

## **Demographic and Statistical Analysis Unit**

### **Impact of 20 Hours ECE on Playcentres**

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#### **1. Introduction**

Playcentres are not eligible for *20 Hours ECE* funding, as they are parent-led services. This paper assesses the extent that the *20 Hours ECE* scheme may have affected Playcentres as a result. It draws heavily on a survey questionnaire sent to a sample of Playcentres towards the end of 2007. It also uses data collected through the annual RS61 census and the Ministry's funding systems to see how recent changes differ from long-term trends.

The paper begins by briefly discussing the survey. It then analyses the different parts of the survey questionnaire, also using any other data available. This is done using the following headings:

- Change in participation
- Reasons given for enrolment change
- Impact of *20 Hours ECE* take-up rates
- Views on the overall impact of *20 Hours ECE*
- Ability to meet supervisory requirements
- Changes in parent contributions
- Changes made in response to *20 Hours ECE*.

Finally, the paper draws the various findings together into a conclusion. Readers who are less interested in the detail of the analysis may wish to skip to this.

#### **2. Survey**

The Ministry designed a questionnaire for Playcentres, in consultation with the New Zealand Playcentre Federation. This was sent out to a random sample of around half the Playcentres in November 2007. In April 2008, the Playcentre Federation decided that there were sufficient responses for the Ministry to analyse.

In total, 157 responses were received, giving a response rate of 66 percent. Only two Playcentre Associations had response rates below a third, with the result that the Gisborne and Ashburton areas are not well represented. This is unlikely to greatly affect the results.

A copy of the questionnaire is included in the Appendix.

### 3. Change in participation

Six sets of figures are available to determine the extent that attendance at Playcentres may have changed due to them not being included in the *20 Hours ECE* scheme.

First, Playcentres were asked for the number of families attending their service just before implementation of *20 Hours ECE* (29 June 2007) and four months later (31 October 2007). If *20 Hours ECE* has resulted in significant volume change, it should be shown over this period, although there may have been some volume change before (in anticipation of *20 Hours ECE*) and after the period. (See sub-section 3.1)

Second, Playcentres were asked whether their number of children had increased, decreased or stayed the same since 1 July. This was in regard to under-three year olds and children aged three years or over. (See sub-section 3.2)

Third, in regard to the number of under-three year olds and children aged three years or over who had left, services were asked the reason for their departure, with one of the reasons being that parents had moved them to a service providing *20 Hours ECE*. (See sub-section 3.3)

Fourth, Playcentres were asked how they thought *20 Hours ECE* had affected them overall, with one of the responses being that children had left. (See sub-section 3.4)

Fifth, Playcentres were asked for the number of under-three year olds and children aged three years or over on their regular roll on 31 October 2007. This can be compared with roll data collected each year through the RS61 process. The advantage of these data is that they put recent changes into the context of the long-term trend, as does the next set of data. (See sub-section 3.5)

Sixth, data are available through the funding system, both on funded-child-hours and what these are as a percentage of the maximum number of funded-child-hours Playcentres are entitled to. This not only gives long-term trend information, it also reflects both enrolment numbers and the average time children attend for. (See sub-section 3.6)

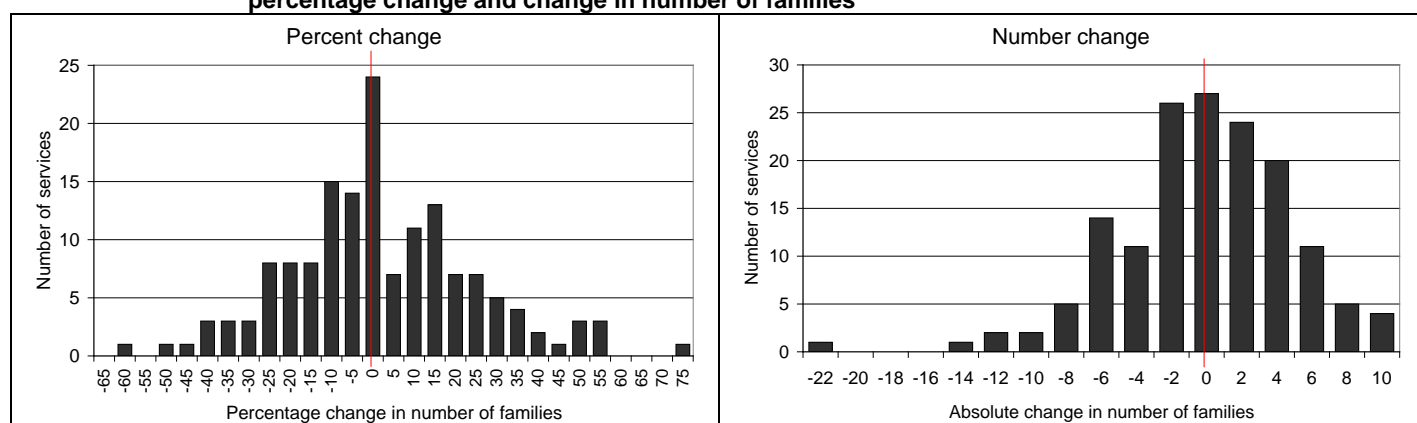
Each set of figures tends to support the likelihood of participation having fallen after the implementation of *20 Hours ECE*, most probably because of it. However, the extent that participation has changed varies across the data sources. Each set of figures is now presented and discussed separately, with the overall results being summed up in sub-section 3.7.

### 3.1 Change in the number of families

Of the 157 respondents, 153 gave information on the number of families for both 29 June and 31 October 2007.

These figures show the number of families to have fallen 2.8 percent over the period. However, Playcentres were distributed widely around this average. While a large proportion showed fewer families (45.8 percent), almost as large a proportion showed an increase (41.8 percent). Figure 1 shows the distribution around the average, both for the percent change and the change in the number of families.

**Figure 1: June-October change in number of families attending surveyed Playcentres – percentage change and change in number of families**



Three factors contributed to the overall change of -2.8 percent, i.e. the fact that it is negative.

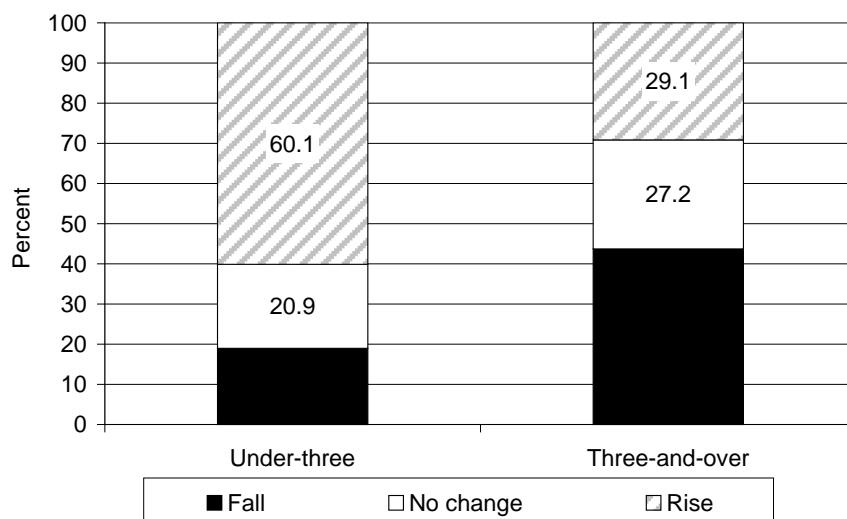
- More services experienced a fall than a gain in family numbers
- Services losing families lost a higher percentage of families on average (17.6 percent) than the percentage gained by services gaining families (16.8 percent)
- Services losing families tended to be larger (they were made up of an average of 27.3 families in June 2007) than those gaining families (21.6 families).

Despite the net loss of families for Playcentres as a whole, the wide distribution of services shows a wide range of experiences. The average change cannot be said to describe the typical Playcentre experience, as there does not appear to be a typical experience. The wide distribution also lessens the statistical significance of the change.

### 3.2 Playcentres' views on whether their rolls have changed

Of the 157 respondents, 153 stated whether their under-three roll had changed and 151 stated whether their three-and-over roll had changed since *20 Hours ECE* was introduced. Considerably more respondents said that their under-three roll had risen, with 41 percent more responding that it had increased than responding that it had decreased. The opposite was the case for the three-and-over roll, with a 15 percent more services saying it had fallen than said it had risen. See Figure 2.

Figure 2: Percent of Playcentres by whether they thought their rolls had fallen, risen or remained the same since 1 July 2007, by age group



These figures suggest that *20 Hours ECE* is likely to have had a significant impact on rolls, given that only children aged three years and over are eligible. The change for the three-and-over roll stands in marked contrast to the majority of services saying that their under-three roll has risen.

As an aside, the response about the under-threes roll is curious. It stands in marked contrast to some other figures and is further discussed in sub-section 3.5.

### 3.3 Playcentres' views on why children left

Section 4 examines the reasons given to explain why children had left. One of the response options was "Parent(s) moved them to a service providing *20 Hours ECE*". In the case of under-three year old children, 24 percent of services made this response, with the children involved being 2.3 percent of the under-three year old roll at the end of June 2007. In the case of children aged three years of over, 45 percent of services made this response, with the children involved being 9.3 percent of that age group's roll at the end of June 2007. As is discussed in that section, the actual figures may be somewhat lower for two reasons. First, it appears likely that some services may have been referring to the destination of the child rather than the reason for leaving. Second, some of these children may have left anyway for other reasons.

### 3.4 Playcentres' views on whether 20 Hours ECE has caused children to leave

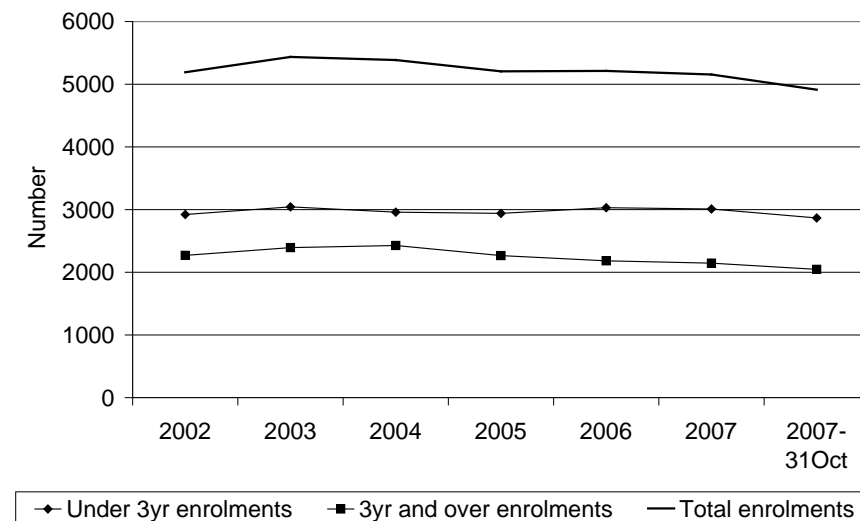
One question put to Playcentres was, "Overall, how do you think 20 Hours ECE has affected your Playcentre?" with one of the response options being "Children have left". Twenty nine percent of Playcentres ticked this response, although no indication is given of the number or percent of children that have left. (See Section 6)

### 3.5 Change in the number of enrolments

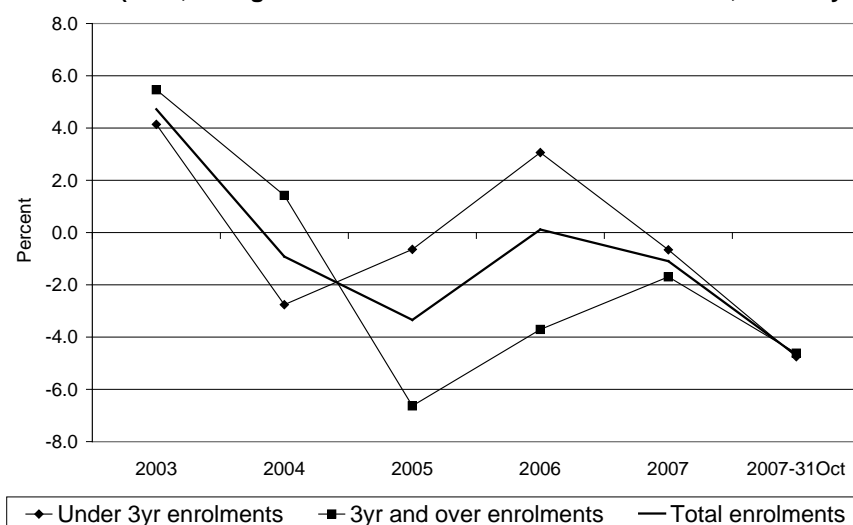
All of the 157 respondents provided data on the number of children on their regular roll on 31 October 2007. Annual enrolment data were obtained from the RS61 for the years 2002 to 2007 for all but three of these Playcentres, with the three exceptions not being open the full period and hence excluded from the following analysis.

Figure 3 shows the number of enrolments each period for the 154 Playcentres analysed. Figure 4 presents the same data as an annual percentage change (or four-month change in the case of the figures for 31 October 2007). The graphs show a post-implementation fall in the number of enrolments for both age groups. The fall was 4.8 percent for under-three year olds, 4.6 percent for three year olds and over, and 4.7 percent in total.

Figure 3: number of enrolments in surveyed Playcentres, by age



**Figure 4: annual percent change in number of enrolments in surveyed Playcentres, by age**  
 (Note, change to 31 October 2007 is over four months, not the year)



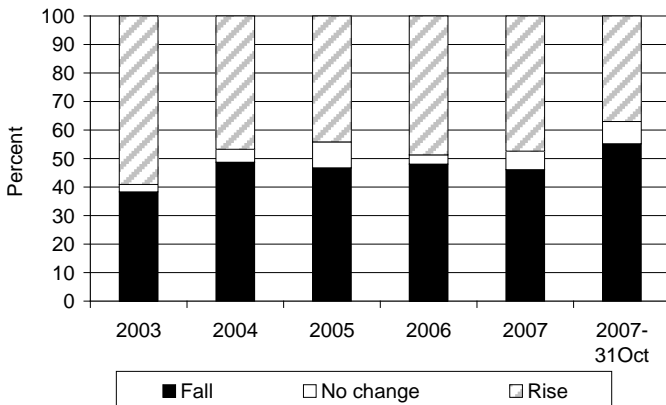
It is important to bear three factors in mind when considering this recent change in roll numbers.

- First, the length of the period being considered. The interval between the last two periods is four months, which is a third of the interval between each of the previous consecutive time-points. It is quite possible that the roll-drop may be even greater once a full year's of data are available.
- Second, seasonality. The last time-point shown in the graphs is for the end of October, which is different from all the other time-points shown, which are for the end of June. It is quite possible that the fall in roll numbers between June 2007 and October 2007 merely reflects the fact that it is a different month of the year, i.e. that it is seasonal. Indeed, analysis of funded-child-hours indicates fewer hours in October than in June (*see Figure 9 in sub-section 3.6 below*), although this may be the result of non-attendance due to winter illnesses and other reasons rather than a fall in the regular roll.
- Third, the long-term trend. Recent changes need to be put into the context of the long-term trend, which has been downwards, especially for the roll of children aged three years or over. It is also important to consider the extent that the long-term figures fluctuate over time, as the more they fluctuate, the less certainty there is that recent changes are not part of this normal volatility in the figures.

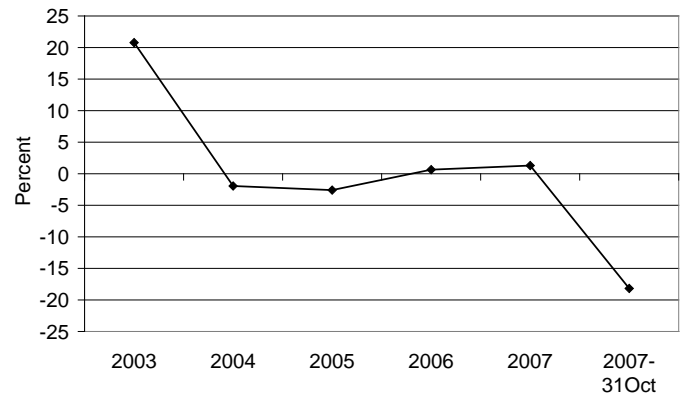
All three factors lessen the certainty of any conclusions based on these figures alone. This is why several data sources and several ways of analysing the data are considered in this paper. Availability of the 2008 RS61 data later in the year will address the problems raised in the first two of these points.

Another way of assessing the change is to examine the trend in the percentage of services with an increase in enrolments and those with a decrease, as is shown in Figure 5. This shows a break in trend, with the proportion of services with a fall in the last four months (55.2 percent) being higher than for any other period and occurring after four years where it was relatively stable. The break in trend is more easily seen in Figure 6, which subtracts the proportion of services with an enrolment drop from the proportion with an enrolment gain.

**Figure 5: percent of Playcentres surveyed, by whether enrolments rose, fell or stayed the same over the year**



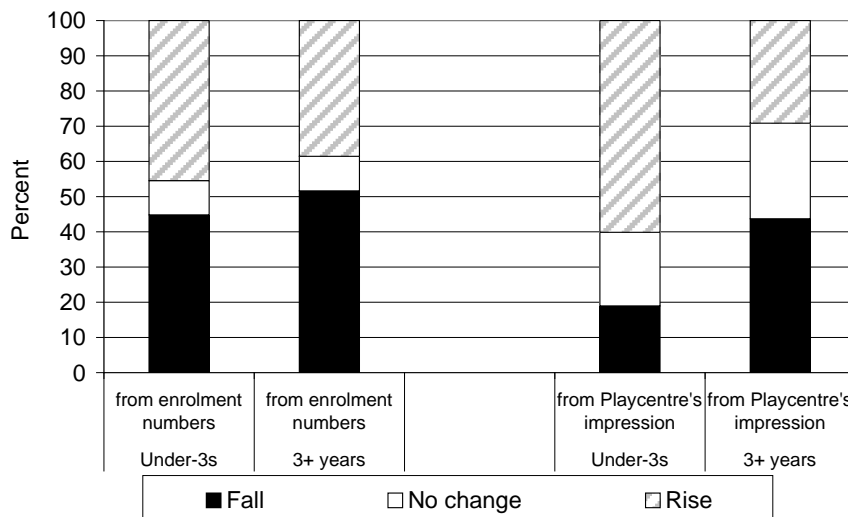
**Figure 6: percent of Playcentres increasing enrolments less the percent with falling enrolments**



In terms of the overall change in enrolments, these four graphs support the findings of the previous sub-sections, which showed (1) a fall in the number of families and (2) more services saying that their three-and-over roll had fallen. They do not however support the view of services that the under-three roll has grown.

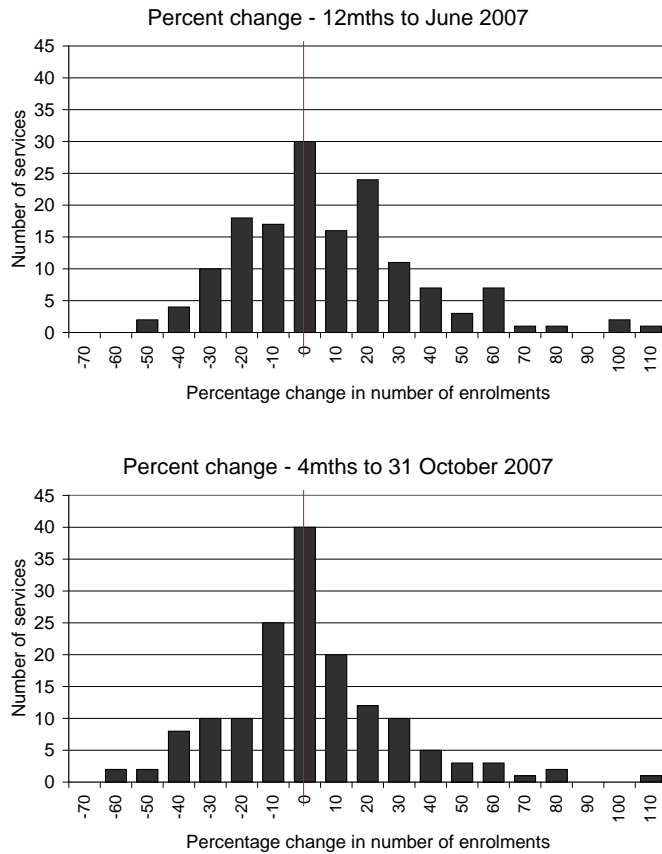
As was mentioned before, the fact that the majority of services thought their under-three roll had risen was curious. Not only does it contradict the enrolment numbers they gave, it also contradicts the fact that slightly more of them think that family numbers have declined rather than risen. Having said this, however, it is the case that the enrolment figures show a higher net proportion of Playcentres with a fall in their three-and-over roll than in their under-three roll, but the difference is not nearly as large as that suggested in sub-section 3.2. See Figure 7.

**Figure 7: comparison of Playcentres' impression of their enrolment change and what their enrolment numbers show, by age group (percent of services with gain, fall or no change)**



Another way of examining the roll-change figures is to look at how changes vary across Playcentres. The extent of the variation around the average is shown by the two graphs in Figure 8, which distribute the number of Playcentres by their percentage change in roll numbers. The graph on the top shows the change in the 12 months to the end of June 2007 and the one on the bottom shows the change over the four months to the end of October 2007.

**Figure 8: roll change at surveyed Playcentres – 12 month change to June 2007 and 4 month change to 31 October 2007 (percentage change in roll number)**



The two graphs show there to be a wide spread across Playcentres, distributed around a mode of little change. The distribution in the bottom graph is tighter (i.e. services tend to be closer to the centre) than the top graph, probably reflecting the fact that only four months' change was considered and fewer services would have experienced change over such a shorter period. While it is difficult to see, the bottom graphs do show a slight leftwards movement compared with the top graphs, suggesting a greater proportion of services experiencing a drop in roll numbers.

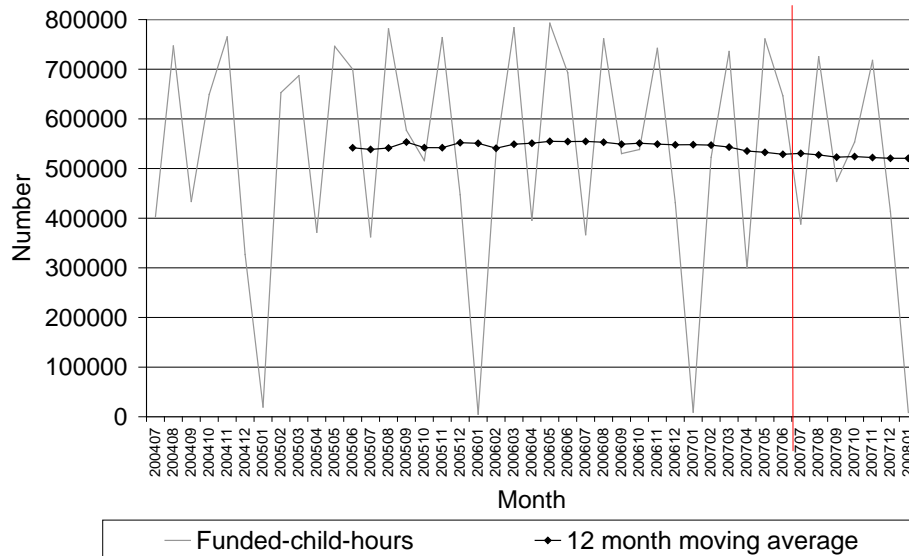


### 3.6 Funded child hours

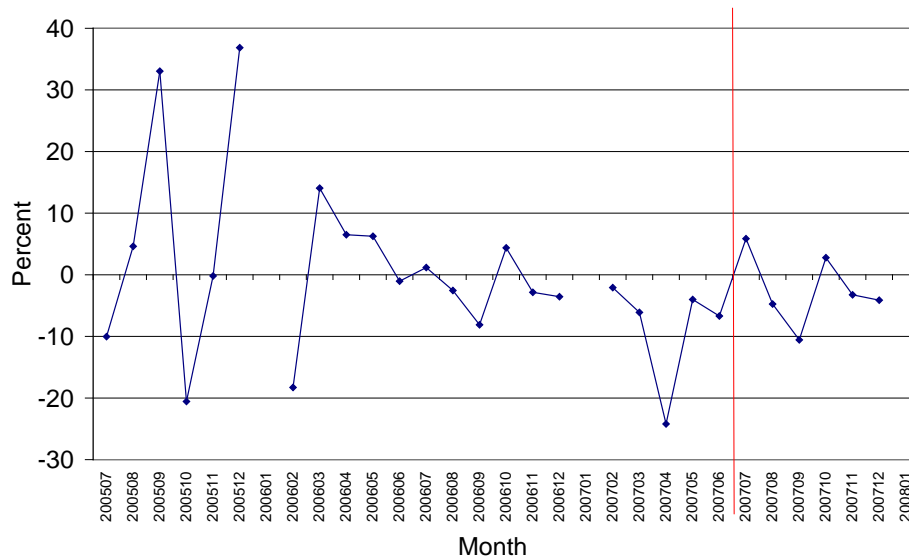
The Ministry collects daily information on the number of funded-child-hours, which is the number of hours the Ministry funds children attending the services. These figures reflect both the number of children and the average number of hours they attended.

Unfortunately, the funded-child-hours figures are very volatile over time, reflecting both seasonal and other factors such as some holidays falling on different months in different years. This makes analysis difficult. Two graphs are given showing the long-term trend. Figure 9 shows the monthly number and the 12-month moving average. Figure 10 shows the annual (month-on-month) percentage change.<sup>1</sup> In both cases, a vertical line is drawn to show when *20 Hours ECE* was implemented. Both graphs reveal that funded-child-hours have fallen since the introduction of *20 Hours ECE*, but that this continues a downwards trend that may have been present since early 2007 if not before.

**Figure 9: Number of Playcentres' funded-child-hours per month and 12-month moving average**



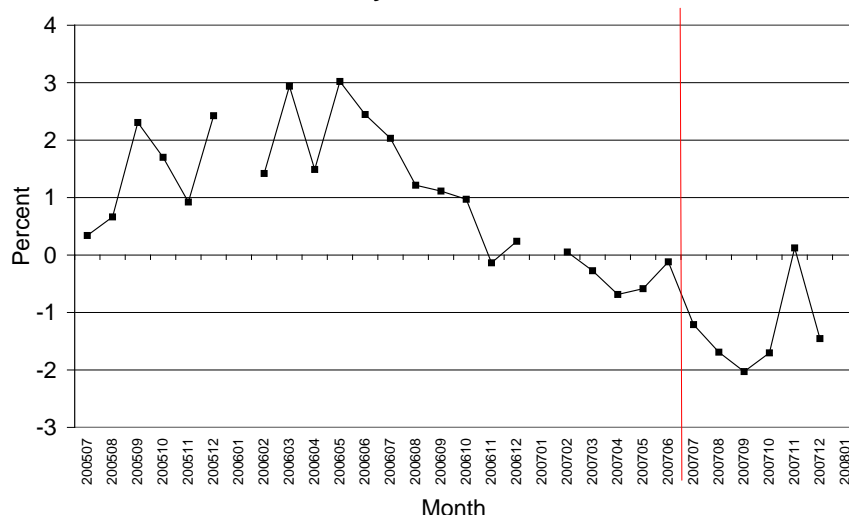
**Figure 10: Annual (month-on-month) percentage change in number of Playcentres' funded-child-hours**



<sup>1</sup> The January holiday months are excluded as they distort the totals.

Another way of examining the funded-child-hours, which is less affected by volatility, is to divide them by the maximum number of funded-child-hours that these services are licensed for and can be paid. The annual (month-on-month) percentage change of these figures is shown in Figure 11. This gives a smoother line than that in Figure 10. It suggests that growth rates began falling in late 2006, becoming negative in early 2007 and significantly more negative after the implementation of *20 Hours ECE*. Assuming there was no change in the maximum number of hours services were licensed for, Figure 11 shows that funded-child-hours fell at an annual rate of between one and two percent after the implementation of *20 Hours ECE*.<sup>2</sup>

**Figure 11: Annual (month-on-month) percentage change in number of Playcentres' funded-child-hours divided by their maximum number of funded-child-hours**



### 3.7 Change in participation – discussion and conclusion

The different data sources all suggest a reduction in participation since the introduction of *20 Hours ECE*.

The extent that participation may have fallen can be examined from two perspectives: the proportion of services that are likely to have lost children due to *20 Hours ECE*; and the proportion of children that are likely to have left due to *20 Hours ECE*.

In regard to the proportion of services with a reduction in the number of children since the introduction of *20 Hours ECE*, Figure 12 summarises results from the different data sources.

<sup>2</sup> A cursory examination of the maximum-funded-child-hours trend shows that, if anything, they have fallen slightly, which would suggest that the change fall in funded child hours may be even greater than the change in occupancy rates.

**Figure 12: percent of Playcentres with a volume fall following implementation of 20 Hours ECE – various measures compared**

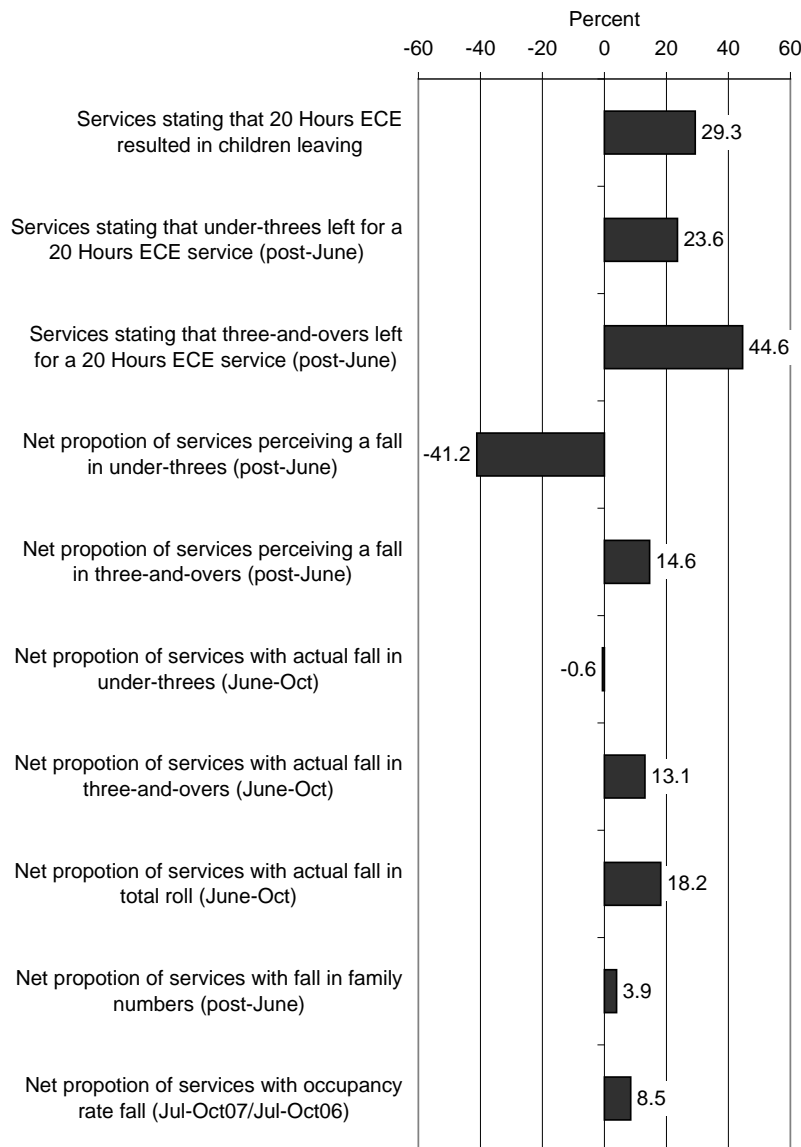


Figure 12 shows that, while most of the data sources indicate that more services had a fall rather than rise in participation, the estimates vary considerably. The results can be grouped under three headings: the perceptions of services about the impact of 20 Hours ECE on their service; the perceptions of services on the extent of their roll change; and the actual change in roll and other measures of volume.

- The first three measures shown in Figure 12 indicate the perceptions of Playcentres on whether 20 Hours ECE has resulted in children leaving their service. The best of these measures is the first, which shows that 29 percent of services thought that 20 Hours ECE had resulted in the departure of children. As was discussed previously, the second two measures may exaggerate the number. They show the proportion that gave the response, "Parent(s) moved them to a service providing 20 Hours ECE" as the reason that children had left since 1 July 2007, but some services are likely to have

mistakenly viewed this response as referring to the destination of the child rather than the reason they left.

- The next two measures show Playcentres' perceptions of how their roll has changed since the introduction of *20 Hours ECE*, with the net figure shown being the proportion of services who thought rolls had dropped minus the proportion who thought rolls had increased. Fifteen percent more services thought their three-and-over roll had decreased than those who thought it had increased, which is fairly similar to the proportion shown by the actual roll numbers. It is not surprising that the figure is lower than the previous figures, as services with children leaving because of *20 Hours ECE* may still have experienced roll growth (or no change) for other reasons. However, as has been previously mentioned, the very high proportion of services that thought their under-three roll had risen does not fit well with the other figures.
- The last five measures use the actual volume changes to show the net proportion of services with a volume fall. The first three of these relate to roll numbers, the fourth to family numbers, and the fifth to funded-child-hours (as expressed by annual change in occupancy rates, i.e. change in funded-child-hours / maximum-funded-child-hours over the year to October). A net 18 percent of services experienced a fall in their roll in the four months since the introduction of *20 Hours ECE*, with the figure for three-and-over children (13 percent) not being very different from services' own perception. The figure for funded-child-hours (8.5 percent) is lower, although it is for a somewhat different time period and not strictly comparable. The figure for the number of families (3.9 percent) is lower still, which indicates that some families may choose to keep their younger children in Playcentres but send their older children to services offering *20 Hours ECE*.

In regard to the actual change in participation since 1 July 2007, Figure 13 summarises results from the different data sources.

**Figure 13: percent fall in volume following implementation of *20 Hours ECE* – various measures compared**

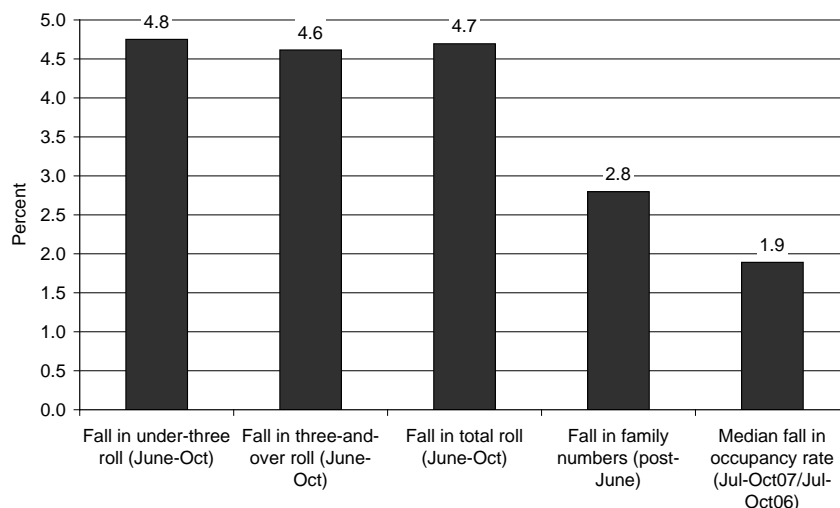


Figure 13 shows that the fall in roll since the introduction of *20 Hours ECE* was around five percent, and the fall in family numbers just over half that. The fall in occupancy rate, which reflects the number of funded-child-hours, is slightly less again, but is for a somewhat different period of time.

In interpreting these volume change figures, it is important to be mindful of several factors.

- **Seasonality.** Four of the five measures in Figure 13 compare different months of the year, which may vary purely for reasons of seasonality. Figures are not available to test the impact of seasonality in regard to regular roll and family numbers, but occupancy rates have a definite seasonal cycle. Occupancy rate figures using funded-child-hours show that participation tends to be lower in the July-October period than in the period before; while the median July-October 2007 occupancy rates was down 1.9 percent on the same period the previous year, they were down 2.6 percent on the four months ended June 2007. However, it is possible that the seasonality in funded-child-hours is not reflected in the regular roll figures and family numbers; e.g. they may be purely due to winter illnesses or just non-attendance.
- **Long-term trend.** Recent change needs to be put into the context of the long-term volume trend, which appears to be slightly downwards. The regular Playcentre roll in June 2007 was one percent down on the previous year and five percent down on its high four years before. Growth in occupancy rates began falling late 2006 and became negative early in 2007. On the other hand, given that the post implementation period is only four months (a third of a year), the impact of this factor is not very great.

However, there is another context provided by the long-term trend, and that is its volatility. The more volatile the figures are over time, the less certainty there is that recent changes mark a break from trend. While many of the above graphs indicate considerable volatility, not all do, and all give a consistent result of a fall in volume since 1 July 2007.

- **Wide distribution of services.** Services differ widely in both the direction and extent of their volume change, which lessens the statistical significance of any result. However, despite this factor, the recent change does appear to be a distinct break from the long-term trend line and is consistent across most measures.

It is also important to note the comment of several services that the downwards trend appears to have continued into 2008. Furthermore, some report that there is less interest from potential new families and their waiting lists are down. If this is the case then, when the June 2008 RS61 figures are analysed, they may show the impact to be even greater than what has been shown here.

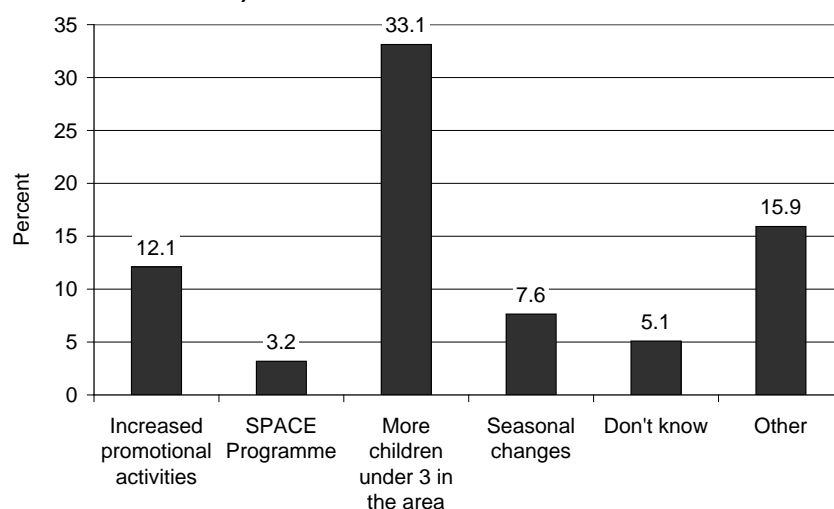
In summary, 29 percent of services reported that *20 Hours ECE* had resulted in children leaving, but the net proportion experiencing a volume fall in the four months since 1 July was less, at 18 percent. Rolls fell around five percent in those four months. The fall in family numbers has been somewhat less, indicating that some families may be choosing to keep their younger children at Playcentres while sending their older children to other services. While these figures indicate a negative impact on volume, the changes vary considerably across individual Playcentres, suggesting that there is no typical Playcentre experience.

## 4. Reasons given for enrolment changes

### 4.1 Roll growth

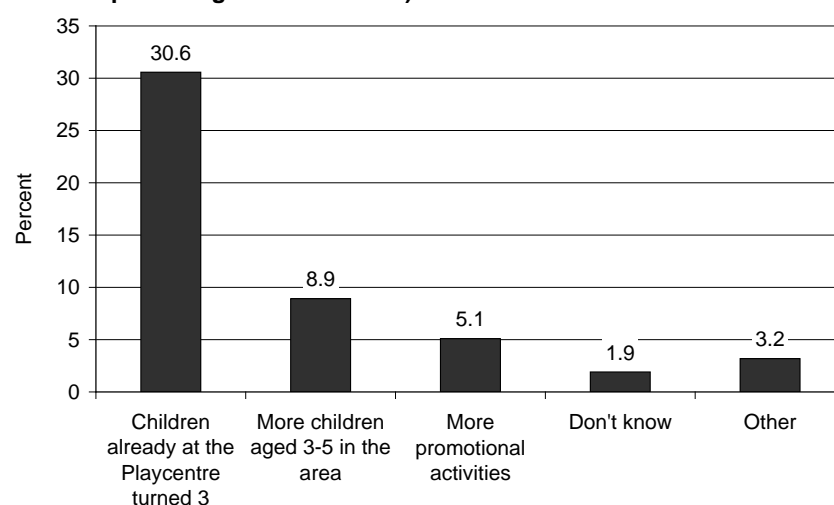
Sixty percent of respondents said their number of under-three year old enrolments had risen over the four months. Figure 14 shows the reasons given for the increase. A third of all services said that it was due to more under-three year olds in the area and 12 percent said it was the result of promotional activities. Note that these reasons are not mutually exclusive; i.e. services can give more than one reason; nor is any indication given of the number of children that these reasons apply to.

**Figure 14: Reasons given for increase in enrolments of under-three year olds (as percentage of all services)**



Twenty nine percent of respondents said their number of children aged three years or over had risen over the four months. Figure 15 shows the reasons given for the increase. Thirty one percent said it was due to children already at the Playcentre turning three, nine percent said it was because of more children of that age group in the area, and five percent said it was due to promotional activities.

**Figure 15: Reasons given for increase in enrolments of children aged three years or over (as percentage of all services)**

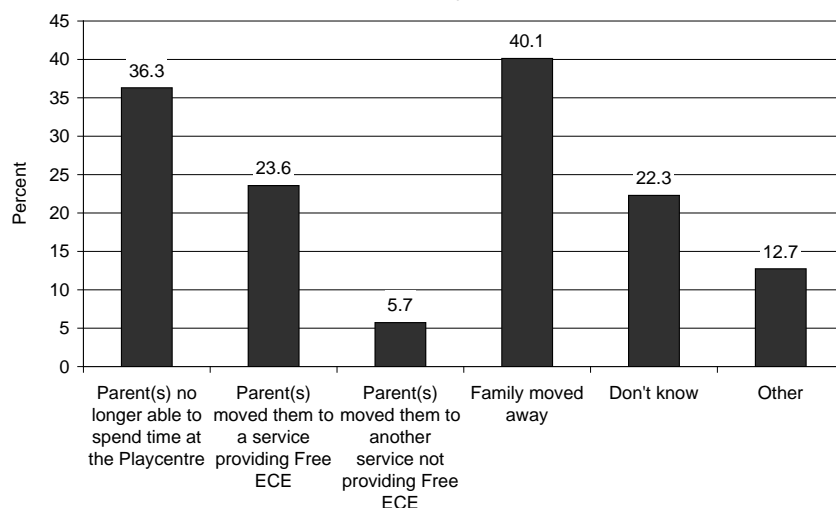


## 4.2 Roll decline

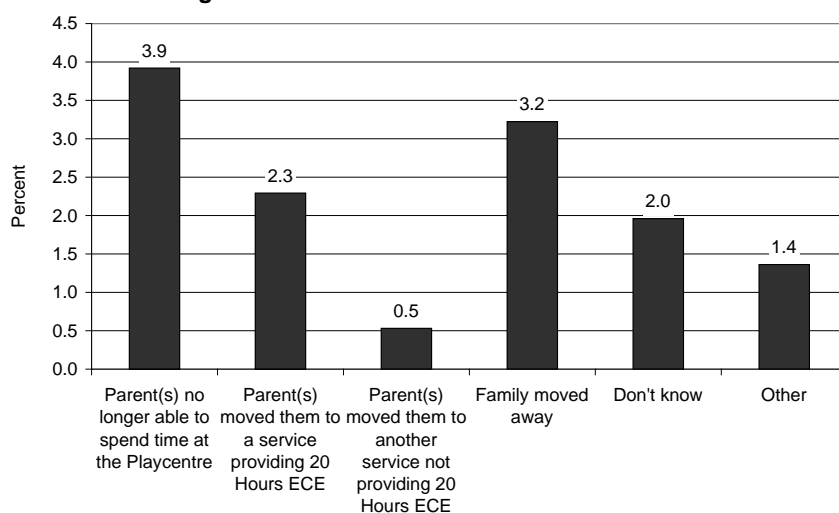
Nineteen percent of services said that their under-three year old roll had fallen over the four months following implementation. However, in total 68 percent of services had children leave who were under three years of age, the difference being services where arrivals equalled or surpassed departures. The total number of children departing was 400, which equates to 13 percent of the number of under-three enrolments at the end of June 2007.

Figures 16 and 17 show the reasons given for these children leaving. Figure 16 gives the percentage of services that gave the reason and Figure 17 gives the number of children for whom the reason was given, as a percentage of the under-three enrolments at the end of June 2007.

**Figure 16: Percentage of services, by reasons given for under-three year olds leaving (note, reasons are not mutually exclusive)**



**Figure 17: Percentage of under-three enrolments, by reasons given for under-three year olds leaving**



The two most common reasons for under-three year old children leaving were that parents were no longer able to spend time at the Playcentre or the family had moved

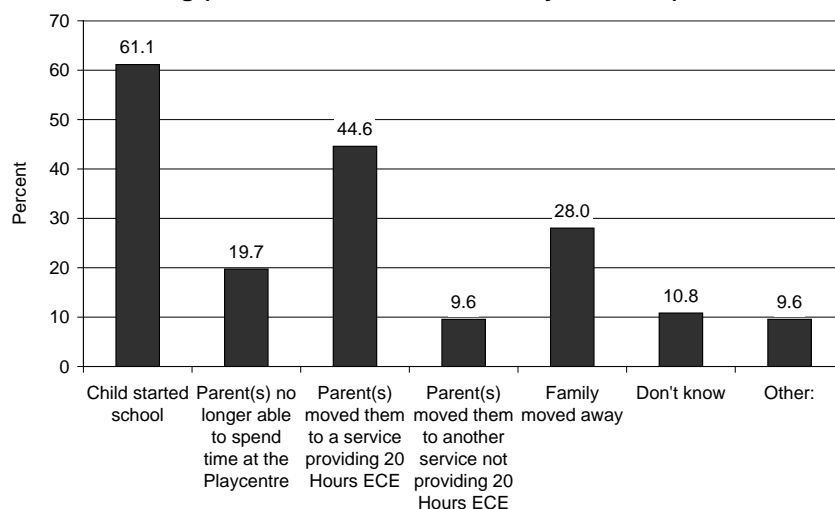
away. In regard to the impact of *20 Hours ECE*, Figure 16 shows that 24 percent of services had at least one under-three year old child who left because their parents moved them to a service providing *20 Hours ECE*. The number of children involved equates to 2.3 percent of the end of June roll of under-three year olds. What is interesting is that 0.5 percent of children were said to have left because their parents moved them to a service not providing *20 Hours ECE*. This seems an unlikely cause for them to leave, so it may well be that some services are referring to the destination of these children rather than the reason they left. Further support for this possibility is that, when asked about the impact of *20 Hours ECE*, fewer services said that it caused children to leave than gave "Parents(s) moved them to a service providing *20 Hours ECE*" (29 percent compared with 45 percent for the three-or-over children). It is also likely that some of these children may have moved to another service anyway. If this is the case, then the 2.3 percent figure may be somewhat over-estimated, as will the same figure be for the children aged three years or over.

A high proportion of services responded that they didn't know why their under-three year olds may have left (22 percent). It is difficult to interpret the impact and significance of this response on the other responses. On the one hand, if these services knew the reasons, the rates for some of the other responses would increase, which means that these other rates may be said to be under-estimates. However, on the other hand, the reason for departure may be unknown because it is not significantly different or controversial compared with past reasons for departure.

In regard to the roll of children aged three years or over, 44 percent of services said that it had fallen in the four months following implementation. However, in total 85 percent had children of this age group leave, the difference again being services where arrivals equalled or surpassed departures. The total number of children departing was 665, which equates to 31 percent of the number of children over three years of age enrolled at the end of June 2007.

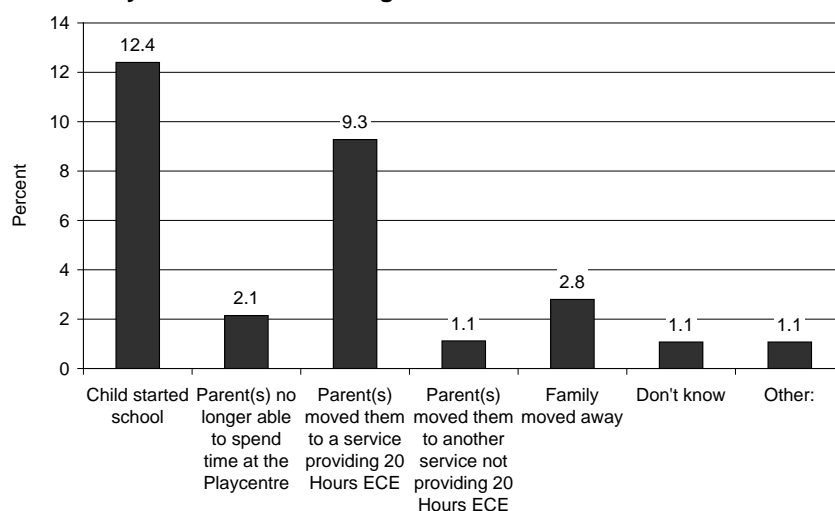
Figures 18 and 19 show the reasons given for these children leaving. Figure 18 gives the percentage of services that gave the reason and Figure 19 gives the number of children for whom the reason was given, as a percentage of the three-and-over enrolments at the end of June 2007.

**Figure 18: Percentage of services, by reasons given for children aged three years and older leaving (note, reasons are not mutually exclusive)**





**Figure 19: Percentage of three-or-over enrolments, by reasons given for children aged three years and older leaving**



In regard to the impact of *20 Hours ECE*, Figure 18 shows that 45 percent of services had at least one child aged three years or over leave because their parents moved them to a service providing *20 Hours ECE*. The number of children involved equates to 9.3 percent of the end of June roll of children aged three years or over. The proportion of children where the reason for departure was that they were moving to a service not providing *20 Hours ECE* was 1.1 percent.

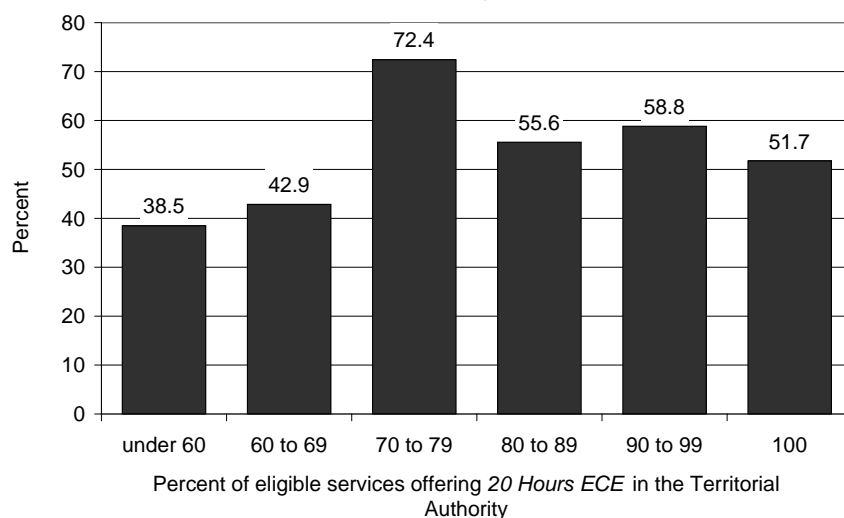
In summary, the proportion of under-three and three-and-over children where the reason for leaving was that they were going to a service providing *20 Hours ECE* was 2.3 percent and 9.3 percent respectively. Weighting these figures by the 3010 / 2145 ratio between the two age-groups' end of June enrolments gives an overall average of 5.2 percent. Perhaps not coincidentally, this figure is just slightly above the actual roll change. The actual net figures are likely to be slightly lower than these for two reasons. First, as was mentioned, some services may be referring to the destination of the children rather than the reason for their departure. Second, even if they left because of *20 Hours ECE*, some of these children may have left anyway.

## 5. Impact of 20 Hours ECE take-up rates

If 20 Hours ECE does have a negative impact on Playcentres, it would be expected that this impact would be especially strong in areas with a high take-up rate of 20 Hours ECE.

Figure 20 shows the results of analysis at the Territorial Authority level. It groups Territorial Authorities by their 20 Hours ECE take-up rate (as at early November) and shows the proportion of Playcentres that had a drop in roll numbers in the four months following the introduction of the scheme.

**Figure 20: Percentage of services with a June-October roll fall, by the take-up rate of 20 Hours ECE in their Territorial Authority**



The graph gives tentative support to 20 Hours ECE take-up rates having an impact on Playcentre roll numbers. In areas where take-up was less than 70 percent, a lower proportion of Playcentres had a roll-drop than in other areas. On the other hand, the third lowest roll-drop was experienced in areas with 100 percent take-up and the highest roll-drop was experienced in areas with take-up rates between only 70 and 79 percent. The results are therefore not conclusive.

It is also important to note that this is a fairly blunt analysis. There are four reasons for this.

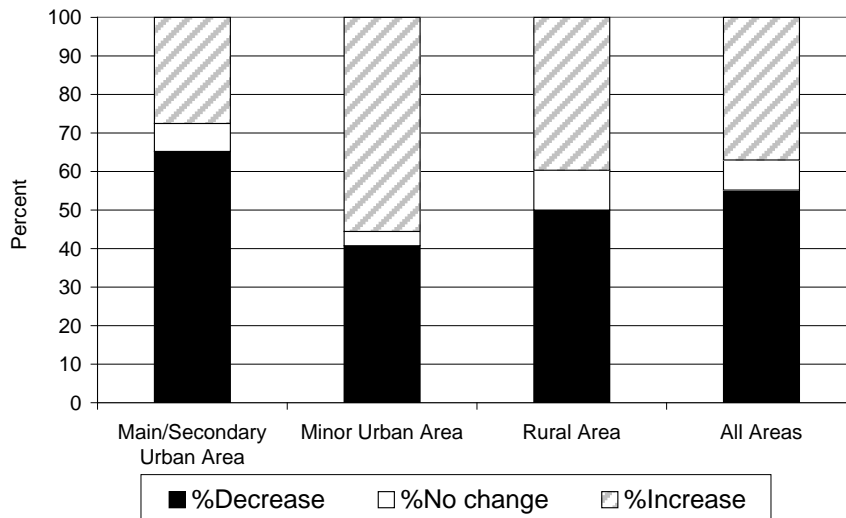
- Territorial Authorities are large areas and do not always reflect the situation prevalent in the local catchment area of an individual Playcentre.
- There are other factors determining roll changes, such as population growth. A more in-depth analysis would need to take these other factors into account.
- The number of Territorial Authorities in some of the take-up rate categories is small, reducing the statistical significance of the results (there were respectively 13, 21, 29, 45, 17 and 29 Territorial Authorities in each category shown in the graph, going from left to right).
- No account is taken of whether or not there are services near the Playcentre that are eligible for 20 Hours ECE. If there are no such services then whether

or not *20 Hours ECE* is provided is irrelevant as there are no services to provide it. Ideally the analysis should only examine Playcentres where there is effective competition from services eligible for *20 Hours ECE*.

It would be well worth developing this approach further in any future analysis of the impact of *20 Hours ECE* on Playcentres. Indeed, in regard to the fourth point, using a rural-urban breakdown suggests that the impact of *20 Hours ECE* may be greater than is suggested elsewhere in this paper, as is shown below.

Many Playcentres are in rural areas or very small towns and do not have services eligible for *20 Hours ECE* in their vicinity. These are unlikely to be affected by *20 Hours ECE*. If *20 Hours ECE* does have an impact, it is more likely to be seen in the more populated areas which are likely also to include other ECE services. Indeed, this is what is shown in Figure 21. It shows the proportion of Playcentres with roll changes in the four months since *20 Hours ECE* was introduced, by whether they were in a rural area, minor urban area (population 1,000 to 9,999) or main/secondary urban area (population 10,000 or higher). It clearly shows that the more urban areas had a higher proportion of Playcentres experiencing roll fall. While in total a net 18 percent of Playcentres experienced a roll fall (as shown in Figure 6), the figures were 10 percent in rural areas, -15 percent (i.e. more services experienced a roll rise) in minor urban areas, but a high 37 percent in the main/secondary urban areas. In terms of the number of children involved, rolls fell 4.3 percent in rural areas, rose 5.7 percent in minor urban areas, and fell 8.2 percent in main/secondary urban areas, with a 4.7 percent fall overall.

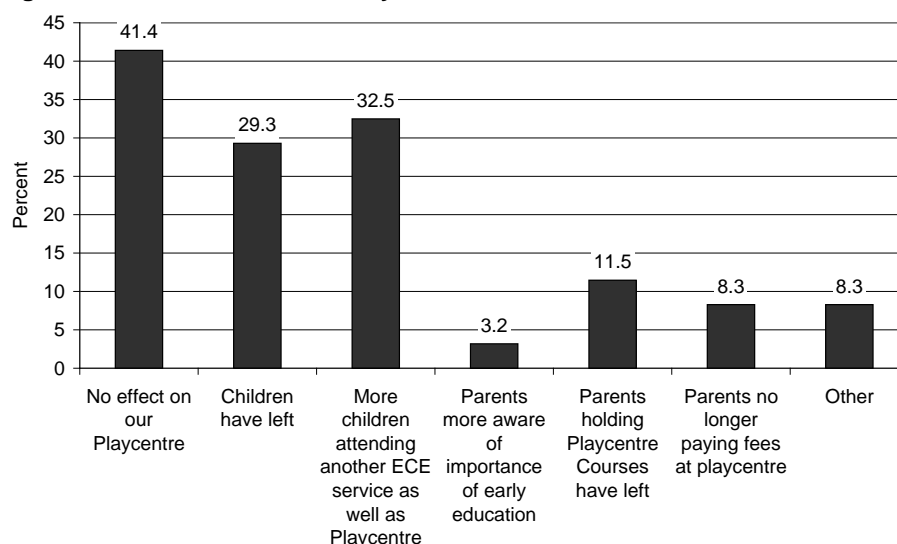
**Figure 21: Percentage of Playcentres by whether their roll rose, fell or did not change over the June-October period, by their urban classification**



## 6. Views on the overall impact of *20 Hours ECE*

Playcentres were asked, “Overall, how do you think *20 Hours ECE* has affected your Playcentre?” and were given the options shown in Figure 22.

**Figure 22: Percent of services, by how *20 Hours ECE* has affected them**



Twenty nine percent of services said they had children leave because of *20 Hours ECE*. This compares with the 24 percent who had previously stated that under-three year old children had left and the 45 percent who said that children aged three years or over had left because of *20 Hours ECE*. The discrepancy between these figures was pointed out previously, with the suggestion made that the latter figures may have included cases where a *20 Hours ECE* service was the destination of the child rather than *20 Hours ECE* being the reason for the child’s departure.

Thirty two percent of services said that *20 Hours ECE* resulted in an increase in the number of children attending another service as well as the Playcentre. Note that the options listed in the questionnaire are not mutually exclusive. Almost half of these services also had children leave because of *20 Hours ECE*.

Other impacts included the following. Eleven percent of services had parents who held Playcentre qualifications leave, although this contrasts with more services saying the number with supervisory qualifications had actually increased (see next section). Eight percent said that parents no longer paid fees at the Playcentre. Only a very small proportion thought that parents were more aware of the importance of early childhood education.

Not all services thought that *20 Hours ECE* affected their service. Forty one percent said that it did not. If non-respondents are added, the figure becomes 50 percent.

Many of the comments in the general comments section reinforced the comments of those reporting negatively here. It was thought to be unfair that Playcentres missed out. Mention was also made of the fact that, because Playcentres were not eligible for *20 Hours ECE*, parents got the false impression that they were considered to be of a lower quality than other service types.

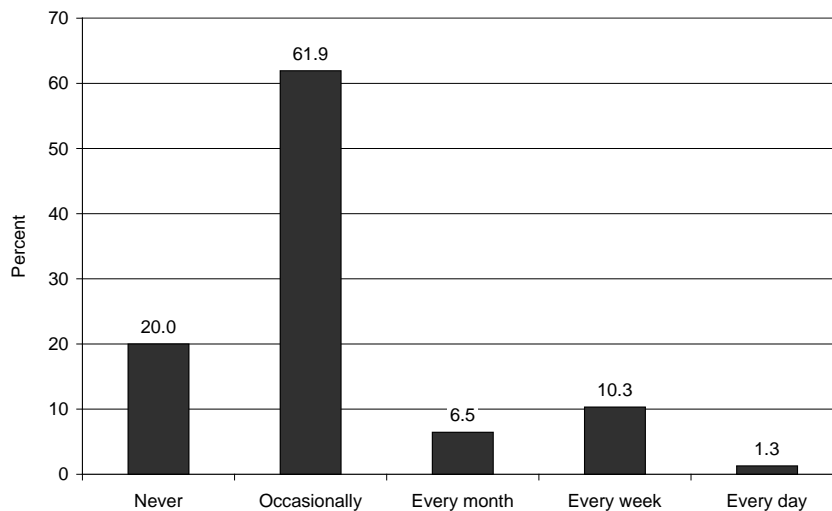
## 7. Ability to meet supervisory requirements

To meet supervisory requirements requires that a minimum number of the parents present at any one time hold Playcentre qualifications.

Since the introduction of *20 Hours ECE*, more services have reported an increase in the number of parents holding Playcentre qualifications than have reported a decrease (46 percent and 30 percent respectively). The results therefore do not show *20 Hours ECE* as having a negative result on supervisory requirements. However, they are curious, as they differ from the information on the number of families, which shows a decline in family numbers. If both sets of figures are correct, the implication is that the parents who have left had fewer qualifications than those who have remained or newly joined. The figures may also be seen as contradicting the previous section's finding that 11 percent of Playcentres viewed *20 Hours ECE* as resulting in parents with qualifications leaving, although again they may be more than balanced by what is happening in other services or by new or existing parents having more qualifications.

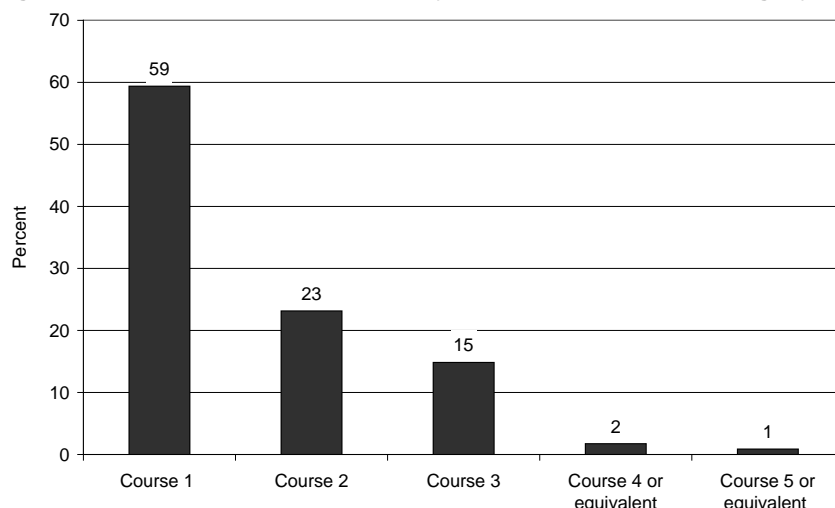
Services were also asked how often they had difficulty meeting the supervisory requirements. Most services (82 percent) never or only occasionally experienced difficulties. At the other end of the spectrum, one percent experienced difficulties every day and ten percent every week. See Figure 23.

**Figure 23: Percent of services, by how often they have difficulty meeting supervisory requirements**



Information was asked of the qualifications of parents who had left in the four months following implementation. In all, 118 services gave information in response to this question, for 458 parents in total. Although this cannot be used to infer anything about the effects of *20 Hours ECE*, it does provide information on the spread of qualifications, which may be useful as general information. Of parents who were qualified and had left, most had the Course 1 qualification (59 percent) and progressively fewer had the higher-level courses. See Figure 24.

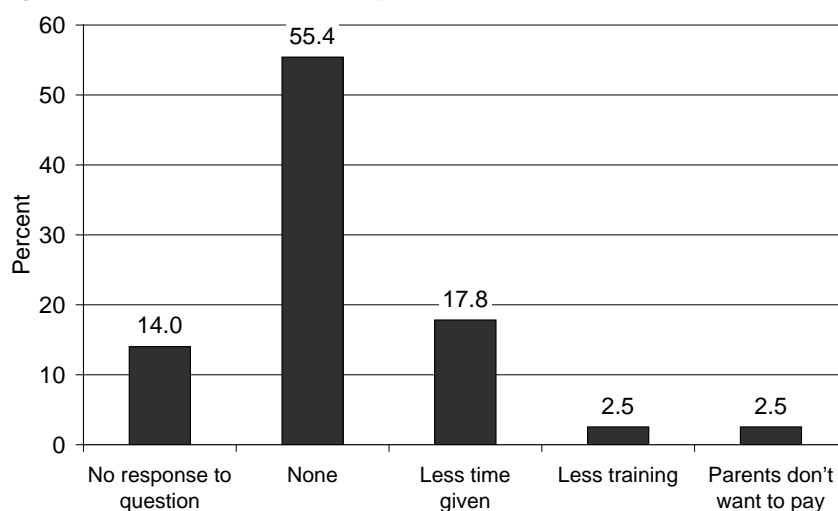
**Figure 24: Percent of parents with Playcentre qualifications leaving, by level of qualification**



## 8. Changes in parent contributions

Playcentres were asked “How have parent contributions changed since the introduction of *20 Hours ECE*?” This was an open-ended question with no prompting as to possible answers. Figure 25 shows the results.

**Figure 25: Percent of services, by in parent contributions since *20 Hours ECE***



Fifty five percent of the services specifically stated that there were no changes. If the assumption is made that those not responding to this question also had no change, then sixty nine percent of Playcentres had no changes.

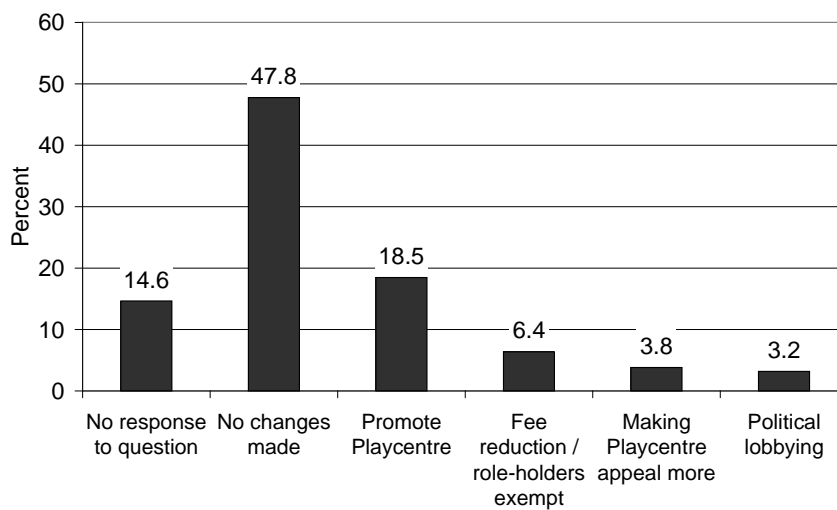
The most common change made was that there was less time given or available from parents, with 18 percent of services giving this response. In addition, 2.5 percent of services specifically mentioned less training undertaken to attain Playcentre qualifications, and a similar proportion said that parents were less willing to make payments.

Several Playcentres mentioned that, along with *20 Hours ECE*, one of the attractions of teacher-led services to some parents is that they did not have to make such a large time commitment. Several also mentioned parents being less willing to make a time contribution at Playcentres because they did not have to do this at other services.

## 9. Changes made in response to *20 Hours ECE*

Playcentres were asked, “What changes (if any) has your Playcentre made to respond to *20 Hours ECE*?” This was an open-ended question with no prompting as to possible answers. Figure 26 shows the results.

**Figure 26: Percent of services, by changes made in response to *20 Hours ECE***



Forty eight percent of the services specifically stated that they had made no change. If the assumption is made that services who did not respond to this question also made no change, then 62 percent of Playcentres have not made any changes.

The most common change made was greater promotion of the Playcentre, with 18 percent of Playcentres undertaking promotion. Six percent of services made changes to their fees, including role-holders being exempt from fees.

## 10. Conclusion

While *20 Hours ECE* has had no impact on many Playcentres, many others have been affected in some way. Furthermore, long-term trend figures indicate a slight break from trend since the introduction of *20 Hours ECE*.

*20 Hours ECE* is likely to have reduced children's attendance at Playcentres. Twenty nine percent of respondents reported that it had resulted in children leaving their service. Eighteen percent more services had their rolls fall than had their rolls rise in the four months following the introduction of *20 Hours ECE*, with the overall number of children falling by five percent. The changes were more significant in main/secondary urban areas, where Playcentres are more likely to have services eligible for *20 Hours ECE* in their vicinity – 38 percent more services in these areas had their rolls fall than their rolls rise, with their overall number of children falling by eight percent. Moreover, some Playcentres reported continued departures of children in 2008, as well as shorter waiting lists and fewer new families expressing an interest in joining.

There has also been a negative impact on family numbers, although this has been somewhat lower. It is likely that some families are keeping their younger children at the Playcentre while sending the older children to services offering *20 Hours ECE*.

Services not only reported children leaving the Playcentre because of *20 Hours ECE*, they also reported children attending another service as well as the Playcentre. Thirty two percent gave this response, with almost half of these also reporting that children had left. Many of these children are likely to increase the number of hours they attend early childhood education as a whole.

*20 Hours ECE* does not appear to have had a major impact on the ability of Playcentres to meet supervisory requirements. Most services did not have many problems meeting these requirements (82 percent). Interestingly, more services reported an increase in the number of parents holding Playcentre qualifications than reported a decrease. On the other hand, 11 percent of services responded that *20 Hours ECE* had resulted in parents with qualifications leaving. The figures suggest that it may be the less qualified parents who have tended to leave.

*20 Hours ECE* has also reduced what parents are able to contribute to Playcentres. In response to the open-ended question, "How have parent contributions changed since the introduction of *20 Hours ECE*", 18 percent of services said that parents gave less time.

Where services responded in some way to the introduction of *20 Hours ECE*, the most common response was to increase the promotion of Playcentres, with 18 percent of services doing this. In addition, six percent of services reduced their fees in some way, for example by making role-holders exempt from fees.

The impact of *20 Hours ECE* was not negative for all Playcentres. In fact, many specifically stated that there was no impact; for example, 41 percent responded that *20 Hours ECE* had no impact on their service (and a further 9 percent made no response to the question); 48 percent had not made any changes in response to *20 Hours ECE* (and a further 15 percent made no response); and 55 percent said there had been no change in parent contributions (and a further 14 percent made no response). However, several of these services pointed to possible changes in the



future. Overall, the experience of individual Playcentres seems to be considerably varied.

## Appendix:

# 2007 Study of Early Effects of Free ECE on Playcentres

Management Contact Name Street Box Suburb Town/City
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**Purpose of this Study:** The primary purpose of the study is to provide the Ministry of Education and the Playcentre Federation with information on the early effects of Free ECE on Playcentres.

The Ministry of Education and the Playcentre Federation have agreed it is important to collect information on the early effects of Free ECE on Playcentre before the next RS61 roll return in July 2008.

Approximately 50% Playcentres are being invited to complete this survey. The information collected will be used in the development of policy advice and monitoring early childhood education.

Information Privacy: The data collected through this survey will be aggregated for reporting purposes.

<b>RETURN DATE:</b>	
<b>DECLARATION:</b> <i>I certify that, to the best of my knowledge, the information contained on this form is true and correct.</i>	
<b>MANAGEMENT CONTACT:</b>	
Position .....	Name.....
Contact Phone.....	Contact e-mail.....
Date .....	Signature .....
<b>For further information contact:</b> Zainab Ali Telephone: 04 4638089 Fax: 04 463 8106 Email: Zainab.Ali@minedu.govt.nz	<b>RETURN Postal Address:</b> Attn: Zainab Ali Ministry of Education PO Box 1666 Wellington 6140

- 1 How many Families were on your regular roll as at 29 June 2007? \_\_\_\_\_
- 2 How many families are on your regular roll as at 31 October 2007? \_\_\_\_\_
- 3 How many children aged under 3 are on your Playcentre's regular roll as at 31 October 2007? \_\_\_\_\_
- 4 Overall, how has the number of enrolments of children under 3 in your Playcentre changed since 1 July 2007?
  - a) More under 3's enrolled (go to question 5)
  - b) Fewer under 3's enrolled (go to question 6)
  - c) No change (go to question 6)
- 5 Why has the number of under 3's enrolled increased? (Please tick the most important reasons)
  - a) Increased promotional activities
  - b) SPACE Programme
  - c) More children under 3 in the area
  - d) Seasonal changes
  - e) Don't know
  - f) Other (please specify)-

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- 6 How many children aged under 3 have left your Playcentre since 1 July 2007? \_\_\_\_\_ (If none, go to question 6)

- 7 Why do you think they left? Please tick the reasons for each child.

Child	Parent(s) no longer able to spend time at the Playcentre	Parent(s) moved them to a service providing Free ECE	Parent(s) moved them to another service not providing Free ECE	Family moved away	Don't know	Other: please specify
Child 1						
Child 2						
Child 3						
Child 4						
Child 5						
Child 6						

8 How many children aged 3 and over are on your Playcentre's regular roll as at 31 October 2007? \_\_\_\_\_

9 How has the number of enrolments of children aged 3 and over changed since 1 July 2007?

- a) More 3 and overs enrolled (go to question 8)
- b) Fewer 3 and overs enrolled (go to question 9)
- c) No change (go to question 9)

10 Why has the number of 3 and over's increased? (Please tick the most important reasons)

- a) Children already at the Playcentre turned 3
- b) More children aged 3-5 in the area
- c) More promotional activities
- d) Don't know
- e) Other (please specify)

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11 How many children aged 3 and over have left your Playcentre since 1 July 2007?  
 \_\_\_\_\_ (If none, go to question 11)

12 Why do you think they left? Please tick the reasons for each child.

Child	Child started school	Parent(s) no longer able to spend time at the Playcentre	Parent(s) moved them to a service providing Free ECE	Parent(s) moved them to another service not providing Free ECE	Family moved away	Don't know	Other: please specify
Child 1							
Child 2							
Child 3							
Child 4							
Child 5							
Child 6							

13 How has the number of parents holding Playcentre courses in your Playcentre changed since 1 July 2007?

- a) Same number of Playcentre trained parents
- b) More Playcentre trained parents
- c) Fewer Playcentre trained parents

14 Since 1 July, how many Playcentre trained parents have left since 1 July 2007 who helped meet supervisory requirements or were intended to help meet supervisory requirements in the next year? (If none, please go to question 14)

Level of Playcentre Training	Number of Parents
Course 1	
Course 2	
Course 3	
Course 4 or equivalent	
Course 5 or equivalent	
Total	

15 Why do you think they left? Please tick the reasons for each parent.

Parent	Child started school	Parent(s) no longer able to spend time at the Playcentre	Parent(s) moved them to a service providing Free ECE	Parent(s) moved them to another service not providing Free ECE	Family moved away	Don't know	Other: please specify
Parent 1							
Parent 2							
Parent 3							
Parent 4							
Parent 5							
Parent 6							

16 How often do you have difficulty meeting the Supervision requirements?

- a) Never
- b) Occasionally
- c) Every month
- d) Every week
- e) Every day

17 Overall, how do you think Free ECE has affected your Playcentre? (Please tick the most important reasons)

- a) No effect on our Playcentre
- b) Children have left
- c) More children attending another ECE service as well as Playcentre
- d) Parents more aware of importance of early education
- e) Parents holding Playcentre Courses have left
- f) Parents no longer paying fees at playcentre
- g) Other (please specify)

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18 What changes (if any) has your Playcentre made to respond to Free ECE?  
(Please specify)

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19 How has parent contributions changed since the introduction of Free ECE?

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20 Please add any other comments you wish to make.

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