

The impact of free early education for 3 year olds in England

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Introduction

- ❑ We are presenting the findings from two related papers:
- ❑ “Evaluating a demand-side approach to expanding free pre-school education” by Jo Blanden, Emilia Del Bono, Kirstine Hansen, Sandra McNally and Birgitta Rabe
- ❑ “The impact of free, universal pre-school education on maternal labour supply” by Mike Brewer, Sarah Cattan, Claire Crawford and Birgitta Rabe
- ❑ Work is funded by the ESRC SDAI (Del Bono, Rabe, Brewer, Cattan and Crawford) and the Nuffield Foundation (Blanden, Hansen, McNally).
- ❑ We also have ongoing work which makes use of Date of Birth discontinuity in children’s eligibility.
- ❑ Plus other extensions from the Nuffield Team.

Outline

- ❑ We follow the structure of the combined briefing note published on October 22nd 2014.
- ❑ Policy background
- ❑ Methodology
- ❑ Impact of policy on:
 - ❑ Nursery attendance
 - ❑ Children's educational outcomes
 - ❑ Maternal employment
- ❑ Policy discussion

Background

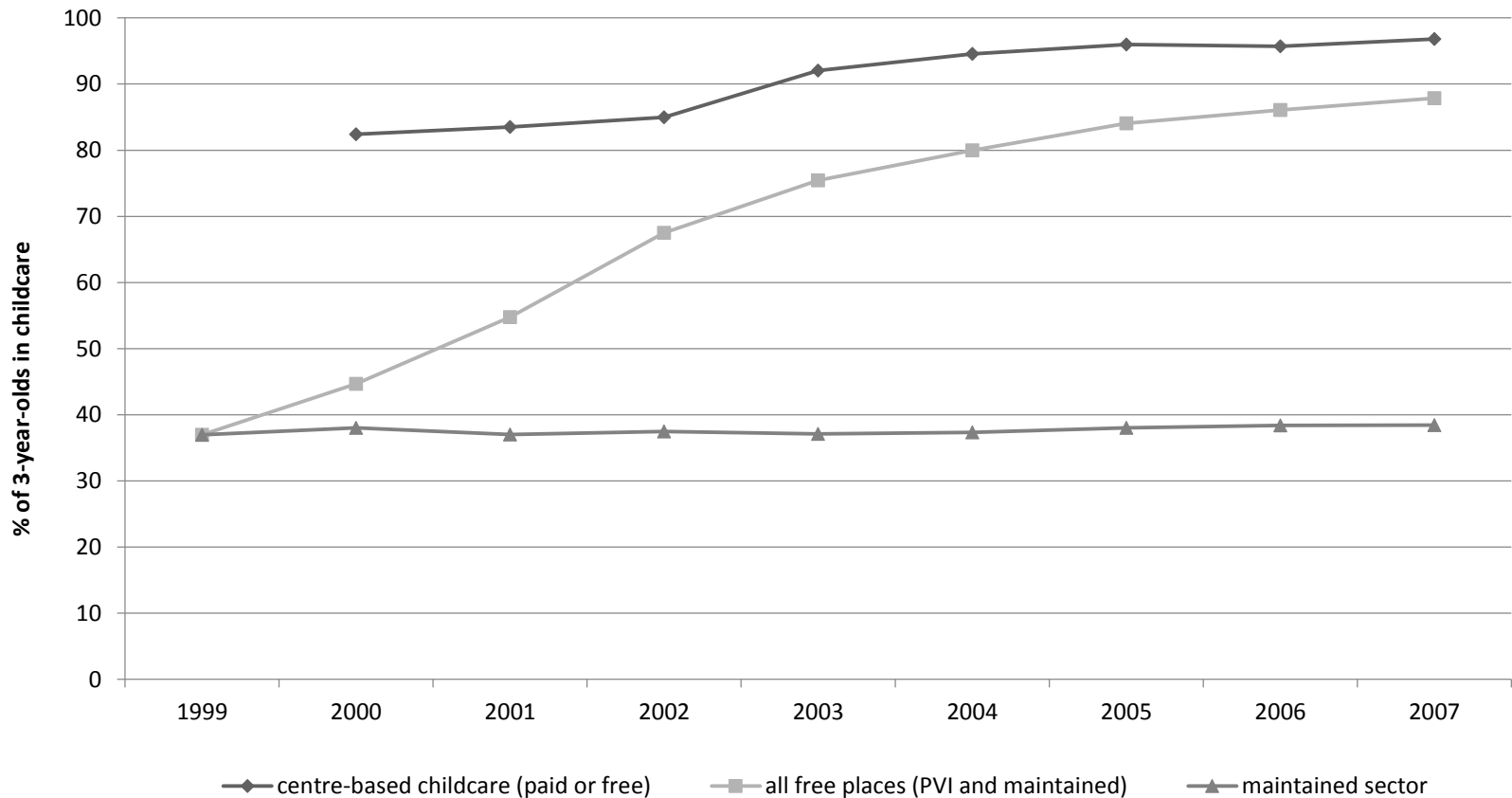
- ❑ Free entitlement for part-time early education for 3 and 4 year olds announced in 1998.
- ❑ Universal for 4 year olds in 2000.
- ❑ Effectively universal for 3 year olds in 2005.
- ❑ This presentation focuses on 3 year olds, but also work on 4 year olds on employment.
- ❑ New free provision was provided through private sector.
 - ❑ Private, voluntary and independent (PVI) nurseries, playgroups and pre-schools.
- ❑ Entitlement was initially 2.5 hours 5 days a week, 33 weeks a year.
- ❑ Now 15 hours over a minimum of 2 days, 38 weeks a year.
- ❑ The idea was to improve children's outcomes (narrow the gap) and support mother's employment.
- ❑ Was the 'double-dividend' delivered?

Methods

- ❑ Free entitlement led to large increase of places in some LAs, small increases in others
- ❑ Compare child outcomes/maternal employment in areas with large increase in free places with outcomes in areas with small increase
- ❑ Separate the impact of change in free places from other things that change at local level, for example:
 - cohort-specific effects;
 - area level differences;
 - changes in economic conditions;
 - availability of other early years policies→ use detailed econometric model to control for such factors
- ❑ For study on maternal employment: use mothers of 2-year olds as control group – their employment rates are unaffected by free entitlement for 3 year olds

- 1. The impact of the free entitlement on nursery attendance

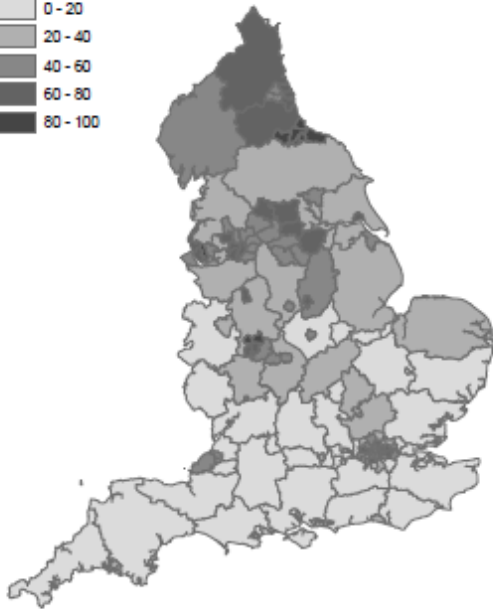
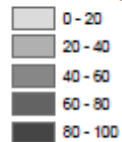
Percentage of 3 year olds in England in early education, 1999 – 2007



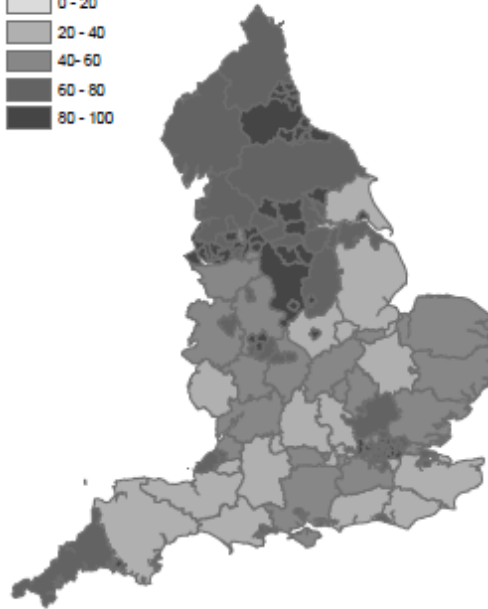
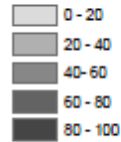
Source: DfE statistical releases

Childcare coverage of 3 year olds in England, 1999 – 2007

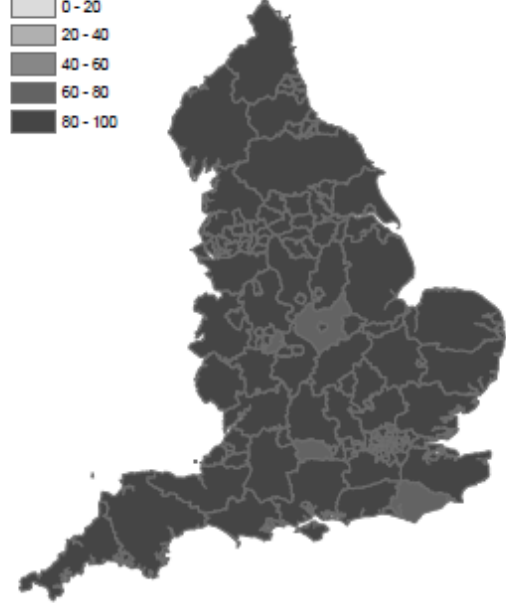
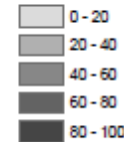
% covered by free places in 1999



% covered by free places in 2002



% covered by free places in 2007



Estimates of the impact on nursery attendance

	First Stage 2000-07	First Stage 2002-07	First Stage Complier LEAS 2002-07	First Stage Crowd-Out LEAs 2002-07
Free places	0.110**	0.237**	0.425*	0.169**
This means genuinely new places:	1 in 9	1 in 4	1 in 2	1 in 6

- 1 in 9 funded places was a new place taken up 2000-2007
- 1 in 4 funded places was a new place taken up 2002-2007
- In complier areas 1 in 2 funded places was new
- In crowd-out areas 1 in 6 funded places was new

- 2. The impact of the free entitlement on child outcomes

Data

- ❑ National Pupil Database covering 93% of all children in England.
- ❑ For children aged 3 during build-up we can observe Foundation Stage Profile, Key Stage 1 results (both national teacher assessments) and Key Stage 2 (national test).
- ❑ Sample: 6 cohorts of children who attended pre-school from 2002-2007.
- ❑ 3 million observations enable us to estimate effects very precisely.

Effect of the availability of free places on the FSP (results in terms of standard deviations)

Effect of a 10%point increase in funded places				
	Total FSP	Literacy	Numeracy	Social
All	0.018**	0.013*	0.013*	0.014*
Boys	0.026**	0.021**	0.024**	0.022**
Girls	0.011	0.005	0.009	0.007
Free School Meals	0.024+	0.018	0.023	0.018
Most deprived neighbourhoods	0.025**	0.022*	0.023*	0.019*
English as an Additional Language	0.025+	0.030**	0.016	0.018

How big are these effects?

- ❑ 10% point increase in funded places increases FSP total by 1.8% of a standard deviation.
- ❑ Free places for three year olds increased by 50%, so programme led to 9% of a standard deviation increase.
- ❑ The gap between FSM and non-FSM is about 30% of a standard deviation.
- ❑ Alternatively policy increased total FSP points from 87.5 points on average to 89.3 out of a possible 117 points.
- ❑ Effects are larger for some groups, but not many differences are statistically significant. One exception is between most and least deprived third of neighbourhoods.

→ The policy had a small positive effect on FSP scores at age 5.

Policy effects versus attendance effects

- ❑ Free places could lead to improved outcomes through:
 - ❑ Attendance effects
 - ❑ Income effects
 - ❑ Quality improvements

- ❑ We show that the policy had fairly small attendance effects, therefore if attendance is main mechanism small overall effects are not surprising.

- ❑ But to consider this directly we look at effects in those LEAs which had the most new places.

Drawing out attendance effects

Effect of a 10%point increase in funded places

	Total FSP	Literacy	Numeracy	Social
Complier LEAs	0.046**	0.025**	0.032**	0.030**
Crowd-out LEAs	0.007	0.006	0.009	0.007

- ❑ Suggests that effects are coming from attendance rather than quality or income increases.
- ❑ If assume that all benefits are being experienced by the children who get early education because of the policy then attendance at early education improved performance in the FSP by 40% of a standard deviation.
- ❑ These effects are broadly in line with those from the EPPSE study.

Policy Impacts at Key Stage 1

(results in terms of standard deviations)

Effect of a 10%point increase in funded places

Key Stage 1	Reading	Writing	Maths
All	0.003	0.003**	0.001
Girls	0.002	0.001	-0.001
Boys	0.003*	0.006*	0.003
Free School Meals	0.002	0.003*	0.003
Most deprived neighbourhoods	0.002	0.002	0.002
English as an additional language	-0.002	-0.001	-0.002
Complier LEAs	0.005	0.005*	0.002

→Effects are very small at age 7 and are zero at age 11 for all groups.

→The small effects found at 5 do not persist.

- 3. The impact of the free entitlement on maternal labour supply

Data

- ❑ Labour Force Survey, quarterly data
- ❑ Sample: build-up period 2000-2008
- ❑ Look at various measures of labour supply, including employment, self-employment, part-time, full-time, usual hours, actual hours, looking for work
- ❑ Sample sizes are small – some impacts are imprecisely estimated

The impact on maternal labour supply

Effect of a 10%point increase in funded places			
	% in work	% working part-time (≤30 hours per week)	% working full-time (>30 hours per week)
Mothers with a child aged 3	+0.41 ppts	+0.39 ppts	+0.02 ppts
Mothers whose youngest child is aged 3	+0.63 ppts**	+0.47 ppts	+0.16 ppts
Youngest child is aged 3 in 50% LAs where most new places created	+1.41 ppts**	+0.25 ppts	+1.11 ppts**
Youngest child is aged 3 in 50% LAs where least new places created	+0.29 ppts	0.44 ppts	-0.14 ppts

- Overall effect of the policy: rise in employment rate of mothers whose youngest child is 3 by 3 ppts. For comparison: average rate over last decade was 56%
- Equivalent to 12,000 more women in work
- Minimal difference to employment rate of all women

Impact by partnership status

Effect of a 10%point increase in funded places			
	% in work	% working part-time (≤30 hours per week)	% working full-time (>30 hours per week)
Lone mothers, youngest child is 3	+0.84 ppts	+0.12 ppts	+0.68 ppts
Partnered mothers, youngest child is 3	+0.51 ppts	+0.42 ppts	+0.09 ppts

- Impact on lone mothers is higher than on partnered
- Lone mothers start full-time work
- Partnered mothers start part-time work

Impact by education

Effect of a 10%point increase in funded places			
	% in work	% working part-time (≤30 hours per week)	% working full-time (>30 hours per week)
Less than A-level, youngest child is 3	+0.61 ppts	+0.15 ppts	+0.49 ppts*
At least A-level, youngest child is 3	+0.85 ppts*	1.06 ppts*	-0.23 ppts

- Impact on higher educated mothers is higher than on less educated
- Low educated mothers start full-time work
- Highly educated mothers start part-time work

Impact by family size

Effect of a 10%point increase in funded places			
	% in work	% working part-time (≤30 hours per week)	% working full-time (>30 hours per week)
At most one other child, youngest is 3	+0.76 ppts**	+0.74 ppts*	-0.02 ppts
At least two other children, youngest is 3	+0.57 ppts	-0.06 ppts	+0.68 ppts

→ Impact larger for smaller families

Summary

- ❑ Only a small proportion of 3 year olds entered early education as a result of the policy.
- ❑ New places created in private sector with lower quality, on average
- ❑ Effects on child outcomes in school were small and short-lived
- ❑ Disadvantaged children did not benefit disproportionately; no closing of the gap
- ❑ 6 more mothers in work for every 100 funded
- ❑ Most families would have used childcare anyway; policy transferred money to parents of young children
- ❑ Impact of free early education on children and mothers considerably larger for those children who used childcare only because it was free

Policy discussion

- The impacts of policy seem small, given cost
- In part, this reflects that it is a universal policy
 - if policy does not change behaviour, it acts as a transfer from government to families with children
 - a universal policy mixes children
- Could impact be strengthened?
 - new places were created in PVI sector which, on average, is of lower quality than maintained
 - free entitlement was initially limited (12.5 hrs/wk x 33 weeks) and inflexible and by itself perhaps insufficient to facilitate work (especially if difficulties in securing wrap-around care)
 - age 3 too late to encourage mothers back to work?
- Policy-makers seeking to expand free entitlement need to be clear about how it would achieve their objectives, and whether costs of universalism are justified