



Early Learning and Childcare Data Transformation Project

Data Trial – May 2017

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1. Introduction

The Scottish Government (SG) Early Learning and Childcare (ELC) census is an important mechanism for gathering information from all services (currently with the exception of childminders) that deliver the funded ELC entitlement. This data is vital for the design, planning, implementation and monitoring of both local and national ELC policy and services, especially with the expansion of funded ELC to 1,140 funded hours per child per year by 2020.

It has been recognised that the current ELC census is not sufficient to provide the information necessary to manage this growing sector and is burdensome for data providers to complete, with little benefit to them. The ELC data transformation project (ELC DTP) has been developed, based on the recommendations¹ set out in response to the findings of the ELC data consultation, to address the perceived shortcomings.

The ELC DTP aims to improve the information gathered and expand the analysis that will be possible. It will make better use of information already held by local authorities and ELC settings, reducing the burden of future ELC data collections. Developments will be made incrementally up to 2021 and will be informed by a series of trials.

The first trial data collection was to test collecting data in term three (April/May), rather than in September; to include funded provision with childminders in that collection; and to trial collecting data from local authorities rather than directly from ELC settings. This trial took place in Spring 2017. This paper reports on the data on ELC registrations collected through this trial, whether the new processes are feasible (timing, inclusion of childminding provision and collection from local authorities) and compares the trial data with other data sources to assess the impact on the data received.

Information was also collected on the use of SEEMiS products to understand the current use of SEEMiS for recording ELC data. This will be helpful to inform the next part of the data transformation project.

2. Outline of the trial

All local authorities were asked to take part in this trial, returning aggregated data on funded registrations. This data trial was developed to assess three main changes from the current census process:

- Timing
- Childminding provision
- Collection method

¹ The report, 'Recommendations for Early Learning and Childcare Data: Implications for the Early Learning and Childcare Census' and the findings of the consultation are available on the SG website: <http://www.gov.scot/Topics/Statistics/Browse/Children/scotstat/ELCConsult2015>

2.1 Timing

The current census reference week is in September whereas for the trial data it was April/May. There is a statutory obligation² to provide funded ELC to children roughly the term after their third birthday, and local authorities can provide funded provision to children earlier if they wish. Although the data are from the same academic year, in contrast to school rolls, which are fairly constant throughout the year, children are continually becoming eligible for funded ELC and so registration numbers fluctuate throughout the year. The number of 3 year olds registered for ELC is expected to increase throughout the academic year as they become eligible the term after their third birthday (or earlier depending on the local authorities' eligibility criteria). The number of eligible 2 year olds is also likely to change throughout the year as more children turn 2 and become eligible, or those who were eligible 2s turn 3 and are recorded as such. Term three is the point in the academic year when all those eligible are most likely to have taken up their free entitlement and ELC centres are operating with their highest levels of intake for the year which makes the data more relevant for management purposes.

Local authorities were given three options of reference week to choose from: week commencing 24th April; 1st May; or 8th May. A degree of flexibility was built into the reference week for the trial in order to reduce unnecessary duplication of work, as some local authorities receive an update from partner providers³ at the start of each term. In the future, the ELC census will be on a given reference week. The most appropriate week is still to be identified.

2.2 Childminding provision

The use of childminders to provide the funded entitlement is limited at the moment, but it is expected that this will increase with the expansion to 1,140 hours. The current census does not include funded provision with childminders but to ensure a more complete picture of childcare provision this amendment will be required. The trial explored the extent to which childminder data could be captured centrally by Scottish Government for its annual collection.

2.3 Collection method

The trial data was collected from local authorities, and was mostly taken from their data management systems (in most cases SEEMiS Click+Go and NAMS applications) where they hold information on registrations for ELC at individual level. In a few cases, local authorities asked settings for the data.

In contrast, the majority of data for the September census are collected directly from ELC settings. This information is then submitted to local authorities for validation before being sent to the Scottish Government. This method involves the inputting of data solely for the purpose of the census, at aggregate level, into a web based form and requires contributions from over 2,000 ELC settings.

² The statutory requirement for providing funded ELC to three year olds is explained here: <https://www.mygov.scot/help-paying-for-childcare/start-and-end-dates/>

³ A partner provider setting is a private, third or independent sector ELC setting (e.g. nursery, playgroup or family centre) that provides the funded entitlement on behalf of the local authority.

The aims of this change in collection method are to make better use of information already held, reduce the burden on data providers and reduce the number of possible errors through each setting inputting additional data.

2.4 Data Requested

Local authorities were asked to provide aggregate level data of funded registrations by:

- Stage (i.e. under 2; 2, 3, 4 year olds; and deferred), and
- Provider type (i.e. local authority, partner provider setting, or childminding services).

The trial also asked about the extent to which local authorities used SEEMiS to assess if this is an appropriate method of data collection for this sector.

3. Data Returned in Trial

The figures in table 1 show the number of funded registrations for each local authority at the time of the data trial in term three (April/May).

Table 1: Funded registrations by stage and local authority, April/May 2017 trial

	Under 2	2 year olds	3 year olds	4 year olds	Deferred	Total
Aberdeen City	0	122	2,042	2,249	215	4,628
Aberdeenshire	13	137	2,685	3,011	288	6,134
Angus	0	118	1,190	1,174	171	2,653
Argyll & Bute	0	44	838	861	57	1,800
Clackmannanshire	0	100	521	640	32	1,293
Dumfries & Galloway	0	153	1,367	1,509	177	3,206
Dundee City	5	230	1,400	1,621	193	3,449
East Ayrshire	98	201	1,279	1,308	81	2,967
East Dunbartonshire	20	47	1,128	1,240	101	2,536
East Lothian	0	61	1,071	1,153	130	2,415
East Renfrewshire	25	59	1,063	1,127	106	2,380
City of Edinburgh	197	416	4,216	5,110	446	10,385
Na h-Eileanan Siar	0	25	275	287	39	626
Falkirk	0	140	1,602	1,840	127	3,709
Fife	0	652	3,839	4,144	202	8,837
Glasgow City	35	620	5,047	6,374	1,665	13,741
Highland	3	118	2,185	2,422	307	5,035
Inverclyde	57	160	712	763	49	1,741
Midlothian	7	157	1,183	1,229	99	2,675
Moray	0	68	910	999	92	2,069
North Ayrshire	124	300	1,294	1,374	63	3,155
North Lanarkshire	161	211	3,529	3,779	147	7,827
Orkney Islands	0	14	203	225	46	488
Perth & Kinross	0	131	1,353	1,418	259	3,161
Renfrewshire	149	290	1,819	2,018	175	4,451
Scottish Borders	0	84	1,058	1,118	72	2,332
Shetland Islands	0	9	227	285	56	577
South Ayrshire	30	194	1,030	1,133	67	2,454
South Lanarkshire	136	566	3,191	3,388	238	7,519
Stirling	0	51	943	991	72	2,057
West Dunbartonshire	85	190	936	1,051	58	2,447
West Lothian	0	146	1,941	2,126	152	4,365
TOTAL	1,145	5,814	52,077	57,967	5,982	123,112

As the trial data were collected at aggregate level, the amount of quality assurance that could be carried out after the data was submitted by local authorities was limited.

Implications for data development:

The next data trial in 2018, will test extracting individual level data from local and allow further quality checks of the data available.

When the data were collected, local authorities were asked to provide any quality concerns or issues with the data they were submitting. Of those that supplied information, the majority of comments were regarding the treatment of split placements. Some of the differences between the trial data and the census figures

can be explained by the difference in the treatment of split placements between these two collections for some local authorities. Where there has been a change in the handling of split placements, a larger difference from the September census figures is to be expected. This was not an aspect of the data collection that this trial was looking to investigate but it will be covered by the wider development project.

4. Data Analysis

To assess the impact of the changes introduced through this data trial comparisons were made with the September 2016 census⁴ and Scottish Childminding Association⁵ figures, assessing the impact of the changes on feasibility for data collection and on the enhancements to the data to review the success of the trial.

4.1. Impact of changing the timing

Feasibility: Local authorities maintain their records on children receiving funded ELC throughout the year as children come through the system on a rolling intake. As such, while the primary purpose of amending the timing of data collection is to enhance the inclusiveness of eligible children registered (discussed below), the trial also considered the feasibility of collecting data at that time of year.

Data providers were able to return data relating to one of three reference weeks. The majority chose week commencing 8th May, most likely as this allowed more time to gather data from ELC settings on children that had started in term three. They did not report any concerns with providing the data at this time. This suggests that while a term three collection is feasible, the decision about when in term three the collection will take place will need further consideration. In particular, it will be necessary to consider the time required for the local authorities to receive and record information on all new children starting at ELC settings in term three.

Implications for data development:

Identify the most appropriate time within term three to collect data from local authorities.

Increase in number of registrations: The census data from September recorded significantly more registrations for 4 year olds than 3 year olds due to the staggered intake for 3 year olds based on the eligibility criteria adopted by each local authority. The trial data shows a large increase in 3 year olds receiving funded provision across the year which goes some way to explain the large increase in the combined total number of registrations (123,112 in this trial compared with 96,961 in the September 2016 census).

The number of registrations for under 2s is also affected by the change in collection time with more children being eligible at the time of the trial compared with the

⁴ Detailed data collected through the September 2016 census is published by the Scottish Government: <http://www.gov.scot/Topics/Statistics/Browse/Children/Pubs-Pre-SchoolEducation/ELCAdditionalTables2016>

⁵Data taken from the SCMA report, figures as at February 2017: <https://www.childminding.org/Media/Docs/170407%20ELC%20REPORT%20APRIL17%20web.pdf>

census. Part of this increase can also be explained by the inclusion of funded provision with childminders.

Implications for data development:

Consider the impact of the change to data for time series comparisons.

The figures for 2 year olds, 4 year olds and deferred were similar between the trial and the 2016 September census as we would expect. The small variations that exist can be explained in part by the difference in collection methods, different handling of split placements by some local authorities for the trial, and also the inclusion of funded registrations with childminders in the trial data.

In summary, the data reveal that the change in timing has enabled reporting on the full cohort of those accessing funded ELC, enhancing the data available for planning and monitoring purposes. However, a compromise will be the lack of time series comparisons given the significant change in registrations for some stages.

4.2. Impact of including provision with childminders

Feasibility: Local authorities currently tend to record funded childminding provision separately from other provision in most cases, but this information is readily available. The trial found that some local authorities provide additional childminding support in excess of the 600 hours for some and this is also recorded in the data. However, in most cases, this could be identified and has not been included in the trial data. There may, however, be instances where local authorities included childminding provision provided in addition to the 600 hours. This suggests that work will be needed to support local authorities to capture this data differently.

Implications for data development:

Further work to support local authorities to capture the reason for funding for funded childminding provision.

Increase in funded provision captured at the younger ages: The trial data on childminders has identified that funded provision with childminders account for around 0.2 per cent of registrations. Although the total number of funded registrations with childminders is low, analysing the data on childminders by age has revealed that around 10 per cent of all funded registrations for under 2s were with childminders, which is almost 40 per cent of all funded registrations with childminders (see Table 2).

Table 2: Funded registrations with childminders recorded in the trial data

Stage	Under 2	2 year olds	3+ year olds	Total
Number of funded registrations	118	158	26	302

As such, the trial has demonstrated that including provision with childminders enables a better understanding of the provision of funded places for 2 year olds and under 2s in particular.

Excluding provision with childminders, nationally 75 per cent of registrations were in local authority settings in the data trial, similar to 76 per cent recorded in the

September 2016 census. Given the small proportion of funded provision that is with childminders, it is encouraging to see a similar split between local authority settings and partner providers in the trial data as recorded in the September census.

Including provision of funded hours with childminders seems possible and gives us a fuller understanding of those accessing their funded entitlement across all provider types. Therefore the census developments will look to include this provision, and strive to have funded provision with childminders captured in a similar way to other funded provision.

4.3. Impact of changing the method of data collection

Feasibility: The trial suggests that collecting data from the local authorities (in most cases from their SEEMiS system) is more appropriate than directly from settings as the majority of local authorities held the basic information needed for this trial within their data management systems and had confidence in the data that they extracted. The project will progress with the assumption that collecting data from local authorities is the most appropriate method and will reduce the burden on data providers.

Changing the method of collection has not made a substantial difference to the figures. The number of registrations for 4 year olds remains similar across both collections – 57,967 in the data trial compared with 57,053 in the September 2016 census. The small difference will be partly due to differences in handling of split placements and changes in registrations throughout the year. However, it appears that collecting data directly from local authorities has not impaired the quality of the data.

Although the biggest difference by stage was for 3 year olds, as might be expected due to the difference in timings of the data collections, there also appeared to be issues with establishing the number of registrations for those deferred in some local authorities. This is the stage for which most queries arose, and might be related to issues with identifying deferred registrations within SEEMiS. This will be considered within the change in method of data collection.

In summary, reducing the burden with no significant impact on quality has been a considerable achievement. We will continue to monitor the impact on data providers of this change in collection method.

5. Use of SEEMiS

Information collected as part of the trial suggests that the majority of local authorities (30 out of 32) use SEEMiS products – either NAMS or Click+Go – to record ELC registrations in local authority settings.

Around two thirds of local authorities use SEEMiS products to record ELC provision in partner providers, with some partner providers having access to NAMS to record data, and information being inputted by local authority staff in other areas. Of those who indicated that they did not use NAMS to record provision in partner providers, the majority suggested they were considering using NAMS.

The recording of childminding provision within SEEMiS products appears to be limited, with some local authorities indicating that this data is held in a separate spreadsheet.

Given that the majority of local authorities use SEEMiS to record at least some of their ELC data, it seems appropriate to proceed with this as the main data recording system for ELC. In the few instances where SEEMiS isn't used, it seems reasonable to ask local authorities to provide us with this information in a similar format outwith SEEMiS. Developments to the SEEMiS system to improve its ability to record data on children in ELC are currently being explored following a proposal which was approved by local authorities. Although local authorities do not need to use SEEMiS, we are trying to improve the system which is currently available to all local authorities.

Implications for data development:

Further work is required to develop SEEMiS which will be the focus of the next stage of the data transformation project.

6. Conclusion

The trial in May 2017 has demonstrated that the amendments to the ELC census timing, the inclusion of funded provision with childminders, and changing the collection method will be feasible, will reduce the burden on data providers and will enhance the data available for design, planning, monitoring and implementation of ELC services and children in funded ELC.

The trial has highlighted some areas for further consideration, particularly the limitations of providing time series comparisons; securing the most appropriate census week in term three; ensuring consistency in capturing funded childminding data and working with stakeholders to develop the SEEMiS infrastructure to support the capture of data for the ELC sector. It has also highlighted the significance of receiving individual level data, which remains a key objective of the data transformation project. All of these areas will be taken forward in the next phase of the project.

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Continuing support and engagement from local authorities is necessary for the success of this project. We were grateful that all local authorities participated in this data trial, and we hope that we can continue to work together to improve the ELC data collection for everyone's benefit.

For more information please see our webpages:
<http://www.gov.scot/Topics/Statistics/Browse/Children/Pubs-Pre-SchoolEducation>
Or contact keira.gore@gov.scot