



Department for
Communities and
Local Government

Local Authority Data on the Cost and Potential Fiscal Benefits of the Troubled Families Programme



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Executive Summary

This report is based on information provided by 67 local authorities on almost 17,000 families who were worked with as part of their local Troubled Families Programmes. Its purpose is to demonstrate the issues facing troubled families in the year before and after intervention on the programme; to detail the costs to local authorities of delivering the Troubled Families Programme; and demonstrate the sorts of fiscal benefits that may have arisen after these families received support from the programme.

Key findings from this analysis are:

- Prior to receiving an intervention on the Troubled Families Programme the average cost to the tax payer was approximately **£26,700 per family per year** based on the number of issues for which authorities were able to collect data. These are fiscal costs to the public purse that result from the use of reactive public services (such as A&E or police) rather than preventative or targeted services.
- The average cost to local authorities of delivering the Troubled Families Programme was approximately **£3,350 per family**.
- Using the data sources available to them, local authorities reported improvements in measures of **crime and anti-social behaviour, education, employment, and health** (e.g. numbers of arrests, adults claiming Job Seekers' Allowance, children truanting, and A&E visits) a year after families received an intervention.
- The estimated fiscal benefit due to the gross reduction in service use among families one year after intervention was around **£7,050 per family per year**, amongst the 16,820 families included in the analysis and according to the data available. This would imply a gross fiscal benefit of £2.11 for every £1 spent.

While this report presents estimates of the fiscal benefit of the programme, it only reports on the gross changes in outcomes. It does not consider what the results would have been in the absence of the programme. This means that any change in outcomes can not necessarily be directly attributed to the Troubled

Families Programme because the benefits, or some of the benefits, may have arisen if families had not taken part in the programme.

In addition, the families included in the analysis were chosen at random by the 67 local authorities that provided data. They should therefore be representative of families in those areas. However, the 67 areas were included for analysis on the basis of the random selection of families they provided, rather than as a representative selection of all local authorities in England. Therefore, the estimated gross benefit of £7,050 per family per year cannot reliably be scaled up to estimate the total fiscal benefit and costs of the Troubled Families Programme at the national level.

Introduction

Programme overview

In April 2012, the Troubled Families Unit at the Department for Communities and Local Government (DCLG) launched the £448 million Troubled Families Programme with the aim of ‘turning around’ the lives of approximately 120,000 families with multiple and complex needs in England, whilst also focusing on wider service redesign and transformation. At the core was the desire to achieve an overall shift in public expenditure from reactive service provision, responding to accumulated acute needs, towards earlier intervention via targeted interventions, where problems can be addressed before they escalate. In seeking to achieve these results the Troubled Families Programme included the following elements:

- a suite of locally designed family intervention programmes
- a network of local Troubled Families Coordinators, tasked with overseeing local Troubled Families Programmes
- a Payment by Results (PbR) financial model.

As set out within the programme’s financial framework (DCLG, 2013a), households eligible for the programme were those who:

1. are involved in crime and anti-social behaviour;
2. have children not in school;
3. have an adult on out-of-work benefits;¹
4. cause high costs to the public purse.

To qualify for inclusion on the Troubled Families Programme, local authorities were required to evidence that families met three of the four criteria above. DCLG afforded local authorities the discretion to identify their own local criteria to apply as a proxy for 'high cost' families. The financial framework includes a detailed set of metrics to quantify these judgements.²

In June 2013, the Treasury announced an expansion of the Troubled Families Programme to work with an additional 400,000 families by 2020.

Estimating service costs and benefits

For the purpose of monitoring the programme at the local and national level, local authorities were provided with a tool - the Costs Savings Calculator³ - to develop an understanding of the costs and benefits associated with changes in service delivery that may have arisen as a result of changes in family outcomes.

In using the calculator, local authorities analysed families' use of reactive, universal services, such as visits to accident & emergency (A&E), incidents of anti-social behaviour, and out-of-work benefits. Local authorities were able to input data on up to thirty-nine outcome measures. They provided data for the year prior to intervention and the year after intervention had concluded, for either a proportion or all of the families worked with on their programme.

¹ This includes: Income Support and/or Jobseeker's Allowance, Employment and Support Allowance, Incapacity Benefit, Carer's Allowance and Severe Disability Allowance.

² Financial framework available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/11469/2117840.pdf

³ See Annex A for a description of the tool.

Additionally, local authorities submitted data on the costs of running their Troubled Families Programmes, specifically the preventive measures which were distinct from universal and reactive services.

The calculator assessed the fiscal costs of families' service use by attaching a unit cost to each reported incident. Unit costs were derived from New Economy Manchester's Unit Cost Database, which provided estimates of the costs of all of the incidents of interest.⁴ For example, the database provided the average expected fiscal cost of an incident of anti-social behaviour, which could be applied to every reported anti-social behaviour incident entered into the calculator.

Local authorities were therefore able to track the number of incidents and see the difference in fiscal costs relating to service provision in the periods before and after intervention.

In summary, the Costs Savings Calculator allowed local authorities to:

- track changes over time in the use of services by families engaged in the programme, and attach costs to levels of service use;
- provide a breakdown of where savings fall to different Government agencies to inform discussions between local partners and agencies;
- inform local service transformation plans and commissioning decisions.

Methodology

Sample of families used

The analysis for this report is based on data submitted by local authorities into the Cost Savings Calculator. Data was used from 67 local authorities and 16,820 families.

⁴ New Economy Manchester is the analytical unit for Greater Manchester and has produced a Unit Cost Database which has been reviewed and agreed by government departments and HM Treasury. It is available at <http://neweconomymanchester.com/our-work/research-evaluation-cost-benefit-analysis/cost-benefit-analysis/unit-cost-database>

In August 2015, over 100 (of 152) local authorities had submitted data into the Costs Savings Calculator. However, only 67 had entered data on a randomly selected sample of families from within their programme. The remaining local authorities had entered data on a non-random sample of families, for example only those families who had achieved a positive change. To ensure that the results of this report were based on a range of families in terms of intervention intensity and outcomes achieved, only data from local authorities that had randomly selected families were included in the analysis.⁵

Given the large number and broad range of outcomes, many local authorities struggled to collect data on all 39 measures. On average, local authorities inputted data on half of the outcomes, with variation between authorities in which outcomes were reported on. Therefore there was a large amount of missing data.

Rather than select case studies of individual local authorities to examine changes in fiscal costs of families on the programme, this analysis attempts to estimate the costs and savings for an 'average' family from the 67 areas and 16,820 families for whom data was submitted. This was done by calculating the average change in the number of incidents per family, among the families for whom data was available.

For example:

- 44 of the 67 areas submitted data on domestic violence incidents;
- These 44 areas provided data on 11,700 families (out of the total 16,820 families), which we assumed captured all incidents of domestic violence for these families;⁶
- There were 4,700 incidents reported in the year prior to intervention, and 3,000 reported in the year following intervention from these 44 areas;
- On average, each family in the sample experienced 0.40 domestic violence incidents in the year prior to intervention and 0.26 in the year after intervention.

⁵ For a full explanation of the sampling and selection, see the Technical Annex.

⁶ This assumption may have led to underestimation of incidents, as any missing data was treated as no incidents.

That is, nearly one in every other family had a domestic violence incident in the year before intervention;⁷

- It was assumed that the rates were similar for the 23 local authorities that had not provided domestic violence data;
- The estimated average fiscal cost per family of domestic violence incidents was £1,150 in the year before intervention and £950 in the year after, for the 16,820 families included for analysis.

Taking this approach with all 39 outcomes, DCLG analysts were able to construct the service use of an 'average' family based on the families for whom data was submitted. Had this not been done the results would have suffered from a recording bias whereby the cost of families' service use would have been a function of the amount of data collected and the amount of missing data.

Analysis conducted

The estimated average incident rate per family for each of the 39 measures was combined with unit costs from New Economy Manchester. This meant it was possible to estimate the average fiscal cost of families before and after intervention.

In addition, the reported delivery costs of the programme were used to estimate how much on average local authorities were spending per family on interventions.

The results presented in this report are estimates for the average family on the programme and take into account the following:

- Changes in outcomes for families across 6 domains – crime and anti-social behaviour, education, employment, health, housing, and children's services;
- Fiscal costs of families' service use before intervention;
- Fiscal costs of families' service use after intervention;

⁷ 4,700 incidents divided by 11,700 families = 0.40 incidents per family on average

- Local authority costs of delivering the Troubled Families Programme;
- The fiscal benefit-cost ratio.

The changes in family outcomes and differences in fiscal costs were all calculated as the difference between the pre- and post-intervention values.

The cost benefit analysis used the delivery cost information and the estimated changes in fiscal costs.

Limitations

However, this report has several important limitations due to the nature of the data and analysis conducted. Where possible, the analysis has tried to mitigate these issues.

The information in this report looks only at gross changes in service use. Due to the design of the Costs Savings Calculator it was not possible for local authorities to provide information on a comparator group of non-intervention families to act as a control group. **This means that any change in service use seen by families in this report cannot necessarily be attributed to intervention on the Troubled Families Programme.** Instead changes may reflect a combination of issues including changes in wider national trends, demographic changes in the make-up of the cohort, success of other government programmes, or a natural de-escalation of issues.

The information on outcomes is based on data collected by local authorities on families with whom they worked. Guidance was provided to help local authorities follow a consistent approach to data collection. However, due to local constraints, local authorities used a variety of sources and methods to collect data. Further, due to data protection legislation, it was not possible for DCLG to check the validity of the source data. DCLG did, however, collect information on the sources, samples, and methodology used by local authorities in order to identify which submissions were likely to be of high quality to include in the analysis.

Local authorities provided information on families for the year before intervention began and the year after intervention had finished. It is possible that outcomes for

families on the programme improved or worsened in subsequent years after intervention ended.

The estimates in this report only cover outcome measures for which unit costs are available and data could be collected locally. As is often the case with cost-benefit estimates it is possible that there are significant additional costs and savings that have not been accounted for.

All unit costs used in this report are meant to represent the average cost of universal services, and are based on national averages. In reality, there is likely to be variation in the costs of delivering services in different parts of the country. For example, the costs of placing a homeless family in temporary accommodation will be higher in areas where accommodation costs are higher.

The fiscal benefits and savings estimated in the report are notional resource savings and do not necessarily represent “cashable” benefits. While the estimated fiscal benefits are likely to have resulted in more efficient spending at a local level, it has not been possible to estimate the proportion of these benefits which are “cashable”, i.e. which have been taken out of spending budgets. Each local authority will have different mechanisms and processes for realising the fiscal benefits estimated, making it difficult to collect information on cashability.

More information on the limitations and mitigations implemented are included in the Technical Annex.

Changes in outcomes for families

Local authorities submitted data on families before and after intervention across outcome measures covering crime and anti-social behaviour, health, education, employment and children's services.⁸

By breaking down the indicators by theme we can begin to estimate, at an aggregate level, the programme's impact on various problems faced by families. All estimates have been applied to the 16,820 families on which this report was based.

Crime and anti-social behaviour

In the year after interventions ended, crime and anti-social behaviour among families had reduced in the 67 local authorities sampled. For example, there were falls in incidents of:

- Common assault, shoplifting, and criminal damage, by 48%, 51%, and 49% respectively;
- Anti-social behaviour, by 60%;
- Arrests, by 18%;
- Domestic violence, by 36%.

Amongst the 16,820 families sampled, the estimated fiscal benefit of reduced service use in the year after intervention ended was around £39.5 million, or £2,350 per family. Savings from reductions in crime and anti-social behaviour were estimated to contribute approximately 33% of the total savings in service use. Details of crime and anti-social behaviour change by outcome measure are displayed in **Table 1**.

⁸ The full list of measures is included in the Technical Annex.

Table 1: Changes in crime and anti-social behaviour outcomes following intervention on local Troubled Families Programmes



Measure	Estimated number of incidents pre intervention	Estimated number of incidents post intervention	Estimated reduction in incidents	% Change	Contribution to fiscal benefit
No. of adults in prison	440	190	250	-57%	7%
No. of anti-social behaviour incidents where further action is necessary	5,900	2,380	3,520	-60%	2%
No. of anti-social behaviour incidents where no action is taken	9,290	3,870	5,420	-58%	0%
No. of arrests where individual is detained	7,490	6,140	1,350	-18%	1%
No. of arrests where no further action is taken	3,550	2,300	1,250	-35%	0%
No. of deliberate fire incidents	1,710	960	750	-44%	2%
No. of domestic violence incidents	6,760	4,300	2,460	-36%	6%
No. of first time entrants to the criminal justice system aged under 18	3,070	700	2,370	-77%	7%
No. of incidents of common assault	3,290	1,700	1,590	-48%	1%
No. of incidents of criminal damage	2,570	1,300	1,270	-49%	0%
No. of incidents of shoplifting	2,220	1,080	1,140	-51%	0%
No. of months served by under 18s in prison	2,860	1,560	1,300	-45%	6%

Education

As truancy and school exclusions were one of the four criteria for including families in the Troubled Families Programme, they were highly prevalent prior to intervention. Data from the year following intervention showed significant reductions in these measures, with a 59% reduction in the number of children persistently truant and 68% fewer children permanently excluded from school. **Table 2** provides a breakdown of the change in these measures.

Of the estimated overall fiscal savings in service use, improvements in educational outcomes accounted for approximately 22%. This would imply a fiscal benefit amongst the 16,820 families of approximately £25.9m, or £1,540 per family.

Table 2: Change in education outcomes following intervention on local Troubled Families Programmes

Measure	Estimated number of incidents pre intervention	Estimated number of incidents post intervention	Estimated reduction in incidents	% Change	Contribution to fiscal benefit
No. of children missing at least five weeks of school (per year)	10580	4370	6210	 -59%	10%
No. of children permanently excluded from school	1830	590	1240	 -68%	12%





Employment

In the year after intervention ended, there were reductions in the four measures relating to employment, including a 30% reduction in the number of young adults not in education, employment or training and a 26% reduction in adults claiming Job Seeker's Allowance.

The changes in employment outcomes accounted for 25% of the estimated overall fiscal benefit. Across all 16,820 families, this is estimated to be a benefit of £29.3 million, or £1,750 per family.

The changes in employment measures are detailed in **Table 3**.

Table 3: Change in employment outcomes following intervention on local Troubled Families Programmes

Measure	Estimated number of incidents pre intervention	Estimated number of incidents post intervention	Estimated reduction in incidents	% Change	Contribution to fiscal benefit
No. of 18-24 year old not in education, employment or training (per year)	2,690	1,870	820	 -30%	3%
No. of adults claiming Employment and Support Allowance	5,210	4,820	390	 -7%	3%
No. of adults claiming Job Seeker's Allowance	5,440	4,020	1,420	 -26%	12%
No. of adults claiming Lone Parent Income Support	4,630	3,710	920	 -20%	6%

Health












Results from the local authority data show an improvement in health outcomes in the year following intervention, for example:

- A&E attendances fell by almost 50%;
- Ambulance call outs decreased by 60%;
- Alcohol misuse decreased by 44%;
- Drug misuse decreased by 29%

Amongst the 16,820 families sampled, the fiscal benefit was estimated to be around £15,7m, or £930 per family. These reductions contributed approximately 13% to the overall fiscal benefits.

Table 4 sets out a full breakdown of change by the different health measures where data was recorded.

Table 4: Change in health outcomes following intervention on local Troubled Families Programmes

Measure	Estimated number of incidents pre intervention	Estimated number of incidents post intervention	Estimated reduction in incidents	% Change	Contribution to fiscal benefit
No. of Accident & Emergency attendances resulting in investigation and subsequent treatment	4,290	2,020	2,270	 -53%	0%
No. of Accident & Emergency attendances resulting in no investigation and no significant treatment	2,610	1,460	1,150	 -44%	2%
No. of adults suffering from depression/anxiety disorders (per year)	5,940	3,770	2,170	 -37%	1%
No. of ambulance call-outs	5,000	2,010	2,990	 -60%	0%
No. of children suffering from mental health disorders (per year)	3,370	2,030	1,340	 -40%	0%
No. of general practitioner (GP) visits	22,400	18,870	3,530	 -16%	4%
No. of hospital in-patient admissions	6,950	4,360	2,590	 -37%	0%
No. of hospital outpatient admissions	27,070	24,530	2,540	 -9%	3%
No. of individuals engaging in alcohol misuse (per year)	3,450	1,930	1,520	 -44%	3%
No. of individuals engaging in drugs misuse (per year)	3,550	2,510	1,040	 -29%	0%
No. of practice nurse visits	6,680	5,790	890	 -13%	0%

Housing





Unstable housing can often be an important barrier for families as it is difficult to treat other issues if there is insecurity around a family's accommodation.

Based on the local authority data, there was a substantial decrease in both the number of evictions and the number of homelessness applications. However, this was partially offset by small increases in the number of repossessions and in the number of weeks of homelessness.

The combined impact was an estimated reduction in public spending, accounting for 5% of the fiscal benefit of the programme.

Table 5 provides a full breakdown of change for housing measures.

Table 5: Change in housing outcomes following intervention on local Troubled Families Programmes

Measure	Estimated number of incidents pre intervention	Estimated number of incidents post intervention	Estimated reduction in incidents	% Change	Contribution to fiscal benefit
No. of evictions	1,210	550	660	 -55%	4%
No. of homelessness applications	960	680	280	 -29%	1%
No. of repossessions	200	340	- 140	 70%	0%
No. of weeks of homelessness	11,350	11,430	- 80	 1%	0%

Children's Services

Based on the local authority data, there was a rise in the number of weeks children were spending in local authority residential or foster care in the year after intervention ended. However, this was likely to reflect a greater identification of children who may have been at risk in the home after starting on the programme. While this represents an increase in fiscal costs in the short term, the long term fiscal benefits from identifying and addressing these issues early are likely to outweigh these initial costs.

Furthermore, the decrease in the number of children-in-need cases after intervention may indicate that local programmes were able to de-escalate problems or stabilise families before they reached higher statutory levels of care.

Table 6 sets out a breakdown of change for the social services measures.

Table 6: Change in social services outcomes following intervention on local Troubled Families Programmes

Measure	Estimated number of incidents pre intervention	Estimated number of incidents post intervention	Estimated reduction in incidents	% Change	Contribution to fiscal benefit
No. of children in need cases	7,630	6,020	1,610	● -21%	2%
No. of children taken into care	1,110	890	220	● -20%	10%
No. of Common Assessment	5,190	3,710	1,480	● -29%	2%
No. of social worker visits	38,570	39,310	- 740	● 2%	0%
No. of weeks children were in local authority foster care	13,690	18,300	- 4,610	● 34%	-3%
No. of weeks children were in local authority residential care home	7,640	11,000	- 3,360	● 44%	-9%

Costs and potential benefits of the Programme

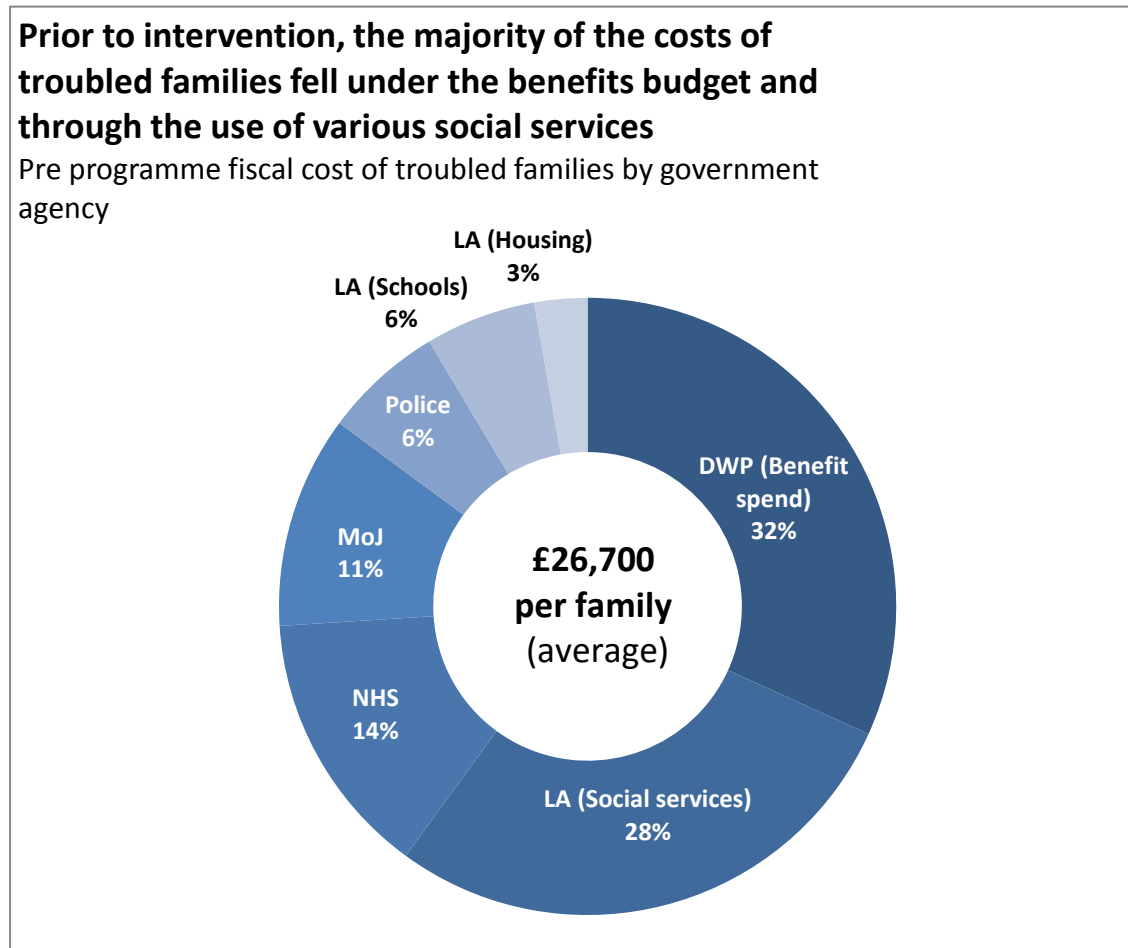
The costing of outcome measures allowed an economic assessment of the gross costs and potential fiscal benefits of delivering the Troubled Families Programme across the 67 local authorities sampled. This assessment focused on the costs of families to tax payers before intervention, the change in fiscal costs after intervention, and how any fiscal benefits fell to different Government departments.

Fiscal costs of families prior to intervention

Prior to intervention under the Troubled Families Programme, local authorities identified significant fiscal costs associated with families they were working with. **Reactive spend**

from existing services (i.e. schools, criminal justice, social services, health services) was estimated at an average of £26,700 per family per year based on the measures for which local authorities had local data.

Chart 1: Total Cost of Families Prior to Intervention by Government Agency⁹



The majority of these costs were in the form of various out-of-work benefits that families may have been claiming. On average, spending on benefits was around £8,400 per family per year; this represents just under a third of the total reactive cost of these families to government. Use of various social services was the next most costly area, with average spending per family at around £7,400, or 28% of total spending.

Other government agencies also bore significant costs from families' service use prior to intervention, for example the average costs per family per year were estimated as:

⁹ The breakdown by government agency is based on data in the New Economy Manchester Unit Cost Database.

- £4,900 to police and the wider criminal justice system;
- £3,700 to health services;
- £1,500 to schools through truancy and exclusions.

The proportion of spend accounted for by each government agency is shown in **Chart 1**. The average spend on families by each agency is detailed in **Table 7**.¹⁰

Table 7: Average fiscal costs of families in the year prior to intervention by government agency

Government Agency	Average cost per family
Department for Work and Pensions	£ 8,400
Local Authority Social Services	£ 7,400
National Health Service	£ 3,700
Ministry of Justice (Courts and Criminal Justice)	£ 2,900
Police	£ 2,000
Schools	£ 1,500
Housing	£ 700

Fiscal costs of families after intervention

The analysis of local authority data indicated that in the year following intervention, families' use of reactive services fell substantially and this produced fiscal benefits. By modelling these changes across government agencies we were able to highlight where any fiscal benefits may have occurred.

Average fiscal costs per family in the periods before and after intervention by domain are displayed in **Chart 2**. Spend broken down by government agency is shown in **Chart**

¹⁰ The breakdown by government agency is based on data in the New Economy Manchester Unit Cost Database.

3, and the differences in spend between the pre- and post-intervention periods by government agency is displayed in **Table 8**.

In the absence of a comparator group of non-intervention families, these changes cannot necessarily be attributed to the Troubled Families programme. Nonetheless, on average, the total gross reduction in demand for reactive services is associated with an average gross fiscal benefit of £7,050 per family. The value of this report is to understand the average change in service use by families targeted in the Troubled Families Programme, and the expected scale of reductions in costs of providing these services.

It is worth noting that whilst these data indicate a reduction in service use in the year following intervention, families engaged in the programme are still likely to face difficult issues and require on-going support from these services.

Chart 2: Composition of fiscal costs before and after intervention by outcome domain

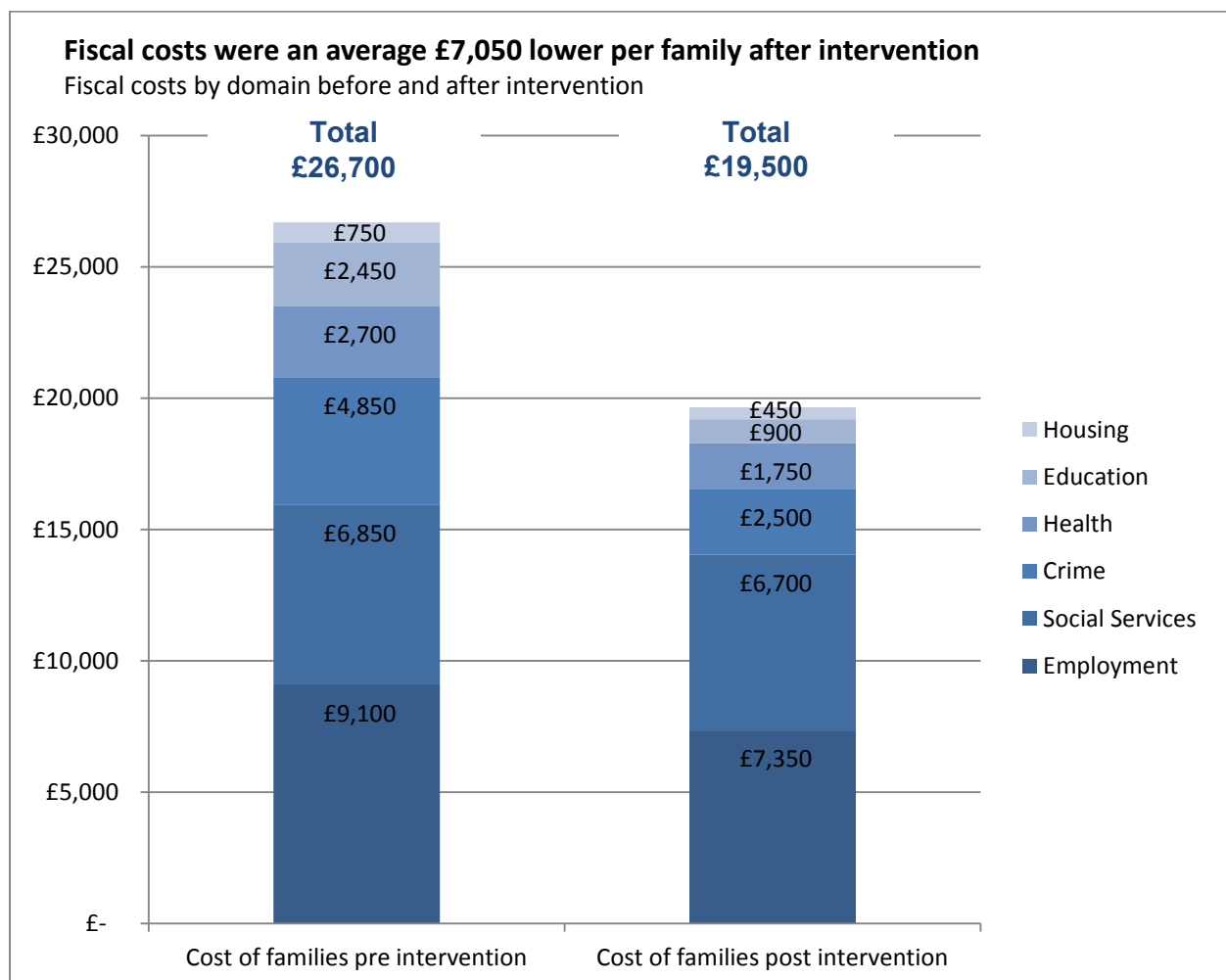


Chart 3: Fiscal cost of an average troubled family by government agency, pre- and post-intervention

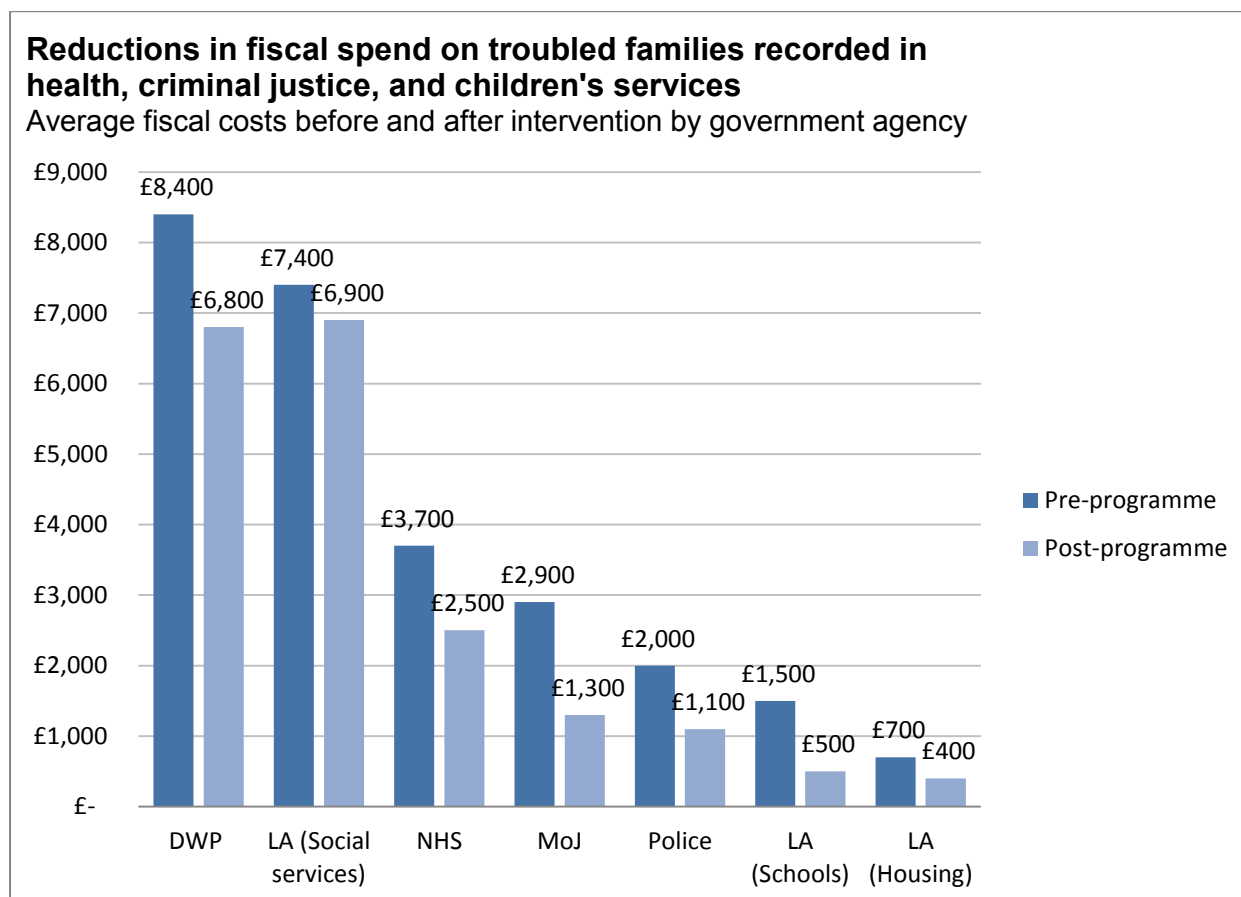


Table 8: Average change in fiscal cost per family per year, by government agency

Government Agency	Change in fiscal cost per family per year
Department for Work and Pensions	- £1,640
Local Authority Social Services	- £ 460
National Health Service	- £1,170
Ministry of Justice (Court and Criminal Justice)	- £1,600
Police	- £ 890
Schools	- £ 980
Housing	- £ 340

Costs of delivering the Programme

The average cost of delivering the Troubled Families Programme was estimated from the data provided by local authorities on their delivery costs, such as the staff and overhead costs of running integrated services. These data were provided for the 3 years in which the programme ran and were submitted by all of the 67 local authorities selected for analysis. The main finding was that over the course of the programme the average present cost was £3,350 per family per year.¹¹

There was a substantial difference in programme delivery costs between local authorities. The interquartile range of delivery costs is displayed in **Table 9** to demonstrate this variation.

Table 9: Distribution of costs for local authorities in delivering the Troubled Families Programme

The average and interquartile range of costs for local authorities in delivering the Troubled Families programme	
Mean	£3,350
Median	£3,100
Upper Quartile	£4,600
Lower Quartile	£2,150

Modelling the value for money of the Programme

In the year after intervention, the estimated one year gross fiscal benefit cost ratio was £2.11. This means that for every one pound spent on delivering the Programme we would expect a gross reduction in service costs of £2.11 in the year after intervention.

¹¹ This is very close to the average paid out for a 'turned around' family under the Payment by Results model operated by DCLG.

Conclusion

This report was based on information from 67 local authorities in England on the use of high cost, reactive services by 16,820 families, one year before and one year after they were engaged in their local Troubled Families Programme. It also used data on delivery costs from these local authorities to compare the reduced costs of services with the cost of delivery.

The results showed that prior to intervention, the families sampled were extensively using reactive services, reflecting the multiplicity of issues faced by many of the families engaged on the programme. It was estimated that on average, families were costing the taxpayer £26,700 per year through service use.

In the year after intervention ended, there was a change in use of services by these families, with an average reduction in gross fiscal costs estimated at £7,050 per family per year. **However, this analysis cannot establish whether this change arose as a result of the programme or was partly or wholly attributable to other factors such as wider demographic changes or other changes in service provision.**

It was estimated that the average costs to local authorities of delivering the Troubled Families Programme was £3,350 per family per year. These costs can be compared with the fiscal benefits from reduced service use. The benefit cost ratios suggest potential fiscal benefits of the Programme.

Technical Annex

What is the Costs Savings Calculator?

The Costs Savings Calculator allowed local authorities to perform local cost benefit analysis to assess the fiscal impact of the Troubled Families programme in their local area. It operated as a bespoke online tool, developed by Ecorys in partnership with the Department of Communities and Local Government (DCLG) and New Economy Manchester.

The system went live in May 2014 and access was provided to all 152 local authorities in the country. Over the subsequent twelve months the Troubled Families team held over 30 tutorials and offered constant support to be able to ensure local authority data analysts were sufficiently skilled to both complete the tool and understand its results.

The purpose of the tool was to help support wider public service transformation by estimating the fiscal impact of the programme.

What was asked of local authorities?

The Cost Savings Calculator allowed local authorities to perform a cost benefit analysis for their local Troubled Families Programmes. It did this by comparing the proactive cost of delivering specific Troubled Families interventions with the reduction in reactive spend from universal services in the year after intervention had completed.

- **Sample** – Local authorities were asked to provide at least a 25% randomly selected sample of all families worked with in each year of the programme. They collected data at an aggregate level for their sample and no personal or family data was entered into the calculator.
- **Costs** – Local authorities were asked to record the total proactive costs of delivering the Troubled Families programme in their area. They were also asked to provide an estimate of their 'pre-programme' costs, i.e. how much they would

have been spending on the families in their sample in terms of specific family intervention before the programme started.

- Outcomes – Local authorities were asked to provide aggregate level data for their sample against a number of business-as-usual measures both one year before intervention starts and one year after intervention concluded. Most of these measures were collected from locally held administrative datasets, however on occasion local authorities used key worker assessment or case notes where they were not able to get data from administrative data sets. There are 39 measures in total which cover areas including crime, education, employability, health, housing, and social services. All of these measures were based on New Economy Manchester’s Unit Costs Database, an independently developed database with over 500 unit costs. (See **Table 10** for a full list of measures of the measures in the calculator.)

Methodology

i) **Quality Assurance Process**

By July 2015 over 100 local authorities had entered information into the online tool (See **Table 10** for a full list of areas who entered information into the online tool). Following this, analysts at the DCLG undertook an extensive screening process to quality assure the results, ensuring there had been consistency in how local authorities had collected data. This had to be checked for all local authorities against three key criteria:

- Ensure consistency was being used by local authorities with regard to **sample selection**
- Ensure all the **correct steps** had been completed to produce a finished calculator
- Ensure that data was as **accurate** as possible and check for any mistakes or anomalies in the data provided by local authorities.

Sample selection

Understanding sample selection was an essential first step in understanding the methodologies used by local authorities. Generally speaking there were four different types of samples local authorities provided data for:

- 1) **Random sample** – This means that areas randomly selected a sample of families worked with in their Troubled Families programme, regardless of the intervention intensity or outcome.
- 2) **Whole sample** – This means local authorities provided data on all families worked with as part of their programme.
- 3) **High intensity** – This means that areas provided a sample of only the families receiving the most high intensity interventions.
- 4) **Turned around** – This means that areas provided a sample of only turned around families.

Completion

It was important to check that local authorities had completed a number of key steps that meant we could consider them to have ‘completed’ their calculator.

This mainly consisted of checking local authorities had:

- Selected samples that were 25% of all families worked with per year
- Completed the costs section of the calculator
- Pro Rata the costs section of the calculator in relation to the sample size
- Completed the pre-programme section of the calculator
- Completed the benefits section of the calculator to the best of their abilities.

Check of data quality

Checking the quality of data was important for several reasons. First it was important to identify any anomalies; this made it easier to check for any obvious errors. Second, it was important to understand the wider narrative of what the calculator was showing. No two local authority areas have been the same in this process and each local authority

has gone on a unique journey with regard to its own Troubled Families programme. It is important that these journeys are understood and that the results of the calculator are understood in this context.

In order to complete this quality assurance process, DCLG analysts constructed a methodology template which areas were asked to submit alongside their calculator. This was used to help rate areas and identify areas that would need follow-up conversations to ensure methodological consistency.

ii) **Results of the quality assurance process**

As a result of the QA process a total of 80 areas were judged to have used consistent methodologies in how they approached the calculator. This represented data on 22,100 families on the programme. The sampling strategies identified in these 80 areas were:

- **Random sample - 67 areas** were found to have used a consistent methodology in randomly selecting, or including all, families worked with in their local area – **16,820 families**
- **High Intensity – 8 areas** provided data on families receiving high intensity intervention only - **1,150 families**
- **Turned Around – 5 areas** submitted data on turned around families only – **950 families**

The local authorities that had only submitted data on high intensity and turned around families were not included for analysis.

iii) **Limitations**

Despite the fact that all possible steps were taken by DCLG analysts to ensure that the results presented in this report are as accurate as possible, there are a number limitations in the methodology of the calculator that should be acknowledged. It should be stressed though that where possible steps were taken to reduce the impact of these potential limitations.

- 1) **Self-reporting** - The calculator depends on local authorities' ability to accurately collect data on the costs and benefits of the programme.
- 2) **Data collection periods** – The Costs Savings Calculator only collects data for one year before intervention started, and one year after intervention finished. This means that there was not data on longer-term programme impacts.
- 3) **Data collection issues** – It is possible that there may have been a recording bias when areas were unable to get data from administrative datasets. In this instance they relied on key worker assessment/case notes to fill in gaps. However, these case notes may not have been comprehensive when compared to administrative datasets, and this might have led to a potential underreporting of issues.
- 4) **Lack of counterfactual control group** – The Costs Savings Calculator did not ask for data on any sort of control group for comparison.

Supporting Tables

Table 10: The measures recorded in the Costs Savings Calculator for the Troubled Families Programme. All unit costs from New Economy Manchester's Unit Cost Database, version 1.4.

Area	Incident	Unit Cost
Crime	No. of adults in prison (per year)	£ 34,840
	No. of anti-social behaviour incidents where further action is necessary	£ 673
	No. of anti-social behaviour incidents where no action is taken	£ 47
	No. of arrests where individual is detained	£ 719
	No. of arrests where no further action is taken	£ 345
	No. of deliberate fire incidents	£ 3,536
	No. of domestic violence incidents	£ 2,836
	No. of first time entrants to the criminal justice system aged under 18	£ 3,620
	No. of incidents of common assault	£ 496
	No. of incidents of criminal damage	£ 289
	No. of incidents of shoplifting	£ 28
	No. of months served by under 18s in prison	£ 4,898
Education	No. of children missing at least five weeks of school (per year)	£ 1,878
	No. of children permanently excluded from school	£ 11,473
Employability	No. of 18-24 year old not in education, employment or training (per year)	£ 4,637
	No. of adults claiming Employment and Support Allowance	£ 9,091
	No. of adults claiming Job Seeker's Allowance	£ 10,321
	No. of adults claiming Lone Parent Income Support	£ 7,981
Health	No. of Accident & Emergency attendances resulting in investigation and subsequent treatment	£ 134
	No. of Accident & Emergency attendances resulting in no investigation and no significant treatment	£ 68
	No. of adults suffering from depression/anxiety disorders (per year)	£ 977
	No. of ambulance call-outs	£ 223
	No. of children suffering from mental health disorders (per year)	£ 271
	No. of general practitioner (GP) visits	£ 39
	No. of hospital in-patient admissions	£ 1,863
	No. of hospital outpatient admissions	£ 114

	No. of individuals engaging in alcohol misuse (per year)	£ 2,015
	No. of individuals engaging in drugs misuse (per year)	£ 3,727
	No. of practice nurse visits	£ 9
Housing	No. of evictions	£ 7,276
	No. of homelessness applications	£ 2,724
	No. of repossessions	£ 752
	No. of weeks of homelessness	£ 117
Social Services	No. of children in need cases	£ 1,626
	No. of children taken into care (per year)	£ 52,676
	No. of Common Assessment Frameworks undertaken	£ 1,650
	No. of social worker visits	£ 59
	No. of weeks children were in local authority foster care	£ 722
	No. of weeks children were in local authority residential care home	£ 3,089

Table 11: List of the 67 local authorities in England that provided random samples for the analysis

Local authorities in England	
Barking and Dagenham	North East Lincolnshire
Barnsley	North Tyneside
Bath and North East Somerset	North Yorkshire
Bedford	Northamptonshire
Blackburn with Darwen	Northumberland
Bolton	Nottingham City
Bromley	Nottinghamshire
Buckinghamshire	Oldham
Cambridgeshire	Oxfordshire
Cornwall	Plymouth
Croydon	Redbridge
Darlington	Rochdale
Derby	Rutland
Derbyshire	Salford
Doncaster	Sefton
Dorset	Sheffield
Dudley	Solihull
Durham	Southend-on-Sea
East Sussex	St. Helens
Enfield	Staffordshire
Essex	Stockport
Gateshead	Surrey
Gloucestershire	Telford and Wrekin
Halton	Trafford
Hartlepool	Walsall
Havering	Waltham Forest
Herefordshire	Wandsworth
Islington	Warrington
Leeds	West Sussex
Luton	Westminster
Manchester	Wiltshire
Merton	Worcestershire
Middlesbrough	York
Newcastle upon Tyne	