

EDUCATION AND THE KNOWLEDGE ECONOMY: A CHALLENGE FOR IRELAND IN CHANGING TIMES

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INTRODUCTION

Since the 1960s, education has been seen as central to social and economic development in Ireland and, over the past decade, policy has focused in particular on education's role in building a 'knowledge economy' and enhancing social cohesion. This chapter focuses on policy choices relating to these themes in order to provide a basis for understanding the link between education and sustainable social and economic development.

First, it looks at a number of background issues, including economic growth, inequality and recession. The chapter then considers the concept of the knowledge economy and the related idea of the knowledge society, outlining what these concepts imply. It also addresses the equally important issue of equality. Equality is directly linked to other important policy goals—those of social cohesion and the improvement of the quality of life for the genuine enjoyment of fundamental human rights and the respect of human dignity (Council of Europe, 2009). The chapter is also concerned with the educational policy choices now available to Ireland in a period of economic downturn, including choices relating to teacher education.

THE BACKGROUND: ECONOMIC GROWTH, INEQUALITY AND RECESSION

If becoming a knowledge economy/society is a legitimate goal for Ireland (and there is some debate about this), then we need to consider progress over recent years. A country's progress can be measured in many ways. One commonly used measure is the rate of national economic growth (or income) as measured by Gross National Product (GNP) or Gross Domestic Product (GDP). The latter measure, which includes the income generated (some repatriated to parent countries) by multinational firms, is used extensively in the European Union.

GNP is a somewhat better measure as it relates to the income accruing to the country, as opposed to GDP which, in many cases, masks significant repatriation of profits. However, both measures are subject to serious criticism and should be regarded as inadequate indicators of progress because of their failure to take account of the distribution of income and the prevalence of poverty as well as key indicators of 'development', such as educational achievement, health care and housing provision. Nevertheless, because of the use of these measures by most countries, reference will be made to them below, bearing in mind these cautionary comments.

In this chapter, there is an emphasis on material inequalities as represented by the distribution of income. It is particularly important for any assessment of Ireland's education system to be contextualised within a framework of material inequalities, as it is not possible to understand the operation of the system without reference to the distribution of income, wealth and life chances (see Drudy & Lynch, 1993). This is, of course, equally true of all education systems and there is an extensive international literature on education and equality. There are global inequalities and national inequalities which shape all education systems (Baker et al., 2006, pp. 413–14). Material inequalities, such as income inequalities, however, make up only some of the important inequalities in industrialised countries and in the world as a whole (*ibid.*). Baker and his colleagues point out that there are also important inequalities of respect and recognition: inequalities in the relative status of members of different groups, expressed in the varying degrees of esteem and contempt that they show towards one another and that social institutions and structures embody (*ibid.*). In this chapter, space does not permit a consideration of all these, and so the focus is mainly on income distribution and a number of international, social-cohesion indicators.

On the narrow measure of economic growth, Ireland undoubtedly performed well over the period from 1993–2007. During the 1990s, it was the fastest growing economy in Europe (European Commission, 2008). However, income inequality remained a feature of the economy and, in fact, was exacerbated by the state's own budgetary policy in the 1990s—although the lowest income groups gained slightly in the budgets of 2000–2005 (Callan et al., 2005).

Income inequality is exemplified by the 'Gini index' which is a measure used by many national and international agencies (Central Statistics Office, 2007, p. 9).¹ The CSO figures show that, for example, in 2006 the Gini index for Ireland was 32.4. Income inequality may also be illustrated by looking at the

distribution of income among the different fifths (quintiles) of the population, from highest to lowest average incomes. The 'quintile share ratio', was 5.0 per cent in 2006. This meant that the income of the top 20 per cent of the population was five times that of the lowest income fifth (*ibid.*, p. 9). In fact, Ireland remained an outlier among rich European nations in its high degree of income inequality, though still falling well short of the level seen in the United States (Nolan & Smeeding, 2005). These issues were particularly serious in their consequences for young people and for the education system. The implications for the knowledge economy are considered later.

Following this period of dramatic economic growth (yet enduring inequality), Ireland's economic circumstances changed drastically in 2007–2008. From the position of having one of the highest annual economic growth rates anywhere in the world, Ireland moved very rapidly into a period of recession, deflation and economic contraction. Economic decline accelerated in 2008 and in the first half of 2009. Initial estimates of Gross Domestic Product (GDP) and Gross National Product (GNP) for the first quarter of 2009 showed strong declines in both measures. Compared with the corresponding quarter of 2008, GDP at constant prices was 8.5 per cent lower while GNP was 12.0 per cent lower (Central Statistics Office, 2009a). Towards the end of 2008, in the face of the imminent collapse of the banking sector, the government provided guarantees to the financial sector of more than 250 per cent of GDP (International Monetary Fund, 2009). By the middle of 2009, the seasonally adjusted, standardised unemployment rate was almost 12 per cent for the first time since the early 1990s (Central Statistics Office, 2009b).

This economic turnaround had immediate effects on education. The 2008 October budget set out a programme of cuts in services which included an increase in class sizes in primary and post-primary schools (and a consequent loss of teaching posts), cuts in the allocations to teacher professional development, cuts in higher education funding and cutbacks on a range of schemes designed to support disadvantaged and marginalised pupils (Department of Education & Science, 2008a). In 2009, the Special Group on Public Service Numbers and Expenditures recommended additional wide-ranging and Draconian cutbacks to be implemented at all levels of education.

Both the economic collapse and the education policy response to the budget raise a number of fundamental questions. For some considerable time, in policy terms, the Irish state, public commentators and policy makers, and the university system, had espoused the objective of the development of the 'knowledge

economy' as a key plank of public policy. This chapter raises the question of whether the groundwork was sufficiently well laid during the period of high growth to continue this trajectory in any meaningful way. A further question is whether the goal of a knowledge-based economy as a route to economic recovery is a viable option at a time of severe economic and educational retrenchment.

THE KNOWLEDGE ECONOMY AND THE KNOWLEDGE SOCIETY

The World Bank sees the knowledge economy as essential for countries to compete effectively in today's dynamic global markets (World Bank, 2009). It defines it as:

A knowledge-based economy is defined as one where knowledge (codified and tacit) is created, acquired, transmitted and used more effectively by enterprises, organizations, individuals and communities for greater economic and social development.

Dahlman & Andersson, 2000, p. 13

The Organisation for Economic Co-operation and Development (OECD) has defined knowledge-based economies in very general terms as being based on the production, distribution and use of knowledge and information. Central to this is the importance of digital technologies, the internet, computers, information and the globalised networks these technologies enable (Carlaw et al., 2006; Bullen et al., 2006). In its recent response to the economic downturn, the Irish government defines the knowledge economy—which it refers to as the 'smart economy'—as follows:

The Smart Economy combines the successful elements of the enterprise economy and the innovation or 'ideas' economy while promoting a high-quality environment, improving energy security and promoting social cohesion.

Government of Ireland, 2008a, p. 7

Other definitions suggest that the key component of a knowledge economy is a greater reliance on intellectual capabilities than on physical inputs or natural resources (Powell & Snellman, 2004). While knowledge was a key factor in economic change from the time of the industrial revolution, what is new today are the technologies in which the economy and society exist—digital

technologies, built around information and communication technologies, i.e. ICTs (Carlaw et al., 2006). It is arguable that, corresponding to the knowledge economy, a new society is also emerging with pervasive information capabilities that make it substantially different from an industrial society: much more competitive, with an emphasis on democratic political systems, less centralised, less stable, perhaps better able to address individual needs and even perhaps friendlier to the environment (*ibid.*).

Key factors for a successful transition to the knowledge economy are improved education, appropriate funding for research and development in basic and applied sciences and, in particular, appropriate mechanisms of technology transfer from laboratories to companies (Musyck & Hadjimanolis, 2005). According to Hargreaves, in knowledge societies, wealth, prosperity and economic development depend on people's capacity to out-invent and outwit their competitors, to tune in to the desires and demands of the consumer market, and to change jobs or develop new skills as economic fluctuations and downturns require. He argues that, in knowledge societies, these capacities are not just the property of individuals, but also of organisations which have the capacity to share, create and apply new knowledge continuously over time and in cultures of mutual learning and continuous innovation. Knowledge society organisations develop these capacities by providing their members with extensive opportunities for lifelong upskilling and retraining. Knowledge societies are learning societies (Hargreaves, 2007, p. 224). As regards schools, the curriculum in knowledge societies incorporates content and process that engages schools and teachers in professional creativity and knowledge generation (Looney & Klenowski, 2008). So, how did Ireland perform in its progress to the knowledge economy/society during the recent 'boom' period?

POLICY FIELDS: KNOWLEDGE INFRASTRUCTURE AND EDUCATIONAL PERFORMANCE

In the mid-1990s, Ireland was positioned at the bottom of the top band of the knowledge-economy index, just behind the average for Western Europe (Dahlman, 2004). In order to assess Ireland's performance on building a knowledge infrastructure, this chapter uses four indicators:

1. Ireland's general position on knowledge competitiveness in relation to a number of other countries/regions;
2. the investment in the digital technology base;
3. Ireland's investment in education; and

4. general educational performance.

These will be examined in turn.

The *World Knowledge Competitiveness Index* is compiled by the Centre for International Competitiveness (Huggins et al., 2008). Its focus is primarily on the performance of different regions. In the case of Ireland in 2008, it presented data on just the Southern and Eastern region.² To provide an overall measure of knowledge competitiveness, the indicators include: GDP; economic activity; the number of managers and employees in IT and computer manufacturing; the number of high-tech employees and employees in other knowledge-based industries; per capita expenditure on R&D; and per capita expenditure on the different levels of education. The performance of the Southern and Eastern region of Ireland on the overall knowledge competitiveness index is assessed by this instrument. It indicated that, in 2008, this region compared moderately well with other European regions but was not at the top level. On this overall measure of knowledge competitiveness, Ireland's knowledge performance was roughly in the middle of all of the regions included in the index—approximately halfway between Latvia and Sweden (ibid.).

Regarding investment in the digital technology base, there is one important single measure which is included among many others in the competitiveness index, i.e. the ICT infrastructure (the number of internet hosts and the availability of broadband). On this measure, Ireland's performance was not impressive in comparison with other European countries and with a number of countries outside Europe. On the measure of the number of internet hosts per 1,000, Ireland ranked poorly—on a par with Hungary, Latvia, Lithuania, the Czech Republic and Spain and far behind the Nordic countries—Sweden, Denmark, Norway, Finland, Iceland and their associated territories (ibid.).

Another important element to facilitate the development of a knowledge economy is broadband access. In 2008, the percentage of enterprises in Ireland with a broadband connection (83 per cent) was slightly above the EU27 average of 81 per cent. However, the percentage of households with a broadband connection (68 per cent) was poor compared to the EU average of 80 per cent (Central Statistics Office, 2008a). Thus, Ireland's performance on the broadband indicator is relatively poor and ranks alongside Lithuania and Hungary, rather than the high performing knowledge economies such as Finland (Huggins et al., 2008). In relation to schools, data produced by the OECD show that Ireland failed to invest significantly in ICT resources in second-level schools. In the mid-2000s, the mean number of computers per student in schools in Ireland (0.11)

was below the OECD average of 0.16 and below the means for the United Kingdom (0.23), the United States (0.30), Finland (0.17) or Denmark (0.19) (OECD, 2006, p. 414).

As regards investment in education, during the period of economic expansion from the mid-1990s to the mid-2000s, the Irish state continued to increase its overall investment in education on an annual basis, with the most significant increases occurring at first and second level and more modest ones at third level. However, in comparison with other OECD countries, this was from a relatively low base and Ireland continued to be below the OECD average on all of the indicators. See Table 3.1.

The data in Table 3.1 refers to the period 1995–2001/2002. What it illustrates is that Ireland's expenditure on education was lower than the OECD average, well behind the Nordic countries but also behind the United Kingdom, Austria, Germany and the United States. Ireland's expenditure as a percentage of GDP was in the middle band, most similar to that of the Czech and Slovak republics, Japan and Spain. However, in the period 1995–2001, Ireland did increase its educational expenditure significantly. This increase was one of the largest of all the OECD countries, second only to Turkey, but, like Turkey, the increase was from a low base in relation to many of the northern European countries. The figures on per capita educational expenditure at primary, secondary and tertiary levels reflect the general tendency in most of the countries to spend more per capita on higher education, less on second-level education and least on primary. There are strong social and educational arguments for increasing expenditure on primary education as, of course, it provides the basis for all further education and also virtually all citizens of the state participate in it. On the other hand, third-level education is very expensive and is widely viewed as being essential to economic and social development. The spending per capita on tertiary education shows Ireland with a slightly lower spend than the OECD average and falling in the middle band of expenditure. The most recent year for which comparative OECD figures are available (2005) shows that Ireland continued to invest less per capita than the OECD average on primary, secondary and tertiary education at €5,732, €7,500 and €10,468—the latter figure includes research and development activities (OECD, 2008a, p. 218). Department of Education and Science (2009b) figures for the year 2007 showed a further slight rise in that year to €6,161, €8,864 and €10,901 respectively.

Table 3.1: Comparative expenditure on education 1995–2001 (OECD countries)

	Public and Private % of GDP	Annual expenditure per student 2001 (US dollars) ¹			Index of change in annual expenditure per student 1995–2001 (1995=100)	
		Primary education ²	Secondary education ²	Tertiary education ²	Primary and Secondary education	Tertiary education
Australia	5.97	5,052	7,239	12,688	131	96
Austria	5.78	6,571	8,562	11,274	...	109
Belgium	6.36	5,321	7,921 ^c	11,589	...	...
Canada	6.14	...	...	...	...	...
Czech Republic	4.58	1,871	3,448	5,555	96	63
Denmark	7.10	7,572	8,113 ^d	14,280 ^d	121 ^d	124 ^d
Finland	5.84	4,708	6,537	10,981	109	101
France	5.98	4,777	8,107	8,837	114	113
Germany	5.26	4,237	6,620	10,504	103	111
Greece	4.06	3,299 ^a	3,768	4,280	144 ^{a,e}	131 ^e
Hungary	5.18	2,592 ^b	2,633 ^b	7,122 ^b	115 ^b	92 ^b
Iceland	6.70	6,373	7,265	7,674	...	...
Ireland	4.49	3,743	5,245	10,003	145	139
Italy	5.31	6,783 ^b	8,258 ^b	8,347 ^b	112 ^{b,e}	120 ^{b,e}
Japan	4.63	5,771	6,534 ^d	11,164 ^d	122 ^d	117 ^d
Korea	8.20	3,714	5,159	6,618	...	...
Luxembourg	3.64	7,873 ^a	11,091 ^c	...	...	...
Mexico	5.87	1,357	1,915	4,341	125	90
Netherlands	4.90	4,862	6,403	12,974	124	105
New Zealand	...	...	...	...	...	...
Norway	6.37	7,404	9,040 ^c	13,189	94 ^{a,e}	94 ^e
Poland	...	2,322 ^b	...	3,579 ^b	157 ^{b,e}	89 ^{b,e}
Portugal	5.85	4,181	5,976	5,199	166	111
Slovak Republic	4.11	1,252	1,874 ^c	5,285	115	101
Spain	4.89	4,168	5,442 ^c	7,455	129 ^e	133
Sweden	6.46	6,295	6,482	15,188	103	101
Switzerland	...	6,889 ^b	10,916 ^b	20,230 ^b	100 ^{b,e}	128 ^{b,e}
Turkey	3.51	...	...	...	147 ^{b,e}	159 ^b
United Kingdom	5.48	4,415	5,933 ^c	10,753	106	96
United States	7.34	7,560	8,779	22,234 ^c	114	109
Country mean	5.62	4,850	6,510	10,052	...	...

Notes:

- ... not available or negligible.
- 1. Financial and human resources invested in education, 2001 data, unless otherwise stated.
- 2. Converted using Purchasing Power Parities for GDP.
 - a. Includes pre-primary education.
 - b. Public institutions only.
 - c. Includes post-secondary, non-tertiary education.
 - d. Includes part of post-secondary, non-tertiary education.
 - e. Public expenditure only.

Source: StatLink: <http://dx.doi.org/10.1787/650383071321>. OECD, 2004a; 2004/2005.

The progress outlined above is reflected in the commentary of Ireland's National Competitiveness Council (2009) which has argued that education has been at the centre of Ireland's economic and social progress. The NCC has signalled significant achievements—for example, in 2008, 34 per cent of the Irish labour force aged 25–64 had completed some form of higher education, compared to 4 per cent in the early 1970s. Similarly, the number of those holding a primary education or less has fallen from circa 60 per cent to 14 per cent over the same period (*ibid.*).

As the NCC emphasised, these strong educational outcomes were produced with relatively modest public financial resources. However, it acknowledged that much needed to be done to enable Ireland to be comparable with the highest performing competitive economies in Europe and elsewhere in the world. With regard to expenditure on research and development (a core element of the knowledge economy), despite significant increases in public and private investment over the decade 1998–2008, the Chief Scientific Advisor has pointed out that Ireland ranks modestly at 18th out of 28 OECD countries (Cunningham, 2009).

This section has looked at Ireland's performance on each of three indicators of the knowledge infrastructure—i.e. the general position on knowledge competitiveness in relation to a number of other countries/regions; investment in the digital technology base; and investment in education. Ireland has made some progress towards becoming a knowledge economy but is not as well positioned as might be wished, as far as knowledge infrastructure is concerned. In fact, the government's Chief Scientific Advisor has described Ireland as a 'follower' rather than a 'leader' in the area of innovation and behind such 'target' leader countries as the United Kingdom, Austria, Denmark, Sweden and Finland (Cunningham, 2009).

Since Ireland's knowledge infrastructure made faltering progress during a period of high economic growth, by the end of the first decade of the 21st century, the country faced a major challenge as it slid further into recession. These factors have profound implications for the educational participation and outcomes of the population as a whole and for educational policy making at a time of deepening recession.

We will now turn to look at indicators of general educational performance. The OECD is generally regarded as playing a significant role in framing and steering education policy at a European and global level (Grek, 2009). One key measure that has been of great international interest over the past decade has been the relative level of performance of 15-year-olds on the Programme of International Student Assessment (PISA) in three areas essential to all economies and societies: literacy in reading; Mathematics; and science. PISA and its effects have been seen as a useful tool in the project of building the new European education area of competitiveness and cohesion (*ibid.*).

Irish 15-year-olds performed well on the PISA reading tests (ranked fifth out of 31 countries), just above the average on science (ranked 14th out of 32 countries included) and at the OECD average in Mathematics (16th out of 32). However, taking the example of another small European country, Finland, their 15 year olds, by contrast, were ranked second for reading and first for science and Mathematics. While there have been many debates about the value of such rankings (Grek, 2009), they provide an indicator (albeit a limited one) of general education performance and suggest that Ireland's 15 year olds were not yet performing at the top level in comparison with a number of other countries (OECD, 2007). On an equally important indicator, i.e. the literacy of educationally disadvantaged children, a recent report by the Irish school inspectorate has shown, *inter alia*, that despite some good practice and initiatives, nearly half the primary-school children in disadvantaged schools evaluated had very low scores in reading, while almost two-thirds of children scored poorly in Mathematics (Department of Education & Science, 2005a; Hyland & Moore, 2009). This has problematic implications for the future performance of a significant segment of the pupil population.

POLICY FIELDS: EQUALITY AND TEACHER EDUCATION

Given the international agreement that the key factors for a successful transition to the knowledge economy are improved education and appropriate funding for research and development in basic and applied sciences (Musyck &

Hadjimanolis, 2005), it is quite clear that education has to be a key part of the solution to the economic difficulties now facing this country. It is also clear that it cannot adequately contribute to a resurgence of the economy and to a stable and democratic society unless a number of important choices are made by Ireland as a society. One of these choices relates to the issue of equality and social cohesion.

As a general indicator of equality, the measure used here is the distribution of income. Where does Ireland 'fit' in comparison to other countries? This is not an easy question to answer, not least because comparing international databases needs to be done with a degree of caution. Internationally, analysts have tended to contrast neo-liberal systems³ with social-democratic ones. However, there is an argument that we need to modify the customary models of political economy to include four, not just two, types of the knowledge economy in the developed Western world (Green, 2006). These include: the 'neo-liberal' or market model of the United States and some other English-speaking countries, sometimes referred to as the 'Anglo-Saxon' model (US, UK, New Zealand, Australia, Canada and, arguably, Ireland during the boom); the social market model of countries in 'core Europe' (i.e. Austria, Belgium, France, Germany and the Netherlands); the southern European group of economies (sometimes unflatteringly called the PIGS—Portugal, Italy, Greece, Spain and, perhaps, Ireland in recession) and the social democratic model of the Nordic states (ibid.).

A calculation of the average Gini index for each of these groups of countries from the most recently available comparative data produced by the World Bank (2004) in the *2005 World Development Report* shows differences in the level of inequality, with the 'Anglo-Saxon' group having the highest average Gini index of 36.2; the 'southern European' being next in terms of inequality at an average of 35.6; 'core Europe' had an average of 29.7. The Nordic group of countries emerged as by far the most egalitarian at an average of 25.6. Ireland, with a figure on the Gini index of 35.9 ranked slightly behind the United States and the United Kingdom in terms of inequality at 40.8 and 36.0 respectively, and very close to the average for the southern European states (World Bank, 2004, pp. 258-9).

However, the survey year in this report is indicated as 1996. The World Bank 'development indicators' for 2007 give its most recent Gini figure for Ireland for the year 2000 of 34, indicating a reduction in inequality of income at the end of the 1990s (World Bank, 2007). As seen earlier, the most recent figure from the CSO (2007) of 32.4 indicates that this reduction in inequality of the

distribution of income continued to the mid-2000s. This most recent figure still compares unfavourably with the Nordic countries and with countries such as Austria and Germany. The best comparison is with the distributions of the southern European economies (Portugal, Italy, Greece and Spain). Thus Ireland's progress, measured in terms of its performance on the income distribution measure, has improved somewhat but it is still relatively inegalitarian.

Other indicators of equality and social cohesion used by the OECD show that Ireland, by the end of the 'boom' period, ranked well above the OECD average on the poverty rate and on measures which indicated poverty among children (OECD, 2009a, pp. 91–3). The country was on the lower end of the range on the indicator of average public social spending and of net social spending (*ibid.*, pp. 97–9). Attitudinal data indicated lower 'life satisfaction' scores among Irish people than the OECD average (*ibid.*, p. 121) and the crime victimisation reportage was the highest in the OECD (*ibid.*, p. 11). Thus, Ireland made relatively poor progress at the time of its highest prosperity on measures of social cohesion.

These indicators of inequality in the general population are closely interlinked with educational inequalities. Indeed, it has been argued by many sociologists that education both maintains and reproduces social class and socio-economic inequalities. The persistence of educational inequalities relating to socio-economic background are well documented and have persisted throughout the period of Ireland's economic prosperity (Lynch & Moran, 2006). For example, the most recent figures on the economic status of school leavers (Byrne et al., 2008) show that school leavers from professional backgrounds have a high share of further education places relative to those from other socio-economic backgrounds. Those from manual and non-manual backgrounds were more likely to go straight into employment. Those from unemployed backgrounds had similar labour market participation levels as these manual and non-manual groups, but a greater share of these young people were themselves unemployed (*ibid.*).

Another important factor in assessing the impact of social class and socio-economic inequality on educational performance has been the level of segregation or stratification of the different elements of the school system. The results of the OECD's Programme for International Student Assessment (PISA) show that in a number of different countries, the effect on student performance of a school's average economic, social and cultural status is very substantial and that socio-economic differences at student levels are much less predictive for

performance than the school's socio-economic context (OECD, 2004b, pp. 189–90).

As regards the Irish system, it has been observed that the institutionalisation of invidious status hierarchies between different post-primary schools has served to reproduce existing status hierarchies (Clancy, 1995, p. 490). This succinctly summarises one of the key features of the Irish second-level system—i.e. its division into a hierarchy of four strata. Stratification of school types is, of course, observable in many education systems. In the Irish case, fee-paying voluntary schools are at the 'top', followed by non-fee-paying voluntary secondary schools, then community and comprehensive schools and, lastly, the schools in the vocational education sector. Vocational schools have the highest proportion of students from poor and unemployed family backgrounds (Smyth, 1999). Fee-paying schools have the highest proportion transferring to higher education and vocational schools the lowest (*ibid.*). These status hierarchies between different types of school also serve to make it difficult for schools to become more inclusive or egalitarian. The PISA report argues that more inclusive schooling systems have both higher levels of performance and fewer disparities among students from differing socio-economic backgrounds (OECD, 2004b, p. 197). Thus, a more inclusive school system⁴ has to be part of the solution to Ireland's economic difficulties and to increasing social cohesion.

It is acknowledged here that, from the early 1990s, the state had begun to incorporate inclusion and equality into policy and legislation. During its period of strong economic growth, the development of the social agenda was reflected in a number of pieces of equality-related legislation, including parts of the Universities Act 1997, the Education Act 1998, the Employment Equality Act 1998, Equal Status Act 2000, Human Rights Commission Act 2000, European Convention on Human Rights Act 2003, the Education for Persons with Disabilities Act 2004, the Equality Act 2004 and the Disabilities Act 2005 (Government of Ireland, 1997, 1998b, 1998c, 2000b, 2000c, 2003, 2004a, 2004b, 2005). The Combat Poverty Agency, a quasi-independent, non-governmental organisation focused on poverty, had already been established at the height of a previous recession in the mid-1980s under the Combat Poverty Agency Act 1986 (Government of Ireland, 1986).

The education acts cited above were the result of a number of years of intense public consultation and innovation in education from the early 1990s to 2005. The period began with the publication of a report by the OECD on the Irish education system in 1991 (OECD, 1991). This was followed by the publication

by the government of a Green Paper on Education, *Education for a Changing World* (Government of Ireland, 1992), the establishment of the consultative National Education Convention in 1993, with 42 national bodies represented, and its subsequent report (Coolahan, 1994), the White Paper on Education, *Charting our Education Future* (Government of Ireland, 1995), the *Report of the Commission on the Status of People with Disabilities* (Commission on the Status of People with Disabilities, 1995), the Green Paper on Adult Education, *Adult Education in an Era of Lifelong Learning* (Government of Ireland, 1998a), the White Paper on Early Education, *Ready to Learn* (Government of Ireland, 1999) and the White Paper on Adult Education, *Learning for Life* (Government of Ireland, 2000b). The consultative reports and the passing of these acts meant that Ireland had begun to take the equality agenda seriously, both in education and in other spheres of life.

From the middle of 2008, when the looming recession was apparent, it became a matter of public concern to many people that the agencies set up under these acts were being very seriously hampered in the performance of their statutory functions either through severe cuts in their budgets or through being absorbed into the civil service (see, for example, Manning, 2009a). Likewise, the commencement/implementation of important sections of the Education for Persons with Disabilities Act 2004 and the Disabilities Act 2005 were deferred for resource reasons.

At the time of writing this book, the Report of the Special Group on Public Service Numbers and Expenditure Programmes recommended an extremely radical array of cuts to education spending at all levels of education (2009). The future of education, and of its capacity to deliver on the agenda of the knowledge economy, depends on the policy response to this report's recommendations and on whether policy and investment pay much more attention to seriously supporting and progressing social inclusion and equality, rather than cutting back and weakening them. Policy makers also need to implement and build on the very substantial body of policy developed during the 1990s and 2000s and to utilise key development indicators, such as education and knowledge infrastructure, rather than placing an undue focus on crude measures of economic growth, necessary though economic recovery is at a time of spiraling unemployment.

Thus, at the end of the period of prosperity, the issue of educational inequality remains intractable in spite of a range of government policies designed to combat educational disadvantage (Department of Education & Science,

2005b). Furthermore, Ireland is not as well positioned as either core European or Nordic countries on general measures indicative of social cohesion, including the relative level of income inequality and other social indicators.

A second policy choice facing policy makers if education is to be a strong element in economic recovery is the quality of teaching and teacher education. Teacher recruitment and teacher education are now internationally understood as having an extremely important role in the provision of high-quality education, in the quality of pupil learning outcomes, and in social and economic development (Darling-Hammond, 2006; National Competitiveness Council, 2009). The importance of teacher recruitment and education have also been recognised by the EU Commission from the early part of the 21st century. Through the Lisbon Agreement (2000), the European Union set out to make Europe the most competitive, digital, knowledge-based economy in the world by 2010, and it also aimed to bring about greater social cohesion through economic reform. The Lisbon Agreement made specific mention of teachers and aimed to use community programmes to foster and remove obstacles to their mobility, to bring about greater transparency in the recognition of qualifications, and to attract high-quality teachers (paragraph 26). The link between the economic and democratic projects of the European Union and teaching was most clearly established at a European level by the work of the Education and Culture section of the European Commission in the development of common European principles for teacher competences and qualifications and its statement on teacher quality (European Commission, 2005, 2007). The commission envisaged that teaching should be a high-status, high-reward, well-qualified profession in which every teacher should have the opportunity to continue studies to the highest (i.e. doctoral) level. Teachers, it argued, should be lifelong learners. They should be able to understand the factors that create social cohesion and exclusion in society and be aware of the ethical dimensions of the knowledge society. Furthermore, teacher education should be an object of research.

All of the above policy statements would suggest a form of teacher education that is reflective, analytical and critical and that would be on a par with advanced studies in any of the professions. The analytical, research-based work of teacher educators would, the European Union envisages, be conducted in partnership and collaboration with schools and other stakeholders. While there is an evident, genuine concern to attract and retain high-quality people in the profession, much of the language of these documents, e.g. *Teachers Matter* (OECD, 2005), is substantially that of neo-liberalism, performativity, performance indicators,

standards, evaluation and appraisal and may, of course, be critiqued from a more holistic perspective (Drudy, 2008a).

Nonetheless, the evidence available from these and from a number of sources is that high-quality teacher education from initial education, through systematic induction programmes and on to continuing professional development, is fundamental to a high-quality profession and to pupil learning (Darling-Hammond, 2006; Westbury et al., 2005; Killeavy & Murphy, 2006; Clynes, 2008). Thus, if progress towards enhanced educational achievement and outcomes for a much more diverse pupil population is to be sustained, and if the overall participation and achievement of the population as a whole is to be further improved to the highest international standards, then substantial investment in initial and continuing teacher education is essential.

The Teaching Council, established under the Teaching Council Act 2001, has a statutory role with significant powers to ensure the quality of teacher education at all stages on the continuum of teacher education from initial teacher education through induction and continuing professional development (see www.teachingcouncil.ie) for further details. However, decisions on the resourcing of teacher education rest with the state.

CONCLUSION

The international evidence suggests that education should be a central mechanism for Ireland's economic recovery. However, the analysis here illustrates that, in spite of having the development of the knowledge economy and the building of social cohesion as central policy platforms for over a decade, Ireland invested only moderately in its knowledge infrastructure in comparison with other OECD countries. In addition, from the early 1990s, considerable policy development and legislation was developed in relation to a wide range of educational issues. Nevertheless, data shows that, by 2009, Ireland rated relatively modestly, especially in relation to the Nordic countries, on measures of knowledge infrastructure, educational performance and income equality. This has left the country facing major educational challenges, as well as economic and social ones.

From an educational policy perspective, it will be extremely important to protect the budgetary allocation for education to the maximum extent possible as the country struggles with recession and the fallout from the banking crisis. Social cohesion objectives are at odds with the form of education policy which results in cuts affecting the least well-off and the marginalised. This occurred in

the October 2008 budget and represented the first reaction of the state to Ireland's economic collapse. The measures included cuts to a range of supports targeted towards the support of economically disadvantaged groups (Department of Education & Science, 2008a). These cuts achieved little in savings but were potentially very damaging to the disadvantaged. Additional, and much more extensive, cuts to all levels of education, including cuts to the building of the country's research infrastructure, were recommended by the Special Group on Public Services and Expenditures in 2009 and, if implemented in full, would undo much of the relatively modest progress made during the time of economic prosperity on developing knowledge infrastructure and social inclusion in education. The proposed expenditure cuts also have the potential to seriously impede progress towards the establishment of Ireland as a knowledge economy.

Education, it is argued here, is vital to Ireland's economic recovery and to social cohesion. The evidence to date suggests that, given the decline in manufacturing, the decline in the numbers employed in agriculture (although agriculture will always be a crucial element in Ireland's economy) and the collapse of construction as an economic driver, Ireland has little choice but to invest all possible resources in its development as a knowledge economy. To take just one example, in agriculture—traditionally one of Ireland's principal industries—Professor Rudy Rabbinge of Wageningen University, speaking in a European context, has argued the following:

In the EU as a whole, a policy directed towards research programmes stimulating scientific excellence and greater coherence in the European knowledge system would greatly strengthen agriculture's competitiveness and contribute to food security and sustainable development.

Rabbinge, 2009, p. 21

If Ireland is to move to higher levels of research and innovation as part of its central strategy for economic recovery, it faces a considerable challenge in the light of its modest progress in this direction during the time of economic prosperity. Ireland cannot compete with low-cost economies. Even though the country faces severe cutbacks in public expenditure, strategic educational investment will be a key ingredient from the primary and pre-primary levels through to postgraduate studies and research and innovation. Social cohesion is a core policy platform for Ireland.

This chapter has identified the need for sustained measures to address educational inequalities in order to enhance social cohesion. These are particularly important in the light of the persistence of inequality in society and in education, and in the light of state responses to the economic downturn. Proposals for cutbacks in the public services in the light of the recession have significant potential to weaken the capacity of agencies with equality-related responsibilities and are, themselves, a major challenge.

Finally, if Irish society wishes to pursue its policy goal of becoming a knowledge economy, to become ‘an innovation and commercialisation hub’ (Government of Ireland, 2008a, p. 8) in the move to economic recovery then it must invest much more in knowledge infrastructure, in education generally, in research and innovation and, not least, in high-quality initial and continuing teacher education. High-quality teacher education will be an essential ingredient of the knowledge economy, as evidence from a number of countries shows that high-quality teaching is central to improved educational outcomes. Educational policy makers need to build on the policy innovation that took place in the 1990s and early 2000s and be prepared to see educational development as a core, and absolutely essential, part of social and cultural development and of economic recovery, lest the stated policies of the smart economy and social cohesion metamorphose from targets to mere aspirations.

ENDNOTES

- 1 The Gini index is the measure most frequently used to give a measure of income inequality. A Gini index of 0 = perfect equality; a Gini index of 100 = perfect inequality (World Bank, 2005, p. 268).
- 2 The relatively prosperous Southern and Eastern region covers the southern and eastern half of the country. If the less prosperous Border, Midland and Western region in the west and north-west were included, the overall index for Ireland as a whole would most likely be lower.
- 3 ‘Neo-liberalism’ is a set of economic policies that have become widely espoused, even dominant, particularly since the early 1980s (Martinez & Garcia, 2000) and is a movement towards the notion of a pure and perfect market which is made possible by the politics of financial deregulation (Bourdieu, 1998). In the public sector, including education, neo-liberalism involves privatisation, liberalisation and the adoption of commercial criteria.

Competitive success is to be achieved through loosening formal systems of control (Ball, 2006, p. 10). A new form of 'managerialism' arises which views traditional bureaucratic control systems as unwieldy, counterproductive of efficiency and repressive of the enterprising spirit of all employees. Thus the managerial discourses in the public sector become those of excellence and effectiveness (ibid.) but without a regard for holistic or communitarian values. Ironically, surveillance is also a key element of neo-liberal systems but it is accompanied by the illusion of individual autonomy and has been described as a move 'from morality to moralistic audit-driven surveillance' (Davies, 2005, p. 12).

- 4 Inclusion, of course, involves more than including children from different socio-economic groups. It also involves the inclusion of children of immigrants and ethnic minorities, and students with special educational needs/disabilities (see Drudy & Kinsella, 2009). These issues are dealt with in a number of other chapters in this book.

Part 2

Diversity and Inclusion in Schools
