

Political Fly-Overs:

Local politics and party-switching in Serbia *

RAJKO RADOVANOVIĆ

May 8, 2016

Abstract: It is widely believed that local politicians in Serbia often switch their political affiliations due to benefits from political alignment with the national government. In this paper, I first compile and examine the affiliations of municipal presidents during a major national regime change and find a significant number of party switches either towards incumbent or away from opposition parties. Second, I examine one possible explanation for this phenomenon: the distribution of direct transfers from state to local governments. Despite highly aggregated data and a limited number of observations in this study, I find consistent results supporting the original hypothesis. The results are inconclusive as they are statistically insignificant. Nevertheless, I believe they merit further research with better data.

*I would like to extend my sincerest gratitude to Professor Andrei Shleifer for his mentorship in this endeavor. This course has greatly enriched my capacities as a researcher and I cherish the experience very much. I would also like to thank Mitra Akhtari for her advice and guidance over the course semester. My gratitude also goes out to Nikola Tarbuk (Standing Conference of Towns and Municipalities of Serbia), who's experience informed much of my research. From the Ministry of Public Administration and Local Self-Government, I would like to thank Dr. Kori Udovički, whose suggestion to use municipal presidents as a proxy proved very useful, as well as Miloš Popović and Ivan Bošnjak. For his time, advice, and assistance, I thank Srđan Bogosavljević, (Ipsos, Serbia). I would also like to thank Nemanja Šormaz (Center for Advanced Economic Studies), Jasna Atanasijević (Secretariat for Regulatory Impact Assessment), and Sanja Aksentijević (National Statistics Office), as well as Miroslav Kitić, Zorana Zlatić and Uroš Ranisavljević for their assistance in procuring data. Last but not least, I thank Dr. Natalija Novta and Dr. Marko Klašnja for their knowledge and enthusiastic advice regarding related literature.

CONTENTS

I. Party Switching Background	1
I.A. Anecdotal Evidence and Legal Framework	1
I.B. National Politics 2008 - Today	1
II. Party Switching Data Analysis	2
II.A. Local Political Affiliation Data & Strategy	2
II.B. Results & Discussion	4
II.C. Theoretical Explanations	8
III. State Transfers as a Likely Factor	9
III.A. Background	9
III.B. Data	9
III.C. Methodology	10
III.C..1 Re-sampling Political Affiliation	10
III.C..2 Model Within Time Periods	10
III.C..3 Model Across Time Periods	12
III.D. Results & Discussion	12
III.D..1 Within Time Periods	12
III.D..2 Across Time Periods	14
IV. Conclusion	16
Appendix	17

I. PARTY SWITCHING BACKGROUND

I.A. Anecdotal Evidence and Legal Framework

"I'll vote for you when you're in power!" is a famous response to a politician in Serbia during a local political campaign. The insinuation is that a politician, or the party they belong to, must hold power at the national level in order to get anything done at the local level. Further, over the course of last decade, many instances of post-election party-switching at the local level have been reported. Occasionally, these switches have been reported in the form of public declarations by the aldermen themselves. At other times, they have been alleged, pointing to voting records as proof. Nevertheless, it is widely believed that this phenomenon occurs frequently and typically in favor of parties which hold power at the national level, in line with aforementioned rationale.

These 'switches' are possible because, in Serbia, voters vote for lists of candidates submitted by political parties or 'citizen groups'. They do not vote for individual aldermen. Once instated, however, aldermen have no obligations to their original, list submitting body, whether in terms of votes in the municipal assembly or public affiliation. As such, during the four year tenure of local alderman, they may switch their political affiliations as often as they like, with publicity as a sole concern. ¹

I.B. National Politics 2008 - Today

TABLE I: NATIONAL DYNAMICS

<i>Party</i>	Parliament Seats			Cabinet Seats		
	2008	2012	2014	2008	2012	2014
DS*	102	73	37	14	0	0
SNS†	78	67	158	0	8	7
SPS	20	44	44	4	5	3

* By 2014, DS had split into multiple parties. I list their joint seats.

† In 2008, the founders of SNS still belonged to SRS. I list SRS's seats.

1. For details, consult the Law on Local Elections, Official Gazette of the Republic of Serbia, number 54, 2011.

Between 2008 and today, there has been a dramatic shift in political power at the national level – essentially from the Democratic Party (DS) to the Serbian Progressive Party (SNS). [Table I](#) shows the number of parliament and government cabinet seats held by political factions over the period.

The Serbian public largely expected DS to remain in power post-2012, in coalition with the Socialist Party of Serbia (SPS). However, after prolonged negotiations, SPS formed the national government with SNS. Between 2012 and 2014, the popularity of SNS rose sharply and, in 2014, they took a landslide victory.

Crucially, despite significant changes in power at the national level, local elections were not held in 2014. Local aldermen were not reelected and in theory the distribution of their political affiliations should have remained the same. This setting provides an excellent background in which to test the party switching and incumbent alignment hypotheses, as we should expect to see a significant number of changes in affiliation from parties around DS to parties around SNS if they are both true.

II. PARTY SWITCHING DATA ANALYSIS

II.A. Local Political Affiliation Data & Strategy

It would be interesting to directly observe if the public perception is correct— how often do local politicians really switch their political affiliations and do these switches tend to be towards alignment with the incumbent in power at the national level. Unfortunately, this cannot be observed— no official data set of the political affiliations of individual aldermen exists. Moreover, even if it were, it would not be entirely clear what political affiliation means for a local alderman. One definition might be formal party membership, however this is a narrow measure since at the local level there are non-party affiliations called citizen groups that can discreetly switch voting behaviors.

Instead, as a strongly indicative proxy, I compile and analyze the political affiliations of 150 municipal presidents using media reports, municipal websites and official municipal

records, over the period 2011 to today. The political affiliation of the municipal president is a reliable indicator of the local government composition. The switch from a municipal president belonging to a party in opposition to one belonging to a party in national incumbency is a definitive indicator of a re-composition of the majority coalition in power. In addition to often representing a switch in political affiliation of the president him/herself, municipal president party switches would in general be likely to reflect aldermen party affiliation shifts, but mainly in the period from mid-2013 onward. Earlier, in 2012 such a re-composition would most likely have occurred because of the shift of coalition partners (mainly SPS) from the one majority party in power at the national level (DS), to the other (SNS). In fact, in October 2012, the national leadership of both SPS and SNS publicly ordered their local chapters to match their national coalition.

To assess the phenomenon of aldermen party affiliation changes more specifically, I particularly focus on analyzing the specific cases of municipal president's personal party affiliation shifts, i.e. instances where the political affiliation of the municipal president changed, but not the president. The same reasons that make it easier to collect this data also make it a much stricter identifying strategy. The municipal president is appointed by the municipal assembly and holds the most executive power in a municipality. As such, their personal political affiliation is an excellent proxy for political control of the municipal assembly. Further, they are also often the most public political figure in a municipality. Hence, their political affiliation is almost always clear and publicly declared. Local aldermen can change their voting patterns and remain relatively private. They need not make any public declaration of their political affiliation over time and are less likely to suffer repercussions to their public image as a result. On the other hand, municipal presidents are highly public figures and almost always suffer negative media exposure when switching parties. For these reasons, it should be noted that this identifying strategy is likely an underestimate of the real phenomenon.

II.B. Results & Discussion

A visual summary of the collected data is presented in [Figure I](#). The figure shows political affiliation of municipalities over the time period late 2011 to 2016. The main take-away from this is that we can loosely categorize municipalities into four categories, from top to bottom:

1. Municipalities loyal to the coalition around SPS (red)
2. Municipalities whose loyalties go to either one of DS and SNS (yellow and blue, respectively)
3. Municipalities who exhibit a tendency towards local options (green) ²
4. Municipalities that tend to vote along ethnic lines (brown).

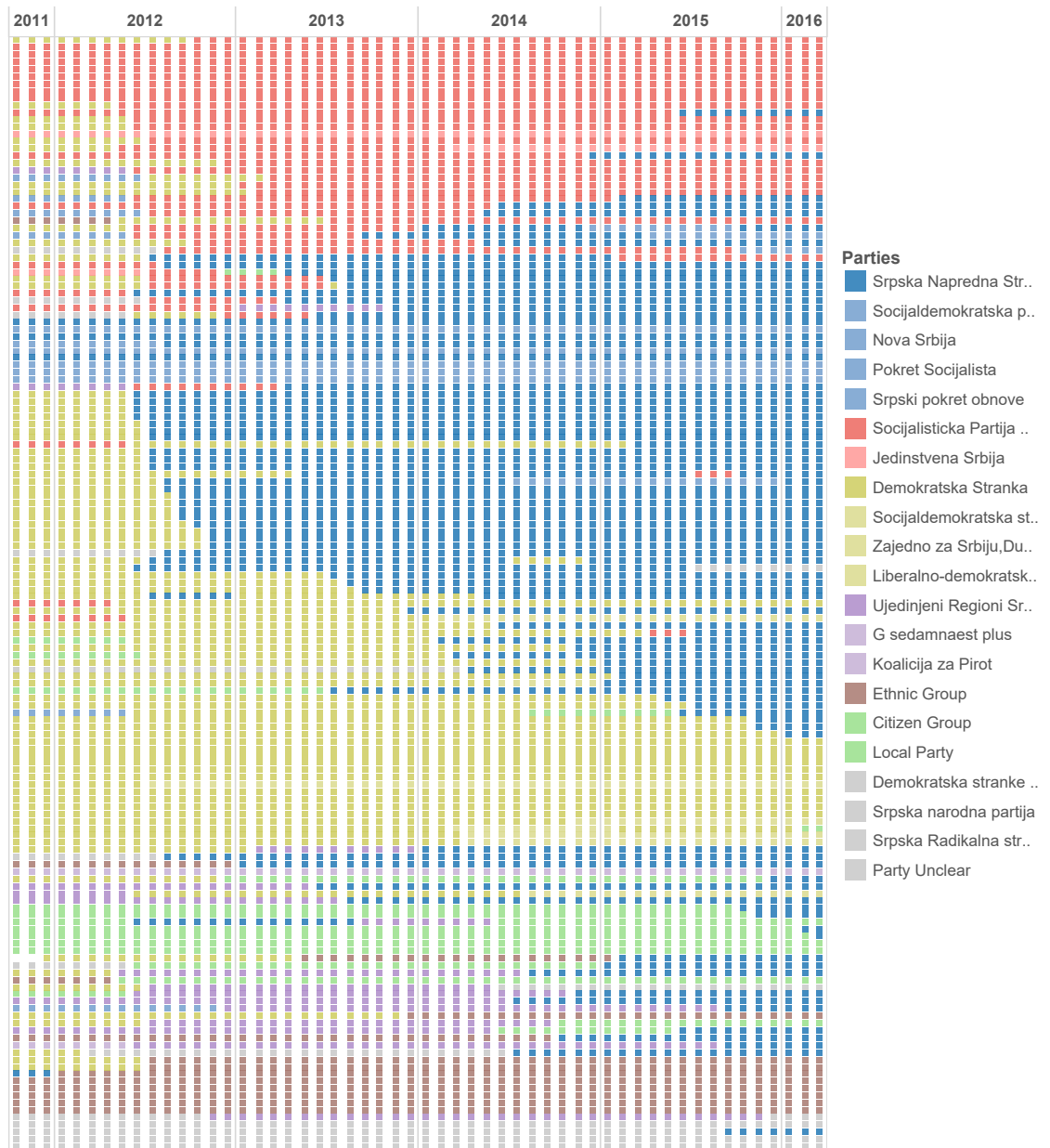
An overview of total municipalities under control of each party can be seen in [Figure II](#). Note the drastic change between early 2012 and 2016, as affiliations massively switch from DS to SNS. Also, note that the number of municipalities affiliated with SNS almost uniformly rises through 2016. This is well beyond the time period in which the national leadership of SPS and SNS made the agreement to match their national coalition at the local levels. Hence, the trend is strongly indicative non-coalition matching related mechanisms being at play, if not switches of individual party affiliation as well.

Focusing on the primary identification strategy, I extract instances in which the same presidents change their party affiliations. Out of 154 municipalities, from the election on May 6th, 2012 to April, 2016, there are 32 instances of municipal presidents switching their party affiliations. Some presidents switch multiple times, leaving 25 unique presidents who switched affiliations in 25 unique municipalities. A breakdown of when this switches occur can be seen in the

The breakdown of the political nature of these switches is presented in [Table II](#). Note, of a total 32 switches, 12 were trivial in that they were solely due to the break-up or

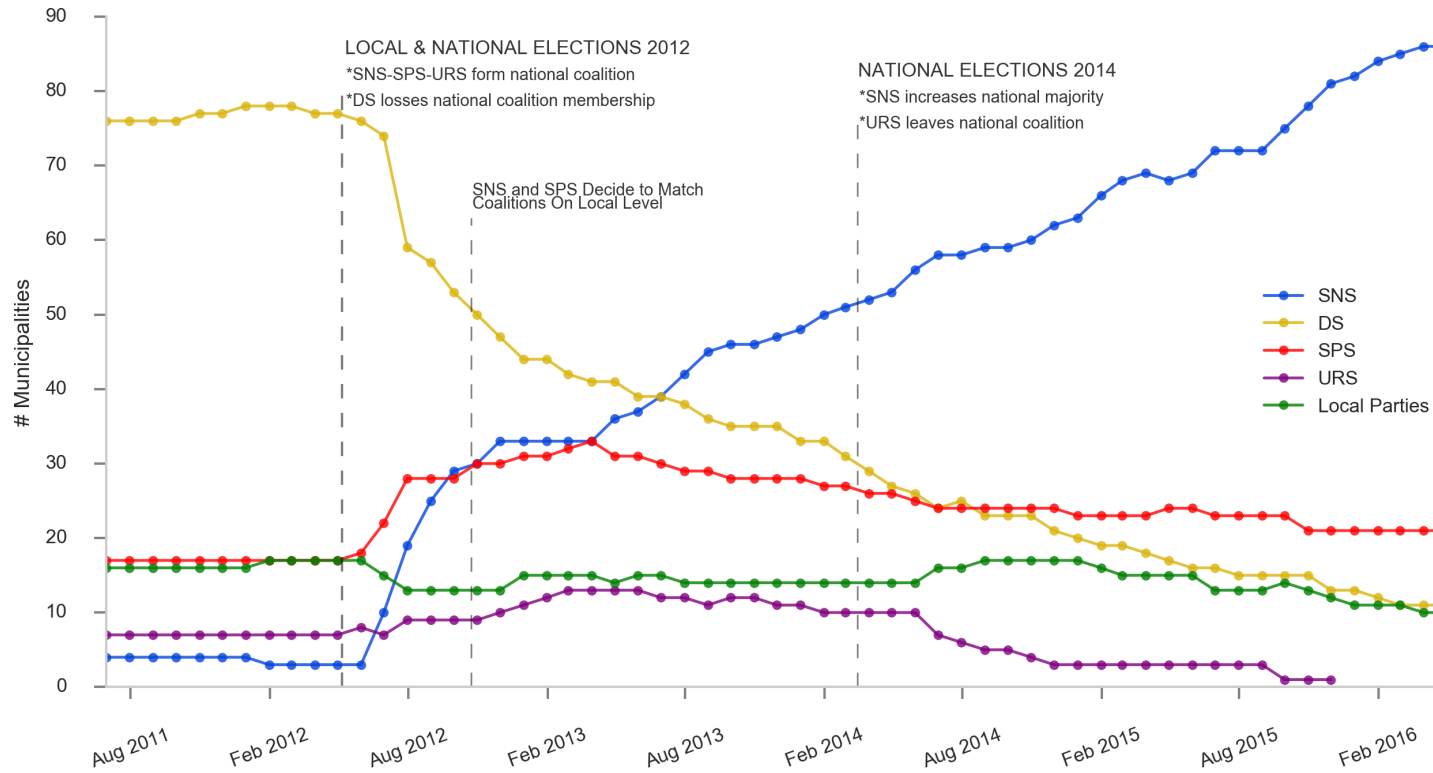
². URS, purple, a national party which temporarily ran on a decentralization platform, is interspersed there as well

FIGURE I:
OVERVIEW OF MUNICIPAL POLITICAL AFFILIATIONS



NOTE: Each row is a municipality and each rectangle in the row is a specific month of the year. Colors denotes the party with which the municipal president is affiliated. Coloring is grouped such that parties in the same coalition have similar colors. The most powerful parties in each coalition take on a darker shade. It is interesting to see that we can loosely categorize municipalities into four categories: **(1)** municipalities loyal to the coalition around SPS (red); **(2)** municipalities whose loyalties go to either one of DS or SNS (yellow and blue, respectively); **(3)** municipalities who tend to stick with local options (green) – URS, a national party, which temporarily ran on a decentralization platform, is interspersed there as well; and **(4)** municipalities that tend to vote along ethnic lines (brown). For a detailing of coalitions over time, see [Table IX](#) in the appendix.

FIGURE II:
TOTAL MUNICIPALITIES BY PARTY 2012-2016



9

NOTE: This chart shows the total number of municipalities 'controlled' by each party over time. By control, I mean that the municipal president is politically affiliated with the party. It should be noted that SNS's share of municipalities continues to rise steadily through 2016. This is well beyond the time period in which SPS and SNS decided to match their coalition at the local level. Hence, the trend is strongly indicative non-coalition matching related mechanisms being at play, if not switches of individual party affiliation as well.

termination of national parties and did not result in significant political changes.³ Out of the 20 remaining switches, 15 were to incumbent parties and 3 were away from the main opposition party, DS. This means that out of 20 non-trivial switches, a total of 18 were in the direction our hypothesis would predict, towards national incumbents, and away from national opposition parties. This evidence strongly supports the notion that party switching is commonplace in Serbia and that it occurs towards alignment with national incumbents. Further, if we examine the types of switches grouped by individuals, the trend is even more pronounced. Specifically, I count the starting and ending affiliation of the president, skipping intermediates. Of 25 individuals who had switches, only 6 were solely trivial party splits or terminations. Further, of the remaining 19 presidents, 15 made switches towards incumbents and 2 made switches away from the main opposition party, DS. Hence, of 17 out of 19 non-trivial switches are in the direction our hypothesis predicts.

TABLE II: PARTY-SWITCHES BY TYPE

Switch Direction	Switch Type	All Obs	Sub	Grouped by Person	Sub
<i>To Incumbent</i>	Opposition to SNS	3		4	
	Independent to SNS	8		7	
	Incumbent to SNS	1	15	1	15
	Opposition to Incumbent	1		1	
	Independent to Incumbent	1		1	
	Incumbent to Incumbent	1		1	
<i>From Opposition</i>	DS to Independent	3	3	2	2
<i>Neutral</i>	Independent to Independent	2	2	2	2
<i>Trivial</i>	Party splits or terminations	12	12	6	6
Total			32		25

NOTE: This table is a summary of switches in political affiliation made by the presidents of 154 municipalities in Serbia in the period May 2nd, 2012 - April, 2016. The switches are categorized by whether they are to/from parties: *incumbent* in the national ruling coalition, politically *independent* of the ruling coalition, or in open *opposition* to the national ruling coalition. The column 'All Obs' lists numbers for every recorded switch. The column 'Grouped by Person' lists results only counting the same president once. For a full detailing of these switches and their dates, see [Table X](#) and [Table XI](#) in the appendix. For a detailing of which parties are considered incumbent/opposition in different period, see [Table VIII](#) in the appendix.

3. Two events drive a majority of these instances: first, the break-away of SDS from DS in February, 2014; second, the termination of URS as a national party in June, 2014.

II.C. Theoretical Explanations

There are a number of possible hypotheses explaining the trends observed above. Note that the second half of this paper will only examine one particular hypothesis – national transfers. I list the other hypotheses for context and leave them as potential subjects for future study. Further note, these hypotheses largely stem from conversations with individuals with relevant experience in Serbia. As such, they are not purely theoretical musings.

I have examined political switches and how their direction correlates with national political power structures. However, political switches could also arguably be correlated with the popularity of individual parties, irrespective of political power and incumbency at the national level. As demonstrated by the 2014 election results, SNS saw an increase, and DS a decrease, in popularity over the relevant period. This is important because the mechanisms underlying either interpretation would not necessarily be the same. I define the first interpretation as the *national incumbency effect*, and the second as the *national popularity effect*.

With this in mind, in [Table III](#), I list plausible mechanisms as well as the interpretations that they support. I now move on to examine and discuss national transfers.

TABLE III: MECHANISMS

Mechanism	National Incumbency Effect	National Popularity Effect
Political Favors	✓	
National Investment Projects	✓	
National Transfers	✓	
Increased Likelihood of Re-election	✓	✓

III. STATE TRANSFERS AS A LIKELY FACTOR

III.A. Background

As summarized in [Figure III](#), in the appendix, transfers comprise a large component of the total incomes of municipalities in Serbia. As such, they are a viable instrument through which parties holding national power could coerce local politicians.

Transfers in Serbia are divided into non-designated and designated transfers. Non-designated comprise the majority of the transfers and are, at least by law, decided through an objective algorithm which attempts to be re-distributive in nature, favoring poorer municipalities. Unfortunately, this algorithm is complex and some of the indicators it takes into account are not publicly available. The two main indicators which I will take advantage of are the populations of municipalities and the development categories of municipalities. The development categories are determined by the Serbian Office for Regional Development and consist of: one, two, three, four and devastated. As you may guess, the order is towards decreasing levels of development. Last, it is important to note that an amendment to the law governing this system was implemented in 2012, essentially making the entire system even more heavily re-distributive.

III.B. Data

The income and expenditure data I use was individually requested and compiled by different government bodies in Serbia. As such, it required some cleaning and is not perfect. The Ministry of Finance mandates reporting but does not currently uniformly control for quality. Municipalities are subject to random audits and these serve as impetus for quality and truthful reporting. Some municipalities have been sanctioned for inaccuracies in recent years. I find and remove some obvious inaccuracies.

The main limitation of this data is its level of aggregation. It neither indicates which share of transfers are designated vs. non-designated, nor does it indicate the month or day on which the transfers were requested, approved or executed. Due to these limitations,

I run all tests on an annualized time scale and I try and control for factors that would increase non-designated transfers without political bias.

I obtain demographic data from the Serbian National Statistics Office. I consider basic information, such as populations, to be reliable. The last national census was carried out in 2011.

III.C. Methodology

The main purpose of my tests is to identify whether political affiliation – particularly, political affiliation in relation to national political power structures – impacts the amount of funding that municipalities receive from the state government. Due to the level of aggregation of municipal income data available in this study, all tests are in annual intervals. I essentially carry out two simple tests: differences *within time slices* and differences *in change across time*.

III.C..1 Re-sampling Political Affiliation

In order to run tests on annualized time intervals, I had to re-sample my political affiliation data set. Various approaches could be taken here, but for the sake of these tests I choose a straightforward one– the mode. I take the party that was in power for the greatest number of days, consecutive or not. I make one exception, which is for the year 2012. For this year, I take the party which was in control for the most days prior to the election in May.

III.C..2 Model Within Time Periods

Within time slices, my dependent variable is transfers per capita (*transpc*). As I have touched on in the sections above, there are two main concerns with this measure. First, the lack of distinction between non-designated transfers and designated transfers. Non-designated transfers are determined by a complex formula before the start of each year. They are unlikely to be politically biased. I try to mitigate these concerns using

the controls listed below. The second issue with the dependent variable is the time aggregation. I only have annual data. However, political changes sometimes occur within a given year. I am unable to distinguish between which transfers were approved prior to or post political changes. This certainly introduces additional noise. Both of these issues could be resolved by getting data from the Ministry of finance.

My main independent variables within time slices are dummies: *opposition* and *aligned* indicating whether the municipality is aligned with the national ruling coalition or in open opposition to the ruling coalition. I do not include a dummy for those municipalities which are neutral or have unclear alignments. Hence, they serve as a benchmark.⁴

The main shortcoming of the independent variable is that they only incorporate explicit alignments. The president of a municipality has to personally belong to a party that is in the national ruling coalition in order for that municipality to be counted as 'aligned'. However, there are certainly instances of municipal presidents who are on friendly terms with the national ruling coalition, without explicitly being members of a party. A more sophisticated way of observing this would be to examine if individual aldermen that are direct members of nationally incumbent parties voted for the current municipal president. Unfortunately, this does is not available in aggregate at this time.

As detailed in the section on the state transfer system, controls are difficult to introduce due to the complicated nature of the state transfers system. The system principally aims to be re-distributive in favor of under-developed municipalities. Unfortunately, many indicators which could be used are highly collinear. A visual summary of these control candidates can be seen in [Figure IV](#) in the appendix. I choose and include the *log population*, since it has the most explanatory power on transfers per capita. A visual summary of the relationship between log population and transfers per capita can be seen in [Figure V](#) in the appendix.

The second control I include is the national development category of the municipality. As noted above, this categorization became very important post-2012. A visual represen-

4. You can see which parties I consider incumbent or in opposition in [Table VIII](#). Further, a full detailing of all parties is available in [Table XII](#).

tation of the development category control can be seen in [Figure VI](#) in the appendix.

III.C.3 Model Across Time Periods

Across time, I test two dependent variables. First, the percent change of a municipality's total share of national transfers. I use the share that the municipality receives because it is independent of overall changes in levels of transfers across time. Second, I test absolute change of transfers per capita.

My main independent variables across time slices are the dummies: *became aligned*, *unaligned both years*, and *stopped being aligned*. These indicate, as the names suggest, the change in political alignment over the period. I exclude the *aligned both years* dummy and as such it is the benchmark. The same concerns as in the prior model apply to independent variables in this model.

I include the same controls in this model as in the first. I do this because the effects of the new law passed in 2012 essentially amplified the re-distributive criteria that existed before, such that the 'poorer' a municipality is, the more they should be receiving per capita.

III.D. Results & Discussion

III.D.1 Within Time Periods

The results of these regressions are displayed in [Table IV](#). First note, the controls included are highly statistically significant across all years. Second, note that almost across the board, the expected effect is present, whereby municipalities aligned with incumbent parties at the national level receive higher levels of transfers per capita than those in opposition. The only case where this does not hold is in 2011, under model 1. However, model 1 only differs from model 2 in that it lacks four highly statistically, but also logical controls. As such, I think it justified to weigh the results of the second model much more heavily.

However, these results are statistically insignificant. In economic terms, however,

they are not. All numbers displayed are in terms of hundreds of dinars. The difference between incumbent and opposition municipalities is on average about 400 dinars per capita (roughly \$4). For a municipality of average size of about 20,000 people, this is an increase in funding of \$80,000. Given that the average Serbian wage is about \$370 in this period, this is not an insignificant sum, especially if these funds arrive in the form of special designated transfers that can be used at higher discretion.

TABLE IV:
ROBUST LINEAR MODEL: TRANSFERS PER CAPITA

	2011		2012 [†]		2013	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
opposition	-3.8508 (7.2225)	-8.8982* (4.7868)			-18.2692 (11.9225)	-3.3854 (7.1023)
aligned	-6.7901 (5.6236)	-4.4484 (3.7919)	-2.0707 (8.1533)	4.0907 (5.2972)	8.0307 (10.7591)	1.9090 (6.2279)
constant	340.2084*** (24.9876)	201.9880*** (20.2534)	637.2883*** (45.2360)	355.7745*** (35.2701)	651.2670*** (46.5909)	355.9499*** (33.3880)
log pop total	-25.8159*** (2.4470)	-12.4996*** (1.9850)	-51.7689*** (4.5036)	-25.0439*** (3.4959)	-53.1933*** (4.6526)	-24.5761*** (3.3293)
dummy one		-16.6797*** (4.0308)		-31.9306*** (7.0912)		-36.1994*** (6.5548)
dummy two		-10.4785** (4.3067)		-19.8814*** (7.5736)		-18.2410*** (7.0074)
dummy four		10.7735* (6.5053)		23.1150** (11.4436)		27.7582*** (10.5390)
dummy devastated		32.1017*** (3.9436)		62.8302*** (6.9183)		62.1379*** (6.4906)
N	136	136	136	136	136	136

Standard errors in parentheses.

* p<.1, ** p<.05, ***p<.01

[†] In 2012, I only included incumbent and neutral as categories due to complications related to the election. The results are, nevertheless, consistent.

III.D.2 Across Time Periods

TABLE V:
ROBUST LINEAR MODEL: PERCENT CHANGE IN SHARE OF TOTAL TRANSFERS

	2011-2013		2012-2013	
	Model 1	Model 2	Model 1	Model 2
became aligned	-3.2844 (7.9035)	-0.0957 (7.0870)	3.2073 (2.7015)	3.1582 (2.7780)
stopped being aligned	-18.2563*** (6.4709)	-12.5388** (6.0037)	-0.2810 (2.2118)	-1.3629 (2.3534)
constant	333.1905*** (34.9865)	214.8499*** (38.7517)	6.4046 (11.9585)	8.0740 (15.1903)
log pop total	-27.3730*** (3.3916)	-15.7870*** (3.7513)	-0.5321 (1.1593)	-0.5287 (1.4705)
dummy one		-23.0628*** (7.0493)		-3.2007 (2.7633)
dummy two		-2.1691 (7.6164)		1.2236 (2.9855)
dummy four		15.0109 (11.2882)		1.6271 (4.4249)
dummy devastated		13.9563** (6.9560)		-2.8512 (2.7267)
N	133	133	133	133

Huber standard errors in parentheses.

* p<.1, ** p<.05, ***p<.01

The results of this first set of regressions is presented in [Table V](#). First, note that in line with the aforementioned law implemented in 2012, there is much greater variance from 2011 to 2013 then from 2012 to 2013. Also, only the two extremes of the development categories carry any statistical significance between 2011 and 2013, while none of the controls carry any statistical significance in the difference between 2012-2013.

Second, in line with the results within period, the change in share of total transfers received by municipalities is consistently larger for municipalities that became aligned with the national government vs municipalities that ceased to be aligned. This difference is consistent across all models.

Again, this result is not statistically significant. To be able to better interpret the economic significant results, I run the same tests against absolute changes in transfers per

capita in Table VI. Between 2011 and 2013, the average difference in changes is about 1200 dinars per capita per model 2. Between 2012 and 2013, the average difference in changes is about 400 dinars per capita per model 2. This is similar to the results within years, in that it would amount to a difference of about \$80,000 per municipality.

Lastly, note that the results between 2012 and 2013 are not impacted by the legal changes implemented in 2012. As such, theoretically, there should be very little change transfers across the time period.

TABLE VI:
ROBUST LINEAR MODEL: CHANGE IN TRANSFERS PER CAPITA

	2011-2013		2012-2013	
	Model 1	Model 2	Model 1	Model 2
became aligned	-3.2844 (7.9035)	-0.0957 (7.0870)	3.2073 (2.7015)	3.1582 (2.7780)
stopped being aligned	-18.2563*** (6.4709)	-12.5388** (6.0037)	-0.2810 (2.2118)	-1.3629 (2.3534)
constant	333.1905*** (34.9865)	214.8499*** (38.7517)	6.4046 (11.9585)	8.0740 (15.1903)
log pop total	-27.3730*** (3.3916)	-15.7870*** (3.7513)	-0.5321 (1.1593)	-0.5287 (1.4705)
dummy one		-23.0628*** (7.0493)		-3.2007 (2.7633)
dummy two		-2.1691 (7.6164)		1.2236 (2.9855)
dummy four		15.0109 (11.2882)		1.6271 (4.4249)
dummy devastated		13.9563** (6.9560)		-2.8512 (2.7267)
N	133	133	133	133

Huber standard errors in parentheses.
* p<.1, ** p<.05, ***p<.01

IV. CONCLUSION

I document and confirm that party switching occurs with frequency and generally towards incumbent parties in the national ruling coalition. Of a total of 154 municipalities, in the period between May 2012 and April 2016, we observe municipal presidents commit 19 non-trivial party switches. Of those, 15 are towards parties incumbent at the national level and 2 are away from parties openly in opposition to the national ruling coalition.

Looking for a plausible explanation to this phenomenon, I construct within and across period tests for political bias in levels of state transfers to municipalities. My data, however, has significant limitations in its aggregation to annual period and its aggregation across both non-discretionary and discretionary transfers.

I find no statistically significant results in relation to my original hypothesis. Nevertheless, I find economically significant results in confirmation of the hypothesis. The difference within years and the difference in average changes across years is roughly \$80,0000. I find the consistency of these results surprising and highly suggestive. I believe they merit further investigation with better and less aggregated data. The Ministry of Finance of Serbia has all state transfers on record, but unfortunately was not available make the data available in the time frame available for this study.

APPENDIX

TABLE VII:
TIMELINE OF RELEVANT POLITICAL EVENTS IN SERBIA

Date	Event
<i>2008-05-11</i>	<i>National and Local Elections</i>
2008-10-21	SNS splits from SRS
2011-02-17	URS removed from national government
<i>2012-05-06</i>	<i>National and Local Elections</i>
2012-07-27	Ruling coalition and government formed at national level
2012-10-23	SNS and SPS agree to enter coalitions at local level
2013-07-30	URS removed from national government
2013-08-25	Leader of URS asked to rejoin government
2014-02-02	SDS splits from DS
<i>2014-03-24</i>	<i>National Elections</i>
2014-04-27	Ruling coalition and government formed at national level
2014-06-02	URS dissolved
<i>2016-04-24</i>	<i>National and Local Elections</i>

NOTE: This table details the dates of major political events of interest to this study.

TABLE VIII:
NATIONALLY INCUMBENT VS. OPPOSITION

	2008-2012	2012-2014	2014-2016
Incumbent	DS	SNS	SNS
	G17*	SPS	SPS
	SPO	PUPS	PUPS
	SPS	JS	JS
	PUPS	SDPS	SDPS
	SDPS	NS	NS
		SDA URS [†]	SPO PS
Opposition	SRS	DS	DS
	SNS**	SDS	SDS
	PS	LDP	LDP
	PSS	ZzS	ZzS
		SRS	SRS

NOTE: This table details the dates of major political events of interest to this study.

* G17 was kicked out of this government in early 2011.

** SNS broke away from SRS in October, 2008.

† URS was kicked out of the national government in July, 2013. However, within a couple months, the leader of URS, Mladjan Dinkic, was asked to rejoin as an adviser.

TABLE IX:
NATIONAL COALITIONS

2008	2012	2014
DS	SNS	SNS
G17+	NS	NS
SDPS	PS	PS
SPO	PSS	SDPS SPO
SPS	SPS	SPS
PUPS	PUPS	PUPS
JS	JS (palma)	JS
DSS	DS	DS
NS	SDPS	
SRS	DSS	DSS
DSVM	LDP	SVM
SVM	SPO	SRS
SDA	G17+	
	URS	URS
LDP	KzP	LDP
		SDS

NOTE: This table shows groups of parties that ran on the same (joint) ticket in national elections. There is a good amount of variance between years. Also note, coalitions tend to be composed of single central parties and added satellites, in particular, DS, SNS, and SPS.

* SDPS switched its alignment to SNS when the news government, led by SNS and SPS, was announced.

TABLE X:
CATEGORIZED PARTY SWITCHES BY INDIVIDUAL PRESIDENTS

Municipality	President Name	New Party	Prior Party	Date	Switch Category
zabalj	Cedomir Bozic	GGCB	DS	2016-02-04	DS to Independent
Vrsac	Cedomir Zivkovic	VS	DS	2012-12-10	DS to Independent
Sabac	Milos Milosevic	ZzS	DS	2014-04-01	DS to Independent
Bela Palanka	Goran Miljkovic	SDS	DS	2014-02-09	DS-SDS Split
Novi Knezevac	Dragan Babic	SDS	DS	2014-04-15	DS-SDS Split
zabalj	Cedomir Bozic	SDS	DS	2014-03-15	DS-SDS Split
zabalj	Cedomir Bozic	DS	SDS	2015-02-07	DS-SDS Split
Svilajnac	Predrag Milanovic	SDS	DS	2014-07-18	DS-SDS Split
Cicevac	Zlatan Krkic	SDS	DS	2014-10-26	DS-SDS Split
Osecina	Nenad Stevanovic	URS	G17+	2012-05-29	G17+ to URS
Lajkovac	Zivorad Bojicic	PS	SPS	2015-10-05	Incumbent to Incumbent
Kraljevo	Tomislav Ilic	SNS	NS	2016-01-05	Incumbent to SNS
Aleksandrovac	Jugoslav Stajkovic	URS	GGPZZ	2013-08-24	Independent to Incumbent
Cajetina	Milan Stamatovic	SNP	DSS	2014-09-22	Independent to Independent
Subotica	Jene Maglai	MP	SVM	2015-08-24	Independent to Independent
Sremska Mitrovica	Branislav Nedimovic	SNS	GGVM	2015-01-16	Independent to SNS
Loznica	Vidoje Petrovic	SNS	PzLP	2015-06-08	Independent to SNS
Koceljeva	Veroljub Matic	SNS	GGVM	2013-06-24	Independent to SNS
Veliko Gradiste	Dragan Milic	SNS	GGDM	2016-03-07	Independent to SNS
Vrsac	Cedomir Zivkovic	SNS	VR	2015-11-19	Independent to SNS
Doljevac	Goran Ljubic	SNS	PZJ	2016-02-13	Independent to SNS
Nis-Niska Banja	Zoran Vidanovic	URS	DSS	2012-11-16	Opposition to Incumbent
Secanj	Predrag Milosevic	SNS	DS	2014-01-22	Opposition to SNS
Plandiste	Milan Selakovic	SNS	DS	2014-02-27	Opposition to SNS
Kursumlija	Radoljub Vidic	SNS	DSS	2012-07-17	Opposition to SNS
Knjazevac	Milan Djokic	Nejasna	URS	2014-06-02	URS Independent to Independent
Nis-Niska Banja	Zoran Vidanovic	SNP	URS	2015-12-01	URS Independent to Independent
Loznica	Vidoje Petrovic	PzLP	URS	2014-05-29	URS Independent to Independent
Trstenik	Miroslav Aleksic	NPS	URS	2014-09-21	URS Independent to Independent
Aleksandrovac	Jugoslav Stajkovic	GGZBZ	URS	2014-06-02	URS Independent to Independent
Boljevac	Nebojsa Marjanovic	SNS	URS	2014-07-01	URS Independent to SNS
Osecina	Nenad Stevanovic	SNS	URS	2015-08-18	URS Independent to SNS

NOTE: This table contains all observations of municipal presidents switching their party affiliations through the period May, 2012 - April, 2016. A summary of this information is available in [Table II](#).

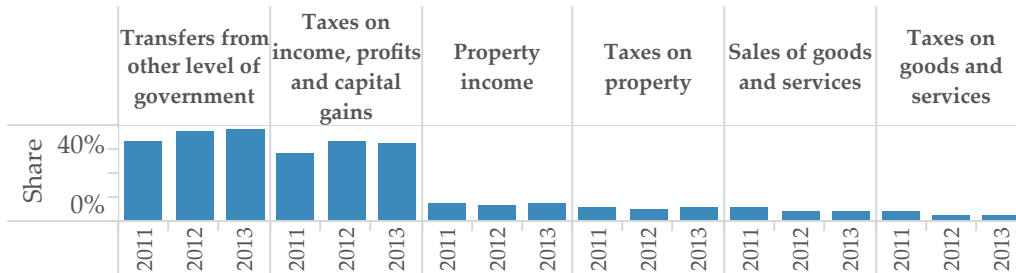
TABLE XI:
PRESIDENTS WITH MULTIPLE SWITCHES

Municipality	President Name	New Party	Prior Party	Date	Switch Category
zabalj	Cedomir Bozic	SDS	DS	2014-03-15	DS-SDS Split
zabalj	Cedomir Bozic	DS	SDS	2015-02-07	DS-SDS Split
zabalj	Cedomir Bozic	GGCB	DS	2016-02-04	DS to Independent
Vrsac	Cedomir Zivkovic	VS	DS	2012-12-10	DS to Independent
Vrsac	Cedomir Zivkovic	SNS	VR	2015-11-19	Independent to SNS
Aleksandrovac	Jugoslav Stajkovic	URS	GGPZZ	2013-08-24	Independent to Incumbent
Aleksandrovac	Jugoslav Stajkovic	GGZBZ	URS	2014-06-02	URS Independent to Independent
Osecina	Nenad Stevanovic	URS	G17+	2012-05-29	G17+ to URS
Osecina	Nenad Stevanovic	SNS	URS	2015-08-18	URS Independent to SNS
Loznica	Vidoje Petrovic	PzLP	URS	2014-05-29	URS Independent to Independent
Loznica	Vidoje Petrovic	SNS	PzLP	2015-06-08	Independent to SNS
Nis-Niska Banja	Zoran Vidanovic	URS	DSS	2012-11-16	Opposition to Incumbent
Nis-Niska Banja	Zoran Vidanovic	SNP	URS	2015-12-01	URS Independent to Independent

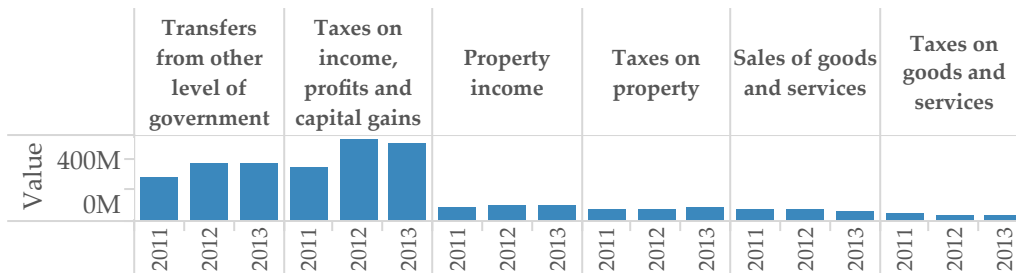
NOTE: This table is a subsection of [Table X](#). I extract presidents who have multiple switches and sort their switches by date. Note, the first president, Cedomir Bozic, switched three times, but two switches were trivial, having to do with the separation of DS and SDS. The final switch was to Citizen Group. The next president, Cedomir Zivkovic, switches from DS, to a local independent party, finally to the incumbent SNS.

FIGURE III:
OVERVIEW OF MUNICIPAL INCOME STRUCTURES

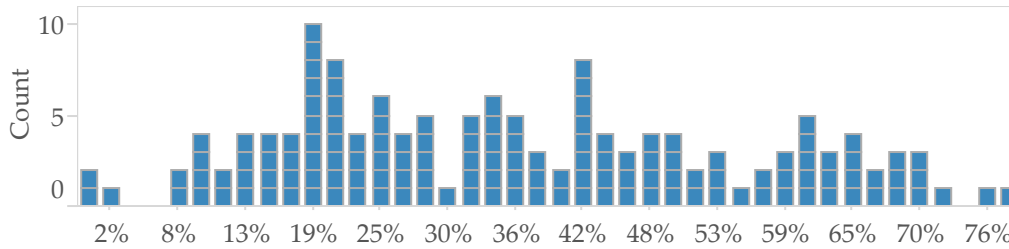
Top Income Sources by Average Share of Income



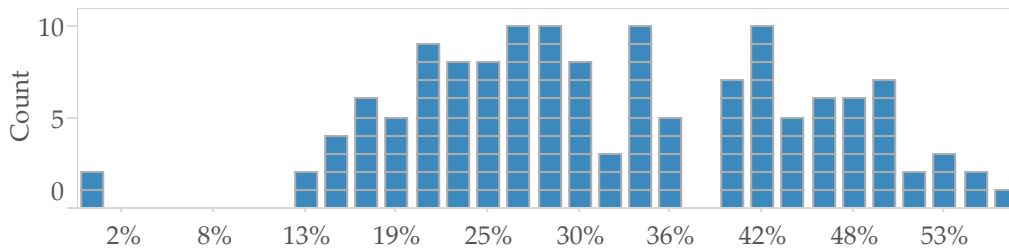
Top Income Sources by Absolute Sum



Distribution of Income Transfer Share - 2012



Distribution of Income Tax Share - 2012



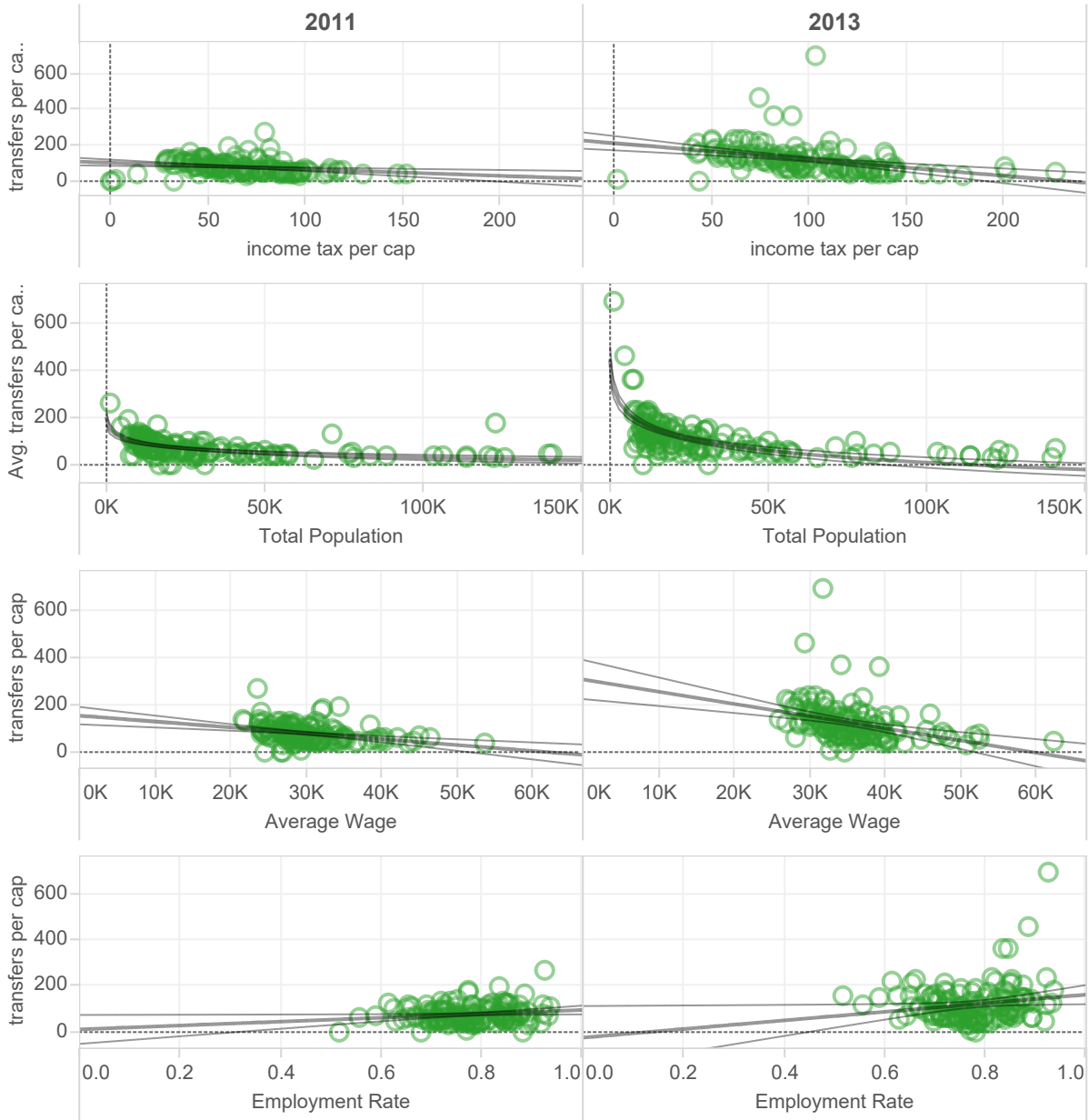
NOTE: .

TABLE XII:
ALL POLITICAL PARTIES AND CATEGORIES

name_abr	name_full	opo11	in_gov11	in_gov12	opo13	ingov13
Partija Nejasna	Partija Nejasna	0	0	0	0	0
SNS	Srpska Napredna Stranka	-1	0	0	1	1
DS	Demokratska Stranka	1	1	1	-1	0
SPS	Socijalisticka Partija Srbije	1	1	1	1	1
URS	Ujedinjeni Regioni Srbije	1	1	1	1	1
OGG	Opštinski Specifična Gradjanska Grupa	0	0	0	0	0
SVM	Savez vojvodjanskih madjara	0	0	0	0	0
DSS	Demokratska stranke Srbije	-1	0	0	0	0
GGzVM	Grupa Gradjana Veroljub Matic	0	0	0	0	0
GGMZ	Grupa Gradjana Milomir Zoric	0	0	0	0	0
GGZZI	Grupa Gradjana Zajedno za Ivanjicu	0	0	0	0	0
PS	Pokret Socijalista	-1	0	0	0	0
PSS	Pokret Snaga Srbije	-1	0	0	1	1
JS	Jedinstvena Srbija	1	1	1	1	1
MP	Madjarski pokret	0	0	0	0	0
NS	Nova Srbija	-1	0	0	1	1
NPS	Narodni Pokret Srbije	0	0	0	0	0
SRS	Srpska Radikalna stranka	-1	0	0	-1	0
DPA	Demokratska partija albanaca	0	0	0	0	0
SDS	Socijaldemokratska stranka	0	0	0	-1	0
LDP	Liberalno-demokratska partija	1	1	1	-1	0
SNP	Srpska narodna partija	0	0	0	0	0
GSM	Gradjanski savez madjara	0	0	0	0	0
USS	Ujedinjena seljacka stranka	0	0	0	0	0
N	Nezavistan	0	0	0	0	0
SPO	Srpski pokret obnove	1	1	1	0	0
PZJ	Pokret za Jug	0	0	0	0	0
SDzP	Sandzacka demokratska partija	0	0	0	0	0
GGVM	Grupa Gradjana Vredna Mitrovica	0	0	0	0	0
PzLP	Pokret za Loznicu i Podrinje	0	0	0	0	0
KzP	Koalicija za Pirot	0	0	0	1	1
SDPS	Socijaldemokratska partija Srbije Rasim Ljajic	1	1	1	1	1
SDA	Stranka demokratske akcije Sandzaka	0	1	1	1	1
GGZROS	Grupa Gradjana "Za razvoj opštine Secanj"	0	0	0	0	0
GGZZL	Grupa Gradjana "Za zivot Lapova"	0	0	0	0	0
GGGJ	Grupa Gradjana "Gornja Jablanica"	0	0	0	0	0
GGCB	Grupa Gradjana Cedomir Bozic	0	0	0	0	0
G17+	G sedamnaest plus	1	1	1	1	1
GGR	Grupa Gradjana Ravanica	0	0	0	0	0
GGMS	Grupa Gradjana Milorad Soldatovic	0	0	0	0	0
DSVM	Demokratski Savez Vojvodjanskih Madjara	0	0	0	0	0
ZzKG	Zajedno za Kragujevac	0	0	0	0	0
DPB	Demokratska Partija Bugara	0	0	0	0	0
ZzS	Zajedno za Srbiju, Dusan Petrovic	0	0	0	-1	0
GGDM	Grupa gradjana Dragan Milic	0	0	0	0	0
VR	Vrsacka regija	0	0	0	0	0
GGZBZ	Grupa Gradjana "Za Bogatu Zupu"	0	0	0	0	0
GGPZZ	Grupa Gradjana "Pokret Za Zupu"	0	0	0	0	0
DP	Demokratska partija	0	0	0	0	0
PDD	Pokret za demokratsko delovanje	0	0	0	0	0
GGZV	Grupa gradjana Zoran Vorkapic	0	0	0	0	0

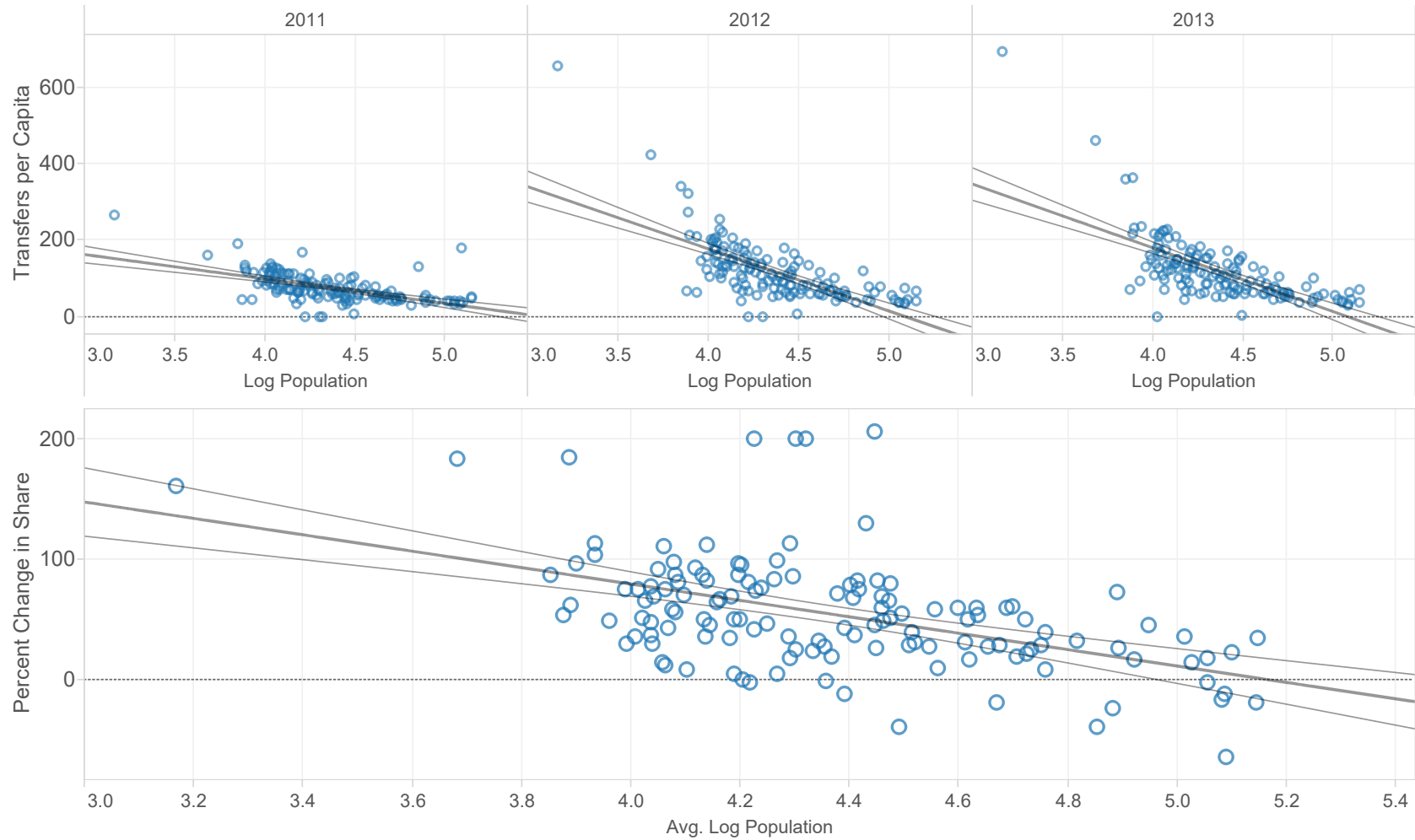
NOTE: This table lists all parties that were observed in our dataset. It also includes

FIGURE IV:
CONTROL CANDIDATES FOR TRANSFERS PER CAPITA



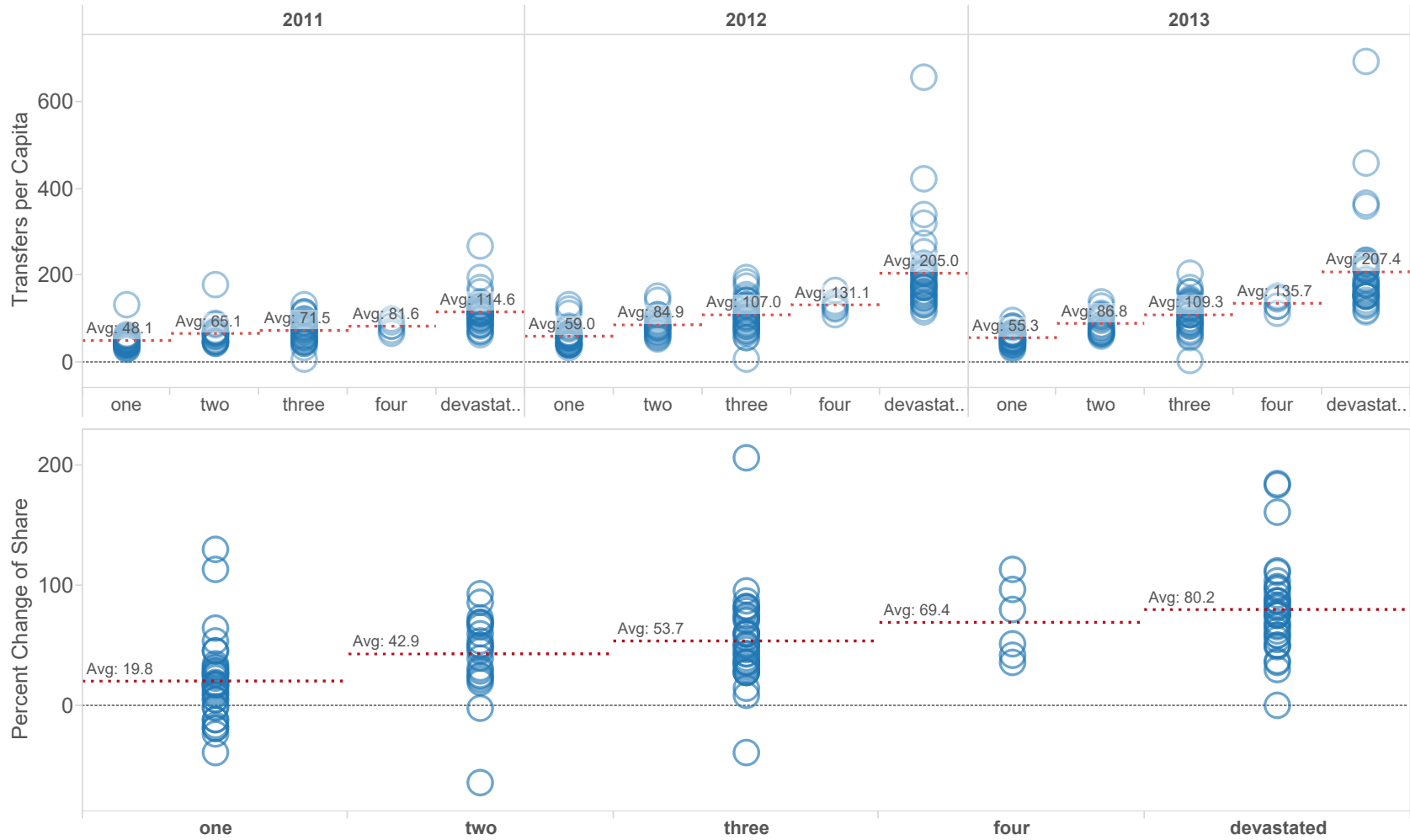
NOTE: A log linear model on population predicts by far the best, with an r-squared value of 47%.

FIGURE V:
LOG POPULATION CONTROL



NOTE: The top panel above shows the relationship of log population and transfers per capita over the period 2011-2013. Note, due to the changes in the transfers system implemented in 2012, the relationship becomes much more negative over time. The lower panel shows the relationship below log population and the percent change in share of total transfers between 2011 and 2013.

FIGURE VI:
DEVELOPMENT CATEGORY CONTROLS



NOTE: The top panel above shows the relationship of development categories (as determined by the national office for regional development) and transfers per capita over the time period 2011-2013. Note that in 2012, 2013, due to the change in laws, there is sharp increase in differences as the system became more re-distributive. The lower panel shows the relationship below development categories and the percent change in share of total transfers between 2011 and 201. We see a strong relationship here as well.