Is small beautiful? Do small districts lead to better outcomes?

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Abstract

What is the optimal population level at for local public service delivery? In the question over the optimal size of local government systems, small jurisdictions have been attributed a lot of merits. But does bifurcating larger districts into smaller ones pay off? I examine this question in the context of public education using data from a district bifurcation process in Karnataka, India.

Is there an optimal size for local government systems? Aristotle in his treatise 'Politics' argued that political entities needed to balance the twin considerations of economic viability and effective citizenship (Aristotle 1984). In modern democracies, debates on the topic are framed in a similar language with two sets of normative criteria. The first one is *output legitimacy*. The function of local governments is to provide a set of public goods and services to its citizens and promote public welfare. A government that fulfils this duty better has higher output legitimacy. The other normative concern is 'citizen effectiveness' or the capability and willingness of citizens to control the decisions made on their behalf (Dahl and Tufte 1973). Enhancing citizen effectiveness raises the *input legitimacy* of the system. Both output and input legitimacy are prerequisites to democratic legitimacy (Scharpf 1999). The fundamental assumption in these debates is that changing the size of political units is likely to affect the democratic quality (input legitimacy) and functional effectiveness (output legitimacy) of governments. There has been attempts to explain the performance of public organizations in terms of the population size that it serves. Recent debates on the topic attribute considerable

virtues to small jurisdictions. Holzer et al in 2009 provide a review of the empirical literature in this stream (Holzer 2009).

In democratic societies, the economic and political arguments tend to converge. Small jurisdictions are believed to enhance political participation, make politics less abstract, politicians more responsive, and facilitate exit-based empowerment of citizens (Blom-Hansen, Houlberg, and Serritzlew 2014). Decentralisation will also increase economic efficiency as the local governments have an information advantage and can respond better to variance in preferences at the local level (Oates 1972), and population mobility will lead to competition between local authorities and better provision of public goods. Decentralised service delivery especially when citizens directly elect the local governments is expected to provide better coverage, quality and efficiency (Smoke 2015). Competing local governments may experiment with various ways to provide public goods and lead to innovations that can be applied elsewhere. These considerations suggest that public goods that are (1) sensitive to local preferences and (2) do not have large spillover (3) nor scale effects: infrastructure, public education, etc. are better provided under decentralisation (Tiebout 1960, Oates 1972).

In a bid to arrive at the optimal population size in a local government unit, many national governments have opted to create smaller sized local governments. India has seen frequent administrative bifurcations at the local government level (district level). The number of districts in the country has increased from 356 in the 1971 census period to 640 in the 2011 census (Table. 2) This is a trend that is continuing in the present day. West Bengal has created five new districts since 2015. The rationale for creating of new districts was stated to be - "...for *better administrative control* and so that *public service can be delivered at the door steps* of the people staying at remote areas" (emphasis added) (Konar 2015). Similarly, Telangana state is contemplating the creation of 14 - 15 new districts (Balakrishna 2016) and Haryana state is considering 3 more districts (PTI 2016). In all these cases, the stated rationale for district bifurcation is decentralisation of administration and better public service. And India is not alone in the implementation of administrative bifurcations at the local government level. Brazil, in the period from 1990 to 2000, increased the number of municipalities from 4,491 to 5,560 (Tomio 2005). Russia adopted Local Government Reform in 2003 and since then has doubled the number of municipalities (Turgel 2008). Evidence on the effect of

size on local government performance is inconclusive (Holzer 2009). Yet, decentralization at the local government level is a step that is frequently taken - despite the lack of empirical examination of its effectiveness. But does creation of new districts enhance public service outcomes?

There are those who argue that it does not. The critics of decentralisation argue that the its effectiveness is often greatly hampered by the particular context of its implementation. Vito Tanzi offers an argument for corruption to be higher at local levels than at central government levels, because of closer interaction at the local level between the bureaucrats and citizens that can enable nepotism and personal favours (Tanzi 1996). Also, local bureaucracies may be poorly staffed and ill-equipped to handle the responsibilities associated with the decentralised provision of public goods (Prud'Homme 1995). The precise nature of decentralisation, such as the financial autonomy of the local government may also pay a role in determining whether the benefits can be reaped. These factors caution against the implementation of decentralisation as a panacea for administrative ills. It also means that any instance of decentralisation can be explored further to understand the context of success or failure.

There is evidence from the decentralisation reforms in Bolivia and Columbia to suggest that decentralisation has enhanced the local allocative efficiency of public funds. Notably, it has resulted in shifting resources towards education in regions where education performance has historically been worse. But data limitations prevent the authors from testing whether the improvement extends to education outcomes, such as literacy and test scores (Faguet and Sanchez 2008). Also, there is evidence from California state, to suggest that students in smaller districts perform better than those in larger districts in standardised tests after controlling for a variety of other factors (Driscoll, Halcoussis, and Svorny 2003). The effect of each of these policies - bifurcation or consolidation or a combination of both - depends on the particular context and capabilities of the local administrative body.

This paper explores the impact of bifurcation of districts on the quality of public service delivery - specifically, the quality of public education. Public education is not seen as imposing strong externalities on neighbouring regions, nor does it have large scale effects. Therefore, under the classic explanation, a smaller district should be able to provide better service. At the same time, we might need to build

administrative capacity when a larger district is split into two or more before any benefits can be reaped. Also, if the districts are too small in the first place, there might be some benefit in consolidating two or more districts and managing them together. I test my propositions using data collected on public education settings in the districts of Karnataka in India over a 9 year period from 2005 to 2013. In the last decade Karnataka state in the south of India carved out three new districts from three existing ones. A new district is created by reallocating some of the taluks (sub-districts) within a district to a new one. Two new districts were created from two existing ones in 2007, and a third new district was created from an existing one in 2010 taking the total in the state up to 30.

Creation of a new district entail additional administrative costs as the new districts often need to create the administrative infrastructure. In this paper I estimate the effect of the bifurcation of the administrative district on the public spending and quality of educational service delivered in the district. The identification is complicated by the fact the districts that were not split may be different from those that were. The demand for creation a new district usually arises from within the district, and the political traction gained by the idea has a role to play in the eventual decision made by the state.

Spatial and temporal variation in public policy affords the conditions suitable for identifying the impact of the policy on outcomes. But often the policy is endogenous and can be included in the left *or* right side of the equation.

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Appendix

Table 1: New Districts created in India - Statewise

States/UTs	1971-81	1981-91	1991-2001	2001-11
Andaman and Nicobar Islands	1	0	0	1
Andhra Pradesh	2	0	0	0
Arunachal Pradesh	4	2	2	3
Assam	0	13	0	4
Bihar	14	11	8	1
Chhattisgarh	0	0	9	2
Daman and Diu	0	2	0	0
Delhi	0	0	8	0
Goa	0	-1	0	0
Gujarat	0	0	6	1
Haryana	5	4	3	2
Himachal Pradesh	2	0	0	0
Jammu and Kashmir	4	0	0	8
Jharkhand	0	0	5	6
Karnataka	0	1	7	3
Kerala	2	2	0	0
Madhya Pradesh	2	0	7	5
Maharashtra	0	4	5	0
Manipur	1	2	1	0
Meghalaya	3	0	2	0
Mizoram	3	0	5	0
Nagaland	4	0	1	3
Odisha	0	0	17	0
Punjab	1	0	5	3
Rajasthan	0	1	5	1
Tamil Nadu	2	5	9	2
Tripura	0	0	1	0
Uttar Pradesh	2	7	16	1
Uttarakhand	0	0	4	0
West Bengal	0	1	1	1
Overall	52	54	127	47

Table 2: No# of Districts in India - Statewise

States/UTs	1971	1981	1991	2001	2011
Andaman & Nicobar Islands	1	2	2	2	3
Andhra Pradesh	21	23	23	23	23
Arunachal Pradesh	5	9	11	13	16
Assam	10	10	23	23	27
Bihar	17	31	42	37	38
Chandigarh	1	1	1	1	1
Chhattisgarh				16	18
Dadra & Nagar Haveli	1	1	1	1	1
Daman & Diu			2	2	2
Delhi	1	1	1	9	9
Goa	3	3	2	2	2
Gujarat	19	19	19	25	26
Haryana	7	12	16	19	21
Himachal Pradesh	10	12	12	12	12
Jammu & Kashmir	10	14	14	14	22
Jharkhand				18	24
Karnataka	19	19	20	27	30
Kerala	10	12	14	14	14
Lakshadweep	1	1	1	1	1
Madhya Pradesh	43	45	45	45	50
Maharashtra	26	26	30	35	35
Manipur	5	6	8	9	9
Meghalaya	2	5	5	7	7
Mizoram		3	3	8	8
Nagaland	3	7	7	8	11
Orissa	13	13	13	30	30
Pondicherry	4	4	4	4	4
Punjab	11	12	12	17	20
Rajasthan	26	26	27	32	33
Sikkim	4	4	4	4	4
Tamil Nadu	14	16	21	30	32
Tripura	3	3	3	4	4
Uttar Pradesh	54	56	63	70	71
Uttaranchal				13	13
West Bengal	16	16	17	18	19
States	19	22	25	29	
Union Territories	10	9	7	6	
Districts	356	412	466	593	640

Table 3: No of Schools District-wise, across the years

	District	Yr2005	Yr2006	Yr2007	Yr2008	Yr2009	Yr2010	Yr2011	Yr2012	NA.
1	BAGALKOT	229	255.0	265.0	269.0	277.0	281	340.0	291.0	292.0
2	BANGALORE RURAL	330	324.0	330	328.0	332.0	330.0	367.0	340.0	343.0
3	BELGAUM	260	277.0	269.0	283	285.0	291.0	366.0	304.0	304.0
4	BELGAUM CHIKKODI	337.0	358.0	291	307.0	320.0	324.0	383.0	328.0	332.0
5	BELLARY	213.0	224.0	228	231.0	232	240.0	290.0	246.0	244.0
6	BIDAR	262.0	290	322.0	336.0	358.0	377.0	471.0	399.0	414.0
7	BIJAPUR	326.0	336.0	327	336.0	345	366	439	392.0	396
8	CHAMARAJANAGARA	310	254	180	184.0	186	188.0	229.0	189.0	188.0
9	CHIKKABALLAPURA	307.0	295.0	300	309.0	312.0	313.0	357	321.0	319.0
10	CHIKKAMANGALORE	253.0	261.0	235.0	224.0	218.0	221.0	258	223.0	225.0
11	CHITRADURGA	309.0	310.0	315	330.0	332.0	335.0	398	340	342
12	DAKSHINA KANNADA	218.0	223.0	226.0	229	231.0	232.0	294.0	234	235.0
13	DAVANAGERE	262.0	268.0	274.0	273.0	275.0	278.0	346.0	279.0	282.0
14	DHARWAD	197.0	207.0	145	148.0	153.0	149.0	185.0	152	156.0
15	GADAG	128.0	131	135.0	135.0	138.0	141.0	183	146	145.0
16	GULBARGA	244.0	252.0	262	283	290.0	300.0	365.0	322.0	326.0
17	HASSAN	364.0	367	365	367.0	366.0	371.0	428.0	362.0	363.0
18	HAVERI	171.0	176.0	180.0	187.0	191.0	195.0	242.0	199.0	200.0
19	KODAGU	168	172.0	173.0	178.0	178.0	178.0	226.0	179	181.0
20	KOLAR	421	437.0	419	402.0	403.0	405.0	449.0	406.0	404
21	KOPPAL	265	271	288	292.0	297.0	305.0	369.0	325.0	334
22	MANDYA	294.0	295.0	296.0	298	296.0	298.0	344.0	302.0	292.0
23	MYSORE	293.0	301.0	303.0	307.0	310.0	315.0	370	316.0	315.0
24	RAICHUR	294.0	308	324.0	348.0	361	381	445.0	394.0	402.0
25	RAMANAGARA	388.0	386.0	395.0	396.0	401	406.0	454.0	391.0	392.0
26	SHIMOGA	319.0	317.0	327.0	329.0	331.0	333.0	389.0	335.0	332
27	TUMKUR	436	436	445.0	435.0	436.0	429	496.0	427.0	423.0
28	TUMKUR MADHUGIRI	351	346	352.0	352.0	358.0	362.0	422	363.0	364.0
29	UDUPI	284.0	283	200	193.0	194.0	194.0	258.0	196.0	196.0

Table 4: Summary Statistics in 2005

	Undivided	Divided
TotalMarks	321.000	302.000
Rural	0.890	0.920
WorkDays	89.000	102.000
AcadInsp	0.500	0.410
DevGrantR	2,755.000	2,591.000
DevGrantE	1,639.000	1,298.000
TLMGrantR	3,520.000	3,989.000
TLMGrantE	1,761.000	1,793.000
Classrooms	4.000	3.400
ToiletG	1	1
Electricity	0.670	0.520
Library	0.780	0.760
PlayGround	0.610	0.490
Male_Tch	2.400	2.000
Female_Tch	2.100	1.600
Grad_Tch	30.000	26.000
ProfQ_Tch	4.300	3.300
Days_nonTch	0.750	1.900
Public	0.890	0.900
Split	0	1

Table 5: Summary Statistics in 2005

	Old	New
TotalMarks	295.000	310.000
Rural	0.910	0.930
WorkDays	103.000	102.000
AcadInsp	0.490	0.310
DevGrantR	2,554.000	2,639.000
DevGrantE	1,290.000	1,309.000
TLMGrantR	4,093.000	3,857.000
TLMGrantE	1,872.000	1,691.000
Classrooms	3.600	3.200
ToiletG	1	1
Electricity	0.530	0.500
Library	0.770	0.750
PlayGround	0.480	0.490
Male_Tch	2.000	2.000
Female_Tch	1.800	1.400
Grad_Tch	26.000	26.000
ProfQ_Tch	3.500	3.000
Days_nonTch	1.500	2.500
Public	0.900	0.900
Split	1	1
New	0	1

Table 6: Summary Statistics in 2013

	Undivided	Divided
TotalMarks	343.000	338.000
Rural	0.850	0.880
WorkDays	0.700	0.760
AcadInsp	1.600	1.300
DevGrantR	8,610.000	7,258.000
DevGrantE	7,603.000	6,399.000
TLMGrantR	1,729.000	1,251.000
TLMGrantE	1,615.000	1,157.000
Classrooms	5.300	4.700
ToiletG	1.000	1.000
Electricity	0.970	0.970
Library	1.000	1.100
PlayGround	0.640	0.530
Male_Tch	2.300	2.000
Female_Tch	2.500	2.200
Grad_Tch	1.000	0.930
ProfQ_Tch	4.700	4.000
Days_nonTch	0.300	0.270
Public	0.850	0.850
Split	0	1

Table 7: Summary Statistics in 2013

	Old	New
TotalMarks	341.000	335.000
Rural	0.890	0.870
WorkDays	0.660	0.870
AcadInsp	1.300	1.300
DevGrantR	7,354.000	7,147.000
DevGrantE	6,527.000	6,251.000
TLMGrantR	1,159.000	1,356.000
TLMGrantE	1,057.000	1,272.000
Classrooms	4.900	4.400
ToiletG	1.000	1.000
Electricity	0.960	0.980
Library	0.970	1.200
PlayGround	0.550	0.510
Male_Tch	2.100	1.900
Female_Tch	2.400	1.900
Grad_Tch	1.000	0.830
ProfQ_Tch	4.300	3.700
Days_nonTch	0.430	0.092
Public	0.840	0.860
Split	1	1
New	0	1

Table 8:

	Dependent variable:			
	TotalMarks	WorkDays	DevGrantR	AcadInsp
	(1)	(2)	(3)	(4)
Split	−3,161.0*	3,244.0	323,325.0*	105.0*
	(1,701.0)	(4,213.0)	(185,275.0)	(59.0)
Year	1.6***	−28.0***	957.0***	0.1***
	(0.4)	(0.9)	(39.0)	(0.01)
Split:Year	1.6*	−1.6	−161.0*	−0.1*
	(0.8)	(2.1)	(92.0)	(0.03)
Constant	−2,802.0***	55,511.0***	−1,916,313.0***	−242.0***
	(724.0)	(1,794.0)	(78,892.0)	(25.0)
Observations	1,330	1,330	1,330	1,330
R^2	0.03	0.5	0.3	0.1
Adjusted R^2	0.03	0.5	0.3	0.1
Residual Std. Error	31.0	76.0	3,345.0	1.1
F Statistic	16.0***	397.0***	231.0***	35.0***

Note: *p<0.1; **p<0.05; ***p<0.01

Table 9:

	Dependent variable:			
	TLMGrantR	Classrooms	ToiletG	Electricity
	(1)	(2)	(3)	(4)
Split	116,048.0**	−8.2	0.3	−28.0
	(54,469.0)	(128.0)	(8.3)	(118.0)
Year	−112.0***	0.1***	−0.01***	0.1**
	(12.0)	(0.03)	(0.002)	(0.03)
Split:Year	−58.0**	0.004	−0.000	0.01
	(27.0)	(0.1)	(0.004)	(0.1)
Constant	227,475.0***	−286.0***	12.0***	−106.0**
	(23,193.0)	(54.0)	(3.5)	(50.0)
Observations	1,330	1,330	1,330	1,330
R^2	0.1	0.04	0.01	0.005
Adjusted R^2	0.1	0.04	0.01	0.003
Residual Std. Error	983.0	2.3	0.1	2.1
F Statistic	48.0***	18.0***	5.1***	2.2*

Note: *p<0.1; **p<0.05; ***p<0.01

Table 10:

	Dependent variable:			
	Male_Tch	Female_Tch	Grad_Tch	ProfQ_Tch
	(1)	(2)	(3)	(4)
Split	−213.0	−206.0	−770.0	−253.0
	(348.0)	(454.0)	(991.0)	(469.0)
Year	0.3***	0.4***	−1.6***	0.3***
	(0.1)	(0.1)	(0.2)	(0.1)
Split:Year	0.1	0.1	0.4	0.1
	(0.2)	(0.2)	(0.5)	(0.2)
Constant	−678.0***	−781.0***	3,145.0***	−645.0***
	(148.0)	(193.0)	(422.0)	(200.0)
Observations	1,330	1,330	1,330	1,330
R^2	0.02	0.02	0.04	0.01
Adjusted R^2	0.02	0.01	0.04	0.01
Residual Std. Error	6.3	8.2	18.0	8.5
F Statistic	9.7***	7.5***	21.0***	5.1***

Note: *p<0.1; **p<0.05; ***p<0.01

Table 11:

	Dependent variable:		
	Public	Days_nonTch	Library
	(1)	(2)	(3)
Split	5.4	83.0	0.4
	(3.6)	(506.0)	(119.0)
Year	-0.01^{***}	0.5^{***}	0.05^{*}
	(0.001)	(0.1)	(0.03)
Split:Year	-0.003	-0.04	-0.000
	(0.002)	(0.3)	(0.1)
Constant	12.0^{***}	-979.0^{***}	-96.0^{*}
	(1.5)	(216.0)	(50.0)
Observations	1,330	1,330	1,330
R^2	0.1	0.02	0.004
Adjusted R^2	0.1	0.02	0.001
Residual Std. Error	0.1	9.1	2.1
F Statistic	26.0^{***}	8.7^{***}	1.6
Note:			*p<0.1; **p<0.05; ***p<0.01

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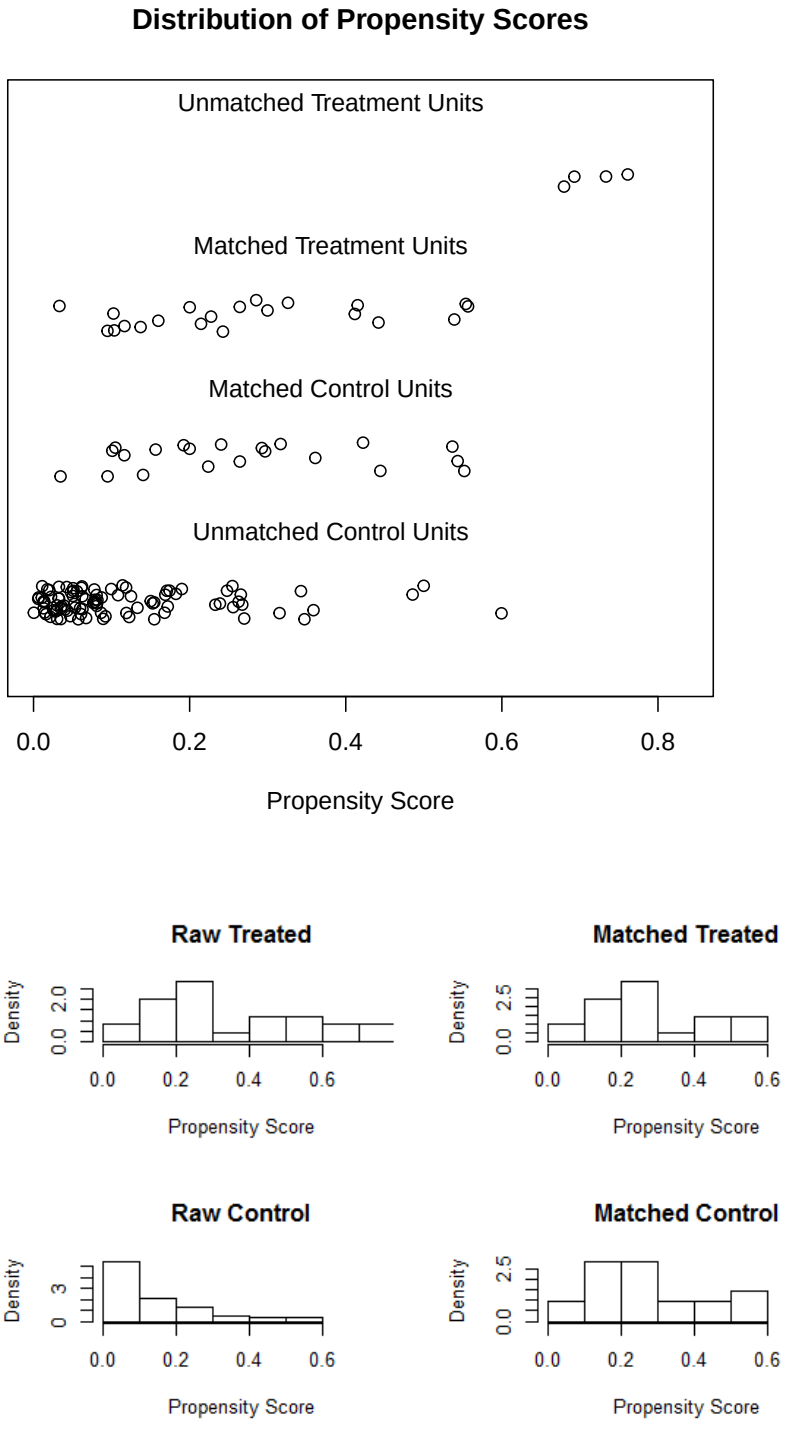

Figure 1: Propensity Score Matching: Histogram

Table 12: Summary Statistics in 2005

	Undivided	Divided
TotalMarks	305.000	307.000
Rural	0.920	0.920
WorkDays	95.000	102.000
AcadInsp	0.510	0.400
DevGrantR	2,898.000	2,619.000
DevGrantE	1,514.000	1,263.000
TLMGrantR	3,713.000	3,850.000
TLMGrantE	1,828.000	1,663.000
Classrooms	3.900	3.500
ToiletG	1	1
Electricity	0.570	0.540
Library	0.780	0.780
PlayGround	0.560	0.490
Male_Tch	2.500	2.000
Female_Tch	1.600	1.700
Grad_Tch	17.000	25.000
ProfQ_Tch	3.900	3.300
Days_nonTch	1.100	2.100
Public	0.900	0.900
Split	0	1

Table 13: Summary Statistics in 2005

	Old	New
TotalMarks	300.000	319.000
Rural	0.900	0.940
WorkDays	103.000	101.000
AcadInsp	0.500	0.230
DevGrantR	2,550.000	2,730.000
DevGrantE	1,267.000	1,255.000
TLMGrantR	4,058.000	3,511.000
TLMGrantE	1,798.000	1,444.000
Classrooms	3.600	3.200
ToiletG	1	1
Electricity	0.530	0.560
Library	0.790	0.780
PlayGround	0.480	0.520
Male_Tch	2.000	2.000
Female_Tch	1.900	1.500
Grad_Tch	24.000	25.000
ProfQ_Tch	3.500	3.100
Days_nonTch	1.600	2.900
Public	0.900	0.910
Split	1	1
New	0	1

Table 14: Summary Statistics in 2013

	Undivided	Divided
TotalMarks	339.000	343.000
Rural	0.890	0.890
WorkDays	0.970	0.820
AcadInsp	1.700	1.300
DevGrantR	8,630.000	6,996.000
DevGrantE	7,604.000	6,296.000
TLMGrantR	1,533.000	1,168.000
TLMGrantE	1,491.000	1,093.000
Classrooms	4.900	4.600
ToiletG	1.000	1.000
Electricity	0.970	0.970
Library	0.980	1.100
PlayGround	0.590	0.560
Male_Tch	2.400	2.000
Female_Tch	2.000	2.200
Grad_Tch	0.870	0.970
ProfQ_Tch	4.300	4.100
Days_nonTch	0.110	0.260
Public	0.860	0.850
Split	0	1

Table 15: Summary Statistics in 2013

	Old	New
TotalMarks	347.000	337.000
Rural	0.890	0.890
WorkDays	0.760	0.920
AcadInsp	1.400	1.200
DevGrantR	7,079.000	6,861.000
DevGrantE	6,374.000	6,168.000
TLMGrantR	1,057.000	1,349.000
TLMGrantE	976.000	1,283.000
Classrooms	4.900	4.200
ToiletG	1.000	1.000
Electricity	0.970	0.980
Library	0.980	1.300
PlayGround	0.560	0.550
Male_Tch	2.100	1.900
Female_Tch	2.400	1.800
Grad_Tch	1.000	0.910
ProfQ_Tch	4.400	3.500
Days_nonTch	0.360	0.087
Public	0.830	0.880
Split	1	1
New	0	1

Table 16:

	Dependent variable:			
	TotalMarks	WorkDays	DevGrantR	AcadInsp
	(1)	(2)	(3)	(4)
Split	−706.0	591.0	579,759.0**	205.0**
	(2,332.0)	(5,972.0)	(242,193.0)	(93.0)
Year	2.8***	−28.0***	1,041.0***	0.2***
	(0.8)	(2.1)	(85.0)	(0.03)
Split:Year	0.4	−0.3	−289.0**	−0.1**
	(1.2)	(3.0)	(121.0)	(0.05)
Constant	−5,232.0***	56,603.0***	−2,085,305.0***	−321.0***
	(1,649.0)	(4,223.0)	(171,256.0)	(66.0)
Observations	378	378	378	378
R^2	0.1	0.5	0.4	0.1
Adjusted R^2	0.1	0.5	0.4	0.1
Residual Std. Error	29.0	75.0	3,026.0	1.2
F Statistic	8.6***	121.0***	77.0***	9.6***

Note: *p<0.1; **p<0.05; ***p<0.01

Table 17:

	Dependent variable:			
	TLMGrantR	Classrooms	ToiletG	Electricity
	(1)	(2)	(3)	(4)
Split	122,246.0	−34.0	0.3	−14.0
	(78,890.0)	(72.0)	(13.0)	(11.0)
Year	−125.0***	0.1***	−0.01	0.1***
	(28.0)	(0.03)	(0.005)	(0.004)
Split:Year	−61.0	0.02	−0.000	0.01
	(39.0)	(0.04)	(0.01)	(0.01)
Constant	253,782.0***	−244.0***	12.0	−116.0***
	(55,784.0)	(51.0)	(9.3)	(7.7)
Observations	378	378	378	378
R^2	0.1	0.1	0.01	0.6
Adjusted R^2	0.1	0.1	0.001	0.6
Residual Std. Error	986.0	0.9	0.2	0.1
F Statistic	22.0***	21.0***	1.1	172.0***

Note: *p<0.1; **p<0.05; ***p<0.01

Table 18:

	Dependent variable:			
	Male_Tch	Female_Tch	Grad_Tch	ProfQ_Tch
	(1)	(2)	(3)	(4)
Split	123.0	142.0	1,158.0	107.0
	(431.0)	(565.0)	(827.0)	(592.0)
Year	0.5***	0.5***	−0.6**	0.5**
	(0.2)	(0.2)	(0.3)	(0.2)
Split:Year	−0.1	−0.1	−0.6	−0.1
	(0.2)	(0.3)	(0.4)	(0.3)
Constant	−921.0***	−1,039.0***	1,243.0**	−922.0**
	(305.0)	(399.0)	(585.0)	(419.0)
Observations	378	378	378	378
R^2	0.04	0.03	0.1	0.03
Adjusted R^2	0.04	0.02	0.05	0.02
Residual Std. Error	5.4	7.1	10.0	7.4
F Statistic	5.9***	4.0***	7.1***	3.2**

Note: *p<0.1; **p<0.05; ***p<0.01

Table 19:

	Dependent variable:		
	Public	Days_nonTch	Library
	(1)	(2)	(3)
Split	5.3	396.0	−27.0
	(4.3)	(639.0)	(19.0)
Year	−0.005***	0.6***	0.03***
	(0.002)	(0.2)	(0.01)
Split:Year	−0.003	−0.2	0.01
	(0.002)	(0.3)	(0.01)
Constant	11.0***	−1,182.0***	−69.0***
	(3.0)	(452.0)	(14.0)
Observations	378	378	378
R^2	0.1	0.03	0.2
Adjusted R^2	0.1	0.02	0.2
Residual Std. Error	0.1	8.0	0.2
F Statistic	12.0***	3.7**	26.0***

Note: *p<0.1; **p<0.05; ***p<0.01