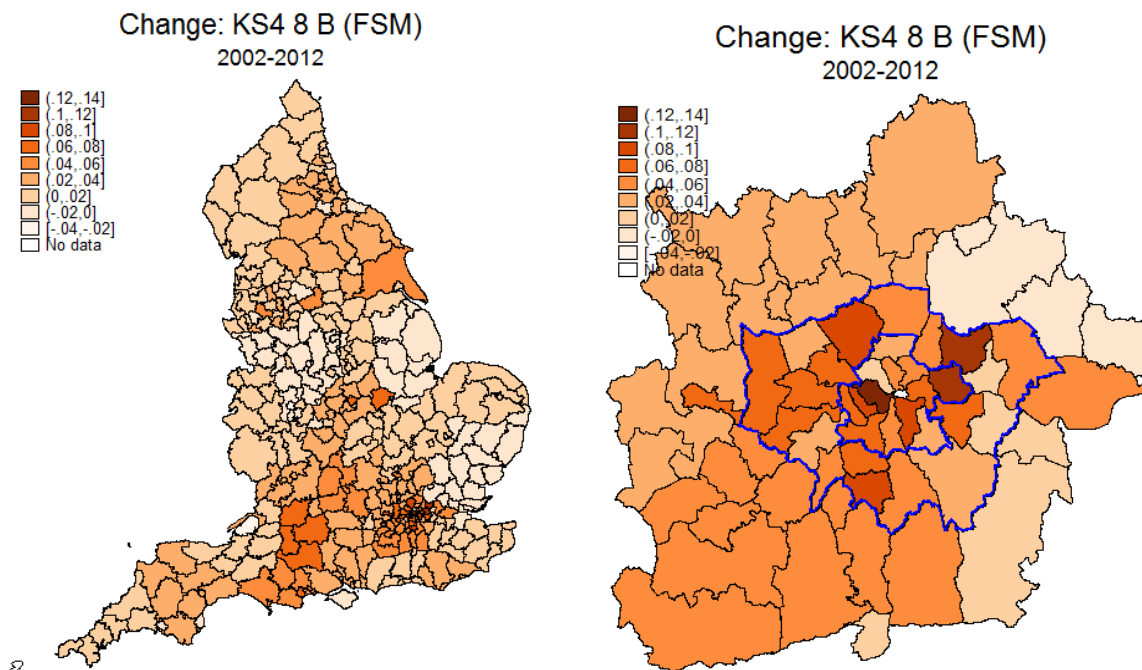


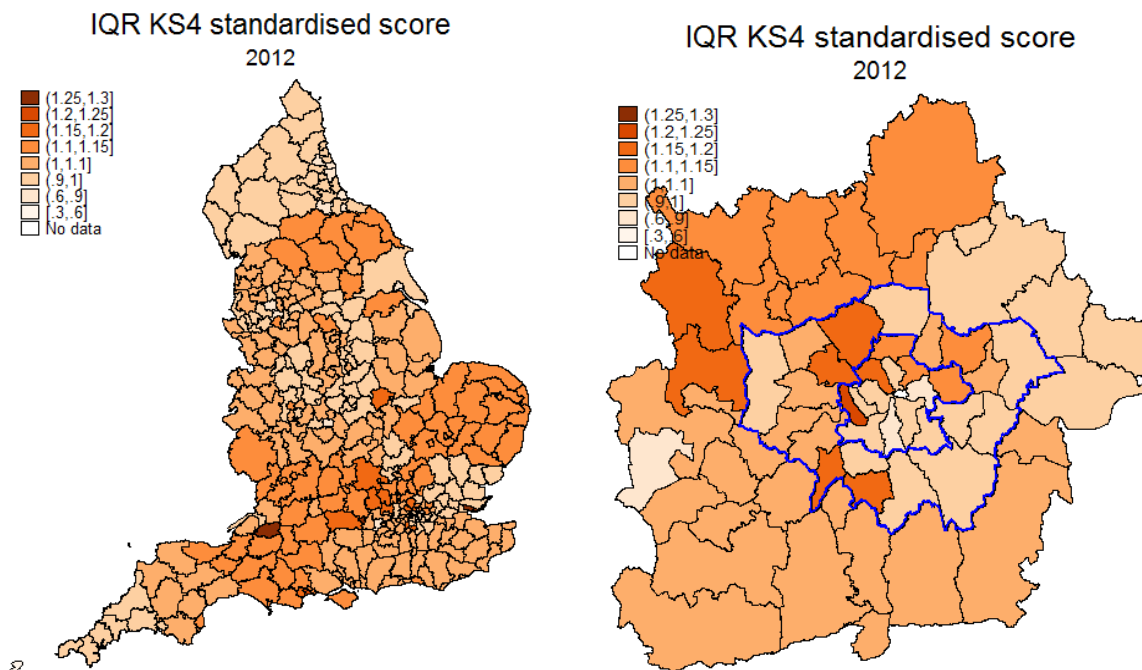
Appendix figures and tables. Lessons from London schools for attainment gaps and social mobility

Figure A1 Change in proportion of pupils eligible for FSM achieving eight or more GCSEs at A*-B including English and maths, across local authorities, 2002-12



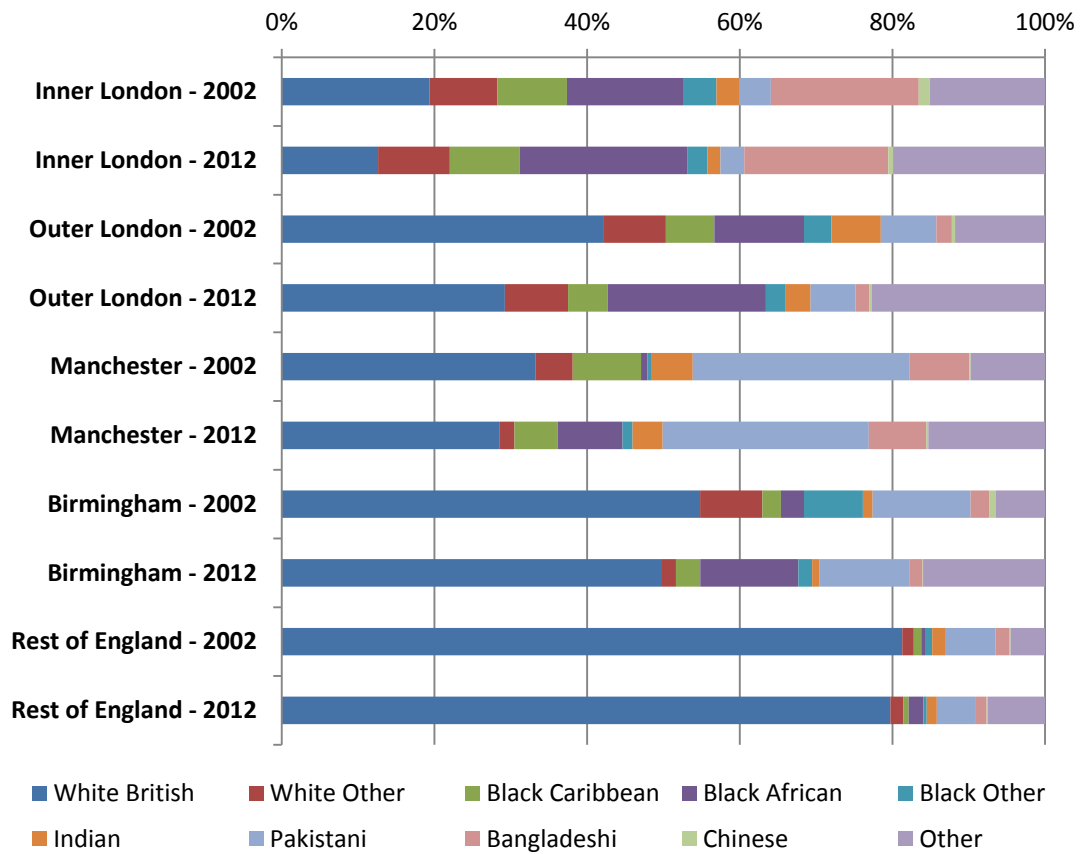
Source: Authors' calculations using National Pupil Database 2002 and 2012.

Figure A2 Interquartile range in Key Stage 4 standardised points score, by local authority



Source: Authors' calculations using National Pupil Database 2002 and 2012.

Figure A3 Ethnic mix of pupils eligible for FSM across London, Manchester, Birmingham and the rest of England, 2002 and 2012



Source: Authors' calculations using National Pupil Database 2002 and 2012.

Figure A4(a) Estimated effect of being in London or other large cities on proportion of pupils eligible for FSM achieving eight or more GCSEs at A*-B including English and maths (or equivalent), 2002-12, with and without controls (relative to rest of England)

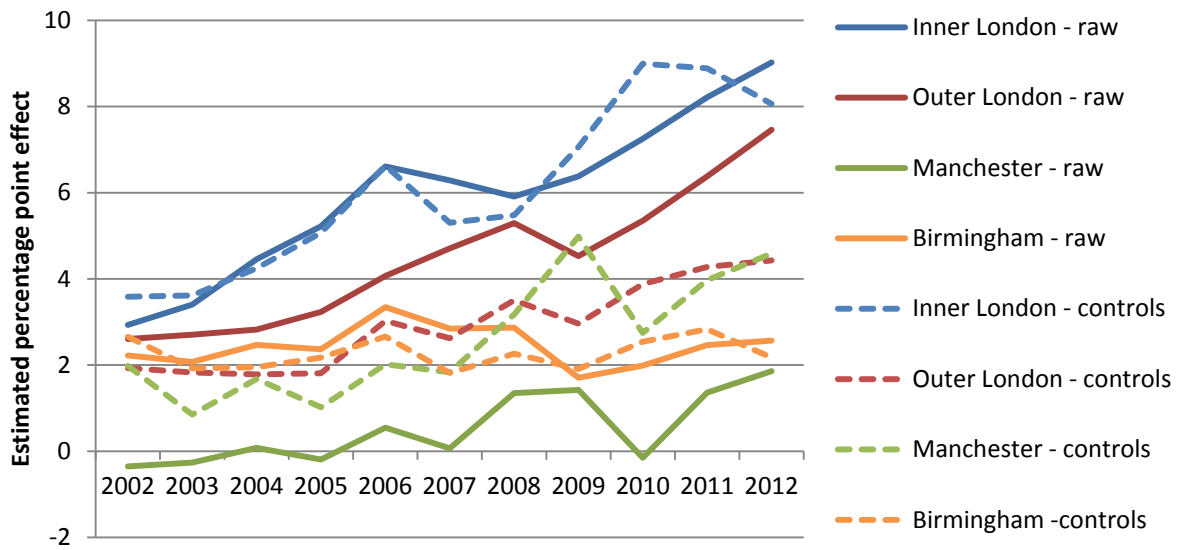
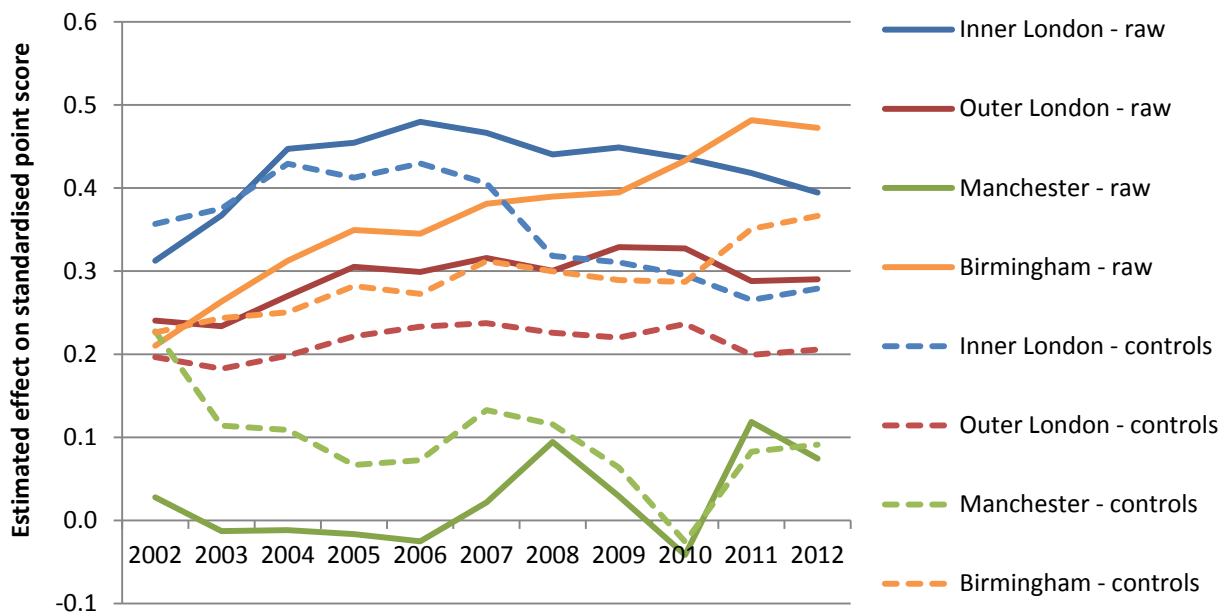


Figure A4(b) Estimated effect of being in London or other large cities on average standardised GCSE capped points score amongst pupils eligible for FSM, 2002-12, with and without controls (relative to rest of England)



Source: Authors' calculations using National Pupil Database 2002-12.

Figure A5(a) Estimated effect of being in London or other large cities on proportion of pupils eligible for FSM achieving eight or more GCSEs at A*-B including English and maths (or equivalent), 2002-12, with controls and prior attainment (relative to rest of England)

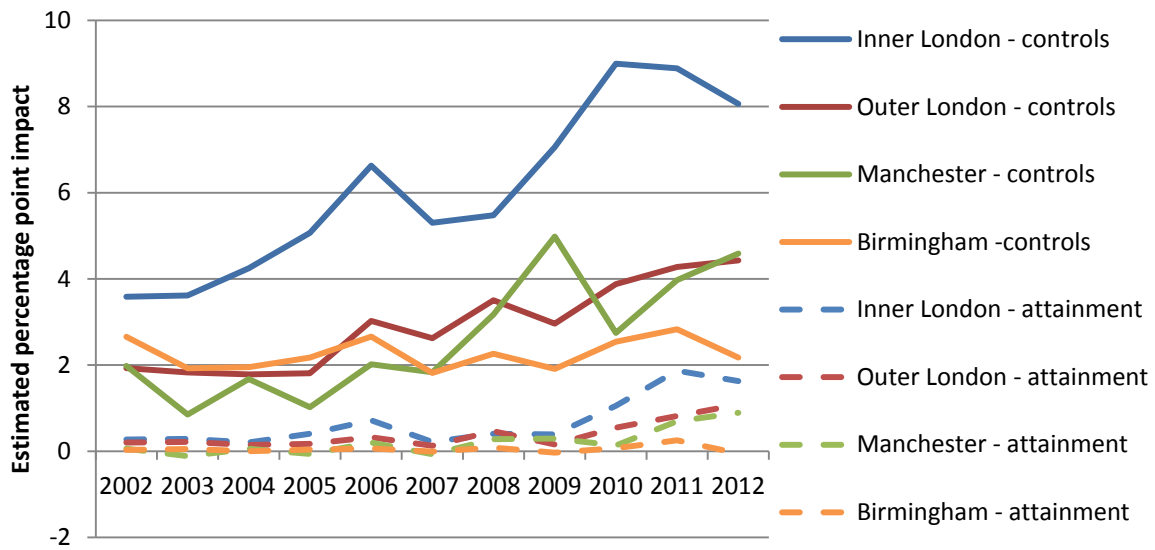
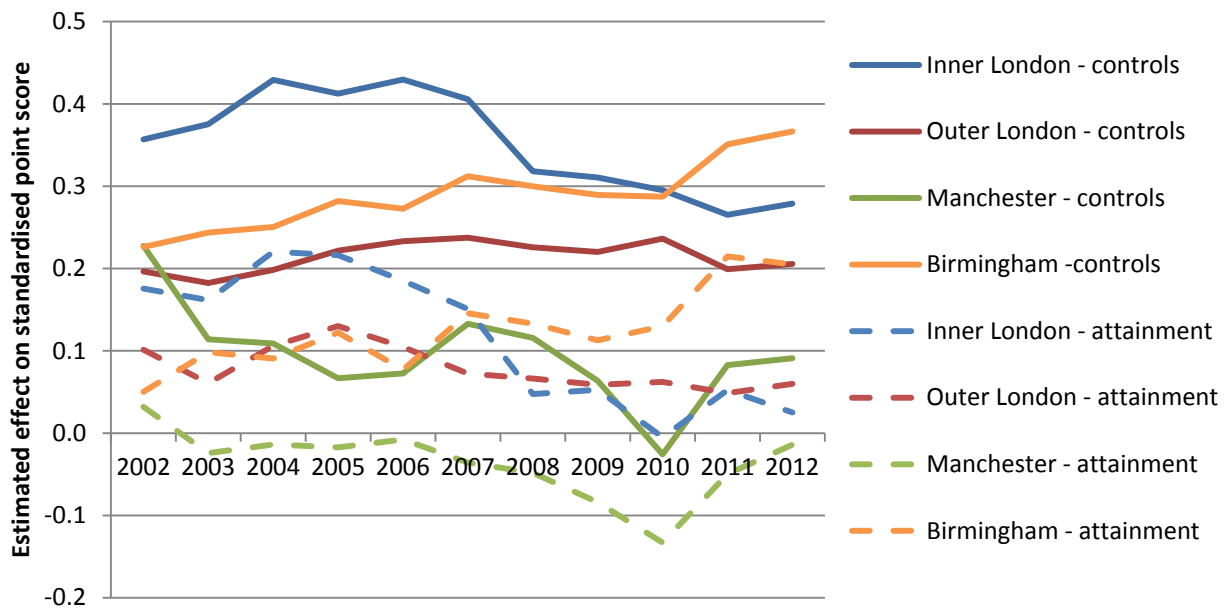
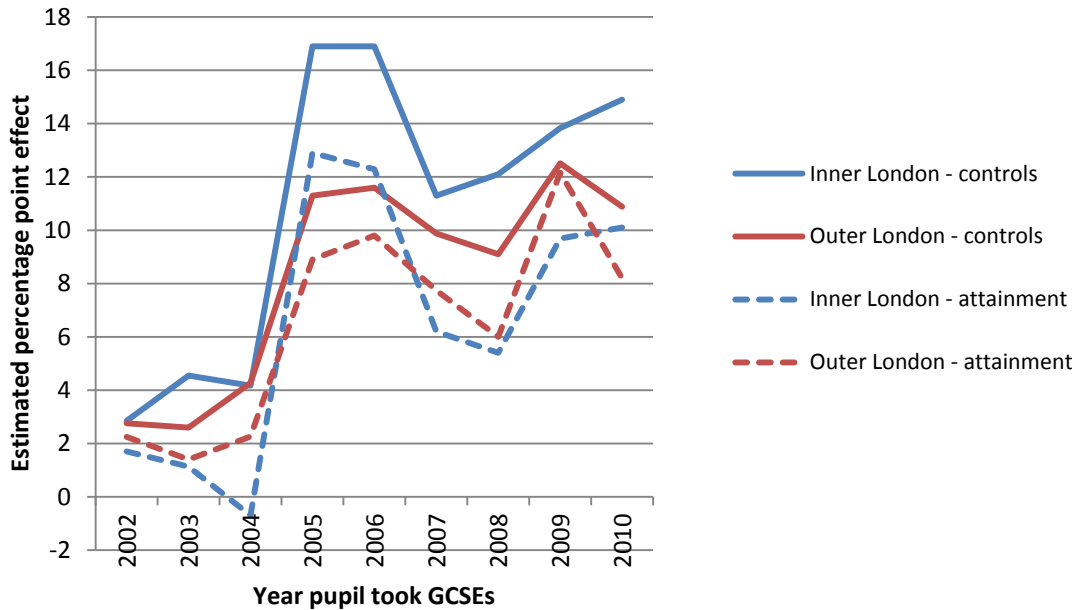


Figure A5(b) Estimated effect of being in London or other large cities on average standardised GCSE capped points score amongst pupils eligible for FSM, 2002-12, with controls and prior attainment (relative to rest of England)



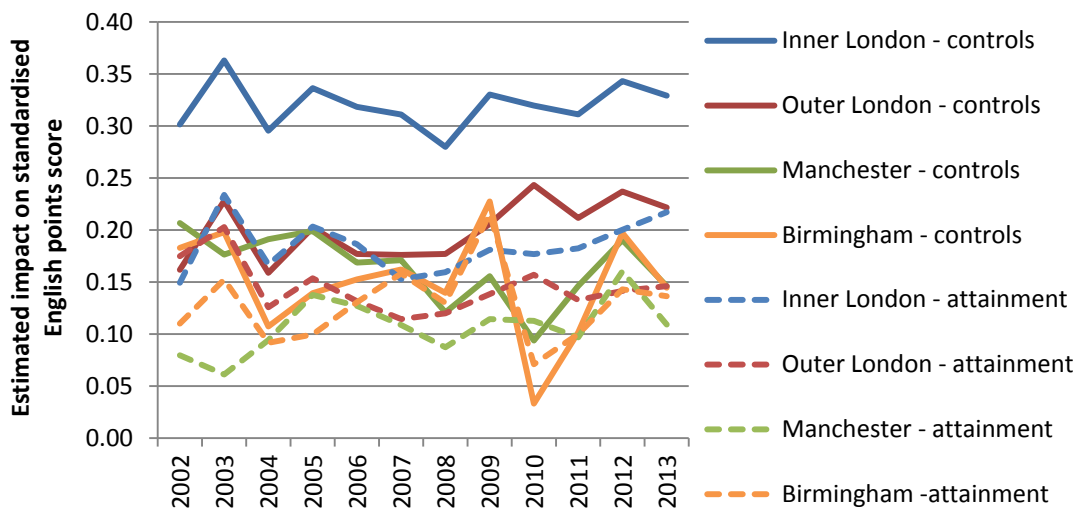
Source: Authors' calculations using National Pupil Database 2002-12.

Figure A6 Estimated effect of being in London on the proportion of pupils achieving two or more A levels at A*–E amongst pupils eligible for FSM who took KS4 2002–10, with controls and with controls for KS4 prior attainment (relative to rest of England)



Source: Authors' calculations using National Pupil Database 2002–12.

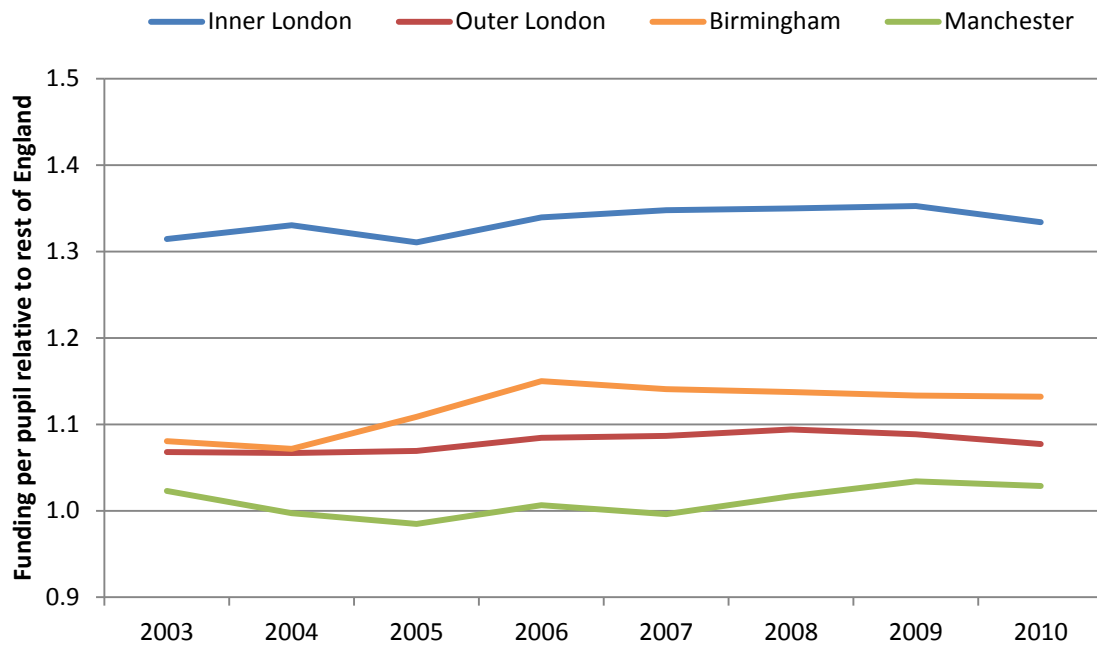
Figure A7 Estimated effect of being in London or other large cities on average standardised KS2 English points score amongst pupils eligible for FSM, with controls and with controls for KS1 teacher assessments



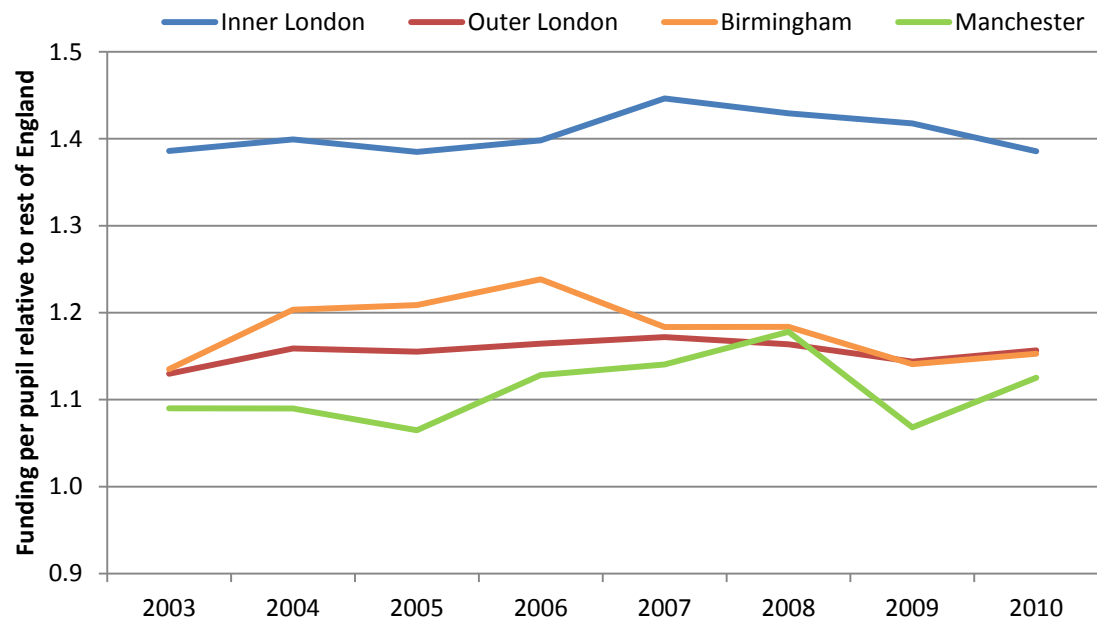
Source: Authors' calculations using National Pupil Database 2002–13.

Figure A8 Funding per pupil for London, Birmingham and Manchester relative to the rest of England, 2003–10

(a) Primary schools

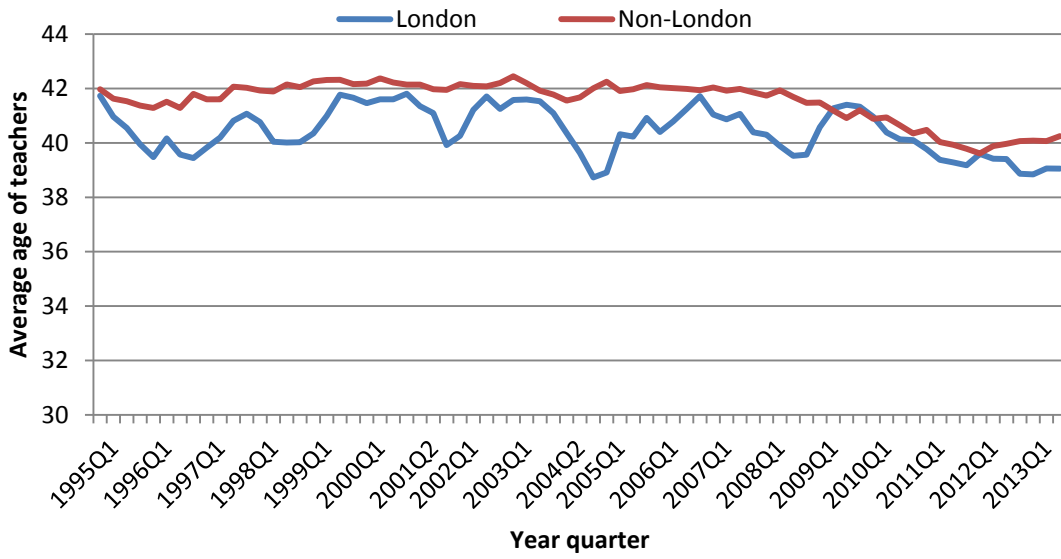


(b) Secondary schools



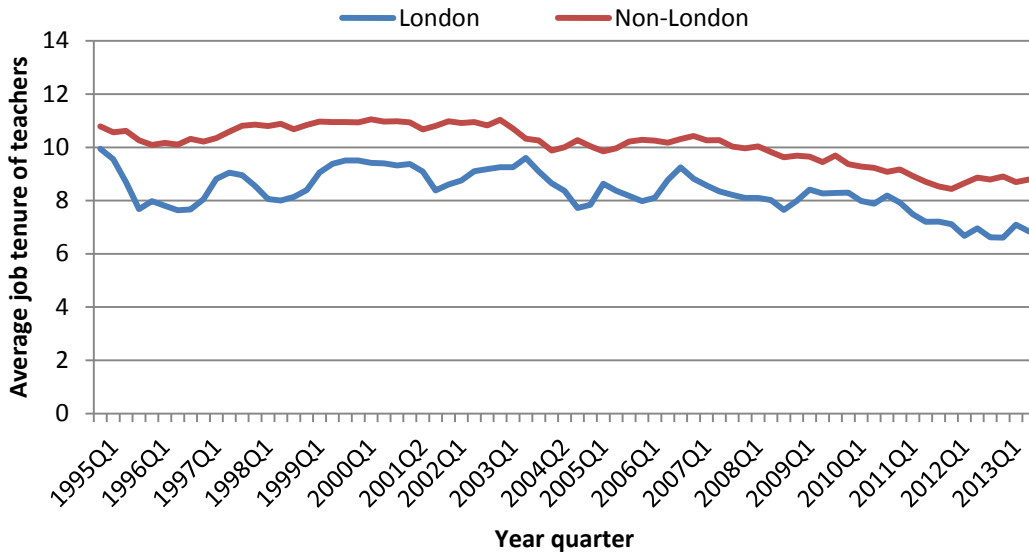
Source: Authors' calculations using Section 251 Returns 2003–10.

Figure A9 Average age of teachers in London and outside London, over time



Source: Authors' calculations using the Labour Force Survey 1994–2013.

Figure A10 Average job tenure of teachers in London and outside London, over time



Source: Authors' calculations using the Labour Force Survey 1994–2013.

Table A1 Estimated effect of being in London or other large cities on proportion of pupils eligible for FSM achieving five or more GCSEs at A*–C including English and maths (or equivalent), 2002–12 (relative to rest of England)

	Inner London		Outer London		Manchester		Birmingham	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Raw gap								
2002	0.071***	0.010	0.058***	0.010	0.037*	0.022	0.043***	0.015
2003	0.095***	0.011	0.062***	0.009	0.005	0.016	0.044***	0.016
2004	0.108***	0.012	0.073***	0.009	0.004	0.018	0.057***	0.016
2005	0.119***	0.012	0.082***	0.009	-0.001	0.019	0.063***	0.015
2006	0.140***	0.012	0.091***	0.010	-0.009	0.022	0.057***	0.015
2007	0.154***	0.012	0.108***	0.010	0.016	0.019	0.064***	0.016
2008	0.172***	0.011	0.117***	0.010	0.059***	0.019	0.092***	0.018
2009	0.184***	0.012	0.118***	0.010	0.028	0.018	0.096***	0.016
2010	0.200***	0.013	0.125***	0.010	0.049***	0.018	0.135***	0.015
2011	0.217***	0.012	0.130***	0.009	0.094***	0.022	0.141***	0.017
2012	0.210***	0.012	0.134***	0.010	0.083***	0.026	0.162***	0.018
With controls								
2002	0.099***	0.012	0.049***	0.009	0.117***	0.023	0.065***	0.014
2003	0.125***	0.013	0.050***	0.009	0.057***	0.015	0.059***	0.014
2004	0.143***	0.015	0.066***	0.009	0.054**	0.021	0.063***	0.014
2005	0.148***	0.016	0.075***	0.011	0.035**	0.017	0.072***	0.014
2006	0.153***	0.016	0.079***	0.012	0.033*	0.020	0.050***	0.014
2007	0.163***	0.016	0.083***	0.011	0.077***	0.027	0.057***	0.015
2008	0.158***	0.015	0.099***	0.010	0.096***	0.021	0.081***	0.015
2009	0.170***	0.015	0.089***	0.010	0.068***	0.020	0.075***	0.014
2010	0.178***	0.016	0.105***	0.012	0.075***	0.018	0.105***	0.015
2011	0.179***	0.015	0.106***	0.011	0.096***	0.019	0.101***	0.017
2012	0.174***	0.015	0.108***	0.012	0.098***	0.022	0.125***	0.017
With controls and prior attainment								
2002	0.032***	0.010	0.022***	0.008	0.042**	0.019	0.000	0.012
2003	0.047***	0.011	0.013**	0.007	0.010	0.013	0.007	0.011
2004	0.051***	0.010	0.029***	0.006	0.015	0.012	0.003	0.008
2005	0.058***	0.012	0.038***	0.007	0.002	0.011	0.007	0.009
2006	0.061***	0.012	0.036***	0.008	0.007	0.014	-0.013	0.009
2007	0.055***	0.012	0.027***	0.008	0.007	0.019	-0.003	0.011
2008	0.044***	0.015	0.036***	0.010	0.037*	0.021	0.026*	0.016
2009	0.055***	0.016	0.019*	0.010	0.004	0.022	-0.002	0.015
2010	0.038**	0.019	0.030**	0.014	0.022	0.023	0.043**	0.020
2011	0.084***	0.022	0.042***	0.014	0.043	0.030	0.064***	0.024
2012	0.059***	0.021	0.057***	0.017	0.063**	0.026	0.067***	0.023

Notes: *** denotes statistical significance at the 1% level. ** denotes statistical significance at the 5% level. * denotes statistical significance at the 10% level. The set of pupil characteristics we control for is as follows: gender; ethnicity (eight non-white minority groups, as in Figure A3); IDACI score; whether pupils have a statement of special educational needs (SEN); whether pupils have English as an additional language. The set of school characteristics is as follows: school type; number of pupils; proportion of pupils in their year group eligible for FSM; proportion of pupils in their year group with EAL; proportion of pupils in their year group with SEN; proportion of pupils in their year group in each quintile of IDACI; proportion of pupils in their year group from a non-white background. Prior attainment includes controls for KS2 maths and English fine points scores (with quadratic terms).

Table A2 Estimated effect of being in London or other large cities on Key Stage 2 maths standardised fine points score, by year in which pupils took or will take their GCSEs (relative to rest of England)

	Inner London		Outer London		Manchester		Birmingham	
	<i>Coefficient</i>	<i>SE</i>	<i>Coefficient</i>	<i>SE</i>	<i>Coefficient</i>	<i>SE</i>	<i>Coefficient</i>	<i>SE</i>
With controls measured at Key Stage 4								
2002	0.221***	0.025	0.111***	0.021	0.173***	0.040	0.197***	0.037
2003	0.248***	0.022	0.131***	0.019	0.140***	0.038	0.151***	0.031
2004	0.254***	0.022	0.124***	0.018	0.140***	0.036	0.199***	0.033
2005	0.248***	0.022	0.111***	0.018	0.154***	0.037	0.177***	0.032
2006	0.244***	0.024	0.123***	0.019	0.117***	0.037	0.219***	0.051
2007	0.229***	0.022	0.173***	0.019	0.140***	0.036	0.142***	0.027
2008	0.255***	0.022	0.130***	0.018	0.167***	0.032	0.171***	0.029
2009	0.298***	0.023	0.183***	0.019	0.143***	0.031	0.185***	0.028
2010	0.285***	0.023	0.143***	0.017	0.134***	0.039	0.153***	0.028
2011	0.233***	0.021	0.140***	0.017	0.128***	0.035	0.125***	0.026
2012	0.251***	0.020	0.142***	0.018	0.152***	0.035	0.134***	0.026
With controls measured at Key Stage 2								
2007	0.243***	0.024	0.144***	0.018	0.161***	0.028	0.184***	0.038
2008	0.239***	0.023	0.134***	0.018	0.141***	0.027	0.181***	0.032
2009	0.261***	0.023	0.148***	0.018	0.150***	0.029	0.111***	0.034
2010	0.252***	0.023	0.148***	0.017	0.164***	0.027	0.161***	0.034
2011	0.239***	0.022	0.146***	0.018	0.104***	0.027	0.150***	0.035
2012	0.244***	0.023	0.160***	0.019	0.138***	0.028	0.193***	0.031
2013	0.206***	0.022	0.151***	0.018	0.100***	0.028	0.128***	0.035
2014	0.273***	0.023	0.182***	0.020	0.101***	0.030	0.157***	0.033
2015	0.264***	0.027	0.189***	0.024	0.067*	0.040	0.052	0.054
2016	0.279***	0.023	0.176***	0.019	0.157***	0.030	0.097***	0.037
2017	0.293***	0.021	0.193***	0.018	0.132***	0.026	0.171***	0.030
2018	0.326***	0.021	0.221***	0.018	0.147***	0.028	0.124***	0.030

Notes: *** denotes statistical significance at the 1% level. ** denotes statistical significance at the 5% level. * denotes statistical significance at the 10% level. The set of pupil characteristics we control for is as follows: gender; ethnicity (eight non-white minority groups, as in Figure A3); IDACI score; whether pupils have a statement of special educational needs (SEN); whether pupils have English as an additional language. The set of school characteristics is as follows: school type; number of pupils; proportion of pupils in their year group eligible for FSM; proportion of pupils in their year group with EAL; proportion of pupils in their year group with SEN; proportion of pupils in their year group in each quintile of IDACI; proportion of pupils in their year group from a non-white background.

Table A3 Estimated effect of being in London or other large cities on Key Stage 2 English standardised fine points score, by year in which pupils took or will take their GCSEs (relative to rest of England)

	Inner London		Outer London		Manchester		Birmingham	
	<i>Coefficient</i>	<i>SE</i>	<i>Coefficient</i>	<i>SE</i>	<i>Coefficient</i>	<i>SE</i>	<i>Coefficient</i>	<i>SE</i>
With controls measured at Key Stage 4								
2002	0.120***	0.022	0.097***	0.019	0.176***	0.037	0.172***	0.033
2003	0.191***	0.022	0.144***	0.018	0.144***	0.036	0.122***	0.029
2004	0.125***	0.022	0.057***	0.018	0.130***	0.034	0.118***	0.032
2005	0.197***	0.022	0.091***	0.018	0.132***	0.039	0.168***	0.031
2006	0.210***	0.022	0.135***	0.019	0.070*	0.038	0.174***	0.032
2007	0.293***	0.022	0.198***	0.023	0.155***	0.036	0.182***	0.026
2008	0.350***	0.027	0.245***	0.023	0.183***	0.036	0.206***	0.030
2009	0.316***	0.023	0.195***	0.020	0.134***	0.036	0.216***	0.033
2010	0.350***	0.021	0.193***	0.018	0.086**	0.035	0.191***	0.028
2011	0.290***	0.021	0.192***	0.018	0.132***	0.034	0.179***	0.028
2012	0.292***	0.020	0.192***	0.019	0.089**	0.038	0.168***	0.029
With controls measured at Key Stage 2								
2007	0.301***	0.024	0.162***	0.024	0.207***	0.027	0.183***	0.037
2008	0.363***	0.027	0.228***	0.025	0.176***	0.027	0.198***	0.034
2009	0.295***	0.024	0.159***	0.019	0.191***	0.032	0.107***	0.036
2010	0.336***	0.022	0.202***	0.018	0.199***	0.028	0.139***	0.035
2011	0.318***	0.023	0.177***	0.018	0.169***	0.027	0.153***	0.034
2012	0.311***	0.023	0.176***	0.019	0.171***	0.028	0.162***	0.036
2013	0.280***	0.023	0.177***	0.019	0.121***	0.030	0.140***	0.039
2014	0.330***	0.024	0.206***	0.020	0.156***	0.029	0.228***	0.033
2015	0.320***	0.028	0.243***	0.024	0.094**	0.039	0.033	0.048
2016	0.311***	0.023	0.212***	0.018	0.146***	0.032	0.102***	0.036
2017	0.343***	0.021	0.237***	0.018	0.190***	0.027	0.197***	0.032
2018	0.329***	0.022	0.222***	0.019	0.146***	0.025	0.145***	0.033

Notes: *** denotes statistical significance at the 1% level. ** denotes statistical significance at the 5% level. * denotes statistical significance at the 10% level. The set of pupil characteristics we control for is as follows: gender; ethnicity (eight non-white minority groups, as in Figure A3); IDACI score; whether pupils have a statement of special educational needs (SEN); whether pupils have English as an additional language. The set of school characteristics is as follows: school type; number of pupils; proportion of pupils in their year group eligible for FSM; proportion of pupils in their year group with EAL; proportion of pupils in their year group with SEN; proportion of pupils in their year group in each quintile of IDACI; proportion of pupils in their year group from a non-white background.

Table A4 Estimated effect of being in London or other large cities on participation at Key Stage 5 for pupils eligible for FSM, 2002–10 (relative to rest of England)

	Inner London		Outer London		Manchester		Birmingham		
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	
Raw gap									
2002	0.152***	0.011	0.118***	0.010	0.053**	0.029	0.078***	0.015	
2003	0.159***	0.013	0.114***	0.009	0.028	0.025	0.068***	0.015	
2004	0.180***	0.013	0.139***	0.010	0.026	0.029	0.063***	0.015	
2005	0.193***	0.013	0.132***	0.010	0.030	0.028	0.092***	0.015	
2006	0.197***	0.013	0.132***	0.010	0.019	0.030	0.076***	0.015	
2007	0.199***	0.012	0.156***	0.011	0.006	0.024	0.071***	0.014	
2008	0.192***	0.012	0.159***	0.010	0.029	0.025	0.078***	0.015	
2009	0.219***	0.011	0.178***	0.010	0.045*	0.024	0.104***	0.014	
2010	0.217***	0.011	0.181***	0.010	0.035	0.030	0.105***	0.014	
With controls									
2002	0.109***	0.011	0.066***	0.008	0.087***	0.023	0.044***	0.012	
2003	0.093***	0.093	0.055***	0.008	0.037**	0.016	0.026***	0.011	
2004	0.109***	0.012	0.072***	0.008	0.039*	0.021	0.011	0.010	
2005	0.119***	0.014	0.064***	0.010	0.030*	0.018	0.044***	0.013	
2006	0.107***	0.014	0.059***	0.010	0.019	0.021	0.008	0.011	
2007	0.113***	0.014	0.070***	0.010	0.025	0.017	0.021*	0.012	
2008	0.098***	0.015	0.087***	0.011	0.023	0.016	0.023*	0.013	
2009	0.120***	0.013	0.092***	0.010	0.044***	0.017	0.042***	0.012	
2010	0.118***	0.013	0.095***	0.011	0.023	0.018	0.025**	0.013	
With controls and prior attainment									
2002	0.065***	0.011	0.043***	0.008	0.035**	0.019	0.010	0.012	
2003	0.031***	0.011	0.030***	0.008	0.010	0.015	-0.011	0.010	
2004	0.037***	0.010	0.040***	0.007	0.011	0.016	-0.026***	0.008	
2005	0.045***	0.010	0.027***	0.008	0.013	0.016	0.006	0.010	
2006	0.029***	0.011	0.019**	0.008	0.000	0.016	-0.019	0.011	
2007	0.032***	0.012	0.031***	0.009	-0.018	0.016	-0.010	0.012	
2008	0.019	0.014	0.042***	0.010	-0.032*	0.016	-0.021	0.014	
2009	0.037***	0.012	0.055***	0.010	0.009	0.016	0.001	0.012	
2010	0.033***	0.012	0.051***	0.010	-0.019	0.019	-0.003	0.013	

Notes: *** denotes statistical significance at the 1% level. ** denotes statistical significance at the 5% level. * denotes statistical significance at the 10% level. The set of pupil characteristics we control for is as follows: gender; ethnicity (eight non-white minority groups, as in Figure A3); IDACI score; whether pupils have a statement of special educational needs (SEN); whether pupils have English as an additional language. The set of school characteristics is as follows: school type; number of pupils; proportion of pupils in their year group eligible for FSM; proportion of pupils in their year group with EAL; proportion of pupils in their year group with SEN; proportion of pupils in their year group in each quintile of IDACI; proportion of pupils in their year group from a non-white background. Prior attainment includes controls for KS2 maths and English fine points scores (with quadratic terms).