



Outsourcing of children's social care: assessing the consequences of increased for-profit delivery in England.

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DSPI Colloquium, Jan 2023

Children's social care provision in England

Background on service provision



- ▶ Around 80,000 children in care in England, trending upwards;
 - ▶ Services consist of residential (15%), foster care (70%), adoption and community placement (14%);
- ▶ Large crisis of service 'sufficiency' and quality;
 - ▶ Disastrous cocktail of austerity cuts, vulnerable and growing population, expensive services, shifting accountability;
- ▶ Care delivered by a mixed market of public, for-profit and third-sector providers - all publicly funded and publicly commissioned by Local Authorities.

Crisis in care

Recognised problems in children's social care



- ▶ 'Sufficiency' crisis: not enough placements to support the needs of children
- ▶ Marketisation crisis: failing to incentivise services which meet the needs of children in care
- ▶ Austerity crisis: impacts on finances and need for services

Privatisation and quality provision

Why might this matter for service users?



- ▶ 1) For-profit incentives could result in cost-cutting and worse quality care;
 - ▶ Evidence of a 'for-profit gap' in quality from other sectors including adult social care and healthcare contexts;
 - ▶ eg. 2013 children's home workforce census find for-profit homes have fewer, lower trained, worse paid staff, longer working;
- ▶ 2) Use of national private market means children treated as commodities;
 - ▶ Higher exposure to the outcomes from the 'marketisation crisis';
 - ▶ National market of private providers, who are poorly incentivised to provide stable care, means that outsourcing doesn't protect children from unsuitable, poor quality and sometimes illegal placements.

Policy Context

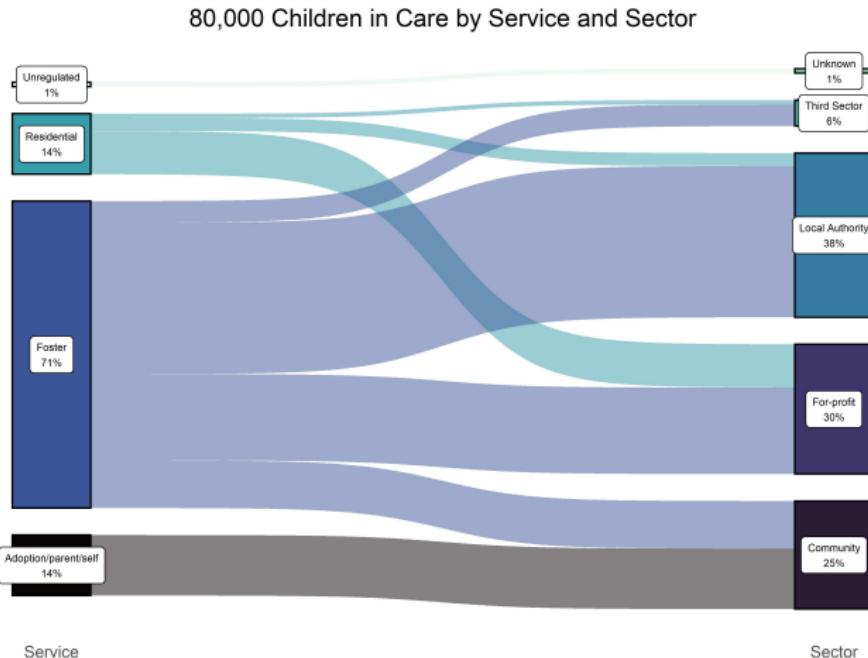
History of privatisation of children's social care



- ▶ 1948: Local Authorities given responsibility for looking after children whose parents could not;
- ▶ 1980-90s: Move towards competitive tendering of many Local Authority responsibilities;
 - ▶ But children's social care remains primarily 'in-house';
- ▶ 2000-10s: Marketised system tilt heavily towards private provision - supported by New Labour;
- ▶ 2020s: Devolved governments taking action: Wales plans to ban profits; Scotland no profits in foster care and 'intention' to remove all profits; Northern Ireland ending use of agency workers;
 - ▶ England... Recommends regionalisation and windfall tax...

Make-up of children's social care market

Sankey Diagram



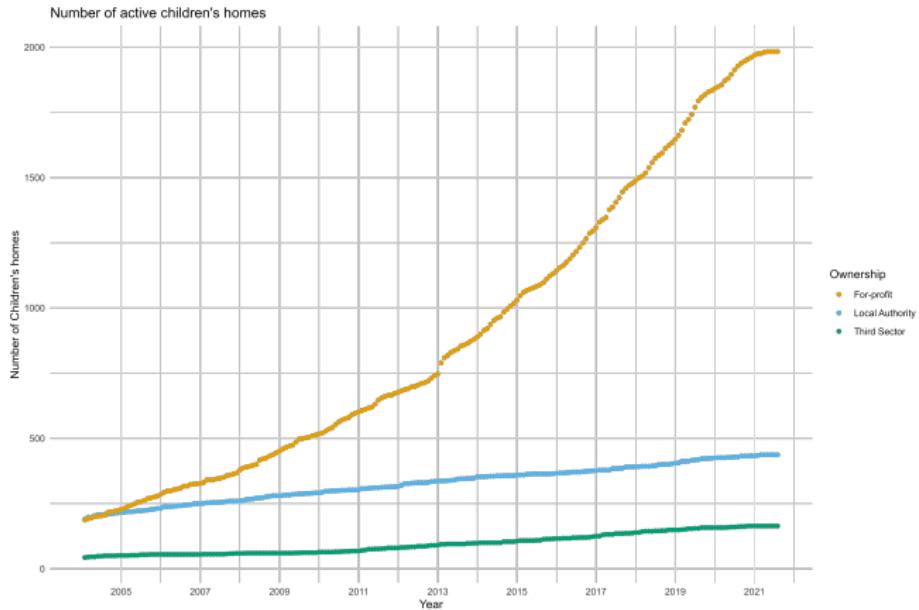
► Paper 1:

- ▶ RQ: Do public, for-profit and third-sector providers deliver different quality of children's social care services?;
- ▶ Data: Regulator inspections results ($n=14,000$, time period = 2014-2021, Inspection-level);
- ▶ Methods: Ordinal multivariate regression.

► Paper 2:

- ▶ RQ: Does increased use of for-profit provision correspond with worse placement outcomes for children in care?;
- ▶ Data: Placements at a distance from children's home (%); Unstable placements (%, short durations) ($n=1700$, time period = 2011-2021, LA-level);
- ▶ Methods: Longitudinal fixed effects multivariate regression.

Findings: Large expansion of for-profit children's homes

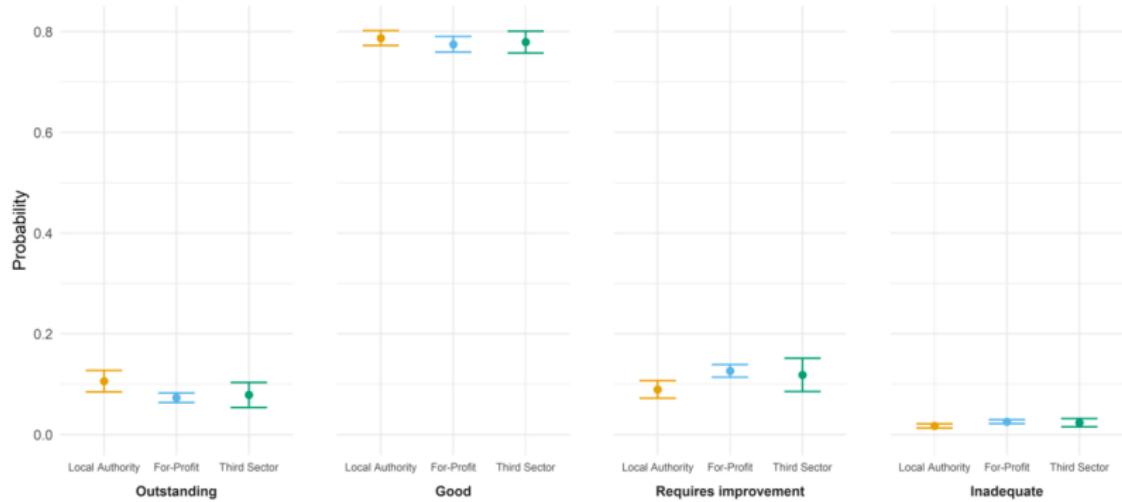


Findings: For-profit children's homes rated worse than council-run homes

Predicted probabilities of inspection ratings by sector



A Overall Experience



Findings: For-profit children's homes break more legal requirements

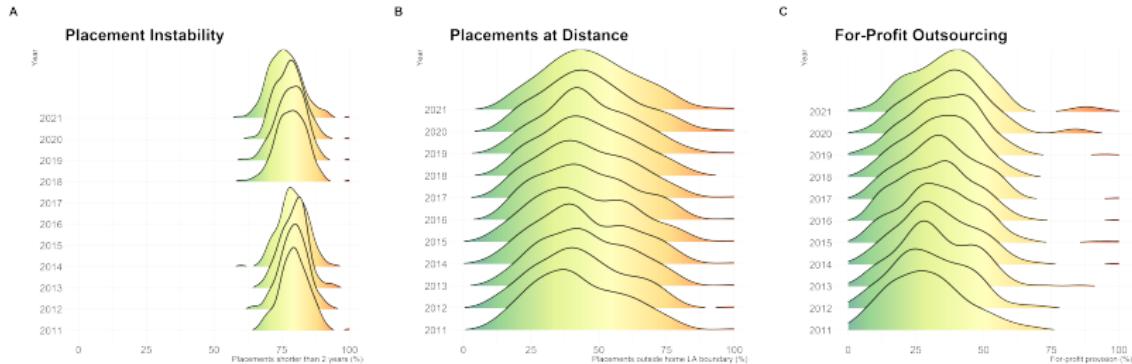
Regression results



	Number of Requirements		Number of Recommendations	
	Coef (95% ci)	P-value	Coef (95% ci)	P-value
For-Profit [ref: LA]	0.380 [0.186, 0.575]	<0.001	0.391 [0.242, 0.540]	<0.001
Third Sector [ref: LA]	0.270 [-0.046, 0.585]	0.094	0.382 [0.140, 0.624]	0.002
Age (Months)	-0.002 [-0.003, -0.001]	<0.001	0.001 [0.001, 0.002]	<0.001
Chain size (n)	-0.003 [-0.005, -0.001]	0.002	-0.001 [-0.003, 0.000]	0.082
Places (n)	0.054 [0.025, 0.083]	<0.001	0.024 [0.002, 0.047]	0.036
Num.Obs.	7410	7410	7410	7410
R2 Marg.	0.107	0.107	0.078	0.078
AIC	34238.9	34238.9	31545.9	31545.9
ICC	0.2	0.2	0.1	0.1
Provider Random Effects	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes

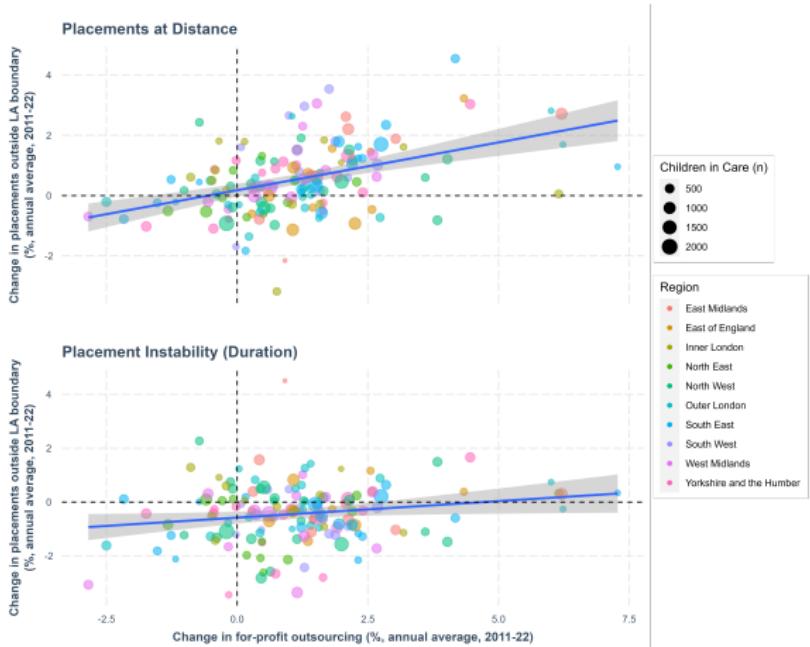
Findings: No average improvement in quality of placements in 10 years

Changes in outsourcing, placement stability and location



Findings: Increases in outsourcing associated with worse placements

Changes in outsourcing, placement stability and location



Findings: For-profit Outsourcing associated with worse placements

Regression results



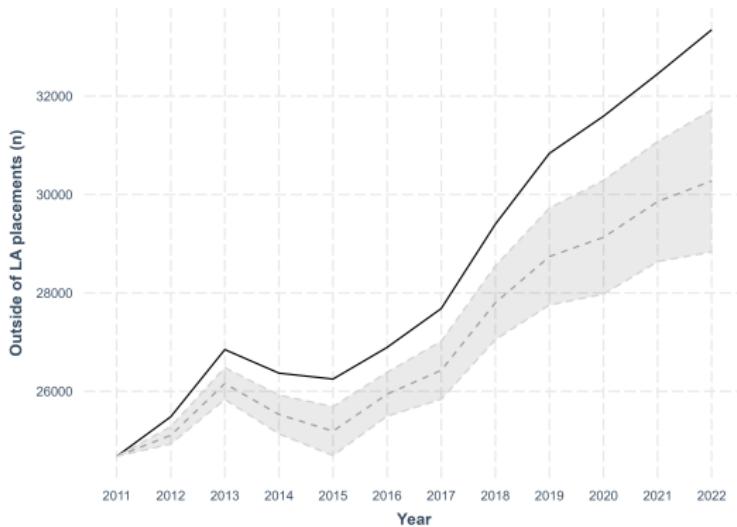
	Placed outside LA (%) [.95 ci]	p-value	Placed unstable (%) [.95 ci]	p-value
For-profit Outsourcing (%)	0.2347 [0.1654, 0.3041]	<0.0001	0.0897 [0.0168, 0.1626]	0.0204
Fostering placements (%)	-0.0449 [-0.1507, 0.0609]	0.4081	-0.0558 [-0.1555, 0.0439]	0.2764
CIC ethnicity (white, %)	0.0017 [-0.1251, 0.1286]	0.9787	-0.0924 [-0.2219, 0.0371]	0.1686
CIC Gender (Female, %)	0.1061 [-0.0501, 0.2622]	0.1869	-0.1705 [-0.3325, -0.0086]	0.0428
CIC (n)	-0.0024 [-0.0086, 0.0037]	0.4438	0.0052 [-0.0038, 0.0141]	0.2663
Short term only (%)	0.0023 [-0.1147, 0.1193]	0.9691	-0.0015 [-0.1216, 0.1186]	0.9808
Care Spend (£, Ms)	0.1285 [0.0371, 0.2199]	0.0090	-0.0577 [-0.1429, 0.0275]	0.1932
Num.Obs.	1244	1244	932	932
R2	0.209	0.209	0.070	0.070
R2 Adj.	0.084	0.084	-0.132	-0.132
CCG Fixed Effects	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes
Clustered Standard Errors	Yes	Yes	Yes	Yes

Table reports results from multivariate longitudinal regression models.

Robust SEs are clustered at LA level and use a bias-reduced linearization estimator (CR2)

Findings: Regression results in context of increases

Changes in number of children placed outside of their Local Authority



Dashed line represents predicted changes to the number of children in care placed outside their LA boundary had there been no increase in the number of children placed with for-profit providers.

Interpretation

Discussion and policy implications



- ▶ Evidence across a number of domains that for-profit, and sometimes third sector, children's social care providers deliver worse quality service;
- ▶ Increased use of private providers corresponds with more children away from their social networks and having to move placements
- ▶ Policy implication: In search for solutions to sufficiency crisis, expanding use of private sector may worsen the quality crisis
- ▶ Limitations: we do not know that the children's homes are delivering comparable services or serving comparable users. Potential for residual confounding in both papers.

- ▶ New 16 month project with team of 5 DSPI and DSPI-adjacent researchers
- ▶ Funded to build a data resource of the levels of outsourcing in children's and adults social care
- ▶ Will also use the time to conduct research including:
 - ▶ Expand analysis and data work to adult's social care
 - ▶ Explore reasons for 'market entries and exits'
 - ▶ Analyse influence of austerity on outsourcing of services
 - ▶ Impact of outsourced workforce on quality of care
 - ▶ Improve on categories of providers (equity, chains, service specialisms, churners)
 - ▶ Quantifying the sufficiency crisis and the cherry-picking problems

- ▶ England's marketised children's social care services has resulted in a largely for-profit provision of residential care.
- ▶ For-profit providers are reported by the independent regulator to deliver a worse quality of service for children in care.
- ▶ Increased outsourcing to for-profit providers associated with worsening of the quality crisis.

- ▶ Theoretical implications and discussions
 - ▶ Theory of privatisation strongly matters who provides the services. In children's social care, decision maker is very public, pure contracting-out?
 - ▶ Theory of privatisation strategy; divestment, delegation, displacement - Children's social care represents displacement because... is it possible to bring back in house?
 - ▶ Theory of contracting - is it possible to measure the correct outcomes from providers? Commissioning, in a non-consumer market really doesn't make sense if not.

Appendix

Table 1
Descriptive statistics of children's home outcomes.

Provider outcomes (2014–2021)				
Variable	N	Local Authority (N = 2,780)	For-profit (N = 10,064)	Third sector (N = 938)
Overall experiences and progress of children and young people	13,452			
Outstanding	578 (21%)	1,272 (13%)	152 (17%)	
Good	1,526 (56%)	5,904 (60%)	547 (61%)	
Requires improvement to be good	461 (17%)	1,928 (20%)	168 (18%)	
Inadequate	153 (5.6%)	718 (7.3%)	45 (4.7%)	
The effectiveness of leaders and managers	13,452			
Outstanding	611 (22%)	1,366 (14%)	161 (18%)	
Good	1,269 (47%)	4,821 (49%)	440 (48%)	
Requires improvement to be good	629 (23%)	2,568 (26%)	235 (26%)	
Inadequate	209 (7.7%)	1,067 (11%)	76 (8.3%)	
How well children and young people are helped and protected	13,452			
Outstanding	512 (19%)	1,125 (11%)	127 (14%)	
Good	1,528 (56%)	5,802 (59%)	533 (58%)	
Requires improvement to be good	526 (19%)	2,184 (22%)	206 (23%)	
Inadequate	152 (5.6%)	711 (7.2%)	46 (5.0%)	
Requirement binary	13,782			
0	1,362 (49%)	4,369 (43%)	453 (47%)	
1	1,418 (51%)	5,695 (57%)	585 (53%)	
Recommendation binary	13,782			
0	1,331 (48%)	4,457 (44%)	409 (44%)	
1	1,449 (52%)	5,607 (56%)	529 (56%)	
Number of Requirements	13,782			
Mean (Median)	1.61 (1.00)	2.02 (1.00)	1.82 (1.00)	
Range (SD)	0.00, 28.00 (2.35)	0.00, 72.00 (2.93)	0.00, 19.00 (2.65)	
Number of Recommendations	13,782			
Mean (Median)	1.70 (1.00)	1.87 (1.00)	2.18 (1.00)	
Range (SD)	0.00, 59.00 (4.11)	0.00, 82.00 (4.33)	0.00, 64.00 (5.43)	
Provider Age (Months)	12,464			
Mean (Median)	173 (206)	122 (106)	164 (127)	
Range (SD)	3, 230 (54)	0, 441 (68)	7, 577 (105)	
Number of Places	11,548			
Mean (Median)	6 (5)	4 (4)	6 (5)	
Range (SD)	1, 21 (3)	1, 31 (2)	1, 58 (4)	
Chain size	7,524			
Mean (Median)	6 (6)	21 (6)	6 (5)	
Range (SD)	1, 17 (4)	1, 153 (41)	1, 18 (5)	

Appendix



Table 2
Associations between children's home Ofsted ratings and ownership status.

	Overall Experiences		Effectiveness of Leadership		Help and Protection for Children	
	(1)	(2)	(3)	(4)	(5)	(6)
For-Profit [ref: LA]	0.561*** (0.086)	0.663*** (0.122)	0.581*** (0.078)	0.647*** (0.108)	0.611*** (0.078)	0.723** (0.109)
Third Sector [ref: LA]	0.807 (0.148)	0.717+ (0.194)	0.760* (0.134)	0.690* (0.175)	0.739* (0.135)	0.770 (0.177)
Age (Months)		1.003*** (0.001)		1.003*** (0.001)		1.003*** (0.001)
Chain size (n)		1.000 (0.001)		1.001 (0.001)		1.001 (0.001)
Places (n)		1.000 (0.018)		0.996 (0.016)		0.986 (0.016)
Observations	13,452	7,410	13,452	7,410	13,452	7,410
Provider Random Effects	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Clustered Standard Errors	Yes	Yes	Yes	Yes	Yes	Yes
AIC	27121.8	14740.7	30966.8	17073.2	27785.3	15087.2
BIC	27219.4	14830.5	31064.4	17163.0	27882.9	15177.0
RMSE	2.40	2.37	2.41	2.40	2.38	2.35

+p < 0.1, *p < 0.05, **p < 0.01, ***p < 0.001.

All coefficients are displayed in odds ratios. Data on the company which owns the provider, and the number of places is only available after 2018 so models 2, 4, and 6 have fewer observations.

Appendix

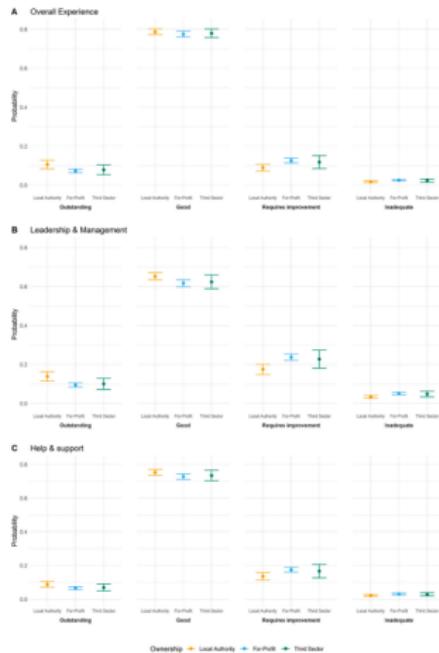


Fig. 2. Predicted probabilities of children's homes achieving each Ofsted rating by ownership status.

Appendix

Table 3
Violated Ofsted requirements and received recommendations by ownership status.

	Number of Requirements		Requirement Binary		Number of Recommendations		Recommendation Binary	
	<i>linear mixed-effects</i>		<i>generalized linear mixed-effects</i>		<i>linear mixed-effects</i>		<i>generalized linear mixed-effects</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
For-Profit [Local Authority]	0.379*** (0.073)	0.380*** (0.099)	1.338*** (0.099)	1.442** (0.166)	0.203. (0.111)	0.391*** (0.076)	1.136. (0.075)	1.529*** (0.001)
Third Sector [Local Authority]	0.192 (0.127)	0.270+ (0.161)	0.934 (0.119)	1.069 (0.199)	0.413* (0.194)	0.382** (0.123)	1.147 (0.133)	1.455*** (0.001)
Age (months)		-0.002*** (0.001)		0.999* (0.001)		0.001*** (0.0004)		1.001*** (0.0002)
Chain size		-0.003** (0.001)		0.999 (0.001)		-0.001+ (0.001)		0.997*** (0.0004)
Places (n)		0.054*** (0.015)		1.019 (0.018)		0.024* (0.012)		1.023*** (0.0005)
Observations	13,782	7,410	13,782	7,410	13,782	7,410	13,782	7,410
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Provider Random Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-32,603.930	-17,107.440	-6,552.483	-3,785.300	-39,210.630	-15,760.940	-6,827.673	-4,044.506
Akaike Inf. Crit.	65,231.860	34,238.870	13,126.970	7,592.601	78,445.250	31,545.880	13,677.350	8,111.012
Bayesian Inf. Crit.	65,322.230	34,321.800	13,209.810	7,668.617	78,535.630	31,628.800	13,760.190	8,187.029

+p < 0.1, *p < 0.05, **p < 0.01, ***p < 0.001.

Data on the company which owns the provider, and the number of places is only available after 2018 so models 2, 4, 6 and 8 have fewer observations.

Appendix



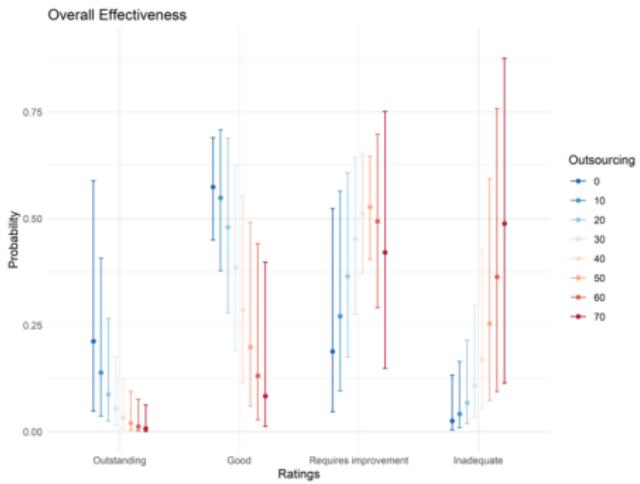
Table 4
Associations between outsourcing and local authority ofsted ratings.

	Overall Effectiveness		Impact of Leaders		Experiences of children who need help and protection		Experiences and progress of children in care and care leavers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
For-profit Outsourcing (%)	.956** (.016)	.953* (.019)	.961* (.015)	.956** (.015)	.952** (.018)	.959 (.024)	.96* (.019)	.957* (.02)
IMD Extent (%)		.984 (.008)		.988 (.009)		.966** (.011)		.989 (.008)
Under 18 population (%)		.801* (.08)		.804* (.08)		.886 (.095)		.863 (.099)
CIC ethnicity (% White)		.883* (.05)		.888* (.052)		.856** (.046)		.881** (.038)
CIC sex (% Female)		.989 (.015)		.983 (.013)		.993 (.018)		1.003 (.019)
Total children in care (N)		.971 (.034)		.998 (.038)		.976 (.037)		.949 (.056)
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	147	144	147	144	147	144	147	144

+p < 0.1, *p < 0.05, **p < 0.01, ***p < 0.001.

All coefficients are displayed in odds ratios.

Figure A16: LA predicted probabilities



We then conduct nominal tests on these models and find that we should include nominal effects for the number of places in all models, chain size in model 2 and age in model 3. We also conduct scale tests on the models and find that model 2 should include scale effects for age.

When we include these nominal and scale effects, we find a similar direction and magnitude of effect size of for-profit ownership.

Table A3: Provider Partial proportional odds

	Overall Experiences		Effectiveness of Leadership	Help and Protection for Children
	Model 1	Model 2		
For-Profit [ref: LA]	0.757*** (0.050)	0.720*** (0.045)	0.794*** (0.052)	
Third Sector [ref: LA]	0.821+ (0.085)	0.797* (0.080)	0.855 (0.089)	
Age (Months)	1.002*** (0.000)	1.002*** (0.000)		
Chain size (n)	1.000 (0.001)	1.001 (0.001)	1.001 (0.001)	
Places (n)		0.992 (0.010)		
Num.Obs.	7410	7410	7410	
AIC	15782.7	18050.6	15870.6	
BIC	15851.8	18105.9	15953.5	
RMSE	2.52	2.53	2.47	

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Appendix

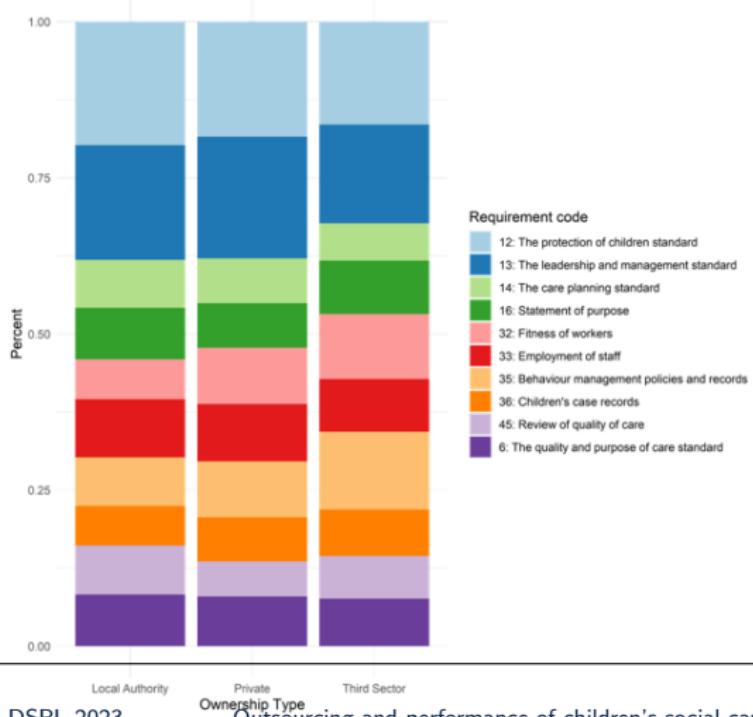


Table A6: Provider age interaction

	Overall Experiences	Effectiveness of Leadership		Help and Protection for Children
		Model 1	Model 2	
For-Profit [ref: LA]	0.562*** (0.080)	0.587*** (0.079)		0.575*** (0.082)
Third Sector [ref: LA]	0.558** (0.103)	0.574** (0.101)		0.481*** (0.088)
Age (Months)	1.001 (0.001)	1.001 (0.001)		1.001 (0.001)
Interaction term [For-Profit]	1.001+ (0.001)	1.001 (0.001)		1.002+ (0.001)
Interaction term [Third Sector]	1.002* (0.001)	1.002+ (0.001)		1.003** (0.001)
Num.Obs.	12619	12617		12620
AIC	26733.2	30264.3		26917.4
BIC	26792.7	30323.9		26977.0
RMSE	2.53	2.53		2.49

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Figure A9: Most violated requirements
Requirement Codes



The protection of children standard

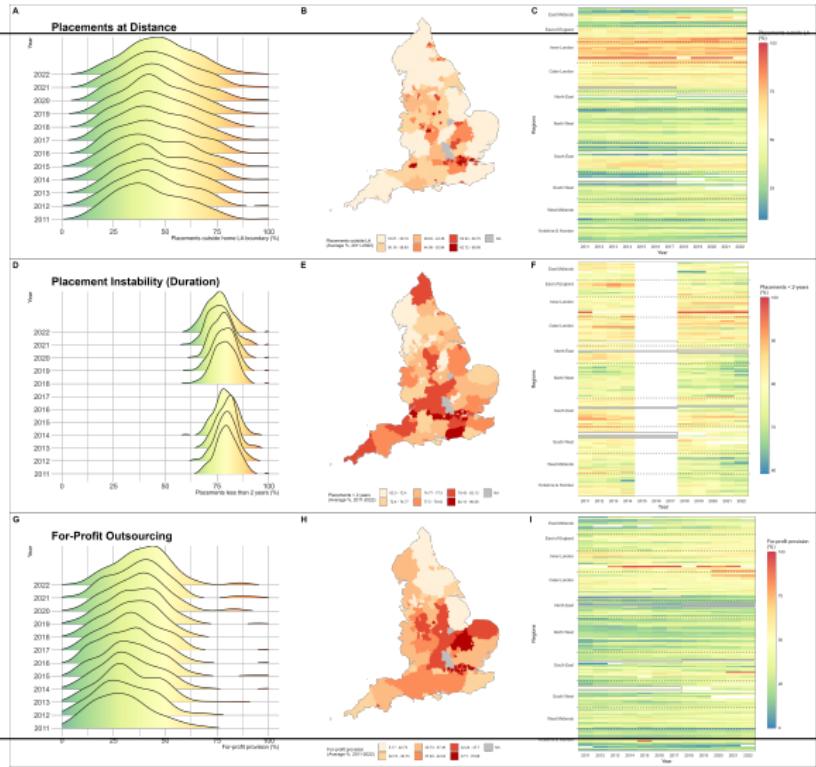
- 12.—(1) The protection of children standard is that children are protected from harm and enabled to keep themselves safe.
- (2) In particular, the standard in paragraph (1) requires the registered person to ensure—
- (a) that staff—
 - (i) assess whether each child is at risk of harm, taking into account information in the child's relevant plans, and, if necessary, make arrangements to reduce the risk of any harm to the child;
 - (ii) help each child to understand how to keep safe;
 - (iii) have the skills to identify and act upon signs that a child is at risk of harm;
 - (iv) manage relationships between children to prevent them from harming each other;
 - (v) understand the roles and responsibilities in relation to protecting children that are assigned to them by the registered person;
 - (vi) take effective action whenever there is a serious concern about a child's welfare; and
 - (vii) are familiar with, and act in accordance with, the home's child protection policies;
 - (b) that the home's day-to-day care is arranged and delivered so as to keep each child safe and to protect each child effectively from harm;
 - (c) that the premises used for the purposes of the home are located so that children are effectively safeguarded;
 - (d) that the premises used for the purposes of the home are designed, furnished and maintained so as to protect each child from avoidable hazards to the child's health; and
 - (e) that the effectiveness of the home's child protection policies is monitored regularly.

Appendix

Table A19: Predicted Probabilities

Inspection category	Rating	Local Authority			For-Profit			Third Sector		
		Predicted probability	Lower CI	Upper CI	Predicted probability	Lower CI	Upper CI	Predicted probability	Lower CI	Upper CI
Overall Experience	Outstanding	0.106239	0.085008	0.127509	0.073246	0.063741	0.08275	0.078699	0.053801	0.103596
	Good	0.787098	0.772247	0.801949	0.774719	0.759149	0.790289	0.778962	0.75725	0.800674
	Requires Improvement	0.089465	0.071968	0.106963	0.126377	0.113791	0.138963	0.118559	0.085403	0.151714
	Inadequate	0.017178	0.013006	0.02135	0.025659	0.021757	0.02956	0.023781	0.015593	0.031969
	Leadership & management	0.139139	0.115438	0.16284	0.094782	0.084477	0.105088	0.100461	0.07254	0.128381
Help and Support	Outstanding	0.652329	0.634389	0.67027	0.616699	0.598664	0.634734	0.623969	0.588632	0.659306
	Good	0.174794	0.149136	0.200453	0.237345	0.220768	0.253921	0.22744	0.181178	0.273702
	Requires Improvement	0.033737	0.026796	0.040678	0.051174	0.044861	0.057487	0.048131	0.033791	0.062471
	Inadequate	0.088859	0.072173	0.103546	0.065891	0.057771	0.074012	0.069872	0.049295	0.090449
	Outstanding	0.75282	0.735224	0.770416	0.728036	0.711304	0.744768	0.734092	0.703074	0.76511
Overall Experience	Good	0.135424	0.113435	0.157412	0.17468	0.160199	0.189162	0.166502	0.127083	0.205922
	Requires Improvement	0.022897	0.017898	0.027895	0.031393	0.026972	0.035814	0.029533	0.020277	0.03879
	Inadequate	0.0017178	0.0013006	0.002135	0.0025659	0.0021757	0.002956	0.0023781	0.0015593	0.0031969

Appendix



Appendix

Table 1: Relationship between for-profit outsourcing and placement outcomes

	Two Way Fixed Effects				Covariate Balanced using Propensity Scores				Two Way Fixed Effects				Covariate Balanced using Propensity Scores			
	Placements outside LA [.95 ci]	p-value	Placements outside LA [.95 ci]	p-value	Placements outside LA [.95 ci]	p-value	Placements unstable (%) [.95 ci]	p-value	Placements outside LA [.95 ci]	p-value	Placements unstable (%) [.95 ci]	p-value	Placements unstable (%) [.95 ci]	p-value	Placements unstable (%) [.95 ci]	p-value
For-profit Outsourcing (%)	0.2743 [0.2087, 0.3399]	0.2347 <0.0001 [0.1654, 0.3041]	0.2261 <0.0001 [0.1532, 0.2980]	0.0903 [0.0310, 0.1496]	0.0897 [0.0168, 0.1625]	0.0961 [0.0204, 0.1678]										
Fostering placements (%)	-0.0449 [-0.0609]	-0.0493 [-0.0544]	0.3552	-0.0558 [-0.0439]	-0.0446 [-0.0486]	0.3528										
CIC ethnicity (white, %)	0.0017 [-0.1251, 0.1286]	-0.0212 [0.9787, 0.1006]	0.7345	-0.0924 [-0.0371]	-0.0946 [-0.0287]	0.1398										
CIC gender (Female, %)	0.1061 [-0.0501, 0.2622]	0.0920 [-0.0673, 0.2513]	0.2613	-0.1705 [-0.0086]	-0.1764 [-0.0171]	0.0339										
CIC (n)	-0.0024 [-0.0086, 0.0037]	-0.0050 [-0.0093, 0.0035]	0.3645	0.0052 [-0.0058]	0.0065 [-0.2663, 0.0024, 0.0141]	0.1694										
Short term only placements (%)	0.0023 [-0.1147, 0.1193]	0.0080 [-0.0691, 0.1146, 0.1306]	0.8983	-0.0015 [-0.1216, 0.1186]	0.0167 [-0.9808, 0.0915, 0.1249]	0.7645										
Children's social care Expenditure (£, M\$)	0.1285 [0.0371, 0.2199]	0.1432 [0.0512, 0.2351]	0.0054	-0.0577 [-0.1429, 0.1932, 0.1459, 0.0275]	-0.0662 [-0.1932, 0.1459, 0.0135]	0.1181										
Numb.Objs	1796	1796	1244	1244	1342	932	932	932	932	932	932	932				
R2	0.198	0.198	0.209	0.209	0.962	0.962	0.027	0.027	0.070	0.070	0.074	0.674				
R2 Adj.	0.116	0.116	0.084	0.084	0.956	0.956	-0.109	-0.109	-0.132	-0.132	0.605	0.605				
AIC					6834.9	6834.9					5180.6	5180.6				
BIC					7711.5	7711.5					5993.3	5993.3				
LRTAK					-5246.471	3246.471					-2422.301	2422.301				
F					161.522	161.522					9.520	9.520				
CCG Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Clustered Standard Errors	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				

Table reports results from multivariate longitudinal regression models.

Robust SEs are clustered at CCG level and use a bias-reduced linearization estimator (CR2)

Appendix



Table A3

	Placements outside LA [.95 ci]	p-value
Number of For-Profit Placements (n)	0.2724 [0.1485, 0.3963]	0.0001
Fostering placements (%)	0.0840 [-0.5099, 0.6779]	0.7824
CIC ethnicity (white, %)	0.0351 [-0.7414, 0.8115]	0.9298
CIC sex (Female, %)	0.6628 [-0.0493, 1.3748]	0.0719
CIC (n)	0.2724 [0.1718, 0.3729]	0.0000
Short term only placements (%)	0.0110 [-0.5807, 0.6027]	0.9711
Children's Social Care Expenditure (£, Ms)	0.1047 [-0.9644, 1.1738]	0.8490
Num.Obs.	1168	1168
R2	0.975	0.975
R2 Adj.	0.971	0.971
AIC	10428.6	10428.6
BIC	11218.4	11218.4
Log.Lik.	-5058.293	-5058.293
F	255.802	255.802
CCG Fixed Effects	Yes	Yes
Time Fixed Effects	Yes	Yes
Clustered Standard Errors	Yes	Yes

Table reports results from multivariate longitudinal regression models.

Robust SEs are clustered at CCG level and use a bias-reduced linearization estimator (CR2).

DSPI, 2023 Outsourcing and performance of children's social care services 32

Appendix

Table A4

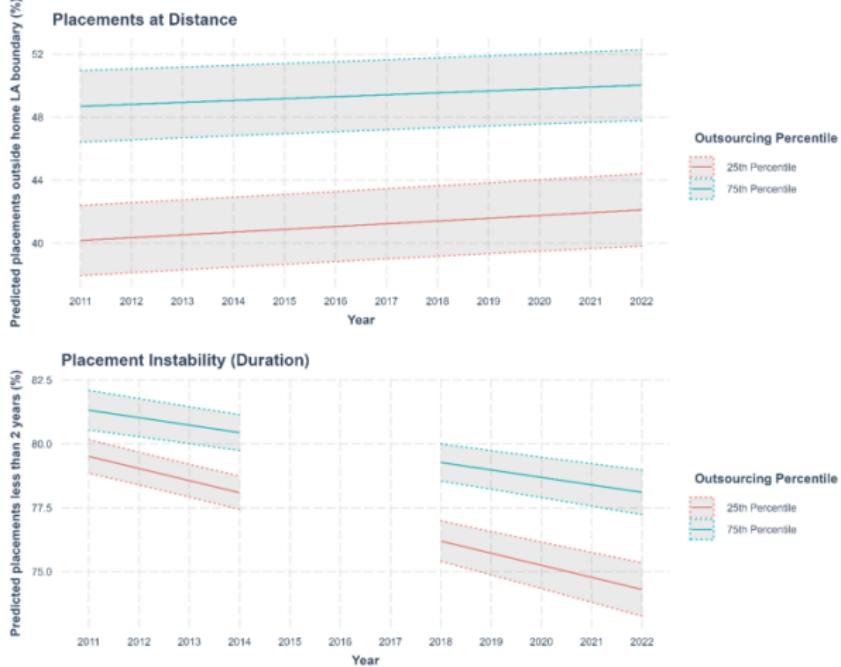
	TWFE		TWFE		CBPS		TWFE		TWFE		CBPS	
	Missing Incidents [.95 ci]	p-value	Missing Incidents [.95 ci]	p-value	Missing Incidents [.95 ci]	p-value	Away Incidents (%) [.95 ci]	p-value	Away Incidents (%) [.95 ci]	p-value	Away Incidents (%) [.95 ci]	p-value
For-profit Outsourcing (%)	0.0346 [0.0037, 0.0655]	0.0362 0.0030, 0.0798]	0.0384 [-] 0.0852 0.0042, 0.0827]	0.0392 [-] 0.0927 0.0024, 0.0748]	0.0362 [-] 0.0758 0.0185, 0.0910]	0.0362 [-] 0.0277 0.0134, 0.0976]	0.0421 [-] 0.2077 0.1498					
Fostering placements (%)	-0.0561 [-] 0.1312, 0.0190]	-0.0732 [-] 0.1483 0.1476, 0.0012]	-0.0594	-0.0367 [-] 0.0970 0.2403 0.1002,	-0.0411 [-] 0.0179]	-0.0104 [-] 0.2118 0.0779 0.1830,	-0.0789 [-] 0.0091 0.1445					
CIC ethnicity (white, %)	-0.0721 [-] 0.1858, 0.0417]	-0.0634 [-] 0.2198 0.1745, 0.0477]	0.2692	-0.1014 [-] 0.2118 0.0779 0.1830,	-0.0120 [-] 0.0111 0.0776 0.0005,	-0.1230 [-] 0.2512 0.2465]	0.0559					
CIC gender (Female, %)	0.0630 [-] 0.0650, 0.1909]	0.0711 [-] 0.3380 0.0545, 0.1968]	0.2714	-0.0047 [-] 0.0099 0.0004]	-0.0042 [-] 0.0090 0.0006]	-0.0056 [-] 0.0121 0.1249 0.0099,	-0.0049 [-] 0.0009 0.1002					
CIC (n)	-0.0047 [-] 0.0099, 0.0004]	-0.0042 [-] 0.0090 0.0006]	0.1210	-0.0056 [-] 0.0121 0.1249 0.0099,	-0.0049 [-] 0.0009 0.1002							
Short term only placements (%)	0.1287 [-] 0.0345, 0.2920]	0.0892 [-] 0.1389 0.0886, 0.2669]	0.3386	-0.0153 [-] 0.1955 0.08691 0.2143,	-0.0322 [-] 0.1648 0.1499]	0.7320						
Children's Social Care Expenditure (£, Ms)	0.0307 [-] 0.0447, 0.1062]	0.0277 [-] 0.4336 0.0497, 0.1050]	0.4936	0.0104 [-] 0.0844, 0.08325 0.0707,	0.0103 [-] 0.0844, 0.08325 0.0707,	0.8078						
Num Obs	1178	1178	720	720	720	1008	1008	617	617	617	617	
R2	0.007	0.007	0.034	0.034	0.743	0.007	0.007	0.034	0.034	0.746	0.746	
R2 Adj.	-0.151	-0.151	-0.247	-0.247	0.669	0.669	-0.183	-0.183	-0.299	-0.299	0.658	0.658
AIC					3420.7	3420.7					2962.0	2962.0
BIC					4171.7	4171.7					3669.9	3669.9
Log Lik.					-1546.331	-1546.331					-1320.976	1320.976
F					9.961	9.961					8.501	8.501
CCG Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Clustered Standard Errors	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Table reports results from multivariate longitudinal regression models.

Robust SEs are clustered at the CCG level. DSPI = 2023 bias-reduced linear mixed model. **Outsourcing and performance of children's social care services** 33

Appendix

Figure A2



Appendix

Table A6

	TWFE		TWFE		CBPS		TWFE		TWFE		CBPS	
	Placements over 20 miles [95 ci]	p-value	Placements over 20 miles [95 ci]	p-value	Placements over 20 miles [95 ci]	p-value	More than 3 placements [%] [95 ci]	p-value	More than 3 placements [%] [95 ci]	p-value	More than 3 placements [%] [95 ci]	p-value
For-profit Outsourcing (%)	0.1483 [0.0988, 0.1977]	0.0000	0.1024 [0.0573, 0.1475]	0.0023	0.1009 [0.0562, 0.1456]	0.0030	0.0363 [-0.0122, 0.0847]	0.1671	0.0319 [-0.0264, 0.0903]	0.3135	0.0308 [-0.0310, 0.0926]	0.3579
Fostering placements (%)		-0.0208 [-0.1173, 0.0757]		0.6754		-0.0170 [0.1126, 0.0785]		0.7295		-0.0444 [-0.1127, 0.0239]	-0.0495 [-0.1209, 0.0218]	0.1826
CIC ethnicity (white, %)		0.2258 [0.0993, 0.3522]		0.0012		0.2149 [0.0880, 0.3417]		0.0020		0.0532 [-0.0460, 0.1523]	0.0494 [-0.0552, 0.1541]	0.3600
CIC gender (Female, %)		-0.0594 [-0.2006, 0.0819]		0.4155		-0.0721 [0.2054, 0.0612]		0.2966		0.0210 [-0.0857, 0.1278]	0.0182 [-0.0894, 0.1259]	0.7421
CIC (n)		-0.0022 [-0.0093, 0.0050]		0.5582		-0.0034 [0.0125, 0.0056]		0.4827		0.0076 [0.0013, 0.0138]	0.0062 [-0.0005, 0.0130]	0.1128
Short term only placements (%)		-0.1750 [-0.5097, 0.1596]		0.3251		-0.1808 [0.5264, 0.1647]		0.3217		0.1859 [-0.0625, 0.4343]	0.1476 [-0.1250, 0.4201]	0.3027
Children's Social Care Expenditure (£, M)		0.0891 [0.0132, 0.1651]		0.0295		0.0780 [0.0013, 0.1546]		0.0976		-0.0206 [-0.0909, 0.0498]	-0.0146 [-0.0857, 0.0564]	0.6990
Num.Obs.	661	661	369	369	369	737	737	418	418	418	418	418
R2	0.106	0.106	0.175	0.175	0.976	0.976	0.013	0.013	0.064	0.064	0.641	0.641
R2 Adj.	-0.166	-0.166	-0.297	-0.297	0.962	0.962	-0.252	-0.252	-0.436	-0.436	0.449	0.449
AIC					1539.5	1539.5					1625.6	1625.6
BIC					2071.3	2071.3					2218.8	2218.8
Log Lik.					-633.729	-633.729					-665.778	665.778
F					70.652	70.652					3.348	3.348
COG Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clustered Standard Errors	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table reports results from multivariate longitudinal regression models.

Robust SEs are clustered at COG level and use a bias-reduced linearization estimator (CR2)

Appendix

Figure A3

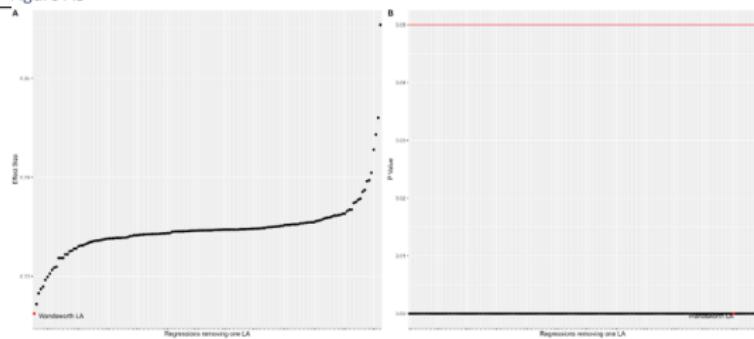


Figure A4

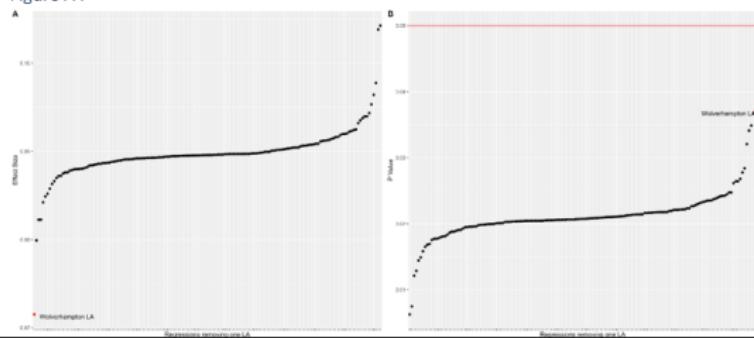
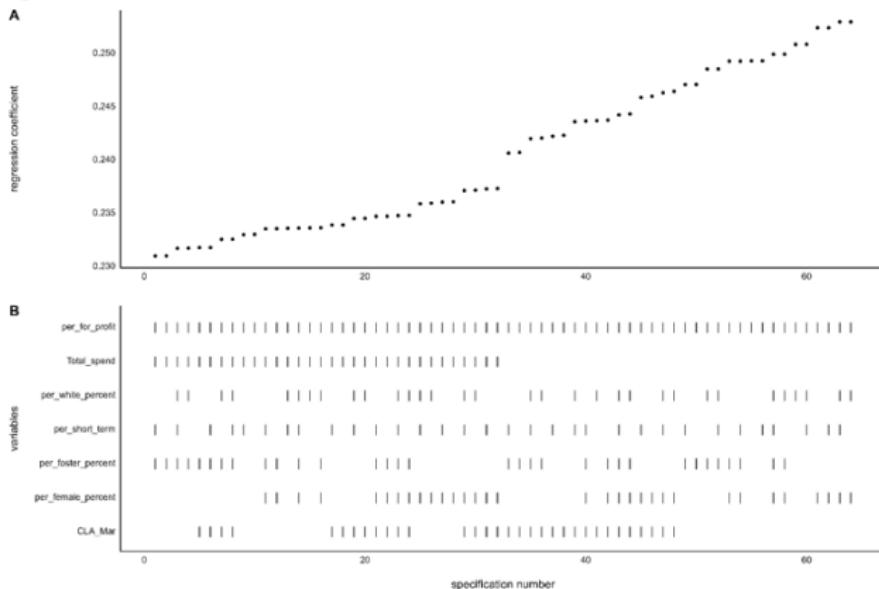


Figure A6



Appendix

Table A7:

	Overall Effectiveness (1)	Effectiveness of Leaders (2)	Experiences of children who need protection (3)	Experiences and progress of children (4)
Placements Outside LA (%)	0.968* (0.013)	0.970* (0.013)	0.974+ (0.013)	0.972* (0.014)
N _{Obs.}	145	145	145	145
AIC	368.4	367.1	330.3	334.2
BIC	407.1	405.8	369.0	372.9
RMSE	2.34	2.47	2.14	2.31
Region Fixed Effects	Yes	Yes	Yes	Yes

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

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Table A8:

	Overall Effectiveness (1)	Effectiveness of Leaders (2)	Experiences of children who need protection (3)	Experiences and progress of children (4)
Placements Unstable (%)	1.020 (0.040)	1.034 (0.041)	1.004 (0.040)	1.027 (0.042)
N _{Obs.}	106	106	106	106
AIC	292.6	288.3	265.9	265.6
BIC	327.2	322.9	300.5	300.2
RMSE	2.41	2.51	2.22	2.37
Region Fixed Effects	Yes	Yes	Yes	Yes

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001