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Working Paper

Estimating the effect of teacher pay on pupil attainment using boundary discontinuities

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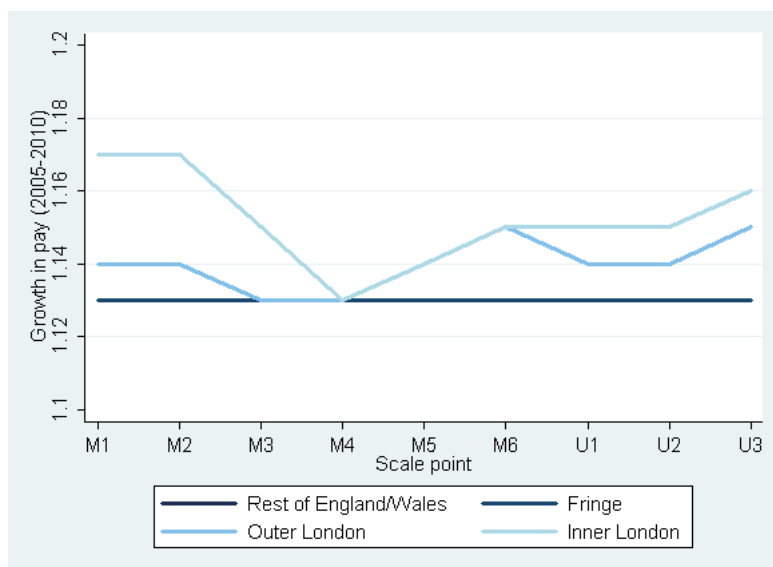
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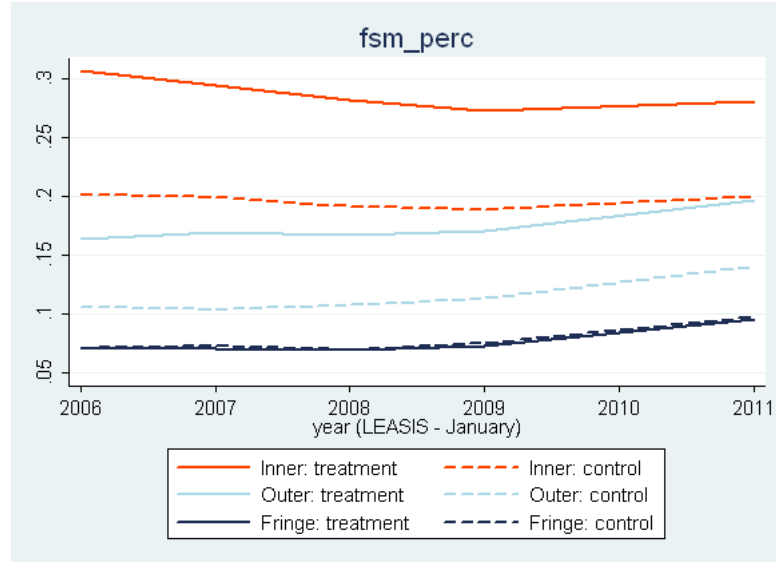
Online Appendix Figures and Tables - Greaves and Sibieta (2014)

Figure 1: Growth in teacher pay between 2005-2010



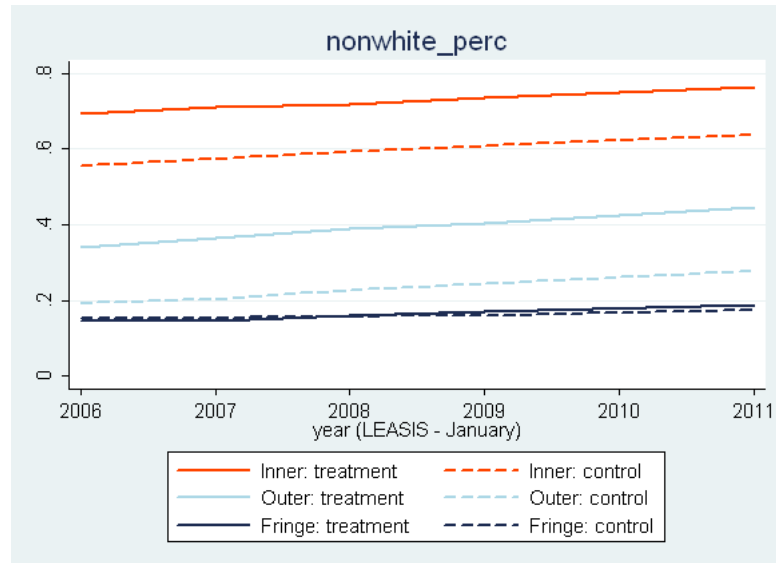
Note: Scale point refers to the teacher pay scale (ranging from lowest to highest). Source: School Teachers Pay and Conditions Document.

Figure 2: Percentage of pupils that are eligible for free school meals over time



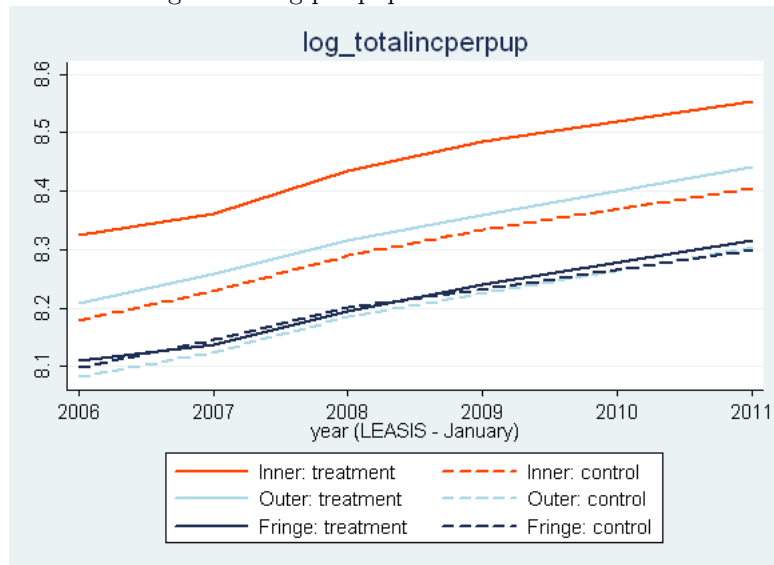
Note: Sample includes primary schools within 2km of each boundary. 'Treatment' refers to schools on the high-pay side of the boundary. Source: National Pupil Database and LEASIS.

Figure 3: Percentage of pupils that are non-white over time



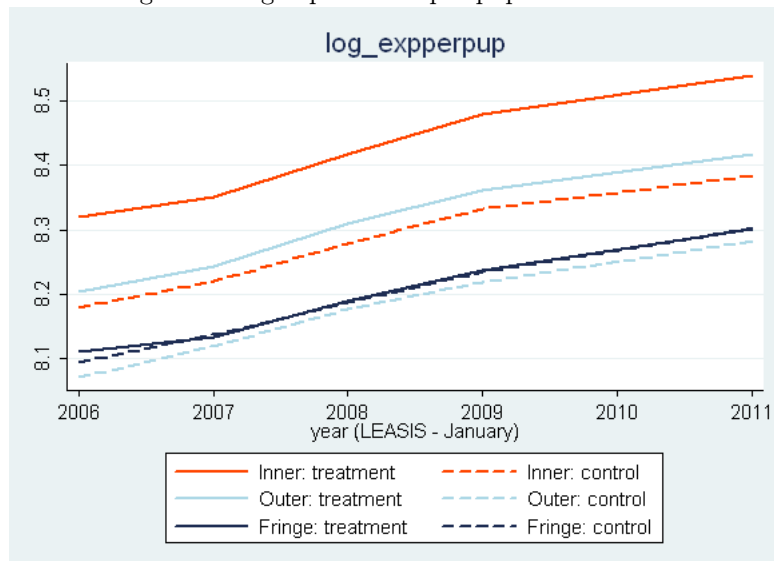
Note: Sample includes primary schools within 2km of each boundary. 'Treatment' refers to schools on the high-pay side of the boundary. Source: National Pupil Database and LEASIS.

Figure 4: Log per-pupil income over time



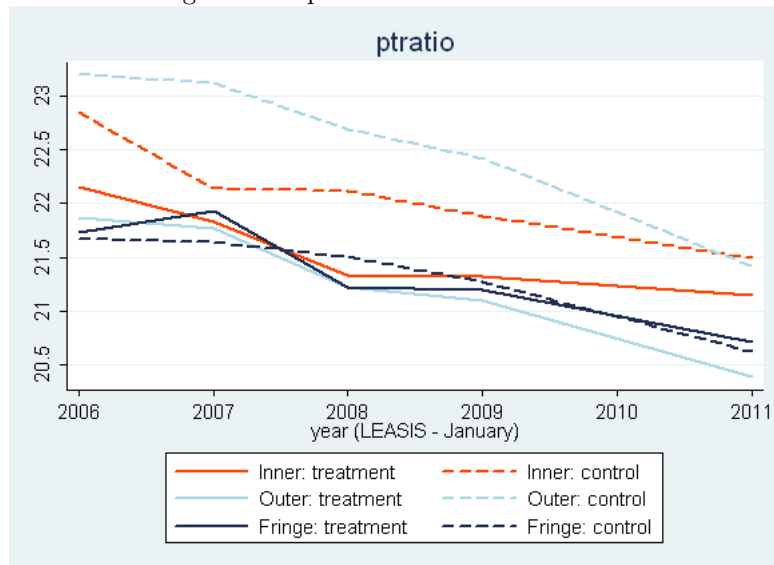
Note: Sample includes primary schools within 2km of each boundary. 'Treatment' refers to schools on the high-pay side of the boundary. Source: National Pupil Database and LEASIS.

Figure 5: Log expenditure per-pupil over time



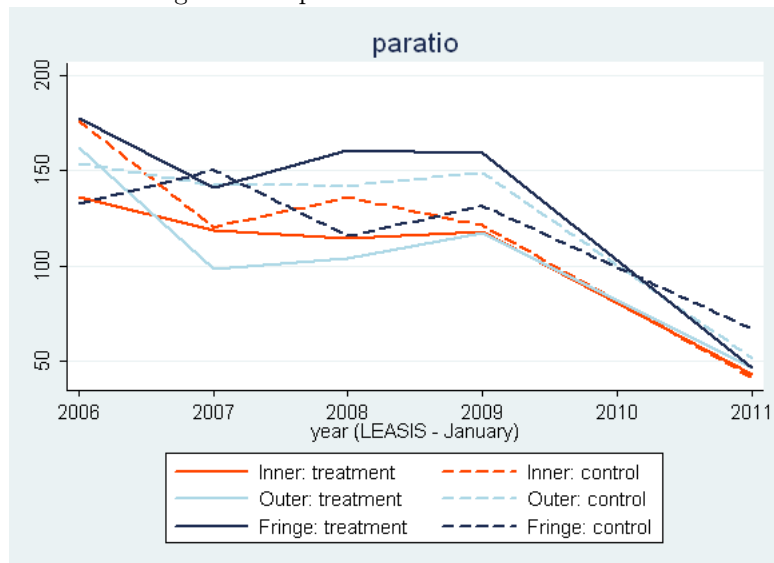
Note: Sample includes primary schools within 2km of each boundary. 'Treatment' refers to schools on the high-pay side of the boundary. Source: National Pupil Database and LEASIS.

Figure 6: Pupil-teacher ratio over time



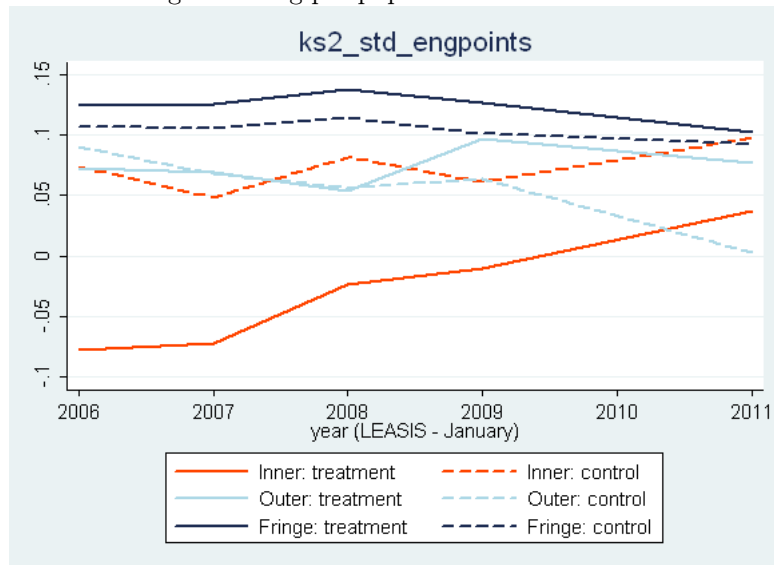
Note: Sample includes primary schools within 2km of each boundary. 'Treatment' refers to schools on the high-pay side of the boundary. Source: National Pupil Database and LEASIS.

Figure 7: Pupil-assistant ratio over time



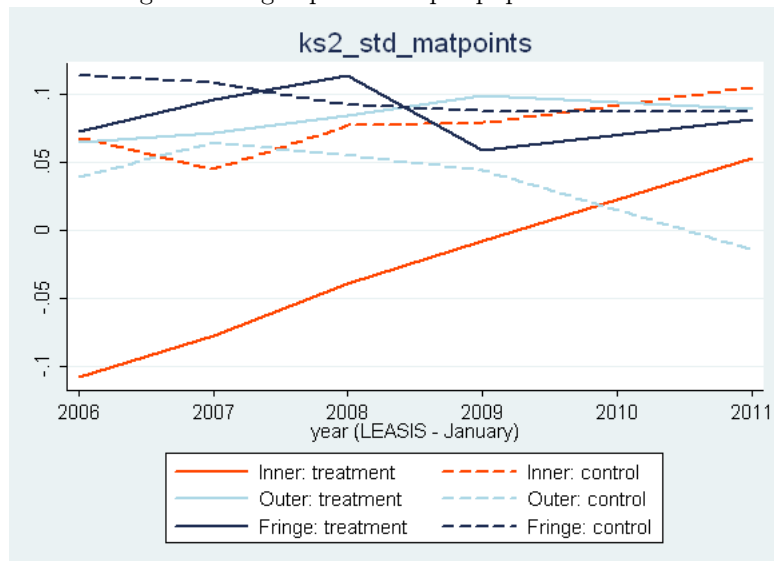
Note: Sample includes primary schools within 2km of each boundary. 'Treatment' refers to schools on the high-pay side of the boundary. Source: National Pupil Database and LEASIS.

Figure 8: Log per-pupil income over time



Note: Sample includes primary schools within 2km of each boundary. 'Treatment' refers to schools on the high-pay side of the boundary. Source: National Pupil Database and LEASIS.

Figure 9: Log expenditure per-pupil over time



Note: Sample includes primary schools within 2km of each boundary. 'Treatment' refers to schools on the high-pay side of the boundary. Source: National Pupil Database and LEASIS.

Figure 10: Relationship between distance to boundary and English test scores, inner London

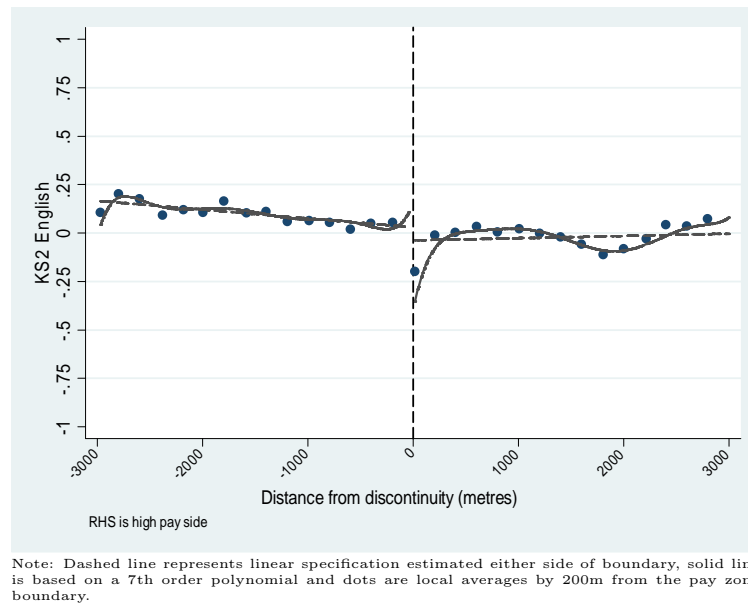


Figure 11: Relationship between distance to boundary and English test scores, outer London

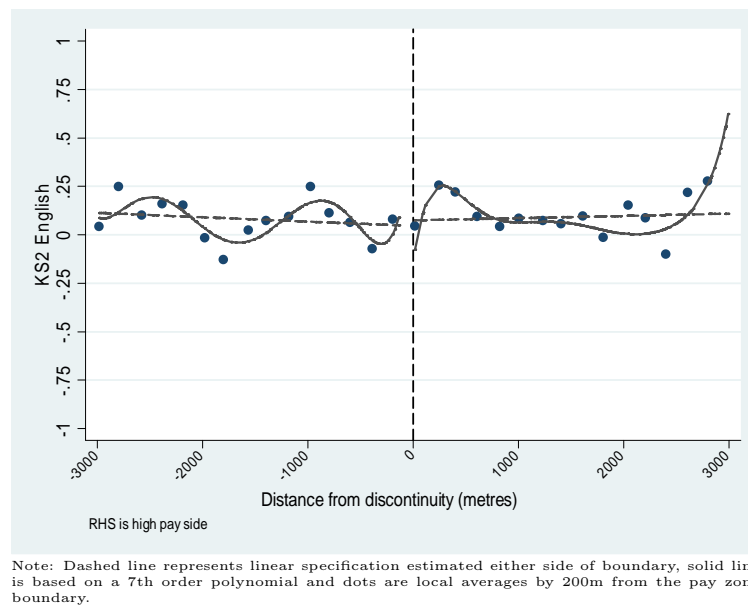


Figure 12: Relationship between distance to boundary and maths test scores, inner London

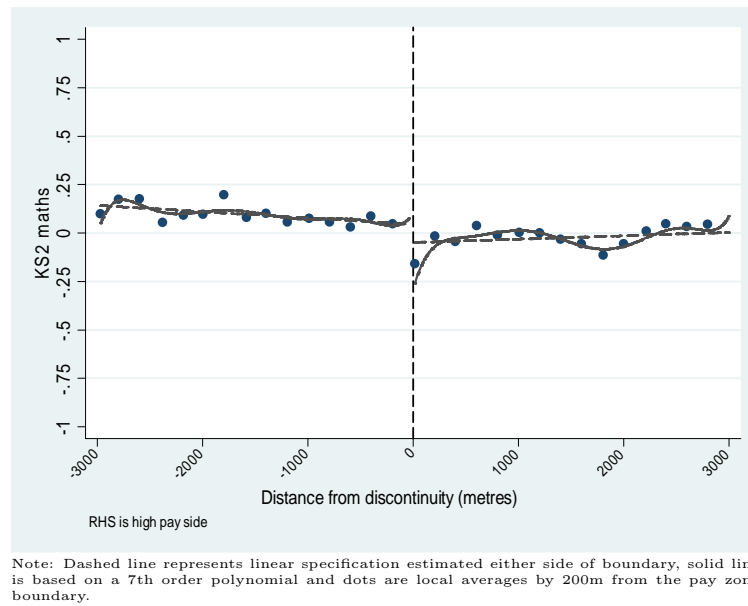


Figure 13: Relationship between distance to boundary and maths test scores, outer London

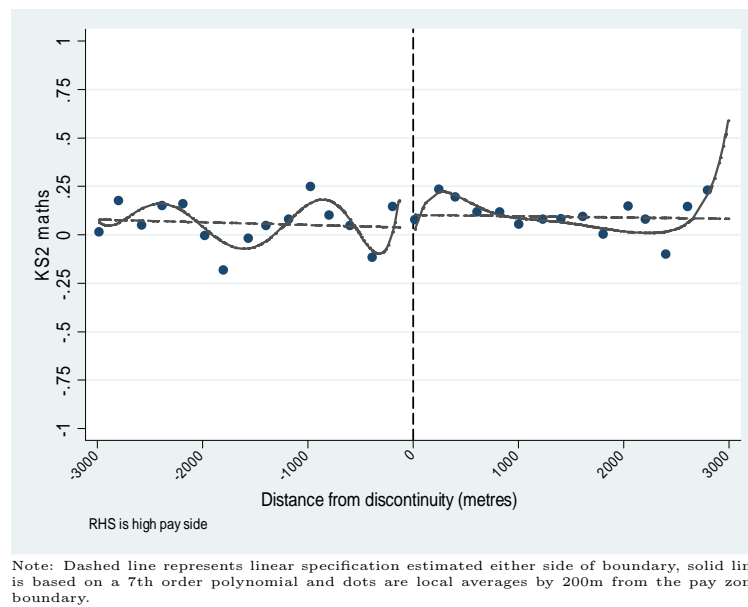


Table 1: Summary statistics: within 2km of the boundary (all years)

Characteristic	England	London	Inner Inside	Outside	Difference	Outer Inside	Outside	Difference	Fringe Inside	Outside	Difference
Prop. FSM	0.16 (0.15)	0.21 (0.16)	0.29 (0.15)	0.20 (0.13)	0.09***	0.17 (0.13)	0.11 (0.09)	0.06***	0.08 (0.07)	0.08 (0.08)	0
Prop. SEN (no s.)	0.23 (0.11)	0.23 (0.11)	0.27 (0.11)	0.24 (0.11)	0.03***	0.23 (0.11)	0.22 (0.10)	0.02**	0.21 (0.10)	0.21 (0.11)	0
Prop. SEN (s.)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0	0.02 (0.02)	0.02 (0.02)	0.00*	0.02 (0.02)	0.02 (0.02)	0.00***
Prop. EAL	0.19 (0.24)	0.30 (0.27)	0.47 (0.23)	0.37 (0.27)	0.10***	0.20 (0.16)	0.10 (0.08)	0.10***	0.07 (0.11)	0.07 (0.10)	0
Prop. non-white	0.34 (0.30)	0.50 (0.31)	0.72 (0.22)	0.59 (0.28)	0.13***	0.39 (0.19)	0.23 (0.12)	0.16***	0.16 (0.12)	0.16 (0.13)	0
FTE Pupils (nursery to KS4)	280.6 (125.5)	310.9 (119.7)	349.7 (117.2)	351.9 (118.5)	-2.2	319.4 (121.7)	265.3 (96.1)	54.2***	259.8 (119.8)	250.2 (110.2)	9.6
IMD rank	0.54 (0.24)	0.46 (0.24)	0.27 (0.14)	0.45 (0.18)	-0.18***	0.50 (0.19)	0.62 (0.19)	-0.12***	0.73 (0.17)	0.70 (0.17)	0.03**
IMD rank (education)	0.56 (0.20)	0.56 (0.19)	0.51 (0.17)	0.58 (0.17)	-0.07***	0.53 (0.22)	0.52 (0.21)	0.01	0.62 (0.22)	0.59 (0.22)	0.03**
IMD rank (employment)	0.58 (0.22)	0.52 (0.22)	0.36 (0.15)	0.51 (0.17)	-0.15***	0.55 (0.18)	0.64 (0.19)	-0.09***	0.75 (0.16)	0.72 (0.18)	0.03**
IMD rank (income)	0.51 (0.24)	0.42 (0.24)	0.24 (0.15)	0.39 (0.18)	-0.14***	0.45 (0.20)	0.57 (0.18)	-0.12***	0.68 (0.16)	0.67 (0.18)	0.02
Prop. low IMD rank (education)	0.21 (0.27)	0.18 (0.25)	0.19 (0.25)	0.14 (0.18)	0.05***	0.28 (0.32)	0.29 (0.31)	-0.01	0.19 (0.27)	0.21 (0.26)	-0.03
Prop. low IMD rank (employment)	0.21 (0.28)	0.30 (0.30)	0.50 (0.28)	0.24 (0.22)	0.26***	0.22 (0.25)	0.13 (0.19)	0.09***	0.05 (0.13)	0.08 (0.13)	-0.03***
Prop. low IMD rank (income)	0.30 (0.34)	0.43 (0.36)	0.72 (0.27)	0.44 (0.31)	0.28***	0.36 (0.32)	0.19 (0.24)	0.18***	0.08 (0.16)	0.11 (0.18)	-0.03**
IDACI rank	0.48 (0.25)	0.38 (0.24)	0.21 (0.14)	0.35 (0.18)	-0.15***	0.40 (0.19)	0.53 (0.18)	-0.13***	0.66 (0.17)	0.65 (0.18)	0.01
KS2 total points (standardised)	0.06 (0.38)	0.05 (0.38)	-0.04 (0.36)	0.08 (0.36)	-0.12***	0.09 (0.34)	0.05 (0.36)	0.04	0.11 (0.37)	0.11 (0.36)	0
KS2 English (standardised)	0.06 (0.37)	0.06 (0.37)	-0.03 (0.35)	0.07 (0.36)	-0.10***	0.07 (0.34)	0.06 (0.35)	0.02	0.12 (0.36)	0.10 (0.36)	0.02
KS2 maths (standardised)	0.04 (0.36)	0.04 (0.37)	-0.04 (0.34)	0.07 (0.37)	-0.11***	0.08 (0.33)	0.04 (0.35)	0.04*	0.08 (0.35)	0.10 (0.34)	-0.01
Total income per pupil (log)	8.29 (0.22)	8.34 (0.22)	8.43 (0.17)	8.29 (0.17)	0.14***	8.32 (0.18)	8.19 (0.16)	0.13***	8.20 (0.18)	8.20 (0.19)	0
Total expenditure per pupil (log)	8.28 (0.22)	8.33 (0.22)	8.42 (0.17)	8.28 (0.17)	0.14***	8.31 (0.18)	8.17 (0.16)	0.13***	8.20 (0.18)	8.19 (0.19)	0
Pupil teacher ratio	21.3 (3.2)	21.6 (3.1)	21.6 (3.0)	22.1 (3.0)	-0.5***	21.3 (3.0)	22.6 (3.0)	-1.3***	21.4 (3.1)	21.3 (3.3)	0
Pupil-assistant ratio	120.6 (200.6)	111.5 (174.0)	106.0 (148.3)	119.0 (167.6)	-12.9*	105.7 (213.8)	127.8 (148.8)	-22.1*	137.1 (177.6)	119.4 (173.4)	17.7
Teacher-assistant ratio	5.5 (9.1)	5.0 (7.7)	4.8 (6.7)	5.3 (7.7)	-0.5*	4.9 (9.5)	5.5 (6.5)	-0.7	6.2 (7.9)	5.5 (8.4)	0.8
Prop. cross LA boundary	0.06 (0.10)	0.08 (0.12)	0.11 (0.13)	0.11 (0.12)	0.01*	0.09 (0.10)	0.07 (0.09)	0.01**	0.06 (0.09)	0.04 (0.09)	0.02**
Prop. cross pay region boundary	0.03 (0.07)	0.04 (0.08)	0.08 (0.11)	0.08 (0.11)	-0.01	0.06 (0.08)	0.07 (0.09)	0	0.11 (0.15)	0.08 (0.13)	0.03***
Number of obs	21912	11791	1830	1352		711	565		600	677	
Number of schools	4428	2361	366	271		143	113		120	136	

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The mean characteristics for schools in England, London and within 2km of the inner London pay boundary, outer London pay boundary and fringe London pay boundary are reported. Standard deviations are reported in brackets. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011. The sample size varies slightly between rows, where individual schools have missing data.

Table 2: Difference in Outcomes across Inner/Outer London Boundary in 2011: within 2km of the boundary

Outcomes	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
<i>Resources</i>								
Funding per pupil (log)	0.149	0.01***	0.088	0.02***	0.092	0.02***	0.114	0.02***
Pupil:Teacher Ratio	-0.328	0.26	-0.149	0.51	-0.302	0.52	-0.796	0.44
Pupil:Assistant Ratio	1.004	2.34	3.018	4.97	0.557	2.76	1.261	3.19
<i>Teacher pay</i>								
Teacher salary (£)	2427.77	250.17***	2415.978	455.84***	2483.52	432.12***	2448.856	429.84***
Has additional responsibilities	0.02	0.02	0.035	0.04	0.083	0.04*	0.061	0.04
Spine point	-0.622	0.16***	-0.05	0.34	0.25	0.31	0.025	0.34
<i>Pupil attainment</i>								
KS2 English (std)	-0.064	0.03*	0.056	0.04	0.073	0.03*	0.01	0.04
KS2 Maths (std)	-0.053	0.02*	0.049	0.04	0.053	0.03	-0.008	0.04

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where dependent variable is observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 3: Difference in Outcomes across Outer/Fringe London Boundary in 2011: within 2km of the boundary

Outcomes	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
<i>Resources</i>								
Funding per pupil (log)	0.139	0.02***	0.13	0.02***	0.117	0.01***	0.108	0.03**
Pupil:Teacher Ratio	-0.884	0.37*	-0.976	0.56	-0.806	0.6	-0.775	0.66
Pupil:Assistant Ratio	-5.231	6.36	-2.238	7.42	-4.458	8.97	-3.459	11.29
<i>Teacher pay</i>								
Teacher salary (£)	2524.479	439.67***	1868.221	524.52**	1527.09	544.82*	2100.428	724.80**
Has additional responsibilities	0.091	0.02***	0.062	0.03	0.047	0.04	0.038	0.03
Spine point	0.258	0.23	0.377	0.49	0.465	0.34	0.423	0.31
<i>Pupil attainment</i>								
KS2 English (std)	0.067	0.04	0.153	0.04***	0.171	0.03***	0.097	0.07
KS2 Maths (std)	0.096	0.04*	0.171	0.04***	0.203	0.02***	0.156	0.07*

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where dependent variable is observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 4: Results: Funding per pupil (in logs): within 2km of the boundary

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.143	0.01***	0.092	0.02***	0.082	0.02***	0.1	0.02***
2007	0.13	0.01***	0.081	0.02***	0.078	0.02***	0.101	0.02***
2008	0.144	0.01***	0.087	0.02***	0.088	0.02***	0.102	0.02***
2009	0.148	0.01***	0.093	0.02***	0.092	0.02***	0.102	0.02***
2011	0.149	0.01***	0.088	0.02***	0.092	0.02***	0.114	0.02***

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.124	0.02***	0.114	0.02***	0.113	0.02***	0.118	0.04***
2007	0.133	0.02***	0.137	0.03***	0.119	0.02***	0.084	0.03**
2008	0.13	0.02***	0.121	0.02***	0.112	0.02***	0.105	0.03**
2009	0.133	0.02***	0.119	0.02***	0.11	0.03***	0.062	0.04
2011	0.139	0.02***	0.13	0.02***	0.117	0.01***	0.108	0.03**

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.017	0.02	0.013	0.02	0.01	0.01	0.007	0.02
2007	-0.01	0.02	0.004	0.01	0.003	0.01	-0.004	0.02
2008	-0.005	0.02	-0.005	0.01	-0.008	0.01	-0.02	0.02
2009	0.008	0.02	0.011	0.00*	0.005	0.01	-0.01	0.02
2011	0.013	0.02	0.015	0.01	0.005	0.01	0.012	0.02

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where dependent variable (income per pupil) is observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 5: Results: Expenditure per pupil (in logs): within 2km of the boundary

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.139	0.01***	0.085	0.02***	0.073	0.02***	0.089	0.02***
2007	0.127	0.01***	0.083	0.02***	0.08	0.02***	0.102	0.02***
2008	0.138	0.01***	0.083	0.02***	0.082	0.02***	0.098	0.02***
2009	0.146	0.01***	0.093	0.02***	0.089	0.02***	0.096	0.02***
2011	0.157	0.01***	0.098	0.02***	0.1	0.02***	0.123	0.02***

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.12	0.02***	0.118	0.02***	0.119	0.02***	0.122	0.04***
2007	0.127	0.02***	0.136	0.03***	0.11	0.02***	0.078	0.03**
2008	0.131	0.02***	0.126	0.02***	0.116	0.02***	0.106	0.04**
2009	0.138	0.02***	0.128	0.02***	0.117	0.03***	0.062	0.04
2011	0.137	0.02***	0.131	0.02***	0.123	0.02***	0.118	0.03***

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.022	0.02	0.019	0.02	0.014	0.01	0.012	0.02
2007	-0.009	0.02	0.003	0.02	0.001	0.01	-0.004	0.02
2008	0.002	0.02	0	0.01	-0.002	0.01	-0.016	0.02
2009	0.001	0.02	0.005	0.01	-0.002	0.01	-0.015	0.02
2011	0.005	0.02	0.007	0.01	-0.004	0.01	0.004	0.02

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where dependent variable (expenditure per pupil) is observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 6: Results: Pupil Teacher Ratio: within 2km of the boundary

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.637	0.27*	-0.807	0.38*	-0.888	0.35*	-1.099	0.43*
2007	-0.226	0.27	-0.135	0.41	-0.211	0.37	-0.589	0.43
2008	-0.775	0.27**	-0.537	0.47	-0.687	0.41	-1.06	0.46*
2009	-0.531	0.25*	-0.26	0.51	-0.466	0.46	-0.6	0.41
2011	-0.328	0.26	-0.149	0.51	-0.302	0.52	-0.796	0.44

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-1.368	0.38***	-1.283	0.34**	-1.367	0.48**	-2.5	0.76***
2007	-1.536	0.39***	-1.83	0.81*	-1.632	0.49**	-1.379	0.65*
2008	-1.426	0.40***	-1.648	0.72*	-1.287	0.73	-1.703	0.78*
2009	-1.423	0.39***	-1.649	0.70*	-1.816	0.96	-0.754	0.85
2011	-0.884	0.37*	-0.976	0.56	-0.806	0.6	-0.775	0.66

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.198	0.4	-0.248	0.39	-0.302	0.28	-0.22	0.41
2007	0.084	0.44	-0.242	0.55	-0.354	0.34	-0.291	0.47
2008	-0.366	0.41	-0.511	0.4	-0.462	0.31	-0.17	0.43
2009	-0.232	0.37	-0.366	0.5	-0.25	0.25	-0.112	0.4
2011	-0.027	0.38	-0.208	0.29	-0.2	0.18	-0.241	0.43

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where the dependent variable (the ratio of pupils to teachers) is observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 7: Results: Pupil Assistant Ratio: within 2km of the boundary

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-42.202	18.10*	-26.814	26.71	-22.504	27.77	-10.264	33.29
2007	-1.219	10.02	-7.359	17.92	1.086	18.17	-15.71	16.28
2008	-21.054	12.23	-28.293	22.4	-19.448	21.58	-14.967	22.64
2009	-2.859	13.26	-12.882	20.76	-2.47	22.91	-6.269	19.69
2011	1.004	2.34	3.018	4.97	0.557	2.76	1.261	3.19

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-17.15	28.51	-3.201	28.55	11.302	28.5	-26.586	62.13
2007	-42.987	14.91**	-38.189	17.61*	-26.379	19.28	-35.501	25.92
2008	-37.166	15.15*	-43.89	19.71*	-48.435	22.45*	-68.744	28.51*
2009	-32.015	19.89	-19.978	29.79	-28.407	29.42	-23.193	33.53
2011	-5.231	6.36	-2.238	7.42	-4.458	8.97	-3.459	11.29

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	46.707	24.12	37.087	32.7	36.473	25.93	38.592	26.05
2007	-5.578	28.38	-7.086	26.11	-8.692	16.89	4.801	31.71
2008	45.397	17.33**	36.794	15.41*	40.067	7.76***	46.428	18.80*
2009	26.443	24.93	17.308	22.29	19.103	18.99	28.723	27.98
2011	-20.989	7.32**	-29.851	21.62	-39.36	16.16*	-39.359	8.72***

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where the dependent variable (the ratio of pupils to assistants) is observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 8: Results: Total pay for those whose main role is classroom teacher

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	2427.77	250.17***	2415.978	455.84***	2483.52	432.12***	2448.856	429.84***

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	2524.479	439.67***	1868.221	524.52**	1527.09	544.82*	2100.428	724.80**

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	915.519	462.64*	475.126	274.01	369.63	293.45	720.759	590.26

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where dependent variable (expenditure per pupil) is observed, within 2km of a pay area boundary. The coefficient reported represents the increase in total pay for those whose main role is classified as classroom teacher (based on their full-time equivalent in each role) associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 9: Results: Spinepoint (grade) for those whose main role is classroom teacher

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	-0.622	0.16***	-0.05	0.34	0.25	0.31	0.025	0.34

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	0.258	0.23	0.377	0.49	0.465	0.34	0.423	0.31

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	0.062	0.2	0.145	0.16	0.285	0.2	0.57	0.26*

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where dependent variable (expenditure per pupil) is observed, within 2km of a pay area boundary. The coefficient reported represents the increase in spinepoint (or grade) for those whose main role is classified as classroom teacher (based on their full-time equivalent in each role) associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 10: Results: Proportion with additional responsibilities, for those whose main role is classroom teacher

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	0.02	0.02	0.035	0.04	0.083	0.04*	0.061	0.04

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	0.091	0.02***	0.062	0.03	0.047	0.04	0.038	0.03

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	0.032	0.02	0.013	0.02	0.016	0.02	0.018	0.03

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where dependent variable (expenditure per pupil) is observed, within 2km of a pay area boundary. The coefficient reported represents the increase proportion of those with additional responsibilities, for those whose main role is classified as classroom teacher (based on their full-time equivalent in each role) associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 11: Results: Total pay for those whose main role is teaching assistant

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	1556.0	276.1***	554.1	540.9	562.2	551.4	1082.0	447.7*

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	2597.8	289.8***	2374.4	408.8***	2196.1	349.8***	2202.5	442.7***

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2011	-1600.0	344.7***	-1600.0	696.1*	-2000.0	677.7*	-1800.0	449.8***

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where dependent variable (expenditure per pupil) is observed, within 2km of a pay area boundary. The coefficient reported represents the increase in total pay for those whose main role is classified as teaching assistant (based on their full-time equivalent in each role) associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 12: Results: KS2 English Points (std): within 2km of the boundary

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.15	0.03***	0.014	0.06	0.05	0.04	-0.012	0.05
2007	-0.114	0.03***	0.047	0.05	0.068	0.04	-0.008	0.05
2008	-0.105	0.03***	0.011	0.04	0.004	0.03	-0.034	0.06
2009	-0.071	0.03**	0.063	0.05	0.076	0.03*	0.036	0.04
2011	-0.064	0.03*	0.056	0.04	0.073	0.03*	0.01	0.04

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.003	0.05	0.056	0.04	0.08	0.05	-0.092	0.11
2007	0.011	0.05	0.071	0.03*	0.091	0.04*	0.125	0.08
2008	-0.004	0.04	0.077	0.04	0.119	0.04*	0.08	0.07
2009	0.037	0.04	0.131	0.04**	0.186	0.07*	0.227	0.09*
2011	0.067	0.04	0.153	0.04***	0.171	0.03***	0.097	0.07

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.002	0.05	0.01	0.03	0.018	0.01	0.01	0.05
2007	0.027	0.05	0.027	0.03	0.018	0.02	0.025	0.05
2008	0.014	0.04	0.002	0.03	0.006	0.02	0.007	0.05
2009	0.025	0.04	0.005	0.03	0	0.02	-0.022	0.05
2011	0.011	0.04	0.012	0.03	0.01	0.03	-0.003	0.05

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where the dependent variable (maths scores in Key Stage 2 tests) is observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 13: Results: KS2 Maths Points (std): within 2km of the boundary

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.171	0.03***	-0.017	0.05	0.008	0.03	-0.054	0.05
2007	-0.117	0.03***	0.03	0.05	0.039	0.04	-0.025	0.05
2008	-0.117	0.03***	-0.011	0.04	-0.007	0.03	-0.052	0.06
2009	-0.085	0.03**	0.033	0.04	0.034	0.03	-0.022	0.06
2011	-0.053	0.02*	0.049	0.04	0.053	0.03	-0.008	0.04

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.058	0.05	0.13	0.03***	0.169	0.04***	0.052	0.1
2007	0.014	0.04	0.067	0.04	0.113	0.04**	0.126	0.07
2008	0.027	0.04	0.132	0.04**	0.182	0.04***	0.133	0.07
2009	0.059	0.04	0.127	0.05*	0.175	0.05**	0.173	0.09*
2011	0.096	0.04*	0.171	0.04***	0.203	0.02***	0.156	0.07*

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.053	0.05	-0.049	0.02	-0.047	0.02*	-0.054	0.05
2007	-0.004	0.05	-0.017	0.03	-0.026	0.01	-0.023	0.05
2008	0.008	0.04	0.012	0.01	0.011	0.01	0.017	0.04
2009	-0.028	0.04	-0.048	0.02	-0.04	0.02*	-0.043	0.05
2011	-0.007	0.04	-0.014	0.03	-0.019	0.02	-0.025	0.05

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where the dependent variable (English scores in Key Stage 2 tests) is observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 14: Results: KS2 Maths Points (std): within 2km of the boundary, accounting for pupil:teacher ratio and pupil:assistant ratio

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.171	0.03***	-0.016	0.05	0.014	0.03	-0.041	0.05
2007	-0.117	0.03***	0.031	0.05	0.047	0.04	-0.023	0.04
2008	-0.117	0.03***	-0.013	0.04	-0.013	0.03	-0.034	0.06
2009	-0.085	0.03**	0.035	0.04	0.044	0.03	-0.016	0.06
2011	-0.053	0.02*	0.047	0.04	0.054	0.03	0.004	0.04

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.058	0.05	0.145	0.03***	0.17	0.04***	0.27	0.12*
2007	0.014	0.04	0.087	0.04*	0.138	0.03***	0.139	0.12
2008	0.027	0.04	0.15	0.04***	0.191	0.04***	0.234	0.10*
2009	0.059	0.04	0.164	0.04**	0.22	0.04***	0.175	0.09
2011	0.096	0.04*	0.174	0.04***	0.21	0.02***	0.172	0.07**

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.053	0.05	-0.046	0.02	-0.042	0.02*	-0.064	0.05
2007	-0.004	0.05	-0.014	0.03	-0.031	0.02	-0.022	0.05
2008	0.008	0.04	0.014	0.02	0.008	0.01	0.005	0.04
2009	-0.028	0.04	-0.042	0.02	-0.041	0.02*	-0.05	0.05
2011	-0.007	0.04	-0.011	0.04	-0.025	0.03	-0.047	0.05

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where the dependent variable (maths scores in Key Stage 2 tests), pupil:teacher and pupil:assistant ratios are observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary. Pupil teacher ratio and pupil assistance ratio are accounted for linearly.

Table 15: Results: KS2 English Points (std): within 2km of the boundary, accounting for pupil:teacher ratio and pupil:assistant ratio

Inner/outer London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.15	0.03***	0.016	0.06	0.059	0.04	0.009	0.05
2007	-0.114	0.03***	0.048	0.05	0.074	0.04	-0.006	0.05
2008	-0.105	0.03***	0.015	0.04	0.015	0.03	-0.024	0.06
2009	-0.071	0.03**	0.064	0.05	0.083	0.03*	0.038	0.04
2011	-0.064	0.03*	0.056	0.04	0.075	0.03**	0.02	0.05

Outer/fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.003	0.05	0.068	0.04	0.096	0.05	0.139	0.13
2007	0.011	0.05	0.085	0.04*	0.123	0.04**	0.121	0.12
2008	-0.004	0.04	0.097	0.04*	0.122	0.04*	0.229	0.10*
2009	0.037	0.04	0.149	0.04**	0.21	0.07**	0.218	0.10*
2011	0.067	0.04	0.157	0.04***	0.172	0.03***	0.128	0.06*

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.002	0.05	0.017	0.03	0.015	0.01	0.005	0.05
2007	0.027	0.05	0.029	0.03	0.02	0.02	0.024	0.05
2008	0.014	0.04	0.008	0.03	0.011	0.02	0.006	0.05
2009	0.025	0.04	0.006	0.03	-0.001	0.02	-0.027	0.05
2011	0.011	0.04	0.015	0.03	0.007	0.04	-0.022	0.06

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where the dependent variable (English scores in Key Stage 2 tests), pupil:teacher and pupil:assistant ratios are observed, within 2km of a pay area boundary. The coefficient reported represents the percent increase in expenditure per pupil associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary. Pupil teacher ratio and pupil assistance ratio are accounted for linearly.

Table 16: Results: KS2 Maths Points (std): varying the measure of closeness to the Fringe boundary

Fringe/outer-fringe London boundary within 1km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.02	0.06	-0.019	0.05	-0.032	0.03	-0.056	0.07
2007	0.053	0.07	0.036	0.07	0.019	0.03	0.019	0.07
2008	-0.017	0.06	-0.034	0.04	-0.027	0.03	-0.059	0.06
2009	0.044	0.06	0.024	0.03	0.013	0.04	-0.003	0.07
2011	-0.031	0.06	-0.003	0.05	-0.015	0.04	-0.029	0.06

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.053	0.05	-0.049	0.02	-0.047	0.02*	-0.054	0.05
2007	-0.004	0.05	-0.017	0.03	-0.026	0.01	-0.023	0.05
2008	0.008	0.04	0.012	0.01	0.011	0.01	0.017	0.04
2009	-0.028	0.04	-0.048	0.02	-0.04	0.02*	-0.043	0.05
2011	-0.007	0.04	-0.014	0.03	-0.019	0.02	-0.025	0.05

Fringe/outer-fringe London boundary: within 3km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	-0.024	0.04	-0.014	0.02	-0.016	0.02	-0.016	0.04
2007	-0.003	0.04	0.001	0.02	-0.004	0.01	-0.012	0.04
2008	-0.012	0.04	0.001	0.03	-0.012	0.02	-0.008	0.05
2009	-0.045	0.04	-0.034	0.02	-0.04	0.01*	-0.041	0.04
2011	-0.039	0.04	-0.011	0.03	-0.025	0.02	-0.039	0.04

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where the dependent variable (maths scores in Key Stage 2 tests), pupil:teacher and pupil:assistant ratios are observed, within xkm of a pay area boundary. The coefficient reported represents the increase in Maths scores associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 17: Results: KS2 English Points (std): varying the measure of closeness to the Fringe boundary

Fringe/outer-fringe London boundary: within 1km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.018	0.07	0.006	0.05	-0.001	0.03	-0.021	0.07
2007	0.123	0.07	0.101	0.08	0.076	0.05	0.087	0.08
2008	0.004	0.06	-0.039	0.04	-0.02	0.02	-0.058	0.07
2009	0.066	0.07	0.027	0.05	0.006	0.04	-0.056	0.08
2011	-0.017	0.06	0.016	0.05	0.004	0.05	-0.021	0.07

Fringe/outer-fringe London boundary: within 2km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.002	0.05	0.01	0.03	0.018	0.01	0.01	0.05
2007	0.027	0.05	0.027	0.03	0.018	0.02	0.025	0.05
2008	0.014	0.04	0.002	0.03	0.006	0.02	0.007	0.05
2009	0.025	0.04	0.005	0.03	0	0.02	-0.022	0.05
2011	0.011	0.04	0.012	0.03	0.01	0.03	-0.003	0.05

Fringe/outer-fringe London boundary: within 3km								
Year	Raw difference		OLS		FILM		Matching	
	b	SE	b	SE	b	SE	b	SE
2006	0.01	0.04	0.023	0.03	0.025	0.01*	0.022	0.04
2007	0.006	0.04	0.009	0.02	0.005	0.02	0.003	0.04
2008	0.01	0.04	0.007	0.03	0.007	0.01	0.008	0.04
2009	-0.01	0.05	0.008	0.03	-0.013	0.02	-0.018	0.04
2011	-0.012	0.04	0.017	0.03	0.006	0.03	-0.009	0.04

Note: * denotes significance at 10 percent; ** denotes significance at 5 percent; *** denotes significance at 1 percent. The unit of observation is a primary school. The sample includes all primary schools that are present in the National Pupil Database in all of the academic years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2010/2011 and where the dependent variable (maths scores in Key Stage 2 tests), pupil:teacher and pupil:assistant ratios are observed, within xkm of a pay area boundary. The coefficient reported represents the increase in English scores associated with the high-pay side of the boundary. OLS, FILM, and Matching specifications additional account for observable characteristics of the school: percentage of pupils eligible for free school meals, with English as an additional language, that are non-white, and have a special educational need, the number of pupils in the school, dummy variables for region (North-East London, South-East London, South-West London), rank of index of multiple deprivation and rank of income deprivation affecting children index. FILM and Matching additionally account for distance to the relevant boundary.

Table 18: Propensity score matching: test of balance of observable characteristics in main specification: within 2km of the boundary

Variable	Sample	Inner London boundary: 2km, 2011				Outer London boundary: 2km, 2011				Fringe London boundary: 2km, 2011			
		Mean		T-test		Mean		T-test		Mean		T-test	
		Treated	Control	t	p> t	Treated	Control	t	p> t	Treated	Control	t	p> t
Prop. FSM	Unmatched	0.28	0.20	7.57	0.00***	0.20	0.14	3.85	0.00***	0.09	0.10	-0.33	0.75
	Matched	0.28	0.24	3.75	0.00***	0.20	0.17	1.52	0.13	0.09	0.09	0.53	0.59
Prop. EAL	Unmatched	0.50	0.40	5.10	0.00***	0.24	0.13	6.28	0.00***	0.09	0.08	0.50	0.62
	Matched	0.50	0.50	0.28	0.78	0.24	0.22	1.06	0.29	0.09	0.07	1.11	0.27
Prop. non-white	Unmatched	0.76	0.63	6.45	0.00***	0.45	0.28	7.42	0.00***	0.18	0.17	0.52	0.61
	Matched	0.76	0.73	1.63	0.10	0.45	0.43	0.42	0.67	0.18	0.17	0.73	0.47
FTE Pupils (nursery to KS4)	Unmatched	364.58	365.93	-0.14	0.89	330.27	268.00	4.25	0.00***	265.11	250.09	1.02	0.31
	Matched	365.30	373.00	-0.84	0.40	329.80	308.05	1.58	0.12	265.83	254.90	0.72	0.47
Prop. SEN	Unmatched	0.26	0.24	2.35	0.02**	0.25	0.22	2.40	0.02**	0.20	0.21	-0.61	0.55
	Matched	0.26	0.25	1.83	0.07*	0.25	0.24	0.84	0.40	0.20	0.20	0.34	0.73
North-East	Unmatched	0.32	0.27	1.29	0.20	0.27	0.19	1.50	0.13	0.25	0.16	1.75	0.08*
	Matched	0.32	0.31	0.47	0.64	0.27	0.20	1.46	0.15	0.25	0.23	0.33	0.74
South-East	Unmatched	0.20	0.26	-1.63	0.11	0.24	0.24	-0.04	0.97	0.13	0.27	-2.72	0.01**
	Matched	0.21	0.18	0.92	0.36	0.24	0.45	-3.72	0.00***	0.13	0.14	-0.32	0.75
South-West	Unmatched	0.30	0.19	2.91	0.00***	0.30	0.30	-0.11	0.91	0.38	0.26	2.16	0.03**
	Matched	0.29	0.41	-3.40	0.00***	0.29	0.23	1.07	0.29	0.38	0.40	-0.28	0.78
IMD rank	Unmatched	0.27	0.45	-13.33	0.00***	0.49	0.61	-5.19	0.00***	0.73	0.70	1.31	0.19
	Matched	0.27	0.30	-2.67	0.01**	0.49	0.47	1.19	0.23	0.73	0.75	-0.62	0.54
IMD rank (education)	Unmatched	0.51	0.58	-4.90	0.00***	0.53	0.52	0.26	0.80	0.62	0.58	1.42	0.16
	Matched	0.51	0.48	2.27	0.02**	0.53	0.37	6.38	0.00***	0.63	0.60	0.79	0.43
IMD rank (employment)	Unmatched	0.36	0.51	-10.93	0.00***	0.55	0.64	-4.17	0.00***	0.75	0.71	1.63	0.11
	Matched	0.36	0.38	-2.07	0.04**	0.55	0.49	2.39	0.02**	0.75	0.75	0.08	0.94
IMD rank (income)	Unmatched	0.24	0.39	-10.52	0.00***	0.44	0.57	-5.05	0.00***	0.68	0.67	0.81	0.42
	Matched	0.24	0.27	-2.03	0.04**	0.45	0.43	0.72	0.48	0.68	0.70	-0.66	0.51
Prop. low IMD rank (education)	Unmatched	0.19	0.14	2.70	0.01**	0.29	0.28	0.08	0.93	0.19	0.21	-0.67	0.50
	Matched	0.19	0.23	-2.25	0.02**	0.28	0.51	-5.61	0.00***	0.19	0.18	0.29	0.78
Prop. low IMD rank (employment)	Unmatched	0.50	0.24	12.18	0.00***	0.22	0.12	3.44	0.00***	0.05	0.08	-1.68	0.09
	Matched	0.50	0.37	6.17	0.00***	0.22	0.27	-1.60	0.11	0.05	0.06	-0.59	0.56
Prop. low IMD rank (income)	Unmatched	0.71	0.44	11.51	0.00***	0.37	0.19	4.90	0.00***	0.07	0.11	-1.57	0.12
	Matched	0.71	0.68	1.54	0.13	0.36	0.37	-0.31	0.76	0.07	0.08	-0.27	0.79
IDACI rank	Unmatched	6826.60	11447.00	-11.00	0.00***	12962.00	17324.00	-5.71	0.00***	21281.00	21008.00	0.37	0.71
	Matched	6818.80	7611.50	-2.47	0.01**	13016.00	13224.00	-0.30	0.76	21332.00	21826.00	-0.68	0.50
Distance to boundary	Unmatched	984.77	1017.40	-0.70	0.48	1147.40	1017.30	1.96	0.05*	1038.40	1091.00	-0.84	0.40
	Matched	987.42	955.82	0.74	0.46	1144.80	1110.20	0.53	0.60	1038.80	1101.30	-0.95	0.34

Note: * denotes $p < 0.10$; ** denotes $p < 0.05$; *** denotes $p < 0.01$. The matching specification includes the following school level characteristics: proportion of pupils eligible for free school meals, proportion of pupils that have a special educational need, English as an additional language, proportion of pupils that are non-white, number of pupils, proportion of pupils with region, IMD and IDACI, and distance rank (as in our main specification).