



**Bookstart 2009/10:  
A Social Return on Investment (SROI) Analysis**

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## Executive summary

Bookstart is a national programme of bookgifting that aims to inspire a lifelong love of books by encouraging book sharing between children and their parents/carers from a young age. Since 2004/5, Bookstart has been supported with around £9 million per year in central funding from the Department for Education. This central government investment is supplemented by a public/private partnership with children's publishers and by the local delivery of the programme via professionals in health, library and early education services.

Booktrust, the independent national charity which manages the programme, commissioned Just Economics LLP to conduct a forecasted Social Return on Investment (SROI) analysis in order to quantify the social value created by Bookstart in England for the 2009/10 financial year.

The Bookstart programme has been subject to extensive research and evaluation. This was used, together with new stakeholder engagement, to identify the material outcomes that result from the programme. Key outcomes include:

- Improvements in literacy and learning for children in households where there is low, or no, reading activity
- Reduction in the incidence of negative long term outcomes (e.g. unemployment, obesity) that are associated with low levels of literacy
- Increase in the amount of quality time children and their parents/carers spend together
- Increase in reading time leading to a calming effect on children

Bookstart is a universal programme that sets out to distribute book packs to all children at ages 6-12 months, 18-30 months and 3-4 years. The changes that result from receiving the packs are differentiated by the extent to which reading and book sharing take place in the household prior to receiving the packs. As a result, children and their parents/carers were split into three categories for the SROI model:

- Less active reading households
- Moderate to active reading households
- Very active reading households

For the 2009/10 financial year, the SROI analysis estimates the total value of benefits to children and parents/carers across all three household categories and to the state to be £614 million. This is the value of outcomes experienced by children, parents and the State over a 37-year period from the delivery of packs in 2009/10. Given input costs of £24 million, this translates into an overall social return on investment of 1:25.

Of the total value created by Bookstart, £59 million accrues to the state. This is made up of savings on Special Educational Needs (SEN) provision during schooling and a reduction in post-school (to age 37) costs associated with low levels of literacy. The value to the state represents a return of £4.19 for every pound of public money invested in the programme.

The most significant difference – representing 75% of the total value – is made to children and parents/carers in households where there is little, or no, reading activity prior to receiving the book packs. In these households, the programme has the potential to introduce new routines around reading and books that can prevent children from falling behind and facing the long term costs that are associated with low levels of literacy.

The packs and programme were well-liked by parents/carers that participated in the SROI analysis and no significant suggestions for improvement were received.

## 1.0 Introduction

A universal national programme, Bookstart aims to deliver holistic benefits for every child by encouraging the sharing of stories, songs and rhyme from an early age. The programme distributes free book packs to children at ages 6-12 months, 18-30 months, and 3 to 4 years. Improved literacy is one outcome from the programme, but not its sole objective. Research has shown that book, story and rhyme sharing benefits child development more generally and has positive impacts on the parent/child relationship.

Administered by Booktrust, an independent national charity, the programme has been subject to extensive research and evaluation since the first pilot project in Birmingham in 1992.

The present study uses the existing research base to forecast the social value created by Bookstart in England as a result of its activities in the 2009/10 financial year. This is used to calculate a social return on investment (SROI) ratio for the programme.

Bookstart is supported by central funding from the Department for Education, sponsorship from publishers of children's books and additional resourcing by local authorities to cover co-ordination, storage, distribution and administration.

As well as calculating the overall social return, the study estimates the total value of benefits created to the state, at local and national level, from improvements in literacy and forecasts the social return that is achieved per pound of public money invested in the Bookstart programme.

The report is structured as follows:

*Section 2* provides an overview of the Bookstart programme

*Section 3* sets out the methodology for the SROI analysis, including all assumptions, and details the theory of change underpinning the programme

*Section 4* presents the findings of the SROI study

*Section 5* concludes the report

## 2.0 The Bookstart programme

Bookstart is a national programme of book gifting that aims to encourage parents and carers to share books, songs and rhymes with their children from a young age as part of their regular family routine. This can have positive impacts on literacy, but has also been shown to have wider benefits for the child and the relationship they have with their parent/carer. Research has shown that such shared activity helps attachment and bonding and builds strong and loving relationships. More generally, research has found that children that read and write for pleasure are more likely to become confident, articulate communicators and benefit educationally, culturally, creatively, socially and emotionally.

The programme is administered by Booktrust, an independent national charity. Since 2004 central funding for the programme in England has been provided by the Department for Education (formerly the Department for Schools, Children and Families).

The programme is delivered in partnership with local authorities across England. Health visitors, libraries and early years settings distribute free book packs to children at ages 6-12 months, 18-30 months, and 3 to 4 years. Children's publishers support the programme by providing books for free or at a nominal cost.

Programmes also operate in Scotland, Wales and Northern Ireland with funding from the respective devolved administrations. The scope of this report is restricted to the programme in England.

### 2.1 History

Bookstart has its origins in the first 'Books for Babies' project in the United Kingdom, which was established as a pilot project in Birmingham in 1992. The 'Books for Babies' project was developed in response to research that pointed to the importance of reading to children from a young age. During the pilot, 300 families were given packs with free children's books, poem cards and information about library facilities at their 9-month health check up.

Booktrust commissioned Professor Barrie Wade and Dr Maggie Moore from the University of Birmingham School of Education to research the effectiveness of the pilot. A subset of children were tracked longitudinally up to Key Stage 1. The Wade and Moore research consistently showed Bookstart babies performing better than a matched control group on a range of indicators relating to literacy and educational performance.<sup>1</sup> At the final follow-up at Key Stage 1, average scores across eight English, Mathematics and Science assessments were higher for the Bookstart children than the control with the difference statistically significant at the 5% or 1% level in all but three of the assessments.<sup>2</sup>

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<sup>1</sup> Moore, M and B Wade (1993) *Bookstart: Book Trust Report Number 2* (London: Book Trust); Wade B and M Moore (1998) *Bookstart: The First Five Years* (London: Book Trust); Wade, B and M Moore (2000) "A Sure Start with Books," *Early Years* 20(2): 39-46.

<sup>2</sup> Wade and Moore (2000), *ibid.*

The Birmingham pilot led to a further 60 similar projects being established across England between 1992 and 1998. In 1999, Sainsbury's plc selected Bookstart as one of its Millennium Projects. Sainsbury's provided funding for two years with the objective of enabling Bookstart to become established across England. By March 2000, programmes were running in 92% of local authorities.

Sainsbury's funding finished in 2000 and Bookstart's position as a nationwide programme was precarious in the early 2000s. It was secured with a commitment by the Chancellor in the 2004 Comprehensive Spending Review to provide central funding through the Department for Education.

## 2.2 Bookstart today

Bookstart operates in 151 local authorities across England. The original pack in the Books for Babies pilot is now followed with two further packs (see Box 1.1). The funding for central costs from the Department for Education is supplemented by sponsorship from publishers of children's books and funding at the local authority level to meet co-ordination, storage, distribution and evaluation costs.

The most recent nationwide impact evaluation of the programme was carried out in 2009.<sup>3</sup> Booktrust commissioned researchers to conduct interviews with parent across 26 local authorities at one and three months after receiving a Bookstart pack. A total of 440 parents completed both phase 1 and phase 2 interviews. A key finding from the evaluation was that the packs make the greatest difference in families where reading activity is low and where there are few books. In these families, reading frequency and library membership showed a significant increase. Among more active reading families, there was no consistent pattern towards greater reading frequency or pro-reading behaviours.

The objective of the Social Return on Investment (SROI) analysis in this report is to quantify the social value of the outcomes that have been demonstrated through the 2009 National Impact Evaluation and other previous evaluative research on Bookstart.

### Box 2.1 Bookstart Packs

**Baby Pack** is distributed to babies aged 6-12 month, primarily by health visitors as part of the health development check. The pack contains two free books, guidance for parents, further book recommendations, and a free placemat. It is estimated that 90-92% of babies in England receive the Baby Pack.

**Bookstart+** is for toddlers aged 18-30 months and is distributed by health visitors, in libraries and through early years settings. The pack comes in a colourful satchel that can be reused by the child. It contains two free books, a colouring books, crayons, wall friezes, name stickers, and guidance for parents. The estimate reach of the Bookstart+ pack is 96% of eligible children.

**My Bookstart Treasure Chest** is for children aged 3 to 4 years and is distributed primarily through early years settings and libraries. The pack is presented as a Treasure Box and contains two free books, colouring pencils, colouring-in book,

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<sup>3</sup> Booktrust (2009) *Bookstart National Impact Evaluation 2009* (London: Booktrust)

name stickers, and guidance for parents. The estimated reach of the Treasure Chest is 85-90% of eligible children.



## 3.0 Methodology and theory of change

Social Return on Investment (SROI) is an adjusted cost-benefit analysis that quantifies the value of social, environmental and economic outcomes that result from an intervention.

An SROI analysis proceeds via five key steps:

- 1) Boundary setting to establish scope
- 2) Engagement of stakeholders to understand the interventions' theory of change
- 3) Data collection to evidence outcomes and impact
- 4) Model development
- 5) Reporting

This section provides an audit trail of the SROI analysis for Bookstart.

### 3.1 Scope

The scope of this report is restricted to the activities of Bookstart in England for the 2009/10 financial year.

The SROI is a forecast with outcomes for 2009/10 projected from existing research into the impact of Bookstart.

### 3.2 Stakeholder engagement

Stakeholder engagement is conducted to establish the theory of change, or logical framework, for the intervention. This is a description of how inputs are used to deliver activities that, in turn, result in changes (outcomes) for stakeholders. The involvement of stakeholders at this stage ensures that the SROI measures and values the outcomes that are most important to those directly experiencing the change.

Bookstart is underpinned by an extensive research base. Both qualitative and quantitative research has been carried out with children and their parents to understand the main changes that result from the programme.<sup>4</sup>

Due to the existing research, it was decided to initially carry out limited stakeholder engagement to test whether the information already available accurately captures the outcomes or further engagement is needed to construct the theory of change.

The existing research suggested that the following are material stakeholders of Bookstart:

- Children receiving the packs

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<sup>4</sup> See the Wade and Moore studies in footnote 1 and also: Moore, M and B Wade (2003) "Bookstart: a qualitative evaluation," *Educational Review* 55(1): 3-13; Collins, F. M., Svensson, C., and P Mahony (2005) *Bookstart: Planting a Seed for Life* (London: Roehampton University).

- Parents/carers
- State, both locally and centrally

Stakeholder engagement was carried out as per Table 3.1.

**Table 3.1 Stakeholder engagement audit trail**

<b>Stakeholder</b>	<b>Method of engagement</b>	<b>Number engaged</b>
Children and their parents/carers	Focus group	9
	In-depth family interviews	5
State	Policy analysis	N/A

The results of the stakeholder engagement strongly concurred with the narrative in the existing research, suggesting that further stakeholder engagement would be unnecessary duplication.

The findings of the stakeholder engagement and the theory of change for the Bookstart programme are presented in Box 3.1

**Box 3.1 Stakeholder engagement findings and Bookstart theory of change**

The stakeholder engagement reinforced the findings of the Bookstart National Impact Evaluation 2009, which had suggested that the changes children experience are differentiated by the extent to which the household is engaged with books and reading already.

Together the stakeholder engagement and Bookstart National Impact Evaluation 2009 suggested that households fall into three categories, each with distinct journeys of change:

- **Less active (A)** – households where parents themselves are not active readers, little or no book sharing takes place with the child and there may be no, or only few, books in the home. May coincide with economic disadvantage.
- **Moderate to active (B)** – households where parents/carers read from time to time, some book sharing already takes place with the child, libraries may be being visited and there are books in the home.
- **Very active (C)** – households where parents/carers are keen readers, book sharing occurs frequently with the child, libraries are visited and there are many books in the home.

The most significant change is experienced by children in the less active reading

households, or category A. Here the Bookstart packs have the potential to introduce reading where it might not otherwise have developed until much later. In this way, literacy can be improved with potentially long term impacts into school years and later life.

Children in moderate to active reading households, or category B, appear in most instances to benefit from an earlier onset of book sharing. These are households where book sharing is likely to have become established anyway over time. Many of the outcomes would likely have been observed anyway at a later date. The Baby Pack brings this forward by 6 to 12 months.

Children in very active reading households do not experience material changes as a result of the packs. Parents of these children said that they enjoyed receiving the packs but that, because they were already actively reading with their child, no additional changes resulted. Some benefit was derived by parents/carers, however, who said that it made them feel that they were 'doing the right thing' and so reinforced their routine.

The most significant benefits among parents/carers are experienced by those in category A households.

The benefits that the state derives from the Bookstart programme is principally the result of avoiding costs associated with children in category A falling behind with literacy and learning.

The main changes experienced by children and parents/carers in each category and by the state are summarised in Table 3.2.

The stakeholder engagement also pointed to the role that each of the three packs plays in bringing about change. The Baby Pack, as the first pack, establishes new patterns around books and reading in household categories A and B. The subsequent packs – Bookstart+ and My Bookstart Treasure Chest – act as boosters that maintain these patterns.

**Table 3.2 Bookstart impact map**

<b>Stakeholder</b>	<b>Activity</b>	<b>Initial changes</b>	<b>Medium-term changes</b>	<b>Long-term changes</b>
Child A	Receive Baby Pack, and subsequent 'booster' packs to maintain changes	<ul style="list-style-type: none"> <li>First book sharing with parent/carer</li> </ul>	<ul style="list-style-type: none"> <li>Improved literacy and learning</li> <li>Enjoyment from books</li> <li>More quality time with parent/carer as a result of reading together</li> <li>Reading calms the child</li> </ul>	<ul style="list-style-type: none"> <li>Better performance at school</li> <li>Longer term benefits from improved literacy (e.g. improved employability, better health)</li> </ul>
Child B	Receive Baby Pack and subsequent packs	<ul style="list-style-type: none"> <li>Triggers first regular reading with parent</li> </ul>	<ul style="list-style-type: none"> <li>Initial literacy benefits from earlier onset of book sharing and reading</li> <li>Enjoyment from books</li> <li>More quality time with parent/carer as a result of reading together</li> <li>Reading calms the child</li> </ul>	<ul style="list-style-type: none"> <li>No additional long term change as book sharing and reading would have taken place in these households anyway</li> </ul>
Child C	Receive Baby Pack and subsequent packs	No material change as these children are in households where book sharing and reading are already established		
Parent/Carer A	Receive Baby Pack and subsequent packs	<ul style="list-style-type: none"> <li>Learns about importance of reading with child from a young age</li> <li>Free books enable parent to try out reading to child and potentially establish a new routine</li> </ul>	<ul style="list-style-type: none"> <li>More quality time with child as a result of reading together</li> <li>Calmer home environment</li> <li>Possibility of literacy benefits for the parent/carer</li> </ul>	<ul style="list-style-type: none"> <li>Possibility of literacy benefits for the parent/carer</li> </ul>
Parent/Carer B	Receive Baby Pack and subsequent packs	<ul style="list-style-type: none"> <li>Learns about importance of reading with child from a young age</li> <li>Begins to read to child</li> </ul>	<ul style="list-style-type: none"> <li>More quality time with child as a result of reading together</li> <li>Calmer home environment</li> <li>Feeling of competence</li> </ul>	<ul style="list-style-type: none"> <li>No additional long term change as book sharing and reading would have taken place in these households anyway</li> </ul>

			(‘doing the right thing’)	
Parent/Carer C	Receive Baby Pack and subsequent packs	<ul style="list-style-type: none"> <li>Reinforces the importance of reading, thereby cementing existing routine</li> </ul>	<ul style="list-style-type: none"> <li>Feeling of competence (‘doing the right thing’)</li> </ul>	<ul style="list-style-type: none"> <li>No additional long term changes as book sharing and reading were already established in these households</li> </ul>
State, both local and national		No changes in the short- or medium-term as first impacts on state services are experienced when children that would otherwise have had difficulties with literacy start primary school		<ul style="list-style-type: none"> <li>Reduced spending on remedial education services (Special Educational Needs in relation to poor literacy)</li> <li>Avoidance of longer term, post-school costs (e.g. around economic inactivity, health, social costs associated with being NEET) that are associated with low levels of literacy</li> </ul>

### 3.3 Outcome indicators and data

The SROI was carried out as a forecast with the incidence of outcomes for each stakeholder projected from existing research into Bookstart and triangulated with the results of the stakeholder engagement and secondary literature, where applicable.

Table 3.3 sets out the indicators and source for each outcome.

The treatment of several outcomes is worth highlighting:

- **Better educational performance during school years (Child A; state)** – research by Wade and Moore (2000) reported on average performance at Key Stage 1 of Bookstart children relative to a matched control. This showed Bookstart children performing better on all eight assessments across the domains of English, Mathematics and Science (statistical significance was achieved for 5 of the 8 assessments). On average Bookstart children reached or exceeded level 2 (expected standard at Key Stage 1), while the matched control did not reach Level 2. The difficulty for the SROI analysis is that Wade and Moore only reported on average performance of the sample, as opposed the number of children showing an improvement relative to the control, which is the incidence figure required for the present analysis. As a result, an inference had to be made in the model to translate the average performance of the sample into a percentage of children now reaching level 2. It is assumed that an additional 20% of children in category A now reach level 2.
- **Longer term improvements, post-school (Child A; state)** – no tracking has been carried out of Bookstart children beyond Key Stage 1. However, there is strong evidence in the secondary literature that early literacy gains translate into improvements in long term prospects across the domains of employability, crime, and health. Summary research by the Every Child a Chance Trust, which developed the nation-wide Reading Recovery programme for primary schools, is used to infer the likely incidence of children with better long term prospects.<sup>5</sup> Note that the attribution to Bookstart for long term outcomes in the SROI model is very conservative (see section 3.4).
- **Enjoyment from books (Child A; Child B)** – the Bookstart National Impact Evaluation 2009 asked parents to report on their child’s attitude to books in the Phase 1 and Phase 2 interviews. Across all three stakeholder groups, however, the reported change in attitude (defined as an ‘increase in children described as quite or very interested in books’) is within the margin of error (0-5%). Discussions with Booktrust suggest that child attitude when presented with books is fairly constant and that the change that results from the packs is around frequency of engagement with books and parent/carer-child interaction around reading. As these outcomes are already captured elsewhere, it was decided not to take forward the ‘enjoyment from books’ outcome into the SROI model.

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<sup>5</sup> Every Child a Chance Trust (2009) *The Long Term Costs of Literacy Difficulties* (2<sup>nd</sup> Ed.) (London: Every Child a Chance Trust)

- **Possible literacy improvements (Parent/Carer A)** – this outcome emerged from stakeholder engagement. However, there has been no research into the impact of Bookstart on the literacy of parents/carers that have low literacy. It was also not possible to infer the likely incidence from secondary literature. As such, this outcome has not been taken forward in the SROI model. It is recommended that Bookstart commission research to understand whether there is an impact on the literacy of parents/carers that experience literacy difficulties.
- **Outcomes relating to children in category C** – the theory of change set out earlier states that these children experience no material changes as a result of the Bookstart packs. This is corroborated by the data on reading frequency in the Bookstart National Impact Evaluation 2009. The percentage of children in this category reading at least once a day shows no significant change – a 3% decrease, which is within the margin of error – between the Phase 1 and Phase 2 interviews.

**Table 3.3 Outcome indicators**

<b>Stakeholder</b>	<b>Outcome</b>	<b>Indicator(s)</b>	<b>Source</b>
Child A	Improved literacy and learning (early years)	Additional percentage reading at least once a day at 3 months after receiving pack (Phase 1, Q1; Phase 2, Q1)	Bookstart National Impact Evaluation 2009 <sup>6</sup>
	Better educational performance during school years	Additional percentage now reaching Level 2 at Key Stage 1	Inference from Wade & Moore (2000)
	Longer term improvement in prospects, post school (e.g. employability, health)	No tracking has been carried out post Key Stage 1. Percentage reduction in negative outcomes inferred by Just Economics from secondary literature.	Every Child a Chance Trust (2009)
	Enjoyment from books	Additional percentage of children reported to be 'quite'/'very' interested in books at 3 months after receiving pack (Phase 1, Q3; Phase 2, Q2)	Bookstart National Impact Evaluation 2009
	Increase in quality time spent with parent/carer	Additional hours spent reading with parent/carer annually. Based on estimate of 20 minutes per additional reading episode. Number of additional reading episodes derived from reading frequency questions on National Evaluation (Phase 1, Q1; Phase 2, Q1)	Bookstart National Impact Evaluation 2009
	Increased individual well-being due to calming effect of reading	No direct measurement. Stakeholder engagement suggested that this was near universal outcome where reading increased. Indicator is the additional percentage now reading at least once a day (Phase 1, Q; Phase 2, Q1)	Bookstart National Impact Evaluation 2009; Stakeholder engagement
Child B	Improved literacy and learning (early years)	Additional percentage reading at least once a day at 3 months after receiving pack (Phase 1, Q1; Phase 2, Q1)	Bookstart National Impact Evaluation 2009 <sup>7</sup>

<sup>6</sup> The Phase 1 and Phase 2 questionnaires for the Bookstart National Impact Evaluation 2009 are reproduced in Appendix 1.

<sup>7</sup> The Phase 1 and Phase 2 questionnaires for the Bookstart National Impact Evaluation 2009 are reproduced in Appendix 1.



	Enjoyment from books	Additional percentage of children reported to be 'quite'/'very' interested in books at 3 months after receiving pack (Phase 1, Q3; Phase 2, Q2)	Bookstart National Impact Evaluation 2009
	Increase in quality time spent with parent/carer	Additional hours spent reading with parent/carer annually. Based on estimate of 20 minutes per additional reading episode. Number of additional reading episodes derived from reading frequency questions on National Evaluation (Phase 1, Q1; Phase 2, Q1)	Bookstart National Impact Evaluation 2009
	Increased individual well-being due to calming effect of reading	No direct measurement. Stakeholder engagement suggested that this was near universal outcome where reading increased. Indicator is the additional percentage now reading at least once a day (Phase 1, Q; Phase 2, Q1)	Bookstart National Impact Evaluation 2009; Stakeholder engagement
Child C	No material changes		
Parent/Carer A	Increase in quality time spent with child	Additional hours spent reading with parent/carer annually. Based on estimate of 20 minutes per additional reading episode. Number of additional reading episodes derived from reading frequency questions on National Evaluation (Phase 1, Q1; Phase 2, Q1)	Bookstart National Impact Evaluation 2009
	Calmer home environment	No direct measurement. Stakeholder engagement suggested that this was near universal outcome where reading increased. Indicator is the additional percentage now reading at least once a day (Phase 1, Q; Phase 2, Q1)	Bookstart National Impact Evaluation 2009; Stakeholder engagement
	Possible literacy benefits	No measurement or tracking has taken place. Deemed too speculative to forecast. Recommend Booktrust commission research to investigate the impact on parent/carer literacy.	
Parent/Carer B	Increase in quality time spent with child	Additional hours spent reading with parent/carer annually. Based on estimate of 20 minutes per additional reading episode. Number of additional reading episodes derived from reading frequency questions on National Evaluation (Phase 1, Q1; Phase 2, Q1)	Bookstart National Impact Evaluation 2009
	Calmer home environment	No direct measurement. Stakeholder engagement suggested that this was near universal outcome where	Bookstart National Impact Evaluation 2009;

		reading increased. Indicator is the additional percentage now reading at least once a day (Phase 1, Q1; Phase 2, Q1)	Stakeholder engagement
	Feeling of competence	No direct measurement. Based on percentage of parents saying they were encouraged to read more or become more engaged in reading due to pack (Phase 1, Q13). Recommend Booktrust commission research to investigate the impact on parent/carer feeling of competence.	Bookstart National Impact Evaluation 2009
Parent/Carer C	Feeling of competence	No direct measurement. Based on percentage of parents saying they were encouraged to read more or become more engaged in reading due to pack (Phase 1, Q13). Recommend Booktrust commission research to investigate the impact on parent/carer feeling of competence.	Bookstart National Impact Evaluation 2009
State (local and national)	Reduced spending on remedial education services (Special Educational Needs in relation to poor literacy)	Based on school performance for children in category A. Additional percentage now reaching Level 2 at Key Stage 1.	Inference from Wade & Moore (2000)
	Avoidance of longer term, post-school costs (e.g. around economic inactivity, health, social costs associated with being NEET) that are associated with low levels of literacy	Based on longer term outcomes of children in category A. No tracking has been carried out post Key Stage 1. Percentage reduction in negative outcomes inferred by Just Economics from secondary literature.	Just Economics assumption informed by Every Child a Chance Trust (2009)

Translating the indicators in Table 3.3 into outcome incidences in the SROI model requires knowledge of how many individuals fall into each stakeholder category. These figures were derived from the 2009/10 Bookstart Online Audit, which provides information on how many of each pack were distributed, and the Bookstart National Impact Evaluation 2009.

According to the 2009/10 Bookstart Online Audit, 619,665 Baby Packs were distributed in England. Lower numbers of the other two packs were distributed. The SROI model is based on the Baby Pack numbers as this pack is assumed to create the most significant change, with the subsequent packs acting as re-enforcers.

The proportion of recipients falling into categories A, B, and C is based on the response to the Phase 1 reading frequency question (Q1) on the National Impact Evaluation. Only respondents receiving the Baby Pack were considered. Using this criteria, 13.5% of respondents fell into category A, 46.8% into category B, and 39.7% into category C.

The proportion of respondents in category C – very active reading families – appears high. Booktrust believes that there may be a sample bias towards more active reading families as some of the researchers commissioned to carry out the interviews recruited parents at libraries. This has implications for the SROI. As the most significant change is experienced by children and parents/carers in categories A and B and their number is likely to be under-represented, the estimate of the overall value created by Bookstart is likely to be an underestimation.

### 3.4 Determining impact

SROI is concerned with the added value of an intervention, or impact. This requires three factors to be taken into consideration:

- **Deadweight** – the counterfactual, or what would have occurred in the absence of the intervention
- **Attribution** – the credit that the intervention can take for any outcomes that are observed if there are also other actors involved
- **Displacement** – whether benefits are truly additional or moved to/from elsewhere

Deadweight, attribution and displacement are subtracted from observed outcomes to arrive at the impact of the intervention.

Displacement is not relevant in this case as Bookstart is a nationwide programme.

#### 3.4.1 Deadweight

Deadweight was applied principally at the level of the stakeholder and derived from existing data and stakeholder engagement as per Table 3.4.

#### 3.4.2 Attribution

Attribution was applied principally at the level of the stakeholder and derived from existing data and stakeholder engagement as per Table 3.5.

**Table 3.4 Deadweight**

<b>Stakeholder</b>	<b>Outcome(s)</b>	<b>Deadweight</b>	<b>Rationale</b>	<b>Source(s)</b>
Child A	All outcomes except school performance and longer term improvement in prospects	10%	Changes unlikely to have taken place without Bookstart intervention as these are households with very low, or no, reading activity. Evidenced by 90.3% of parents saying they were encouraged to read to their child as a result of receiving the Baby Pack (Phase 1, Q13).	Bookstart National Impact Evaluation 2009
	Better educational performance during school years	0%	Deadweight already accounted for due to the use of a matched control	Wade & Moore (2000)
	Longer term improvement in prospects, post-school	0%	Deadweight already considered	Every Child a Chance Trust (2009)
Child B	All outcomes	40%	Parents/carers are moderate or active readers themselves and would have started regular reading with their child even without the Bookstart packs. This is evidenced also by the high rate of library borrowing (46%) among this group in the three months prior to the Phase 1 interviews (Phase 1, Q6).	Bookstart National Impact Evaluation 2009
Child C	No material changes			
Parent/Carer A	All outcomes	10%	As for Child A	
Parent/Carer B	All outcomes except feeling of competence	40%	As for Child B	
	Feeling of	0%	In all cases, the feeling of competence	Stakeholder engagement

	competence		was attributed to the guidance information in the Baby Pack. Therefore, unlikely to have occurred without Bookstart intervention.	
Parent/Carer C	Feeling of competence	0%	In all cases, the feeling of competence was attributed to the guidance information in the Baby Pack. Therefore, unlikely to have occurred without Bookstart intervention.	Stakeholder engagement
State	Reduced spending on remedial education services (Special Educational Needs in relation to poor literacy)	0%	Outcome dependent on better educational performance of Child A. Deadweight, therefore, same as for this outcome.	
	Avoidance of longer term, post-school costs (e.g. around economic inactivity, health, social costs associated with being NEET) that are associated with low levels of literacy	0%	Outcome dependent on longer term improvements in prospects of Child A. Deadweight, therefore, same as for this outcome.	

**Table 3.5 Attribution**

<b>Stakeholder</b>	<b>Outcome(s)</b>	<b>Attribution to Bookstart</b>	<b>Rationale</b>	<b>Source(s)</b>
Child A	All outcomes except school performance and longer term improvement in prospects	90%	Very unlikely to be accessing or using other literacy promoting services or products. Evidenced by low library usage, with only 5.3% of parents in this category saying they had borrowed a library book in the 3 months prior to the Phase 1 interview (Phase 1, Q6).	Bookstart National Impact Evaluation 2009
	Better educational performance during school years	60%	School performance will be dependent on other factors, including quality of the school and other literacy promoting activities that the child may receive. Therefore, attribution is lowered to 60% for this outcome. As there is no existing data to corroborate this assumption, it is subject to testing in the sensitivity analysis (see section 4.0).	Just Economics assumption
	Longer term improvement in prospects, post-school	3%	Post-schooling outcomes will be influenced by a large range of factors from quality of schooling to the individuals peer group and family setting. The credit that Bookstart can claim for its role in long term improvements is, therefore, placed at a conservative 3%. As with the educational performance outcome, this is subject to sensitivity analysis in section 4.	Just Economics assumption
Child B	All outcomes	50%	Significant subset of parents in this group are likely to be accessing other services and products that improve literacy. Evidenced by 46.8% having borrowed a library book in the 3 months prior to the Phase 1 interview (Phase 1, Q6) and 32.8% having attended a library event (Phase 1, Q7).	Bookstart National Impact Evaluation 2009
Child C	No material changes			

Parent/Carer A	All outcomes	90%	As for Child A	
Parent/Carer B	All outcomes except feeling of competence	50%	As for Child B	
	Feeling of competence	100%	In all cases, the feeling of competence was attributed to the guidance information in the Baby Pack.	Stakeholder engagement
Parent/Carer C	Feeling of competence	100%	In all cases, the feeling of competence was attributed to the guidance information in the Baby Pack.	Stakeholder engagement
State	Reduced spending on remedial education services (Special Educational Needs in relation to poor literacy)	60%	Outcome dependent on better educational performance of Child A. Attribution, therefore, same as for this outcome.	
	Avoidance of longer term, post-school costs (e.g. around economic inactivity, health, social costs associated with being NEET) that are associated with low levels of literacy	3%	Outcome dependent on longer term improvements in prospects of Child A. Attribution, therefore, same as for this outcome.	

### 3.5 Benefit period and drop off

Outcomes often last beyond the initial intervention. Where this is the case, SROI projects value into the future. A drop off rate is applied to acknowledge that outcomes are not maintained at the same level over time.

Table 3.6 sets out the benefit periods and drop off rates for the Bookstart SROI model. All future value is discounted by 3.5% to arrive at its present value.

The benefit period and drop off rate is derived largely from the stakeholder engagement, which was of a very limited sample size. Due to the lack of other corroborating data, conservative estimates have been used in the base model and these are subject to further testing in the sensitivity analysis in section 4.



**Table 3.6 Benefit period and drop off**

<b>Stakeholder</b>	<b>Outcome(s)</b>	<b>Benefit period after Baby Pack</b>	<b>Drop off (annual unless stated)</b>	<b>Rationale</b>	<b>Source</b>
Child A	All outcomes except school performance and longer term improvement in prospects	Years 0-4	10%	Benefits last until the start of school. Drop off is low as stakeholder engagement suggests that where the Baby Pack leads to a change in practice this becomes part of a new routine.	Stakeholder engagement
	Better educational performance during school years	Years 5-15	15%, Years 5-7 5%, Years 8-15	Benefit is experienced while the child is at school. Drop off is highest in the first three years of schooling as this is when new influences first take effect. Any change maintained beyond this point is assumed to be subject to a low drop off.	Just Economics assumption
	Longer term improvement in prospects, post-school	Years 16-37	N/A	Based on scenario modelling of long term effects of poor literacy by the Every Child a Chance Trust.	Every Child a Chance Trust (2009)
Child B	All outcomes	0-12 months	8% monthly	Benefit period is much shorter for children in category B as the effect of the Baby Pack is to bring forward the start of reading. Benefit period is the additional period of reading gained by earlier onset.	Stakeholder engagement
Child C	No material changes				
Parent/ Carer A	All outcomes	Year 0-4	10%	As for Child A	
Parent/ Carer B	All outcomes except feeling of competence	0-12 months	8% monthly	As for Child B	
	Feeling of	0-3 months	40% monthly	Guidance with the Baby Pack makes	Stakeholder

	competence			parent feel that by reading they are 'doing the right thing'. This is a feeling that they quickly habituate to and so the benefit period is short and drop off is high.	engagement
Parent/ Carer C	Feeling of competence	0-3 months	40% monthly	Guidance with the Baby Pack makes parent feel that by reading they are 'doing the right thing'. This is a feeling that they quickly habituate to and so the benefit period is short and drop off is high.	Stakeholder engagement
State	Reduced spending on remedial education services (Special Educational Needs in relation to poor literacy)	Years 5-15	15%, Years 5-7 5%, Years 8-15	Benefit is experienced while the child is at school. Drop off is highest in the first three years of schooling as this is when new influences first take effect. Any change maintained beyond this point is assumed to be subject to a low drop off.	Just Economics assumption
	Avoidance of longer term, post-school costs (e.g. around economic inactivity, health, social costs associated with being NEET) that are associated with low levels of literacy	Years 16-37	N/A	Based on scenario modelling of long term effects of poor literacy by the Every Child a Chance Trust.	Every Child a Chance Trust (2009)

### 3.6 Financial proxies

Non-traded outcomes were valued using standard techniques of economic valuation and triangulated with the descriptions of outcomes derived from existing research and stakeholder engagement.

Table 3.7 provides a full list of the financial proxies used in the Bookstart SROI.

Note that as many standard techniques of economic valuation, such as hedonic pricing, contingent valuation and willingness to pay, are not applicable to children arriving at proxies for child outcomes is often a difficult task. This SROI follows the approach recommended in a recent OECD review and uses the parent as a proxy where direct valuation is not possible.<sup>8</sup>

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<sup>8</sup> OECD Working Party on National Environmental Policy (2005) "The valuation of environmental health risks to children: methodological and policy issues," available to download from: <http://www.oecd.org/dataoecd/18/11/35381312.pdf>

**Table 3.7 Financial proxies**

Stakeholder	Outcome	Financial proxy description	Value (per individual unless stated)	Source
Child A	Improved literacy and learning (early years)	Willingness to spend: <i>cost of a best-selling literacy promotion toy</i> (Melissa & Doug See & Spell)	£16.99	Best-seller on Amazon.co.uk for literacy promotion
	Better educational performance during school years	Willingness to spend: <i>cost of private tutoring for one hour per week, 46 weeks at £20/hour</i>	£920	Grimston (2010) <sup>9</sup>
	Longer term improvement in prospects, post school (e.g. employability, health)	Conservative estimate with only the economic activity gains valued to the individual. Proxy is the additional income gained by avoiding poor literacy. Based on research showing an average 6% income penalty for poor literacy.	£1588.20	DfEE (2001) <sup>10</sup>
	Increase in quality time spent with parent/carer	Value of time: <i>Proxy inferred from monetised value of additional parents' time spent reading with child. Valuation based on average hourly earnings.</i>	£14/hour	ASHE 2009 <sup>11</sup>
	Increased individual well-being due to calming effect of reading	Value of time: <i>Assume that parents may attend a parenting course to achieve calming of their child. Proxy is the value of the parents time attending the course.</i>	£104	ASHE 2009

<sup>9</sup> Grimston, J (2010, January 17) "Anxious parents fuel boom in tutors," *Sunday Times*, available to download at [http://www.timesonline.co.uk/tol/life\\_and\\_style/education/article6991092.ece](http://www.timesonline.co.uk/tol/life_and_style/education/article6991092.ece)

<sup>10</sup> Bynner, J et al (2001) *Improving adult basic skills* (London: DfEE)

<sup>11</sup> Annual Survey of Hours and Earnings (ASHE) (2009), available to download at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=13101>

		<i>Assume that 30% of time on a 12-week, 2 hour/week course is spent to fulfil 'calming' objective. Monetised using average hourly earnings.</i>		
Child B	Improved literacy and learning (early years)	Willingness to spend: <i>cost of a best-selling literacy promotion toy (Melissa &amp; Doug See &amp; Spell)</i>	£16.99	Best-seller on Amazon.co.uk for literacy promotion
	Increase in quality time spent with parent/carer	Value of time: <i>Proxy inferred from monetised value of additional parents' time spent reading with child. Valuation based on average hourly earnings.</i>	£14/hour	ASHE 2009
	Increased individual well-being due to calming effect of reading	Value of time: <i>Assume that parents may attend a parenting course to achieve calming of their child. Proxy is the value of the parents' time attending the course. Assume that 30% of time on a 12-week, 2 hour/week course is spent to fulfil 'calming' objective. Monetised using average hourly earnings.</i>	£104	ASHE 2009
Child C	No material changes			
Parent/Carer A	Increase in quality time spent with child	Value of time: <i>Value of additional parents time spent reading with child. Valuation based on average hourly earnings.</i>	£14/hour	ASHE 2009
	Calmer home environment	Value of time: <i>Assume that parents may attend a parenting course to achieve calming of their child.<sup>12</sup> Proxy is the value of the parents' time attending the course. Assume that 30% of time on a 12-week, 2 hour/week course is spent to fulfil</i>	£104	ASHE 2009

<sup>12</sup> This proxy is likely to be an undervaluation as the time of only one parent has been valued and there may be instances where both parents would engage in furthering this objective. This is true of all proxies in the model that are dependent on parental time. It has been chosen to avoid the risk of overclaiming.

		<i>'calming' objective. Monetised using average hourly earnings.</i>		
Parent/Carer B	Increase in quality time spent with child	Value of time: <i>Value of parents' time now spent reading with child. Valuation based on average hourly earnings.</i>	£14/hour	ASHE 2009
	Calmer home environment	Value of time: <i>Assume that parents may attend a parenting course to achieve calming of their child. Proxy is the value of the parents' time attending the course. Assume that 30% of time on a 12-week, 2 hour/week course is spent to fulfil 'calming' objective. Monetised using average hourly earnings.</i>	£104	ASHE 2009
	Feeling of competence	Value of time: <i>assume parents may attend a parenting course to obtain greater feeling of competence. Proxy is the value of the parents' time attending the course. Assume that 10% of time on a 12-week, 2 hour/week course is spent with the objective of feeling more competent. Monetised using average hourly earnings.</i>	£35	ASHE 2009
Parent/Carer C	Feeling of competence	Value of time: <i>assume parents may attend a parenting course to obtain greater feeling of competence. Proxy is the value of the parents' time attending the course. Assume that 10% of time on a 12-week, 2 hour/week course is spent with the objective of feeling more competent. Monetised using average hourly earnings.</i>	£35	ASHE 2009
State	Reduced spending on	Cost of SEN provision in primary and	Year 1, £389;	Every Child a Chance

remedial education services (Special Educational Needs in relation to poor literacy)	secondary school	Year 2, £389; Year 3, £389; Year 4, £556; Year 5, £790; Year 6, £452; Year 7, £844; Year 8, £465; Year 9, £432; Year 10, £359; Year 11, £1426	Trust (2009)
Avoidance of longer term, post-school costs (e.g. around economic inactivity, health, social costs associated with being NEET) that are associated with low levels of literacy	Costs associated with poor literacy, post-schooling, in the moderate certainty scenario in the Every Child a Chance Trust (2009) modelling.  Proxy covers: <ul style="list-style-type: none"> <li>▪ Employment costs (lost NI; unemployment benefits; indirect taxes)</li> <li>▪ Social costs associated with being NEET (substance abuse; teenage pregnancy)</li> <li>▪ Health costs (depression; obesity)</li> </ul>	£28,286 total per individual for years 16-37	Every Child a Chance Trust (2009)

### 3.7 Input costs

Bookstart receives £9 million for central costs from the Department for Education per year. Additional costs are incurred at the local authority level for storage, distribution and co-ordination. These costs vary from locality to locality. An average based on several local authorities was derived for the SROI model.

Publishers sponsor the programme by making available books for free, or at a nominal price. To provide a true cost of the programme the imputed value of these sponsored books – defined as the difference between the wholesale price and the actual cost to Bookstart – is included in the input costs.

Table 3.8 sets out the input costs of the programme. All costs were supplied by Booktrust.

**Table 3.8 Input costs, 2009/10 financial year**

<b>Category</b>	<b>Description</b>	<b>Total cost, England</b>
Department for Education funding		£9,000,000
Local authority: storage and distribution	Average cost of £1.33 per pack	£2,421,544
Local authority: library workers	5 hours per week in each local authority at £9.50/hour	£372,970
Local authority: health visitors	2 minutes per pack at £12/hour	£476,800
Local authority: early years setting costs	1 hour per class of 30 at £9/hour	£187,800
Local authority: programme co-ordinators	£10,000 per annum in each local authority	£1,510,000
Imputed value of books	Wholesale value of books (60% of retail) – actual cost to Booktrust	£10,185,570
<i>Total local authority spending</i>		<i>£4,969,114</i>
<i>Total public spending (DfE + LA)</i>		<i>£13,969,114</i>
<i>Total input costs</i>		<i>£24,154,684</i>



## 4.0 Findings

The SROI analysis shows that the Bookstart programme creates value for children, parents/carers and the state. The programme results in improved literacy and learning for children in households where little reading activity takes place, as well as a range of other social benefits including:

- Increase in the amount of quality time children and their parents/carers spend together
- Calmer home environment due to increased reading
- Reduction in long term negative outcomes (e.g. unemployment, substance abuse) that are associated with low levels of literacy

The total value of the benefits accruing to the Bookstart programme in England from its activities in the 2009/10 financial year is estimated to be £614 million. This is the value of the material outcomes experienced by children, parents/carers and the State over a 37 year period as a result of receiving a pack in 2009/10.

Given input costs of £24 million, this translates into an overall social return on investment of 1:25.

The value of benefits accruing solely to the state over the same period is £59 million. This is derived from a reduction in costs associated with low levels of literacy during school and improved outcomes post-school to age 37. Given combined spending at local and central government level of £14 million, every £1 of public money invested in Bookstart is forecast to create a return to the state of £4.19.

The present analysis likely underestimates the social value created by Bookstart. This is due to the use of conservative assumptions throughout and the likely sample bias toward very active reading families in the Bookstart National Impact Evaluation 2009.

### 4.1 Share of value

The total value of benefits is derived from outcomes across seven stakeholders:

- Children in less active reading households (Child A)
- Children in moderate to active reading households (Child B)
- Children in very active reading households (Child C)
- Parents/carers of children in category A
- Parents/carers of children in category B
- Parents/carers of children in category C
- state, at both local and central level

Chart 4.1 shows the breakdown of social value across these seven stakeholders.

Bookstart makes the greatest difference to children and parents/carers in households where little reading activity takes place. 75% of the total value created from the programme flows to children and parents/carers in low reading activity households. In these households, the Baby Pack has the potential to create new routines around

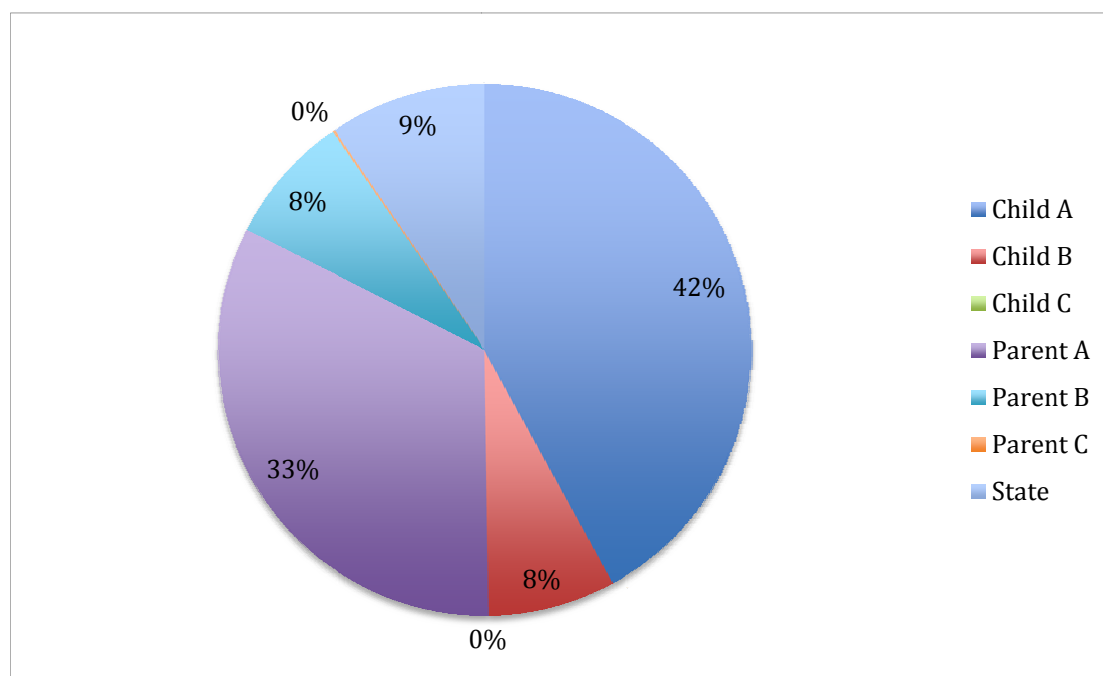
book sharing that otherwise might never have developed. Where maintained these routines can prevent children from falling behind in school and may also translate into a reduction in the incidence of negative longer term outcomes associated with low levels of literacy (e.g. unemployment, substance abuse).

By comparison, children and parents/carers in moderate to active reading households receive 16% of the total value while children and parents/carers in very active reading families receive less than 1% of the total value. Despite this being a much smaller share of value, parents in these families still stressed the value of the book packs. During stakeholder engagement parents/carers in these households often said that while they do not believe the packs have made a long term difference to the outcomes of their child as they would have started reading with their child anyway, the packs reinforced positive patterns of interacting around books and reading and gave them a sense that they were 'doing the right thing'. Some also commented positively on Bookstart being a universal programme, saying that the packs create a shared experience among children from different backgrounds.

The value of benefits to the state represents a 9% share of the total value created. This value is derived from improved outcomes of children in less active reading households and is composed of:

- £55 million in social value due to a reduction in SEN support during primary and secondary school
- £3.5 million in social value due to the avoidance of longer term (post-school) costs associated with low levels of literacy. The scenario covers costs related to employment, health and social costs associated with being NEET.

**Chart 4.1 Percentage of total value accruing to each stakeholder**



## 4.2 Sensitivity Analysis

This step in the SROI methodology systematically varies assumptions in order to test for areas of sensitivity in the model. These are assumptions that, when changed, significantly affect the ratio.

Details of the full sensitivity analysis are set out in Appendix 3.

The model was largely resistant to change in any one assumption, with the exception of the assumptions pertaining to the proportion of stakeholders falling into each household category and the outcomes relating to the quality time children spend with parents/carers.

The following findings are noteworthy:

- **Varying the proportion of children and parents in each category** so that 25% fall into 'less active', 50% fall into 'moderate to active', and 25% fall into 'very active' leads to a near doubling of the overall SROI ratio and raises the state ratio to 1:7.76. This is a substantial change and significant because Booktrust believes there may have been a sample bias towards 'very active' families in the National Impact Evaluation 2009. It is likely that the SROI presented in this study, therefore, underestimates the value of Bookstart. However, to confirm this further research is required to gain a more accurate picture of the proportion of households falling into each category.
- **The return to the state remains positive even when very conservative assumptions are adopted in relation to school performance and longer term prospects.** Halving the percentage of children achieving KS1 results in a return to the state of 1:2.22, while reducing the incidence of long term improvements by 80% sees the ratio fall only very slightly to 1:3.99. Similarly, reducing SEN costs by 40% maintains a positive ratio of 1:2.61 and removing long term costs altogether results in a ratio of 1:3.93. This finding is important because it shows that the return to the state remains positive even if performance of children is substantially worse than assumed in the base scenario.
- **The outcomes relating to an increase in the time children spend with their parent/carer are the key sensitivity in the model.** These outcomes accrue by far the greatest share of value and when removed altogether the overall ratio falls from 1:25.4 to 1:5.69. Note, however, that the state return remains unchanged as this outcome only relates to the social value created for children and parents/carers. Quality time was repeatedly identified as a key outcome during stakeholder engagement and the proxy, based on average earnings, is robust. As such, the large amount of social value that is created in this area may be a reflection of the value placed on this outcome by children and parents/carers. However, given the degree of sensitivity, it is recommended that this outcome is explored further in future studies.
- **Doubling of any one proxy, except those pertaining to the quality time outcome, changes the overall ratio by less than 15%.** This indicates that no single proxy has an undue influence on the model.
- **The assumptions around deadweight are also resistant to variation.** Doubling of deadweight for all outcomes sees the overall ratio fall to 1:20.96 and the state ratio remain unchanged.
- **Halving the attribution has little effect on the state ratio.** This indicates that even under an extremely conservative scenario, where Bookstart takes credit for only half the outcomes projected in the base scenario, the overall

ratio and return to the state are still positive.

- **Increasing local authority costs, the main variable on the input side, by 20% maintains a positive ratio for the state.** The ratio falls from 1:4.19 to 1:3.91. This indicates that costs can increase substantially before the return from Bookstart becomes 1:1.

### 4.3 Recommendations

The packs were universally liked by parents and children. During the stakeholder engagement some parents/carers remarked that books in the packs had become favourites of their child. The guidance leaflet was highly praised. Some noted that their children developed a sense of ownership and pride in their packs, with the satchel that the Bookstart+ comes in being especially well received by children. Despite directly asking about improvements that could be made to the packs, no suggestions for significant changes were received.

Given the popularity of the packs and programme, the sole recommendations emerging from this SROI relate to measurement. Specifically, it is recommended that future research by Booktrust set out to correct the sample bias in the Bookstart National Impact Evaluation 2009 and, in addition, consider directly measuring social outcomes beyond the literacy domain. The present study has highlighted significant benefits in the parent-child relationship and feelings of increased parental competence, as well as the calming effect of reading. Future evaluation studies would do well to measure these. Furthermore, the stakeholder engagement pointed to possible literacy benefits for parents/carers in households where there is little reading activity. Again, Bookstart may want to consider research into whether this is borne out in a larger sample.

## 5.0 Conclusion

Literacy is a key life skill that, when not developed sufficiently, can have costly implications for individuals and also the state.

The nationwide Bookstart programme promotes engagement with books by encouraging book, song and rhyme sharing between children and their parents/carers from a young age. The programme acknowledges the positive impact that developing a reading habit can have on literacy skills, but aims to positively impact child development more generally.

The present study has forecast the social value created by Bookstart in England for its activities during the 2009/10 financial year.

Based on existing research and stakeholder engagement, material outcomes that result from the programme were identified. These included:

- Improvements in literacy and learning for children in households where there is low, or no, reading activity
- Reduction in the incidence of negative long term outcomes (e.g. unemployment, obesity) that are associated with low levels of literacy
- Increase in the amount of quality time children and their parents/carers spend together
- Increased reading leading to a calming effect on children

The SROI analysis estimates that the total value created by Bookstart to children, parents/carers and the state far exceeds the costs of the programme, with a return on investment ratio of 1:25.

The value of benefits to the state alone, at local and national level, is estimated to be £59 million. This is made up of savings on SEN provision during schooling and a reduction in the post-school (to age 37) costs associated with low levels of literacy. The value to the state represents a return of £4.19 for every pound of public money invested in the programme.

The most significant difference – representing 75% of the total value – is made to children and parents/carers in households where there is little, or no, reading activity prior to receiving the book packs. In these households, the programme has the potential to introduce new routines around reading and books that can prevent children from falling behind and facing the long term costs that come with low levels of literacy.

The packs and programme were well-liked by parents/carers that participated in the SROI analysis and no significant suggestions for improvement were received.

# Appendix 1: Bookstart National Impact Evaluation Questionnaires

## Questionnaire for Phase 1 interview

A survey on reading practices in the home between parents/carers and their babies and toddlers (0-4) years.

Parents answering the questionnaire **MUST** have at least **ONE** child in the eligible age range **AND** have received a Bookstart pack within the last month.

Please make sure **ALL** applicable questions are answered

### **1. How often do you or your partner read to your child/children under 4?**

- |          |                                    |                          |
|----------|------------------------------------|--------------------------|
| <b>A</b> | On two or more occasions every day | <input type="checkbox"/> |
| <b>B</b> | Once a day                         | <input type="checkbox"/> |
| <b>C</b> | A few times a week                 | <input type="checkbox"/> |
| <b>D</b> | Maybe once or twice a week         | <input type="checkbox"/> |
| <b>E</b> | Maybe once a week or less          | <input type="checkbox"/> |
| <b>F</b> | Never                              | <input type="checkbox"/> |

### **2. Do you have books for babies or toddlers in the home?**

- |          |                      |                          |
|----------|----------------------|--------------------------|
| <b>A</b> | Over 40 books        | <input type="checkbox"/> |
| <b>B</b> | Between 20- 40 books | <input type="checkbox"/> |
| <b>C</b> | Between 10-19 books  | <input type="checkbox"/> |
| <b>D</b> | Less than 10 books   | <input type="checkbox"/> |
| <b>E</b> | None                 | <input type="checkbox"/> |

**3. What is your child's attitude towards books?**

- |          |   |                          |
|----------|---|--------------------------|
| <b>A</b> | Uninterested: doesn't know what to do with them   | <input type="checkbox"/> |
| <b>B</b> | Little interest: no strong inclination to look at books   | <input type="checkbox"/> |
| <b>C</b> | Quite interested; enjoys looking at books when encouraged   | <input type="checkbox"/> |
| <b>D</b> | Very interested; enjoys books with and without encouragement, handles pages, points to pictures, etc. | <input type="checkbox"/> |

**4. What is your attitude towards reading with your baby/toddler?**

- |          |   |                          |
|----------|---|--------------------------|
| <b>A</b> | Uninterested: not my kind of thing                                  | <input type="checkbox"/> |
| <b>B</b> | Very little interest: not really a priority                         | <input type="checkbox"/> |
| <b>C</b> | Quite interested: a good thing to do                                | <input type="checkbox"/> |
| <b>D</b> | Very interested: strongly committed to encouraging my child to read | <input type="checkbox"/> |

**5. Are you or your child/children a member of your local library?**

**YES**

**NO**

**6. Have you, for yourself or on behalf of a child, borrowed a book or other material from a local library in the last 3 months?**

**YES**

**NO**

**7. Have you or your partner attended any baby or toddler-oriented events at a local library?**

**YES**

**NO**

**8. Which Bookstart pack have you most recently received?**

**A**      Baby pack

**B**      Bookstart+

**C**      My Treasure Chest

**9. Has your family received a Bookstart pack before?**

**YES**

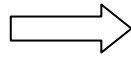
**NO**

**10. Were you present when your family received the pack?**



**YES**

**NO**



**Go to Q12**

**11. When you received the pack did the person gifting the pack...**

**A**

Talk about sharing books with your baby or toddler

**B**

Just give the pack to you without any message

**For the following two questions, if the pack has just been received, please circle 'N/A' for each...**

**12. Since receiving it has your child used the pack?**

**N/A**

**A**

Yes, we have used most or all the books provided and we use them frequently

**B**

Yes, we have made some use of the Bookstart books

**C**

No, we have not made use of the Bookstart books

**13. In your own estimation, has receiving the Bookstart pack encouraged you or your partner to read more frequently to your child? N/A**

- |            |   |   |
|------------|---|---|
| <b>YES</b> | } | <b>A</b> Yes, I was unaware of the benefits of reading with babies/toddlers and the packs have encouraged me to read more frequently with our child/children <input type="checkbox"/>                                 |
|            |   | <b>B</b> Yes, I previously knew about the benefits of reading but have been encouraged by the Bookstart packs to read more frequently and/or become more engaged in reading with my children <input type="checkbox"/> |
| <b>NO</b>  | } | <b>C</b> No, I have always read to my children. Receiving the Bookstart packs made no difference. <input type="checkbox"/>  |
|            |   | <b>D</b> No, reading doesn't interest me and I don't read to my children. <input type="checkbox"/>  |

**Follow-up interview**

We would like to conduct a follow-up telephone interview of parents in three months time. Participants will receive a free gift for your child.

If you are willing to be contacted by telephone for a brief five minute follow-up interview, please provide your name and phone number:

**Name:** .....

**Phone:** .....

Your personal details will ONLY be used for these communications and will NOT be shared with any third parties.

THANK YOU FOR PARTICIPATING IN THIS SURVEY

## Questionnaire for Phase 2 interview

### 1. How often do you or your partner read to your child/children under 4?

- A** On two or more occasions every day
- B** Once a day
- C** A few times a week
- D** Maybe once or twice a week
- E** Once a week or less
- F** Never

### 2. What is your child's attitude towards books?

- A** Uninterested: doesn't know what to do with them
- B** Little interest: no strong inclination to look at books
- C** Quite interested; enjoys looking at books when encouraged
- D** Very interested; enjoys books with and without encouragement, handles pages, points to pictures, etc.

**3. What is your attitude towards reading with your baby/toddler?**

- A**            Uninterested: not my kind of thing
- B**            Very little interest: not really a priority
- C**            Quite interested: a good thing to do
- D**            Very interested: strongly committed to encouraging my child to read

**4. Are you or your child/children a member of your local library?**

**NO**           

**YES**           

**5. Have you or your partner attended a baby/toddler event at a local library since the last interview (i.e. over the last three months)?**

**YES**                **If YES, how many times?**           

**NO**

**6. In the earlier interview you indicated that your family had received a Bookstart book pack. In your estimation, has receiving the Bookstart pack encouraged you or your partner to read more frequently to your child?**

- |            |   |  |                          |
|------------|---|--|--------------------------|
| <b>YES</b> | } | <b>A</b> Yes, I was unaware of the benefits of reading with babies/toddlers and the packs have encouraged me to read more frequently with our child/children                                 | <input type="checkbox"/> |
|            |   | <b>B</b> Yes, I previously knew about the benefits of reading but have been encouraged by the Bookstart packs to read more frequently and/or become more engaged in reading with my children | <input type="checkbox"/> |
| <b>NO</b>  | } | <b>C</b> No, I have always read to my children. Receiving the Bookstart packs made no difference.  | <input type="checkbox"/> |
|            |   | <b>D</b> No, reading doesn't interest me and I don't read to my children.  | <input type="checkbox"/> |

**Please give postal address for sending free gift.....**

**THANKYOU FOR PARTICIPATING IN THIS SURVEY**

## Appendix 2: SROI Model

Stakeholder	Outcome	Indicator	Value	Units (number of children/parents unless otherwise stated)	Deadweight proportion	Attribution proportion	Displacement proportion	Units after deadweight	Units after attribution & deadweight	Units after attribution, deadweight & displacement	Financial proxy description	Proxy	Total Value Produced
Child A	Improved literacy and learning (early years)	Additional percentage reading at least once a day at 3 months after receiving pack	40%	33462	10.00%	90.00%	0.0	30115.7	27104.1	27104.1	Willingness to spend: cost of a best-selling literacy promotion toy (Melissa & Doug See & Spell)	£17	£460,499
	Better educational performance during school years	Additional percentage now reaching Level 2 at Key Stage 1	20%	16731	0.00%	60.00%	0.0	16731.0	10038.6	10038.6	Willingness to spend: cost of private tutoring for one hour per week, 46 weeks at £20/hour	£920	£9,235,487
	Longer term improvement in prospects, post-school (e.g. employability, health)	Percentage reduction in incidence of individuals facing negative outcomes inferred by JE from secondary literature	5%	4183	0.00%	3.00%	0.0	4182.7	125.5	125.5	Conservative estimate with only the economic activity gains valued to the individual. Proxy is the additional income gained by avoiding poor literacy. Based on research showing an average 6% income penalty for poor literacy.	£1,588	£199,291
	Increase in quality time spent with parent/carer	Additional hours spent reading with parent/carer annually	Additional hours per year	5189252	10.00%	90.00%	0.0	4670326.9	4203294.2	4203294.2	Value of time: Proxy inferred from monetised value of parents' time now spent reading with child. Valuation based on average hourly earnings.	£14	£60,527,436
	Increased individual well-being due to calming effect of reading	No direct measurement. Base on additional percentage now reading at least once a day.	40%	33462	10.00%	90.00%	0.0	30115.7	27104.1	27104.1	Value of time: Assume that parents may attend a parenting course to achieve calming of their child. Proxy is the value of the parents time attending the course. Assume that 30% of time on a 12-week, 2 hour/week course is spent to fulfil 'calming' objective. Monetised using average hourly earnings.	£104	£2,810,158
Child B	Improved literacy and learning (early years)	Additional percentage reading at least once a day at 3 months after receiving pack	15.10%	43790	40.00%	50.00%	0.0	26274.3	13137.1	13137.1	Willingness to spend: cost of a best-selling literacy promotion toy (Melissa & Doug See & Spell)	£17	£223,200
	Increase in quality time spent with parent/carer	Additional hours spent reading with parent/carer annually	Additional hours per year	16738881	40.00%	50.00%	0.0	10043328.9	5021664.4	5021664.4	Value of time: Proxy inferred from monetised value of parents' time now spent reading with child. Valuation based on average hourly earnings.	£14	£72,311,968
	Increased individual well-being due to calming effect of reading	No direct measurement. Base on additional percentage now reading at least once a day.	15.10%	43790	40.00%	50.00%	0.0	26274.3	13137.1	13137.1	Value of time: Assume that parents may attend a parenting course to achieve calming of their child. Proxy is the value of the parents time attending the course. Assume that 30% of time on a 12-week, 2 hour/week course is spent to fulfil 'calming' objective. Monetised using average hourly earnings.	£104	£1,362,059
Child C	NO MATERIAL CHANGE												

Parent/Carer A	Increase in quality time spent with child	Additional percentage reading at least once a day at 3 months after receiving pack	Additional hours per year	5189252	10.00%	90.00%	0.0	4670326.9	4203294.2	4203294.2	Value of time: Value of parents time now spent reading with child. Valuation based on average hourly earnings.	£14	£60,527,436
	Calmer home environment	No direct measurement. Base on additional percentage now reading at least once a day.	40%	33462	10.00%	90.00%	0.0	30115.7	27104.1	27104.1	Value of time: Assume that parents may attend a parenting course to achieve calming of their child. Proxy is the value of the parents time attending the course. Assume that 30% of time on a 12-week, 2 hour/week course is spent to fulfil 'calming' objective. Monetised using average hourly earnings.	£104	£2,810,158
Parent B	Increase in quality time spent with child	Additional percentage reading at least once a day at 3 months after receiving pack	Additional hours per year	16738881	40.00%	50.00%	0.0	10043328.9	5021664.4	5021664.4	Value of time: Value of parents time now spent reading with child. Valuation based on average hourly earnings.	£14	£72,311,968
	Calmer home environment	No direct measurement. Base on additional percentage now reading at least once a day.	15.10%	43790	40.00%	50.00%	0.0	26274.3	13137.1	13137.1	Value of time: Assume that parents may attend a parenting course to achieve calming of their child. Proxy is the value of the parents time attending the course. Assume that 30% of time on a 12-week, 2 hour/week course is spent to fulfil 'calming' objective. Monetised using average hourly earnings.	£104	£1,362,059
	Feeling of competence	No direct measurement. Based on estimate of incidence from stakeholder engagement.	77.20%	223882	0.00%	100.00%	0.0	223882.5	223882.5	223882.5	Value of time: assume parents may attend a parenting course to obtain greater feeling of competence. Proxy is the value of the parents time attending the course. Assume that 10% of time on a 12-week, 2 hour/week course is spent with the objective of feeling more competent. Monetised using average hourly earnings.	£35	£7,737,379
Parent C	Feeling of competence	No direct measurement. Based on estimate of incidence from stakeholder engagement.	57%	139978	0.00%	100.00%	0.0	139978.0	139978.0	139978.0	Value of time: assume parents may attend a parenting course to obtain greater feeling of competence. Proxy is the value of the parents time attending the course. Assume that 10% of time on a 12-week, 2 hour/week course is spent with the objective of feeling more competent. Monetised using average hourly earnings.	£35	£4,837,639
State (split out local /national) - applies only to less active cohort	Reduced spending on remedial education services (SEN in relation to literacy)	Based on school performance for children in category A (see above)	20%	16731	0.00%	60.00%	0.0	16731.0	10038.6	10038.6	Cost of SEN provision in primary and secondary school	Variable	Variable
	Avoidance of longer term, post-school costs (e.g. around economic inactivity, health, social costs associated with being NEET)	Based on longer term outcomes of children in category A	5%	4183	0.00%	3.00%	0.0	4182.7	125.5	125.5	Costs associated with poor literacy, post-schooling, in the moderate certainty scenario in the Every Child a Chance Trust (2009) modelling.	£28,286	£3,549,438

Stakeholder	Outcome	Indicator	Benefit period	Total Value (PV)
Child A	Improved literacy and learning (early years)	Additional percentage reading at least once a day at 3 months after receiving pack	4.00	£1,460,796
	Better educational performance during school years	Additional percentage now reaching Level 2 at Key Stage 1	11.00	£55,645,401
	Longer term improvement in prospects, post-school (e.g. employability, health)	Percentage reduction in incidence of individuals facing negative outcomes inferred by JE from secondary literature	21.00	£24,088
	Increase in quality time spent with parent/carer	Additional hours spent reading with parent/carer annually	4.00	£192,005,024
	Increased individual well-being due to calming effect of reading	No direct measurement. Base on additional percentage now reading at least once a day.	4.00	£8,914,378
Child B	Improved literacy and learning (early years)	Additional percentage reading at least once a day at 3 months after receiving pack	1.00	£142,046
	Increase in quality time spent with parent/carer	Additional hours spent reading with parent/carer annually	1.00	£46,019,815
	Increased individual well-being due to calming effect of reading	No direct measurement. Base on additional percentage now reading at least once a day.	1.00	£866,824
Child C	NO MATERIAL CHANGE			



Parent/Carer A	Increase in quality time spent with child	Additional percentage reading at least once a day at 3 months after receiving pack	4.00	£192,005,024
	Calmer home environment	No direct measurement. Base on additional percentage now reading at least once a day.	4.00	£8,914,378
Parent B	Increase in quality time spent with child	Additional percentage reading at least once a day at 3 months after receiving pack	1.00	£46,019,815
	Calmer home environment	No direct measurement. Base on additional percentage now reading at least once a day.	1.00	£866,824
	Feeling of competence	No direct measurement. Based on estimate of incidence from stakeholder engagement.	0.25	£1,355,599
Parent C	Feeling of competence	No direct measurement. Based on estimate of incidence from stakeholder engagement.	0.25	£847,561
State (split out local/national) - applies only to less active cohort	Reduced spending on remedial education services (SEN in relation to literacy)	Based on school performance for children in category A (see above)	11.00	£54,957,627
	Avoidance of longer term, post-school costs (e.g. around economic inactivity, health, social costs associated with being NEET)	Based on longer term outcomes of children in category A	up to 37 years of life	£3,549,438

## Appendix 3: Sensitivity analysis

### BASE SCENARIO

<b>Total Benefits</b>	£613,594,635
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	25.40

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: Stakeholder proportion varied to 25% (A); 50% (B); 25% (C)

<b>Total Benefits</b>	£1,060,587,554
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	43.91

Ratio of value created for the State/total government funding	£7.76
Ratio of value created for the State/DCSF funding	£12.04

Change: Reduced percentage achieving KS1 to 10%

<b>Total Benefits</b>	£558,293,121
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	23.11

Ratio of value created for the State/total government funding	£2.22
Ratio of value created for the State/DCSF funding	£3.45

Change: 20% reduction in value of parents time to £12

<b>Total Benefits</b>	£514,031,587
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	21.28

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: Doubling early literacy promotion product cost

<b>Total Benefits</b>	£615,197,477
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	25.47

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: Halve attribution to Bookstart across all outcomes

<b>Total Benefits</b>	£329,651,059
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	13.65

Ratio of value created for the State/total government funding	£4.06
Ratio of value created for the State/DCSF funding	£6.30

Change: Doubling deadweight across all outcomes

<b>Total Benefits</b>	£506,173,354
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	20.96

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: Increased percentage achieving KS1 to 30%

<b>Total Benefits</b>	£668,896,149
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	27.69

Ratio of value created for the State/total government funding	£6.16
Ratio of value created for the State/DCSF funding	£9.55

Change: Reduced incidence of improvement in long term outcomes to 1%

<b>Total Benefits</b>	£610,755,085
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	25.29

Ratio of value created for the State/total government funding	£3.99
Ratio of value created for the State/DCSF funding	£6.19

Change: Increased incidence of improvement in long term outcomes to 7%

<b>Total Benefits</b>	£615,014,410
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	25.46

Ratio of value created for the State/total government funding	£4.29
Ratio of value created for the State/DCSF funding	£6.66

Change: Doubling the calming environment proxy

<b>Total Benefits</b>	£633,157,038
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	26.21

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: Doubling feeling of competence proxy

<b>Total Benefits</b>	£615,797,794
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	25.49

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: Doubling long term prospects (individual proxy)

<b>Total Benefits</b>	£613,618,724
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	25.40

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: Doubling drop off across all outcomes

<b>Total Benefits</b>	£489,895,348
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	20.28

Ratio of value created for the State/total government funding	£2.74
Ratio of value created for the State/DCSF funding	£4.25

Change: Increase local authority costs by 20%

<b>Total Benefits</b>	£613,594,635
<b>Total Inputs</b>	£25,148,507
<b>SROI Ratio</b>	24.40

Ratio of value created for the State/total government funding	£3.91
Ratio of value created for the State/DCSF funding	£6.50

Change: Reduce incidence of calming effect by 50% across all stakeholders

<b>Total Benefits</b>	£603,813,434
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	25.00

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: Remove quality time outcome from SROI

<b>Total Benefits</b>	£137,544,959
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	5.69

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: Halving tutoring proxy to £460

<b>Total Benefits</b>	£585,771,935
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	24.25

Ratio of value created for the State/total government funding	£4.19
Ratio of value created for the State/DCSF funding	£6.50

Change: reduce SEN cost savings by 40%

<b>Total Benefits</b>	£591,611,584
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	24.49

Ratio of value created for the State/total government funding	£2.61
Ratio of value created for the State/DCSF funding	£4.06

Change: reduce long term cost savings (State) by 40%

<b>Total Benefits</b>	£612,174,860
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	25.34

Ratio of value created for the State/total government funding	£4.09
Ratio of value created for the State/DCSF funding	£6.34

Change: Remove long term cost savings (State)

<b>Total Benefits</b>	£610,045,197
<b>Total Inputs</b>	£24,154,684
<b>SROI Ratio</b>	25.26

Ratio of value created for the State/total government funding	£3.93
Ratio of value created for the State/DCSF funding	£6.11