



# The foundations of growth – investing in the next generation

There is a sound economic argument for public investment in high quality care and education for young children, to lay the foundations for future economic growth:

- **Quality care and education** in the early years has a large positive impact on children's development.
- **The benefits are long-lasting**, and are more cost-effective than educational investments and remedial interventions later in life.
- **The effects on children's development** deliver large social and economic benefits.
- **The return to investment** in quality early care and education is high. Cost-benefit analyses in the US have found returns of between \$2.50 and \$16 for every dollar invested.<sup>1</sup>

Public investment in early care and education is particularly important during a recession, as it lays the foundations for a strong economy in the future. Research evidence shows that quality early care and education develops skills in the next generation that will be the basis of a knowledge economy, will enhance economic growth, and will increase financial returns to the Exchequer.

The measures announced by the Irish Government to stimulate the 'smart economy' aim to complement the restoration of stability to the public finances with longer-term measures to restore national competitiveness, particularly through human capital. *Building Ireland's Smart Economy* rightly stresses the importance of 'the skills, knowledge, ingenuity and creativity of people'.<sup>2</sup> A recent report from the National Economic and Social Council (NESC) argues that early care and education should be a policy priority in the recession as it is 'a good long-term investment for the state and a sound basis for the move towards a knowledge-based economy'.<sup>3</sup>

Similarly, the National Competitiveness Council in 2009 observed that '[i]nternational evidence suggests that Ireland is under-investing in services for younger children'. Referring to the effects of quality care and education on educational attainment and productivity in the economy, the National Competitiveness Council argued that: 'While this is a time of considerable difficulty in the public finances, the case for targeting expenditure where returns are greatest remains strong'.<sup>4</sup>

## More investment needed in the early years

Of all Ireland's public spending on children and families, only 20% goes towards early childhood (ages 0-6) – largely through Child Benefit – while 37% goes to the middle years (6-12) and 44% to the later years (12-18).

According to the OECD, '[e]arly investment in children is vital. Investment needs to rise in the "Dora the Explorer" years of early childhood relative to the "Facebook" years of later childhood.'

OECD (2009) *Doing Better for Children*, Paris: OECD.

## Early care & education

By early care and education we mean care and education in the early years, for children aged 0–6. Quality early care and education works:

**For children.** The early years are crucial for children's development. The benefits of quality early care and education last a lifetime.

**For the economy.** Early care and education is an investment in human capital and lays the foundations for a strong economy.

**For society.** Quality care and education for young children helps break the inter-generational cycle of social exclusion, reduce child poverty, and strengthen equality.

Start Strong (2009) *Why Early Care and Education?* Dublin: Start Strong.

# Benefits for children and for society

Scientific evidence shows that quality care and education for young children results in significant developmental benefits for children and substantial benefits for society, including greater productivity, higher educational attainment, and a lower level of crime.<sup>5</sup>

The earliest years are the most important in the development of the human brain and in forming the skills and dispositions that prepare children to make the most of their lives and their subsequent education. Large-scale surveys of young children in England and Northern Ireland<sup>6</sup> have found that attendance at quality pre-school is beneficial for both:

- Social/behavioural outcomes, with less anti-social behaviour and better self-regulation; and
- Academic outcomes, with greater literacy and numeracy skills.

Research has shown that the developmental benefits gained by children are long-lasting and have a far-reaching social impact. Studies in the US (see below) have tracked children's development into adulthood. They have found that the immediate benefits of early care and education result in further benefits later in life, including:

- Higher levels of educational attainment.
- Higher earnings levels.
- Health improvements.

Studies have also demonstrated wider benefits for parents, for society as a whole and for subsequent generations. An immediate effect of supporting care and education for young children is increased participation of women in the labour market, which reduces child poverty and thereby has a positive effect on children's development, and which also serves to increase economic growth and tax revenue. Longer-term benefits of quality care and education have been shown to include:

- A more productive workforce, resulting in faster economic growth, higher tax revenues and reduced welfare payments for the Government.
- Reduced levels of crime and anti-social behaviour, with lower criminal justice costs and lower costs of crime for victims.
- Reduced costs further up the education system, through reducing the need for additional supports for children and adults who fall behind.
- Inter-generational benefits, as those who benefit from quality early care and education may in turn provide a more supportive environment for their own children.

Many of these benefits involve financial returns to the Government – such as higher tax revenues, lower welfare payments and lower expenditure on criminal justice – which directly offset the cost of Government investment in early care and education.

## Benefits for children

Summarising recent research on child development, Professor James Heckman – the Nobel prize-winning economist – concludes that:

*'A large body of research in social science, psychology and neuroscience shows that skill begets skill; that learning begets learning. The earlier the seed is planted and watered, the faster and larger it grows.'*

James Heckman (2006) *Investing in Disadvantaged Young Children is an Economically Efficient Policy*, Washington, DC: Committee for Economic Development.



Photograph: Courtesy Katharine Howard Foundation, © Derek Speirs



# High returns to investment

The social and economic benefits mean that investment in young children has a high rate of return.

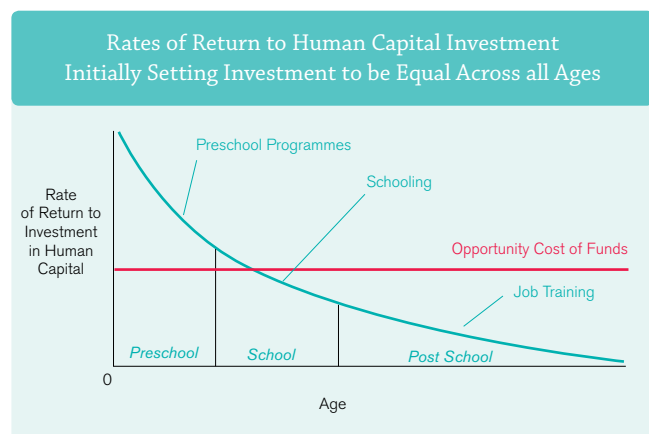
Economists view education as an investment in human capital. Research on child development has shown that investment in pre-school care and education produces a higher rate of return than investment later on in the education system (see chart).

Prevention and early intervention are cost-effective. Professor Heckman summarises the research findings as follows:

*The economic return to early intervention is high. The return to later intervention is lower. The reason for this relationship is the technology of skill formation. Skill begets skill and early skill makes later skill acquisition easier. Remedial programs in the adolescent and young adult years are much more costly in producing the same level of skill attainment in adulthood.<sup>7</sup>*



Photograph: Courtesy Katharine Howard Foundation, © Derek Speirs



Source: James Heckman (2006) *The Economics of Investing in Children*, Dublin: UCD Geary Institute, Policy Briefing No.1.

Cost-benefit analyses of early childhood supports in the US have found a return of between \$2.50 and \$16 for every dollar invested.<sup>8</sup> Further, these ratios probably understate the benefits, as many of the benefits cannot readily be measured in monetary terms. (How do you put a value on the benefit of a reduced level of crime for victims, or on the greater well-being that results from health and educational achievement?)

While there are differences between the US and Ireland in the social context and in the services and supports provided, recent research in England and Northern Ireland suggests that the benefits of early care and education in Ireland are likely to be similar to those found in the US. The research also shows that, while the benefits are greatest for disadvantaged children, pre-school brings significant, lasting benefits for children from all social backgrounds.<sup>9</sup>

The only cost-benefit analysis of early care and education carried out in Ireland (by the Geary Institute for the NESF, National Economic and Social Forum) examined a proposal for a scheme similar to the Free Pre-School Year that was recently announced by the Government. This study suggested that the benefits could be as much as €7 for every euro invested in the scheme.<sup>10</sup> Cost-benefit analyses in other countries suggest that further investment in quality care and education for young children would bring additional benefits that would substantially outweigh the costs.



# Long-term studies show benefits to be much higher than costs

Three major studies in the US have compared groups of children who received early care and education with groups of children from the same social and family backgrounds who did not, and have monitored the differences over a long period of time:

**The High/Scope Perry Preschool Study in Michigan** has tracked a group of 123 disadvantaged African-American children from the 1960s to the present, who had been randomly assigned at ages 3–4 to a group who received weekly home visits to their families and a high quality pre-school programme, and to a control group who did not. At age 40, those children who had received the pre-school programme had significantly higher educational attainment, a much higher earnings level, and were much less likely to have been arrested for crimes than the control group. Putting a value on the benefits, the study found that the \$15,000 cost of the programme per participant (in year 2000 prices) yielded benefits valued at \$245,000 – a return of \$16 per dollar invested, of which 20% went to the participants and 80% to society as a whole.<sup>11</sup>

**The North-Carolina Abecedarian Early Childhood Intervention**, which began in the mid-1970s, similarly involved random assignment of 111 children from disadvantaged families to a programme group and to a control group, with effects followed though into early adulthood. The programme group received intensive, full-time, centre-based supports over a 5-year period from the children's first year until school, combined with additional supports such as nutritional supplements and social work services. The programme was costly – \$67,000 per child in 2002 terms – but yielded a social return of more than \$2.50 per dollar invested, with higher earnings both for participants and for mothers, reduced cost of remedial education, and health benefits from a reduced tendency to smoke.<sup>12</sup>

**The Chicago Child-Parent Center Program** involved monitoring 1,539 disadvantaged children in Chicago from the early 1980s to the present. Those children who received supports participated in school-based 'child-parent centers' where they received half-day pre-school at ages 3–4 as well as additional supports in the early years of primary school. Their parents also received supports at the centres. The children were followed through into early adulthood, and those who attended the centres had significantly lower rates of crime, higher educational achievement, and lower rates of remedial education than those who did not attend the centres. Cost-benefit analysis of the pre-school element of the programme (which cost \$6,700 per participant over 1.5 years) showed a return of \$7 per dollar invested. By contrast, the school-age element of the programme had a lower return, at \$1.66 per dollar invested.<sup>13</sup>

These studies will over the coming years be supplemented by research that is specific to Ireland. Growing Up in Ireland, the National Longitudinal Study of Children, will be a major resource for examining the effects of early childhood experiences. In addition, Atlantic Philanthropies and the Office of the Minister for Children and Youth Affairs are co-funding prevention and early intervention initiatives in Tallaght, Ballymun and north Dublin (Belcamp/Darndale/Moatview), all of which have a strong research focus. Randomised controlled trials are also currently being carried out of programmes with a strong focus on parenting supports, such as Lifestart and the Incredible Years programme.

1. Lynn Karoly et al. (2005) *Early Childhood Interventions: Proven Results, Future Promise*, Santa Monica, CA: RAND Corporation.
2. Government of Ireland (2008) *Building Ireland's Smart Economy: A Framework for Sustainable Economic Renewal*, Dublin: Stationery Office, p.32.
3. National Economic and Social Council (2009) *Well-being Matters: a Social Report for Ireland*, Dublin: NESF, vol. 1, p.160.
4. National Competitiveness Council (2009) *Statement on Education and Training*, Dublin: Forfás, pp.19-20.
5. Edward Melhuish (2004) *A Literature Review of the Impact of Early Years Provision on Young Children*, London: National Audit Office.
6. The EPPE (Effective Pre-school and Primary Education) project has been tracking the development of 2,800 three year olds in England since 1997 (Kathy Sylva et al., 2008, *EPPE 3-11: Final Report from the Primary Phase*, London: Institute of Education). The EPPNI project is a linked study of 800 children in Northern Ireland (Edward Melhuish et al., 2006, *EPPNI Summary Report*, Bangor, Co. Down: Department of Education, Northern Ireland).
7. James Heckman (2006) *The Economics of Investing in Children*, Dublin: UCD Geary Institute, Policy Briefing No.1.
8. Lynn Karoly et al. (2005) *op. cit.* All findings in this briefing note compare the present value of future costs and benefits, discounting future values by a given percentage each year, so that more weight is given to short-term costs and benefits.
9. Kathy Sylva et al. (2008) *op. cit.* Edward Melhuish et al. (2006) *op. cit.*
10. National Economic and Social Forum (2005) *Early Childhood Care and Education*, Dublin: NESF.
11. Lawrence J. Schweinhart et al. (2005) *Lifetime effects: The High/Scope Perry Preschool Study through age 40*, Ypsilanti, MI: High/Scope Press.
12. Elizabeth Pungello, Frances Campbell and Steven Barnett (2006), *Poverty and Early Childhood Educational Intervention*, Policy Brief No.1, University of North Carolina at Chapel Hill: Center on Poverty, Work and Opportunity.
13. Arthur Reynolds et al. (2002) *Age 21 Cost-Benefit Analysis of the Title I Chicago Child-Parent Centers*, Discussion Paper 1245-02, University of Wisconsin-Madison: Institute for Research on Poverty.

**Start Strong** is a national organisation committed to advancing early care and education in Ireland. **Start Strong** advocates evidence-based policy-making.

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