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Technical Education, Technological Colleges and Further Education in Ireland

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Ireland is a small island off the western coast of Europe. It is divided into Northern Ireland, which is part of the United Kingdom (UK), and the independent Republic of Ireland. In the middle of the 19th century, the island's population exceeded 8 million. Beginning with the famine of 1845–1847 and continuing by means of emigration until about 1990, the island lost almost half its population. The population is now about 5.5 million; just over 4 million live in the Republic of Ireland.

The Republic of Ireland gained independence from the United Kingdom in 1922.

Because there had been very little industrialization, it remained economically dependent on the UK for most of the 20th century, primarily by supplying agricultural products to the UK, which operated a cheap food policy. After joining the European Union in 1973, Ireland began to receive higher prices for its agricultural products. It also received generous development aid for infrastructure projects and for education and training. In 1973, the average income in Ireland was approximately 60% of the EU average; it has since risen to more than 100%. Unemployment, which in the 1980s was 18%, was at 5% in 2008. Ireland has one of the fastest growing populations in Europe, as a result of both births and net immigration and grew by 2% per annum between 2002 and 2006 (Central Statistics Office, 2008). The term *Celtic tiger* has been coined to describe the Irish economy, which has outperformed the economies of almost all countries that are members of the Organisation for Economic Co-operation and Development (OECD).

[H1]Education in Ireland

From its foundation in 1922, the Republic of Ireland has had free primary education, the right to

which is enshrined in the constitution. Before it introduced free secondary education at the end of the 1960s, many people left school after completing the primary grades. As a result, the levels of illiteracy and innumeracy are still very high in the 55–65 age cohort. According to OECD (2007), in 2005 only 40% of the 55–64 cohort had an upper-secondary education, while 81% of the 25–34 cohort did. These statistics capture how well the secondary education system has caught up in the past 3 decades. Similar progress may be seen in third-level education: In 2005, 17% of the 55–64 cohort and 41% of the 25–34 cohort had a third-level qualification.

A green paper published by Ireland's Department of Education and Science in 1998 illustrated the relationship between education level and employment in the 1997 labor force. In general, employment rates increased with the level of education, and unemployment rates decreased. For example, those with only a primary education constituted 16% of the labor force but 28% of the unemployed. Those who had completed a third-level education (27% of the total labor force) constituted 29% of the employed and only 11% of the unemployed. (DES, 1998).

One of the earliest pieces of education legislation in the newly independent Republic of Ireland was the Vocational Education Act of 1930, which established local committees to control vocational education in each county and major city. The first concern of these vocational education committees (VECs) was to create technical schools that would provide a less-academic alternative to the existing secondary schools. Children who struggled academically could learn woodworking and mechanical drawing (in boys' technical schools) or home economics, shorthand, and typing (in girls' technical schools). In the 1970s, the technical schools became more academic, offering a leaving certificate (equivalent to a U.S. high school diploma); at the same time, secondary schools extended their range to include such nonacademic subjects as mechanical/technical drawing. As a result of this change in their roles, technical schools and

secondary schools in some localities merged to become community colleges. Unlike their American namesakes, Irish community colleges are second-level schools that educate 12- to-18-year-olds.

VECs also inherited responsibility for some specialist colleges that predated the 1930 act. Five of these colleges, the oldest of which was founded in 1887, were in Dublin. They offered courses in science and technology, art, commerce, "women's work" (dressmaking, cookery, and laundry), and music. The City of Dublin VEC embarked in the 1930s on an ambitious development of its specialist colleges, adding a sixth college in 1941, and of the 22 second-level schools under its remit. The six colleges were combined in 1978 to form Dublin Institute of Technology (DIT), which flourished with a regional and a national intake of students. The second-level schools were subject to the vagaries of the demographics of their local areas. Some were without adequate student numbers by the 1970s and had to develop a new role for themselves by providing post-leaving certificate (PLC) programs. These were primarily 1- or 2-year vocational courses that served students whose leaving certificate performance was not good enough to win them a place in higher education. In Ireland, secondary education is referred to as "second-level" and higher education is referred to as "third-level"; the PLC programs are sometimes described as being at "two-and-a-half level." In recent years this in-between level has been called the further education (FE) sector.

In 1970, the government gave a major boost to technology education by founding the National Institute of Higher Education (NIHE) in Limerick and 12 regional technical colleges (RTCs) around the country. (Dublin was not included in this initiative because it already had the six specialist colleges.) Each RTC was organized into three schools—engineering, science, and business/humanities—that offered a range of 2-year national certificate programs and 3-year

national diploma programs.

The NIHE in Limerick concentrated mainly on degree-level programs. In 1980, a second NIHE was opened, in Dublin. In 1986, the government appointed a committee to review technology education in Ireland. The committee recommended that the two NIHEs be given university status; in 1989, they were.

In 1992, the Irish parliament passed two acts that affected education. The Dublin Institute of Technology (DIT) Act merged the specialist colleges operated by the City of Dublin VEC and gave DIT the power to grant education and training awards. The Regional Technical Colleges Act provided a new legislative basis for the RTCs and dictated that the RTCs receive their awards from the National Council for Educational Awards (NCEA). These award practices continue to this day, although the Higher Education and Training Awards Council, which succeeded NCEA, has empowered some RTCs (now called institutes of technology) to make some awards of degrees and higher certificates. A 1995 DES white paper on education confirmed the roles of DIT and the RTCs but did not address the growing role of the VEC-controlled colleges. Although there was no legislative basis for doing so, these colleges were increasingly providing PLC programs.

[H1]The Further Education Sector

Ireland's FE sector grew without the support of a legislative framework, and the government is now trying to catch up. Many of the PLC programs developed since 1985 to fill spare capacity in second-level schools were highly successful, which encouraged VECs to designate some of their colleges as FE colleges. The number of students participating in PLC programs increased from 12,000 in 1989–1990 to more than 24,000 in 1990–2000. In 2000, DES established a steering group to examine the provision of PLC programs and "make recommendations . . . regarding the

organizational, support, development, technical and administrative structures and resources in schools and colleges with large PLC provision having regard to good practice in related areas across the system and in other countries” (DES, 2000). (A "large PLC" was defined as one that enrolled more than 150 students in a single school or college.) The steering group included representatives of DES, VEC managers, and members of teachers' unions.

An interim report (McIver, 2002) from the steering group highlighted the problems that beset the FE sector, which arose mainly from its origins in the second-level sector:

- inadequate physical facilities and space
- inadequate equipment, especially computers
- lack of space for social interaction among students
- excessive teacher supervision of FE students
- excessive teaching loads
- inadequate management and administrative staffing

Improving these problems would involve reducing staff teaching loads; adding managers, administrators, and technicians; improving library and computing facilities; upgrading buildings; and increasing support services. Although DES and Ireland's Department of Finance has not yet provided the considerable funding needed to make such changes, the FE sector has continued to grow. By 2004, it had 28,588 students (DES, 2004).

OECD reviewed higher education in Ireland in 2004. Its report on the review (OECD, 2004) did not mention PLC programs as the terms of reference provided by the government of Ireland related to higher education only, not further education. Ireland's FE sector provides other programs in addition to PLCs. These include Youthreach, for early school leavers (3,258 students in 2003; training programs for young and adult Travellers who have left school early

(1,076 students); back to education programs for adults (16,155 students); and adult literacy and community education programs (2,277 students) (DES, 2004).

[H1]Participation in Higher Education

The advantages conferred by higher education have long been recognized in Ireland, and participation in higher education has gradually increased. In 1980, 20% of high school graduates went on to higher education; in 1986, 25%; in 1992, 36%; in 1998, 46% (White, 2001). In recent years the numbers have continued to grow and now more than 60% proceed to higher education.

In Irish universities and particularly in teacher training colleges, a significant majority of students are female while there is much better gender balance in technological colleges.

Apprentices, who are not considered to be full-time students, are almost all male. Ireland's technological colleges offer 2-year programs (higher certificates), 3-year programs (ordinary degrees), and 4-year programs (honors degrees). The universities offer mainly honors degrees, with some provision for ordinary degrees.

[H1]Apprenticeship

Ireland has long used the apprenticeship approach to train skilled craftspeople. In an apprenticeship program, a young person is formally attached to and receives training from a company or an individual in the profession the person wants to learn. When the Republic of Ireland became independent in 1922, its technical education system involved long apprenticeship to a master (often 7 years) and attendance at day-release courses in technical schools. As O'Connor and Harvey (2001) pointed out, this system had two disadvantages: Classes were available only in urban areas, and class attendance was voluntary.

The Apprenticeship Act of 1931 gave the government the power to designate trades and to establish committees to make rules for apprenticeships in each trade. These rules covered the

duration of an apprenticeship; conditions of employment, including pay rates; and arrangements for training. The apprenticeship committees could ask VECs to provide courses for apprentices. While this act improved the apprenticeship system, it did not address an important weakness—that time served in an apprenticeship was considered more important than demonstrable competency was.

A new industrial training authority, known as AnCO from the Irish form of its name, was established in 1967 to introduce more formalized training into both the on-the-job and classroom phases of apprenticeship. RTCs became an important resource for the classroom phase, as did the availability after 1973 of EU funding for building and operating training centers. In 1991, FÁS, the training authority that succeeded AnCO, introduced a 7-phase standards-based apprenticeship system. Phases 1, 3, 5, and 7 are done on the job; Phase 2 is done in a training center; and Phases 4 and 6 are done in an institute of technology. For most trades, Phase 2 lasts 22 weeks and Phases 4 and 6 are each 11 weeks. Phase 1 (3 months), Phase 3 (minimum 6 months), Phase 5 (6 months) and Phase 7 (minimum 3 months) are undertaken on the job and trainees are paid by employers.

The 7-phase system seems to be successful, and recruitment to apprenticeships has been stronger in recent years than it was in the 1980s and 1990s. In 1980 the number of apprentices was 21,498; in 1985, 15,968; in 1990, 12,987; in 1995, 10,772; in 2000, 24,028; in 2005, 28,602 and in 2007, 28,500 (Skills Initiative Unit, 2008). Some areas of apprenticeship have been hard hit by the rate of innovation in industry, making some traditional skills obsolete. For example, changes in Printing technology have resulted in the amalgamation of the trades of printing, bookbinding and originator into a single trade (Print Media) and a reduction in annual number of apprentices from 180 to 30 (Dublin Institute of Technology, 2008).

Enrollment in the apprenticeship system has historically been dominated by men. Despite efforts to encourage female trainees, more than 90% of new trainees in 2005 were men (Skills Initiative Unit). This is to some extent because the occupations that have been designated as apprenticeship trades (electrician, construction, sheet-metal work, etc.) are traditionally male dominated, while traditionally female-dominated occupations, such as nursing and hairdressing, have not been designated.

[H1]National Qualifications Authority of Ireland

The Qualifications (Education and Training) Act of 1999 led to the 2001 establishment of the National Qualifications Authority of Ireland (NQAI), which has three main tasks:

- Establish and maintain a framework for developing, recognizing, and awarding qualifications based on standards of knowledge, skill, or learner competence.
- Establish and promote the maintenance and improvement of awards standards for non-university institutions in the FE and higher education sectors.
- Promote and facilitate learners' access to, transfer among, and progression through education and training (NQAI, 2008).

In October 2003, NQAI launched the 10-level National Framework of Qualifications (NFQ), which is designed to encompass all education and training awards up to the doctoral level. Ireland's education providers are committed to implementing NFQ and it is gradually gaining credibility among employers. NQAI is also committed to facilitating access, transfer, and progression. Its approach to policy development strongly emphasizes consulting with all stakeholders and publishing its draft policies on its Web site to encourage debate and comments (see www.nqai.ie.)

[H1]Higher Education Initiatives in Europe

While Irish education developed independently of other countries until 1999, that was changed by the initiation of a European wide initiative in June 1999, when the education ministers of 29 European countries signed the Bologna declaration, committing to the creation of a European higher education area (EHEA) by 2010. All EHEA member nations would provide bachelor's, master's, and doctoral degree programs, and would share a framework for national qualifications systems. To increase student mobility within Europe, all universities in member nations would use the same credit accumulation and transfer system.

The ministers have met every two years since 1999 to review progress toward EHEA and to set new goals for achieving its creation. The number of countries participating has grown to 45, and it seems probable that EHEA will indeed be created by 2010. EHEA is expected to have a number of significant effects, including the following:

- Increased recognition of education and training awards would facilitate worker mobility, which would allow shortages of skilled labor in one member nation to be met by migration from others.
- The stipulation that EHEA bachelor's degree programs be relevant to the labor market would give member nations an economic advantage over countries that don't do as good a job of aligning university output with industry needs.
- Non-European students who have traditionally turned to universities in Australia and the United States would be more likely to turn to EHEA member nations, thus boosting the finances of European universities.

The signing of the Bologna declaration has already led to a number of changes in EU education, including the following:

- The EU has provided greatly enhanced funding for student mobility through its

Erasmus/Socrates programs.

- In 2005, Irish institutions of higher education were asked by the Irish government to double the number of incoming and outgoing students on Erasmus/Socrates programs.
- Degree programs at many European universities have been accelerated. Countries where students have traditionally taken 5 years to earn a first degree (such as Finland, Germany, and Italy) have introduced new bachelor's degree programs, generally of 3 years' duration
- Similar initiatives have commenced in respect of apprenticeship training through the so-called Copenhagen process, which aims to harmonise approaches to training in European countries..

[H1]Current Issues for Irish Education

Whilst excellent progress has been made in Irish higher and technical education to increase participation in the past 30 years, some important issues still need to be addressed.

Since fees were abolished in the mid 1990s, higher education in Ireland's universities and institutes of technology has been almost free. That policy, which it is claimed results in most of the benefit going mainly to middle-class families rather than poorer families, is regularly called into question. OECD (2004) favored reintroducing fees in order to improve the higher education system's finances. The government continues to oppose higher fees. It was the current opposition party that abolished the fees when it was in power, so any change in the governing party probably wouldn't lead to the fees being reinstated.

Although Ireland's FE colleges are for the most part funded as second-level schools, they increasingly operate at a higher level. Articulation between the programs operated by the FE colleges and programs in universities and institutes of technology is not well developed; certainly, it does not compare favorably with arrangements between community colleges and

universities in the United States.

NFQ has been well received and implemented in respect of higher education awards but progression opportunities from apprenticeship and PLC qualifications to higher education remains a problem that must be addressed. The nature of the binary divide between universities and institutes of technology is coming under strain. In particular, Dublin Institute of Technology occupies an anomalous position: Even though it has full awarding powers (up to doctoral degrees) and is a member of the European University Association and the International Association of Universities, it is not designated as a university in Ireland. Two other institutes of technology (Cork and Waterford) have also sought re-designation as universities. In response to this latter problem, the government is considering the commission of a review of higher education policy to be undertaken in 2008 and 2009. The terms of reference of such a review have not yet been published, but it seems unlikely to address articulation between further and higher education.

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