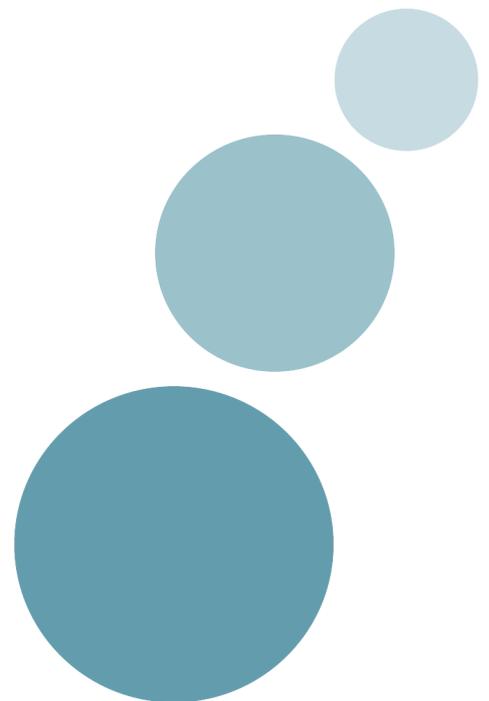




An economic analysis of School-Home
Support

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1.0 Introduction

School-Home Support (SHS) is a national charity working with vulnerable and excluded children and families. SHS provides trained and experienced workers who become professional and paid members of the school's pastoral care team, enabling teachers and school management teams to focus on managing core school business and delivering the curriculum.

Across SHS, specialist support is provided in the following areas:

- school attendance and punctuality;
- transition;
- curriculum support, through learning mentors; and
- family support.

It is important to quantify the cost savings that SHS generates as a result of investment as commissioning is increasingly based on value for money. This research presents an innovative attempt to calculate estimates of cost savings that interventions can generate, based on evidence from SHS.

Matrix was commissioned to conduct an Economic Analysis of School Home Support. This is an evidence-based assessment of the economic case for School-Home Support, focusing on their main service, the provision of School-Home Support Workers. The aim of the research was to calculate the cost savings generated by SHS interventions. In summary this approach was guided by the research question: *What is the economic value of the School-Home Support?*

Specifically, we examine the costs of bad behaviour, truancy and exclusion to schools, as well as the cost (savings) to funders: local authorities (social services and education services), criminal justice system, healthcare system and the treasury (taxes and benefits).

2.0 Approach

For this model, we assume that SHS generates cost savings by undertaking targeted case work with children that initially have a problem either with attendance or behaviour. The model assumes that children’s behaviour or attendance either

- 1) improves - in which case they move into the well behaved or better attendance category
- 2) remains the same - they continue to remain in their current state
- 3) changes - they shift into another category of which exclusion is included

Each state has different costs attributable to it based on the service, or the amount of time the personnel involved spends

State	Costs
Bad Behaviour	Direct costs (Disciplinary action: school staff costs) and indirect costs (other services: social services, health, psychologists)
Truancy	Direct costs (Disciplinary action: school staff costs) and indirect costs (other services: social services, health, psychologists)
Exclusions	Direct costs (exclusion process, replacement education) + indirect costs (parent time, other services: social services, health, police and criminal justice)
Attainment / future income	Decreased tax receipts across lifetime due to decreased income as result of lower attainment until age 65 + Difference in net income due to gaining 5 A*s-C at GCSE until age 65

Figure 5: Costs included in the model

The age of the child also has an impact on the services required to deliver the intervention, and the effect of the intervention. To simplify the model we have assumed that individuals fall into one of three age brackets – 7, 11 or 14 years old¹.

By improving the behaviour and improving attendance of children, SHS generates cost savings to the school, local authorities and the exchequer. The cost savings generated by SHS varies by age category. In order to calculate this, the report estimates the cost savings generated by improving the behaviours of three separate groups of pupils: 7 year olds, 11 year olds, and 14 year olds.

The figure that follows indicates which area the SHS model has an impact on, and where the cost savings are made. The model measures the short-term² effect of a child avoiding

¹ In school years this translates to year 3; 7; and 10.

² Short term is defined as 7 years

becoming badly behaved, truant or exclusion. Attainment and income effect is measured over a person’s lifetime.

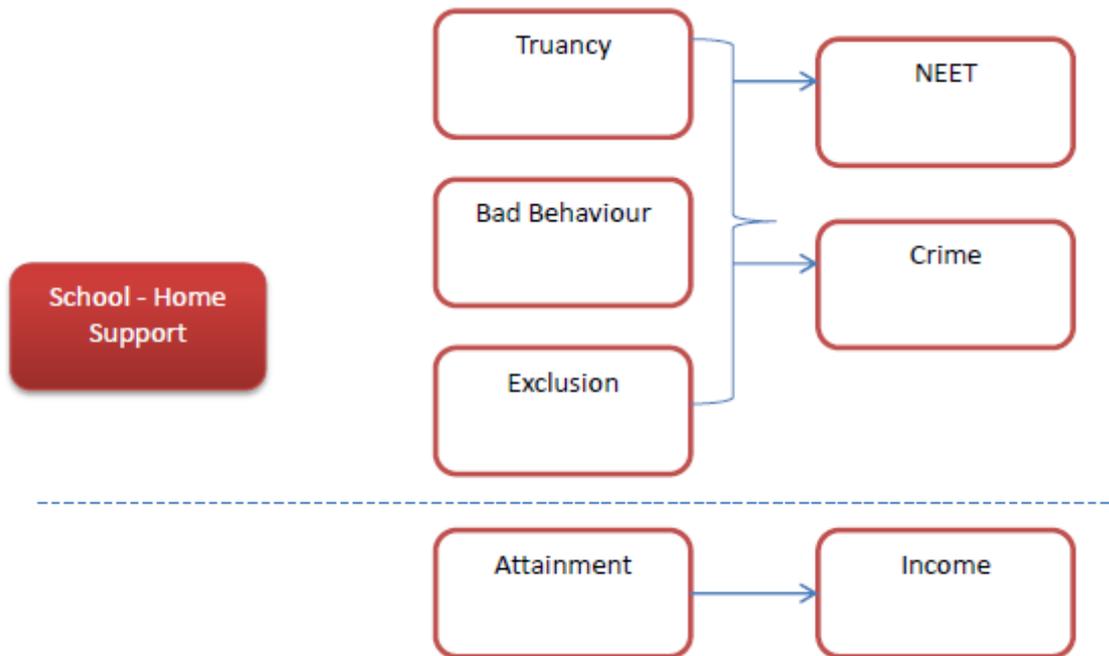


Figure 3: The outcomes of SHS modelled in this study

2.1 Methodology

The objective of the model to estimate the economic value generated by SHS over the 7 years post-intervention. It was thus necessary to estimate the costs avoided if this effect is maintained over the subsequent six years. This was undertaken by modelling the likelihood that pupils move between behaviour states year-on-year. For instance, if a pupil would have been badly behaved in year one without the intervention of SHS, where would they have been in years two to seven? It is possible that the pupil would have stayed badly behaved during this period. Thus, avoiding them being badly behaved would save a number of years of the costs of bad behaviour. Equally, a pupil may not stay badly behaved, and instead may have moved to any of the other states – well-behaved, truant or excluded. Further, this dynamic will be replicated each year for the seven-years of the model

The data to specify the probability that between years pupils will move from one behaviour state to another (‘transition probabilities’) was collected from literature, or from expert interviews which were conducted in the previous year (Matrix 2012). Specifically, estimates of the probability of those pupils who are permanently excluded pupil moving out of mainstream education was the only piece of data that came from published literature (Parsons, C. et al. DES, London, 1995). The remainder of the ‘transition probabilities’ were collected from expert interviews.

The majority of the data on the impact of School-Home Support was provided by the organisation based on their previous year's (2010/2011) outcome results. This was integrated into the model designed for SHS by Matrix in 2011. Matrix also conducted a rapid literature review to determine if there were any further studies which could supplement the current data³.

A cohort of 1,703 pupils was selected by SHS who receive intensive interventions to improve a problem with behaviour or attendance. From their original problem state the model predicts if a pupil remains in that state, shifts out of that state into an improved state, or transfers into another problem state which includes the exclusion category.

The economic model was then used to predict the economic value of the impacts of SHS on this group of pupils. The cost saving is calculated for each behaviour state and each type of funder. This was then compared to the unit cost of SHS, calculated from SHS financial data.

³ From the rapid literature review, there were no figures in the 2011 model which were updated.

3.0 Findings

3.1 Impact of School-Home Support

The following evidence based assumptions about the impact of SHS were made based on actual results from SHS Outcomes Summary 2010/2011. The success rates of SHS interventions differ across age groups which is incorporated into the model

Impact	Age group and assumption for economic model		
	7 year olds	11 year olds	14 year olds
Truancy	89%	64%	61%
Bad Behaviour	50%	42%	38%

Figure 4: Key evidence based impact assumptions

Other assumptions made about attainment/income are the increase in the number of children attaining 5 GCSEs at A* to C of 3 percentage points based on a study by Pritchard (2001)⁴ and the total gain in earnings of £144,098 over an individual's lifetime (Cummings 2007).

3.2 The economic value of School-Home Support

3.2.1 The cost of providing School-Home Support

The total cost⁵ of provision of one full time employee (practitioner) undertaking casework is £43,733. This assumption is based on the principle that one employee deals with approximately 50 cases. This translates into a unit cost of £875 per case⁶ dealt with. The total cost of provision of SHS services on the cohort of 1,703 individuals is £1,489,546

⁴ RDS Occasional Paper No.78

⁵ Taking into account operating and non-operating costs

⁶ One case being one pupil dealt with

3.3 Cost Savings

Total Cost Saving by Funder Type

Impact	Total Cost Saving	Per Pupil Saving
Education: School costs	£3,582,101	£2,103
Education: Local Authority Costs	£1,400,185	£822
Local Authority: Social Services	£114,715	£67
Health Services	£41,821	£25
Criminal Justice System	£2,457,327	£1,443
Benefits and Taxes	£7,361,941	£4,323
Other	£1,490,174	£875
Total	£16,448,264	£9,658

Figure 6: Cost savings by funder type

Per Pupil Costs and Benefits

The cost savings generated per pupil as a result of exclusion, truancy and bad behaviour avoided as a result of School-Home Support.

Costs incurred per pupil	
SHS unit cost	£875
Cost savings per pupil	
Exclusion	£796
Truancy	£3,249
Bad Behaviour	£1,467
Attainment / Income	£4,147
Total	£9,658
Resultant benefit	£8,784

Figure 7: Costs and savings per pupil.

Total Cost Savings and Benefit

The total cost savings generated by School Home Support relating to annual cohorts of 1,703 pupils.

Total costs incurred	
SHS total cost	£1,489,545
Total cost savings	
Exclusion	£1,354,968
Truancy	£5,532,457
Bad Behaviour	£2,498,007
Attainment / Income	£7,062,833
Total	£16,448,264
Resultant benefit	£14,958,718

Figure 8: Total costs and savings for cohort.

3.3.1 Total cost/benefit

This model considers the economic impact of 1,703 focussed casework interventions that originally have an issue with behaviour or attendance over a seven year period. Interventions in these areas result in savings which extend to exclusion and attainment/income.

The net benefits considered in this model due to School-Home Support are £14,958,718. The ratio of cost savings to cost is £11 which means that **for every £1 spent on School-Home Support, £11 is saved across the whole of society.**