



Department
for Education

Evaluation guidance for 30 hours free childcare

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Introduction

Expiry or review date

This guidance will be reviewed as necessary.

Who is this publication for?

This guidance is for:

- Local authorities
- Childcare providers

Main points

This evaluation guide aims to help Local Authorities (LAs) evaluate the impact of 30 hours free childcare in their local areas.

Evaluators should follow a six-step process to ensure that findings are robust and useful. Evaluators should:

- Use a '**logic model**' to describe the links between the 30 hours policy and its objectives.
- Develop a set of specific, measurable **evaluation questions** that reflect local priorities and the local logic model.
- Design a feasible and pragmatic **evaluation strategy** which can estimate the size of effects by comparing actual outcomes with what would have happened in the absence of the policy. This step should also consider the timeframes and frequency for evaluation.
- Collect data using existing secondary **data sources** and conducting primary data collection when these sources are insufficient. This should also consider whether qualitative or quantitative data is required and how to collect the primary data.
- Apply the evaluation strategy to **analyse the data** producing descriptive statistics as well as measuring impact. This should also prepare and interpret the findings.
- Identify the target audience for their findings and **tailor outputs** to suit these audiences considering a range of outputs. This element should also identify the key messages.

Chapters 1 to 3 of this guidance provide further detail on the six-step evaluation process and technical advice on conducting evaluations of the 30 hours free childcare policy.

Glossary

Counterfactual: Expected outcomes in the absence of a policy or intervention.

ECEC: Early childhood education and care, used here to mean the free early education entitlement and formal childcare purchased by parents for preschool children.

Extended hours: Free entitlement hours taken under 30 hours free childcare in addition to the universal free early education entitlement.

Informal care: Unpaid care for children provided by relatives and friends.

Inputs: Resources that are required to deliver the policy.

Impacts: Ultimate effects of the policy which may include wider economic and social outcomes as well as original objectives.

Logic model: A visual representation of the inputs, outputs, outcomes and impacts associated with a particular policy, as well as the links that connect them

Outcomes: The intermediate effects of the policy.

Outputs: Services and activities delivered as part of the policy.

Primary data: Data collected by the LA or a contractor for the purpose of answering evaluation questions.

Provider type: Type of management organisation divided into PVI (private, voluntary or independent) providers, childminders and maintained providers (nursery classes in maintained schools, maintained nursery schools and other LA run providers).

Qualitative data: Data that characterises a difference or relationship without measuring it numerically. Qualitative data is usually obtained from interviews or focus groups.

Quantitative data: Data that measures a difference or relationship numerically. Quantitative data is usually obtained from experiments, observations or surveys.

Secondary data: Data collected and collated by external organisations such as ONS and the Department for Education.

Executive Summary

This evaluation guide aims to help Local Authorities (LAs) evaluate the impact of 30 hours free childcare in their local areas.

Evaluators should follow a six-step process, set out below, to ensure that findings are robust and useful.



Evaluators should:

- Use a '**logic model**' to describe the links between the 30 hours policy and its objectives.
- Develop a set of specific, measurable **evaluation questions** that reflect local priorities and the local logic model.
- Design a feasible and pragmatic **evaluation strategy** which can estimate the size of effects by comparing actual outcomes with what would have happened in the absence of the policy. This step should also consider the timeframes and frequency for evaluation.
- Collect data using existing secondary **data sources** and conducting primary data collection when these sources are insufficient. This should also consider whether qualitative or quantitative data is required and how to collect the primary data.
- Apply the evaluation strategy to **analyse the data** producing descriptive statistics as well as measuring impact. This should also prepare and interpret the findings.
- Identify the target audience for their findings and **tailor outputs** to suit these audiences considering a range of outputs. This element should also identify the key messages.

Chapters 1 to 3 of this guidance provide further detail on the six-step evaluation process and technical advice on conducting evaluations of the 30 hours free childcare policy.

1. Introduction

1.1 Aims of this guidance

In September 2017, the national rollout of 30 hours free childcare doubled the free early education entitlement for three and four year olds with working parents. Frontier Economics, on behalf of the Department for Education (DfE), prepared this evaluation guide to help Local Authorities (LAs) evaluate the impact of 30 hours free childcare in their local areas.

The aims of this guidance are to:

- Support LAs to undertake local evaluation in line with best practice, balancing rigorous analysis with pragmatism, recognising potentially limited evaluation resources and drawing on examples of what has worked well in other areas.
- Enable LAs to gather robust evidence to support informed discussions with DfE and local parents and providers on the effects of the 30 hours free childcare policy and to support local decision-making to enable continued effective delivery.
- Enable LAs to evaluate local impact in a consistent way, permitting comparisons across LAs and opportunities to share learning.
- Allow LAs to focus on evaluation questions most relevant to their local needs, with flexible methods adaptable to local circumstances and specific topics of interest.

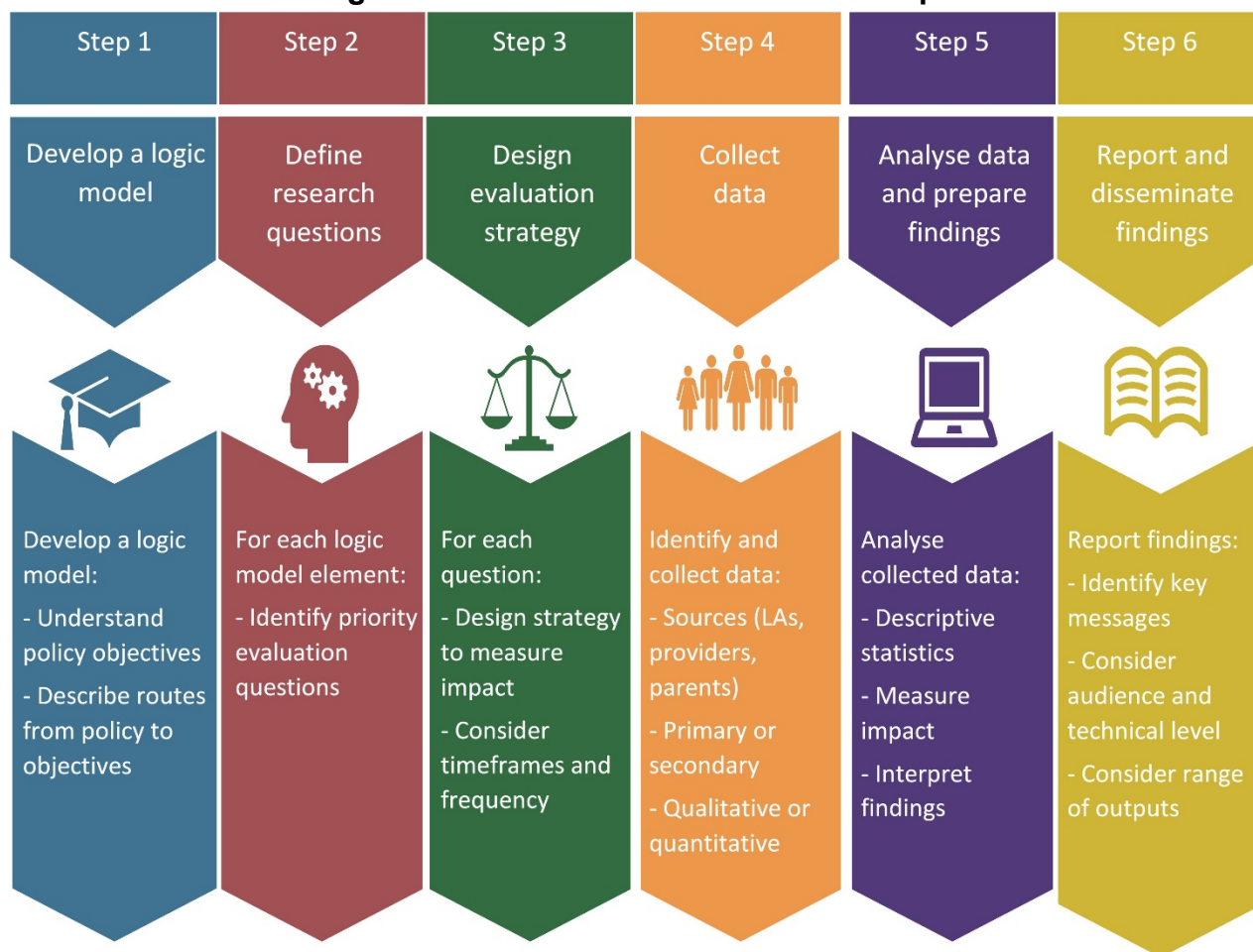
1.2 How to use this guidance

This guidance has three key components:

1. **LA evaluation guide (section 3 of this report):** A succinct and accessible step-by-step guide on how to conduct an LA level evaluation of 30 hours free childcare, designed for early years staff to have a clear overview of the required process.
2. **Additional guidance details (section 4 of this report):** Additional, more technical, guidance on specific areas, primarily designed for LA analytical and evaluation teams but which may also be useful to more general readers who wish to “deep dive” on some issues.
3. **A monitoring and evaluation toolkit (separate tool published alongside this document):** A user-friendly, Excel based tool to help LAs collate and interpret data on the implementation and impact of 30 hours free childcare. This includes banks of possible questions for surveys with providers and parents.

The evaluation guide presented in section 3 follows a six-step process which is summarised in figure 1. The additional technical details in section 4 are signposted from within each step but can also be usefully reviewed as a standalone piece.

Figure 1: Overview of the evaluation steps



1.3 How this guidance was developed

The development of this guide builds on the evaluations of the early tests of 30 hours free childcare¹ and the national rollout². Evidence from LAs on their current evaluation

¹ Paull, G. & La Valle, I. with Speight, S., Jones, H. and White, C. (2017), *Evaluation of Early Implementation of 30 Hours Free Childcare*, Department for Education Research Report DFE-RR708, July https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/629460/Evaluation_of_early_implementation_of_30_hours_free_childcare_.pdf

Paull, G. & La Valle, I. with Speight, S., Marshall, L. and White, C. (2017), *Evaluation of Early Rollout of 30 Hours Free Childcare*, Department for Education Research Report DFE-RR731, August https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/629460/Evaluation_of_early_implementation_of_30_hours_free_childcare_.pdf

² <https://www.gov.uk/government/publications/30-hours-free-childcare-final-evaluation-of-the-national-rollout>

approaches, the challenges they face in evaluating this policy and what they would like to learn from local evaluations was also used to design the guidance. This evidence was collected from:

- A questionnaire completed by 15 volunteer LAs collecting information on their existing approach to data collection and evaluation and how they would use evaluation guidance.
- Written feedback from 11 volunteer LAs following “testing” of an early version of the guidance.
- A workshop discussion with participants from 14 evaluation and volunteer LAs on how the guidance could be improved, again following “testing” of an early version of the guidance.

Consequently, this guidance has been tailored to address the specific challenges associated with evaluating the policy at a local level. It is also consistent with the HM Treasury Magenta Book on evaluation guidance (<https://www.gov.uk/government/publications/the-magenta-book>).

1.4 Additional sources of information

This guide should be used as a complement to other resources that are available to LAs relating to 30 hours free childcare and wider early years policy including:

- Statutory guidance for local authorities on the provision of early education and childcare <https://www.gov.uk/government/publications/early-education-and-childcare--2>
- Early education and childcare Operational guidance <https://www.gov.uk/government/publications/30-hours-free-childcare-la-and-early-years-provider-guide>
- Guidance published by the Greater London Authority on Childcare Sufficiency Assessments (with potential applicability across England) https://www.london.gov.uk/sites/default/files/csa_template_guidance_feb18_0.pdf

2. Evaluation Guide

2.1 Step 1: Develop a logic model

LAs should use a 'logic model' to describe the links between the 30 hours policy and its objectives.

The first step for an impact evaluation is to identify the policy objectives and describe the processes by which the policy is intended to achieve these objectives. Understanding the links between the policy and the objectives helps evaluators to identify the questions they wish to answer.

A logic model can be used to set out the objectives and links. A template logic model for 30 hours free childcare is presented in figure 2. For example, the model shows that funding for 30 hours free childcare hours allows settings to offer extended hours which may reduce the cost of ECEC for parents which, in turn, may raise the hours per week that a child spends in ECEC and allow parents to return to work or to increase their hours of work.

➤ *Further explanation of logic models and the logic model in figure 2 can be found in **section 3.1**.*

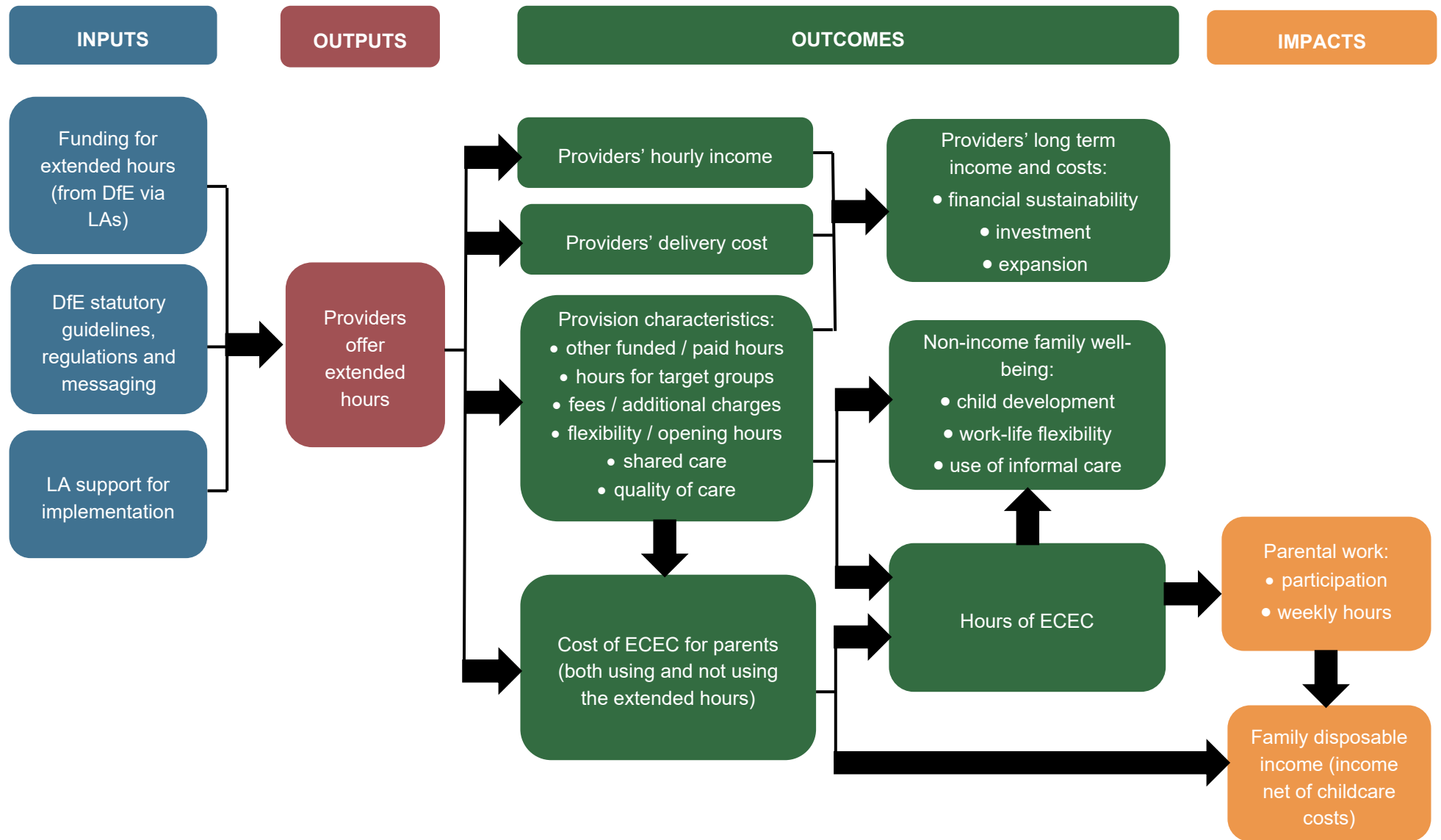
LAs should adjust this template with reference to local experience, needs and priorities.

➤ *Further guidance on developing a local logic model can be found in **section 3.2**. This may be particularly useful to LAs wishing to develop their own logic model or make substantive adjustments to the template presented here.*

The logic model should also be periodically reviewed to incorporate:

- Any new evidence on relevant outcomes and links as the policy beds-in.
- Any change in local policy priorities.

Figure 2: Template impact logic model for 30 hours free childcare



2.2 Step 2: Define evaluation questions

LAs should develop a set of specific, measurable evaluation questions that reflect local priorities and the local logic model.

The second step for an impact evaluation is to define the questions about the impact of the 30 hours policy that evaluators want to test. These “evaluation questions” are distinct from the questions asked of providers or parents in surveys or interviews which provide the evidence to answer the evaluation questions.

Table 1 presents a bank of potential evaluation questions for 30 hours free childcare. This evaluation question bank draws on the logic model shown in figure 2 and from the questions that LAs reported to be most relevant in their local area. This list is not required in its entirety and is not comprehensive: LAs should select questions according to their priorities and also consider additions and amendments.

➤ *Further guidance on defining evaluation questions can be found in **section 3.3**.*

Table 1: Evaluation questions

Logic model element	Potential evaluation questions
Provider finances	How did delivering the extended hours affect: <ul style="list-style-type: none"> • Occupancy rates? • The hourly wage paid to staff? • The hourly cost of delivery? • Hourly income? • Provider profit or surplus rates (difference between total income and total delivery cost)?
Provision of other hours	How did delivering the extended hours affect: <ul style="list-style-type: none"> • The number of free entitlement places for 2 year olds? • The number of universal (first 15 hours) free entitlement places for 3 and 4 year olds? • The number of paid hours? • The range of ages catered for by settings? • The number of hours offered for children with SEND? • The number of hours offered to children from disadvantaged families?

Logic model element	Potential evaluation questions
Provision characteristics	<p>How did delivering the extended hours affect:</p> <ul style="list-style-type: none"> • Hourly fees for paid hours? • The share of settings making additional charges? • The proportion of parents paying additional charges? • The amount of additional charges? • The share of settings offering hours before 9am or after 3pm? • The share of hours used before 9am or after 3pm? • The share of settings offering sessional care (morning or afternoon) versus those offering all day care? • The share of settings offering hours during holidays? • The share of hours used during holidays? • The number of settings working in partnerships with other settings? • The quality of ECEC?
Cost of ECEC for parents	<p>How did the policy affect:</p> <ul style="list-style-type: none"> • The amount paid for ECEC by parents using the extended hours? • The amount paid for ECEC by other parents?
Use of ECEC	<p>How did the policy affect:</p> <ul style="list-style-type: none"> • The number of children using ECEC? • The number of hours of ECEC used by children? • The number of children using informal care? • The number of hours of informal care used by children? • The number of children using shared care with multiple providers?
Parental work	<p>How did the policy affect:</p> <ul style="list-style-type: none"> • The number of mothers (fathers) looking for work? • The number of mothers (fathers) in work? • The number of mothers (fathers) who changed their job? • The number of weekly work hours for mothers (fathers)? • Weekly earnings for mothers (fathers)?
Family income	<p>How did using the extended hours affect:</p> <ul style="list-style-type: none"> • Families' disposable income (net of ECEC costs)?
Non-income family well-being	<p>How did using the extended hours affect:</p> <ul style="list-style-type: none"> • Children's readiness for school? • Children's school attainment? • Children's health outcomes such as obesity? • Families' work-life flexibility and balance? • Stress of organising ECEC or relying on informal care?

2.3 Step 3: Design the evaluation strategy

LAs should design a feasible and pragmatic evaluation strategy which can estimate the size of effects by comparing actual outcomes with what would have happened in the absence of the policy.

The third step for an impact evaluation is to design an evaluation strategy to address each evaluation question. An evaluation strategy should set-out:

- the data required to address the evaluation question,
- the evaluation approach, and
- how the findings should be interpreted.

A range of evaluation approaches can be considered but this guide focuses on two approaches that are likely to be achievable and proportional in the context of LA evaluations of 30 hours free childcare. These two approaches are termed “statistical approach” and “perception of impacts”. Both approaches aim to compare the measures of interest under 30 hours free childcare to what would have happened in the absence of the policy.

Statistical approach: The statistical approach to estimating measures of impact is to compare outcomes before and after the introduction of 30 hours free childcare. There are a number of variants of this approach:

- Simple “**before and after**” compares outcomes before and after the introduction of the policy. For example, this approach might simply compare the workforce participation of mothers in the period just before and in the period just after the introduction of 30 hours free childcare. This main limitation of this approach is that any change could be due to changes in other influences at the same time as the policy introduction.
- “**Before and after plus**” compares outcomes before and after the introduction of the policy but also makes adjustments for other influences that might have changed at the same time. For example, this approach might compare the workforce participation of mothers before and after the introduction of 30 hours free childcare but also consider whether other influences changed over the same period.
- “**Difference in difference**” compares outcomes before and after the introduction of the policy for the group exposed to the policy and also for a similar group which was not exposed to the policy. For example, this approach might compare changes in workforce participation rates for mothers with children of eligible age

for 30 hours free childcare with changes in workforce participation rates over the same period for mothers with children who are just too young or just too old to be eligible for the policy.

LAs should keep in mind that other policies were introduced at the same time as 30 hours free childcare, including Tax Free Childcare (TFC) and changes to the reimbursements for childcare payments in Universal Credit.

➤ *Further explanation of the statistical approach options for an evaluation strategy can be found in **section 3.4**.*

Perceptions of impacts: An alternative approach is to ask parents and providers what they believe they would have done or what would have happened in the absence of the policy. This type of approach is considerably less robust than a statistical approach, but it has the advantages of being relatively straightforward and requiring fewer LA resources.

Perceptions of impacts can be captured via surveys (which can generate measures of prevalence of perceived impacts) or in qualitative work with interviews or group discussions (which can capture examples and provide more depth on the reasons behind perceptions but cannot provide prevalence measures). Useful approaches to eliciting this information are to ask about a hypothetical scenario without the policy or to ask what has changed since the introduction of the policy and whether this can be attributed to the policy.

This approach is more reliable when respondents have previously made the same or similar decisions in identical or similar conditions in the absence of the policy (such as just before its introduction) and when there is no reason to suspect conscious or unconscious bias in the response. Using this approach therefore has different drawbacks and advantages for providers and parents in measuring the impacts of 30 hours free childcare:

- Providers are reasonably likely to be able to assess the impact on their provision because they were in a similar position prior to the introduction of the policy and would have made a conscious decision on whether to offer the extended hours (including consideration of the possible impacts on their provision). However, there may be an incentive for some to tailor responses in a way that could influence future policy in a direction favourable to their provision.
- Parents, on the other hand, are less likely to be able to assess the impact on outcomes as their child would have been younger in the time prior to the policy. Hence, they are more dependent upon drawing comparisons with a hypothetical scenario they have not actually experienced. In addition, asking specific questions about the policy could raise its salience and importance leading to an overstatement of impact. Some may also overestimate the impacts by presuming it must have affected them in the way intended.

In choosing an evaluation approach, research questions that are of particular interest may warrant advanced analysis using survey data in order to provide a robust estimate of the impact. For lower priority evaluation questions, simpler approaches such as a description of trends or perceptions of impacts from case studies or stakeholder engagement may be suitable.

- *Further guidance on choosing an evaluation strategy and example assessments of the options for specific evaluation questions can be found in **section 3.5**.*

2.4 Step 4: Collect data

LAs should consider using existing secondary data sources, conducting primary data collection when these sources are insufficient.

The fourth step for an impact evaluation is to collect the data required to conduct the evaluation, as specified in the evaluation strategy.

There are two main categories of data that LAs can draw on for evaluations:

- **Secondary data** that has already been collated by other parties, and
- **Primary data** that is collected specifically for the evaluation.

When choosing a data source, it is important to consider how well the source meets the evaluation strategy and the availability and cost of the data.

- *Further information on choosing a data source can be found in **section 3.6**.*

Secondary datasets include those collected by, for example, the LA or by national government departments. Using existing datasets minimises the cost and time required to obtain the data. The main drawback of secondary data is that it may have been collected for other purposes and not contain the required range of information for evaluation.

Some examples of useful secondary data include:

- a) Eligibility Checking System (ECS) data on validated codes.
- b) Data from the Early Years Census and School Census
- c) Data from surveys already undertaken by the LA with providers or parents (such as for sufficiency assessments).
- d) Data on child development (such as Early Years Foundation Stage Profile (EYFSP)) from primary education colleagues.

- e) Unsolicited feedback from providers or parents on delivery or using the extended hours.
- f) Large national household surveys such as the Labour Force Survey (LFS), Family Resources Survey (FRS) and Understanding Society (US).
- g) DfE Survey of Childcare and Early Years Providers (SCEYP) and DfE Childcare and Early Years Survey of Parents (CEYSP).
- h) Department for Work and Pensions (DWP) benefit data
- i) English indices of deprivation
- j) Statistical neighbour data

➤ *Further information on these secondary data sources can be found in **section 3.7**.*

Primary data collection may be the only option for data not already held by the LA or available from secondary sources. Even if other sources are available, primary data collection can have the advantage of delivering the specific type of data required for the evaluation strategy (particularly if the strategy involves perceptions of impacts) and providing appropriate sample sizes, including for particular types of provider, children or parents of interest. However, there are a number of drawbacks to primary data collection:

- There are significant cost and time requirements for designing and implementing primary data collection.
- Primary data collection places a burden on respondents, particularly providers who are already requested to take part in substantial amounts of data collection.
- Primary data collection is risky: errors in design can result in biased data or data which does not provide the intended information.

LAs should consider contracting external data collection specialists to design and undertake primary data collection, particularly if the required data is complex or unusual, if the target group may be challenging to identify or engage, or if there are ethical issues or cultural sensitivities to account for.

➤ *Further guidance on collecting primary data can be found in **section 3.8**.*

➤ *Example questions for surveys of providers and of parents can be found in the monitoring and evaluation toolkit which accompanies this report.*

2.5 Step 5: Analyse data and prepare findings

LAs should apply the evaluation strategy to analyse the data and prepare findings

The penultimate step for an impact evaluation is to analyse the data in accordance with the evaluation strategy and prepare the findings. Dependent upon analytical capability, the evaluation analysis can be undertaken in-house by the LA or by an external specialist. The latter may be preferable for more advanced evaluation approaches or complex data.

In applying the evaluation strategy to the data and reporting, it is important to:

- **Check descriptive statistics.** Descriptive statistics are used to describe the basic features of the data. For example, descriptive statistics might include the average (mean or median) number of children at each setting, as well as the minimum and maximum number. Careful checking of descriptive statistics can provide initial insight for the analyst into the likely findings on impact and can flag any unexpected issues or relationships.
- **Report descriptive statistics.** Initial presentation of the descriptive statistics can introduce the reader to the nature of the measures under consideration and the patterns across groups. They can also provide contextual information for each evaluation question to be understood and aid interpretation of the findings.
- **Differentiate between correlation and causation.** A correlation describes an association between two factors without describing which factor drives the other (or if both are driven by a third factor). Evaluators should clearly report findings as correlations unless they are confident that the evaluation strategy is sufficient to identify that one factor (in this case, the policy) has caused the other (the impact).
- **Explore and report any uncertainties, caveats and assumptions.** It is important to explore how much any uncertainties or caveats in the analysis affect the results and whether any assumptions that have been made are reasonable. These should be reported with an explanation of their importance.
- **Include unintended consequences.** Negative unintended consequences should be reported alongside benefits to ensure that the findings present a balanced and comprehensive account of the policy's effects. Similarly, a finding that two factors are not related should also be reported.
- **Place the findings in the context of other information.** In particular, the timing of the data collection should be compared to other evidence on how long it might

take for impacts to materialise (including evidence on the progress for the policy and evidence on previous policies of a similar nature).

- **Report how findings vary for different groups.** Changes in outcomes and impacts may vary across different types of providers, children and parents. It is important, where possible, to evidence these differences, particularly as this can help identify variation in the impact of the policy across different groups.

Finally, it is important to draw out key messages with particular consideration of:

- What are the really large effects (either in size of impact or the number of providers or parents affected)?
- Are there specific groups who are affected differently by the policy?
- What can help inform the future development and implementation of the policy?

2.6 Step 6: Report findings

LAs should identify the target audience for their findings and tailor outputs to suit these audiences.

The final step for an impact evaluation is to report the findings. LAs should consider the target audiences they would like to reach and how the findings will be used.

For an evaluation of the 30 hours free childcare, the potential audiences include:

- Councilors and other elected officials with portfolio responsibilities for ECEC
- LA early years staff who may wish to learn how to improve delivery of the policy
- LA staff outside of early years who are affected by the policy
- Local providers who may wish to learn from other providers' experience on delivering the extended hours or better understand the impacts that their delivery has on families.
- Local parents who wish to understand the general experience of using the extended hours and the potential impacts of use, including those currently using the hours and those considering taking up the hours.
- Other LAs who wish to draw comparisons of findings across LAs or who have not undertaken an evaluation and would like to draw on findings from other LAs with similar characteristics.

- Other stakeholders at the local and national level concerned either with providers in the ECEC sector or with family outcomes.

Findings can be tailored in several way to suit these different audiences:

- The focus of the content. For example, providers may naturally be more interested in the impacts on providers while families more focused on outcomes for children.
- Technical detail. For example, high-level decision makers are likely to require less detail and more accessible language than analysts.
- Amount of supporting information. For example, LA staff from departments outside of the early years may need more explanation of the policy and context than other audiences.
- Length of findings. For example, a single page infographic may be most useful for busy parents while a lengthier report may be more useful for early years LA staff.
- Format of findings reporting. For example, national stakeholders may find written summaries most useful while providers may most appreciate local workshops to discuss findings.

There is a broad range of outputs that can be used for reporting findings which include:

- Research and technical reports published on the LA website.
- Summaries such as research briefs, slidepacks, infographics and short video interviews published on the LA website.
- Written summaries and/or signposting to reports and summaries in regular communications (including social media) to providers, parents and other potential audiences.
- Written articles for external publication including articles or interviews for sector and stakeholder publications and for local or national media.
- Presentations at events such as provider meetings, regional LA early years staff events, or national stakeholder events.
- Discussion events such as local provider workshops.

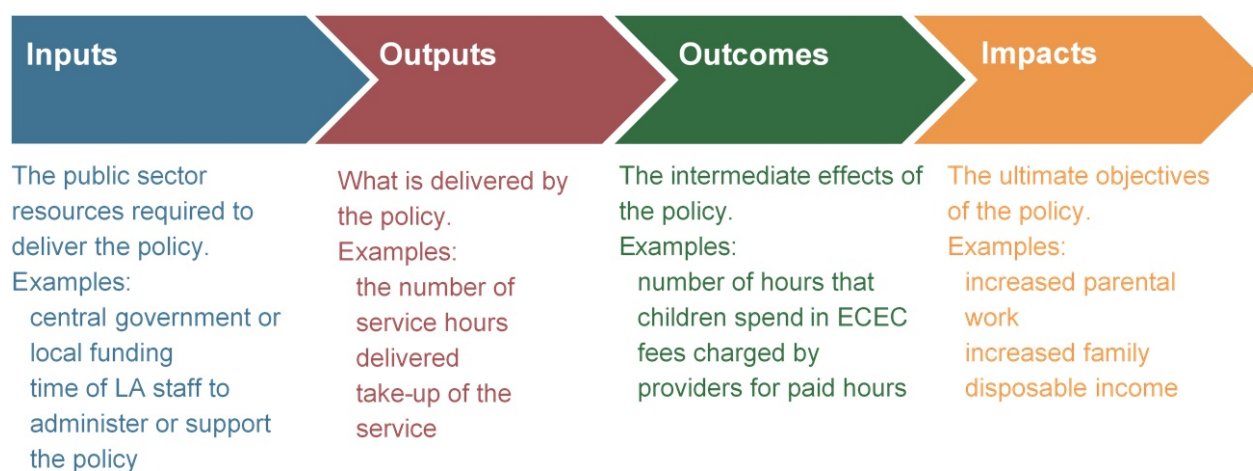
LAs may find it useful to prepare a dissemination strategy for the findings, pre-arranging external publications or events and flagging forthcoming outputs to potential audiences.

3. Additional guidance details

3.1 The 30 hours free childcare logic model

A logic model can be used to set out the relevant inputs, outputs, outcomes and impacts, and map how they are linked, as shown in figure 3. For example, a logic model might show that funding for extended hours (input) allows settings to offer extended hours (output) which raises the hours per week that a child spends in ECEC (outcome) and allows parents to return to work or to increase their hours of work (impact).

Figure 3: Logic model framework



In the template logic model for 30 hours free childcare presented in figure 2:

- The objectives of the policy (impacts) are to support parents to work or to work longer hours should they wish to do so and to enhance family disposable (net of childcare costs) income.
- The outcomes include the key intended intermediate effects (reduced childcare costs and increased hours of ECEC for parents using extended hours) and less direct intended intermediate effects (greater flexibility in or longer hours of ECEC care which can support parental work).
- There are a number of potential unintended effects including on provider income, costs and finances; on provision characteristics; on the cost of and use of ECEC for parents not using the extended hours; and on various dimensions of non-income related family well-being including child development). The potential directions of many of these effects are ambiguous. For example, providers' hourly income may rise because of the delivery of extended hours (if the funding exceeds parent fees) or it may fall (if the funding rate is lower than parent fees). Or longer hours of ECEC may improve or be to the detriment of child development outcomes.

3.2 Developing a local logic model

LAs should develop their local logic models with reference to local experience, needs and priorities (possibly using the model in Figure 2 as a starting point). Developing the model should consider:

- Inclusion of any additional outcomes or impacts specific to local circumstances or identified from experience as the policy is bedded-in.
- The timeframe of the links between outputs, outcomes and impacts in the local context, drawing on the LA's own experience as well as discussions with parents and providers. In particular, it is important to establish the correct logical order in terms of which outputs or outcomes have to be realised first before others can be realised. This is essential to identify when it might be appropriate to evaluate impacts.
- Which outcomes and impacts the LA should evaluate based on local priorities and any resource constraints on the evaluation. Redesigning the model to remove or de-prioritise outcomes that are of less interest can highlight how the evaluation will provide evidence on local priorities.
- Pragmatic deprioritising of outcomes or impacts that cannot be measured or are too challenging or costly to measure.
- Focusing on different groups of children such as those with special educational needs or disabilities (SEND); living in rural areas; from BAME families; from lone parent families; or from lower income families or living in areas of higher deprivation. This could be included to various degrees:
 - Within a general model, listing specific groups of children that outcomes and impacts for children and families will be considered in addition to those for all children and families.
 - Within a general model, including additional elements which are only relevant for specific groups of children.
 - Creating different logic models for specific groups of children or focusing on a single or a few logic models for selected groups of children.
- Other specific areas of priority or interest could be incorporated in similar ways to that for different groups of children. For example, specific logic models might be useful to meet local priorities around different types or sizes of providers (who react differently to the policy) or for different geographical areas within the LA (where ECEC needs may be different).

3.3 Defining evaluation questions

Evaluation questions are the questions about the impact of the 30 hours policy that evaluators want to test. These questions should follow directly from the logic model and should seek to:

- understand the relationship between elements in the logic model; or
- determine the scale of changes in outcomes or impacts resulting from the policy.

Meeting one of these criteria helps to ensure that evaluation questions are grounded in the objectives of the policy and specific local circumstances.

More broadly, evaluation questions should:

- Be a **specific** single question. For example, an evaluation question should ask: *“how the policy affected setting occupancy rates”* rather than asking *“how the policy affected setting viability”*.
- Be **measurable** in the sense that they can be answered using data and evidence. For example, an evaluation question should ask *“how the policy affected the amount paid for ECEC by parents”* rather than asking *“how the policy affected the total cost of caring for a child”*.
- Reflect **local priorities**, particularly if evaluation resources are limited. For example, an LA may choose to focus on questions related to parental work rather than changes in the nature of provision if resources are limited. The list of questions and prioritisation could be tested formally or informally with local stakeholders before they are finalised to ensure that important areas are not overlooked and to give key stakeholders ownership of the evaluation process.
- Consider the precise **population of interest**. The questions could specify particular groups of children, types of providers or geographic areas within the LA. For example, an evaluation question might ask *“how did the policy affect the number of BAME children using ECEC”*

There is no hard and fast guidance on the number of evaluation questions that would be appropriate. This should be guided by available resources with consideration to the burden placed on respondents in collecting the data and evidence required to answer the questions.

3.4 Understanding statistical evaluation strategy options

To measure the impact of the policy, it is helpful to compare what happened with what would have been expected to happen in the absence of the intervention or policy. This is

known as the **counterfactual**. The challenge in designing an evaluation strategy involves comparing the variable of interest under 30 hours free childcare to what that variable would have been in the absence of the programme.

Advanced statistical approaches to evaluation, including randomised control trials and natural experiments are unlikely to be possible for LAs evaluating 30 hours free childcare. Randomised control trials would require some parents or providers to be excluded from the policy and there are no obvious natural experiments that would isolate 30 hours free childcare from other interventions. Consequently, this guidance focuses on two approaches that are likely to be achievable and proportional in the context of LA evaluations of 30 hours free childcare.

The statistical approach to estimating measures of impact is to compare outcomes before and after the policy introduction, implicitly comparing “treated” individuals or organisations to themselves when they were not treated at an earlier time (either literally the same individuals or organisations, or identically defined groups).

This approach can be applied at three levels:

- A simple comparison of “**before and after**”. For example, an evaluation approach might compare the workforce participation of mothers in the period just before and in the period just after the introduction of 30 hours free childcare was implemented. For this approach, to produce a robust measure of impact, it is necessary to assume that no other influences on the outcomes have changed during the introduction of the policy. It may also be necessary to allow for ongoing trends in outcomes (such as steadily rising work participation among mothers) which would require time series data going back several years to identify whether the policy introduction coincided with a sudden change in the trend.
- A slightly more complex comparison of “**before and after with controls**”. This allows for changes in other factors which could have affected outcomes by comparing, including controls for those factors, in regression models identifying differences before and after policy introduction. For example, an evaluation approach might compare the workforce participation of mothers before and after 30 hours free childcare was introduced, controlling for changes in other levels of childcare support available to them.
- The most complex comparisons of “**before and after using econometric techniques to control for differences**”. An example of this approach is “difference in difference” which compares the trends in outcomes before and after the policy introduction between the treated groups and a counterfactual group with the same trends (but not necessarily the same levels) in outcomes but is not subject to the policy. For example, this approach might compare changes in workforce participation rates for mothers with children of eligible age for 30 hours

free childcare with changes in workforce participation rates over the same period for mothers with children who are just too young or just too old to be eligible.

Given that Tax Free Childcare (TFC) and changes to childcare reimbursements in Universal Credit were introduced around the same time as 30 hours free childcare with identical objectives to support parental employment, the two simpler levels would, at best, identify the joint impacts of all three policy changes. A difference-in-difference approach could be justified on the grounds that only three and four year olds benefit from the 30 hours free childcare and that the difference with families of other ages (who are also affected by TFC and Universal Credit) isolates the impact of that policy alone. However, ensuring that trends (if not levels) in the outcomes are similar across families with different ages of children would require sufficiently long LA level time series data which is not available from national surveys. There is greater potential that this approach could be used to measure impacts at the national level using complete national survey samples.

3.5 Choosing an evaluation strategy

For each evaluation question, the range of possible evaluation approaches can be assessed by considering:

- Whether existing data sources or primary data collection can be used to generate sufficiently large samples to undertake the more robust statistical approaches.
- The demands of obtaining secondary data or collecting primary data and the complexity of the data analysis required (in conjunction with the analytical capability of the LA early years team).
- The level of robustness and degree of confidence in the results that the approach will produce.
- The importance and value of answering each evaluation question with consideration to the audience for the evaluation outputs.

For each evaluation question, LAs should generally choose the evaluation approach that is most proportional; that is, the approach with the lowest resource cost that achieves a sufficient level of robustness given the importance of the question.

In order to assist LAs in designing and choosing their evaluation strategies, example strategies for two typical evaluation questions are presented as case studies below.



Example 1: Hours of ECEC

Q01

Did the policy increase the average number of hours of ECEC for three and four year old children?

Option A: Before versus after

Variable of interest:	The number of hours of ECEC for three and four year old children
Data requirement:	The hours of ECEC in the year before and the year after policy introduction
Evaluation Approach:	Compare the average number of hours of ECEC in the year after the policy was introduced to the number the year before it was introduced.
Interpretation:	The difference between these values can be interpreted as an estimate of the relationship between the policy and the number of hours of ECEC.
Limitations:	This approach does not provide robust causal evidence as it does not account for how average ECEC hours have changed over time.

Option B: Before versus after with a control for the time trend

Variable of interest:	The number of hours of ECEC for three and four year old children
Data requirement:	A time series of the hours of ECEC extending back at least five years before the policy introduction and as many years as possible after the policy introduction.
Evaluation Approach:	Compare the average number of hours of ECEC in the years after the policy was introduced to the number in the years before it was introduced controlling for a time trend. Run a regression of the average hours of ECEC on i) a time variable and ii) a dummy variable with the value zero for years before the policy and the value one for years with the policy.
Interpretation:	The coefficient on the binary variable is an estimate of the effect of the policy on the average number of hours of ECEC.
Limitations:	This approach may not provide robust causal evidence as it does not compare the treated group to a similar untreated group.



Q02

Example 2: Labour force participation

Did the policy increase work participation among mothers of 3 and 4 year old children in the LA?

Option A: Before versus after with controls

Variable of interest:	The proportion of mothers of three and four year olds who are in work (employed or self-employed).
Data requirement:	A time series of the proportion of mothers of three and four year olds who are in work and of the LA unemployment rate extending back at least five years before the policy introduction and as many years as possible after the policy introduction.
Evaluation Approach:	Compare the proportion in work in the years after the policy was introduced to the proportion in the years before it was introduced controlling for a time trend and local unemployment. Run a regression of the proportion in work on i) a time variable and ii) a dummy variable with the value zero for years before the policy and the value one for years with the policy.
Interpretation:	The coefficient on the binary variable is an estimate of the effect of the policy on the proportion of mothers with three and four year olds in work.
Limitations:	This approach may not provide robust causal evidence as it does not compare the treated group to a similar untreated group.

Option B: Self-reported perception drawn from a survey of mothers

Variable of interest:	The proportion of mothers of three and four year olds who are in work (employed or self-employed).
Data requirement:	A survey of a representative sample of mothers with children receiving extended hours including a question: "Would you be in work if your child could not use extended hours under the 30 hours free childcare?"
Evaluation Approach:	Calculate the number of respondents who answered no to the question and divide by the share of mothers of three and four year olds in the LA that responded to the survey.
Interpretation:	The result of the calculation is an estimate of the number of mothers who are in work as a result of the policy.
Limitations:	This approach is not based on objective statistical measures of impact. This provides a more direct measure of the effect of the policy, but is based on a self-reported perception of impact. There is a risk that the respondent may overstate the importance of the policy and the measure should therefore be treated with caution.

3.6 Choosing a data source

When deciding which data to use, LAs should consider:

- Whether the data contains all of the required information on the policy use, outcomes, other influences (control variables) and subgroup identifiers (type of provider or family).
- Whether the data has sufficient sample sizes to robustly undertake the analysis.
- Whether the data is available for the time period required, particularly for trend analysis requiring data going back over many years.
- The timing of the data collection (when the questions are asked). Data should be (or have been) collected as close as possible to the time that outcomes need to be measured for the evaluation strategy. Data collected too early may not fully capture impacts while data collected later using retrospective questions may suffer from recall error.
- The timing of the availability of data (when primary or secondary data is delivered for analysis). Some national survey data have considerable lags to the time required for data processing.
- The financial cost of obtaining the data.

3.7 Using secondary data sources

This section provides some introductory information on secondary data sources that LAs might find useful in evaluating the impact of the 30 hours free childcare policy.

a) Eligibility Checking System (ECS) data on validated codes.

This contains information on the number of children using the extended hours with different types of providers. Combined with information on all registered and funded providers in the LA, this could be used to identify the propensity of different types of providers to deliver the funded hours.

b) Data from the Early Years Census and School Census.

This can be used to analyse:

- Annual changes in provider outcomes for the number of places and hours of other types of funded provision (two year olds and the universal hours for three and four year olds) and for provider characteristics such as opening hours and partnership working.

- The profile of the types of providers delivering extended hours and the propensity to deliver extended hours across different types of providers.
- The profile of children using extended hours and the propensity to use extended hours; numbers of hours, use of multiple providers and types of provider used across different groups of children (groups of children defined by SEND, EYPP receipt, ethnicity, gender, age and rurality).

The main advantages of this data source are:

- It contains data from all providers delivering and children receiving funded hours in the LA which means that there is no need to draw inferences from a smaller sub-sample of the population.
- It is available relatively soon after the time of collection.
- It has been collected reasonably consistently over many years.

The main drawbacks of this data source are:

- It only contains reliable information on funded ECEC.
- It contains limited information on family characteristics.
- Analysing the usage of ECEC requires matching of children across providers which is difficult and time consuming.

For further details and examples of using the census data, see the evaluation report for early implementation of 30 hours free childcare³.

c) Data from surveys already undertaken by the LA with providers or parents (such as for sufficiency assessments).

Depending upon the design of these surveys, these could potentially include data appropriate for an impact evaluation of 30 hours free childcare.

d) Data on child development (such as the EYFSP) from primary education colleagues.

This could be used to consider the relationships between use of the extended hours and early childhood outcomes. The original source of this type of data may have been from

³ Paull, G. & La Valle, I. with Speight, S., Jones, H. and White, C. (2017), *Evaluation of Early Implementation of 30 Hours Free Childcare*, Department for Education Research Report DFE-RR708, July https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/629460/Evaluation_of_early_implementation_of_30_hours_free_childcare_.pdf

the national level from the National Pupil Database (NPD), but it is efficient for LAs to explore whether this type of data is already being used and available within the LA.

e) Unsolicited feedback from providers or parents on delivery or using the extended hours.

This may provide some examples of types of impacts, but it cannot capture the size or prevalence of impacts and the voluntary nature could mean there is substantial bias in the information.

f) Large national household surveys such as the Labour Force Survey (LFS), Family Resources Survey (FRS) and Understanding Society (US).

These surveys contain large samples of households with information on family structure, work behaviour and, for some, childcare use. However, while these are useful sources for an impact evaluation of 30 hours free childcare on family outcomes at the national level,⁴ the sample sizes of parents with appropriately aged children at the LA level are generally insufficient for a local evaluation in one area.

g) DfE Survey of Childcare and Early Years Providers (SCEYP) and DfE Childcare and Early Years Survey of Parents (CEYSP).

These surveys contain large samples of early years providers and families with children respectively with a wide range of information collected for each, but, again the sample sizes at the LA level are currently too small for a local evaluation in one area.

h) Department for Work and Pensions (DWP) benefit data (<https://stat-xplore.dwp.gov.uk/webapi/jsf/login.xhtml>)

This data may be useful for evaluating the impacts on parents' work behaviour and take-up of benefits. As these are administrative statistics, LA sample sizes are not a concern.

i) English indices of deprivation 2015.
(<https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>)

This data is available for areas within LAs and could be used to control for contextual factors when comparing outcomes across different areas within an LA.

⁴ An outline of evaluation approaches for the extended early education entitlement at the national level using these sources can be found in Hathaway, I., Leicester, A. and Paull, G. (2016), *Feasibility study into evaluating the labour and childcare market impacts of Tax-Free Childcare and the Free Early Education Entitlement*, HMRC Research Report 406, February
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/499168/Feasibility_study_into_evaluating_the_labour_and_childcare_market_impacts_of_Tax-Free_Childcare_and_the_Free_Early_Education_Entitlement.pdf

- j) Statistical neighbour data (<https://www.gov.uk/government/publications/local-authority-interactive-tool-lait>)

This tool may be useful for identifying LAs against which to benchmark impacts and for drawing comparisons on policy implementation and impacts. The monitoring tool accompanying this guidance automatically generates the three closest statistical neighbours for each LA.

3.8 Collecting primary data

Identifying the type of information required

The first stage in primary data collection is to ask “What sort of information do we need?”

There are broadly three types of information that can be collected:

- a) Closed objective information (requiring the respondent to report factual information):
- For example, how many hours do you work each week? Or have your working hours changed since your child began using the extended hours?
 - Collecting objective information tends to be close-ended with a limited range of response options, typically defined as a specific numeric metric (such as number of work hours) or categorical values (such as increased, decreased or no change).
 - Objective questions can be quick to answer (if the respondent can recall the information without needing to look it up) and are likely to be interpreted in a consistent manner by respondents.
 - Preparation of the response for analysis is also quick.
- b) Closed subjective information (requiring the respondent to think beyond factual information and give an opinion).
- For example, would you work the same number of hours without the extended hours?
 - Collecting subjective information is often close-ended using either a specific metric (such as how many hours would you work without the extended hours) or categorical values (such as would work fewer, more or the same number of hours). Closed-ended subjective questions may be used in conjunction with ratings scales. For example, on a scale of 1-5, where 1 is no flexibility and 5 is complete flexibility, how much flexibility did you have when choosing how to use your 30 hours entitlement?

- Subjective questions are particularly useful for capturing perceptions of impacts, although they tend to take a little longer to answer and can be susceptible to variation in interpretation or strategic responses.
 - Preparation of the response for analysis is quick.
- c) Open-ended information (allowing the respondent to answer freely in their own words).
- For example: why did you not change your work hours when your child began using the extended hours?
 - This approach can be applied both to objective (factual) or subjective (opinion) information. It is sometimes useful to collect open-ended information when a respondent has selected “other” to a lead-in question with an initial range of specified response options.
 - Collecting open-ended information can be useful when uncertainty about the range of responses means that categories of responses cannot be comprehensively pre-specified. Open-ended questions typically take longer to answer and can be susceptible to variation in interpretation or strategic responses. Responses may also be influenced by an increased salience of some issues due to the purpose or structure of the data collection (such as a survey about ECEC may lead respondents to focus on this as a reason for their work choices).
 - Open-ended information requires considerably more preparation time for analysis (in the extreme, this can require the use of qualitative data analysis frameworks).

In choosing the type of evidence required, the evaluator should consider the advantages and drawbacks listed above for each evaluation question. Other considerations in design (more below) may mean that there are compromises in the approach used (such as the need for a short survey may prohibit many open-ended questions) but it is useful to have initial consideration of the best approach.

Identifying the type and number of respondents required

A second stage is to ask “From whom and how many do we need this information?”

The choice of respondent is typically fairly straightforward: providers should be asked about provider responses and parents about family responses. However, in some cases, it is useful to collect information from those who may have a broader overview (such as from LA staff on provider responses) or from different types of respondents who may have views on the same issue from different perspectives (such as on flexibility of the extended hours from providers and from parents).

Identifying the number of respondents required for the more robust and demanding evaluation strategies is challenging as it requires information which cannot be known prior to the evidence collection (including the likely size of impact and the variation in the outcome measures). For the less demanding approaches or simpler tracking of outcomes or comparisons across areas within the LA, a rule of thumb is that quantitative statistics (average values or proportions) should not be reported for groups of less than 50. Information from smaller group numbers can be reported in a more qualitative manner with only broad categories of prevalence (such as most, many or some) or as a list of the range of responses.

Further detail on sampling is set out by the National Audit Office in 'A practical guide to sampling' (<https://www.nao.org.uk/wp-content/uploads/2001/06/SamplingGuide.pdf>).

Selecting the type of data collection instrument

The next stage is to ask "What is the best way to collect this information?"

LAs should consider that data can be collected in a number of ways:

- By survey which includes a set of clearly defined questions asked in a specific order. Surveys can be administered by post, online, by telephone or face-to-face (or using a mixed mode such as online with a telephone follow-up as needed).
- By interview which includes a set of less clearly defined questions or topics of discussion with some flexibility in ordering and coverage. Semi-structured interviews are those with more structure on the question wording, ordering and requirement to cover all questions. Interviews can be administered by telephone or face-to-face.
- Focus group or workshops which include groups of respondents discussing a set of topics, typically with one or two facilitators to introduce the topics and guide the discussion.
- Addition of new questions or topics of discussion to an existing survey, interview, focus group or workshop.

In selecting the type of data collection instrument, it is useful to consider:

- **Which approach best suits the type of information being collected?** For example, simple, closed objective information tends to be better collected by survey while more complex, open-ended subjective information tends to be better collected by interview where questions can be explained and answers explored in greater depth. Alternatively, very complex issues may benefit from group discussions where respondents can build on each other's ideas.

- **Which approach best suits the type of respondent?** For example, parents may prefer to respond to an online survey as they can choose when to complete the survey, but providers may prefer a telephone or face-to-face approach so they can clarify the meaning of questions. This may affect both the response rate and the quality of information obtained.
- **Available resources (financial and time) to collect the data.** Online and postal approaches tend to be the least expensive once underway, but they can require more preparation than other approaches and postal has larger data input costs. On the other hand, face-to-face and group discussion approaches tend to be resource intensive both during the data collection and for data input.

Designing data collection instruments

In designing data collection instruments (survey questionnaires, interview questions or topic guides), it is useful to consider:

- Questions and topics should be succinct, clear and limited to those required for the evaluation.
- The wording of questions and topics should minimise the risk of inaccurate or biased responses by asking questions which the respondent is sufficiently informed to answer, which do not lead towards a specific answer and for which there are not socially acceptable answers.
- The time required for completion should be kept to an appropriate length to support high response rates, good quality of the data and complete collection.
- Provision of written material or training on context and understanding of the questions or topics for interviewers or group discussion moderators.

It is good practice to test data collection tools and materials on a pilot group before conducting the full primary data collection process.

The enclosed monitoring and evaluation toolkit includes a list of survey questions that were used in the evaluation of the national rollout of 30 hours free childcare. LAs should ask those questions that are most relevant to their local priorities and consider using the same language as the suggested survey questions.

Identifying, approaching and engaging respondents

For an evaluation of 30 hours free childcare, primary data collection will most likely involve providers and parents with children of eligible age. LAs typically maintain lists of contact details of registered providers or providers delivering funded hours in their area who could be approached to take part in primary data collection. LAs are also typically familiar with undertaking surveys of parents in their areas although it may be possible to

focus data collection on those using the 30 hours free childcare from those who have successfully applied to HMRC.

In most cases, it will be necessary to acquire the consent of respondents before data is collected (by letter or email). Respondents should be informed on how their responses and personal data will be stored and used by the LA in accordance with the GDPR. As an example, the national evaluation parent survey used the following text:

“Your answers will be used to inform the Department for Education’s future policy making in the childcare field, and to help ensure that the extended free childcare offer is meeting the needs of parents and providers. Your name and your answers will be kept in the strictest confidence under the GDPR and will not be shared with anyone in a way which would identify you, your business, or any children. We will not use your name or your business name in any report arising from this research. Anonymised data from this study will be used for statistical purposes to inform future policy making.”

A letter or email sent out to request consent can also be used to provide respondents with broader information on the evaluation and answers to frequently asked questions.

A key element of any primary data collection is to obtain a good response rate. This is essential not only to help reach target sample sizes but also to minimise the risk that respondents are a biased selection from the entire population of providers or parents. Response rates can be improved in several ways:

- In the initial and subsequent communications, be clear that participation is voluntary but spell out the value of their contribution, stressing how their responses will feed in to the future development of the policy to support providers (or parents) like them in the area.
- Have an appealing title for the evaluation with a clearly defined objective. Ideally, offer a tangible output for participants (such as a findings briefing or infographic) upon completion of the work.
- Be clear that their responses are completely confidential, that data will be held securely and that it will not be possible to identify individual providers (or parents) in the reporting of the findings.
- Be flexible on the timing of initial contact and data collection. For example, childminders may prefer to take part in interviews or groups in the evening. Contacts in schools may most easily be reached before the school day starts or after it ends.

- Consider different approaches for publicising the data collection and sending reminders to participate once invited. This could include using social media, texting, newsletters and requesting providers to encourage parents to participate.
- Consider the use of financial incentives. For individuals participating in interviews or discussion groups, a small gift voucher may be appropriate. For providers, entry into a draw for a more substantial prize may be a more effective approach. Incentives in the form of a contribution to a local charity could also be considered.

Data management and security

All data, regardless of source, should be held securely in line with GDPR and any LA information governance.⁵

⁵ See <https://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr/>.



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