



Curriculum and Quality Analysis and Impact Review
of European Early Childhood Education and Care



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CARE

Curriculum Quality Analysis and Impact Review of European ECEC

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Executive Summary

There are two main (efficiency) arguments that justify public investments in ECEC. First, investments in ECEC may increase maternal employment. Second, investments in ECEC may improve child development. Given the evidence on the effects of ECEC on maternal employment and child development (see CARE report T4.4), this report provides a cost-benefit analysis of universal (non-targeted) ECEC.

This report is the first to provide a comprehensive, causal evidence based cost-benefit analysis of expanding universal access to preschool. We analyse one policy reform in more detail: the LOGSE reform in Spain. In the early 1990s, the Spanish government introduced a reform that lowered the age of universal eligibility for publicly subsidized childcare by one year, from age 4 to age 3. As most of the cost-benefit analysis focus on small scale targeted programs instead of a national extension of preschool arrangements, the Spanish reform is an interesting and relevant case from a cost-effectiveness point of view as the costs of a universal program are likely to be higher and the benefits more dispersed. Our cost-benefit analysis therefore aims to contribute to understanding of the dilemmas and challenges of expanding high-quality ECEC in Europe.

The LOGSE preschool expansion is one of the few cases where evidence is available on the causal effects on both maternal employment and child development. First, the reform increased maternal employment: for ten additional children aged 3 in ECEC, approximately two mothers took up employment (Nollenberger and Rodríguez-Planas, 2015). Second, the reform reduced grade retention rates in primary school and improved students reading (but not math) scores at age 15 (Felfe et al., 2015). In our cost-benefit analysis we take into account the effects on both maternal employment and child development.

We present the calculations of the benefits and costs of the ECEC reform as a one-time investment in one cohort of 3-year old children, using 1997 as the base year. Hence, we compare the costs of increasing public spending on ECEC for this cohort with the benefits gained by encouraging the labour supply of the mothers of this cohort of children, plus the benefits gained by improving the cognitive skills of this cohort of three-year-olds. This strategy allows us to estimate the benefit-cost ratio of the investment and the results provide insights in whether the ECEC investment pays off: how many euros (in present value terms) does the society receive back for each euro invested in ECEC? Moreover, the analysis demonstrates the main benefits and identifies the main beneficiaries of the investment. The analysis also provides insight in the sensitivity of the results to particular parameters.

Our base results indicate that the benefit-cost ratio is over 4. Although this ratio is lower than those typically found for targeted ECEC interventions, the findings indicate sizeable net returns of (expanding) universal access to ECEC for all 3-year-olds. Sensitivity tests show that under most cases the estimated benefit-cost ratio is higher than 1, indicating a positive net present value for society. Furthermore, our cost-benefit analysis shows that the gains for children are the major driver of the total societal gains of universal ECEC. The maternal employment effects play a relatively small role: one of the striking findings is that the benefit-cost ratio is not substantially affected when the maternal employment effect is varied from the lowest to the highest estimate found in the literature.

The Spanish case illustrates that expansions of high-quality preschool programs for 3-year-olds may generate substantial returns in the long run. Our cost-benefit analysis provides support for investing in high-quality ECEC, not in extending coverage rates per se. Previous literature (Melhuish et al., 2015; Van Huizen and Plantenga, 2015) shows that ECEC quality levels should be sufficient to generate improvements in (non-)cognitive skills. ECEC arrangements of low to mediocre quality levels are likely to produce insignificant results or may even be harmful to child development. Since our analysis indicates that the lion's share of the total societal benefits of ECEC investments are the result of child development gains, it is crucial to invest in quality in order to obtain positive net returns for society.