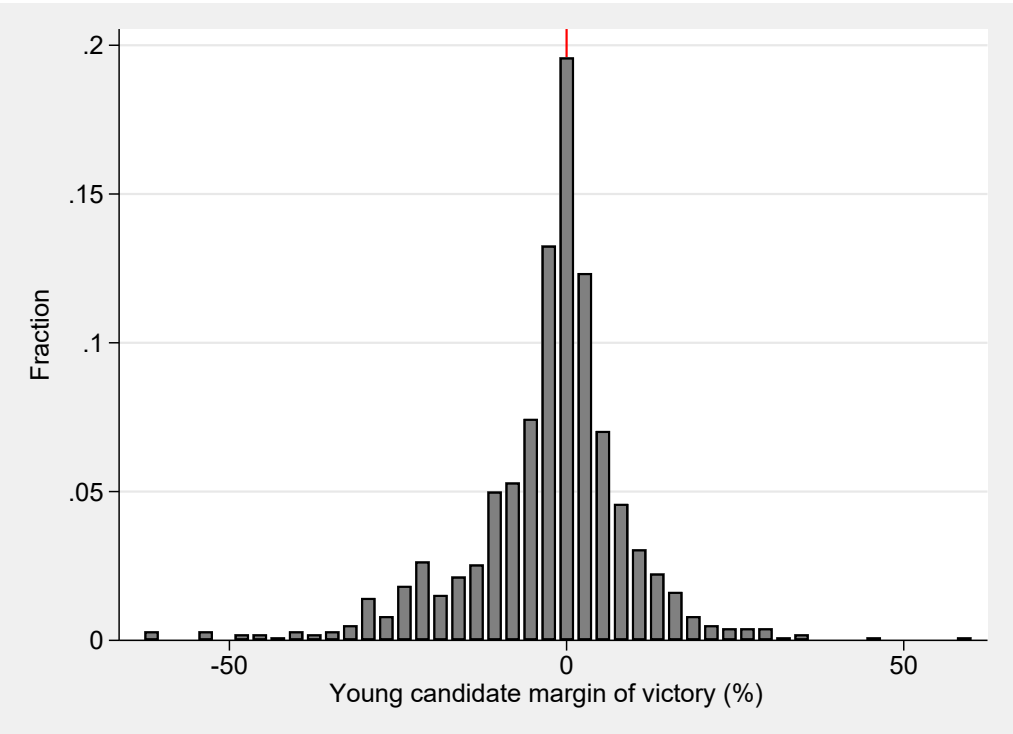


Figure: Sorting at the threshold

Notes: Histogram for margin of victory (left) in races for the last seat a list obtains.

- Young victory rate converges to 50% for increasingly-close races

Validity II: Municipality characteristics and lagged outcomes

Table: Validity – Young victories, municipality characteristics, lagged outcomes

Panel A: Share of young victories and municipality characteristics						
	(1) Population	(2) Pop<6	(3) Pop 6-14	(4) Pop 15-65	(5)Pop≥ 65	(6) Area
Share young victories	0.002	0.002	0.016	0.001	-0.001	-0.003
	(0.005)	(0.014)	(0.012)	(0.005)	(0.008)	(0.004)
Municipality FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
N	5880	5880	5880	5880	5880	5880
Panel B: Share of young victories and lagged outcomes						
	(1) Social	(2) Infrastr.	(3) Schools	(4) Culture	(5) Health	(6) Other
Share young victories	-0.028	0.023	-0.017	0.080	-0.098	0.006
	(0.039)	(0.045)	(0.050)	(0.067)	(0.071)	(0.010)
Municipality FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
N	3072	3072	3072	3071	3049	3071

Notes: This table collects results from regressions that relate municipality characteristics and the (log of) the spending of different categories relative to total spending to the share of young victories . Stars indicate significance levels at 10%(*), 5%(**), and 1%(***). Heteroscedasticity and cluster-robust standard errors in parentheses. The unit of clustering is the municipality of the candidate

Results

IV Results: First Stage

Table: IV results – Young councilors and municipal spending

First Stage: Young victories in the race for the last seat and share of young councilors

	Dep. Var.: Share of young councilors					
	(1) Social	(2) Infrastr.	(3) Schools	(4) Culture	(5) Health	(6) Other
Share young victories	0.097***	0.097***	0.097***	0.097***	0.099***	0.097***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Municipality FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
Kleibergen-Paap Wald F	62.13	62.13	62.13	62.06	63.91	62.20
N	4182	4182	4182	4180	4139	4181
Councils	697	697	697	697	695	697
Municipalities	346	346	346	346	346	346

Notes: This table collects results from IV regressions that relate the (log of) spending on different categories relative to total spending to the share of young councilors. We estimate separate regressions for spending on social spending (model 1), spending on infrastructure (model 2), spending on schools (model 3), spending culture (model 4), and spending on health care (model 5). We also study the residual spending (model 6). To account for the endogeneity of the age composition of the council, we instrument the share of young councilors with the share of young candidates who win in races for the last seat between a young and old candidate within a party. Stars indicate significance levels at 10%(*), 5%(**), and 1%(***). Heteroscedasticity and cluster-robust standard errors in parentheses. The unit of clustering is the municipality of the candidate.

IV Results: Second Stage

Table: IV results – Young councilors and municipal spending

Second Stage: Instrumented share of young councilors and spending shares						
	(1) Social	(2) Infrastr.	(3) Schools	(4) Culture	(5) Health	(6) Other
Share young councilors	0.898***	-0.270	0.734*	0.791	-0.506	-0.027
	(0.324)	(0.385)	(0.427)	(0.570)	(0.801)	(0.092)
Mean (SD)	-2.71 (0.65)	-2.42 (0.59)	-3.00 (0.55)	-5.02 (1.16)	-4.45 (1.44)	-0.34 (0.14)
Municipality FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
Kleibergen-Paap Wald F	62.13	62.13	62.13	62.06	63.91	62.20
N	4182	4182	4182	4180	4139	4181
Councils	697	697	697	697	695	697
Municipalities	346	346	346	346	346	346

Notes: This table collects results from IV regressions that relate the (log of) spending on different categories relative to total spending to the share of young councilors. We estimate separate regressions for spending on social spending (model 1), spending on infrastructure (model 2), spending on schools (model 3), spending culture (model 4), and spending on health care (model 5). We also study the residual spending (model 6). To account for the endogeneity of the age composition of the council, we instrument the share of young councilors with the share of young candidates who win in races for the last seat between a young and old candidate within a party. Stars indicate significance levels at 10%(*), 5%(**), and 1%(***). Heteroscedasticity and cluster-robust standard errors in parentheses. The unit of clustering is the municipality of the candidate.

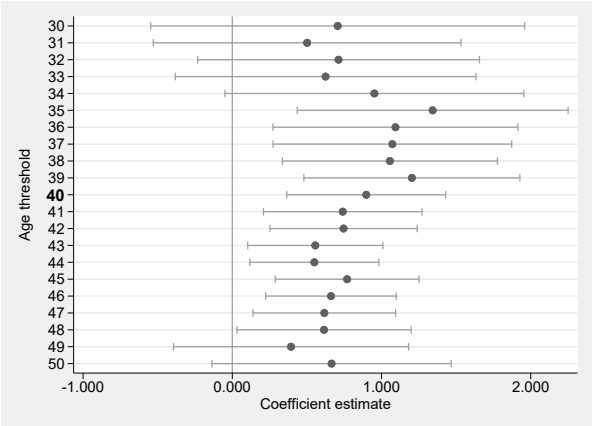
IV Results: Decomposition of social/school spending

Table: IV results – Young councilors and social/school spending

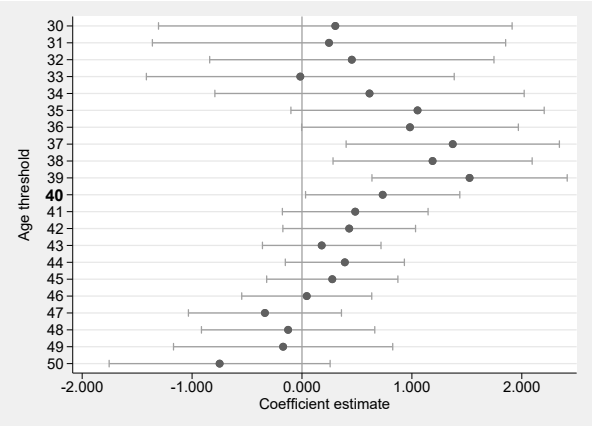
	(1) Child care	(2) Other social exp.	(3) Prim./Sec. modern	(4) Other school exp.
Share young councilors	0.709**	0.938	0.741*	-0.004
	(0.342)	(0.768)	(0.442)	(0.436)
Mean (SD)	-2.82 (0.65)	-6.06 (1.55)	-3.20 (0.59)	-5.33 (1.02)
Municipality FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
Kleibergen-Paap Wald F	62.18	62.12	62.03	62.13
N	4181	4165	4178	4182
Councils	697	697	697	697
Municipalities	346	345	346	346

Notes: This table collects results from IV regressions that relate (i) the share of components of social spending and (ii) the components of school spending (relative to total spending) to the share of young councilors (councilors below or equal to 40 years). We estimate separate regressions for the (log of) spending share devoted to child care (model 1), the (log of) spending share devoted to other social spending, (model 2), the (log of) spending share devoted to primary and secondary modern school (model 3), and the spending share devoted to the (log of) other school spending (model 4). Regressions include municipality and year fixed effects. To account for the endogeneity of the age composition of the council, we instrument the share of young councilors with the share of young candidates who win in races for the last seat between a young and old candidate within a party. The row entitled Mean (SD) reports the mean and standard deviation of the dependent variable for each regression. Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). Heteroscedasticity and cluster-robust standard errors in parentheses. The unit of clustering is the municipality of the candidate.

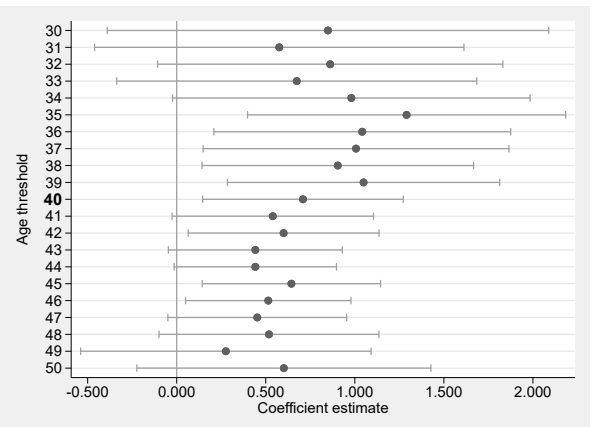
Robustness



(a) Social spending

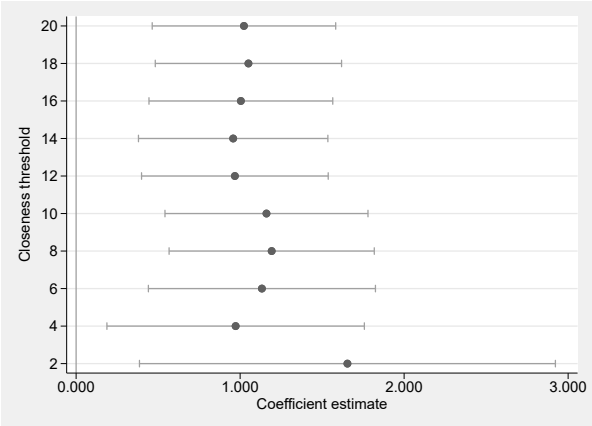


(b) Schools

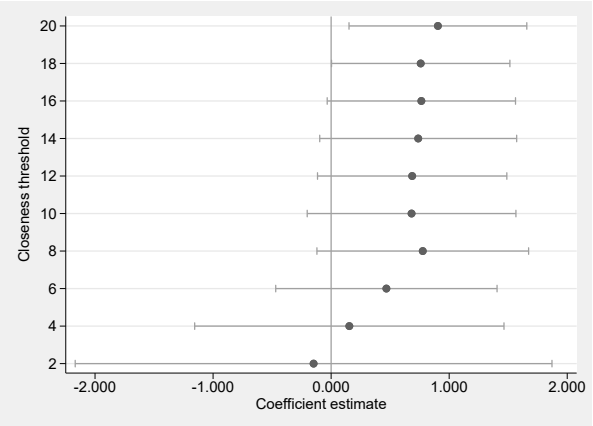


(c) Child care

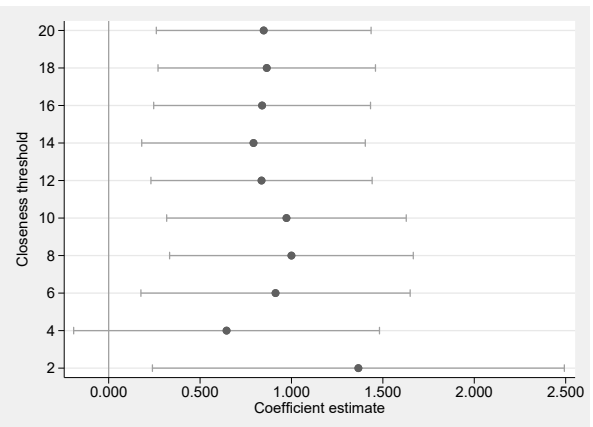
Figure: Robustness test I: alternative age thresholds. This figure shows coefficient estimates for IV models that relate the share of young councilors to the indicates spending shares. 90% confidence intervals are indicated in the graph.



(a) Social spending



(b) Schools



(c) Child care

Figure: Robustness test II: varying closeness in last-seat races. This figure shows coefficient estimates for IV models that relate the share of young councilors to social spending. To explore whether the baseline results are biased due to non-randomness in the outcome of the race for the last seat between a young and an old candidate, we restrict the sample to councils with "close" races between the young and the old candidate. 90% confidence intervals are indicated in the graph.

Mechanisms and effect heterogeneity

Other councilors characteristics as competing mechanisms:

- Gender
- Education
- List affiliation

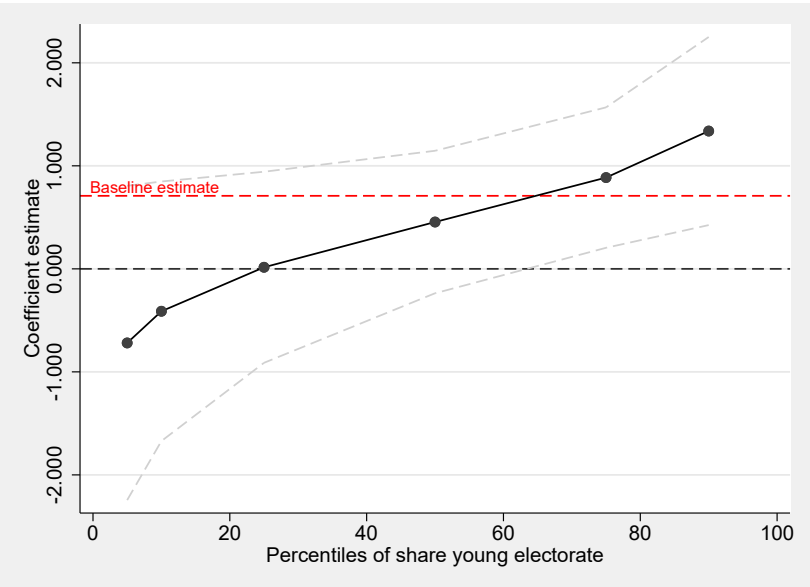
Results are robust
$\longrightarrow$ **Age effect**, not an effect of other councilor characteristics

We examine effect heterogeneity along these dimensions:

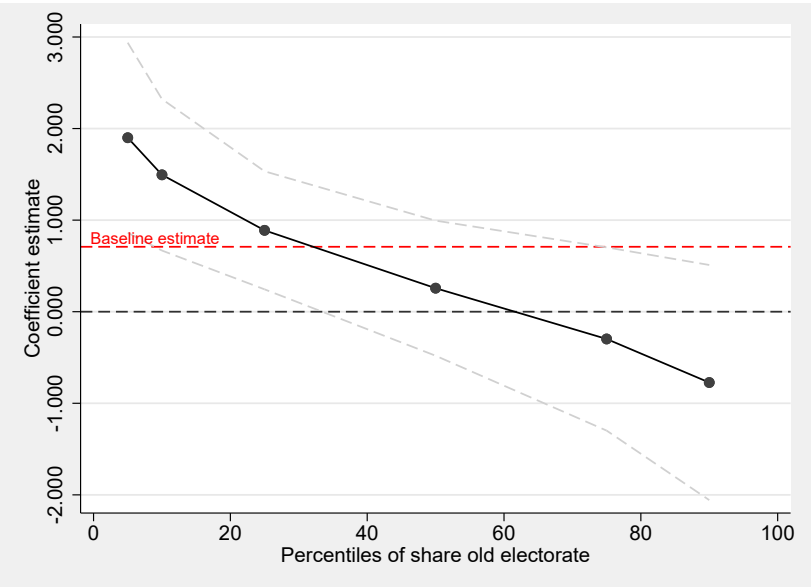
- Council size and mayor age
- Other young councilors
- Share of children
- Spending in first year
- Female labor force participation

Insignificant interaction terms

$\longrightarrow$ No effect heterogeneity along these dimensions



(a) Interaction young electorate



(b) Interaction old electorate

Figure: Effect heterogeneity – Electorate age and spending on child care.
Baseline estimates are depicted for reference. 90% confidence intervals are indicated in the graph.

Full table

Conclusion

- Young councilors contribute to a shift in the budget towards social spending and child care
- Results less robust for spending on schooling
- Young councilors respond to age structure of their electorate

Thank you!

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Appendix

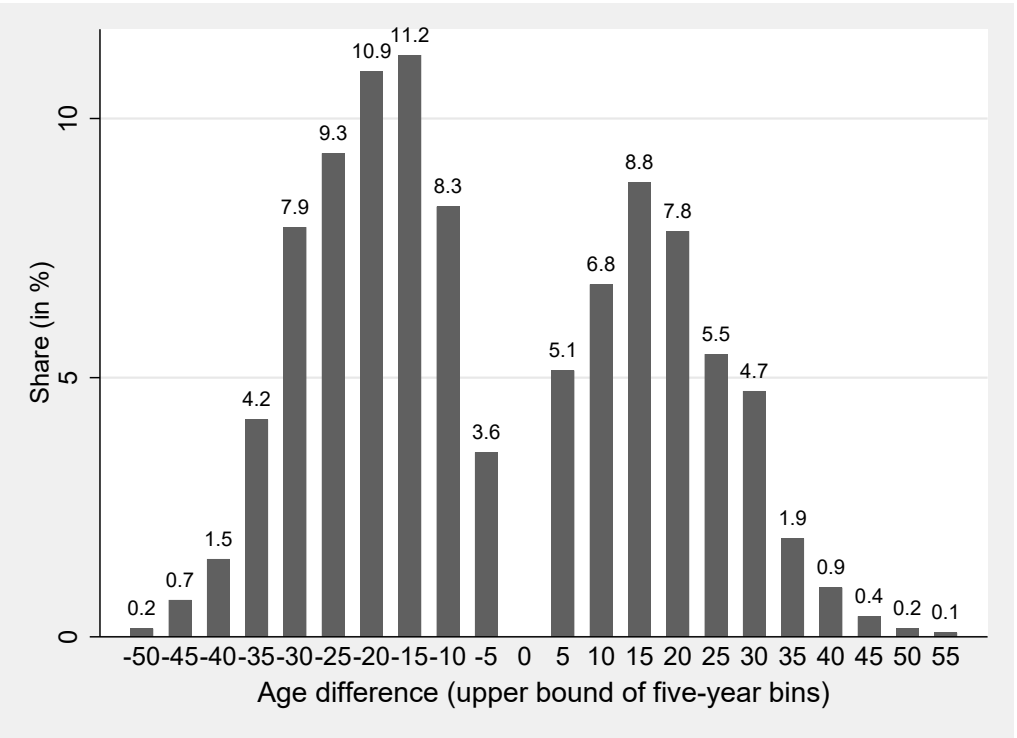

Figure: Age difference in races for the last seat. This figure shows the distribution of age differences between the older and the younger candidates in a races for the last seat. Upper bounds of five year bins indicated in the graph (i.e. category 10 includes races with age differences between 6 and 10 years). The difference is positive for young winners and negative for old winners.

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Table: Effect heterogeneity – Young councilors and municipal spending, role of electorate's age structure

	(1) Social	(2) Schools	(3) Child care	(4) Social	(5) Schools	(6) Child care
Share young councilors	0.690*	0.974	0.448	0.576	1.021*	0.313
	(0.379)	(0.598)	(0.422)	(0.390)	(0.615)	(0.437)
Share young electorate	0.273	0.812*	0.389			
	(0.323)	(0.415)	(0.316)			
Sh. young councilors	5.877	-3.934	7.253*			
× Sh. young electorate	(3.940)	(4.741)	(4.323)			
Share old electorate				0.088	-1.177***	-0.081
				(0.295)	(0.378)	(0.307)
Sh. young councilors				-4.757*	2.329	-6.004**
× Sh. old electorate				(2.461)	(3.438)	(2.638)
Mean (SD)	-2.60 (0.59)	-3.02 (0.54)	-2.71 (0.60)	-2.60 (0.59)	-3.02 (0.54)	-2.71 (0.60)
Municipality FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
Kleibergen-Paap Wald F	12.42	12.42	12.42	13.35	13.35	13.35
N	3504	3504	3504	3504	3504	3504
Councils	584	584	584	584	584	584
Municipalities	343	343	343	343	343	343

Notes: We interact the treatment with the share of people between 18 and 39 in the electorate (models 1–3) and people above 60 in the electorate. The shares are centered at their mean to provide meaningful interpretation of the base effect. Stars indicate significance levels at 10%(*), 5%(**), and 1%(***). Heteroscedasticity and cluster-robust standard errors in parentheses.

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