

**REPORT
FROM THE
INSPECTORATE**

Leeds College of Technology

July 1997

**THE
FURTHER
EDUCATION
FUNDING
COUNCIL**

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FUNDING COUNCIL**

The Further Education Funding Council has a legal duty to make sure further education in England is properly assessed. The FEFC's inspectorate inspects and reports on each college of further education every four years. The inspectorate also assesses and reports nationally on the curriculum and gives advice to the FEFC's quality assessment committee.

College inspections are carried out in accordance with the framework and guidelines described in Council Circular 93/28. They involve full-time inspectors and registered part-time inspectors who have knowledge and experience in the work they inspect. Inspection teams normally include at least one member who does not work in education and a member of staff from the college being inspected.

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GRADE DESCRIPTORS

The procedures for assessing quality are set out in the Council Circular 93/28. During their inspection, inspectors assess the strengths and weaknesses of each aspect of provision they inspect. Their assessments are set out in the reports. They also use a five-point grading scale to summarise the balance between strengths and weaknesses.

The descriptors for the grades are:

- grade 1 – provision which has many strengths and very few weaknesses*
- grade 2 – provision in which the strengths clearly outweigh the weaknesses*
- grade 3 – provision with a balance of strengths and weaknesses*
- grade 4 – provision in which the weaknesses clearly outweigh the strengths*
- grade 5 – provision which has many weaknesses and very few strengths.*

By June 1996, some 329 college inspections had been completed. The grade profiles for aspects of cross-college provision and programme areas for the 329 colleges are shown in the following table.

College grade profiles 1993-96

Activity	Inspection grades				
	1	2	3	4	5
Programme area	9%	59%	29%	3%	<1%
Cross-college provision	14%	50%	31%	5%	<1%
Overall	12%	54%	30%	4%	<1%

FEFC INSPECTION REPORT 92/97

LEEDS COLLEGE OF TECHNOLOGY
YORKSHIRE AND HUMBERSIDE REGION
Inspected September 1996-April 1997

Summary

Leeds College of Technology provides a wide range of specialist courses which offer students many opportunities for progression. It has been very successful in increasing the number of students from groups which have not usually entered further education. There is a strong emphasis on teamwork and effective communication among staff. Management information is collected efficiently and used to inform planning. The needs of individual students are met through flexible arrangements for admission and induction and well-managed learning support systems. Teachers are well qualified and experienced and teaching is generally of a high standard. On some courses, particularly motor vehicle courses, students' achievements are good. Quality assurance procedures are supported by comprehensive audits and lesson observation. An effective staff-development programme is linked to individual performance review. Local industry has provided some high-quality equipment. A well-managed refurbishment programme is leading to improvements in accommodation. If it is to build upon its strengths, the college should: improve the effectiveness of its links with the community, schools and employers; broaden its sources of funding; improve aspects of curriculum management; ensure careers guidance is provided for adult students on part-time vocational courses; address inconsistencies in the quality of course reviews; address poor pass rates on some courses; improve library provision; develop the teaching skills of some teachers; and continue to improve the quality of its accommodation and equipment.

The grades awarded as a result of the inspection are given below.

Aspects of cross-college provision	Grade
Responsiveness and range of provision	2
Governance and management	2
Students' recruitment, guidance and support	2
Quality assurance	2
Resources: staffing	2
equipment/learning resources	2
accommodation	2

Curriculum area	Grade	Curriculum area	Grade
Science, mathematics and computing	2	Art and design	3
Mechanical and electrical engineering	2		
Motor vehicle engineering	2		

INTRODUCTION

1 Leeds College of Technology was inspected between September 1996 and April 1997. The college's enrolment and induction procedures were inspected in early September 1996. Curriculum areas were inspected in February 1997 and aspects of cross-college provision in April 1997. Fifteen inspectors visited the college for 53 days. They observed 139 classes, and examined students' work and documentation relating to the college and its courses. Meetings were held with governors, teachers, parents, students and college staff and representatives of the Leeds Training and Enterprise Council (TEC), industry, higher education and Leeds Careers Guidance.

THE COLLEGE AND ITS AIMS

2 Leeds College of Technology was established in 1966 to provide education and training in technology, engineering and science. It now offers a broad range of courses with a particular focus on technology and the manufacturing industries. The college operates from four sites. The main site, at Cookridge Street, is located in the centre of Leeds; the Westland Road site in south Leeds specialises in mechanical engineering and motor vehicle studies; the Calverley Street site, an annexe of Leeds Metropolitan University, accommodates printing and photography; and the East Street site is primarily for specialist alarm and security courses and community-based information technology provision. The college is in the process of vacating the Calverley Street site.

3 Leeds has a population of approximately 725,000. More than 350,000 people are in employment. Manufacturing employs 18 per cent of the workforce. Eleven thousand people work in the printing industry in Leeds, making the city the largest printing centre in the United Kingdom, outside London. Approximately 8 per cent of the workforce is unemployed which is below both regional and national averages. However, long-term unemployment is high, and is concentrated amongst males and members of the minority ethnic community. In six of the inner-city wards unemployment rates are between 17 and 24 per cent.

4 There are eight other further education colleges in the Leeds area. One is a Catholic sixth form college and three are general further education colleges, each offering a broad range of vocational provision. The others are specialist colleges, situated close to each other in the city centre. Only one other college in Leeds provides engineering courses, but none offers motor vehicle courses. The college is the only provider in the region for printing courses. There are 45 high schools in Leeds of which 41 are for pupils aged 11 to 18 years. The majority offer courses leading to general national vocational qualifications (GNVQs) in addition to general certificate of education advanced level (GCE A level) and general certificate of secondary education (GCSE) courses.

5 Seventy-one per cent of the college's students come from the Leeds local authority area, 41 per cent from the inner city. A few courses such as printing, recruit from the whole of the north of England. Throughout

the 1980s, the college's student numbers decreased in line with the decline in manufacturing industries in Leeds. During this period, most students attended part time. Since incorporation, the decline has been reversed and the college has exceeded its targets for growth, mainly through the recruitment of full-time students. Part-time student enrolments continued to decline until the 1996-97 academic year. At the time of the inspection, there were 878 full-time and 2,209 part-time students. Twenty-five per cent of students were female. Nineteen per cent were from the minority ethnic communities, compared with 6 per cent in the population of Leeds. Sixty per cent of the students were adult students. Student numbers by age, by level of study and by mode of attendance and curriculum area are shown in figures 1, 2 and 3. The college employs 134 full-time equivalent teaching staff and 122 full-time equivalent support staff of whom 43 are directly involved in supporting learning. A staff profile, with staff expressed as full-time equivalents, is shown in figure 4.

6 The college's mission is 'to provide, efficiently and to the satisfaction of its customers, a wide range of quality education and training, creating a ladder of opportunity for all those preparing for work, further or higher education, and especially for those entering or employed in the technological and manufacturing industries'.

RESPONSIVENESS AND RANGE OF PROVISION

7 The college specialises in science, computing, engineering and printing, offering a wide range of full-time and part-time courses. It has responded to national policies and targets by broadening its curriculum to include the application of technology to new subjects such as design and media, and by introducing new programmes which support the manufacturing industry. Specialist programmes are offered in vehicle restoration and vehicle alarm systems. Courses range from introductory to degree level. The college has introduced access courses in five curriculum areas, designed to prepare adults for entry to higher education. However, recruitment to some of these courses is poor.

8 There are 18 GNVQs, or equivalent courses: three are at foundation level, seven at intermediate level and eight at advanced level. Twenty-four courses lead to national vocational qualifications (NVQs), or their equivalent: these comprise three at level 1, 10 at level 2, 10 at level 3 and an NVQ management course at level 4. Seven subjects are available at GCE A level and five at GCE advanced supplementary (AS). There are a few gaps in the range of vocational provision within the college's specialist areas. For example, there are no courses at technician level in electrical power engineering, no intermediate level provision in motor vehicle engineering, and few part-time science courses. The college's links with the City of Leeds College of Music and Leeds Metropolitan University are well established and include joint teaching for national diplomas in media technology, music and media and music technology, higher national courses in electrical and electronic engineering and a degree in media

technology. The college also offers three higher national certificate courses independently. It is developing, with Leeds Metropolitan University, a degree scheme in graphic communication systems and provision for technician engineers. Agreements have been made with the universities of Bradford and Huddersfield for the college's students to progress to either university if they successfully complete their programmes. The college also provides NVQ accreditation in key skills for students from the University of Leeds who undertake tutoring in local schools.

9 In some curriculum areas, students can start their studies at any point during the year, but there is little open and distance learning to allow students to study at a time and place of their own choosing. A survey of mathematics across the college has identified common areas of study, enabling materials to be developed that support students on a variety of courses. The college's entitlement policy offers all full-time students the opportunity to develop the key skills of numeracy, literacy and information technology. Two hundred students have achieved accreditation in computer literacy and information technology and 60 in English or mathematics. There is no programme of sport or recreational activities but 20 students are involved in a community service volunteers programme, and first aid courses are provided for students on health and social care courses.

10 The college provides the Leeds Careers Service with information on post-16 options for school-leavers. The college is discussing with the local education authority (LEA) a proposal for the college to act as a technology base for schools in the city. The college has developed initiatives based on its specialisms to strengthen school links. It now has contacts with 26 out of the 45 Leeds schools and jointly offers a GNVQ intermediate course in engineering with a local school. Underachieving pupils from three secondary schools attend college for GNVQ foundation units in manufacturing, business and motor vehicle studies. Pupils from six schools sample vocational areas; the numbers involved have increased from 40 in 1995-96 to 210 in 1996-97. A substantial link programme involves 88 pupils from half of the city's special schools. Overall, however, the level of interest shown by schools in these initiatives and in the college's open days is low. Courses on the Internet for school teachers have also met with little response. There is insufficient individual contact with school staff. No team within the college has a designated member of staff with responsibility for schools liaison.

11 The marketing services unit leads the college's approach to marketing and publicity. A recently-established publicity and promotions group aims to improve communication and co-ordination of marketing across the college. External consultants have advised on promotional strategies and the effectiveness of the college's marketing activities. College display stands have been improved recently. Other methods used to promote the college include a programme of activities for adult learners' week and a fun day for car enthusiasts.

12 The college has actively collaborated with other further education institutions to develop bids for TEC and European funding. It has initiated an audit, to be undertaken collectively by local providers, of provision for students with learning difficulties and/or disabilities. It plays an active part in the 'World Class Leeds' education business partnership as well as in local TEC-college liaison groups. Good links exist between the college and the TEC's labour market intelligence team. A Competitiveness Fund bid has been submitted to create a centre of excellence at the college for integrated communications technology and print media. The college's modern apprenticeship provision is seen as an example of good practice, and is delivered for TECs in Leeds, Bradford and Doncaster. There are currently 140 enrolments and a total of 280 are planned for 1997-98.

13 The college is attempting to develop strategic partnerships with individual employers and employers' organisations. For example, it has close involvement in the Leeds engineering and print initiatives and has played an important role in the formation of the Leeds engineering forum. The principal has visited a large number of employers and some have donated substantial amounts of up-to-date equipment to the college. The effectiveness of links with employers, however, varies between curriculum areas. They are strong in engineering, printing, photography, and media and with hospitals and health trusts, but weaker in science, computing and information technology. There are no formal advisory committees and the college is not involved in off-site collaborative provision with employers. The college recognises the need to strengthen links with employers and to involve more staff in marketing its provision. While there is an employers' database, there is little co-ordination of visits to employers. Opportunities for earning income directly from industry have not been vigorously pursued.

14 The college has responded effectively to approaches by community groups to provide courses for them. Courses for Asian women in business administration are well established and have helped students to gain employment. Information technology courses have been developed in collaboration with a local women's group. Courses at the East Street site are aimed at the adult unemployed. The college is also establishing technology and information technology programmes within the East Leeds Family Learning Centre. However, the size of its outreach provision is small. There is no community advisory group and no member of staff with designated responsibility for community liaison. There is scope to improve communication between the representatives of community organisations and the college.

15 The college's European policy requires an appropriate European dimension in all full-time courses. However, its implementation is not yet monitored. The college has been successful in securing modest funding to support European visits and work placements. Eight curriculum areas are currently involved in European initiatives and GNVQ business, engineering and manufacturing courses include options on living and

working in Europe. Although the numbers involved in European exchanges have increased from 36 in 1995-96 to 70 in 1996-97, this represents only a small proportion of full-time students. Few students have taken advantage of the opportunities available to study a foreign language.

16 Equal opportunities are actively promoted by the college. The college policy has recently been revised to meet the Leeds TEC equality standards. There is a designated equal opportunities co-ordinator, a co-ordinator for race and an equal opportunities working group. The college monitors the demographic profile of its courses. Annual staff conferences have focused on the under-representation of women and those from the minority ethnic communities on certain courses. There have been significant increases in enrolments from these groups. Initiatives to increase female participation have included women-only courses and 'taster' courses for girls in engineering and printing. The college has also taken the lead in establishing a good practice forum involving four schools and two other colleges to improve ways of dealing with racial tension. While the recruitment of students with learning difficulties and/or disabilities has remained constant, an increasing proportion of them are recruited to mainstream courses. In 1996-97, this involved 200 students. There are 49 students with learning difficulties and/or disabilities on programmes specifically designed for them. They stay from one to four years and spend two days a week acquiring skills in areas such as art and design, home economics and car valeting. There is provision for 35 adults with physical disabilities in collaboration with a local adult community centre.

GOVERNANCE AND MANAGEMENT

17 The governing body has 14 members. At the time of the inspection there were 12 members and two vacancies. The incumbent members included eight independent members, a TEC nominee, a member from a minority ethnic background, one staff member and the principal. Four governors were women. Governors have a range of backgrounds with particular expertise in higher education, engineering, marketing, personnel and the media industries. They take an active interest in the college. A search committee sets out to ensure their expertise matches the needs of the college. It aims to fill the two existing vacancies by appointing new members from the local authority and the student body. There are five committees of the governing body: audit; finance and general purposes; remuneration; employment; and student welfare. The chair and principal meet regularly and enjoy a good working relationship. Attendance at full board meetings averaged 86 per cent during the last year. To develop a better understanding of the college, nominated governors link with a senior member of staff in either a specific cross-college activity or vocational area. Governors regularly attend lunchtime meetings with senior managers and small groups of staff to discuss issues facing the college. However, although progress has been made, governors are not always clear about the boundaries between their role and that of senior managers.

18 Four governors were in post at incorporation while six have been appointed in the last year. New governors complete a register of interests and an audit of their skills and experience. They also receive an induction pack. Regular training events include presentations by senior staff. Governors recognise the need for further training for newer members in areas such as finance and monitoring the educational performance of the college. A governors working group has examined procedures for assessing and reviewing their working arrangements and performance; they have agreed draft performance criteria for committees, and individual members are to complete a self-assessment questionnaire at the end of the current academic year.

19 The assistant principal, support services, is clerk to the governors and provides valued support. Terms of reference for committees and rules of order for the corporation are clear. Members receive accurate, detailed minutes and well-prepared papers on agenda items. However, there are no formal procedures to review key college policies. For example, the annual health and safety report has not been presented. The principal's report includes a comprehensive analysis of students' achievements. Although the college has 31 indicators to monitor its performance, it has identified a need to establish key indicators to be discussed at each governing body meeting.

20 The existing strategic plan was produced largely by the senior management team. Although there was consultation with staff and external organisations, governors had little involvement in its production. Their role was more to validate than to participate. Governors acknowledge the weakness of this approach. Many operating statements relate to the previous and not the current college structure. This limits the effectiveness of the monitoring process. A strategic planning group has been established, including senior managers, the chair of governors, and staff representatives. It is ensuring the maximum involvement of governors, staff and users of the college in the preparation of the new strategic plan. At development days, governors and staff have discussed the college's mission. To ensure operating statements match strategic objectives, course teams are identifying targets for achievement and retention. Discussion is being informed by focused marketing information, financial forecasting and staff-development needs.

21 The principal was appointed in September 1995. Since his arrival, the college has developed a clear strategic focus. The principalship comprises the principal and two assistant principals for academic affairs and support services, respectively. Following widespread consultation, a new college structure was introduced in September 1996. The management of change has been handled sensitively and staff view the changes positively. The curriculum is delivered through three schools each led by a director. Within each school, curriculum leaders are responsible for clusters of courses. Senior managers provide curriculum leaders with weekly briefings to develop their skills. The learning support

unit co-ordinates the teaching of key skills and provides cross-college learning resources. A director leads the enterprise and marketing unit. This post is currently vacant. The senior management team comprises the principalship, four directors and the learning support manager. They are keen to encourage all staff to work effectively in teams.

22 Many of the cross-college systems and procedures which were working effectively have been retained under the new structure, and this has helped to ensure a smooth transition during its introduction. However, teachers in science and mathematics are not always effectively deployed across the college. Modifications to the structure are still being made, such as the relocation of courses from one school to another. The posts of some curriculum leaders have only recently been filled and their role is still evolving. For example, they have no line management responsibility for course team members despite the fact that they are responsible for the quality of teaching. The quality of course team management is variable.

23 Senior managers and governors place an emphasis on effective communications with staff. A comprehensive planning calendar and timetable of meetings have been established. The senior management, academic affairs and school management teams meet weekly. Twice-weekly meeting slots enable course and support teams to meet regularly. Minutes are carefully kept and well structured. All staff have a comprehensive staff handbook. There is an informative weekly staff bulletin. Electronic mail facilities are available in all staff work areas. The principal frequently visits all sites. Staff, particularly those not on the main site, would welcome seeing other members of the senior management team more regularly. The academic board meets at least termly; its subcommittees include those for quality assurance, curriculum and equal opportunities. Minutes of meetings are issued to governors and displayed across the college. However, staff are not always aware of the issues discussed.

24 The college had a financial deficit in 1995-96. Although not required to do so by the Further Education Funding Council (FEFC) it has, during the last year, produced a recovery plan. Staffing costs, excluding restructuring costs, have been reduced by 2 per cent of college expenditure over the last three years but the college has been slow to introduce new staff contracts. It achieved its funding target in 1995-96 and is expected to do so in 1996-97. The college's average level of funding for 1996-97 is £21.82 per unit. The median for general further education and tertiary colleges is £17.97 per unit. The college's income and expenditure for the 12 months to July 1996 are shown in figures 5 and 6. It has a high level of dependency on income from the FEFC. This amounted to 82 per cent in 1995-96, a decrease of 2 per cent from the previous year. The college recognises the urgent need to reduce this dependency and acknowledges that its enterprise activities to date have not been fully effective. It has increased its income from TEC-funded programmes and higher education. The system for financial allocation is clear and well understood. Staff training sessions on the funding methodology have been held. Budget

holders receive a range of detailed financial reports which enable them to monitor their budgets effectively. The college recognises the need to establish the cost effectiveness of various types of business activity. Targets are not set for income from short courses and other sources.

25 Management information is collected efficiently and used to inform planning. It includes data on postcodes, students by gender and ethnicity, and detailed spreadsheets of enrolments and retention rates at each census date. Inspectors found the data provided by the college on students' achievements to be reliable. There is an information systems strategy but no management information user group. There has been training for managers and staff in the use of new systems. The college is careful to pilot new systems before their widespread implementation. The potential of the management information system is not yet fully realised. The college has purchased an electronic registration system, but this is not yet fully operational and, in many areas, manual systems are still used to produce reports on students' absence. Although a computerised timetabling system is used to analyse the use of rooms, the college acknowledges that the allocation of rooms is not fully effective. Computerised room timetabling will be introduced in September 1997.

26 In 1995-96 all full-time and part-time students were sent a questionnaire on completion of their courses to establish their destinations. Those who did not reply were contacted by telephone. The college carefully analysed the data, which covered 69 per cent of its full-time students. However, it did not analyse data for part-time students. Course teams do not make full use of such information to assess the relationship between course outcomes and students' destinations. The college does not provide schools with information on the destination of their former pupils.

STUDENTS' RECRUITMENT, GUIDANCE AND SUPPORT

27 The prospectus for full-time courses is attractive and contains clearly-set-out information on entry requirements and course content. There is currently no prospectus for part-time courses but one has been drafted for 1997-98. Course leaflets, produced in a standard house style, are distributed to industry, the community and job centres. The college does not produce publicity materials in minority ethnic languages, but instead calls on the translation services provided by an organisation catering for the specific training needs of Asian women. When invited, staff from the college attend careers conventions in local schools. Information evenings for the parents of prospective students are held regularly during the year. The student services unit runs a central admissions system. Course tutors interview prospective students promptly, and all applicants from schools are also interviewed by the college careers adviser. During enrolment, adults receive impartial advice from student services staff. There were a few instances of poor signposting and long queues during the enrolment period. The college has a comprehensive policy and good publicity materials for the accreditation of students' prior learning. Although it has set targets for such accreditation,

only a few students in business administration have, as yet, used the procedures.

28 A structured college-wide induction process emphasises study skills and the additional support available for their development. Induction activities such as aptitude testing and team building are adapted to the needs of individual courses. All students receive a course handbook, student charter, a student planner and an assessment schedule. The best handbooks provided detailed introductions to the course, the standards expected of students and explanations of core skills. An induction pack supports the 20 per cent of students who enrol after September. The learning support unit assesses full-time students for competence in literacy and numeracy, using the Basic Skills Agency (BSA) diagnostic assessments. Tests are marked centrally and recommendations made to group tutors. Referred students are allocated workshop time and tutorial support, and their attendance and attainment are closely monitored. The college is developing more vocationally-specific assessments. Some part-time students are also referred for additional learning support.

29 At Cookridge Street, the college provides the majority of students with group tutorials for one hour each week. These tutorials are carefully structured and include practice in study skills, the preparation of records of achievement, and careers and higher education advice. This entitlement is available to only two full-time courses at Westland Road. Attendance is closely monitored. There is a structured programme of staff development for group tutors. Parents and students speak positively of the quality of these tutorials. There is also a programme of individual tutorials spaced over four half-hour periods during the course. These are provided by a teacher other than the course tutor. Their purpose is to establish a personal relationship with the student, agree an action plan and review progress. They have operated more successfully and with more commitment in some programme areas than in others. Both types of tutorial help the student to maintain a record of achievement and produce a curriculum vitae or a personal statement.

30 There is an effective system for recording and monitoring the support for students with learning difficulties and/or disabilities. Close attention is given to means of access, classroom assistance and adapting equipment or learning materials to specific needs.

31 The accreditation of units for the Business and Technology Education Council (BTEC) key skills award is part of the tutorial entitlement for selected courses. In some programme areas, such as health and social care, these awards have become integral to the existing course structure. Where they have been introduced separately in tutorials their implementation has been less successful.

32 The student services unit is conveniently situated near the college reception area. It houses a well-stocked careers library. Students who are receiving the jobseekers' allowance can look for jobs using the information available. Staff from student services co-ordinate guidance

and counselling activities and provide financial advice relating to the access and welfare funds, benefits and jobseekers' allowances. They also handle complaints, following procedures set out in the students' charter. Two qualified part-time counsellors work with students. In addition, students can approach one of the 16 members of staff who hold a counselling certificate. Leeds Careers Guidance provides advice under a service level agreement. Its staff assist in the production of career action plans, and hold group tutorial sessions. Students can attend a higher education workshop. The increasing number of adult students on part-time vocational programmes would benefit from the inclusion of careers guidance and work placements in their courses. There is a 20-place creche. However, it has no outside play area, and is unable to provide full day care. The students' union offers a limited range of social and recreational activities. The post of student liaison officer is currently vacant.

TEACHING AND THE PROMOTION OF LEARNING

33 Sixty per cent of the teaching sessions inspected had strengths which outweighed weaknesses. Weaknesses outweighed strengths in 16 per cent of sessions. These percentages compare with 63 per cent and 8 per cent, respectively, for all colleges inspected in 1995-96, according to figures published in the *Chief Inspector's Annual Report 1995-96*. The number of students attending classes as a percentage of those on registers averaged 74 per cent. This compares with an average for all general further education colleges for 1995-96 of 73 per cent, as reported in the *Chief Inspector's Annual Report 1995-96*. However, attendance rates varied significantly across the curriculum areas inspected; in science, engineering and motor vehicle work attendance was good at over 80 per cent. It was low in art and design (66 per cent) and in mathematics and computing (56 per cent). The average number of students attending the lessons inspected was just under 10. The grades awarded to the lessons inspected are shown in the following table.

Teaching sessions: inspection grades by programme of study

Programmes	Grade 1	2	3	4	5	Totals
GCE AS/A level	2	2	2	0	0	6
GCSE	1	1	1	0	0	3
GNVQ	1	9	3	4	0	17
NVQ	1	7	5	1	0	14
Access to higher education	0	2	1	0	0	3
Higher education	2	8	2	2	0	14
Other vocational	6	37	16	12	3	74
Other	1	3	4	0	0	8
Total	14	69	34	19	3	139

34 Teaching was generally well planned; teachers used a standard format for schemes of work and lesson plans. Most lesson plans had aims and objectives which were clearly related to the course syllabuses. In a few instances, lesson plans which had been produced specially for the inspection were less effective. Relationships between teachers and students were good and students found teachers supportive. Teachers were enthusiastic and worked hard to get the best out of their students. Adult students and those with learning difficulties and/or disabilities were effectively integrated with other students. They were encouraged to make use of the central college support for English, mathematics and information technology. In many classes, mature students were able to use specially-produced learning materials which allowed them to study at their own pace.

35 In science, learning materials were of good quality and clearly written. Most lessons were well organised, interesting and challenging. Teachers regularly checked students' progress and understanding. They provided additional support where required to meet the needs of individual students. Assignments were imaginatively designed, and marked accurately and consistently. Written feedback by teachers was informative and helped students to improve their work. A well-designed laboratory workshop allowed students to study and undertake individual practical work on tasks related to their level of achievement. However, practical work was not always effectively managed. For example, in one lesson the teacher failed to ensure that all students were able to use the limited amount of equipment available. Occasionally, faulty equipment was not detected before the start of the lesson. In a number of lessons, students worked in pairs on experiments which would have been more suitably carried out by students working individually.

36 The teaching of mathematics was of a consistently high standard. In several lessons teachers encouraged students to debate mathematical principles in order to increase their understanding. For example, in a GCSE lesson, the teacher presented one solution to a problem and then encouraged students to suggest alternative methods of arriving at the same answer. Teachers used teaching aids effectively. Revision and review sessions were organised at appropriate times in the year. In the poorer sessions, teachers made insufficient use of information technology in demonstrations.

37 Students of computing experienced a wide range of learning activities. Group work and presentations by individual students helped them to develop their interpersonal skills. Although the overhead projector was effectively used, media such as video were underused. Lesson plans were often too brief and course planning was sometimes inadequate. For example, individual modules and topics were taught in isolation without assignments designed to link them together. There were no specific policies on homework and assessment.

38 In mechanical and electrical engineering lessons, teachers used a variety of activities and teaching aids to maintain students' interest and check their learning. For example, in a drawing lesson, the teacher took students step by step through the methods used to draw the lines of intersection of two pipes, using overhead transparencies and sketches on the roller board. Teachers frequently used their own industrial experiences and those of their students to inform the learning. They ensured that appropriate computing software packages were available and used high-quality learning materials from resource banks developed by subject teams. Workshop sessions were well organised. Whilst the progress of craft students was thoroughly documented, technician students did not always have their progress reviewed regularly. Teaching on a small number of courses was adversely affected by the lack of resources arising from the relocation of courses from a previous site. In a few theory lessons for craft students, teachers were not confident in their subject knowledge and their explanations included errors. In other lessons, students were not encouraged to participate in the work, or were asked to copy diagrams or notes inappropriately. In some lessons, teachers failed to show students the equipment they were describing. Some assignment briefs on technician courses were poorly presented and did not identify deadlines for completion. Teachers sometimes failed to give enough comments on students' written work to show where improvements could be made. Few learning materials had been developed to support full-time students outside their formal sessions.

39 In motor vehicle studies, there was an appropriate balance of theoretical and practical work. In most sessions, teachers clearly communicated the objectives of the lessons to students. They related their lessons to industrial practice and encouraged students to comply with safe working practices. Textbooks, handouts and workbooks were used effectively. Teachers kept students informed of their progress and regularly set them targets, including those for the development of key skills. There was little support for students attending open learning programmes in the evenings. In a number of sessions, teachers made poor use of blackboards and overhead projectors. In a few lessons the pace of work was too slow, and did not challenge the students sufficiently. Teachers' written feedback on students' assignments often lacked detailed advice on how the work might be improved. Criteria for assessment or marking schemes were not always provided.

40 The standard of teaching on art and design courses was inconsistent. Teachers on some of the intermediate level programmes were firm but supportive of students who displayed behavioural problems. In the better sessions, students undertook a variety of learning activities. They were helped to develop their technical expertise. For example, photography students engaged in critiques. Media teachers encouraged students to work in a professional manner. However, in art, teachers did not always encourage students to carry out research and gather evidence so that they

could generate ideas before beginning their work. As a result, students sometimes tried to produce work without sufficient preparation but this was not recognised or challenged by the teacher. There were examples of tutors setting work which students did not understand or could not undertake with the resources available. In photography, one brief was simply read to students with no additional information, exemplars or visual presentation. In printing, some teachers failed to provide work which was sufficiently challenging for the students. There was a general lack of visual stimulation across the whole of the area and little display of students' or commercial work.

STUDENTS' ACHIEVEMENTS

41 Most students spoke positively about their studies and were well motivated. They generally contributed well to classroom discussions. In mathematics, for example, debates about mathematical principles in some GCE A level classes were of a high standard. In motor vehicle studies, students were keen to relate their specific experiences. However, art students displayed low levels of enthusiasm in some aspects of their studio work. Generally, practical work was carried out competently and with appropriate attention to safety. Written work was usually of the required standard and was sometimes enhanced by the use of information technology.

42 The Department for Education and Employment's (DfEE's) performance tables for 1996 show that in their final year of study:

- 55 per cent of the 65 students aged 16 to 18 on advanced vocational courses achieved their qualification, an increase of 5 percentage points on the previous year
- 36 per cent of the 98 students aged 16 to 18 on intermediate vocational courses achieved their qualification.

This places the college in the bottom 10 per cent of colleges on both performance measures. Students aged 16 to 18 entered for GCE A level examinations in 1996 scored, on average, 3.5 points per entry (where grade A=10 points, E=2) according to data published by the DfEE. This places the college in the middle third of colleges in the further education sector on this performance measure. This was similar to the previous year's performance.

43 Science students demonstrated a good understanding of their subjects. Pass rates for students who completed their courses in 1996 were generally good, as the following table shows.

Examinations pass rates in science subjects, 1996

Course	Pass rate %
GNVQ intermediate science	67 (51)
GCSE chemistry grades A to C	83 (41)
GCE A level biology grades A to E	88 (77)
GCE A level biology grades A to C	60 (39)
GCE A level chemistry grades A to E	89 (75)
GCE A level chemistry grades A to C	50 (42)

Note: averages for general further education colleges are given in brackets.

44 In mathematics and computing some full-time students were not achieving standards of work appropriate to their course and displayed immature behaviour, particularly when they were required to participate in groups. As a result, the pace of learning was slowed. Examination pass rates varied. For example, they were poor in GCSE mathematics, better in GCE A level mathematics and good in the large group of part-time courses leading to qualifications in information technology.

Examination pass rates in mathematics and computing

Course	Pass rate (%)
GCSE mathematics grades A to C 1994-95	13 (35)
GCSE mathematics grades A to C 1995-96	16 (35)
GCE A level mathematics grades A to E 1994-95	29 (80)
GCE A level mathematics grades A to E 1995-96	54 (70)
Part-time information technology provision including C&G 726, computer literacy and information technology and computer-aided design	60 overall

Note: averages for general further education colleges are given in brackets.

In response to the low pass rate in GCSE mathematics the college is now providing courses leading to different qualifications for weaker students.

45 In engineering, many students completing their courses achieved pass rates at or above the average reported in the FEFC Curriculum Area Survey, *Engineering* published in 1996. For example, there were good results on the full-time GNVQ advanced and national diploma courses with overall pass rates of 89 per cent. All students completing the national diploma in electrical/electronic engineering have passed the course in each of the last two years. However, there were poor pass rates on the part-time technician courses in building services at advanced and higher levels, in which only 45 and 40 per cent of completing students, respectively, were successful.

46 In motor vehicle engineering, the pass rates on most courses are above the averages quoted in the FEFC Curriculum Area Survey, *Engineering*. In particular:

- on the two-year, full-time course on vehicle restoration pass rates over a three-year period have averaged 73 per cent compared with the national survey average of 55 per cent
- pass rates have been high on the NVQ autotronics, vehicle electronics and other level 2 courses at 86, 75 and 78 per cent, respectively.

However, there was a low pass rate on the national certificate in automotive engineering course, of 50 per cent.

47 In art and design, pass rates were generally similar to national averages. Students of photography and media studies produced work of a good standard. Those in printing displayed good technical skills and knowledge. Some students' work had been poorly planned and displayed little depth of thought.

48 Retention rates are variable. They are consistently high in engineering and motor vehicle engineering where retention rates in 1995-96 were over 80 per cent on many courses, including 100 per cent on some. In GCE A level sciences, 88 per cent of the students completed their two-year courses. In art and design, retention rates are also good, particularly on the two-year courses where 94 per cent of the students completed their courses. In computing, retention rates are often poor. For example, in 1995-96, only 33 per cent of students enrolled on the full-time access to information technology course completed their course, and only 66 per cent on the GNVQ intermediate level course in information technology.

49 Photography, printing, art and design, and engineering students are often successful in regional and national competitions. For example, students have won national prizes in vehicle body work and television reception, and regional awards in photography and printing. The known destinations of students from the three schools are shown in the following table as percentages.

Destinations of students 1995-96

School	Employment (%)	Further education (%)	Higher education (%)
Engineering	17	56	6
Professional, academic and scientific studies	17	45	26
Communications technology	16	37	37

QUALITY ASSURANCE

50 The college's system for quality assurance is clearly set out. Individual and team responsibilities encourage staff to improve continuously the quality of service to students, employees and other clients. Operational responsibility for quality assurance rests with the assistant principal, academic affairs, supported by the quality co-ordinator. Procedures are easily modified to meet the requirements of external agencies such as the local TEC. Documents are available in electronic format. This ensures staff use the most up-to-date versions. Some staff believe the paperwork associated with the process is overbearing. The links between quality assurance at course team level and the college charter are not always clear.

51 Internal and independent audits form part of the framework. They ensure curriculum and cross-college teams comply with established procedures. Audit reports which include clear targets for improvement are submitted to the academic board for approval. Most of last year's audit programme was achieved. The process includes observation of the learning experience of students and mirrors many features of the FEFC inspection framework. Directors of schools are required to establish an action plan to deal with any weaknesses identified within their area of responsibility. It is too early to judge the effectiveness of this process.

52 The review and evaluation of courses is well established and results in measurable improvements in a number of instances. For example, analysis of poor examination results in computing led to a greater focus on the needs of individual students. Each course has a log which contains key documents such as schemes of work, verifiers' reports and the current review and evaluation documents. Teachers find the log helpful in evaluating their work. Course teams meet regularly, and consider matters such as students' progress and achievements. Some teams are attempting to analyse the value added to students' achievements on vocational programmes by comparing their achievements on entry with those gained at the college. A course review is undertaken at least annually and student representatives normally attend. It is comprehensive and analytical; it identifies strengths, weaknesses and actions required for improvement. The action plan must be signed as completed by the director of school, who then submits this to the assistant principal, academic affairs. The effectiveness of course teams in reviewing their provision is variable. For example, some review reports are not completed and not all course logs are maintained to an appropriate standard as required by the college. Others do not fully consider the views of students or employers of the provision offered, or provide adequate feedback on performance. In engineering, team minutes do not show that actions have been followed through.

53 Service level agreements have been introduced for non-academic areas of the college. These describe, to a model format, the standards of

service that can be expected by users, and the monitoring arrangements to ensure compliance with the standards. For example, there is an agreement covering the management information reports provided to managers and the FEFC. Performance against the agreement forms the basis of an annual review and subsequent action plan. Users of the service are encouraged to give formal feedback on the quality of service by means of a standard report form. Staff stated they had been fully involved in the development of the agreements. Service level agreements have been established for nine areas and four have been audited. Not all areas of provision are covered, however. For example, agreements have yet to be drawn up for the college's postal system, estates management and marketing. The reporting arrangements for measuring performance against standards are not yet complete.

54 Reports from external verifiers are reviewed and action taken where necessary. Procedures for the approval and validation of new courses are rigorous. Internal verification of assessment standards satisfies the requirements of the main awarding bodies and is applied to all vocational courses. However, the process is not fully effective, for example in electronics. The approval and validation of full-cost courses is at an early stage of development.

55 The college has a well-established and effective appraisal system for all staff. This was recently changed to an annual performance review interview which, as well as focusing on staff-development needs, agrees performance objectives for the year. The process is open and appreciated by staff. Some staff found appraisal raised their personal confidence, improved job satisfaction and raised the level of the work they undertook. A 'reverse appraisal' where all staff have the opportunity to contribute views on the performance of their line manager is valued within the college. This operates at all levels, and includes the principal and managers of support staff.

56 Staff development is comprehensive and effective. The annual programme of events meets the needs of both individuals and the college. It is regularly evaluated and an annual report is produced. School-based technical updating activities for staff are encouraged and participation in these is high. The staff-development budget is allocated according to priorities determined by weighing curriculum and personal needs. Part is held centrally and part is delegated to schools. The process of calculating the cost benefit of staff development is at an early stage, as is the monitoring of staff-development budgets delegated to schools.

57 Most new staff have a formal induction to the college. The procedure is well organised and well managed. The staff-development co-ordinator proposes a mentor who works, where possible, in the same area as the new entrant. There is a detailed induction checklist and staff induction booklet. Both mentors and new staff report favourably on the process. An external audit identified that the college's existing staff-development

framework fits closely with what is required to achieve Investor in People status. The college aims to achieve this status by June 1997. Not all staff are aware of this initiative, nor of the benefits it may bring the college.

58 The college charter is well designed and informative. It contains measurable standards for the level of service that students should expect from the college but few of these relate to employers and none to the community. It was last audited by the quality team in December 1994. Employers and community representatives were not involved in the auditing process. A further audit is imminent. The charter advisory group has not met since June 1994. Arrangements do not fit coherently into the college's quality assurance framework. Students are generally familiar with the charter. The charter has been adapted to meet the needs of students with learning difficulties and/or disabilities. Students and employers are clearly advised on how they may complain if the college is not meeting its charter commitments. To date, few formal complaints have been received.

59 The college's self-assessment report was written and developed by a senior manager in consultation with individuals and groups, including governors and members of the academic board. However, there was little consultation with the college's clients. The report follows the headings used in Council Circular 93/28, *Assessing Achievement*. Not all directors of schools provided adequate feedback to their staff on the final report. Although no formal school and curriculum area self-assessment reports were produced prior to the inspection, the strengths and weaknesses relating to each curriculum area were identified. The report lacked effective evaluation and did not cover all elements of the Circular. Aspects of the report did not equate with inspectors' judgements. Some weaknesses were not identified and specific actions, timescales and responsibilities were not mentioned.

RESOURCES

Staffing

60 The college has 112 full-time and 22 full-time equivalent part-time teachers. Fifty-eight per cent of full-time teachers hold a degree or equivalent qualification. This proportion varies from 24 per cent in engineering to 88 per cent in the school of professional, academic and scientific studies. In engineering, however, 76 per cent are qualified at least to the equivalent of NVQ level 4. Most teachers are appropriately qualified for the courses they teach, although in areas such as printing and motor vehicle work the college recognises that the low numbers of full-time teachers qualified to degree level will limit proposals for the development of higher level courses. Eighty-three per cent of full-time and 63 per cent of part-time teachers hold a teaching qualification. The age profile of teachers indicates a good balance between younger and more experienced staff. Adequate numbers of teachers hold training and

development lead body assessor awards; overall 55 per cent of all full-time teachers have these awards, although the proportion is much higher in some areas, such as engineering, and lower in electronics. The ratio of technicians to full-time equivalent teachers is good. The college is piloting a technician instructor role in three curriculum areas.

61 Teachers often bring a high level of knowledge and skills to their teaching; in several areas of motor vehicle work teachers showed impressive practical skills and in art and design they had valuable professional and industrial experience. Owing to reorganisation, teachers in a small number of lessons were teaching subjects that they had not taught for some time. Teams of staff provide good support in cross-college areas, for example, in maintenance of information technology equipment and systems.

62 Procedures for the appointment of staff are well documented and there are clear guidelines for the allocation of teaching hours. These recognise different types of teaching and take into account other significant aspects, such as the amount of development work associated with individual teaching roles. All promoted postholders have recently undergone a rigorous appointments procedure. There are clear procedures to manage staff absence and ensure that staff who take sick leave receive appropriate support.

Equipment/learning resources

63 The college has computing facilities of high quality. The ratio of full-time equivalent students to computers is 6:1. Most computers are of a high specification. However, computers used on courses for students with learning difficulties and/or disabilities are not able to use the latest interactive compact disk read-only memory (CD-ROM) database software. Extensive networking of computers at Cookridge Street provides good access to the Internet while the developing college network contains a small but useful range of specific curricular materials. A significant proportion of computers is available for students to use on a 'drop-in' basis.

64 Resource centres at both Cookridge Street and Westland Road have a wide range of videos and CD-ROMs and use a computerised stock management system. Their opening hours meet the needs of students. A security system has recently been installed, following an analysis of book losses. Leaflets explain how the resource centres operate. Links between resource centre staff and teachers are said to be improving. Resource centres store materials for tutorials and staff are working with teachers in curriculum areas, such as mathematics and engineering, to develop computer-based learning materials. Much of the library budget for books is delegated to schools. The current library stock is limited; there is a ratio of books to full-time equivalent students of 9:1. Whilst the level of funding, at £12 per full-time equivalent student, is also low, this is

a significant increase over previous years. The library stock has recently been reviewed and some of the older publications removed. Students of printing and photography also have access to the Leeds Metropolitan University library.

65 Much expensive specialist equipment, for example in printing and photography, is provided with the assistance of industrial and other sources. Leeds Metropolitan University helps to fund electronic equipment. Vehicle manufacturers regularly help the college to update its vehicle stock. Equipment required for electrical installation work is provided by the industry. The strengths of the specialist equipment outweigh the weaknesses in most curriculum areas. Motor vehicle provision has particularly good equipment for vehicle body work and Ministry of Transport testing. There is appropriate software to support specialist computing facilities and well-equipped workstations in the electronics workshop. Students in the science workshop enjoy access to a wide range of resources. The mathematics, communications and information technology workshops are well equipped and computing rooms have benefited from recent updating. Overall, however, much of the equipment is old, although still serviceable. Specific weaknesses include; insufficient facilities to teach data communications, a poor equipment base to support the engineering sciences and limitations in the equipment to support art work. Equipment is well maintained and the computerised assets register ensures regular testing of portable appliances. Most classrooms are equipped with overhead projectors, screens and boards. Reprographic facilities are good.

Accommodation

66 Major refurbishment of the 14-storey Cookridge Street building is due to be completed by September 1997. Space is sufficient to meet the needs of current and projected student numbers. The accommodation strategy involves vacating the Calverley Street annexe, which offers a poor learning environment, and completing major renovations at East Street by August 1997. At the time of the inspection, 7 per cent of the college's students were studying at these two sites. Cookridge Street presently provides for 74 per cent of the college's students, and much of the accommodation is of a good standard. Services to students, such as the guidance and counselling rooms, are conveniently grouped around the reception area. The first-floor resource centre provides an attractive learning environment. It contains a library and workshops for mathematics, communications, information technology and languages. There is a smaller, but pleasant centre at the two-storey Westland Road building with a similar grouping of facilities. There is ample space in the motor vehicle and print workshops. However, rooms for the teaching of engineering sciences and computer-controlled machine tool work at Westland Road are small and cluttered. Some of the science laboratories have yet to be refurbished. Accommodation for electrical installation work

is of a poor standard. Classrooms are generally of a good standard, particularly at Cookridge Street, although some at Westland Road are unattractive. Many lack wall displays which would enhance the learning environment. In some curriculum areas, student groups lack base rooms.

67 Access for students who use wheelchairs or have restricted mobility is good at Cookridge Street. Lifts provide access to all floors except the top one, which can be reached by means of a chair lift. However, at Westland Road there is poor access to the first floor and there are no toilets adapted for use by students with disabilities. Social areas for students are few and restricted mainly to refectory provision. Sports facilities are minimal. Rooms and circulation areas are kept clean and tidy. Facilities for the secure storage of students' belongings and changing room facilities are inadequate at Westland Road. Staff accommodation is generally of an appropriate standard, although cluttered. Staff rooms are grouped on one floor at Cookridge Street; administrative support and reprographic facilities are conveniently adjacent. A good feature at Westland Road is the staff workroom which contains a range of computers. There are shared work areas for part-time teachers. Car parking is very limited at Cookridge Street.

68 The college has a clear strategy for the development of its accommodation, and changes are carefully managed. The learning environment has been significantly improved in recent years to meet the needs of new client groups. For example, accommodation for support services has been improved to meet the needs of full-time students, and study spaces in the learning centres and science workshops have been increased. Maintenance work is prioritised and clearly scheduled.

CONCLUSIONS AND ISSUES

69 The particular strengths of the college are:

- the wide range of specialist courses providing appropriate progression routes for students
- the college's success in increasing participation from groups which have not usually entered further education
- the emphasis on teamwork and effective communication
- management information which is efficiently collected and used to inform planning
- flexible arrangements for admission and induction
- effective learning support systems
- teaching which is generally of a good standard
- clear quality assurance procedures supported by comprehensive audits and lesson observation
- an effective staff-development programme which links with individual performance review

-
- well-qualified and experienced staff
 - some high-quality equipment provided by industry
 - well-managed refurbishment of accommodation.
- 70 If it is to build upon its strengths the college should:
- improve the effectiveness of its links with the community, schools and employers
 - take further steps to broaden its sources of funding
 - continue to improve aspects of curriculum management
 - improve careers guidance for adult students on part-time vocational courses
 - develop strategies to improve the levels of students' achievements in some areas
 - address inconsistencies in the quality of course reviews
 - extend the range of skills of some teachers
 - improve the inadequate library provision
 - continue to improve the quality of accommodation and equipment.

FIGURES

-
- 1 Percentage student numbers by age (as at February 1997)

 - 2 Percentage student numbers by level of study (as at February 1997)

 - 3 Student numbers by mode of attendance and curriculum area (as at February 1997)

 - 4 Staff profile – staff expressed as full-time equivalents (as at January 1997)

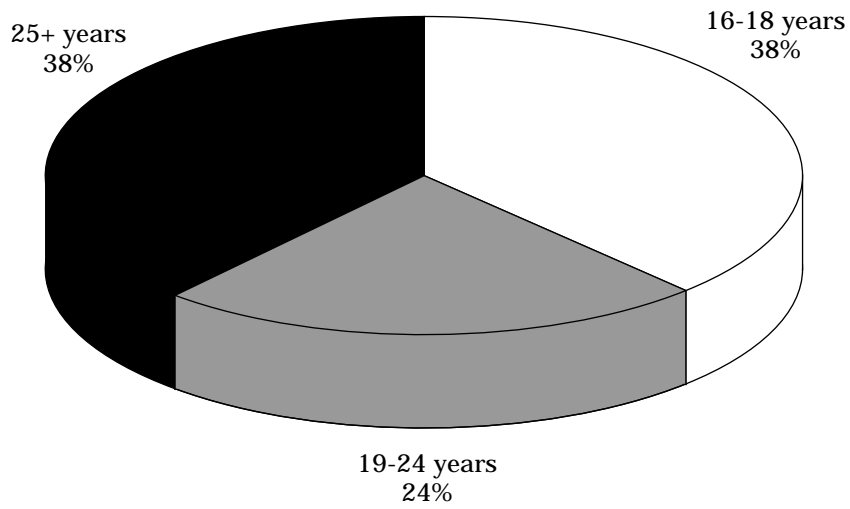
 - 5 Income (for 12 months to July 1996)

 - 6 Expenditure (for 12 months to July 1996)

Note: the information contained in the figures was provided by the college to the inspection team.

Figure 1

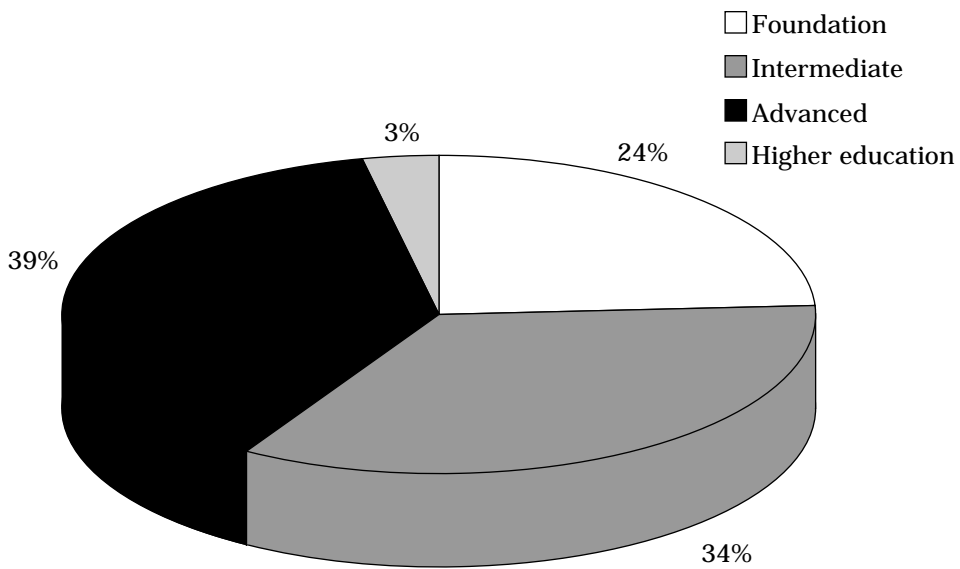
**Leeds College of Technology: percentage student numbers by age
(as at February 1997)**



Student numbers: 3,087

Figure 2

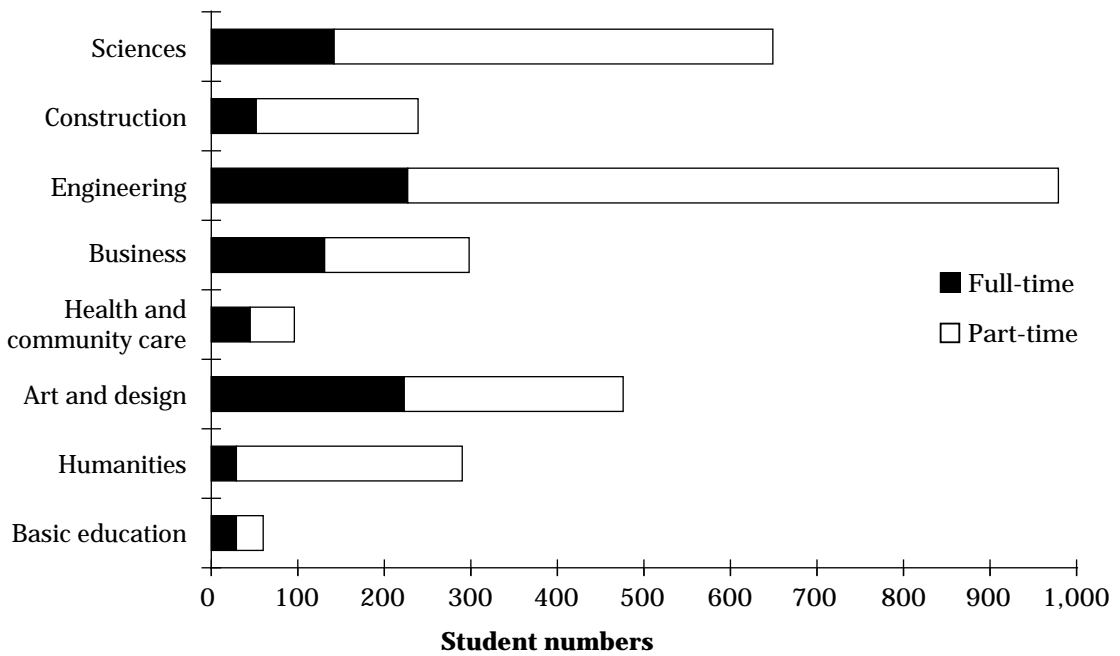
**Leeds College of Technology: percentage student numbers by level of study
(as at February 1997)**



Student numbers: 3,087

Figure 3

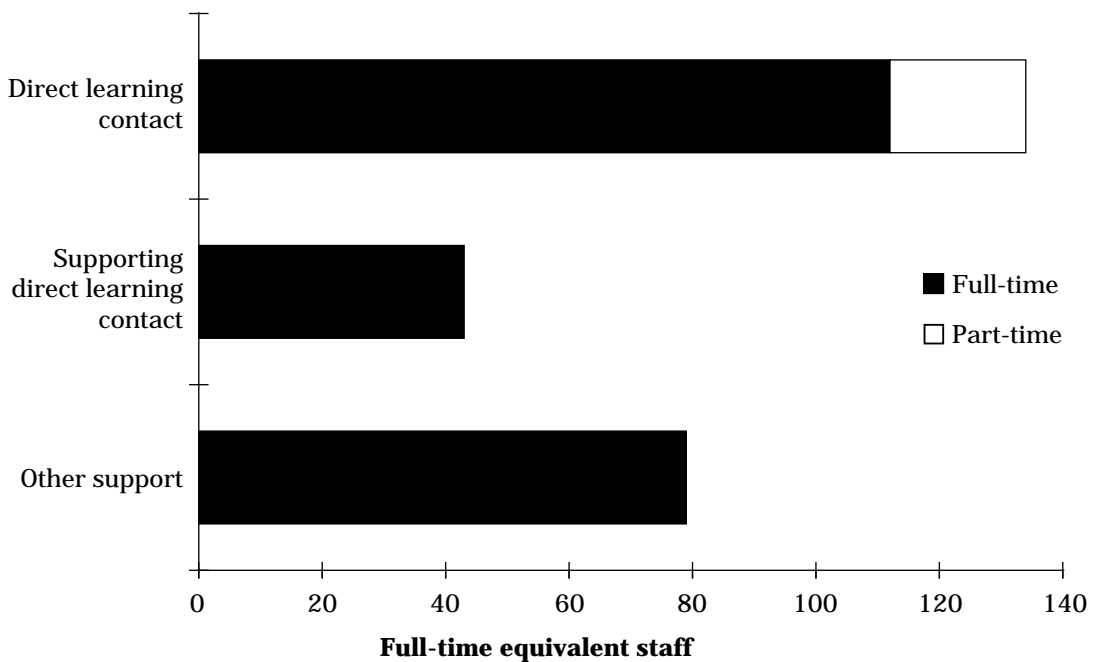
Leeds College of Technology: student numbers by mode of attendance and curriculum area (as at February 1997)



Student numbers: 3,087

Figure 4

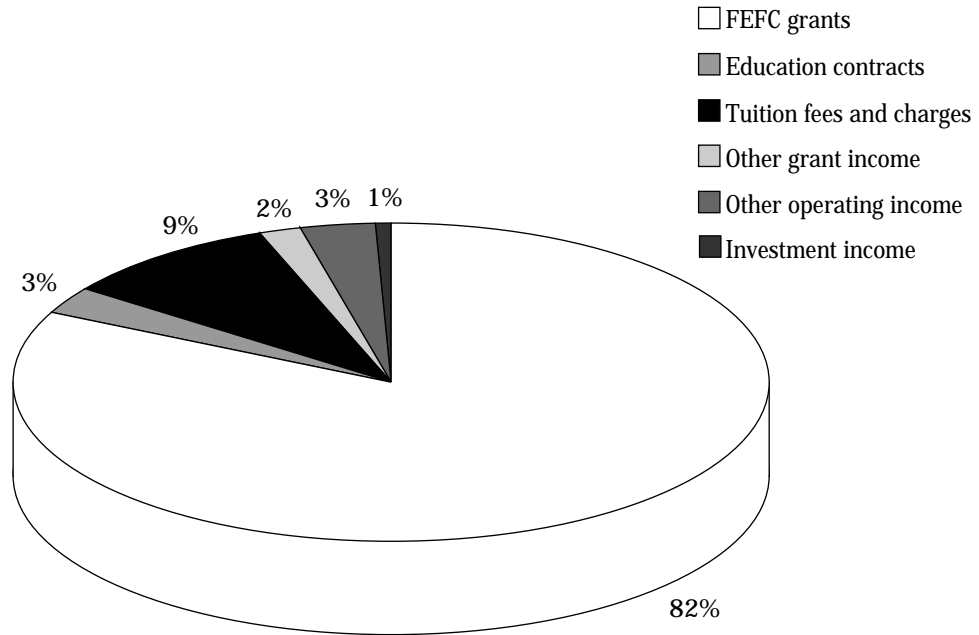
Leeds College of Technology: staff profile – staff expressed as full-time equivalents (as at January 1997)



Full-time equivalent staff: 256

Figure 5

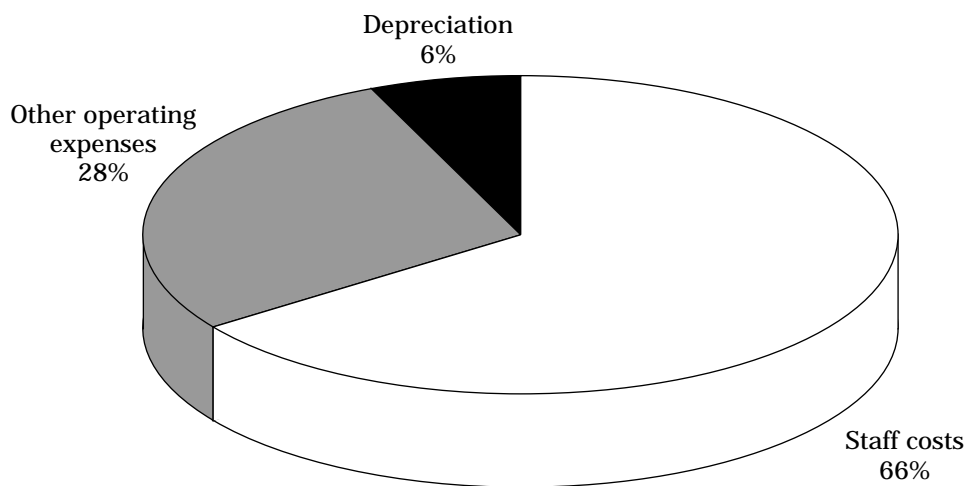
Leeds College of Technology: income (for 12 months to July 1996)



Income: £7,781,000

Figure 6

Leeds College of Technology: expenditure (for 12 months to July 1996)



Expenditure: £8,304,000

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