In most developed countries municipal governments are an essential part of representative government (Kersting and Vetter 2013; Trounstine 2009). They are responsible for a large part of public spending. They are able to levy taxes on income and property. And while they are subordinate to central governments, oversight is far from complete (OECD 2016). Municipalities thus play a central part in the quintessential political act of deciding who gets what, when and how. From the standpoint of democratic representation, it is therefore important to ask whether citizens are able to set policy or whether it is set for them by extraneous forces, leaving the democratic potential of municipal government unfulfilled.

There are good reasons to be skeptical of municipal governments' democratic potential, as several forces limit their capacity to respond to public concerns. Central governments often put constraints on local government decision-making (Peterson 1981). Similarly, competition with other adjacent municipalities might restrain policy-making (Salmon 1987). Furthermore, even if municipalities have the capacity to set policy independently, voters might not be able to effectively influence policy-making, due to the power of special interests.

Yet recent empirical studies of municipal government suggest that such skepticism might not be warranted. Voters tend to (re-)elect local politicians based on their actions in office (e.g., Boyne et al. 2009; Larsen 2019), and to vote for conservative mayors if they themselves hold conservative policy views (Boudreau, Elmendorf and MacKenzie 2015; Hopkins and Pettingill 2017; Sances 2018). Furthermore, a number of studies have found that it matters for city policy whether a conservative or a liberal party controls the mayoralty and/or the city council (e.g., Blom-Hansen, Monkerud and Sørensen 2006; de Benedictis-Kessner and Warshaw 2016; Fiva, Folke and Sørensen 2018).

This provides *indirect* evidence that municipalities are responsive, yet only a few studies examine municipal responsiveness more directly (Einstein and Kogan 2016; Hajnal and Trounstine 2010; Palus 2010; Tausanovitch and Warshaw 2014). Typically, these studies correlate measures of city policy, such as tax rates and levels of spending, with measures of citizens preferences, as expressed at elections or in public opinion surveys. The result is a strong correlation. While these studies provide unique insight into the overlap between citizen preferences and city policy, they do not provide us with a very strong test of responsiveness.

Just because more conservative citizens live in more conservative places does not mean that politicians have responded to citizen demands. It could just as easily be that citizens have moved to places that are more conservative (Tiebout 1956), or that citizen preferences respond to city policy (Broockman and Butler 2017; Slothuus 2010). In addition to these concerns, a cross-sectional correlation tells us little about how quickly politicians adapt to changes in citizen preferences.

Adaptiveness is important from the point of view of electoral accountability. As such, if adaption takes longer than an election cycle, citizens will not be able to observe whether politicians have responded to their concerns, making it impossible to reward or punish politicians for policy changes. Beyond this, adaptiveness might also speak to the mechanisms underlying local responsiveness. If adaption is instant, then responsiveness is more likely to stem from politicians picking up signals from their voters through engaging with their constituents (Butler, Nickerson et al. 2011). If adaption takes little less than an election cycle, then electoral selection, that is, changes in who gets elected, is a more likely culprit (Mansbridge 2009). Finally, if adaption only occurs after an election cycle, then more structural explanations are a better fit (Erikson, Wright and McIver 1993, 90).[1]

In this article, we study the dynamics of local responsiveness in Danish municipalities. In particular, we develop an annual measure of municipal policy conservatism based on 14 fiscal policy indicators (1978-2006), which we link to a dataset of net support for conservative (right-wing) parties at local elections dating back to 1978. This dataset allows us to examine how past changes in preferences are related to future changes in policy. In particular, we are able to identify how long it takes a change in citizens preferences to affect city policy, and how long this effect persists.

We find that changes in the policy preferences of citizens are robustly related to changes in city policy. We also show that there is no evidence of reverse causality—past changes in policy do not predict future changes in preferences, assuaging concerns that citizens are the ones responding to policy. In terms of adaptiveness, we find that the effect of a change in the electorate's preferences are detectable after three years and persist nine years into the future. Our findings therefore suggest that municipal governments are dynamically responsive to cit-

izen concerns, and that while the effect is not immediate, it takes less than an election period for citizen preferences to affect city policy.

Dynamic and Adaptive Local Responsiveness

Not long ago, most researchers of local government would probably have agreed that local governments are not responsive to citizen preferences (Peterson 1981). This is no longer the case, as a number of recent studies have found that citizen preferences are strongly and robustly associated with local policy outcomes. Most notably, Tausanovitch and Warshaw use Multilevel Regression with Poststratification (MRP) to estimate the policy preferences of citizens in a cross section of US cities. They find a strong correlation between voter preferences and city policy (for earlier efforts, see Hajnal and Trounstine 2010; Palus 2010). Two other recent studies have directly examined municipal responsiveness. Einstein and Kogan (2016) also identify a strong correlation between citizen preferences, measured as support for the Democratic Party at presidential elections, and city policy. Apart from replicating the findings from Tausanovitch and Warshaw, Einstein and Kogan are able to identify the use of intergovernmental grants as a key mechanism underlying responsiveness. However, the key contribution of Einstein and Kogan's study is that they examine responsiveness in a panel of cities from two US states. In these two states they find that when areas become more liberal, so do policy outcomes. Sances (2019) expands on this work using a panel of 3,000 US counties spanning 50 years. Linking changes in Democratic vote share to county-level policy outcomes, Sances finds that as counties grow more Democratic, they tend to spend more and to collect more own-source revenues.

Research in the area of municipal responsiveness has thus made impressive progress in the past few years. However, the existing evidence remains limited in important ways. Even though some previous studies have used panel data, they have exclusively examined the relationship between concurrent changes in policy and preferences over five year periods. This is in part a result of these studies using the Census of Governments (COG) to get data on policies. The COG is only collected every five years, which means that researchers are forced to interpolate policy preferences from elections held before and after the COG when analyzing the relationship between policy and preferences. This approach leaves panel studies open to some of the

same criticisms that can be leveraged against cross-sectional designs. In particular, one cannot rule out that citizen preferences adjust to policy through Tiebout-sorting (i.e., liberal policies attracting liberal voters) or through position taking (i.e., voters adjusting their preference in response to changes in policy). In order to rule out this type of reverse causation, one would need to look at whether current changes in preferences predict future changes in policy. This is difficult to do when the estimate of preferences measured at time t is partly influenced by preferences at $t + 1$ because of interpolation. In addition to this, the fact that data is only available in five year increments means that studies relying on the COG cannot speak to how long it takes for a change in preferences to influence local government policy.

As a result, existing research has not been able to delineate whether and how fast municipal policy responds to *changes* in preferences over time. That is, whether and to what extent municipal policy is dynamically responsive.

While the importance of dynamic responsiveness has been well-established (Stimson, MacKuen and Erikson 1995), the importance of adaptive responsiveness might not be so obvious. If policy responds, why does it matter how fast it responds? For one, slower adaption of city policy to citizen preferences will mean that policy and preferences will be "out of sync" for longer. Adaption that takes longer than an election cycle will also mean that voters will not able to discern whether elected officials has set policy on a course that is aligned with what the voters want, making it difficult for voters to hold politicians accountable.

The pace of responsiveness might also give an indication of *why* policy is responsive (Tausanovitch 2019). In particular, if policy instantly responds to changes in preferences, then it suggests that politicians have observed the changing mood of the electorate—perhaps as a result of constituent interaction—and already tried to push policy in the direction that the voters want. If policy responds a few years after the preferences of the voters' have changed, then it suggests that voters need to express their wishes in the electoral process in order to change the re-election incentives of the politicians in office (e.g., Boyne et al. 2009). Finally, if policy adapts more slowly, over a decade or so, then it suggests that a more slow-moving force is at work. Erikson, Wright and McIver (1993, 90) describe one such slow-moving force, namely that: "...recruitment of candidates from the same constituencies as the voters they hope to rep-

resent means that the values of the legislators should reflect state ideology to some extent."

Of course, adaptiveness cannot be used as definitive proof that one or another mechanism explains the link between preferences and policy, but it should furnish us with a clue about the mechanism that other scholars can use in developing theories about local responsiveness (Tausanovitch 2019).

Empirical Strategy

Below, we describe a novel dataset connecting an *annual* measure of municipal fiscal conservatism to an electoral measure of local policy preferences. With this new dataset we are able to explore exactly how adaptively and dynamically responsive local governments are to changes in constituent demands.

Empirical Context

We examine municipal responsiveness in Denmark. Denmark is a decentralized welfare state where municipalities can affect their local revenue and set a yearly budget. Municipal tasks and services include the core welfare services of the Danish welfare state, and municipal spending amounts to 35 percent of GDP, which is more than half of all public spending. We focus on Denmark, as this allows us to track the relationship between citizen preferences and city policy in a dynamic way. As such, we are able to obtain a detailed measure of city policy for all years between 1978 and 2005 for all 271 Danish municipalities. We can link this to policy preferences as expressed in municipal elections in the same period.

Danish municipalities are different from the US counties and cities which have been the focus of previous studies. They are small (average size 16,000 inhabitants), organized in general rather than special-purpose governments (Berry 2009), with a multi-party PR system in which turnout is relatively high.[2]

It is not clear whether Denmark is an easy or hard case for responsiveness. Some factors—such as the small size of the municipalities—seem to make responsiveness less likely than in the US, whereas others—such as the general purpose organization of local government—seem to make responsiveness more likely. In that sense, the Danish case cannot be seen as especially

typical or atypical. However, in relation to the normative implications of local responsiveness, it bears repeating that municipalities in Denmark are entrusted with spending one third of the GDP and are responsible for running large parts of the vast Danish welfare state. If local citizens are not able to steer local policy in Denmark, where policy is so consequential and play such an integral part in the life of most voters, it is especially democratically problematic.

In terms of generalizability, some features of the Danish municipalities, such as general purpose organization and (some) autonomy to tax and spend, are common features of municipalities in many western democracies. Other features, such as relatively high turnout and competitiveness of the elections are more unique to the Danish municipalities.

An Annual Measure of Municipal Fiscal Policy Conservatism

To measure fiscal policy conservatism, we rely on 14 different indicators relating to either tax policy, spending policy, organization of public service delivery, the extent of public services and co-payment for public services.[3] An overview and discussion of the policy indicators are presented in Appendix B. The policies included in our index had to meet the following criteria: (1) The policy should be directly influenced by the city council; (2) it had to be a policy and not the outcome of a policy (e.g., we did not include unemployment); (3) data on the policy had to be available for at least five years between 1978 and 2006. All policy information was retrieved from Statistics Denmark or the Danish Ministry for Economic Affairs and the Interior.

We combine these 14 indicators into an index of fiscal policy conservatism. Inspired by Caughey and Warshaws' (2016) analysis of US states, we use a Bayesian latent variable technique to estimate municipal fiscal conservatism as an underlying trait driving municipal policies. This method is in many ways similar to frequentist factor analysis. However, a major advantage to using Bayesian techniques when making inferences about the latent trait is that the simulations will impute missing data during the estimation, which allows us to include items with different numbers of observations in the model. Using such a technique is particularly important in our study, because data on most indicators is only available after 1993. However, because we use this measurement method, these indicators still shape our estimates of municipal fiscal policy conservatism across the entire period—the units simply supply less

information to the estimation in the period where, they have missing observations. Even so, our measure of fiscal policy conservatism for the period 1978-1992 primarily relies on the measures of income tax, property tax and spending per capita. To make sure that our results are not driven by the inclusion of different items at different points in time, we conduct all analyses using an index comprised of only these three indicators (reduced measure) as well as with all indicators (full measure). More details about the measurement model can be found in Appendix C.

The annual measure of fiscal policy conservatism we end up with is more granular and more reliable than the indicators of municipal policy used in previous studies relying on the COG or similar data sources (Einstein and Kogan 2016; Hajnal and Trounstine 2010; Palus 2010; Sances 2019; Tausanovitch and Warshaw 2014). As such, all municipalities in Denmark are required by law to report on their fiscal policy to the central government each year using common accounting standards. Arguably, this makes the policy information more reliable than the information reported in the COG, which is (at best) based on records given to state governments that might have different accounting standards. Furthermore, as noted above the COG is only conducting every five years, whereas our measure cover all years from 1978 to 2005.

Figure 1 present some descriptive features of the annual measure of fiscal policy conservatism. In particular, it looks at how the measure is distributed across time and space, revealing some interesting patterns in municipal fiscal policy. Fiscal policy conservatism dropped slightly in the period. The drops are located in 1978 to 1981 and from 1993 to 2000: periods when the Social Democratic Party was in power nationally. This makes sense, as liberal national fiscal policies are likely to spill over into local politics through intergovernmental grants etc. However, aside from the national trends, the most notable feature of the time series seems to be the large variation we identify in fiscal policy. Apparently, some municipalities are very fiscally conservative while others are not. Although the within-differences are less dramatic, we also see some municipalities start out more conservatively and then become more liberal and vice versa.

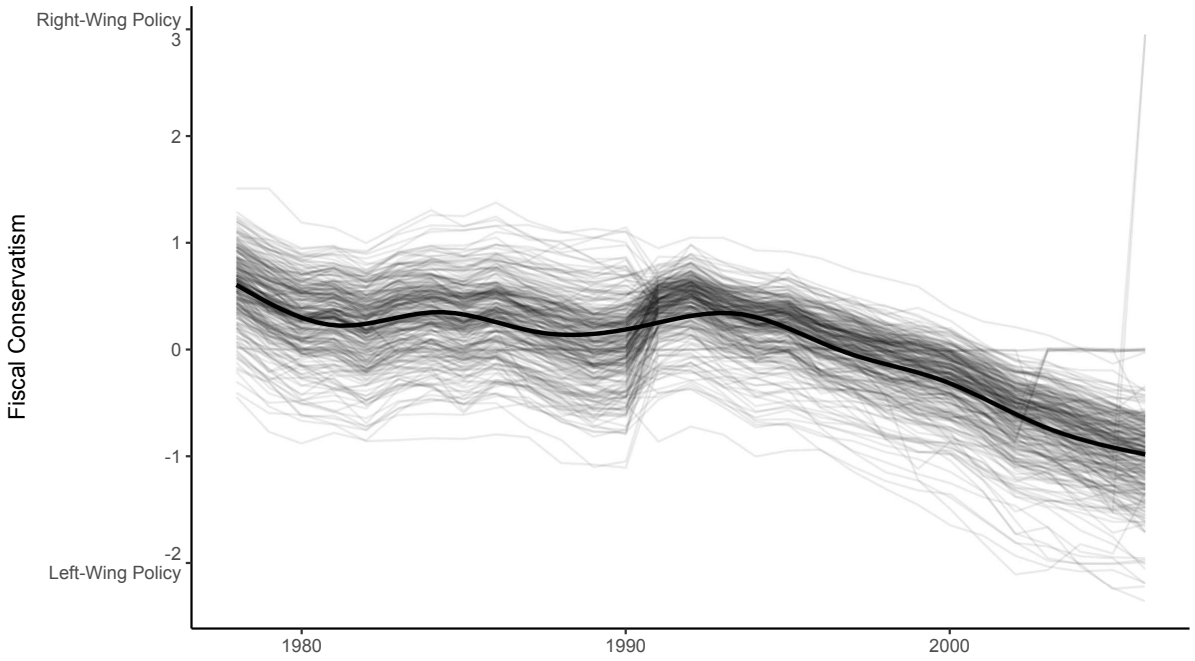

Figure 1: Average Municipal Fiscal Policy Conservatism (dark line) and Municipal Fiscal Policy Conservatism for Individual Municipalities (grey lines) from 1978 to 2006.

Municipal Policy Preferences

In order to find out whether municipal fiscal policy conservatism responds to the preferences of the electorate, we need to develop a measure of local policy preferences. In line with previous work on municipal responsiveness (e.g., Einstein and Kogan 2016; Sances 2018), we measure local policy preferences indirectly by examining the net difference in electoral support for right-wing and left-wing parties in the municipality, inferring that municipal electorates that prefer conservative parties also prefer conservative fiscal policies. In particular, we look at the difference between support for the major center-right parties as well as the right wing populist parties (Venstre, Det Konservative Folkeparti, Fremskridstpartiet and Dansk Folkeparti) and the major center-left parties as well as the socialist parties (Socialdemokratiet, Radikale Venstre, Socialistisk Folkeparti, Venstresocialisterne, and Enhedslisten) at all municipal elections in the period under study. This gives us an estimate of local policy preferences in the years 1978, 1981, 1985, 1989, 1993, 1997 and 2001.

It might have been preferable to have survey based estimates of citizens policy ideal points instead of election returns (similar to the measure used by Tausanovitch and Warshaw 2014). However, doing so is not feasible, as survey data is too sparse, especially for the earlier part of

the period we study. Instead, we carry out a validation of our measure in Appendix D. Here we find that there is a strong correlation between net support for conservative parties at municipal elections and citizens' ideological self placement.

Unlike previous studies, which have relied on support for conservative vis-á-vis liberal parties at national or regional elections (e.g., Einstein and Kogan 2016; Hajnal and Trounstine 2010), we look at municipal elections. There are several advantages to using local rather than national election returns. For one, citizens might differ in their policy views across domains, preferring more right wing policy at the local level than at the national level (for an argument along these lines, see Abrams and Fiorina 2012). The electorate at local elections could also be differently composed than electorates in national elections (Bhatti et al. 2019), and therefore one might not capture the local electorates' ideological profile by using national election returns.

Using local rather than national election returns also has a potential drawback: local parties might adjust their ideological profile to appeal to local voters (Erikson, Wright and McIver 1993). As such, in more conservative municipalities, left-wing parties might become more conservative to attract the more conservative electorate and vice versa, attenuating the correlation between conservative preferences and support for right-wing parties. However, this is less of a concern in our case, because we look at how *changes* in net support for right-wing parties come to affect changes in policy. Even if the level of support for conservative relative to liberal policy is obscured by local convergence in party platforms, increased support for right-wing parties relative to left-wing parties should still reflect a shift away towards conservative preferences in the electorate.

Table 1 presents descriptive statistics on our measure of local preferences and other central variabels. For the key variables in our analysis, we show descriptives on the levels as well as their within-municipality changes. It is noteworthy that while within-municipality evolution in fiscal policy conservatism as well as electoral support for right-wing parties is smaller than the differences across municipalities, there is still a considerable amount of within-municipality variation.

Table 1: Descriptive Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Full Fiscal Scale	1,908	0.153	0.455	−1.803	1.509
Full Fiscal Scale (Within)	1,908	0.000	0.347	−1.591	0.930
Reduced Fiscal Scale	1,908	0.215	0.986	−3.380	3.045
Reduced Fiscal Scale (Within)	1,908	−0.000	0.708	−2.809	2.211
Support for Right-Wing Parties	1,908	0.061	0.213	−0.613	0.655
Support for Right-Wing Parties (Within)	1,908	−0.000	0.113	−0.527	0.777
Population Size (logged)	1,908	9.367	0.744	7.726	12.566
College graduates (pct.)	819	14.536	5.464	6.800	44.100
Immigrants (pct.)	818	143.265	160.195	3.000	1,344.000
Unemployment (pct.)	1,092	8.526	3.459	2.200	23.000

Identifying Dynamic Responsiveness in Cities

Figure 2 shows that past changes in support for right-wing parties are related to future changes in fiscal conservatism (full measure), suggesting that municipal policy adjusts dynamically to changes in the municipal electorate's preferences. This is striking, as we have minimized concerns related to reverse causality by looking at the relationship between past changes in preferences and future changes in policy within each municipality. Interestingly, we identify a non-linearity, but this pattern is not robust to alternative specifications (i.e., it disappears in a two-way fixed effects model), so we do not want to make any firm interpretations of what this implies.

Table 2 presents the key estimate (i.e., the effect of changes in local policy preferences) from a pooled OLS regression, as well as from three types of difference-in-differences (diff-in-diff) models: one estimated using municipality and time fixed effects, one allowing municipalities to follow differential trends in a highly flexible manner, and a first-difference model with time fixed effects. All models include a control for population size (logged), but the results do not depend on the inclusion of this covariate. The first four columns uses the full measure of fiscal conservatism as the dependent variable. There could be concerns that the results were affected by missing observations in the items, which are imputed in the Bayesian model we use to estimate fiscal policy conservatism. To alleviate these concerns, the final four columns use our reduced measure, where there are no missing observations on the items. Across all models, we

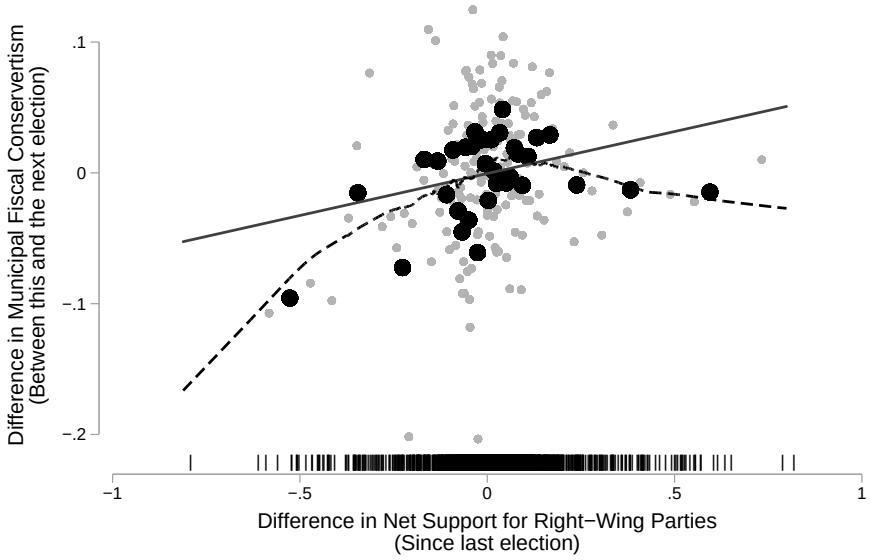

Figure 2: Do Changes in Preferences Correlate with Future Changes in Policy? Both variables are trend adjusted (i.e., the year specific means are subtracted). Grey dots represent bins of ten observations, dark dots represent bins of 100 observations. The solid line is a linear fit (b$= 0.046$, municipality clustured se$= 0.019$) and the dashed line is a LOWESS smoother with a bandwidth of 0.4. The rugplot in the bottom of the graph represents the distribution of differences in the net support for right-wing parties.

find a statistically significant and positive effect. The larger coefficients in the final four models are driven by a larger standard deviation in the reduced measure.

The estimate from the pooled model is likely to be confounded by the socio-demographic make-up of the municipality. To the extent that this is stable over time and driven by common shocks, the difference between the estimates from the pooled and diff-in-diff models can be interpreted as removing the confounding effect of sticky socio-demographics. In our preferred fixed effects model, we estimate the effect to be roughly .13. This corresponds to a little more than a quarter of the within-municipality standard deviation—a substantive association.

Table 2: Effect of Electoral Support for Right-wing Parties on Municipal Conservatism 4 years later

	Dependent variable:							
	Full Fiscal Policy Scale$_{t+4}$				Reduced Fiscal Policy Scale$_{t+4}$			
	Pooled	Fixed Effects	Diff Trend	First-Difference	Pooled	Fixed Effects	Diff Trend	First-Difference
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Right-Wing Vote Share								
(Municipal Elections)	0.416**	0.129**	0.145**	0.065**	1.110**	0.317**	0.335**	0.144**
	(0.083)	(0.044)	(0.048)	(0.025)	(0.179)	(0.091)	(0.099)	(0.055)
Population Size (logged)	−0.097**	−0.711**		−0.596**	−0.180**	−1.197**		−0.977*
	(0.022)	(0.202)		(0.178)	(0.051)	(0.407)		(0.387)
Constant	0.802**			−0.010	1.454**			−0.070**
	(0.213)			(0.009)	(0.488)			(0.021)
Municipality FE?	No	Yes	Yes	No	No	Yes	Yes	No
Year FE?	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Year X Region FE?	No	No	Yes	No	No	No	Yes	No
Year FE X Population Size?	No	No	Yes	No	No	No	Yes	No
Four-Year Differenced?	No	No	No	Yes	No	No	No	Yes
Observations	1,908	1,908	1,908	1,633	1,908	1,908	1,908	1,633

*Note: Estimates are unstandardized OLS coefficients. Beck-Katz standard errors in parentheses in first-difference models, Arellano-White standard errors with clustering on municipality level used in the remaining models to correct for temporal autocorrelation. * and ** indicate statistical significance at the 5 and 1 percent levels, respectively. See Appendix H for results using the individual policy indicators.*

While the notion of fiscal policy conservatism can seem highly abstract, changes in our measure arise from fluctuations in municipal spending on particular public services and how this spending is financed. All of which has real consequences for the citizens of a given municipality. An increase in overall conservatism of 0.13 is expected to be made up of reductions amounting to 13 and 10 percent of a standard deviation in income and property taxes, respectively, 16 percent of a standard deviation in spending per pupils in public schools, 9 percent of a standard deviation in the prevalence of public housing, 10 percent of a standard deviation in the number of public employees, and 21 percent of a standard deviation in overall spending per capita.[4] These results indicate that when citizens change their preferences, it is likely to have notable real-world consequences for municipal fiscal policy and—by extension—the provision of specific local public services.

Exploring the Identifying Assumption

The identifying assumption in our diff-in-diff models is that trends in the dependent variable (policy) are independent of selection into the independent variable (preferences). Importantly, if voters became *more conservative* as a result of changes in policy, then this assumption will be violated.

While we cannot test the identifying parallel trends assumption directly, we can see whether trends in the dependent variable are similar before municipalities ”select into” different preferences. To do this, we regress past levels of policy conservatism on current levels of net support for conservative parties using our two-way fixed effect set-up. The resulting effect is negligible and statistically insignificant, suggesting that trends in policy are parallel across municipalities that become more and municipalities that become less conservative (see Figure 3). To bolster this analysis further, we show in Appendix F that past changes in municipal policy is unrelated to future changes in electoral support for right-wing parties.

Beyond this test, in columns three and seven of Table 2 we estimate a more restrictive model, where we interact the time fixed effects with a series of 13 regional dummies[5] as well as population size. This allows municipalities to be on separate time trends depending on their geographic location and population size. Importantly, this strategy should deal with the con-

founding effect of the socio-demographic make-up of the municipalities: If there were certain time-specific regional shocks to, for instance, unemployment, which might affect both preferences and policy, then these will be removed in this model. As can be seen from Table 2, estimating this more restrictive model does not change our results. If anything, the point estimate increases.

To make sure that there is no remaining bias because of socio-demographic factors, we include data on education, unemployment rate and the number of non-western immigrants in the municipality. Since these variables are only available after 1993, and there is a substantial trend in municipal policy (cf. Figure 1), simply including them in our model would bias our results by censoring the dependent variable. Instead, we follow (Pei, Pischke and Schwandt 2019) and regress electoral support for right-wing parties on our three socio-demographic predictors. As we show in Appendix E, the correlations between within-municipality changes in socio-demographic factors and support for right-wing parties are very small and statistically insignificant. This suggests that these important socio-demographic factors are not driving our results. The absence of a partial correlation with unemployment is especially noteworthy, as it is a strong indicator of whether a municipality is hit particularly hard by a temporary economic shock, which could feasibly drive both preferences and policy.

Taken together, these auxiliary analyses suggest that our identifying assumption is met, implying that we have a plausibly unbiased estimate of the effect of municipal policy preferences on municipal policy.

How Adaptive is Dynamic Responsiveness?

To examine the temporal dynamics of responsiveness, Figure 3 reports the estimated effect of changes in net support for conservative parties on municipal fiscal policy conservatism across different time horizons. The analysis reveals that it takes some time for policy to respond to preferences. There is only a small effect one year after local policy preferences change and the largest effect is after four years. The effect is detactable up to eight years later. One reason for this long-term effect is probably that once policy shifts, it typically does not naturally revert back to it's starting point, but needs to be actively changed back (e.g., Baumgartner et al.

2009).[6] Additionally, it is reassuring that the effect is stable between four and eight years into the future, because this indicates that our results are unlikely to be a result of electoral budget cycles.

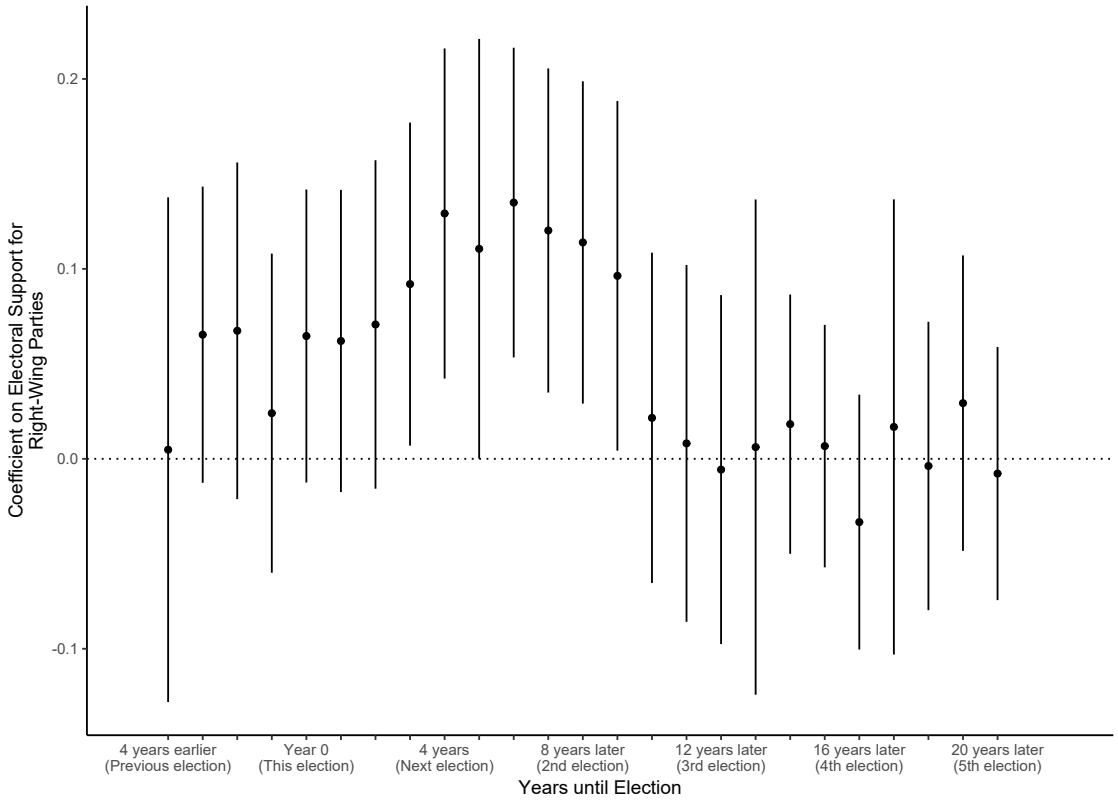

Figure 3: Effects of Local Policy Preferences Over Time. All models include two-way fixed effects with control for population size. Black points represent the effect of net electoral support for conservative parties with different leads. Black lines are 95 percent CIs based on Arellano-White robust standard errors clustered on municipalities.

Discussion

In this study, we have found that changes in the policy preferences of citizens are robustly related to changes in city policy. Using a detailed and comprehensive measure of municipal policy, we were able to link past changes in preferences to future changes in policy, sidestepping concenrns related to reverse causality, and we were able to see how fast municipal policy adapted to changing preferences. Our results suggest that the effect is not immediate, but it does materialize within an election cycle (four years).

As discussed earlier in the article, the pace of change in policy may give clues as to the

mechanism by which responsiveness works. As such, the fact that the effect of changes in policy takes some time to materialize, could suggest that politicians are not continuously attuned to the changing mood of the electorate. At the same time, responsiveness does not take a very long time to materialize, suggesting that it is not structural forces, such as changes in the type of politician that runs for office, that aligns policy with preferences. Instead, the timing can be explained by politicians learning from election results how the mood of the electorate has changed and correcting the course of municipal policy-making accordingly.

From the standpoint of electoral accountability it is also reassuring that policy responds within the four year election cycle. In this way, citizens will be able to recognize and act on whether politicians have changed policy, based on the change in preference voters expressed at the last election.

As mentioned above, it is difficult to say whether or how far these findings generalize. Even so, these results should be broadly interesting and encouraging to those who study the prospects for local democracy. Denmark has decided to delegate a lot of (fiscal) power to local governments, and it seems like this democratic experiment has worked—at least to some extent. As such, our study suggests that if you give voters an opportunity to express their preferences at municipal elections, they are able to use it to direct policy, substantially constraining local policy-makers.

Acknowledgements

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Notes

[1]Previous studies have tried to address some of these questions using panel data on policy or preferences (see Einstein and Kogan 2016; Sances 2019). However, as we lay out below, even these studies are not able to adequately capture how local policy responds to changes in citizen preferences.

[2]An important feature of the system is that the pool of candidates is very large. In the latest election in 2017, more than 1/400 of citizens eligible to run for local office did so. The combination of high turnout, a proportional electoral system and large candidate pool means that seats are contested, and voters always have a choice between many different candidates. When investigating the link between voting behavior and fiscal policy in other settings, this might have been a problem (see Suzuki and Han 2019). See Appendix A for more details on the political system in Danish municipalities.

[3]The local governments are responsible for providing a number of public services, such as nursing homes and daycare centers. The majority of the cost for these public services are paid by the municipalities, but they are allowed to set a co-payment that the citizen has to pay. More conservative local governments are thus able to reduce public spending by increasing these co-pays.

[4]We arrive at these estimates by using the correlation between each item and the overall measure of fiscal policy conservatism. The full list of correlations is presented in Appendix C.

[5]These correspond to 13 regional governments (*amter*) which were responsible for, among other things, health care in the period we study.

[6]In Appendix I we also allow the effect of voter preferences on policy four years into the future to vary across time by including random slopes by year. The results show that municipal policy responsiveness is highly stable throughout our period of study. Preferences do not seem to matter more or less across the period we study.

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