Polytechnics

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Key Features of Polytechnics

Operation: 1969 - 1992

Target Population: Young people and adults qualified for entry to higher education in England and Wales.

Purpose: Help meet an ever-increasing need and demand for higher education courses preparing students for careers in industry, business and the professions. Spearhead growth in the local authority sector of higher education. Concentrate full-time higher education in the strongest institutions. Offer higher education at all levels and in different modes.

Introduction

Polytechnics were the new set of institutions established by the British government to help meet increased demand for higher education in England and Wales in the late 1960s and beyond. They were formed from existing technical and other colleges within the further education system. Unlike other further education establishments, the polytechnics were expected to concentrate wholly or largely on higher education ('advanced') courses. Unlike the universities and the teacher education colleges, their provision was to span higher education at all levels (sub-degree, degree and postgraduate) and be offered in different modes (full-time, sandwich and part-time).

Thirty polytechnics were designated between 1969 and 1973. Apart from one in Wales, the rest were distributed across nine English regions. Another four designations were made between 1989 and 1991, all in England. Scotland was not part of this policy, although its central institutions were comparable in size and scope to the English and Welsh polytechnics. Nor did the polytechnic policy apply to Northern Ireland. Although, during the 1970s, one of its colleges (Ulster College) decided unilaterally to call itself a polytechnic (Ulster Polytechnic).

The title 'polytechnic' itself was not new. During the nineteenth century, the name had been used by a number of establishments in London. Another with this title opened in the capital in 1929. Some of these same institutions – North Western Polytechnic, Woolwich Polytechnic, Borough Polytechnic Institute, Northern Polytechnic Institute and Regent Street Polytechnic – became constituent colleges of the new polytechnics created in inner London in the early 1970s.

Most of the initial 30 polytechnics were created by institutional mergers, usually between two or three colleges. Typically, these brought together a college of technology, a college of art, a college of commerce or a specialist institution. Like their constituent colleges, the new polytechnics were the responsibility of local government (Sharp, 1987).

Soon after their designation, the majority of polytechnics were involved in further amalgamations as a result of the reorganisation of teacher education in the 1970s. Another consequence of this reorganisation was the creation of a second set of local authority higher education institutions, the colleges of higher education (Locke, Pratt and Burgess, 1985). It was the four largest colleges in this group that later also became polytechnics.

From these small, assorted and merged beginnings, the polytechnics grew into major institutions of higher education. Growth was spectacular during the second half of the 1980s and early 1990s. By 1991, there were some 380,000 higher education students enrolled in the English polytechnics. Nearly two-thirds were pursuing a bachelor's degree (or its equivalent). Just over a quarter were aiming for sub-bachelor qualifications. The remainder were postgraduate students (DfE, not dated).

At the largest polytechnic (Manchester), the student population was close to 20,000. This was higher than at the University of Manchester, the largest non-federal university. At the smallest polytechnic (Bournemouth), it was just over 7,000. Several universities were smaller in size, as were all the colleges of higher education.

The polytechnic era in England and Wales came to an end in 1992 when these institutions became degree-granting universities. Up to this point their degrees were awarded by the Council for National Academic Awards (CNAA). For a period, one of the former polytechnics kept the word polytechnic in their university title (Anglia Polytechnic University). Although no longer actively used, polytechnic has remained a 'preserved word' in government regulations. Present-day policy has been 'not to approve its use' (DfE, 2021, para. 27).

Policy and history

The establishment of 30 polytechnics was a result of two interrelated policies on higher education launched by the Labour Government which came into power in 1964. The 'binary policy' involved the creation and coordination of a two-sector system of higher education in England and Wales. On one side of the binary line was the 'autonomous' sector, represented by the universities. On the other was the 'public' or 'local authority' sector, represented by the leading technical colleges and teacher education colleges. These were to be separate but complementary sectors.

The 'polytechnic policy' was the means chosen to achieve the binary policy. The context for both policies was an ever-increasing need and demand for vocational, professional and industrially-based expertise, especially in the face of international competition. This demand could not be met by the universities alone. The polytechnics would share in this growth and, within the local authority sector, they would account for the bulk of full-time higher education. Part-time provision would be more dispersed. Beyond that, colleges not already engaged in higher education were not expected to embark on it. Importantly, the new pattern was not to prejudice opportunities for students on 'non-advanced' courses.

Concentrating full-time and sandwich courses in a limited number of strong centres – the key driver of the polytechnic policy – was justified on two grounds. It would support and sustain high standards and, second, it would secure an economic use of expensive resources. Nevertheless, the polytechnics were to be comprehensive academic communities, catering for students at all levels of higher education and developing a wide range of full-time and part-time courses.

Together, the establishment of the polytechnics and the binary line was the 'most far-reaching policy decision to affect the shape of British higher education' (Shattock, 2012, p. 54). It formed the basis for planning in higher education under all governments until 1992. The original policy required that no new universities be established over ten years, save for one possible exception (the soon-to-be Open University). Over succeeding years, the only new foundation was the private University of Buckingham. There would be no promotion of senior technical colleges to university status.

The case for the creation of the polytechnics was made in the 1966 White Paper, A Plan for Polytechnics and Other Colleges (DES, 1966). Preliminary proposals were drawn up to establish 28 polytechnics. The criteria for their designation were announced along with an initial list of constituent colleges. The local authorities involved were invited to put forward plans for their development. Growth to at least 2,000 full-time students plus part-time students was normally expected.

The binary policy was set down the year before in a major speech given by the Secretary of State for Education and Science, Anthony Crosland (Crosland, 1965). Behind the scenes, ministers and officials were engaged in reversing recommendations in the report of the Robbins Committee which affirmed a university-dominated system and a university-led pattern of future expansion (Committee on Higher Education, 1963).

In future, polytechnic and college degrees would be awarded by the CNAA, a Robbins recommendation. The CNAA was established in 1964 to serve the non-university sector in the United Kingdom. Its charter required that CNAA degrees be comparable in standard and quality with those in universities (Silver, 1990). By the end of the 1960s, nearly every polytechnic and many other higher education institutions had replaced or were well advanced in replacing their University of London external degree courses with those of the Council (CNAA, 1979). External degrees devised, examined and awarded by the University of London had been taught in some of the larger technical colleges since the end of the nineteenth century.

The CNAA also replaced the National Council for Technological Awards (NCTA). Following its establishment in 1955, this body approved courses in engineering, science and latterly business studies leading to the award of the Diploma in Technology (DipTech). Although not titled a degree, the DipTech was required to be of the same standard as the honours degree. In no longer being dependent on the London external degree or the NCTA Diploma, a major obstacle to the achievement of higher status by non-university institutions was seen to be removed.

When published, the 1966 White Paper received a mixed reception. There was concern about the damage it might do to colleges not designated as polytechnics. There was criticism too of proposals to deny or restrict opportunities for colleges to gain recognition for advanced work. Nor was the policy of greater concentration considered likely to meet the needs of part-time students (Pratt and Burgess, 1974).

In a second major speech, Crosland (1967) defended the government decision, contrary to Robbins, not to bring the teacher education colleges under the wing of the universities. As with the polytechnics, it was important that local authorities (and voluntary bodies) maintain a stake in what Crosland now preferred to call a 'plural' system. His avoidance of the word 'binary' sought to allay anxiety that the dividing line between the two sectors might be thought too rigid.

Until the late 1980s, few amendments were made to the basic binary and polytechnic policies. In its 1972 White Paper (DES, 1972), the Conservative Government intended that the fastest expansion should continue to be in the polytechnics and other colleges in the local authority sector. The emergence of a new tier of colleges of higher education meant that the polytechnics were no longer the sole target of policies of concentration.

Financial constraints from the mid-1970s saw greater central direction. In 1979, the funds for advanced further education were 'capped'. In 1982, a national advisory body (NAB) was established for local authority higher education to act as an intermediary body between central government and the English polytechnics and colleges of higher education. A parallel body operated in Wales. The main role of NAB was to 'build up the non-university sector as a rival to the universities, operating at lower unit costs and with a much greater emphasis on teaching' (Tight, 2009, p. 129).

More decisive for the standing and future of the polytechnics was the legislation that followed. The Education Reform Act of 1988 removed the polytechnics and larger higher education colleges from local government control. By this point, the polytechnics were large institutions with strong national roles, now equipped with their own central admissions service to manage student applications. After two decades, they were 'firmly established' and ready to move to 'virtual self-validation' under the CNAA (DES, 1987).

Under the Act, the polytechnics became independent statutory corporations able to employ their own staff and hold their own assets. The NAB was replaced by a funding council for the polytechnics and higher education colleges whose funds were provided by central government. Its competitive bidding system was intended to drive down the unit of resource. The bidding process resulted in a substantial increase in student numbers, especially among the polytechnics. They were praised by ministers for their 'efficient expansion'. A similar system devised for the university sector was resisted by the universities.

By the end of the 1980s, the polytechnics had become universities in all but name. They had attained 'sufficient self-critical academic maturity' to be offered the full range of degree awarding powers (DES, 1991, p. 25). The Further and Higher Education Act of 1992 eliminated the binary divide and enabled the polytechnics to acquire the university title and the power to award their own degrees. Legislated by the Conservative Government, the change of title was generally uncontroversial.

The former polytechnics joined the pre-1992 universities in a now unified system. Their exclusion from the dual support system of research funding was ended. A single framework of quality assurance was introduced for all higher education institutions. The CNAA was abolished.

Appraisal

Pratt, author of the first full history of the polytechnics, viewed their 25-year existence as 'a major policy experiment'. There were successes and failures but 'neither wholly explains the outcome'. Together, however, they resulted in 'convergence' between the two sectors. Except for medicine, the polytechnics offered all the major subjects taught in universities. Key to a 'blurring of boundaries' was 'a breakdown of the traditional demarcation between vocational and academic courses' (Pratt, 1997, p. 309).

The polytechnics 'moved away from some of the purposes set for them' (op. cit.), notably the development of a distinctively vocational or 'relevant' form of higher education. As one of the core objectives set for the binary policy, it soon dropped from sight (Scott, 1983). Post-industrial social and economic change, coupled with wider shifts in intellectual and scientific culture, brought new fields of professional education and training into both the polytechnics and the universities. Growth of the social sciences was significant in both sectors.

At the same time, the universities 'moved towards the polytechnics in significant respects', reluctantly at first and only when pressed by financial considerations (Pratt, op. cit.). They increasingly acquired characteristics hitherto associated with the polytechnics, including the adoption of modular structures and the recruitment of non-traditional students. The vocational relevance and content of their courses was emphasised. They undertook applied research. They began to reduce their unit costs and organised their teaching along lines pioneered by the polytechnics.

The peak achievements of the polytechnics were two-fold: first, their contributions to growth and student diversity: and second, their continuing commitments to comprehensiveness and course development. As the fastest expanding part of the system, the polytechnics helped make the breakthrough to mass higher education in England and Wales. By extending access to new kinds of students, they broadened the social base of participation. In recruiting a higher proportion of non-traditional students, they had to make more thoroughgoing adjustments to heterogeneity than the universities (Scott, 1995).

The polytechnics established new areas of study – professional and work-related – as appropriate for study in higher education. Sandwich provision was expanded. Part-time routes were supported. They demonstrated the benefits of diversity in course design and pedagogy, for different students and for varying purposes. In accepting the full force of expansion, the polytechnics 'proved naturally fertile grounds' for modularity and credit systems (Robertson, 1994, p. 64).

The other side of polytechnic growth was a lowering of the unit of funding. When the Conservative Government cut the budget for higher education in 1981, the response of the university sector was to protect funding per student, at the expense of growth. The displaced demand was met by the polytechnics. Under the bidding system of the funding council, their funded numbers increased as the unit of resource for the sector declined.

For critics, the polytechnics came to offer higher education 'on the cheap' and, worse still, 'obliged the universities to follow suit' (Pratt, 1997, p. 308). They faced growing problems of maintaining quality, especially at the height of expansion. They stood accused of over-extending themselves. By entering into multiple franchise relationships with further education colleges, they were charged with putting standards at risk.

One of the purposes of the binary and polytechnic policies was to put an end to 'academic drift'. This was the tendency for colleges founded in the technical college tradition, such as the colleges of advanced technology in the 1950s and 1960s, to become as much like autonomous institutions as possible. This they did by shedding work below the level of the bachelor's degree, narrowing their student intake, adopting a more academic curriculum and, over time, increasing their involvement in research.

In the case of the polytechnics, one conspicuous feature of upward drift was stagnation in their sub-degree work, all the more serious because the universities were little involved in qualifications at these levels. Whatever the evidence for academic drift, the polytechnics did in the end become universities. In this sense, they achieved the exact reverse of that intended by the binary policy. However, for Pratt, the evidence suggested that they would have been unlikely to have attained their distinctiveness and their successes if they had become universities in the 1970s.

The creation of a non-university sector in England and Wales, one centred on polytechnic-type institutions, was among the first of its kind. Its demise came at a time when countries in the rest of Europe were fashioning new types of non-university institutions and organising them into binary systems. Elsewhere, only Australia chose to abandon its binary system, a decision taken shortly before that in England and Wales. Although the contributing factors were similar in each country, there were significant differences in the reasons for abolition (Williams, 1992). Thirty years on from the end of the polytechnic experiment, the countries of continental Europe have looked to reform rather than remove their non-university sectors (Taylor et al., 2008).

The polytechnics still haunt policymaking in England. Timeworn distinctions between universities and polytechnics have endured. There have been expressions of regret in some quarters that the binary line was ever ended. Calls have been made to recover polytechnic traditions and titles (IPPR, 2013). The rise and fall of the polytechnics has attracted a considerable literature. Policy memory, on the other hand, has been short and frequently selective.

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