



Does time spent with mums make a difference to children's development?

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Based on the paper “Early Maternal Time Investment and Early Child Outcomes” with Marco Francesconi, Yvonne Kelly and Amanda Sacker

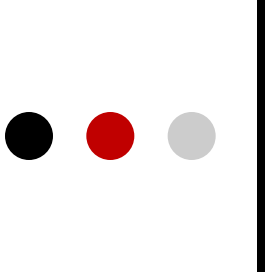


Introduction

- Early differences in children **skills** predict large differences in adult outcomes

- How are these **skills** produced?

Family income, family structure, parental education, maternal employment, child care, but also ... **parental time**



Research questions

- Can we **quantify** the contribution of time spent with parents to early child development?
- Does **any type** of time investment matter equally?
- What does **early** exactly mean?



What we do

- Data from the *UK Millennium Cohort Study* on a representative sample of >8,000 children
- Surveyed between age 3 and age 7
- **Cognitive and Non-Cognitive** measures of development

Cognitive measures

British Ability Scales
Naming Vocabulary
(age 3)



Non-Cognitive measures

Strengths and Difficulties Questionnaire (age 5)

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restless, overactive, cannot stay still for long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often complains of headaches, stomach-aches or sickness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shares readily with other children (treats, toys, pencils etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often has temper tantrums or hot tempers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rather solitary, tends to play alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generally obedient, usually does what adults request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many worries, often seems worried	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mother's time

We consider many different activities, and their frequencies and use a data-reduction technique to derive measures of:

Educational time



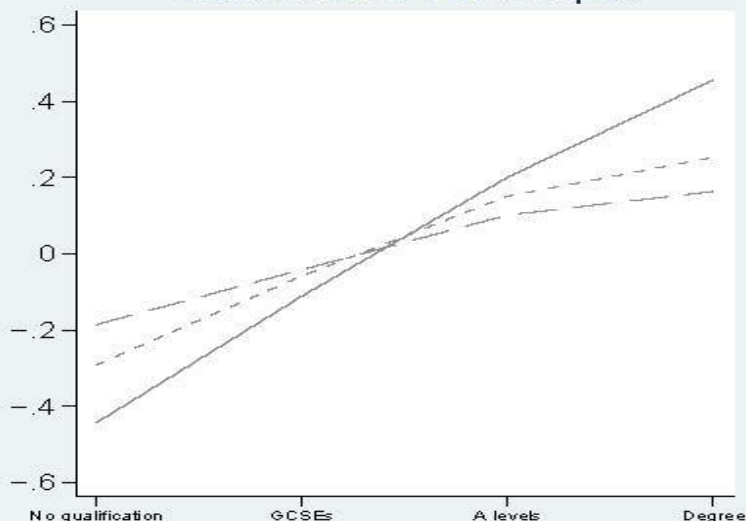
Recreational time



Mother's time

Age 7	Educational	Recreational
Mother reads to the child	√	√
Mother tells stories (not from a book)		√
Mother goes to the park or playground		√
Mother plays games indoors		√
Mother paints or draws with the child		√
Mother plays music or sings songs with the child		√
Mother goes to the park		√
Anyone at home helps the child with homework	√	
Mother participates in school activities	√	
Mother attended meeting at school	√	

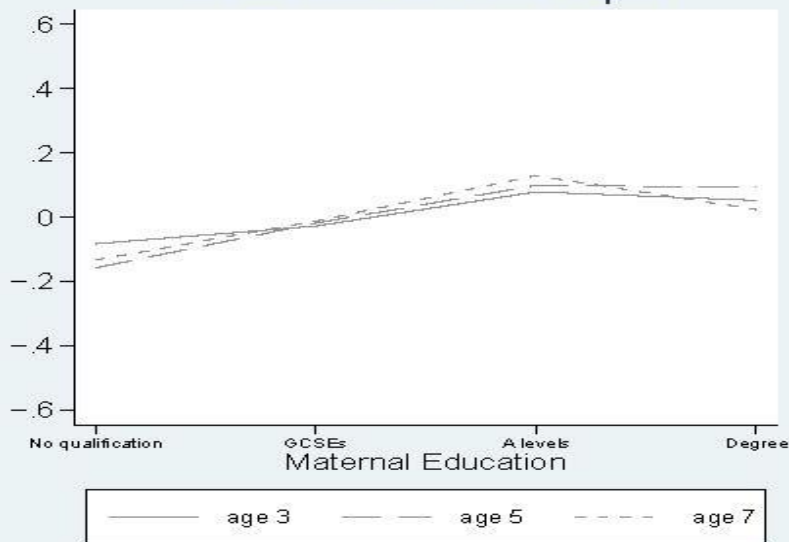
Educational Time Input



More educated mothers spend more time in educational activities

The gradient changes with age of the child, with more differences at age 3 than age 7

Recreational Time Input



More educated mothers spend about the same time in recreational activities

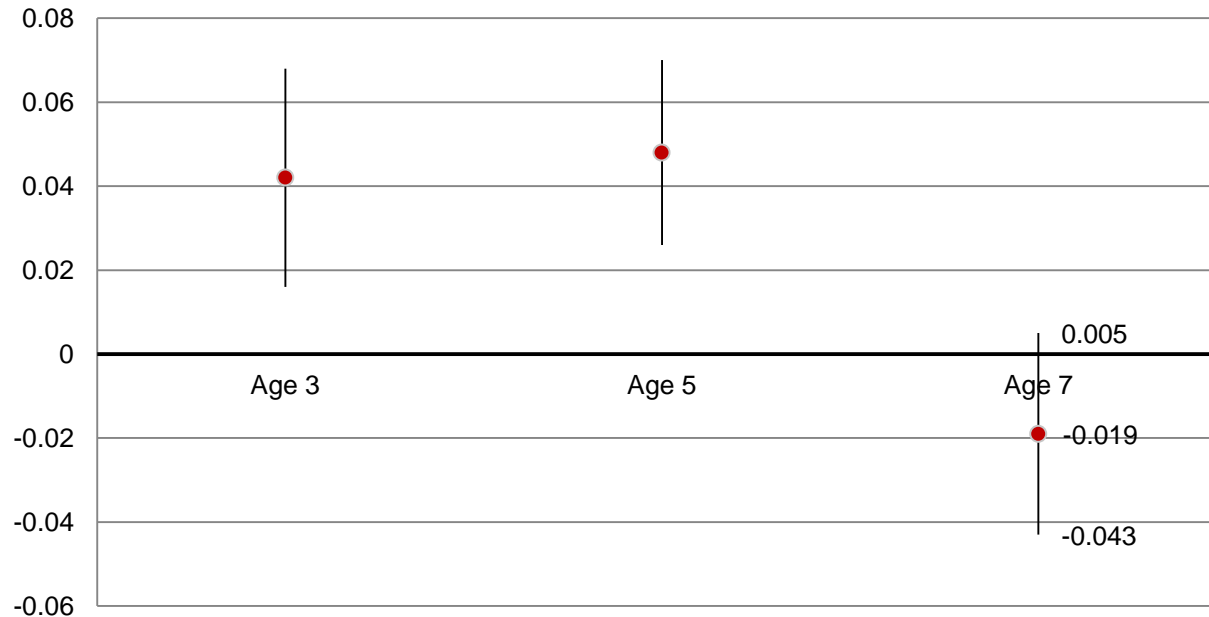


What we do next

- Estimate the effects of maternal time spent in educational and recreational activities at various ages on outcomes at age 7
- Control for demographics and other factors which might matter, such as child care attendance and family income
- Use a variety of statistical methods to check for:
 - Omitted inputs (e.g. father's time)
 - Reverse causality
 - Measurement error

Main findings

Educational time → cog. skills at age 7



- Time spent in educational activities early on matters for cognitive development
- The effect is 20% of the effect of having a mother with a degree vs. a mother with an A-level qualification

Main findings

Recreational time → cog. skills at age 7



- Recreational time matters only very early on, then can become detrimental



Other findings

- We **do not** find an effect of maternal time – either recreational or educational – on the child’s **non-cognitive skills**
- BUT .. when we account for “feedback effects”, (parents react to information on their child skills), we find evidence that maternal educational time matters also for non-cognitive skills



Discussion

- We offer **new evidence** that maternal time matters in the development of child skills, over and above other factors including child care and employment
- **Structured/educational** activities seem to be associated with a faster development of child cognitive skills
- The effects however **diminish over time**, and are mainly seen during the pre-school years