High Quality Early Child Care and the Class-Based Cognitive Gap at 24 Months

Erik Ruzek, Margaret Burchinal, George Farkas, Greg Duncan, Tran Dang, Weilin Li
University of California, Irvine

ABSTRACT
We use the ECLS-B, adjust for selection into child care type, to determine if quality of 12-24 month care reduces the poor/non-poor cognitive gap at 24 months. High quality care during the 12-24 month period was associated with significant increases in cognitive functioning, but does not close the 24 month cognitive gap.

INTRODUCTION
Early child care is often viewed as one way to address class-based cognitive and achievement gaps in the United States, but most policies and research focus on care for 3-5-year olds and show mixed results (e.g. Puma et al., 2005). However, a class-based cognitive gap already exists at 24 months (Frye, Halle et al., 2009; Hillemeier et al. 2009). Thus the role of child care quality experiences during infant/toddler period must be examined to determine their relevance for addressing the 24-month cognitive gap.

RESEARCH QUESTION
Adjusting for selection into child care, does high quality care during 12-24 months increase cognitive aptitude, particularly for low-income children?
Hypothesis: High quality child care will be beneficial for all children, but will be particularly beneficial for poor children, and thus help to close the 24-month cognitive gap.

METHODS
- Focus on child care experiences during 12-24 months of age.
- Five child care groups:
  - Observed (ITERS or FDCRS score)
  - Not Observed
  - Low Quality X Not Poor
  - Medium Quality X Not Poor
  - High Quality X Not Poor

RESULTS
Significant positive effects of both medium and high quality (determined to low quality) infant/toddler care on cognitive performance at two years of age.

High quality care was associated with 1/2 of a standard deviation (sd) increase in the Bayley mental score over low quality care and 1/3 sd increase over medium quality care.

DISCUSSION
We used propensity score weighting of nationally representative ECLS-B data to estimate the effects of medium and high quality infant/toddler care on cognitive performance at 24 months. We found that both levels of child care quality are associated with improved cognitive performance (compared to low quality care) at 24 months. Since non-poor parents typically purchase, on average, higher quality care for their children than is available to poor parents, this quality-of-care discrepancy has likely contributed to the two-year achievement gap between poor and non-poor children. We also found that both poor and non-poor children experience the same impact of medium and high quality care, so that the provision of equal quality care for poor and non-poor children would not help reduce the 24-month cognitive gap.

REFERENCES

ACKNOWLEDGEMENT & CONTACT INFORMATION
The research report was here supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305A0900467 to the University of California, Irvine (Pl: George Farkas). The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.
Contact: Erik Ruzek (eruzek@uci.edu)