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Dutch municipal elections 1998-2018: more localism and fragmentation

Raymond Gradus¹, Elbert Dijkgraaf² and Tjerk Budding³

Abstract: Exploring the outcome of Dutch municipal elections between 1998 and 2018, this paper finds two dominant trends: increasing political fragmentation and localism. When explaining localism, the number of inhabitants, regional diversity and the election year dummies are significant. The last result gives some indication for a welfare hypothesis as a large decentralisation of Dutch social policy took place in 2007 and 2015. Some evidence is found for a merger effect of more or less equal municipalities. There is evidence as well that more fragmentation in the municipal council leads to more aldermen. The number of aldermen is also depending on the number of inhabitants and a merger effect in case of two municipalities.

Keywords: local elections; political fragmentation; localism; empirical research

1 Introduction

In the Netherlands local parties are on the rise and are becoming an important political player in the (executive) board at the municipal level. Local parties run in municipal elections but do not participate in elections at the national level. In the literature, there is an increasing attention for this phenomenon (see Kraaykamp et al. (2001), Boogers and Voerman (2010) and Otjes (2018, 2020a) for the Netherlands; for Sweden see Åberg and Ahlberger (2015) and for Austria see Ennser-Jedenastik and Hansen (2013)). Although the literature is emerging, an overall explanation is still lacking. Boogers and Voerman (2010) stresses the anti-

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establishment branch of these parties as they intend to expose the poor responsiveness of national party branches. Another explanation is amalgamation as when smaller municipalities are merged into larger municipalities, independent local parties can be formed to defend the interests of the villages amalgamated. The Netherlands is an interesting case to study this phenomenon as mergers took place in all years during last decades (Allers and Geertsema, 2016). Moreover, there is also a trend in the literature indicating spatial differentiation of the support for local parties. Åberg and Ahlberger (2015) show that this differentiation is obvious in the Netherlands and noticeable in Sweden. In addition, Ennsner-Jedenastik and Hansen (2013) point out this spatial differentiation for Austria especially for cross-border regions with Switzerland.

The recent history of increasing independent local parties is intertwined with the increasing political fragmentation. This fragmentation is due to the decline of the main established political parties in the Netherlands, but also due to an increasing number of local parties. In the literature the consequences of this fragmentation on different political decisions are studied. Let us focus on the Netherlands and Belgium as these countries have a parliamentary system consisting of the local council (the legislative body) and the board of aldermen (the executive body). Goeminne et al. (2008) show for Flanders that fragmented municipalities (measured by the number of parties in the board) are more optimistic in projecting tax revenues and therefore will have larger deficits. Gradus and Dijkgraaf (2019) found for the Netherlands evidence that political fragmentation of the council decreases the ability to introduce unit-based waste pricing. Waste pricing is important to reduce environmental unfriendly unsorted waste and to stimulate recycling. As waste pricing is political disputable and has some adverse effects as illegal dumping and administrative costs less fragmented municipalities are more eager to introduce it. Studying Dutch waste collection as well, Gradus

and Budding (2020) found that indications that privatization is more difficult under highly fragmented local governments. Remarkably, they also noticed some evidence that political fragmentation increases the ability to outsource (only at 10%-level), the opposite of what was found by Warner and Hefetz (2002) for US outsourcing. All in all, the literature gives modest indications that fragmented municipalities delay important decisions.

Based on data for municipal elections in 1998, 2002, 2006, 2010, 2014 and 2018, we find evidence for localism and political fragmentation of councils as emerging trends. Using additional data, we explain these trends and build on the literature by testing different hypotheses. For instance, we investigate a welfare hypothesis as a large decentralisation of Dutch central social policy towards municipalities took place in 2007 and 2015. Åberg and Ahlberger (2015) also tested such an hypothesis of a relation between the rise of local parties and the local welfare state and they found some evidence for it. Moreover, the relation between the number of aldermen on the one hand, and fragmentation, recent mergers and population density on the other is studied as well. If the size of the government is approached by the number of aldermen and externalities by population density, this can give an indication for Wagner's law as it suggests a positive relation between those two variables.

The paper is structured as follows. Section 2 describes the data for municipal elections between 1998 and 2018. In section 2.1 we describe the (relative) number of seats of different political parties in local councils. We pay special attention to local parties. In section 2.2 we give the (relative) number of aldermen and their political affiliation. As Dutch councils have become more fragmented in recent decades (see Gradus and Dijkgraaf, 2019), we present three fragmentation indexes in section 2.3. In section 3 we present different models and their estimation. Some concluding remarks and topics for future research are offered in section 4.

2 Dutch Municipal Election 1998-2018

In the Netherlands there are three layers of government (central, provincial and local).

Subnational governments consist of 12 provinces and (in 2018) 380 municipalities. Local governments are seen as the most visible level of government and they have considerable autonomy regarding public service provision (Gradus and Budding, 2020). Due to amalgamation, the number of municipalities has decreased from 548 in 1998 to 355 in 2019.

In recent decades, various public responsibilities such as home care for the elderly and disabled have been transferred from central to local government. At present, the importance of local social services has increased significantly. Currently, municipalities have a budget of about 7 percent of gross domestic product (GDP) and 20 percent of government spending. With over 40,000 inhabitants on average, Dutch municipalities are relatively large compared with most other European countries.

2.1 The municipal councils

Municipal councils are elected every 4 years. In principal, elections in all municipalities are held on the same day in March (with exceptions for municipalities that have recently been merged or are expected to be merged in the next six months).⁴ The electoral system is based on list proportional representation with no threshold other than the natural threshold due to council size. Political parties are responsible for these lists. Normally, lists are presented in accordance with the number of votes in the past election; new political parties are displayed in a random order. For new political parties the threshold is low as they only have to be supported by some voters (in this municipality) and a deposit should be secured. As Otjes (2018) points out this makes the Dutch system relatively open to the formation of new and

⁴ In every year and also in election years a small number of municipalities have been merged. For these municipalities election took place in November and these results are included in data. In 2018, 55 municipalities were merged into 25 municipalities which started from January 1, 2019 and therefore elections took place in November for these new municipalities. Also these results are included in the data.

independent local parties.⁵ The minimum number of votes necessary for the first seat is equal to the total number of votes divided by the number of seats (see also Table 1).

The number of seats varies between 9 (for municipalities with less than 3,001 inhabitants) and 45 (for municipalities with more than 200,001 inhabitants). In Table 1, the relationship between the number of inhabitants of a municipality and the council size is illustrated. Due to mergers, the total number of seats of local councils has decreased from 10,129 in 1998 to 7,924 in 2018. In Table 1, the threshold due to council size is given, ranging from 2% for large cities with 45 seats (Amsterdam, Rotterdam, The Hague, Utrecht and since 2018 Almere and Groningen) and 11% for small municipalities.

Table 1. Relationship between inhabitants and number of seats and threshold (%)

Inhabitants	Number of seats	Threshold
Till 3000	9	11
3001-6000	11	9
6001-10000	13	8
10001-15000	15	7
15001-20000	17	6
20001-25000	19	5
25001-30000	21	5
30001-35000	23	4
35001-40000	25	4
40001-45000	27	4
45001-50000	29	3
50001-60000	31	3
60001-70000	33	3
70001-80000	35	3
80001-100000	37	3
100001-200000	39	3
200001 or more	45	2

In Table 2, the percentage of seats held by the national and local parties is presented, based on the local council elections in 1998, 2002, 2006, 2010, 2014 and 2018. National parties are

⁵ In this paper, we do not distinguish between local and regional parties as for example the provincially active Frisian National Party (Fryske Nasjonale Partij, FNP). It should be noted that regional parties do not play an important role in regional elections as local parties. In the last election for Provinces (i.e. March 2019) regional parties have seats in Friesland (4), Limburg (2), Zeeland (2), Groningen (5), Brabant (1), and Drenthe (1), which represent only 2,6% of total seats.

defined as parties that are represented in the National Parliament, local parties are not.⁶ After the 2017 National Election, there are 14 parties: Social Democrats (PvdA), Conservative Liberals (VVD), Christian Democrats (CDA), Progressive Liberals (D66), Green Left (GL), Socialist Party (SP), Christian Union (CU), Reformed Political Party (SGP), Freedom Party (PVV)⁷, Party for Animals (PvdD)⁷, Party for Elderly (50+)⁸, Party for Allochthones (DENK)⁸ and Forum for Democracy (FvD)⁸.

Data about these political characteristics (seats and aldermen) in the election years 1998, 2002, 2006, 2010, 2014 and 2018 were collected from the Gids Gemeentebesturen (Guide to Municipal Boards), which is published by the Vereniging van Nederlandse Gemeenten (Association of Dutch Municipalities), as well as through an internet search.⁹

In Table 2, the size of different National parties as a percentage of their seats in total number of seats in every election year is given. Sometimes, a combination of political parties ran together in the election. In such a case the number of seats is divided equally between these parties.¹⁰

⁶ Many local parties ran under the banner 'Leefbaar' (Liveable), but without forming a national organisation. In 2002 Leefbaar Nederland had two seats in the National Parliament. However, this party did not have formal ties to the independent local parties (Otjes, 2018).

⁷As these parties are running only in the municipal election of 2010-2018, we did not take them into account in Table 2. It should be noted that their size is relatively small and these parties have no aldermen. In 2010, the PvdD got one seat in each of six municipalities (Amsterdam, The Hague, Leiden, Apeldoorn, Groningen and Buren). The total seats for PvdD is increased slightly to 10 in 2014 and 30 (or 0.4%) in 2018, so this party is almost non-existent on a local level contrasting to the National Parliament with 3.2% in 2017.

⁸As these parties are running only in the municipal election of 2018, we did not take them into account in Table 2. It should be noted that their size is relatively small (50+: 34, FvD: 3 and DENK: 21 and only 50+ has one aldermen).

⁹ Due to availability issues, we used the guides who were published in the years 2002 (showing the political composition as of September, 2001) for election 1998, 2004 (id., October 2003) for election 2002, 2009 (id. October, 2008) for election 2006, 2012 (id. September, 2011) for election 2010, 2016 (id. January 2016) for election 2014 and 2018 (id. July, 2018) as well as 2020 (id. February, 2020) for election 2018.

¹⁰ For example, in a lot of municipalities there is a combination between both Protestant parties, CU and SGP.

Table 2. Relative size of different parties in number of seats

	Local	PvdA	VVD	CDA	D66	GL	SP	CU	SGP
1998	24.6%	17.8%	17.6%	24.4%	4.1%	3.7%	1.2%	3.0%	2.6%
2002	29.8%	15.1%	15.9%	24.4%	2.7%	4.2%	1.2%	3.9%	2.8%
2006	27.3%	21.6%	14.1%	21.0%	1.6%	4.4%	2.6%	4.4%	2.8%
2010	30,3%	14.1%	16.6%	18.8%	5.6%	4.4%	2.2%	4.3%	3.1%
2014	34.8%	9.4%	12.5%	18.5%	8.3%	3.9%	4.2%	4.8%	3.3%
2018	36.6%	7.3%	13.8%	17.2%	6.9%	6.1%	3.0%	4.6%	3.0%

The main established parties in the Netherlands are the Christian Democrats (CDA), Conservative Liberals (VVD) and Social Democrats (PvdA) , although the total size of these parties has dropped dramatically from 60% in 1998 to 38% in 2018. On the contrary, the size of local parties has increased substantially from 25% in 1998 to 37% in 2018. The SGP and CU¹¹ are (traditional) Protestant parties and their size increased slightly between 1998 and 2018. The Progressive Liberals (D66) and Green Left (GL) also increased their size, although in the last election the Progressive Liberals lost seats to especially Green Left in many cities as this is their main battle ground. Also, in 2014, the number of seats for the Socialistic Party (SP) increased to a peak of 4.2% in 2014, although this is less than in the National Elections. In the 2017 National election the SP got 9.3% of the seats. The SP only ran with a list in a limited number of municipalities, differing from the CDA and other established parties as they were on the voting list in almost all municipalities.

In the literature, there is a growing attention for right-wing populist parties (i.e. Otjes, 2020b). On local level these parties are small. The populist and anti-Islamic Freedom Party (PVV) of Geert Wilders participate in some local elections since 2010 and the Forum for Democracy (FvD) since 2018. In the 2010 and 2014 election, the PVV only had seats in the cities of The

¹¹ In 1998, the CU consisted of two parties RPF and GPV. In 2000, these parties merged into CU.

Hague and Almere, but on a national level the PVV got 15.4% of the votes in the 2010 elections and 10.1% in the 2012 elections. In 2018, the PVV had a list in 30 municipalities and 75 seats in municipal councils but no aldermen. FvD has only 3 seats in the capital Amsterdam.¹²

2.2 *Board of Aldermen*

After every local election, the members of the council negotiate the number of aldermen and their political affiliation. The board of mayor and aldermen is responsible for preparation and execution of policies. The mayor is appointed by Central Government and his/her executive power is limited and therefore we only discuss the board of aldermen.¹³ In principle, aldermen are appointed for a period that lasts until new municipal elections, although in a limited number of municipalities aldermen and their affiliations change during the four years. So, on principle, they are appointed for four years. However, no information on earlier step down is available in the data we have. A municipality has ample power to increase the number of aldermen. For example, the largest city Amsterdam has had six to eight aldermen in 1998-2018.¹⁴ Since 2014, due to increasing fragmentation the current number is eight. Since the 2018 election with a very fragmented council, Rotterdam has the maximum with 10 aldermen.¹⁵

¹² In the spring of 2019, FvD led by Thierry Baudet, became the largest party in the Dutch Senate, which is indirectly elected by provincial councils. These were elected in 20 March 2019 and FvD became the largest party in these elections. In the Senate election on 27 May 2019, the Conservative Liberals (VVD) and the FvD both won twelve seats (Otjes, 2020b).

¹³ Currently, the mayor is still appointed by the King as part of the Dutch constitution. However, in due course this will be done by the Central Government as to emphasize the independence of this figure.

¹⁴ PvdA has always been the most important party in the board of aldermen in Amsterdam (1998:3 aldermen, 2002: 3, 2006: 4 and 2010: 3). However, this has changed in 2014 with no representation in the board of Aldermen. Currently, GL is the largest party and PvdA has two aldermen.

¹⁵ Not all aldermen have an fulltime appointment. For example, in Rotterdam, CU/SGP with only one seat in the council has one aldermen with 0.4 FTE working time.

Table 3. Relative number of aldermen

	Local	PvdA	VVD	CDA	D66	GL	SP	CU	SGP
1998	20.6%	21.7%	19.8%	29.70%	1.8%	1.7%	0.1%	2.5%	2.0%
2002	24.7%	18.0%	16.1%	29.6%	2.1%	2.7%	0.6%	3.4%	2.4%
2006	17.9%	27.8%	14.7%	25.2%	1.4%	4.3%	1.4%	4.8%	2.5%
2010	25.5%	15.1%	19.7%	21.7%	5.6%	3.9%	1.0%	4.4%	3.2%
2014	28.9%	9.2%	13.2%	23.3%	9.1%	3.9%	2.8%	5.5%	3.8%
2018	31.6%	7.6%	15.7%	21.5%	6.5%	6.0%	1.6%	5.4%	3.5%

In Table 3 the relative number of aldermen per political party is shown. The developments in this table are comparable with those in Table 2. The relative number of aldermen in the main established parties dropped substantially and the number of local parties has increased substantially between 1998 and 2018. It is well-known from the literature on political issues that there can be a distinction between general political preferences as expressed by the voters (represented by the share of seats of each political party on the municipal council) and those of the ruling parties (shown in our analysis by the aldermen) (Elinder and Jordahl, 2013). A method of analysing this is to subtract the relative of number of seats from the relative number of aldermen (see Table 4).

Table 4. Difference between relative size of seats and aldermen

	Local	PvdA	VVD	CDA	D66	GL	SP	CU	SGP
1998	4.0%	-3.9%	-2.1%	-5.4%	2.3%	2.0%	1.1%	0.4%	0.6%
2002	5.1%	-2.9%	-0.1%	-5.3%	0.6%	1.5%	0.6%	0.5%	0.4%
2006	9.4%	-6.1%	-0.6%	-4.2%	0.2%	0.1%	1.2%	-0.4%	0.4%
2010	4.8%	-1.0%	-3.1%	-2.9%	0.0%	0.5%	1.2%	-0.1%	-0.1%
2014	5.9%	0.1%	-0.7%	-4.8%	-0.8%	0.0%	1.4%	-0.7%	-0.5%
2018	5.0%	-0.3%	-1.9%	-4.3%	0.4%	0.1%	1.5%	-0.8%	-0.5%

In all elections, local parties have relative more seats than aldermen. Therefore, there is some evidence that local parties are more non-conformists than most other national parties.¹⁶ The

¹⁶ This depends on the issue, for example, Dijkgraaf and Gradus (2007) show that in general, local parties favour Sunday opening for shops.

difference between seats and aldermen is large for local parties (between 4.0% and 9.4%). Of note, for local parties as they increase over time this difference stays more or less the same (with exception for 2006). This can be an indication that the non-conformistic position of these local parties has decreased. For the more conformist CDA, there are consistently more aldermen than seats. For other parties such as VVD, CU and SGP generally speaking a similar effect has occurred, although it is nearly always smaller than for the CDA. The contrary is true for the SP, which has an anti-establishment orientation. Interestingly, for PvdA the large negative sign indicating relative more aldermen changed to become small and even a positive in 2014. Therefore, its position as ruling party with relatively many aldermen has changed dramatically after recent elections.

2.3 *Fragmentation of the council and the increasing number of board-members*

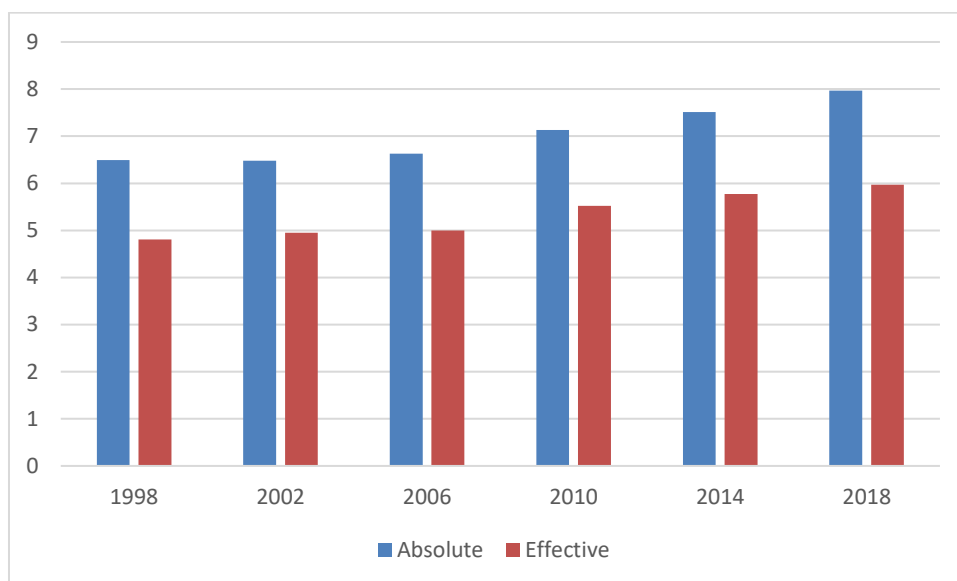
We have calculated two fragmentation indexes. Firstly, we measured fragmentation by the (absolute) number of political parties in the board. Secondly, we included the relative size of parties. In allowing for differences in the relative size of parties, the effective number of political parties can be calculated (see Mueller, 2003, p. 273). As a formula:

$$C = 1 / \sum_{i=1}^n x_i^2, \tag{1}$$

where x_i is the share of the seats (or board members) of i -th party (listed normally ordered in size) in a municipality. In political science this is often called the Laakso-Taagepera index.

In Figure 1, for every election in our dataset the absolute and the effective number of political parties in the council in the years of elections is illustrated.

Figure 1. Absolute and effective number of political parties in council



This shows the increasing Dutch political fragmentation in recent decades. The effective number of political parties increased from 4.8 in 1998 to just under 6 in 2018. In addition, the absolute number of political parties increased from 6.5 in 1998 to just under 8 in 2018. Overall, fragmentation increased steadily between 1998 and 2018.

Importantly, the fragmentation is due to the erosion of the main established parties as shown in paragraph 2.1, but also due to increasing number of local parties. Thus, not only the size of the local political parties in council has increased (see Table 2), but also the number of local parties in one council.¹⁷ In Table 5, the percentage of municipalities with a specific number of local parties is given.

¹⁷ Some municipalities have more than one local political party. In earlier calculations, we only have information on the number of parties and we count them as one (i.e. Gradus and Dijkgraaf, 2019).

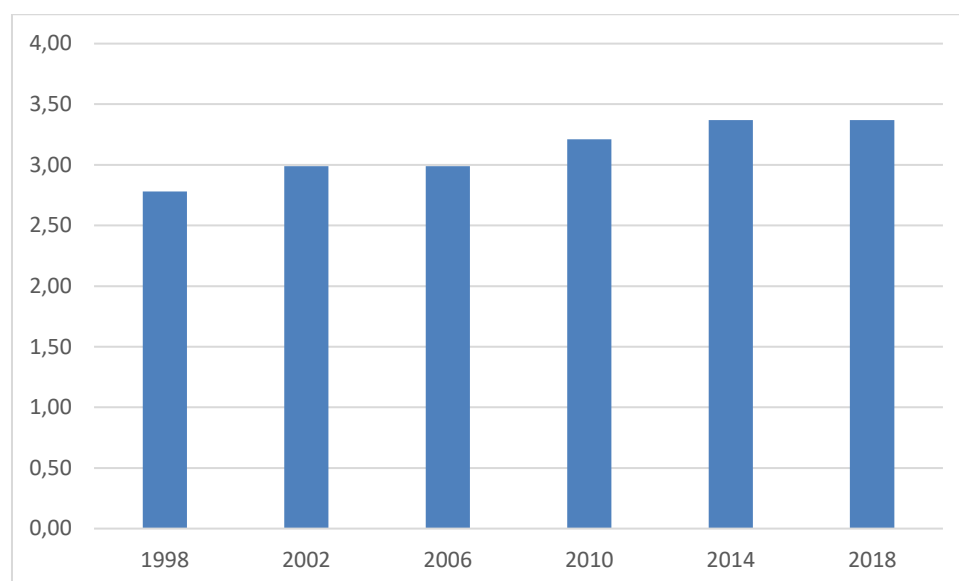
Table 5. Number of municipalities with number of local parties

Parties	1998	2002	2006	2010	2014	2018
0	16.8%	9.1%	6.4%	4.8%	2.9%	2.0%
1	33.7%	34.3%	31.0%	31.3%	23.6%	21.4%
2	26.1%	29.3%	32.3%	31.5%	29.9%	30.1%
3	12.8%	15.7%	17.7%	17.9%	22.9%	27.3%
4	5.0%	4.7%	7.6%	10.3%	15.1%	13.2%
5	3.8%	4.3%	3.4%	2.9%	3.6%	3.4%
6 or more	1.9%	2.5%	1.6%	1.4%	2.1%	2.6%
Average No. of local parties	1.75	1.96	2.07	2.12	2.44	2.50

On average, the number of local political parties per municipality increased from 1.75 in 1998 to 2.50 in 2018. In 1998, 17 percent of Dutch municipalities did not have a local party, in 2018 this was decreased to 2 percent. The percentage of municipalities with one local party also decreased from 34 percent in 1998 to 21 percent in 2018. On the contrary, the percentage of municipalities with two, three or four local parties increased from respectively twenty-six, thirteen and five in 1998 to thirty, twenty-seven and thirteen in 2018. So, especially the number of municipalities with three and four local parties increased largely between 1998 and 2018. Otjes (2018) described some arguments for the increasing number of local parties in the Netherlands. For example, he suggests that when smaller municipalities were merged into larger municipalities, independent local parties were formed to defend the interests of the villages amalgamated into these municipalities. To test this, we take a dummy variable MERGER if a municipality has been amalgamated during the last five years. In the next paragraph we explain the relative number of seats for local parties and the number of aldermen by different hypotheses.

The board of aldermen is responsible for preparation and execution of policies. In the Netherlands, on average between three to four parties govern a municipality. In figure 2 it is shown that the average number of aldermen increased from 2.78 in 1998 to 3.37 in 2018.

Figure 2. Average number of aldermen



The number of aldermen depends normally on the number of inhabitants, but also the complexity of issues they have to deal with is important. As a proxy we include population density, assuming that municipalities with more density have a larger complexity. Also, fragmentation seems to play an important role and we have two ways to measure this. Table 6 contains the descriptive statistics and the next paragraph contains the estimations results.

Table 6. Descriptive statistics

	Mean	Maximum	Minimum	Std. Dev.
Local (%)	30.27	100.00	0.00	19.05
Aldermen	3.44	8.00	1.00	1.10
Inhabitants (/100,000)	0.37	8.56	0.01	0.60
Inhabitants/area (/10000)	0.07	0.61	0.00	0.09
Merger	0.09	1.00	0.00	0.28
- Two equal	0.01	1.00	0.00	0.12
- Two small	0.01	1.00	0.00	0.11
- Two medium	0.02	1.00	0.00	0.13
- Three or more equal	0.01	1.00	0.00	0.11
- hree or more unequal	0.03	1.00	0.00	0.17
Fragmentation council relative	5.13	11.31	0.14	1.61

Fragmentation council absolute	6.88	16.00	2.00	2.07
D2002	0.19	1.00	0.00	0.39
D2006	0.18	1.00	0.00	0.38
D2010	0.15	1.00	0.00	0.36
D2014	0.15	1.00	0.00	0.36
D2018	0.14	1.00	0.00	0.35

The number of observations where all variables are available is 2,449 for local parties and 2,475 for aldermen.

3. How to explain localism and the consequences of fragmentation

This paragraph shows the estimation results for the two models. One of these focuses on explaining localism and the other on the number of aldermen.

3.1 How to explain localism?

We define localism as the share of seats in councils by local parties. On average, this local party share is 30.7%. An important explanation according to Otjes (2018) is *the supply-side hypothesis*. The underlying idea is that voters who prefer national parties that do not run in the municipal elections in their municipality are more likely to vote for a local party. This hypothesis can be tested by including the number of inhabitants as also the threshold is depending on this (see also Table 1). We expect a negative sign for it. To test for nonlinear effects, the squared number of inhabitants and the number of inhabitants to the power three is included as well. This power three give more flexibility than a quadratic relation. In addition, by comparing Sweden and the Netherlands Åberg and Ahlberger (2015) note the spatial differentiation of voting for local lists in cross-border regions (*the regional hypothesis*). Ennser-Jedenastik and Hansen (2013) find indications for cross-regional variation in the size of local parties in Austria, especially in Tyrol and Vorarlberg. Therefore, we include population density and province dummies and expect that certain provinces in the

Netherlands, particularly Drenthe, Friesland, Limburg and Noord-Brabant¹⁸, stand out. In addition, as we expect localism more in rural areas, population density is included as well and a negative sign is predicted.

Moreover, we include merger as an independent variable. Otjes (2018) suggests that when smaller municipalities were merged into larger municipalities in the Netherlands, independent local parties were formed to defend the interests of the villages amalgamated into this new municipality. Therefore, we expect a positive sign of the amalgamation variable. Åberg and Ahlberger (2015) indicate that in Sweden extensive welfare institutions are largely implemented by the municipalities and indicate that the rise of local lists is most likely related to the welfare state challenges of the past 40 years. In the Netherlands decentralisation and also the related cost-saving measures are of more recent date. In 1994, transport and facility care for disabled persons have been decentralized to Dutch municipalities. The decentralized budget was at that time 320 million euros. In 2007, domestic care for elderly and disabled persons was decentralized as well. This amounted for 1.2 billion euros. Together with transport and facility care this domestic care was placed in the Social Support Act. Importantly, in 2015, a large decentralization of three government tasks in the social service domain to Dutch municipalities (taking up 18 billion euros in annual government spending) was carried out. By including a dummy for election years we can get some indication for *a*

¹⁸ Interestingly, Noord-Brabant was the scene of extensive territorial adjustments in terms of mergers of municipalities in the late 1990s (Åberg and Ahlberger (2015, p. 815)).

welfare hypothesis. We expect a positive sign and an increase in time as the importance of municipalities increases over time. To sum up, the following model will be estimated:

$$x_{it} = \alpha_0 + \alpha_1 \ln \text{INH}_{it} + \alpha_2 \ln \text{INH}_{it}^2 + \alpha_3 \ln \text{INH}_{it}^3 + \alpha_4 \text{POPD}_i + \alpha_5 \text{DMERG}_i + \sum_{j=1}^{11} \alpha_{6j} \text{DP}_j + \theta_t + \varepsilon_i, \quad (1)$$

where x is the relative size of local parties, INH is the number of inhabitants, POPD is the population density, DMERG is a dummy with one if a merger did take in recent years (five years before) and DP_j is a dummy for different Dutch provinces and θ_t is the set of election year dummies.

Table 7 contains OLS-estimates with White cross-section standard errors and covariance (d.f. corrected).

Table 7. Estimation results local parties (% of total votes)

Variable	Coefficient	Standard error
Inhabitants	-0.21	(0.01)***
Inhabitants ²	0.07	(0.00)***
Inhabitants ³	-0.01	(0.00)***
Populations density	-0.02	(0.02)
Merger	0.02	(0.01)*
PROV_NOOR	0.03	(0.01)***
PROV_UTRE	-0.01	(0.01)
PROV_BRAB	0.22	(0.02)***
PROV_LIMB	0.20	(0.02)***
PROV_ZEEL	-0.02	(0.02)
PROV_GELD	0.03	(0.01)**
PROV_OVER	0.02	(0.01)
PROV_FLEV	0.02	(0.02)
PROV_DREN	0.05	(0.01)***
PROV_FRIE	0.08	(0.01)***
PROV_GRON	-0.07	(0.01)***

D2002	0.05 (0.00)***
D2006	0.03 (0.00)***
D2010	0.07 (0.00)***
D2014	0.11 (0.00)***
D2018	0.14 (0.00)***
C	0.23 (0.01)***

R² 0.32

Number of observations 2449

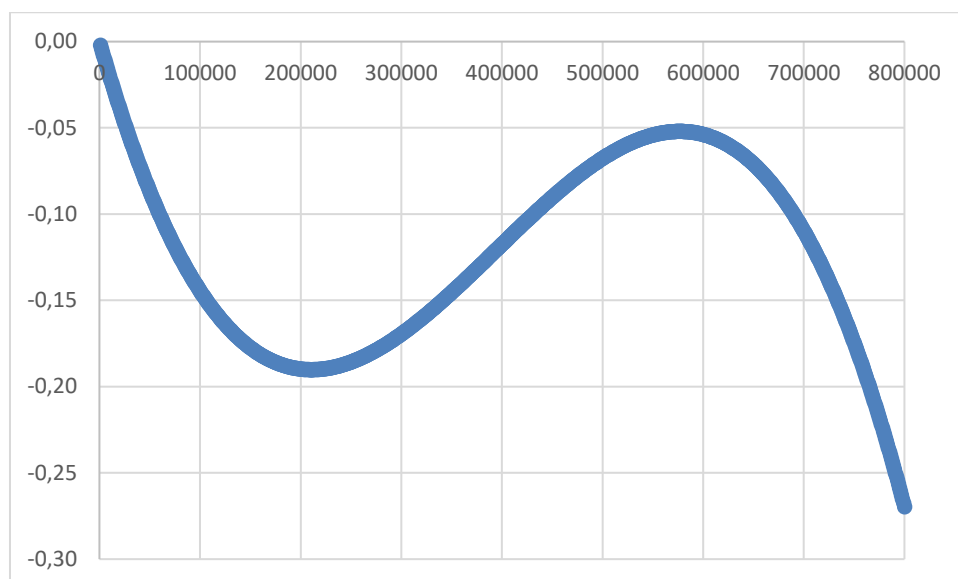
***/**/* means significance at 99%/95%/90%.

The results in Table 7 seem in accordance with most hypotheses. For the supply side hypothesis, there is strong evidence as all three inhabitants' variables are significant (at 1% level). The smaller the municipality the larger the share of local parties, although it is not a linear effect as also Figure 3 is showing. Note that the (local) minimum of this function is outside the normal inhabitants' range of most municipalities in the Netherlands. On average, the number of inhabitants in the Netherlands is 37,000.

Also, for the regional hypothesis, there is evidence. For the provinces Noord-Brabant and Limburg the estimation of the dummy is large with 0.22 and 0.20 and significant (at 1% level). For Friesland, Drenthe, Noord-Holland and Gelderland the effect is smaller, but still significant. Interestingly, the province Groningen has a negative dummy (against the benchmark Zuid-Holland) probably due to the relatively strong position of the PvdA in this province. For the merger-hypothesis the sign is as expected, but there is weak evidence as it is significant at 10%-level.

Finally, for the welfare hypothesis there is some weak evidence as all year dummies are significant (against the benchmark 1998) and increasing, especially after the decentralisation of 2007. Of course, this is only a proxy, but nevertheless it is interesting that these year dummies become larger after the decentralisations took place in the Netherlands.

Figure 3. Effect inhabitants on local party share



3.2 Does fragmentation lead to more aldermen?

Similar to localism, we formulate hypotheses for the number of aldermen in the Netherlands. First, there is some evidence for a *supply side hypothesis* as larger municipalities have normally more aldermen. This hypothesis can be tested by including the number of inhabitants. We expect a positive sign for it. To test for nonlinear effects, the squared number of inhabitants and the number of inhabitants to the power three is tested as well. Moreover, a large literature exists on the government as an eliminator of externalities (see Mueller, 2003). Based on Wagner's law, we would expect that those municipalities with more externalities (and therefore more government intervention to curb these negative externalities) have more aldermen. In our model, we take population density as proxy for these externalities (*the externality-hypothesis*).

There are also some demand side arguments for the number of aldermen. Importantly, we already have formulated that more fragmentation of the council leads to more aldermen (*the*

fragmentation-hypothesis). We test this by including the two fragmentation indexes (one for the effective number of parties and one for the absolute number). Moreover, we include merger as an independent variable. We will expect that when smaller municipalities were merged into larger municipalities, more aldermen are needed to defend the interests of the villages amalgamated into these municipalities (Otjes, 2018). Therefore, we expect a positive sign of this variable. Finally, the task of Dutch municipalities has been extended due to the recent decentralisation. So similar to Åberg and Ahlberger (2015) it is possible to formulate a welfare hypothesis as well indicating that number of aldermen will increase after the decentralisation in 2007 and 2015. Therefore, by including a dummy for election years we get some indication for such a *welfare hypothesis*. To sum up, the following models will be estimated:

$$y_{it} = \alpha_0 + \alpha_1 \ln \text{INH}_{it} + \alpha_2 \ln \text{INH}_{it}^2 + \alpha_3 \ln \text{INH}_{it}^3 + \alpha_4 \text{POPD}_i + \alpha_5 \text{DMERG}_i + \alpha_6 \text{FRAGM}_{Ait} + \theta_t + \varepsilon_i, \quad (2)$$

where y is the absolute number of aldermen in municipality i in year t and FRAGM_A respectively the absolute and effective fragmentation index in municipality i in year t (for other variables see above).

Table 8 contains OLS-estimates for equation (2) with White cross-section standard errors and covariance (d.f. corrected).

Table 8. Estimation results number of aldermen

Variable	Coefficient	Standard error	Coefficient	Standard error
Inhabitants	3.09	(0.24)***	3.47	(0.27)***
Inhabitants ²	-0.79	(0.08)***	-0.89	(0.09)***

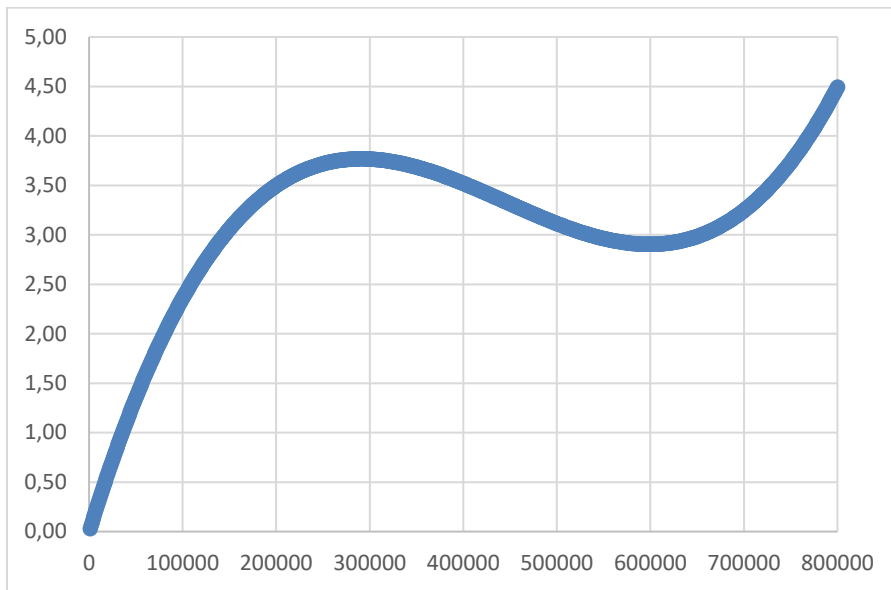
Inhabitants ³	0.06 (0.01)***	0.07 (0.01)***
Populations density	0.31 (0.14)**	0.31 (0.13)**
Merger	0.20 (0.05)***	0.24 (0.04)***
Fragmentation_absolute	0.09 (0.01)***	
Fragmentation_relative		0.06 (0.02)***
D2002	0.15 (0.01)***	0.11 (0.01)***
D2006	0.12 (0.01)***	0.08 (0.01)***
D2010	0.09 (0.01)***	0.05 (0.02)**
D2014	0.19 (0.02)***	0.17 (0.03)***
D2018	0.08 (0.02)***	0.08 (0.03)***
C	1.81 (0.06)***	2.04 (0.06)***
R ²	0.62	0.61
Number of observations	2475	2475

We get strong results for most hypotheses. For the supply side hypothesis there is solid evidence as all three inhabitants variables are significant (at 1% level) in both equations. The larger the municipality the larger the amount of aldermen, although it is not a linear effect as also Figure 4 is showing.

For the externality hypothesis there is also evidence. In both equations the estimates for population density are positive and significant at 5%-level. For the merger-hypothesis it is positive and significant in both equations at 1%-level. Mergers result in more aldermen. Moreover, also the coefficients for the fragmentation indexes are highly significant as well. Independent of the way it is measured fragmentation of the council is increasing the number of aldermen.

Interestingly and opposite to the share of local parties, there is no evidence for the welfare hypothesis. Although all coefficients are positive and significant, they are, with the exception of 2010 not larger than for 2002 and 2006 (the years before the decentralisations).

Figure 4. Effect inhabitants on number of aldermen



3.3 Further analysing mergers

Due to amalgamation, the number of municipalities has steadily declined in the last decades. In 1998-2018, 211 amalgamations took place. We observe a large variation in the kind of amalgamations: the number of municipalities in an amalgamation ranges from two to six (see Allers and Geertsema, 2016) and also the size of municipalities involved varies to a great extent. Therefore, we distinguish between five types of mergers: (1) two equal: merger of two (almost) equal municipalities (17%); (2) two small: merger of a large municipality with a small municipality (with less than 20% of inhabitants of the large municipality) (13%); (3) two medium: merger of a large municipality with a medium municipality (with between 20% and 50% of inhabitants of the large municipality) (21%); (4) three or more equal: merger of three or more (almost) equal municipalities (with the smallest at least 50% of the largest municipality) (13%); (5) three or more unequal, merger of three or more uneven municipalities (33%). We now run an estimation with instead of one merger variable we

include these five different types of mergers. In Table 9, only present the estimation for these five merger dummies.¹⁹

Table 9. Estimations different mergers

Variable	Local parties (%)		Aldermen	
	Coefficient	Standard error	Coefficient	Standard error
Merger two equal	0.08	(0.03)***	0.30	(0.16)*
Merger two small	0.01	(0.02)	0.38	(0.08)***
Merger two medium	0.02	(0.02)	0.23	(0.11)**
Merger three or more equal	0.05	(0.02)**	0.11	(0.15)
Merger three or more unequal	-0.01	(0.01)	0.13	(0.08)

***/**/* means significance at 99%/95%/90%.

Interestingly, for local parties only in case of mergers of almost equal municipalities there are significant results. It seems that in these instances voters have higher expectations of local parties to defend their interests. If a small municipality was merged into a larger municipality, there is less evidence for an increase of local parties. In addition, for the aldermen the effect is the strongest if two municipalities were merged. For three or more merged municipalities this effect is insignificant. There is some reasoning for this as with a merger of two it is more easier to go further with some group of aldermen than in case of three.

4 Conclusions and discussion

Every four year an election takes place for all Dutch municipalities. Based on data between 1998 and 2018, two trends are emerging. Firstly, the percentage of local parties (in number of seats in local councils) has increased substantially from 25% in 1998 to 37% in 2018. If we look at the number of aldermen from local parties, the share is increasing to 31% in 2018 which

¹⁹ The estimations are very similar to Table 7 and 8 and are available on request.

is still less than 37%. This gives an indication that the non-conformistic attitude of this group, which is suggested by Boogers and Voerman (2010), is still present but has become smaller. Secondly, political fragmentation of the council has increased. Measured by the effective number of political parties it increased from 4.8 in 1998 to just under 6 in 2018 and measured by the absolute number of political parties from 6.3 in 1998 to just under 8 in 2018. This in line with other research for the Netherlands but also Flanders, where the implications of political fragmentation of municipal councils are discussed (Goeminne et al., 2008; Gradus and Dijkgraaf, 2019; Gradus and Budding, 2020). Overall, this literature indicates that the fragmented councils are less willing to take tough decisions.

We explain localism based on a number of hypotheses. We found evidence for a supply side hypothesis. The underlying idea is that voters who prefer national parties that do not run in the municipal elections in their municipality are more likely to vote for a local party and this is the case in smaller municipalities. Regional diversity is also an important explanation as we found evidence for more localism in e.g. Noord-Brabant and Limburg. This is in line with Ennsner-Jedenastik and Hansen (2013) for Austria or Åberg and Ahlberger (2015) for Sweden. Moreover, we found some indication for a welfare hypothesis as we found a larger effect for years after decentralisations. Some evidence is found for a merger effect, especially for mergers of entities of almost equal size.

For the number of aldermen we also explore different hypotheses. We found strong evidence for a supply side effect implying a relation between the number of inhabitants and aldermen. There is strong evidence that more political fragmentation of the council leads to more aldermen. Also for the merger hypothesis evidence is found, although the effect is stronger if

two instead of three or more are merged. For the welfare hypothesis no evidence is found, however.

There are many avenues to explore for future research. First, it is important to study localism and its consequences further. How important is this for conceptualization of representative democracy as normally these parties do not have membership-based politics (see for example van Biezen and Poguntke, 2014). Second, in testing localism we only have a proxy for the welfare hypothesis effect measured by election year dummy. Perhaps an enquiry can be helpful to understand this phenomenon further.. Third, also the relation between populism and localism can be studied in more detail. Otjes (2018) suggest due to the fact that the populist and anti-immigration Freedom Party did not contest municipal elections until 2010 and only ran in two municipalities in 2010 and 2014, ‘leaves space for independent local parties’. However, based on 2018 elections where the Party of Freedom contests in 28 municipalities there is little support for this. Moreover, this group of local parties is very diverse and an investigation in the diversity would be helpful as well. We leave this also a topic for future research.

References

- Åberg, M. and C. Ahlberger (2015). Local candidate lists (Historical artefacts or a novel phenomenon? A research note. *Party Politics* 21 (5): 813-820.
- Allers, M. and J. Geertsema (2016). The effects of local government amalgamation on public spending, taxation, and service levels: evidence from 15 years of municipal consolidation. *Journal of Regional Science* 56 (4): 659–682.
- Boogers, M. and G. Voerman (2010). Independent local political parties in the Netherlands. *Local Government Studies* 36 (1): 75–90.

- Dijkgraaf, E. and R.H.J.M. Gradus. (2007). Explaining Sunday shop policies. *De Economist* 155 (2): 207–219.
- Elinder, M. and H. Jordahl (2013). Political preferences and public sector outsourcing. *European Journal of Political Economy* 30 (1): 43–57.
- Enns-Jedenastik, L., and M. E. Hansen (2013). The Contingent Nature of Local Party System Nationalisation: the Case of Austria 1985-2009. *Local Government Studies* 39 (6): 777–791.
- Goeminne, S., B. Geys, and C. Smolders (2008). Political fragmentation and projected tax revenues - Evidence from Flemish municipalities, *International Tax and Public Finance* 15 (3): 297–315.
- Gradus, R.H.J.M. and G.T. Budding (2020). Political and institutional explanations for increasing re-municipalization. *Urban Affairs Review* 56 (2): 538–564.
- Gradus, R.H.J.M., E. Dijkgraaf and M. Wassenaar (2014). Understanding mixed forms of refuse collection, privatization, and its reverse. *International Public Management Journal* 17 (3): 328–343.
- Gradus, R.H.J.M. and E. Dijkgraaf (2019). Poorer and less political fragmented Dutch municipalities take tighter waste reductions decisions, *Waste Management* 88 (3): 328-336.
- Kraaykamp, G., M. van Dam, T. Toonen (2001). Institutional Change and Political Participation: The Effects of Municipal Amalgamation on Local Electoral Turnout in the Netherlands, *Acta Politica* 36 (4): 402–418.
- Mueller, D.C. (2003). *Public Choice III*. Cambridge University Press, Cambridge.
- Otjes, S. (2018). Pushed by national politics or pulled by localism? Voting for independent local parties in the Netherlands. *Local Government Studies* 44 (3): 305-328.
- Otjes, S. (2020a). Going Local. Voting for independent local Parties in the Netherlands 1986-2010, *Local Government Studies* 46 (1): 91-115.

Otjes, S. (2020b). The fight on the right: what drives voting for the Dutch Freedom Party and for the Forum for Democracy?. *Acta Politica*. [https://doi-org.vu-](https://doi-org.vu-nl.idm.oclc.org/10.1057/s41269-020-00150-y)

[nl.idm.oclc.org/10.1057/s41269-020-00150-y](https://doi-org.vu-nl.idm.oclc.org/10.1057/s41269-020-00150-y)

Van Biezen I. and T. Poguntke T (2014). The decline of membership-based politics. *Party Politics* 20(2): 205-216.

VNG (2002). *Gids Gemeentebesturen 2002*. VNG Uitgeverij, Den Haag.

VNG (2004). *Gids Gemeentebesturen 2004*. VNG Uitgeverij, Den Haag.

VNG (2009). *Gids Gemeentebesturen 2009*. VNG Uitgeverij, Den Haag.

VNG (2012). *Gids Gemeentebesturen 2012*. SDU, Den Haag.

VNG (2016). *Gids Gemeentebesturen 2016*. SDU, Den Haag.

VNG (2020). *Gids Gemeentebesturen 2020*. SDU, Den Haag.

Warner, M. E. and A. Hefetz (2002). Applying market solutions to public services: An assessment of efficiency, equity, and voice. *Urban Affairs Review* 38 (1): 70–89.