



Comptroller and Auditor General

Report on Value for Money Examination

## Procurement in Universities

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Baile Átha Cliath  
Arna fhoilsiú ag Oifig an tSoláthair

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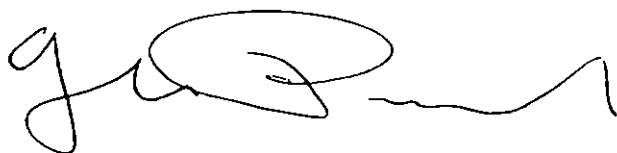
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## Report of the Comptroller and Auditor General

### Procurement in Universities

I have, in accordance with the provisions of Section 9 of the Comptroller and Auditor General (Amendment) Act, 1993, carried out a value for money examination on procurement in Irish universities.

I hereby submit my report of the above examination for presentation to Dáil Éireann pursuant to Section 11 of the said Act.

A handwritten signature in black ink, appearing to read 'John Purcell', with a large loop at the beginning and a wavy line at the end.

John Purcell  
Comptroller and Auditor General

12 November 1996

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## Glossary

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CHEST(IRE)	Combined Higher Education Software Team of Ireland
CHEST(UK)	Combined Higher Education Software Team of the United Kingdom
CHIU	Conference of Heads of Irish Universities
DCU	Dublin City University
EU	European Union
GATT	General Agreement on Tariffs and Trade
HEA	The Higher Education Authority
HEAnet	The Higher Education Authority Network
HPLC	High Performance Liquid Chromatography
IT	Information Technology
JCACP	Joint Consultative and Advisory Committee on Purchasing - The Scottish and Northern Irish University Purchasing Consortium
PC	Personal Computer
SPM	Saint Patrick's College Maynooth
TCD	University of Dublin, Trinity College Dublin
UCC	University College Cork
UCD	University College Dublin
UCG	University College Galway
UL	University of Limerick

# Summary of Findings

## *Background*

The seven Irish universities covered in this examination spend approximately £310m annually of which approximately £76m relates to the procurement of goods and services.

Universities are autonomous, independent bodies which receive the bulk of their funding from the State by way of grants issued through the Higher Education Authority (HEA). Because of their historical autonomy, the policy of the HEA has been to regard procurement as an internal matter for each of the universities. However, the HEA has, over the years, encouraged universities to co-operate in some areas of procurement.

In general, universities delegate budgetary and procurement responsibilities to their academic and administrative departments. The extent of the decentralisation varies between the institutions, with the retention of some central procurement and storage responsibilities at institutional level.

UK universities which have similar devolved management arrangements, have made a number of advances in procurement practice, particularly through better co-ordination of purchasing. These advances have resulted in considerable savings.

The study focused on

- the adequacy of procurement arrangements within each university
- areas where combined purchasing arrangements might be applied
- whether university procurement policies are in line with best practice.

## *Procurement Practice*

Nine categories of goods and services were examined which collectively account for over £17m annually. Wide variations were found in the prices paid for similar items both within and between universities. For example

- cleaning costs per square metre varied from £4.87 to £8.73
- security costs per square metre varied from £2.20 to £5.69
- discount on books purchased varied from nil to 10% depending on the supplier and the university
- the prices for chemicals varied widely. Acetone ranged in price from £0.97 to £12.00; Ethanol ranged from £2.15 to £26.00.<sup>1</sup>

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<sup>1</sup> Prices are based on units of 2.5 litres.

The findings suggest that significant savings could be achieved by better procurement management.

### *Procurement Management*

The study identified the following potential improvements to procurement management.

- Collaborative arrangements between universities would reduce costs. The universities have two such agreements in place in the area of information technology (IT). The HEA and the universities should co-operate in further developing such arrangements.
- Clearly defined policies and procedures are required which will provide comprehensive guidance on procurement matters and ensure that procurement activities are properly controlled and economically and efficiently operated. Only two universities have issued comprehensive statements.
- Management reporting and control procedures are required since effective procurement management is heavily dependent on the generation of good information. Without this, management cannot evaluate the current position and monitor purchasing effectiveness. None of the universities examined generate regular or comprehensive purchasing information.
- Focused training and development opportunities should be provided to all relevant staff which would be likely to show immediate benefits. Universities in general had not addressed the development and training of purchasing staff.

Savings of between 5% and 15% have been achieved in other public bodies and UK universities by adopting the recommended procurement management approach.

# **Procurement in Universities**



# Part 1 : Introduction

## Background

- 1.1 There are seven university colleges in the State which are funded by the Higher Education Authority (HEA). These are

- University College Dublin (UCD)
- University College Cork (UCC)
- University College Galway (UCG)
- St Patricks College, Maynooth (SPM)
- University of Dublin, Trinity College Dublin (TCD)
- Dublin City University (DCU)
- University of Limerick (UL)

UCD, UCC, UCG and SPM collectively comprise the National University of Ireland.

- 1.2 Universities are autonomous, independent bodies with an amount of private income and assets. However, the bulk of their funding is provided by the State through the HEA. The HEA, which was established under the Higher Education Act, 1971, is required to assist the Minister for Education in the co-ordination of State investment in Higher Education and in preparing proposals for such investment. The main statutory function of the HEA is to assess the amount of State financial provision, both current and capital, which it recommends for higher education and to allocate among the universities State grants provided through the Department of Education.
- 1.3 Because of the historical autonomy of the universities and the nature of the funding by way of State grants, the policy and practice of the HEA has been to regard matters such as procurement as being within the internal administration and authority of the universities. However, the HEA has, over the years, encouraged universities to co-operate in procurement matters.
- 1.4 An outline of the State funding arrangements for the seven universities is set out in Appendix A.
- 1.5 Irish universities incur annual expenditure in excess of £310m approximately on teaching and research, of which an estimated £180m relates to staff costs. The balance includes £76m approximately which relates to the procurement of goods and services. Table 1.1 sets out the breakdown of this expenditure by university.

**Table 1.1**  
**University Annual Expenditure on Goods and Services**

University	£m
UCD	18.5
TCD	15.0
UL	12.0
UCC	11.0
UCG	9.0
DCU	7.5
SPM	3.0
Total	76.0

### **Procurement Arrangements in Irish Universities**

- 1.6 There is considerable diversity in the internal organisational structure of universities reflecting differences in their tradition, size and subject mix. Universities generally use a system of devolved management and financial accountability. Individual departments operate autonomously within the universities and are responsible for the major share of expenditure on goods and services. Although the level of this decentralisation varies between the institutions, some central procurement and storage responsibilities are retained. It is estimated that, in total, some 450 staff have an involvement in procurement activities.

### **Procurement Arrangements in UK Universities**

- 1.7 In general, UK universities use a similar system of devolved management with autonomous departments and schools within each university. Since the 1980s, UK universities have made a number of advances in procurement practice through various initiatives which have resulted in considerable savings. These include the drawing up of improved policies and procedures, effective purchasing information and a greater level of co-ordinated purchasing within and between universities.
- 1.8 There are seven university purchasing consortia covering the whole of the United Kingdom which negotiate with suppliers on behalf of members. It has been estimated that this approach has saved tens of millions of pounds for members in recent years.
- 1.9 A national central purchasing co-ordination office has also been established to work closely with the universities in developing effective procurement practices.

- 1.10 These arrangements also provide valuable centres of knowledge, expertise and negotiation practice on which all of the universities can draw. A description of the main UK university procurement initiatives is set out in Appendix B.

### **Purpose, Scope and Methodology of the Study**

- 1.11 The specific objectives of this study were to
- compare and evaluate the procurement arrangements in each university
  - examine areas where combined purchasing arrangements might be applied
  - establish whether universities' procurement policies are in line with best practice.
- 1.12 The examination focused on a sample of nine categories of expenditure common to all the universities. These categories are set out in Table 1.2 with the annual total expenditure for the universities.

**Table 1.2**  
**Sample Categories of Expenditure Examined**

<b>Category</b>	<b>Annual Expenditure £m</b>
Insurances	1.60
Chemicals	0.45
Library Periodicals and Books	4.50
Furniture	0.10
Photocopying	0.50
Personal Computer Equipment	1.80
International Travel	1.60
Cleaning	4.30
Security	2.20
<b>Total</b>	<b>17.05</b>

- 1.13 Other areas of non-pay expenditure such as rates, rents, depreciation and capital maintenance were excluded from the examination. Utility costs for energy and telecommunications, which represent a sizeable element of the universities' expenditure on goods and services, were not examined as part of this study.

- 1.14 The examination was conducted by staff of the Office of the Comptroller and Auditor General with the assistance of a firm of procurement experts, Transelec Ltd., who carried out a review of the study's findings, conclusions and recommendations.
- 1.15 Staff involved in procurement in each of the universities were interviewed at various stages throughout the examination. A postal survey of the procurement arrangements was carried out to provide information for the fieldwork of the audit staff.
- 1.16 Audit staff visited the UK Universities' Central Purchasing Co-ordination Office at Edinburgh University. This visit also facilitated a review of the Scottish and Northern Ireland University Purchasing Consortium and the procurement office in Edinburgh University itself.

## **Part 2 : Procurement Practice**

- 2.1 The purpose of this part of the report is to compare procurement practice within the seven universities and to assess the potential benefits of centralised and collaborative arrangements within the university sector.
- 2.2 Purchasing is carried out mainly on a devolved basis throughout the universities. (See paragraph 1.6). The main risk associated with purchasing in small devolved elements is that no one person is in possession of the information needed to identify areas where common cost saving initiatives can be achieved. Universities could seek to counter this through a combination of devolved budgeting with appropriate collaborative arrangements such as purchasing consortia and internal centralised approaches, such as main purchasers for high usage commodities.

### **Collective Purchasing Arrangements**

- 2.3 Collaboration at institutional level would not only ensure that common cost saving initiatives could be implemented but it would also improve the effectiveness of the procurement function by the co-ordination of information on suppliers and on the market.
- 2.4 It has been demonstrated in the case of UK universities that collective agreements can produce considerable value for money savings where they are implemented. UK institutions have collaborative arrangements such as university consortia, national and inter-regional purchasing working groups and the UK University Central Purchasing Co-ordination Office.
- 2.5 In the Irish public service, an example of the benefits of collaborative arrangements is the formation of a value for money group in 1990 consisting of the representatives of the eight Health Boards and 180 hospitals. The group implemented a joint action plan which resulted in the formulation of national and regional contracts. The group has estimated that these arrangements have resulted in cumulative savings of over £15m in the period to 1994.
- 2.6 Irish universities have not implemented formal purchasing consortia arrangements similar to the arrangements in the UK. However, two combined purchasing agreements are operated by Irish universities - one for the purchase of computer software, entitled the Combined Higher Education Software Team for Ireland (CHEST (Irl)) and the other for a data network to link the universities, called HEAnet.
- 2.7 CHEST (Irl) evolved from both the CHEST (UK) initiative and a pilot project carried out by University College Dublin Computing Services in 1991. The HEA facilitated the transformation of the UCD pilot project into a service for all higher education institutions by the provision of an annual funding grant for the three years to 1994.

CHEST (Irl) is concerned with the negotiation of special deals for the purchasing and licensing of software for third level colleges at more attractive prices and conditions than have been previously available. The benefits of this arrangement are achieved through the combined co-operative effort of the institutions in presenting a unified approach to suppliers. The universities identify the benefits as follows

- direct financial savings
  - expanded usage of products for the same cost
  - better relationships with suppliers
  - better awareness of legal obligations by personnel within the institutions.
- 2.8 According to the HEA, the estimated savings for the universities from this arrangement were £1.1m to March 1994.
- 2.9 HEAnet was established to facilitate high speed inter-communication and the sharing of expensive information technology (IT) resources between universities. It has been most successful in obtaining advantageous terms from Telecom Éireann, international networks and equipment suppliers since its inception in 1984.
- 2.10 In our view, the possibility of introducing procurement consortia arrangements, similar to those of UK universities, should be investigated by the universities with assistance from the HEA. It is recognised that such arrangements will take time to implement as matters such as management information systems for informed decision making are required. However, the basic structures are in place as is evidenced by the combined arrangements of CHEST (Irl) and HEAnet.

### **Centralised Purchasing Arrangements**

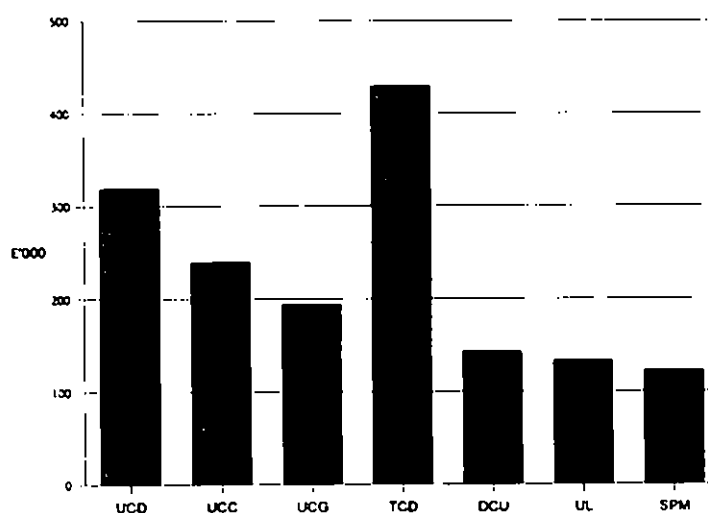
- 2.11 Universities have recognised that there are some shortcomings in the traditional approach of departmental autonomy for budgetary and purchasing control by introducing centralised purchasing arrangements for certain commodities and services. The benefits of centralised arrangements are
- co-ordination across the institution to maximise purchasing power, and minimise duplication of effort
  - key procurement activities are focused on where maximum benefit to the university is obtained
  - buyers operating remotely in individual departments have access to common support facilities which help them concentrate their limited resources on value added activities.

- 2.12 The nine sample categories of expenditure, described in Table 1.2, were examined in each university to consider where revised purchasing arrangements, particularly collective or centralised arrangements, might be of benefit.

### *Insurances*

- 2.13 Insurance is a substantial item of expenditure for the university sector with a total annual cost of £1.6m. The largest cost was £430,000 incurred by TCD and the lowest cost was £123,000 at SPM. Figure 2.1 shows these costs in 1994/95.

**Figure 2.1**  
**Insurance Costs<sup>a</sup>**



*Note: <sup>a</sup> TCD sought tenders for their insurances in 1994/95 and succeeded in reducing the annual insurance costs to £430,000 from £548,000.*

- 2.14 It is recognised that the cost of insurance to any one institution will depend on factors such as location, size, accessibility, value of property etc. However, there should be opportunities to effect savings in this area as is illustrated by the following examples.
- In 1992, thirty three UK universities arranged a combined agreement for their insurances. They formed an association, under their control, of institutions with similar risks. Members pay premiums into a common fund to purchase re-insurance, meet claims and pay administration costs. Under this agreement, the association achieved an immediate 15% reduction in premium costs for its members.

- During 1993, the HEA and universities were approached by an Irish broker who proposed that if the colleges re-organised their payments of premiums collectively, a saving of approximately 25% could be achieved. However, the Conference of Heads of Irish Universities<sup>2</sup> (CHIU) took the view that combined initiatives were not required on the basis that each institution could obtain better terms related to their individual circumstances, taking all factors into account, by direct individual negotiations with their insurers.
- 2.15 Public liability insurance, in particular, is based on the level of claims made against an institution and the premium paid usually reflects this. At a minimum, a collective agreement would contribute to reduced management costs. It would also assist the dissemination of good practice across universities.
- 2.16 Universities should consider addressing their entire insurance requirements by means of an independent insurance risk review. This review could examine all aspects of insurance risk covered at each university and assess the options of combining these risks under one or more policies.

### *Chemicals*

- 2.17 Universities purchase large quantities of chemicals for use by students in laboratory experiments for the practical portion of science courses. For the purposes of this report, the arrangements for the purchase of chemicals by the chemistry and biology related departments of the science faculty in each university were examined. These areas spend £450,000 approximately each year on chemicals.<sup>3</sup> In general, it was found that the onus was on the technical staff of each science department to purchase chemicals as required, subject to the appropriate authorisation.
- 2.18 Consortia arrangements between UK universities have achieved savings of 10% on the cost of chemical purchases over earlier arrangements.
- 2.19 It is recognised that there are non-price factors which must be taken into account when making cost comparisons such as quality, quantity and availability of the chemicals. It is also recognised that there are operational benefits in purchasing smaller quantities including

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<sup>2</sup> *CHIU acts as the representative body for the university sector in Ireland and is made up of the heads of Irish Universities.*

<sup>3</sup> *Since all the university accounting systems do not record information by commodity, the value of chemical purchases is estimated.*



- convenience of handling smaller containers
- saving on storage space
- safety benefits
- improved cashflow in buying smaller quantities
- reducing the risk of contaminating existing chemicals.

2.20 While acknowledging these limitations, considerable variation was noted between universities in the cost of procuring chemicals. The following are some examples.

- UCD negotiated the purchase of 200 containers of Dichloromethane in 2.5 litre quantities, a total volume of 500 litres, at a cost of £1,444. A similar quantity purchased in bulk would have cost only £284, a saving of over £1,000.
- UCD negotiated the purchase of 100 containers of Ethanol in 2.5 litre quantities at a cost of £1,205. A similar quantity in a bulk purchase would have cost £215.
- DCU arranged for the purchase of 600 litres of acetone in units of 25 litres (24 containers) at a cost of £1,083. A similar quantity in 3 containers of 200 litres would have cost £233.
- UCC purchased 100 containers of Petroleum Spirit 40/60 in units of 2.5 litres at a cost of £695. A similar quantity, purchased in bulk, would have cost £267.

2.21 An investigation by the TCD science department in 1995 found that the cost of non-bulk purchases of chemicals can be up to seven times higher than bulk purchases of the same chemicals. As a result the arrangements for the purchasing of chemicals have been reviewed.

2.22 Given the wide variation in prices between bulk purchasing and purchases in smaller units, universities should continuously monitor their arrangements for chemical purchases to ensure that the best value is obtained.

2.23 A further example of the variation in the cost of chemicals can be shown by a comparison of the range of prices negotiated by chemistry departments and the other science departments across the universities for a sample of five chemicals. The results are set out in Table 2.1.

Table 2.1  
Range of Chemical Prices for a Sample of five Chemicals

Chemical <sup>a</sup>	Chemistry Departments £	Other Science Departments £
Acetone	0.97 - 4.51	10.38 - 12.00
Chloroform	6.56 - 10.18	8.00 - 17.00
Diethyl Ether	4.94 - 9.32	11.73 - 16.10
Methanol HPLC	4.63 - 10.00	4.63 - 10.36
Ethanol	2.15 - 13.01	2.65 - 26.00

Note: <sup>a</sup> Prices are based on units of 2.5 litres for comparison purposes.  
The validity of the comparison for usage purposes was confirmed by the State Laboratory.

- 2.24 While the limitations, described in paragraph 2.19, should be taken into account, the variations in price indicate that co-operation between science departments within universities would generate savings.

#### Library Periodicals

- 2.25 Periodicals consist of regularly published material on a variety of topics. Examples range from newspapers to weekly, monthly and annual publications. The seven university libraries expend almost £3.0m on periodicals annually. The spending by each library is shown in Table 2.2.

Table 2.2  
Annual Periodical Purchasing by Universities

College	Cost £000
UCD	1,010
UCC	520
UL	375
TCD	365
DCU	270
UCG	240
SPM	140
Total	2,920

- 2.26 While, in some instances, universities buy directly from a supplier, the bulk of periodicals are acquired through agents. This arrangement benefits the libraries by reducing the administrative overheads involved in dealing with multiple suppliers.
- 2.27 Payments to agents are on a system known as 'one line invoicing' which usually involves payment in advance.<sup>4</sup> It was noted that all the universities employed this method, with only UCG not making advance payments.
- 2.28 The examination found that variations occurred in the prices paid by libraries for the same periodical. The highest and lowest annual subscriptions paid for periodicals, common to the universities, are set out in Table 2.3 which also shows which university incurred the highest or lowest cost.

**Table 2.3**  
**Annual Subscription for Sample Periodicals**

Periodical Name	Highest Price		Lowest Price		Percentage Difference %
	£		£		
Accountancy	64.29	UL	58.95	UCG	9.1
Harvard Business Review	111.92	DCU	105.18	UCD	6.4
Journal of American Chemistry Society	1043.96	DCU	899.25	UCG	16.1
Long Range Planning	384.60	DCU	352.04	UL	9.2
Sloan Management Review	70.64	DCU	62.63	UL	12.8
Broadcast	107.10	DCU	88.55	UCG	20.9
Biotechnology	144.76	UCD	132.65	SPM	9.1
Cancer Research	390.01	DCU	349.76	UCD	11.5

- 2.29 A UK consortia arrangement has negotiated a collective agreement with a single agent for the purchase of their total requirement of periodicals. This arrangement saved approximately 5% on previously paid prices. Irish Universities should consider the benefits of a similar collective agreement involving one agent which would eliminate any differences in price.

<sup>4</sup> This 'one line invoicing' system involves the library being issued with only one invoice a year for all its subscriptions and paying, generally, three to six months in advance.

- 2.30 It was noted that agents charge for periodicals in currencies such as Dutch Guilders, Sterling or Irish pounds. It was not possible to establish why such invoices are issued in different currencies and universities have not carried out any analysis to establish the effect of this practice on the cost of periodical purchases.

### *Library Books*

- 2.31 Universities spend approximately £1.6m per annum on library books. Table 2.4 shows the discounts negotiated by the universities from a sample of book suppliers.

Table 2.4  
Book Supplier Discounts 1993-1994

University	UCD	UCC	UCG	TCD	SPM	DCU	UL
Supplier							
1	5%	0%	-	-	-	-	0%
2	10%	-	5%	-	0%	10%	10%
3	0%	-	0%	10%	-	10%	-
4	-	-	-	5%	7%	-	-
5	0%	-	5%	0%	0%	0%	0%
6	5%	5%	-	7%	10%	5%	0%
7	5%	-	-	-	-	0%	-

- 2.32 The variation in discounts shown in the table would suggest that collaborative arrangements or the regular exchange of information on suppliers could maximise discounts available from suppliers.

### *Furniture*

- 2.33 The responsibility for purchasing furniture in the universities is, in all cases, assigned to the Buildings Office. A central budget is allocated for furniture requirements. The amount spent on furniture from recurrent funds is estimated collectively to be £100,000 annually, excluding purchases of furniture for new buildings which are funded from capital grants and which represent the majority of furniture purchases.
- 2.34 In order to evaluate the purchasing arrangements in universities, the Buildings Office in each university was requested to supply the prices paid during the period 1993/94 for a list of common items of furniture. Comparisons based on prices can only be viewed in a limited context as they do not take account of such factors as quality,

quantity, safety and the supplier market. Within the context of these limitations Table 2.5 shows the highest and lowest prices paid based on the information supplied by the Buildings Offices.

**Table 2.5**  
**Prices for Sample Items of Furniture**

Item of Furniture	Highest Price £		Lowest Price £		Percentage Difference %
5' Double Pedestal Office Desk	242.00	UL	130.00	UCC	86.2
5' Single Pedestal Office Desk	144.80	UCG	112.50	SPM	28.7
4' Junior Desk	105.00	UL	36.00	TCD	191.7
Computer Chair	134.40	UL	55.00	TCD	144.3
Executive Office Chair	185.00	UL	110.00	TCD	68.2
4 Drawer Contract Cabinet	104.00	UCG	75.00	TCD	38.7
4 Drawer Super Glide Cabinet	184.30	SPM	121.00	UCD	52.3
6' Steel Press 3 Shelves	130.00	UCC	91.00	TCD	42.9
Side Chair	43.00	UCD	28.00	DCU	53.6
Exam Table	37.00	DCU	16.80	UCC	120.2
Polypropylene Chair	22.50	UCD	7.20	TCD	212.5

- 2.35 The wide disparity of prices as shown above would indicate considerable scope for price reductions based on the use of common agreed specifications, including quality and safety. The Buildings Officers have discretion to use their own criteria for the specification and quality of furniture purchased. A common set of guidelines on furniture specifications would ensure that a common standard of furniture is purchased.
- 2.36 The UK university purchasing consortium for Scotland and Northern Ireland (JCACP) has negotiated a purchasing agreement for general furniture supplies to their institutions. It is estimated that an average 6% has been saved on standardised furniture under this arrangement.

### *Photocopying*

- 2.37 Universities operate in-house photocopying facilities for both staff and students. These facilities are organised into
- a large central photocopying operation to cater for large printing work
  - small satellite machines distributed throughout the campus for general use.

These operations charge for their services and are expected to be self-financing.

- 2.38 There are thirteen large photocopying machines in use throughout the universities together with over 500 small satellite machines. The maintenance costs for these machines are estimated to be £0.5m.<sup>5</sup> The universities have no central co-ordinating arrangements for their maintenance agreements. It was found that there could be up to four companies providing maintenance in any one university.
- 2.39 Maintenance contracts for machines can now be negotiated in a single contract for the entire range of copiers in situ. A number of public sector and private sector companies have achieved savings of as much as 40% through such contracts.
- 2.40 In the UK, a university consortium entered into an agreement for the supply and maintenance of their photocopying machines. It is estimated that this arrangement has saved 17% on expenditure in this area.

### *Personal Computer Equipment*

- 2.41 With the rapid changes in the market for personal computers (PCs) and their extensive use on computing networks, a centralised approach to their procurement has obvious benefits. It is estimated that the institutions expend, in total, over £1.8m annually on PCs. Universities have adopted different approaches to providing PCs for their students and staff. In some cases, a computer shop operates on campus. In other cases, departments purchasing a machine seek advice from the university's computer services section or from suppliers without any outside guidance.
- 2.42 In UCD, UCC and TCD, a computer shop has been set up on campus which provides the equipment at purchase price plus a mark-up. The benefit of this arrangement is that departments have a supplying service close at hand. The computer shop can also negotiate prices with suppliers on behalf of the departments which would not necessarily have the expertise themselves. However, departments were not obliged to purchase from these internal shops. With the competitive nature

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<sup>5</sup> Since all the university accounting systems do not record information by commodity, the value of photocopying maintenance is estimated.

of the market, some found it more cost-effective to purchase direct from an outside supplier.

- 2.43 In DCU and SPM, university departments were obliged to seek clearance from a central computer services function in order to ensure that equipment was compatible with that generally being used. In the case of SPM, many of the PC purchases for departments were completed centrally by the computer services section. The drawback of this arrangement is that it does not optimise the potential for bulk purchasing discounts through a more central purchasing arrangement.
- 2.44 In UCG and UL, departments can purchase their own equipment, using their own purchasing criteria, with no formal requirement to seek guidance from the computer services department. In this situation, all the benefits of centralised purchasing were being missed with no guarantee that the optimum price was being achieved.
- 2.45 It is noted that in 1987/88, the HEA, in co-operation with the universities, agreed a contract with a supplier for PCs at favourable discount rates for a specified minimum annual purchase. However, this arrangement was discontinued as the fixed price contracts were not advantageous in a rapidly changing PC market.
- 2.46 The CHEST (Irl) combined purchasing agreement is used for the purchase of computer software only. ( See paragraph 2.7). Consideration should be given to the introduction of a similar arrangement for PC procurement. The operation of cross functional teams, utilising the necessary specifications and planned acquisitions over an extended period, could bring significant savings in this area.
- 2.47 A recent initiative by a public sector organisation in this area was the introduction of a framework agreement over three years under which prices are reviewed regularly against the market. This initiative has achieved immediate savings of 10%.

#### *International Travel*

- 2.48 Universities spend approximately £1.6m annually on international travel. Due to the devolved nature of the financial administration of the universities, it was found that travel arrangements were administered by individual departments in the course of which business was conducted with 72 different travel agents. Two universities had recommended designated agents but their use was not mandatory.

- 2.49 Organised purchasing of travel tickets would ensure better value for money through
- efficient administration
  - optimum prices on given flights
  - economies through volume discounts.
- 2.50 Edinburgh University indicated that there were potential savings of 14.5% when a single travel agent is used for all travel arrangements. This percentage cost improvement does not include further savings in administrative efficiencies due to dealing with only one supplier. While recognising that the UK travel market is different from that in Ireland, universities should consider the potential for the introduction of a similar purchasing arrangement.

*Cleaning*

- 2.51 The universities collectively spend an estimated £4.3m annually on cleaning. The estimated cleaning cost per square metre of buildings for each university is given in Table 2.6.

Table 2.6  
University cleaning costs per square metre

University	Cost per square metre £
DCU	8.73
TCD	7.37
SPM	6.82
UCG	6.54
UCD	6.42
UL	5.31
UCC	4.87

- 2.52 An accurate comparison of the seven universities depends on the extent of in-house cleaning staff compared with contract staff, the types of buildings involved and the allocation of costs which are not directly attributable. The types and frequency of service for cleaning contracts are also relevant.
- 2.53 The contract period was found to vary from one to seven years in the universities. A contract period of three years is generally considered the most appropriate period.
-



- 2.54 As with the other categories examined, universities should consider a rationalised approach through an ongoing exchange of information and support between universities.

*Security*

- 2.55 The total expenditure on security arrangements for all the universities is £2.2m approximately. The estimated security cost per square metre of buildings for each university is given in Table 2.7.

Table 2.7  
University security costs per square metre

University	Cost per square metre £
SPM	5.69
DCU	5.46
TCD	3.64
UL	3.34
UCC	2.75
UCD	2.60
UCG	2.20

- 2.56 The cost of security is influenced by location, access, property values etc. However, given the significant level of expenditure in this area, universities should consider a comprehensive investigation of the various options available, both individually and collectively, for the management of security arrangements.

## **Part 3 : Procurement Management**

### **Best Practice**

- 3.1 Having evaluated procurement practice in the universities, this part of the report examines the management of procurement in the universities and, in particular, how it compares with generally accepted good practice.
- 3.2 The primary objective of any procurement function is to obtain goods and services at best value for money through the optimum combination of whole life cost and quality which meets the customer's requirements. This can be achieved by using
- clearly defined policies and procedures
  - proper planning and control mechanisms
  - decision making based on quality management information
  - management review
  - efficient purchasing administration
  - professionalism and trained staff
  - proper stock control procedures.
- 3.3 Such an approach would also
- ensure accountability for due performance of the purchasing function
  - minimise order processing
  - achieve volume discounts
  - minimise storage and transportation costs
  - avoid duplication of effort.

### **Procurement Policies and Procedures**

- 3.4 Well defined procurement policies and procedures are essential to ensure that purchasing operations are regulated, efficient and economical. They should at least include
- a policy statement outlining all the key elements as agreed by top management for implementation by all parties involved
  - specific documentation which identifies clearly the responsibilities and authority levels to be exercised at every stage of the procurement process
  - the various procedures and practices essential for prudent management including, as a minimum, the following
    - supplier qualification requirements
    - procedures for quotations and tendering

- selection of tenderers
- contract award criteria
- tax clearance and other fiscal requirements
- issue of orders and conditions of contract
- terms of payment.

3.5 At the time of this examination, only DCU had issued a detailed purchasing policy and procedures statement. However, TCD has since issued a detailed procurement statement and stockholding guidelines. In the case of UCD and UCC, statements of mainly accounting and ordering procedures have been issued. In the remaining three institutions, namely UCG, UL and SPM, only ordering procedures are in place.

#### *Authority Levels*

3.6 The policy statement should state explicitly the authority levels and responsibilities of those authorised to make purchases on behalf of the university. The following are some examples of responsibilities which might be assigned

- authority to purchase
- supplier appraisal
- taking tenders and awarding contracts
- processing quotations
- negotiating with suppliers
- preparing purchase orders.

3.7 The statements on purchasing procedures, issued by four of the universities, document levels of responsibility for purchasing to a reasonably satisfactory degree.

#### *Procurement Guidelines*

3.8 Universities are obliged to observe Government procurement guidelines, Government contract regulations and legislation giving effect to EU directives and international agreements on procurement. It should be noted that an EU remedies directive (Dir 89/665/EEC) provides for review procedures and sanctions for breaches in the legislation.

3.9 The public procurement guidelines issued by the Department of Finance in 1994 summarise the national requirements, including items such as tax clearance, EU and GATT procurement obligations. These guidelines are outlined in Appendix C. While some purchasing staff were informed of these requirements, particularly in relation to capital expenditure, at the time of the examination, only UCD, TCD and DCU had formally issued the guidelines.

### ***Contract Duration***

- 3.10 To locate the best value supplier for high value goods and services, where a significant level of supplier sourcing is required, a process of competitive tendering is normally carried out. This process can be carried out for large one-off purchases, at the completion of existing contracts or where new contracts are initiated.
- 3.11 Of the four institutions with written procedures, DCU and TCD had issued procedures on competitive tendering. However, only TCD had a stated policy on the type and frequency of tendering.
- 3.12 The optimum contract period will depend on internal factors such as the cost of arranging and administering new contracts and external factors such as bulk purchasing power, the supply market and technology changes.
- 3.13 Contracts of up to three years are common in the public and private sectors, over the full range of products and services, as they afford service and price stability to the buyer. They also enable the supplier to allocate resources as efficiently as possible.
- 3.14 Some examples of variations in tendering were found in the areas of cleaning, insurances and library periodicals.
- 3.15 The procedures adopted for the employment of cleaning contractors revealed that, on average, tendering took place every three to four years. However, in one university, UL, it was found that new tenders had not been completed in seven years for the main building on campus. Nevertheless, as shown in Table 2.6, the university has the second cheapest cleaning cost per square metre.
- 3.16 Tenders were not sought regularly by the institutions for insurances. In the case of SPM and UCG one insurance company has always been used without seeking competitive tenders.
- 3.17 Library periodicals, in the majority of cases, are purchased from single agents. Some university libraries were found to be using the same agent for up to 15 years and tenders had never been sought for this business.

### ***Planned and Controlled Procurement***

- 3.18 In large organisations, such as universities, where business activities are devolved to discrete units, benefits can be gained through the co-ordination of the planning process between departments for the purchase of common items. This avoids duplicate sourcing and ordering, offers the opportunity of identifying volume discounts and reduces the investment in working capital and storage space.

- 3.19 The examination found that all of the universities, to some extent, co-ordinate the purchase of common items. For example, each university has allocated a centralised furniture fund to the Buildings Office from which departments can source their requirements.
- 3.20 In each university, the non-pay budgets for each academic faculty are calculated based on the number of students in the faculty and weighted according to the area of teaching. While this method might be equitable, one drawback is that actual purchasing requirements are not reviewed centrally and departments are not required to plan their purchasing.
- 3.21 While the budget process would give the institutions an opportunity to plan their purchasing requirements, controls are also needed which give an assurance that the allocated budget is not being exceeded. A budget control adopted by all the universities was a monthly comparison of the total department expenditure with the monthly and annual budget. This control is useful in that it forces departments to be more vigilant in order to remain within their budgets. However, further controls for procurement purposes are needed such as monitoring of duplicate sourcing and identifying areas for volume purchasing.

### **Procurement Related Management Information**

- 3.22 Effective purchasing is very dependent on good information. The information which should be available to purchasers includes
- expenditure by supplier
  - expenditure per item per year
  - usage per item per year
  - savings achieved
  - supplier performance
  - item price history
  - purchasing performances to target.
- 3.23 There were no examples found where management information on purchasing is produced regularly from the main financial accounting and reporting systems such as accounts payable and general ledger. In general, this had resulted in the development of small ad hoc computer systems within departments to help them keep records. The main problems with this are the wasteful duplication of input data and the difficulty in co-ordinating the assimilation of data.
- 3.24 The provision of good management information, in line with accounts payable and inventory systems, forms the basis of a comprehensive procurement management system. If the available management information is to be co-ordinated between

departments, it is essential that the various software systems are compatible with one another.

- 3.25 There is currently one initiative by the HEA in this area. In 1995, it established a committee, comprising both HEA members and members of the universities, to undertake the development of integrated information systems. The objective of the HEA in promoting this process is to facilitate the introduction of integrated information systems which would cater for the internal needs of the institutions and the HEA itself. So far, the committee has recommended

- the minimum technical criteria which local developments must satisfy
- the vital need to agree a common set of data definitions
- the need for an audit of existing information systems.

### **Management Review**

- 3.26 The effectiveness of the procurement function is dependent on the support of top management. Its strategic value must be appreciated at that level in order to ensure maximum benefit to the organisation. Continuous review by management of purchasing information would also ensure that current practice is assessed and objectives or targets for improvements are set.
- 3.27 UK universities have published a report on purchasing performance appraisal. The report found that the use of bench-marking indicators aids performance measurement by management. It determined that the performance indicators for university purchasing should cover the four dimensions of cost, quantity, time and quality.
- 3.28 It was noted that no Irish university had centralised monitoring of procurement by management. There was also little or no reporting on value for money achievements of purchasing operations. UCD and UCG were introducing internal audit functions on a full time basis at the time of the examination and have stated that value for money issues would be included in the remit of these positions. Other universities were examining the possibility of incorporating this role as part of the responsibilities of a staff member.
- 3.29 It is recommended that universities should nominate a member of staff, at an appropriate level, to manage the procurement function and should formalise their management review process by the production of an annual report on procurement.

### Cost of Purchasing Administration

- 3.30 Experience in the UK and Irish public sectors has shown that where no control is exercised over the value of orders placed, the administration costs can amount to between £30 and £50 per order. This includes the cost of seeking quotations, adjudications and order placement.
- 3.31 Under the existing delegated purchasing arrangements, recording of all the associated costs would prove difficult and is unlikely to be cost justified. However, one method of reducing costs is the operation of a minimum order value policy.<sup>6</sup> The examination noted that only one university, UCG, operated a policy of a minimum order value of £50.
- 3.32 An analysis of invoices processed in two of the universities over a one year period indicated that almost 30% had a value of £50 or less.
- 3.33 The following table shows the average value of orders placed by the universities

Table 3.1  
Average Value per Order by University

University	Annual Goods and Services Expenditure £m	Number of Orders Annually	Average Value per Order £
DCU	7.5	6,000	1250
UL	12.0	10,000	1200
UCC	11.0	10,000	1100
UCG	9.0	9,000	1000
UCD	18.5	40,000	463
TCD	15.0	40,000	375
SPM	3.0	10,000	300

- 3.34 All universities should consider establishing minimum order values as a means of reducing the number of orders being placed and thereby reduce their administration costs.

<sup>6</sup> This policy eliminates the requirement to issue a formal written order for purchases below a given value.

### **Professionalism and Trained Staff**

- 3.35 The procurement of goods and services spans a sizeable range of specialist activities requiring personnel with purchasing skills to focus on the key purchasing activities which bring maximum benefits. Some of the benefits would include
- an increased understanding and awareness of the particular markets and the suppliers within those markets
  - advice on the most appropriate methods of procurement in particular circumstances
  - the elimination of non-essential differences between end-users in the specification of their requirements
  - the avoidance of excessive stocks and inventories
  - the investigation of potential new suppliers in a structured way.
- 3.36 In general, sales people receive considerably more training than buyers which can place the buyer at a considerable disadvantage in negotiating and managing supplier performance. The examination found that, in all of the universities, staff involved in purchasing receive on-the-job training only.
- 3.37 Regular training and the dissemination of information through seminars should be organised as a matter of routine for staff involved in procurement. All staff involved in purchasing should also be encouraged to attend purchasing skills courses to equip themselves with the level of knowledge required to ensure the maximum benefits to the purchasing function.

### **Stock Control**

- 3.38 Value for money savings can be achieved through the proper management and control of stocks and stores. Direct inventory costs include working capital investment, lighting and heating of storage space and staff time involved in maintaining stores. Indirect costs include insurances, spoilage and stock obsolescence.
- 3.39 Inadequate stock controls can give rise to
- stocks being removed without being recorded
  - poor allocation of storage space resulting in the loss of volume discounts



- different departments duplicating the storage of items which can tie up valuable storage space
- poor ordering procedures resulting in uneconomic ordering, overstocking or stockouts.

- 3.40 All of the universities have several stores consisting of main stores and smaller stores within academic departments. The examination found that none of the institutions could confirm the exact number of stores on campus. While non-academic departments had adopted a reasonable approach to stock control, academic departments would not be considered to have done so.
- 3.41 Inventory management and control was, in all cases, left to the relevant departments which resulted in differing methods and approaches being adopted. For example, an examination of the chemical stores in the science department in each institution revealed that stock control systems varied from in-house computer systems to index card systems and a log book system. None of these systems could easily generate details on the total value of stock held, turnover analysis, economic replenishment levels etc. These stores, collectively, were estimated to hold a sizeable level of stock of chemicals valued at £400,000 approximately.
- 3.42 Universities should review their systems of management and control over stocks and stores in all areas of college activity.

## Appendices

## Appendix A

### Funding Arrangements in Irish Universities

The Funding of Irish Universities in the academic year 1994/95 consisted of HEA recurrent grants (60%), student fees (36%) and miscellaneous income (4%).

Under revised funding arrangements for the 1995/96 academic year, one half of the tuition fee for eligible undergraduate students was paid by the Exchequer through the HEA and the balance was paid by students. From 1996/96 the full tuition fee will be paid by the Exchequer through the HEA to universities.

Functions of the HEA are to

- assess, in relation to annual and other periods, the financial requirements of the institutions of higher education for which it is the funding agency
- recommend for state grants the capital and recurrent amounts assessed
- allocate the grants among the institutions from funds provided by the Department of Education by way of grant-in-aid.

Capital grants are issued to universities to fund major capital building projects and to provide for furniture, equipment and fittings. Capital grants in 1995 amounted to £15.6m.

Recurrent grants are issued to meet the running costs of universities. They are allocated on the basis of information provided from a unit costing model. Unit cost data provides the cost per student per year and is arranged across subject groupings.

The recurrent grant issued to the universities in 1995 was as follows

**Table A.1**  
**Recurrent Grants 1995**

	£m
UCD	47.9
TCD	31.7
UCC	28.3
UCG	19.3
UL	17.4
DCU	14.6
SPM	9.3
<b>Total</b>	<b>168.5</b>

## **Appendix B**

### **Procurement Practices in UK Universities**

#### **Background**

Universities in the United Kingdom spend in excess of £600m annually on the procurement of goods and services. Most universities operate through systems of devolved financial management and authority to purchase goods and services frequently rests with schools or departments within the universities. Progressive improvements have been made over the years by the adoption of centralised approaches such as lead buyers for high usage commodities and specialised commodities. Benefits have also been derived through collaborative arrangements between the universities involving the establishment of purchasing consortia, national and inter-regional working groups and a central purchasing co-ordinator's office.

#### **Regional Purchasing Consortia**

There are seven university regional purchasing consortia covering the whole of the United Kingdom whose origins date back to the early 1970's. The consortia negotiate procurement arrangements with suppliers, usually by competitive tender. Universities can avail of these arrangements if they so wish but there is no commitment upon them to do so. The consortia also provide valuable centres of knowledge, expertise and negotiation practice on which all of the universities can draw.

The consortia are accountable to the universities through membership of consultative and advisory committees which represent the university memberships.

The consortia are organised and funded in different ways, mainly by subscriptions from member institutions and are supported by a full-time or part-time secretariat. All of the consortia rely heavily on volunteer staff of their member institutions to act on the commodity groups which discuss and negotiate supply arrangements. Each consortium has a number of commodity and special interest group purchasing committees. For example, the Scottish and Northern Ireland University Consortium called the Joint Consultative and Advisory Committee on Purchasing (JCACP) consists of the following groups

- computer
- cleaning materials and equipment
- furniture, furnishings and textiles
- laboratory supplies
- stationery and office supplies

- business travel
- library
- insurance.

### **National and Inter-Regional Purchasing Working Groups**

Where institutions or consortia have recognised an opportunity to develop an agreement with other consortia or individuals to secure more general trading benefits, working groups have been established. Examples of these groups include

- National Universities Working Party on electronic components
- University and Colleges Hardware Group
- Consortium for Higher Education Energy Procurement
- National Working Party on Chemicals.

### **UK Universities Central Purchasing Co-ordination Office**

The Central Purchasing Co-ordination Office is responsible for working closely with universities, individually and collectively, and with the regional purchasing consortia to

- develop further their purchasing expertise and experience
- develop purchasing strategies
- develop appropriate information systems
- provide advice on EU Procurement Directives and Regulations
- develop performance indicators on purchasing
- develop consultative and professional links with other higher education and public sector organisations.

## **Appendix C**

### **Public Procurement Guidelines**

The Department of Finance have issued Public Procurement Guidelines (1994 Edition) which should be followed by Government Departments, local and regional authorities and other bodies dependent on state funding.

The guidelines give a summary of National, EU and GATT public procurement requirements.

The National Public Procurement Guidelines include information on

- Property Transactions
- Information Technology
- Engagement of Consultants
- Planning and Design Procedures
- Tendering Procedures.

EU and GATT Public Procurement Guidelines cover

- EU Public Procurement Directives
- Tendering Procedures
- Advertising
- Prior Indicative Information/Notices
- GATT Agreement on Government Procurement.