

Explaining Variation in Spending – Children’s Services

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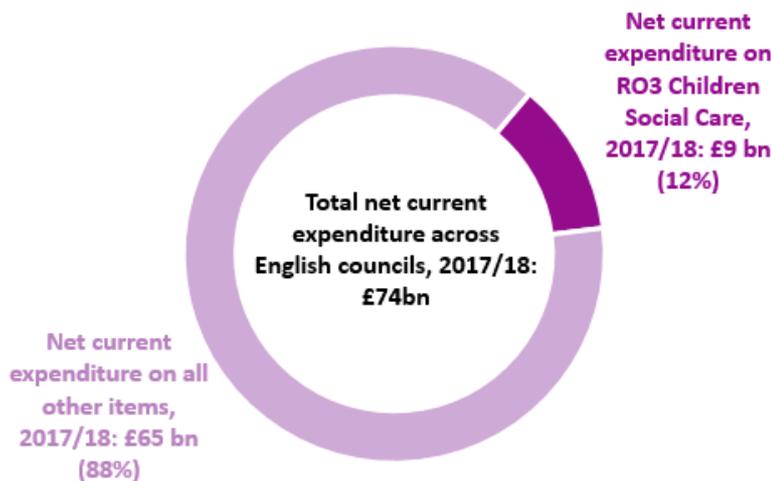
Executive Summary

Rationale

This analysis seeks to explain differences in spending on children’s social care per young person (aged 0-25) between councils. It applies to all upper and single-tier councils in England, excluding Isles of Scilly, City of London and two other councils which are outliers on the measure of spend per 0-25 year old and are thus unrepresentative of other councils. We cannot prove causal relationships with this analysis, only explore which factors are related to the rate of spending per 0-25 year old.

Background

English councils spent £8.8bn on children’s social care in 2017/18 – that’s 12 per cent of total council service expenditure in that financial year.



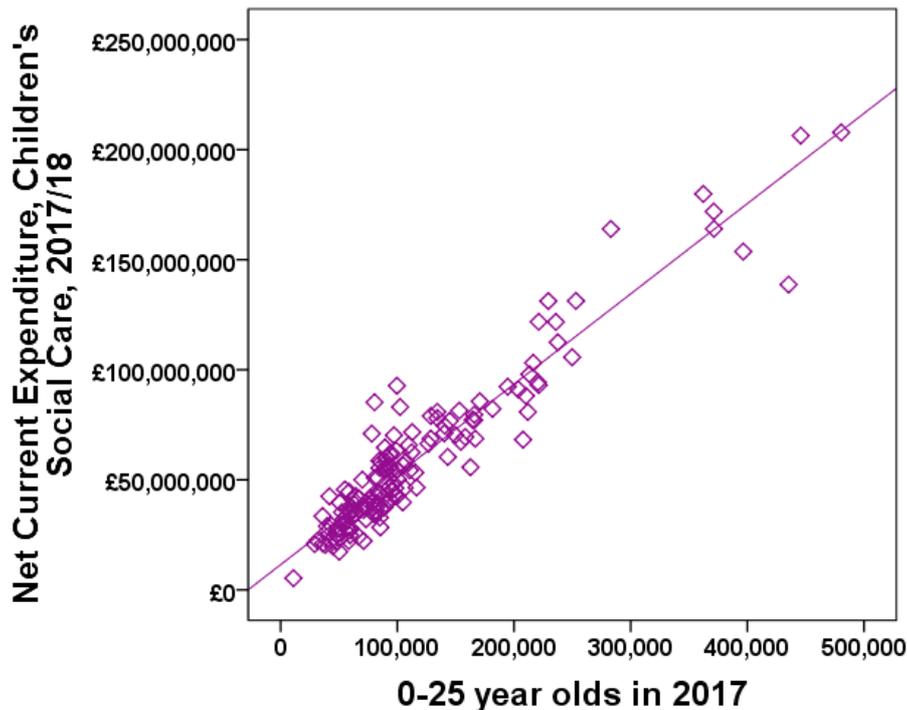
The highest spending subdivisions of children’s social care (adjusted for inflation) were looked after children, safeguarding, family support services and sure start children’s centres. Total spend on children’s social care (adjusted for inflation) increased by £339m (four per cent) between 2014/5 and 2017/18.

The Local Government Association (LGA) estimates that children’s social care in England is facing a £3bn funding gap by 2024/25. This is part of a wider estimated funding gap across local government of £7.8bn. This represents the amount of money required to maintain services at current levels, and does not include funding to increase provision or tackle unmet need.

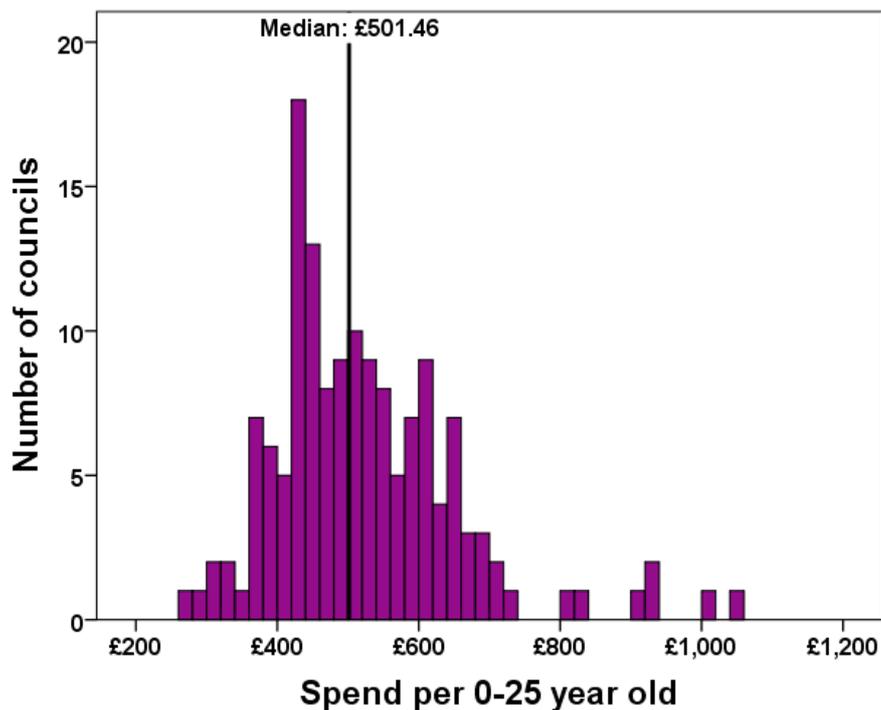
The applicable population of service users of children’s social care is 0-25 year old residents. The core population is 0-17 year old residents, but some services are now available for young people up to the age of 25. At 17.4m in 2017, the 0-25 year old population represented 31 per cent per cent of the total English resident population. Most of this population did not use children’s social care services. More specific populations were the 389,000 children in need and the 73,000 looked after children.

Spending and population

In general, however, although most 0-25 year olds did not require assistance from children's social care services, there was a strong positive relationship between an authority's expenditure on children's social care and the size of its 0-25 year old population. This means that local authorities with a larger number of 0-25 year olds tend to spend more on children's social care.



Dividing an authority's expenditure on children's social care by its number of 0-25 year old residents (with adjustments made for area costs: see Technical Appendix) gives its rate of spending on children's social care per 0-25 year old. In 2017/18 this spending rate, not including the four excluded councils, varied from around £274 per 0-25 year old to around £1,057. A typical value, the median, was around £501 per 0-25 year old. This means that there was a difference of £783 per 0-25 year old between the council with the lowest spending rate and the council with the highest. A typical spending rate for a lower spending council, the lower quartile, was around £433 per 0-25 year old, and a typical rate for a higher spending council, the upper quartile, was around £597 per 0-25 year old. The difference between these quartiles - the interquartile range - was £164 per 0-25 year old, representing the level of variation between the most typical councils.



Explaining variation in spending rate

To try to understand why some councils have a higher spending rate than others, and to measure how much of this variation could be the result of factors beyond local authority control, the LGA identified 102 other factors of local areas, such as their level of deprivation and age profile, which were considered to be outside direct council control. These factors were tested in a series of statistical models which explored whether they were related to spend per 0-25 year old in 2017/18.

The optimal model – a list of the factors which had the strongest links to spend per 0-25 year old, and which could therefore explain the largest amount of variation in the spending rate – consisted of 17 significant factors which can explain 71 per cent of variation in spend per 0-25 year old between councils. This means that at least 71 per cent of the differences in spend per 0-25 year old between councils are linked to factors outside of local authority control. The remaining 29 per cent is not necessarily within local authority control – it could be due to other factors outside their control which have not been measured.

The 17 factors can be grouped into four broad categories: deprivation and wealth, related to higher spend per 0-25 year old; health problems, with disability being related to lower spend per 0-25 year old but injuries affecting young people related to higher spend on the same; number of young people, related to lower spend per 0-25 year old; and rate of referrals to children’s social care, related to higher spend per 0-25 year old. The reasons behind some of these relationships are clear, whilst others are not fully explained. However, all of these relationships have been identified by robust statistical modelling.

Groups of factors and their relationships with spend per 0-25 year old	
Group	Relationship
Deprivation and wealth	Positive - Mainly higher spending rate in areas with high deprivation; also in areas with high house prices
Health problems	Mixed - some associated with higher spending rate, injuries in young people associated with lower spending rate
Youth of population	Negative - Younger population associated with lower spending rate
Social care referrals	Positive - Rate of referrals to children's social care associated with higher spending rate

In conclusion, children's social care is a highly important area of council expenditure facing an increasingly large funding gap. At least 71 per cent of variation in spend per 0-25 year old is outside of local authority control. The remaining 29 per cent of variation is unknown – it is not necessarily within local authority control, and may be the result of other factors beyond their control which have not been measured. Furthermore, within that 29 per cent, even if it was possible to reduce some spending, councils would not be able to change their spending rates significantly without investment and time.

Technical Appendix

Introduction

The Local Government Association (LGA) has undertaken a series of statistical analyses which seek to understand differences in spending per unit of population between councils. The overall finding is that local factors outside of councils' control are responsible for over 70 per cent of variations in spend per young person between English councils.

This report builds on work previously conducted for the LGA by Newton Europe¹, and uses data extracted from Government outturn reports and a wide variety of other metrics which describe councils and local areas, most of which is available from LG Inform². This data was fed into statistical models in a widely recognised process known as linear regression analysis, which explains variation in one metric based on a number of other metrics.

In this case, the models were looking to explore how much of the variation in spending on children's social care can be explained using factors which are beyond councils' control. As such, the variation explained by the model is a figure which councils would find very difficult to reduce. The unexplained variation which falls outside of the model is not necessarily easy to reduce; it may be within or outside of councils' control.

This report uses statistical analysis to describe and identify factors commonly associated with variation in spending, although statistical associations cannot be used to prove causal relationships.

The analysis applies to all upper and single-tier councils in England. Please note, however, that due to their unusual demographics, the City of London Corporation and the Council of the Isles of Scilly have not been included in the analysis. Two other atypical councils, Slough and Kensington and Chelsea, were also excluded because they were outliers³.

It is notoriously difficult to explain variations in spend on local government services, since the factors or combination of factors are invariably complex. In this report the LGA sets out some first thoughts towards explaining why particular variables have an impact, but we would welcome thoughts or evidence from others.

¹ Making Sense: Understanding the drivers of variation in spend on Children's Services, LGA and Newton Europe. Available from: https://newton-cdn.ams3.cdn.digitaloceanspaces.com/pdfs/hybrid/spend_on_services.pdf

² LG Inform is the Local Government Association's data benchmarking tool, available at <https://lginform.local.gov.uk/>

³ This is common practice in modelling, where analysts may remove a data point that differs considerably from other observations, since it may indicate measurement error.

The measure for spend per young person

The metric which forms the basis of this report is net current expenditure on children's social care per 0-25 year old in the resident population (henceforth spend per 0-25 year old), for the financial year 2017/18, the latest time period available at the time of writing.

Total service expenditure by councils (excluding other types of local authority, such as fire authorities) in 2017/18 was approximately £74bn⁴. Children's social care service expenditure in the same financial year was almost £9bn⁵. This makes spending on children's social care around 12 per cent of councils' service expenditure⁶.

Spending figures for each authority have been obtained from the UK Government's local authority revenue expenditure and financing data⁷. The metric of spending used was net current expenditure, which excludes spending funded by sales, fees and charges. This is because the categorisation of grant income was not always uniform across councils. Net current expenditure includes all forms of grant income by default, and as such represents the most consistent available measure of spending for comparison between councils.

In some cases, spend figures for councils for the most recent financial year were not available. In these cases, spend was estimated using the following methodology: the average per cent change in spend between the most recent financial year and the previous financial year for all councils with data for both years was calculated; and this figure was used to estimate the current spending level of councils with missing data, based on their spending levels for the previous financial year⁸.

⁴ This calculation was based on data obtained from 'Revenue outturn summary (RS) 2017 to 2018 – revised', available at <https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-england-2017-to-2018-individual-local-authority-data-outturn>

⁵ Obtained from 'Local authority revenue expenditure and financing England: 2017 to 2018 final outturn – revised', available at <https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-england-2017-to-2018-final-outturn>

⁶ Total service expenditure by councils recorded here includes significant amounts of spending that is not directly under councils' control but is not separately identified – for example spending by local authority schools funded by Dedicated Schools Grant. Spending on Children's Social care is nearer to 20% of councils' service spending if schools and similar spending is excluded.

⁷ Available at: <https://www.gov.uk/government/collections/local-authority-revenue-expenditure-and-financing>

⁸ This imputation was carried out for 26 cases.

The denominator of 0-25 year old population was taken from the Office of National Statistics (ONS) mid-year population estimates 2017⁹, which was extracted from LG Inform. This age group was chosen to represent best the number of potential service users (as 25 is now the maximum age within the remit of children's services). The denominator was highly and significantly positively correlated with the numerator (net current expenditure on children's social care) across councils, suggesting that overall levels of spend are closely related to the size of the applicable population¹⁰.

The measure for spend per 0-25 year old was calculated according to the following formula:

$$\frac{\text{Spend on children's social care}}{\text{Number of 0 – 25 year olds} \times \text{children and younger adults' area cost adjustment}}$$

Area Cost Adjustment refers to a weighting calculated by the UK Government to compensate English authorities for differences in costs in different parts of the country due to variations in labour and business rates¹¹. A measure which removes the effects of area costs provides a more comparable metric between different councils.

Variation in spend per 0-25 year old between councils

Levels of spend per 0-25 year old varied from £274 to £1,057. The 'median' or middle-ranked council spent approximately £501 per 0-25 year old¹². The lower and upper quartiles for spend per 0-25 year old - that is, the value for the councils ranked halfway between the lowest and the median, and between the median and the highest council - were £433 and £597 respectively. There was a £782 difference between the lowest and highest spending rate councils, and a £164 difference between the lower and upper quartile councils (the interquartile range)¹³.

⁹ Available at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimate>

¹⁰ Correlation coefficient 0.95 (perfect positive relationship would be 1.00), significance: 99.9%

¹¹ For a guide to the methodology behind these adjustments, see here:

<http://webarchive.nationalarchives.gov.uk/20140505105916/http://www.local.communities.gov.uk/finance/1314/methacas.pdf>

¹² The mean, another kind of average, for councils was £524. Both figures are valid averages for spend per 0-25 year old, but as the median cannot be distorted by outliers it is a more reliable figure.

¹³ Just as the mean and median are different but valid measures of an average, so the standard deviation and interquartile range are different but valid measures of variation. The standard deviation should be used in conjunction with the mean, as it is the average distance of a given council from the mean, and the interquartile range should be used in conjunction with the median,

Table 1. Summary statistics for spend per 0-25 year old	
	£ per 0-25 year old
Minimum (lowest spending rate)	£274
Lower quartile (typical for lower spending rates)	£433
Median (typical for councils overall)	£501
Upper quartile (typical for higher spending rates)	£597
Maximum (highest spending rate)	£1,057
Range between minimum and maximum	£782
Interquartile range between lower and upper quartiles	£164
Mean (total of all councils' spending rates divided by the number of councils)	£524
Standard deviation (average distance from the mean)	£134

Note: excludes the City of London Corporation, the Council of the Isles of Scilly, Slough and Kensington and Chelsea.

Explanatory metrics

To explore which factors may be connected with variation in spend per 0-25 year old¹⁴, a number of other metrics were obtained for each council. These provided a statistical profile of the councils and their local areas, including details such as council type, population and population density, educational attainment, economic conditions, health and details on statistics for children in care. Metrics included both overall figures for the last available period, and per cent change scores from the previous period. The full list of the 102 metrics considered can be found in Annex A to this report, along with the source from which each metric has been extracted.

Explanatory metrics associated with spend per 0-25 year old

The explanatory metrics were used to attempt to explain variations in spend per 0-25 year old across councils, in a process known as linear regression analysis. This is a statistical model which measures the extent to which variations in one metric (in this case, spend per 0-25 year old) are associated with corresponding variations in a set of other metrics. The aim of such modelling is to explain as much of the variation in the metric as possible, although in practice explaining 100 per cent of variation is unheard of and in some fields the amount explained rarely exceeds 50

as both are based on ranking the councils in order of spend per 0-25 year old and choosing the central, lowest quarter and highest quarter cases.

¹⁴ Please note that for technical reasons it is not possible to use anything in this analysis to confirm causal relationships, only to establish patterns of association which may, or may not, represent causal effects by which the explanatory metrics influence the level of spend per 0-25 year old.

per cent. Multiple models were run in an iterative algorithm, with non-associated metrics eliminated to arrive at an optimal model¹⁵.

The final model was able to explain 71 per cent of variation in spend per 0-25 year old. As the variables included in the model were considered by the LGA to be outside direct council control, this suggests that at least 71 per cent of variation is explained by local circumstances that a council cannot easily change. It is also possible that there are other metrics outside an authority's control, which are not currently available in statistical collections, which explain a still greater proportion of this variation.

Of the 102 explanatory metrics which were investigated, 22 were included in the optimal model, of which 17 were statistically significant¹⁶. Each metric made a contribution to the percentage of variation in spend per 0-25 year old which the overall model was able to explain, although some made a greater contribution than others. The contribution of each was the result of a positive or negative association between each metric and the spend per 0-25 year old metric.

The 17 significant metrics could be grouped into four broad categories. Table 2 provides a summary of these four groups, and a full summary of every metric in the model is included in Annex B to this report.

Most of these associations either confirm or augment the findings of an earlier piece of work by Newton Europe¹⁷, which found that five factors representing deprivation (associated with a higher spending rate), crime (higher spending rate), unemployment (higher spending rate), disposable income (higher spending rate), and size of young population (associated with a lower spending rate) could explain roughly 50 per cent of variations in spend per 0-25 year old. The analysis in this report has examined a wider initial pool of potential influencing factors than the Newton Europe work, and also considered change in metrics over time, hence its greater reach and explanatory power.

Both analyses found that spend per 0-25 year old was greater in areas with a smaller 0-25 year old population. It is possible that this could be due to economies of scale (in that some elements of services will cost the same for 50 clients as for 100 clients) or that an authority with many clients may have well-established processes and services for a wide range of needs, while an authority with fewer may find need to use more expensive bespoke services more often. Both analyses

¹⁵ Forward stepwise selection based on the Information Criterion (AICC) for entry or removal.

¹⁶ The selection algorithm chose the model which could explain the highest percentage of variation in spend per 0-25 year old. Five of the 22 metrics have no statistically significant relationship with the spending rate. Their presence in the model may be due to the fact that they help function as controls for the 17 significant metrics; the influence of some of the 17 metrics may otherwise have been obscured without them. However, their presence in the model does not interfere with observed relationships among the significant metrics.

¹⁷ Making Sense: Understanding the drivers of variation in spend on Children's Services, LGA and Newton Europe. Available from: https://newton-cdn.ams3.cdn.digitaloceanspaces.com/pdfs/hybrid/spend_on_services.pdf

also find that more deprived areas, with more crime and greater unemployment, tend to have higher spending per 0-25 year old. This might be due to the greater likelihood of children and young people in deprived areas encountering issues which might increase risks to their safety and wellbeing, and which might therefore necessitate the involvement of children's social services.

The Newton Europe research found that authorities in areas where people have higher gross disposable income tend to spend more per 0-25 year old. This variable did not appear in the final model of the present analysis, despite being among the 102 investigated. Instead, it was found that areas with higher median house prices tend to spend more per young person. Whilst these findings may appear contradictory to the finding that deprivation was associated with higher spend, it is possible for wealth and deprivation to coexist in a single area and for both to increase spend per 0-25 year old in different ways. Deprivation may be associated with social problems that increase risks to children's safety and wellbeing, leading to children's social services involvement; whereas high median house prices may be associated with higher housing costs for looked after children and running costs in general. As such, an authority with many social problems, but also high housing costs, would be expected to have a notably high spend per 0-25 year old.

Certain other factors found by the present analysis were not covered in the analysis done by Newton Europe. The percentage of an authority's resident population which was disabled appears to have a strong negative association with spend per 0-25 year old. This could be the result of meeting competing demands on council budgets from, for example, adult social care resulting in pressure to keep spending down in areas where demand is lower. Increase in median house price appears to be associated with lower spend per young person, despite median house price having a positive association. This does suggest that areas with quickly rising house prices tend to require less assistance from children's social care, though the reason for this is not immediately obvious. The analysis has also found that metrics of specific problems facing young people, such as low birth weight and hospital admissions for injuries in the young, tend to be associated with higher spend per young person.

Table 2. Summary of key metrics which explain differences in spend per 0-25 year old

	Association with spend per 0-25 year old	Number of significant metrics	Possible explanations
Deprivation and wealth	Associated with higher spending rate - Mainly higher spending rate in areas with high deprivation; also in areas with high house prices	7	Deprivation leads to greater numbers of social problems necessitating intervention, whilst high house prices may increase costs. Deprivation and wealth can exist side-by-side in the same authority.
Health problems	Mixed - some (like per cent of population disabled) associated with lower spending rate, injuries in young people associated with higher spending rate	7	Some health problems may divert funding away from children's social care to meet health and social care needs; others may be representative of harm to young people and thus necessitate children's social care interventions.
Age profile	Younger population associated with lower spending rate	2	Areas with more young people may achieve a lower spend per young person through economies of scale; or through more routine practices (and fewer bespoke services) which are possible with a larger numbers of clients.
Children's social care referrals	Rate of referrals to children's social care associated with higher spending rate	1	Rate of referrals to children's social care indicates the extent of problems affecting children and young people, and thus the amount of support required.

Annex A – Potential explanatory metrics tested

Metrics marked with an asterisk (*) were used in two distinct ways: the value for the most recent time period, and the per cent difference between this value and the value for the previous time period. This latter method represents the level of change in the metric. There is no necessary statistical link between the two aspects of the same metric, and so for the purpose of the analysis they are treated as distinct metrics. Hence whilst there are only 71 rows in the following table, the fact that 31 of these metrics were used in two distinct ways adds up to the total of 102 metrics quoted in the report.

Metric description	Source
Council type: Unitary, London Borough, Metropolitan District, or County	Extracted from LGA records
Total resident population	http://id.esd.org.uk/metricType/1
Population density	http://id.esd.org.uk/metricType/176
IMD: Overall (2015) - score	http://id.esd.org.uk/metricType/3902
IMD: Employment (2015) - score	http://id.esd.org.uk/metricType/3904
IMD: Crime (2015) - score	http://id.esd.org.uk/metricType/3907
IMD: Income Deprivation (2015) - score	http://id.esd.org.uk/metricType/3903
IMD: Education Skills and Training Deprivation (2015) - score	http://id.esd.org.uk/metricType/3905
IMD: Health Deprivation and Disability (2015) - score	http://id.esd.org.uk/metricType/3906
IMD: Barriers to Housing and Services (2015) - score	http://id.esd.org.uk/metricType/3908
IMD: Living Environment Deprivation (2015) - score	http://id.esd.org.uk/metricType/3909
IMD: IDACI (2015) - score	http://id.esd.org.uk/metricType/3910
IMD: IDAOPI (2015) - score	http://id.esd.org.uk/metricType/3911
Long-term sick or disabled (%)	http://id.esd.org.uk/metricType/2038
Median age	http://id.esd.org.uk/metricType/1941
Higher managerial, administrative and professional (NS-SeC %)	http://id.esd.org.uk/metricType/2079
Routine occupations (NS-SeC %)	http://id.esd.org.uk/metricType/2087
Never worked and long-term unemployed (NS-SeC %)	http://id.esd.org.uk/metricType/2088
Full time student (%)	http://id.esd.org.uk/metricType/2034
Out of work benefits (working age population) *	http://id.esd.org.uk/metricType/148
Percentage change in Core Spending Power from current period to period +4	http://id.esd.org.uk/metricType/5338
Trend of changes in business rateable value *	http://id.esd.org.uk/metricType/4144
Trend of changes in the council tax base *	http://id.esd.org.uk/metricType/4274
Gross Value Added (GVA) per head *	http://id.esd.org.uk/metricType/1025

	5
Permanent school exclusion rate	http://id.esd.org.uk/metricType/878
Qualified to level 2 and above (working age population) *	http://id.esd.org.uk/metricType/35
Total households on the housing waiting list at 1st April per 1,000 households	http://id.esd.org.uk/metricType/3484
Low birth weight rate *	http://id.esd.org.uk/metricType/182
Child age dependency ratio *	http://id.esd.org.uk/metricType/5156
Rate of CIN throughout the year, per 10,000 *	http://id.esd.org.uk/metricType/8879
Children starting an episode of need within the year *	http://id.esd.org.uk/metricType/8880
Fuel poverty	http://id.esd.org.uk/metricType/2131
Fast food outlets per 100,000 population	http://id.esd.org.uk/metricType/3358
Violence against the person offences - annual per 1000 *	http://id.esd.org.uk/metricType/443
Drug offences *	http://id.esd.org.uk/metricType/469
Homeless and in priority- Total per 1000 households (Annual)	http://id.esd.org.uk/metricType/8159
% residents in rural areas	http://id.esd.org.uk/metricType/4617
Dependent children in workless households (% of all dependent children) *	http://id.esd.org.uk/metricType/3491
One family household: Lone parent: Dependent children (%)	http://id.esd.org.uk/metricType/1823
Under 18 conception rate (1,000) *	http://id.esd.org.uk/metricType/688
Unaccompanied Asylum Seeking Children looked after (number),	http://id.esd.org.uk/metricType/6013
Median house price (affordability ratio) *	http://id.esd.org.uk/metricType/9148
Non-white population (%)	http://id.esd.org.uk/metricType/3297
Christian population (%)	http://id.esd.org.uk/metricType/1685
Fuel poverty prevalence *	http://id.esd.org.uk/metricType/2131
First time entrants to Youth Justice system *	http://id.esd.org.uk/metricType/123
Cannot speak English well or at all (%)	http://id.esd.org.uk/metricType/3300
Number of 16 and 17 year olds known to the local authority (denominator for NEETS),	http://id.esd.org.uk/metricType/9610
Net internal migration to authority area *	http://id.esd.org.uk/metricType/7026
Net international migration to authority area *	http://id.esd.org.uk/metricType/7029
Overcrowded households	http://id.esd.org.uk/metricType/3172
Per cent of children in year 6 who are overweight and obese (based on pupil postcode) *	http://id.esd.org.uk/metricType/1034 9
Hospital admissions for children and young	http://id.esd.org.uk/metricType/104

people *	
Hospital admissions caused by unintentional and deliberate injuries in children (0-14 years) *	http://id.esd.org.uk/metricType/3442
Hospital admissions caused by unintentional and deliberate injuries in children (15-24 years) *	http://id.esd.org.uk/metricType/3443
Binge drinking adults (3 year average, %)	http://id.esd.org.uk/metricType/3350
Very bad health (%)	http://id.esd.org.uk/metricType/1971
Ever used internet (per cent) *	http://id.esd.org.uk/metricType/3751
Median gross annual pay of employees by residence	http://id.esd.org.uk/metricType/3475
Households where occupiers living rent free (%)	http://id.esd.org.uk/metricType/1916
Median gross annual pay of employees by residence *	http://id.esd.org.uk/metricType/3475
Employment income (median) per taxpayer in an area *	http://id.esd.org.uk/metricType/3767
Households in receipt of housing benefits *	http://id.esd.org.uk/metricType/3490
Average monthly private sector rent for a 2 bed property *	http://id.esd.org.uk/metricType/3477
Per cent of individuals over-indebted	http://id.esd.org.uk/metricType/6009
Possession claims issued by landlords per 10,000 households *	http://id.esd.org.uk/metricType/3498
Possession claim orders issued by mortgage lenders per 10,000 households *	http://id.esd.org.uk/metricType/3520
Rate of individual voluntary arrangements (IVAs) per 10,000 adults *	http://id.esd.org.uk/metricType/4568
Rate of referrals to children's social care per 10,000 *	http://id.esd.org.uk/metricType/2226
0-25 mid-2017 estimated population	https://www.nomisweb.co.uk/articles/924.aspx (based on summing single years of age 0-25)
Gross disposable household income (GDHI) at current basic prices, GDHI per head, 2015	https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome

Annex B – Full summary of the optimal regression model, ordered by metric group

Metrics beginning with “Increase in” signify that the metric is a per cent change on the previous time period, not the metric value itself (see note to Annex A). The value of a metric can have a very different relationship with spend per 0-25 year old to that metric’s per cent change value, and both can be used in different ways within the same model. “Importance” refers to the contribution to the model’s overall R Squared, which is equivalent to per cent of variation in spend per 0-25 year old explained by the model.

Explanatory metrics related to spend per 0-25 year old, in order of importance			
	Association with spend per 0-25 year old	Significance (per cent)	Importance (per cent of variations in spend per 0-25 year old explained)
Health problems			
Per cent disabled or with long-term health condition	Associated with lower spending rate	99.9	14
IMD Health Deprivation	Associated with higher spending rate	99.9	7
Low birth weight rate	Associated with higher spending rate	99.9	6
Rate of hospital admissions for injuries in 15-24 year olds	Associated with higher spending rate	99.9	5
Increase in hospital admissions for children and young people	Associated with higher spending rate	99.8	4
Hospital admissions for children and young people	Associated with lower spending rate	99.8	4
Increase in low birth weight rate	Associated with lower spending rate	98.6	2
Increase in rate of hospital admissions for injuries in 15-24 year olds	Associated with lower spending rate	93.8 (not significant)	1
Female Life Expectancy at birth	Associated with lower spending rate	90.1 (not significant)	1

Deprivation and money			
Median house price	Associated with higher spending rate	99.9	13
Increase in median house price	Associated with lower spending rate	99.9	7
Per cent of working age population on out of work benefits	Associated with higher spending rate	99.9	4
Per cent of population never worked and long-term unemployed	Associated with lower spending rate	99.7	4
Increase in possession claims issues by landlords per 10,000 households	Associated with higher spending rate	99.5	3
IMD Income Deprivation Affecting Older People	Associated with higher spending rate	99.4	3
Increase in per cent who have ever used the internet	Associated with higher spending rate	98.4	2
IMD Crime Deprivation	Associated with higher spending rate	94.5 (not significant)	2
Rate of Individual Voluntary Agreements per 10,000 adults	Associated with higher spending rate	92.1 (not significant)	1
Increase in per cent of households in fuel poverty	Associated with higher spending rate	87.8 (not significant)	1
Children's social care referrals			
Rate of referrals to children's social care	Associated with higher spending rate	99.9	5
Area age profile			
Median age	Associated with higher spending rate	99.9	6
Size of 0-25 year old population	Associated with lower spending rate	99.9	4



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