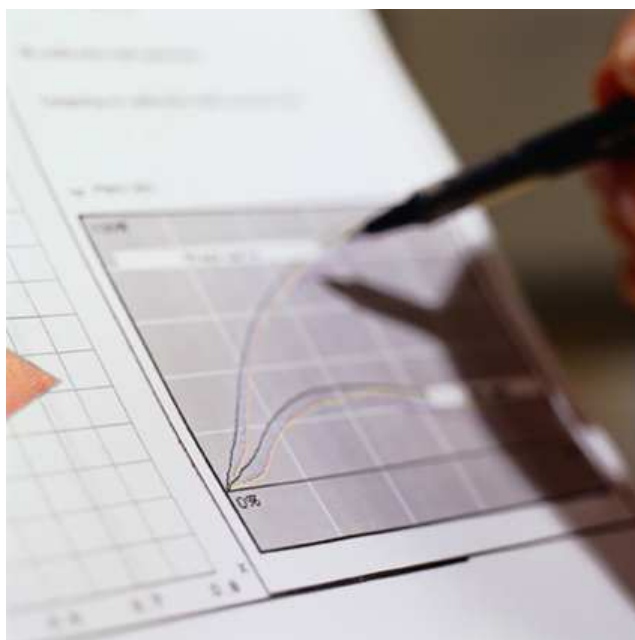


# UNICO UK University Commercialisation Survey: Financial Year 2005



UNICO

September 2006

<b>For and on behalf of Experian</b>	
Approved by:	R. Guest
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Date:	27 <sup>th</sup> June 2006
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# UK University Commercialisation Survey: FY2005

June 2006

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# Introduction

This report covers the fifth UNICO survey of UK University Commercialisation Activities. The study provides information on trends in the commercialisation of academic research by UK institutions (universities and public sector research organisations - PSREs). The report contains information on commercialisation in terms of invention disclosures, patenting, licensing and the creation of new spinout companies.

The research was conducted from April to June 2006 and asked institutions about their commercialisation activities during the 2005 financial year. It was conducted on behalf of UNICO, the leading UK technology transfer organisation .

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## Executive summary

104 institutions took part in the FY2005 survey. In order to get a more accurate reflection of the true changes between FY2005 and FY2004, analysis between institutions that took part in both financial years has been carried out. This will help to give a more accurate representation of trends, as it will not be affected by changes in respondents.

### Commercialisation Office Activities

- Employment in commercialisation activities shows a steady trend. A median value of six FTEs are being employed per institution with a total of 1,154 FTEs being employed by all the respondents during FY2005. This represents a small increase from FY2004 where respondents indicated 1,019 FTEs were being employed in commercialisation activities.

### Invention Disclosures and Patents

- A total of 3,361 new inventions were disclosed during FY2005. Within the matched sample, an average of 37 new invention disclosures were received per institution compared to 31 during FY2004 representing a large increase.
- The average number of patents filed has fallen from 9 in FY2004 to 8 in FY2005 but the average number of patents granted has risen from 5 in FY2004 to 8 in FY2005 within the matched sample. In total, 771 new patent applications were filed during FY2005 and 646 granted (whole sample).
- Most of the granted patents were foreign filings. Only 18% of granted patents were in the UK patent office.
- Expenditure on IP protection has risen during FY2005. On average, £154K was spent per institution during FY2005 compared to £121K during FY2004 (matched sample). £14 million was spent in total on IP protection during the last financial year (whole sample).

### Licensing Activity

- Licensing activity has increased with the average number of LOAs (licences, options and agreements) executed rising from 15 per institution in FY2004 to 16 per institution in FY2005 (matched sample). The total number of LOAs executed by all respondents in FY2005 was 1,416.
- The average amount of revenue generated from LOAs has risen for respondents within the matched sample (from £467K in FY2004 to £525K in FY2005). In total, £45.3 million was generated as licence income from all the respondents with £16.4 million coming from Universities.

### Spinout Company Activity

- The average number of spinout companies formed per institution has fallen from two in FY2004 to one in FY2005 (matched sample). In total, all the respondents formed 125 new spinout companies during the last financial year.
- 89% of spinout companies formed during FY2005 are part or fully owned by the institutions that formed them. The institutions that created them held shares in a total of 857 spinout companies.
- 61% of the spinout companies formed during FY2005 were funded through external investment finance. 18% were raised through UCSF and 43% through non-UCSF funding.

# Summary Tables

## ALL INSTITUTIONS<sup>1</sup>

	FY2005		FY2004		FY 2003		FY 2002	FY2001
	Sum	Mean	Sum	Mean	Sum	Mean	Mean	Mean
FTEs	1,154	11	1,019	10	709	10	6	5
Invention disclosures received	3,361	34	2,871	28	2,157	31	18	14
Priority patent applications filed	771	8	885	9	826	11	9	8
Patents granted – total	646	7	569	6	669	10	3	3
Patents granted – UK	118	1	141	1	118	2		
Patents granted – US	73	1	130	1	98	2		
Patents granted – Other	373	4	298	3	453	8		
IP protection expenditure	£13,966,278	£139,663	£12,006,571	£116,569	£12,591,138	£170,151	£93,090	£85,184
LOAs executed	1,416	14	1,406	14	596	8	5	4
Licence agreements executed	1,143	11	1,188	12	333	5		
Option agreements executed	72	1	100	1	101	2		
Assignment agreements executed	186	2	118	1	162	3		
LOAs yielding income	1,478	16	2,148	21	775	11		
Licence income received	£45,275,333	£466,756	£40,344,543	£395,535	£31,370,187	£429,729	£178,992	£165,836
Spinout companies set up	125	1	229	2	151	2	1	2
Spinout companies shares held in	111	1	118	1	140	2	1	2
Spinout companies raised through UCSF	22	0	26	0	34	1		
Spinout companies raised through other sources	54	1	54	1	63	1		
Existing spinout companies shares held in	857	9	850	8	683	9		

<sup>1</sup> 104 institutions in FY2005

**MATCHED SAMPLE<sup>2</sup>**

	FY2005		FY 2004	
	Sum	Mean	Sum	Mean
FTEs	963	11	932	11
Invention disclosures received	3,177	37	2,674	31
Priority patent applications filed	721	8	802	9
Patents granted – total	604	8	419	5
Patents granted – UK	100	1	118	1
Patents granted – US	70	1	106	1
Patents granted – Other	352	5	195	2
IP protection expenditure	£13,236,378	£153,911	£10,427,305	£121,248
LOAs executed	1,362	16	1,272	15
Licence agreements executed	1,109	13	1,073	13
Option agreements executed	61	1	83	1
Assignment agreements executed	177	2	116	1
LOAs yielding income	1,444	18	2,009	24
Licence income received	£44,088,333	£525,040	£39,700,108	£467,060
Spinout companies set up	111	1	181	2
Spinout companies shares held in	101	1	111	1
Spinout companies raised through UCSF	18	0	26	0
Spinout companies raised through other sources	47	1	51	1
Existing spinout companies shares held in	820	10	801	10

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<sup>2</sup> 88 institutions

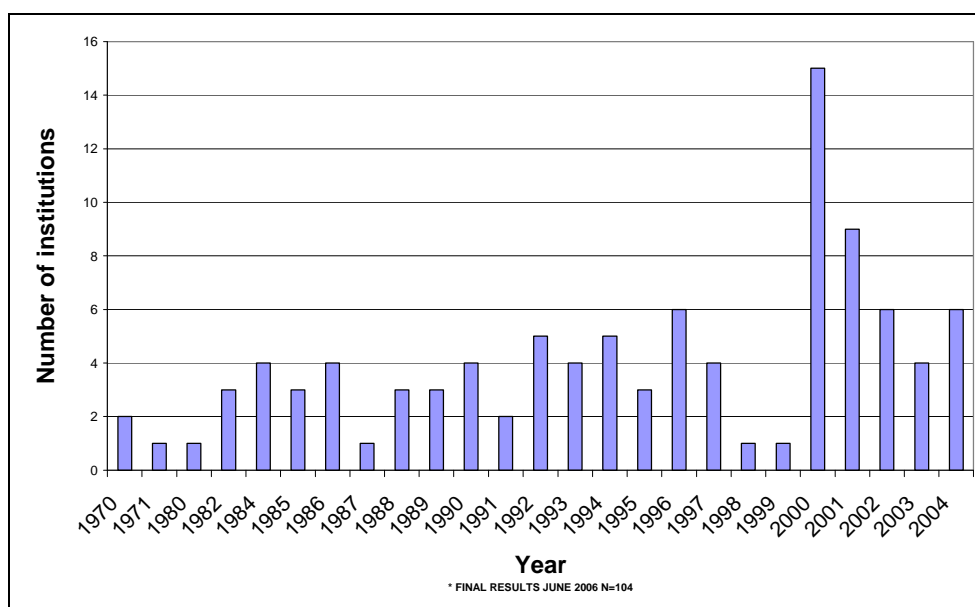
# Commercialisation Office Activities

Commercialisation is the process through which research discoveries are brought to the market place and new ideas or discoveries are developed into new products, services or technologies that are sold around the world.

## INITIATION OF UNIVERSITY COMMERCIALISATION ACTIVITIES

Commercialisation activities have steadily increased since the early 1980s (see Figure 1). The largest proportion of institutions started their commercialisation activities between 1996 and 2004 with 39% of institutions starting since 2000. The number of institutions dedicating staff towards commercialisation activities has also steadily increased since the early 1980s. By the end of the 2005 financial year (FY2005), over 81% of institutions had at least two full-time equivalent employees (FTEs) in commercialisation activities.

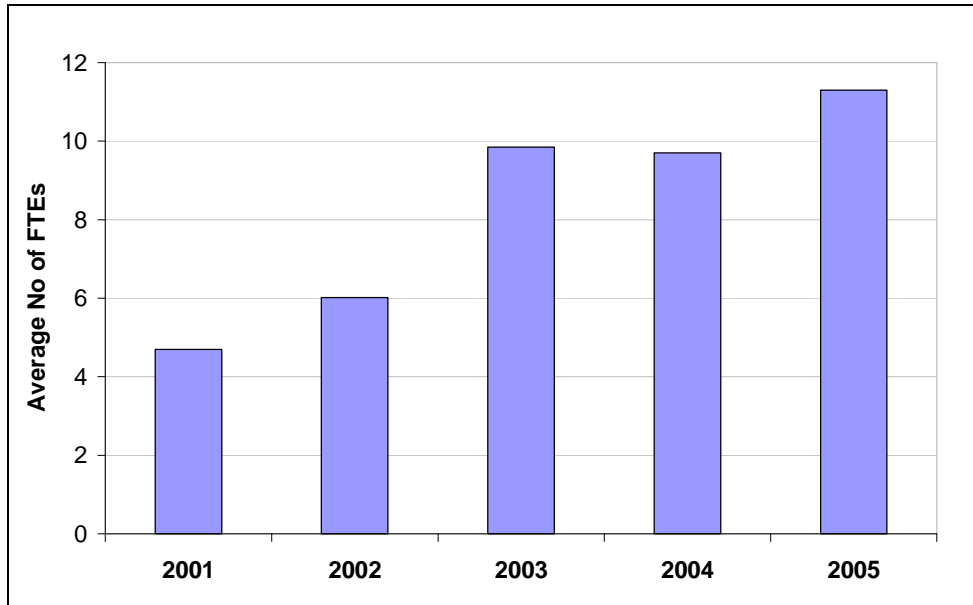
**Figure 1: Year in which university started commercialisation activities**



## EMPLOYMENT IN COMMERCIALISATION ACTIVITIES

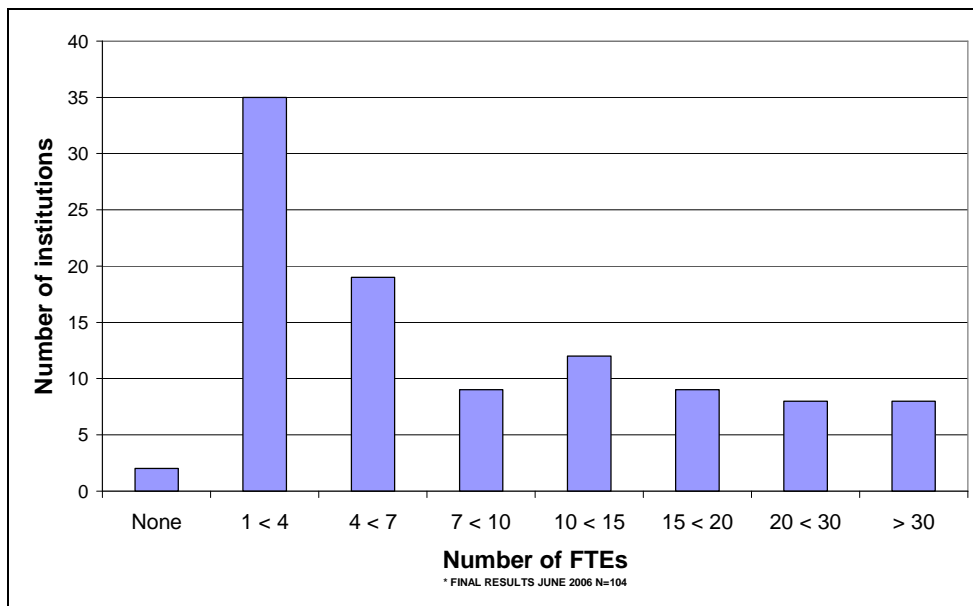
Employment in technology transfer and commercialisation activities has been increasing over the past few years. This is not surprising given the continual increase in the number of institutions conducting commercialisation activities, largely as a result of Government funding through the Higher Education Innovation Fund. Figure 2, shows that there has been a steady increase in the average number of full-time equivalents employed in commercialisation activities between 2001 and 2003 and between 2004 and 2005. At the end of the 2005 financial year, the total number of FTEs employed in technology transfer and commercialisation activities was 1,154 across all respondents. During FY2005, an average of 11 FTEs were employed per institution, an increase of 1 FTE from FY2004 and an increase of 6 FTEs from FY2001.

**Figure 2: Average number of FTEs employed in commercialisation activities FY2001-2005**



.Figure 3 shows that the largest proportion of institutions employ between one and four FTEs (34%) while 15% of institutions employ more than 20 FTEs indicating that there is some variance in the number of FTEs each institution employs. Given this is the case, a median value of 6 employees per institution might be more representative of this sample.

**Figure 3: Number of FTEs employed in commercialisation activities FY2005**

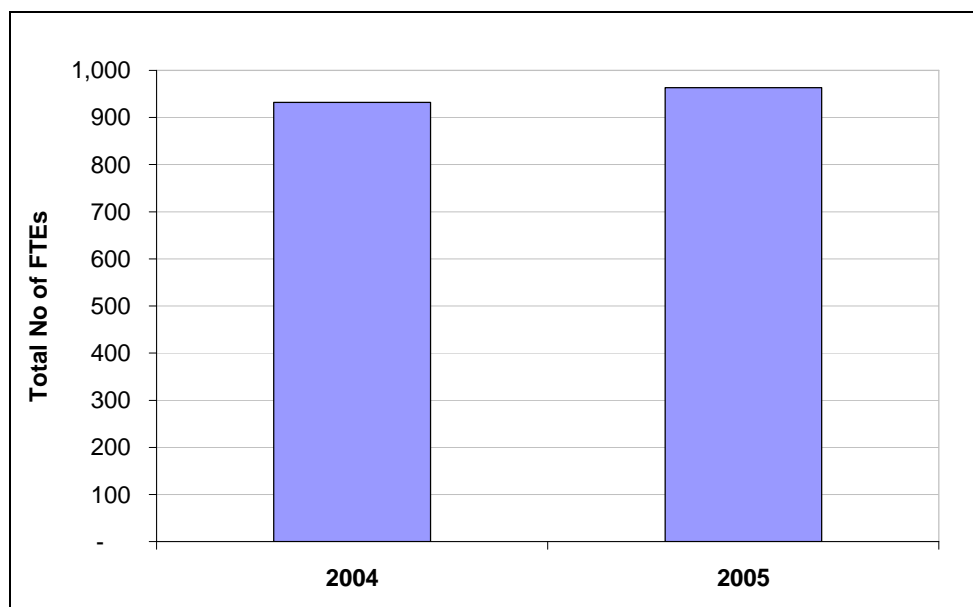


### Matched Sample Analysis

In order to get a more accurate reflection of the true changes that have taken place between FY2004 and FY2005, it is worth investigating the responses between institutions that have taken part in both financial years (88 institutions). This will help give a more accurate representation of the true nature of trends, as it will not be affected by changes in sample size as well as changes in institutions that have participated in this research.

Within the matched sample, the total number of FTEs employed in technology transfer and commercialisation activities has increased from FY2004. A total of 963 FTEs were employed in FY2005 compared to 932 in FY2004 showing that on a like for like basis, employment has increased only slightly.

**Figure 4: Total number of FTEs employed in commercialisation activities FY2004-2005 (matched sample)**



## Invention Disclosures and Patents

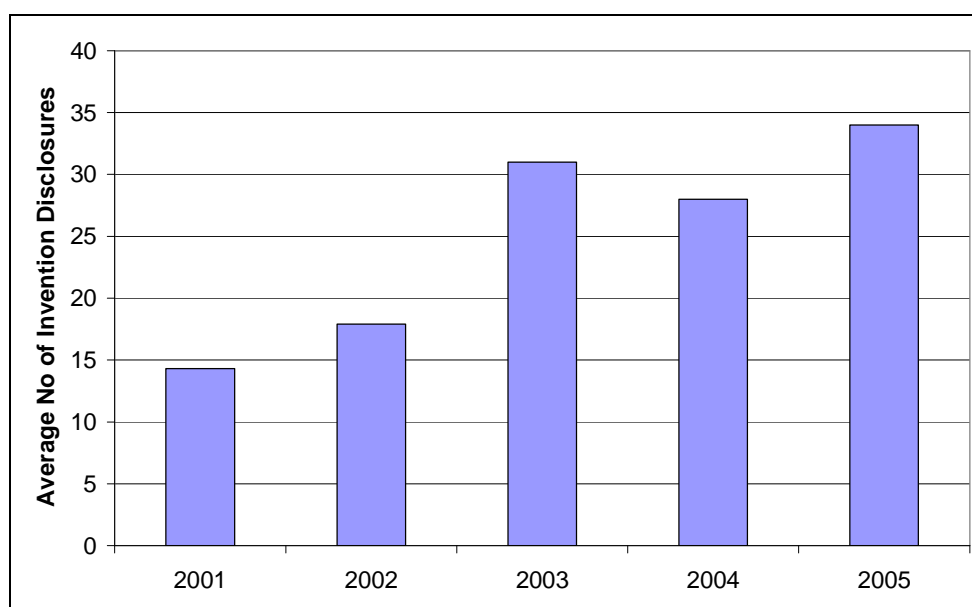
An Invention Disclosure is the document that describes a discovery or a development, names the contributors to that discovery, and provides many other key pieces of information needed to determine if an invention - a discovery that can be protected under patent law - has been made.

A patent gives its owner the right, for a limited period, to stop others from making, using or selling the invention without the permission of the inventor.

### INVENTION DISCLOSURES

Invention disclosures have been increasing over the past few years. During FY2003, an average of 31 disclosures were made per institution, a significant increase from FY2002 (average of 18 disclosures). The average level fell between FY2003 and FY 2004 from 31 to 28 disclosures, but this can be partly explained by a large increase in the sample size between the two years. This year, the average number of invention disclosures has increased to 34 per institution (see Figure 5).

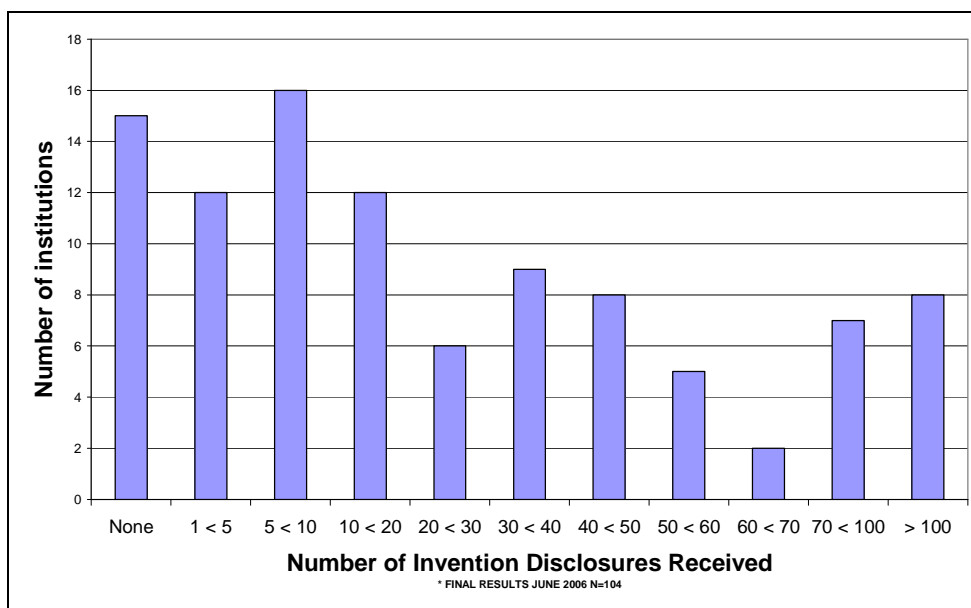
**Figure 5: Average number of invention disclosures FY2001-2005**



By the end of the 2005 financial year, 85 institutions<sup>3</sup> had reported 3,361 invention disclosures (see Figure 6). This represents a significant increase from FY2004 where 82 institutions reported 2,871 invention disclosures. 14% of institutions have reported no new invention disclosures while 16% reported more than 60 new disclosures. It is also worth noting that 8% of institutions reported more than 100 new disclosures.

**Figure 6: Invention disclosures received by respondents FY2005**

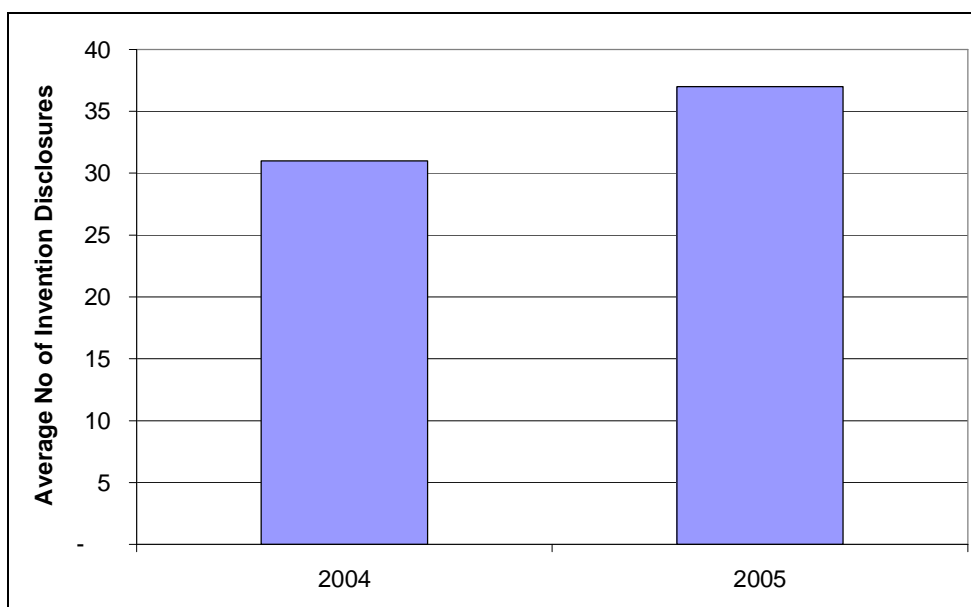
<sup>3</sup> Please note this figure relates to the confirmed number of disclosures and does not take into account the respondents who did not have any disclosures or left the answer blank.



### Matched Sample Analysis

In line with the results from the whole sample, we can also see that the average number of invention disclosures received has also increased for the matched sample. Looking at Figure 7, the average has increased from 31 in FY2004 to 37 in FY2005. This represents a larger increase than that seen for the whole sample.

Figure 7: Average number of invention disclosures FY2004-2005 (matched sample)



The total number of invention disclosures received has also increased for this group of institutions from 2,674 in FY2004 to 3,177 in FY2005.

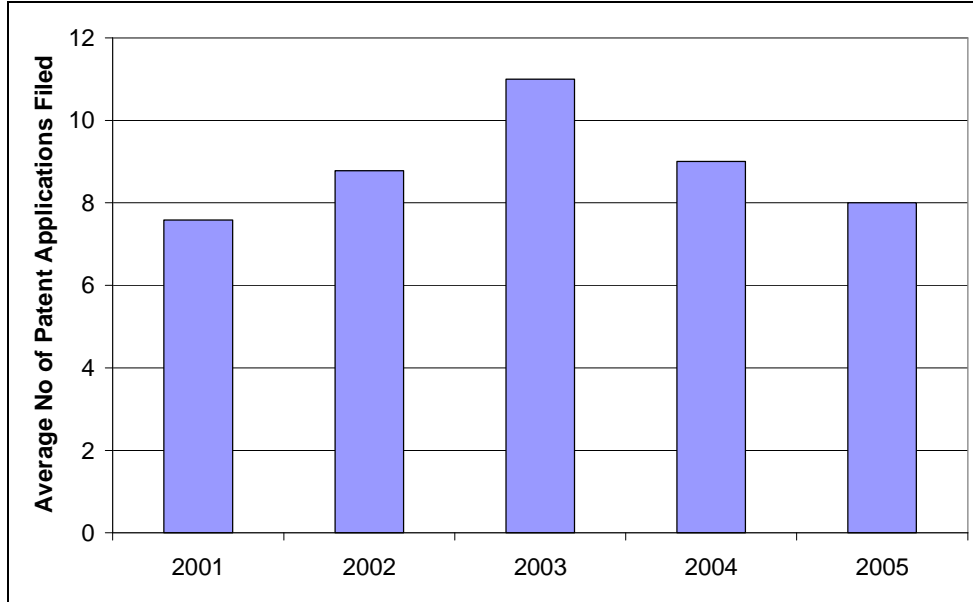
### NEW PATENT APPLICATIONS FILED

Given that the average number of new invention disclosures has risen over the last financial year, it is a little surprising that the average number of new patent applications has fallen per

institution (see Figure 8). This does appear to represent a downward trend given the average number of new patent applications has been falling for two consecutive years.

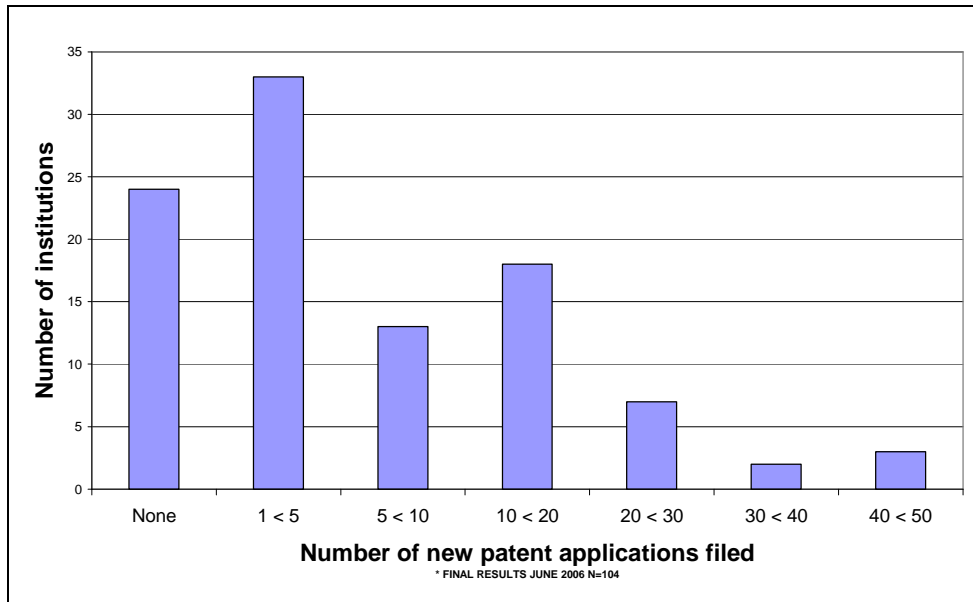
During the 2004 financial year, an average of 9 new patent applications were filed per institution compared to an average of 8 during the 2005 financial year.

**Figure 8: Average number of new patent applications filed FY2001-2005**



771 new patent applications were filed during the 2005 financial year by the institutions taking part in this year's survey (see Figure 9). 23% of institutions filed no new applications while 12% filed more than 20.

**Figure 9: Number of new patent applications filed FY2005**



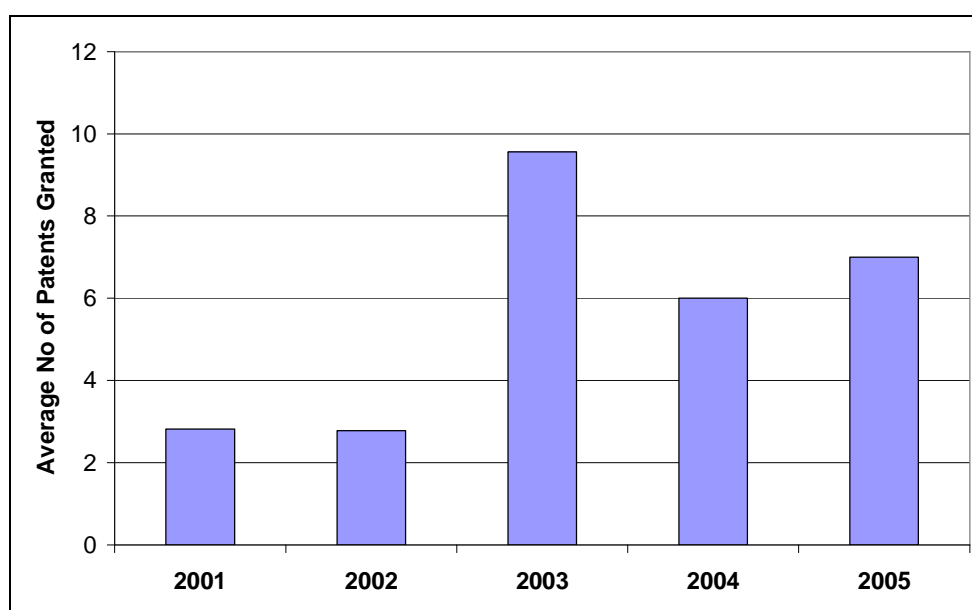
## Matched Sample Analysis

Even within the matched institutions between FY2004 and FY2005, the average number of patent applications filed has fallen from an average of 9 applications filed per institution in FY2004 to an average of 8 during FY2005. The total number of patent applications filed by the matched institutions fell from 802 in FY2004 to 721 in FY2005.

## PATENTS GRANTED

The average number of patents granted during FY2005 has increased from the previous financial year. This increase is largely accounted for by a significant increase in patents granted outside of the UK and the US. However, the average number of patents granted is still lower than the average reported during FY2003 (see Figure 10). During FY2005, an average of 7 new patents were granted per institution compared to an average of 6 in FY2004 and an average of 10 in FY2003.

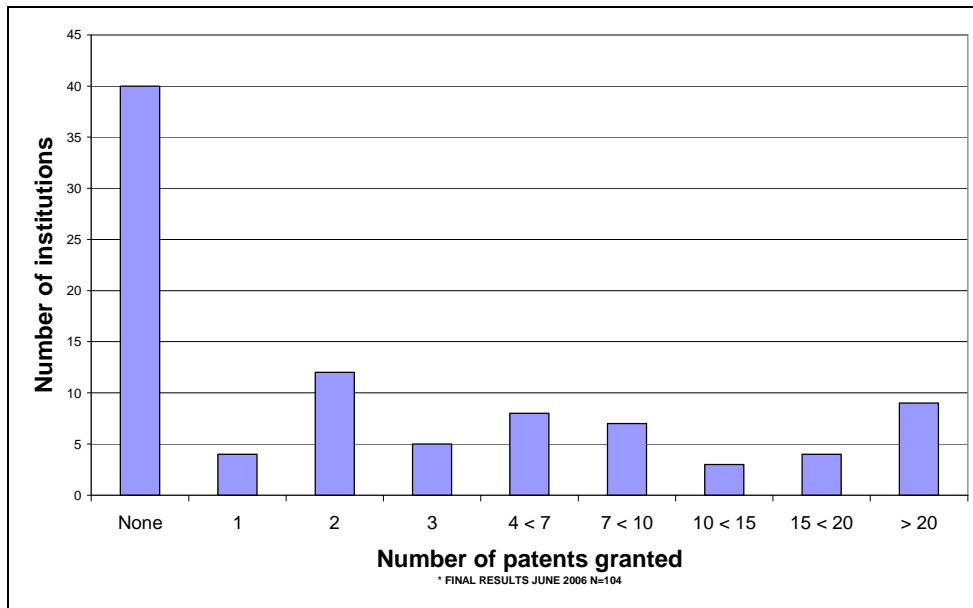
**Figure 10: Average number of new patents granted per institution FY2001-2005**



During the 2005 financial year, 646 patents were granted to a total of 52 UK institutions.<sup>4</sup> 39% of institutions did not have any patents granted to them (see Figure 11) while 13% had more than 15 patents granted. It should be noted that some institutions might assign patent applications prior to grant and not necessarily track the progress of such applications to determine if they subsequently proceed to grant.

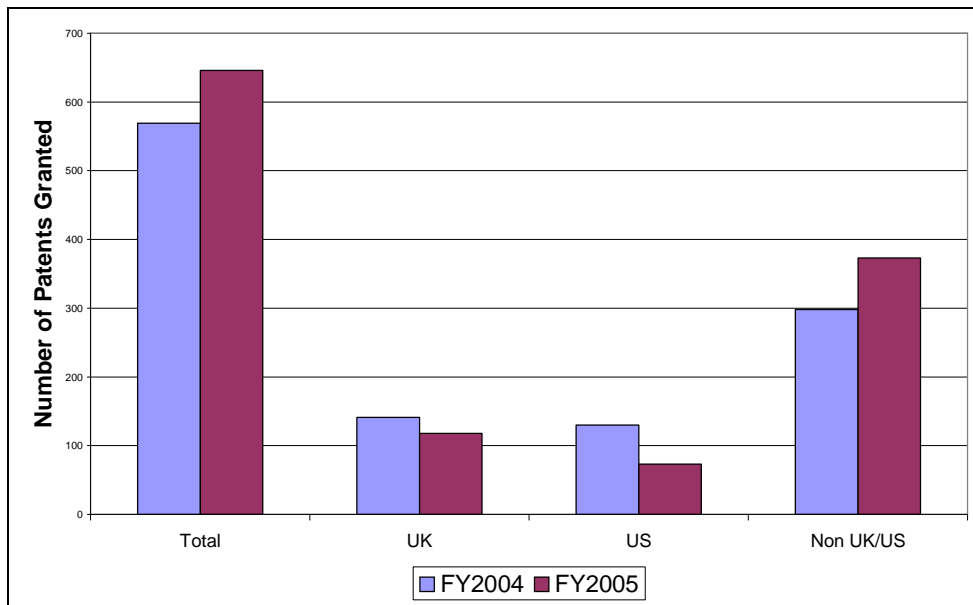
<sup>4</sup> Please note these figures relate to the number of confirmed patents. Therefore it does not take account of the respondents who left the answer blank.

**Figure 11: Number of patents granted to UK institutions in FY2005**



Earlier we had mentioned that the average number of patents granted to UK institutions has increased from the last financial year. Looking at Figure 12, we can also see that the total number of patents granted to UK institutions has increased from 569 in FY2004 to 646 in FY2005. However, from the graph below, we can see that this increase is due to the increase in patents being granted outside of the UK and the US (an increase from 298 in FY2004 to 373 in FY2005). In fact, the total number of patents granted to UK institutions in the UK and the US has fallen from the 2004 financial year.

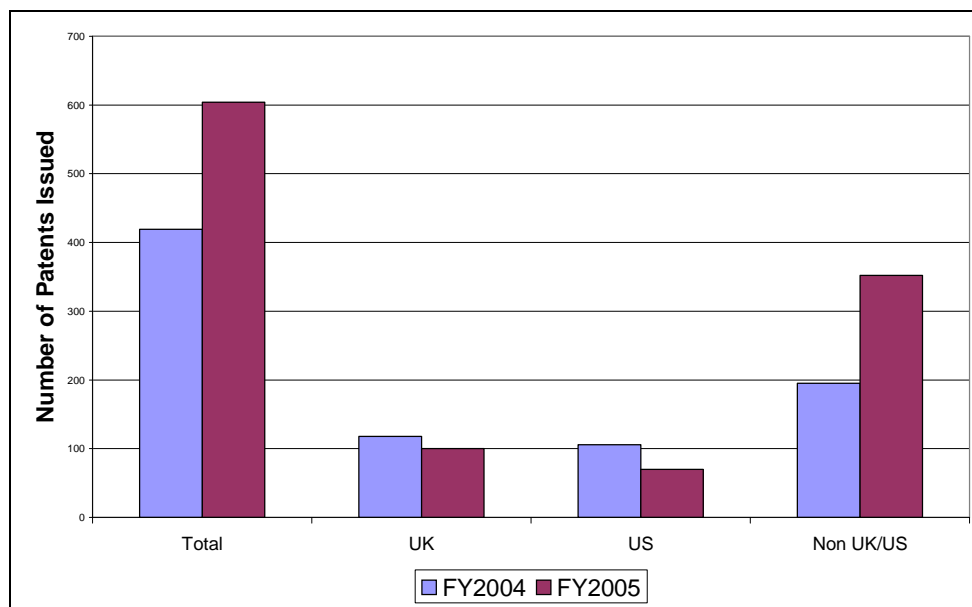
**Figure 12: Total number of patents granted to UK institutions by country FY2004-2005**



## Matched Sample Analysis

Within the matched sample, the total number of patents granted has increased more substantially than for the sample as a whole. In FY2004, 419 new patents were granted compared to 604 in FY2005 with the average number of patents granted increasing from five to eight. It is still worth noting that the total number of patents granted in the UK and the US has still fallen with the increase being accounted for entirely by patents granted outside of the UK and the US (see Figure 13).

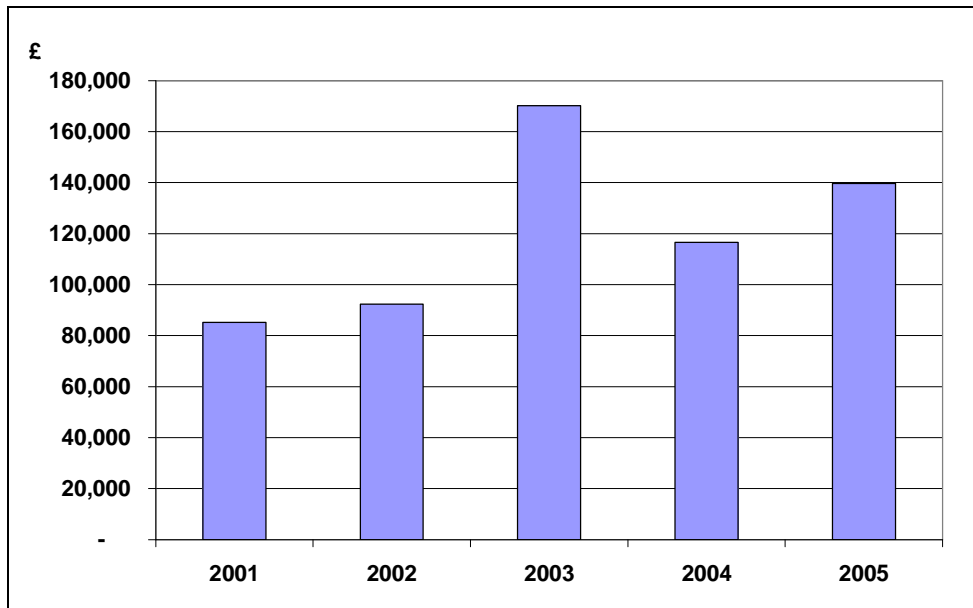
**Figure 13: Total number of patents granted to UK institutions by country FY2004-2005 (matched sample)**



## INTELLECTUAL PROPERTY (IP) PROTECTION EXPENDITURE

Intellectual property protection expenditure includes costs incurred in patenting, external legal fees and specialist IP consultancy advice. From Figure 14, we can see that the average amount spent by institutions on protection has increased from £116,569 in FY2004 to £139,663 in FY2005. However, the average is still not as high as it was in FY2003 (£170,151).

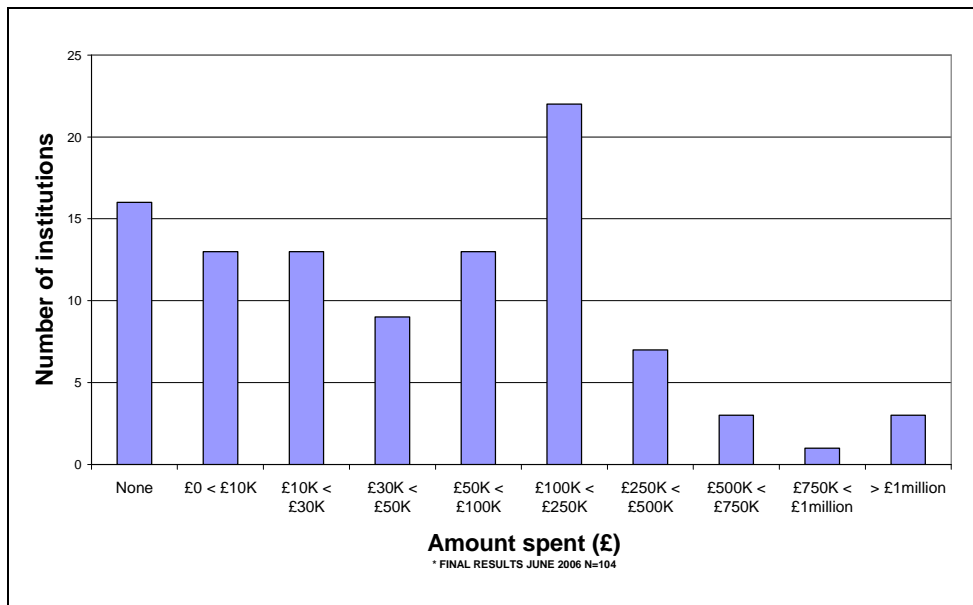
Figure 14: Average amount spent on IP protection per institution FY2001-2005



It is also worth noting that for the 2005 financial year, the average amount spent on IP protection has a very high standard deviation (£249K) indicating that the median might be more representative of the sample than the mean. During FY2005, the median had a value of £47,610 compared to a median of £30,000 thus indicating that the average amount spent on IP protection has increased.

A total of £14 million was spent on IP protection during the 2005 financial year compared to £12 million during FY2004. 15% of institutions did not spend anything on protection (compared to 21% in FY2004) whereas 7% spent more than £500K indicating that a small proportion of institutions incurred large costs to maintain and develop their portfolio of patents (see Figure 15).

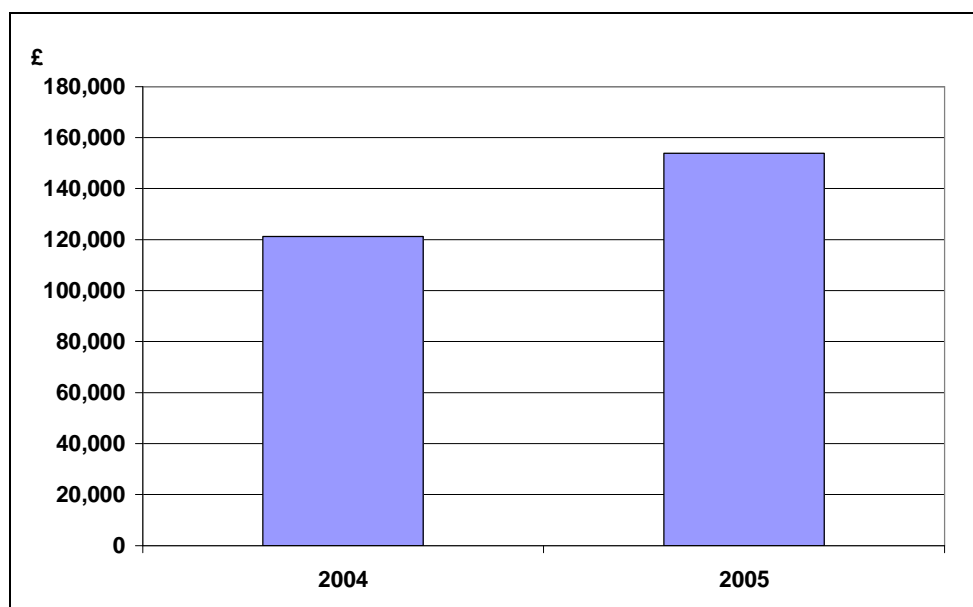
Figure 15: Expenditure on IP protection FY2005



### Matched Sample Analysis

A similar trend can be seen within the matched sample. The average amount spent on IP protection has increased from £121,248 in FY2004 to £153,911 in FY2005 thus indicating that overall, the levels spent on protection has increased. Overall, the total amount spent on IP protection within the matched sample has increased from £10.4 million in FY2004 to £13.2 million in FY2005.

**Figure 16: Average amount spent on IP protection per institution FY2004-2005 (matched sample)**

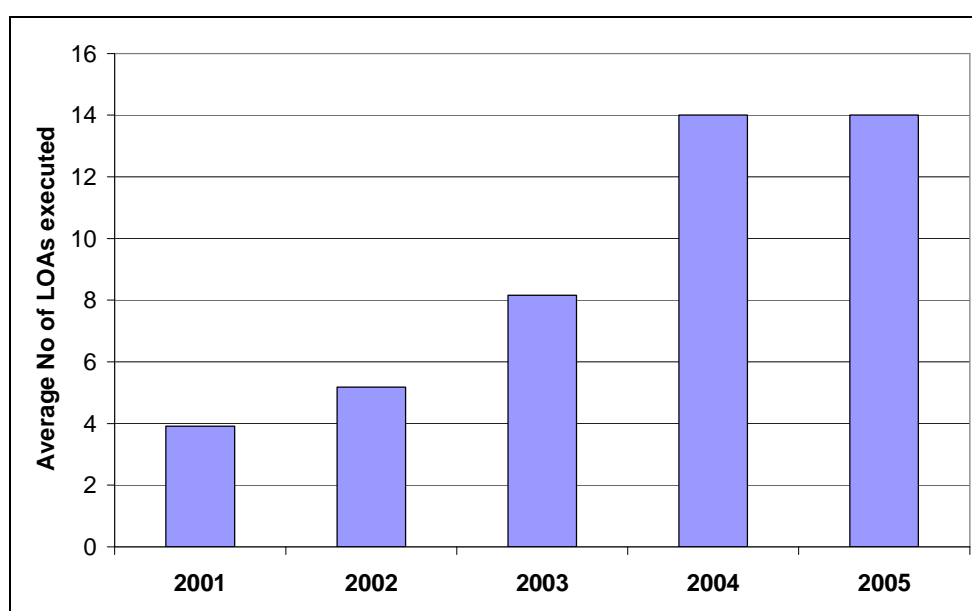


## Licensing Activities

### NUMBER OF LOAS EXECUTED

The average number of LOAs (licences, options and assignments) executed by institutions is at the same level as in FY2004. Looking at Figure 17, we can see that there has been a continual increase over the past few years. During the 2004 and 2005 financial years, institutions executed an average of 14 LOAs. This is compared to an average of eight during FY2003, five during FY2002 and four during FY2001.

**Figure 17: Average number of LOAs executed per institution FY2001-2005**

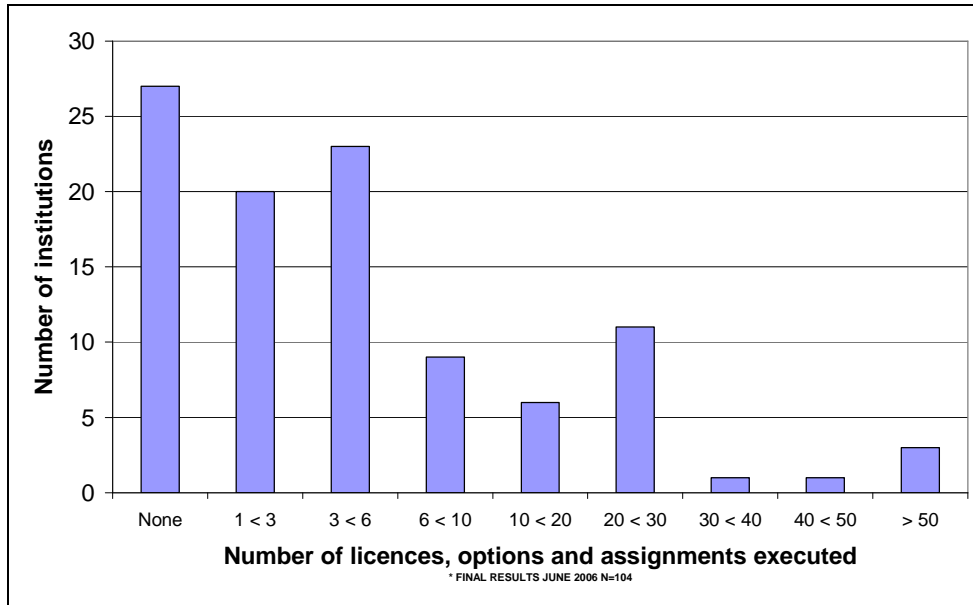


The figures illustrated below exclude licence agreements related to software and biological materials (“Material transfer Agreements”). 74 institutions executed 1,416 LOAs during the 2005 financial year.<sup>5</sup> 26% of institutions did not execute any LOAs while 16% executed more than 20.

It is worth noting that the maximum number of LOAs executed by an individual institution was 621, which is very much an anomalous response and therefore, a median value of three may be more representative of the whole sample. The median value from the 2004 financial year was two indicating that there has been a small increase in the average number of LOAs executed per institution.

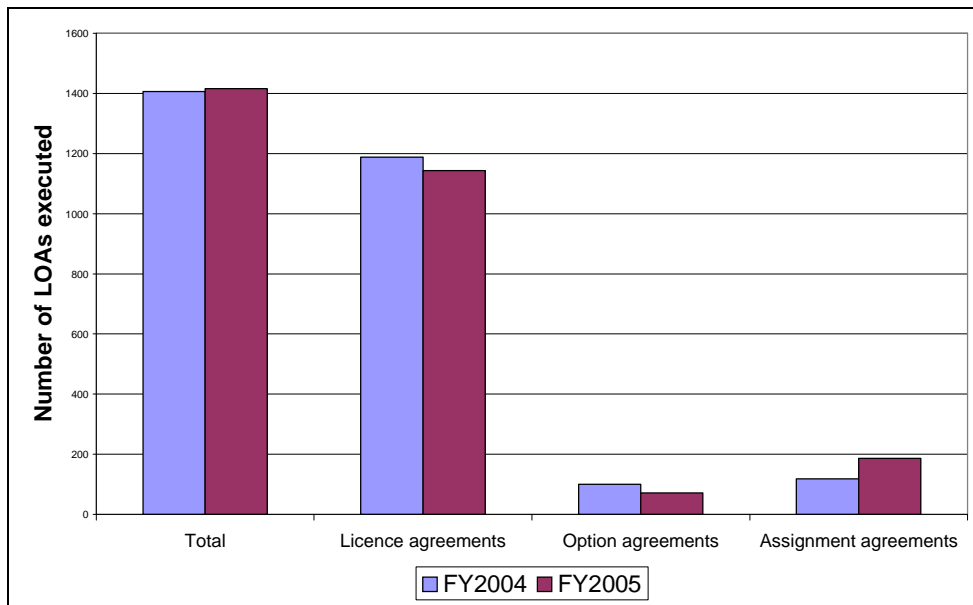
<sup>5</sup> Please note these figures relate to the number of confirmed agreements. Therefore it does not take account of the respondents who left the answer blank.

**Figure 18: Total number of licences, options and assignments executed in FY2005**



The proportion of agreements executed differs by the type of agreement. Looking at Figure 19, we can see that licence agreements form the majority of all agreements formed. In total, 1,143 licence agreements, 72 option agreements and 186 assignment agreements were executed during the 2005 financial year. Assignment agreements were the only type of agreement to see an increase from FY2004 (from 118 to 186).

**Figure 19: Total number of LOAs executed by type FY2004-2005**



### Matched Sample Analysis

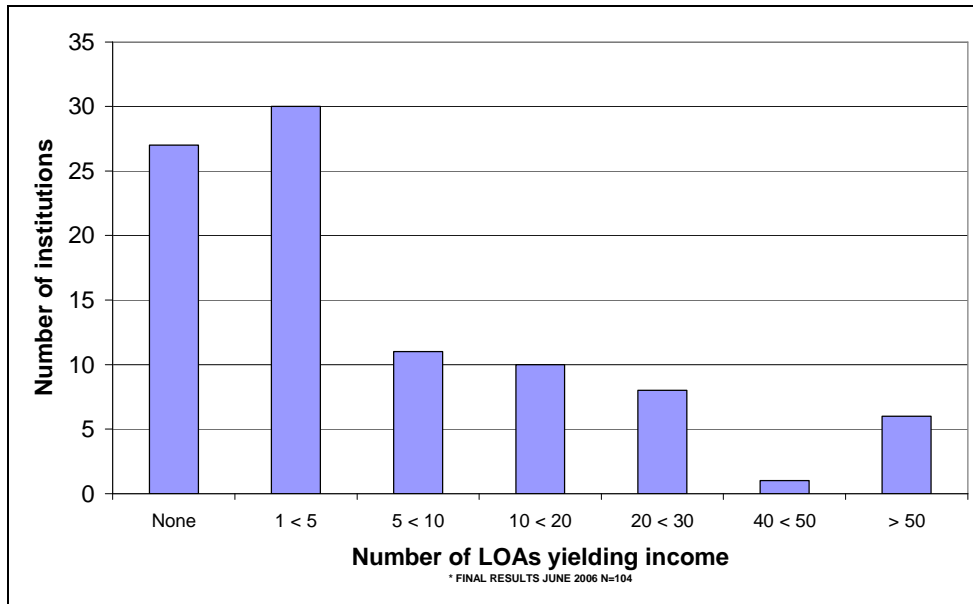
The total number of LOAs executed within the matched sample has also increased from the previous financial year (from 1,272 in FY2004 to 1,362 in FY2005). This is also true for the

average number of LOAs executed per institution – from fifteen in FY2004 to sixteen in FY2005.

**LICENSING INCOME**

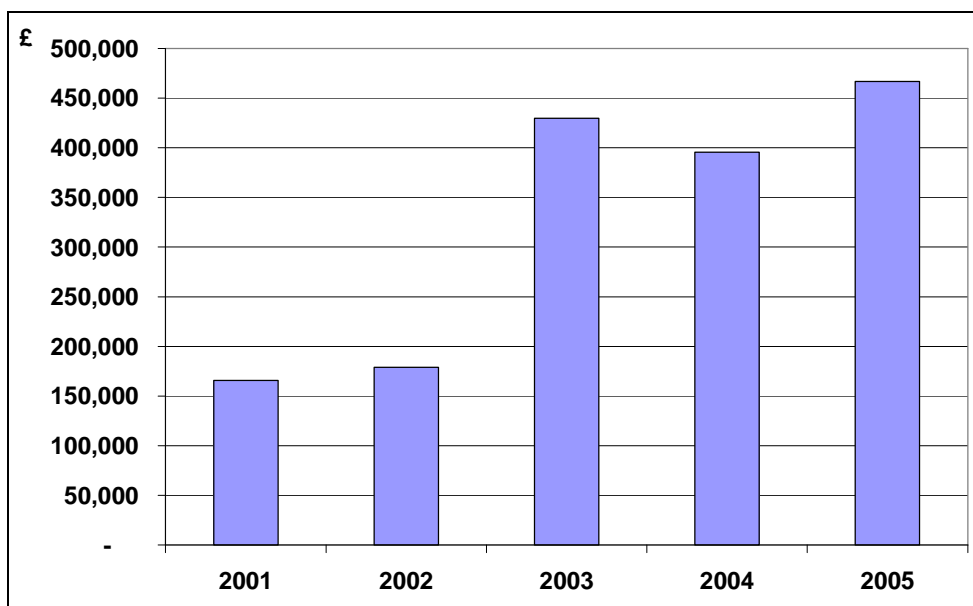
During the 2005 financial year, 64% of respondents had existing LOAs that yielded income (see Figure 20). In total, 66 institutions had 1,478 LOAs that yielded income during FY2005 at an average of 16 LOAs per institution. This average has fallen from 21 per institution in the 2004 financial year.

**Figure 20: Number of LOAs yielding income in FY2005**



The average amount of licence income received by institutions has increased from the last financial year. During FY2005, an average of £467K was received by each institution compared to an average of £396K in FY2004 (see Figure 21).

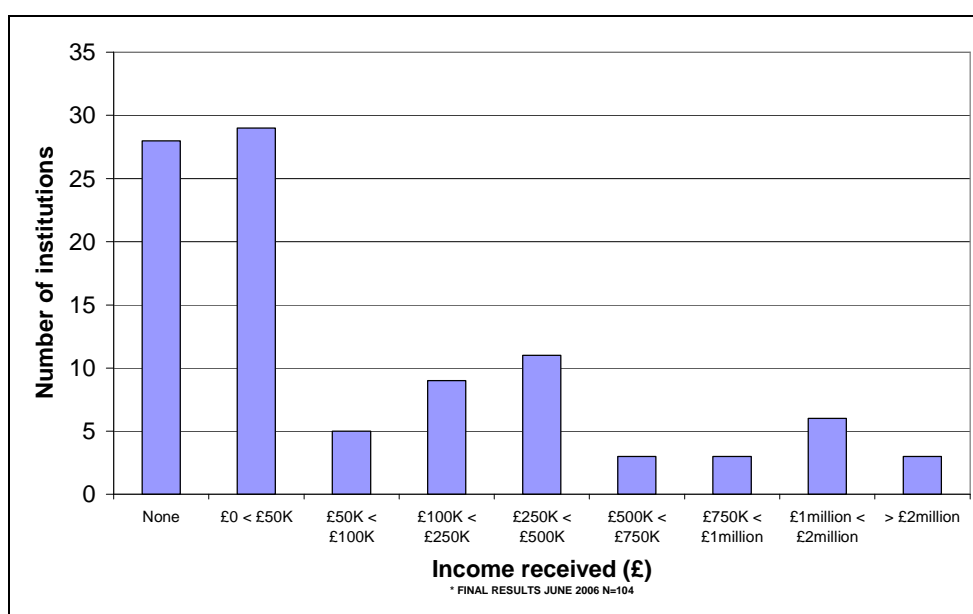
**Figure 21: Average amount of licence income received from LOAs FY2001-2005**



The total licensing income received<sup>6</sup> by 69 institutions in the 2005 financial year was £45.275 million. Of this figure, £16.4 million was from universities and £28.9 million from PSREs. The amount of licence income received from HEIs has fallen from FY2004 (£24.3 million) and PSREs have generated the large increase in licence income.

It is also worth noting that there is a large standard deviation with the average amount of licence income received (>£2 million). Given this, the median value of £20,000 might be a more accurate measure of the data given that the majority of institutions did not earn such large amounts. 27% of respondents did not earn any licensing income while 28% earned up to £50K (see Figure 22). 9% of respondents earned more than £1 million in licence income during FY2005.

**Figure 22: Total amount of licence income received per institution FY2005**



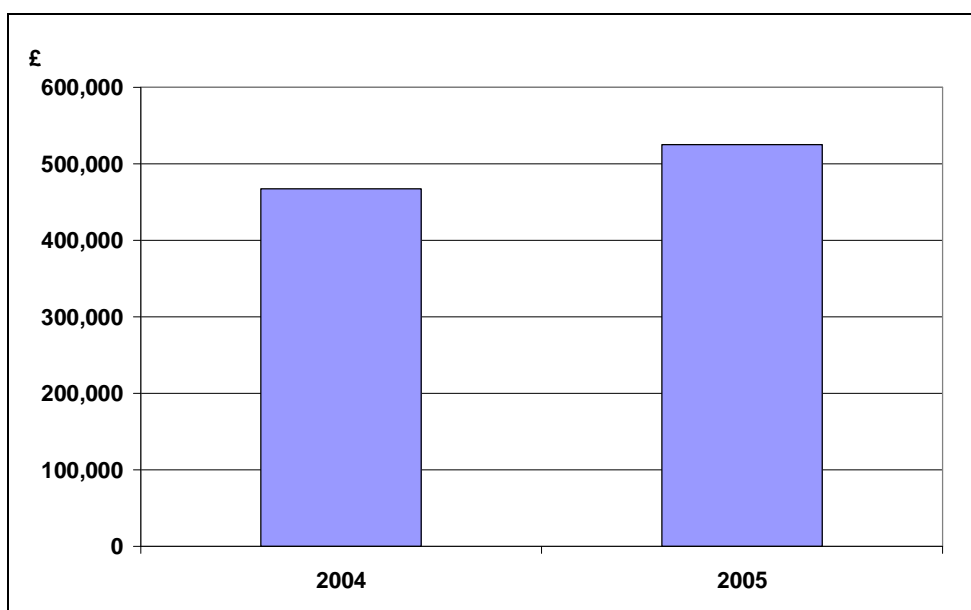
### Matched Sample Analysis

In line with the whole sample, the number of LOAs yielding income has fallen for institutions within the matched sample. During FY2004, 2,009 LOAs yielded income at an average of 24 per institution. This has fallen to 1,444 in FY2005 at an average of 18 per institution.

The matched sample has seen an increase in the average amount of licence income received per institution. During FY2004, an average of £467K was received per institution compared to £525K in FY2005. It is worth noting that although not every institution received such large amounts of licence income, it does indicate that there is an increasing trend (see Figure 23).

<sup>6</sup> Including all option, up-front, annual, periodic, milestone fees and running royalties.

Figure 23: Average amount of licence income received FY2004-2005 (matched sample)

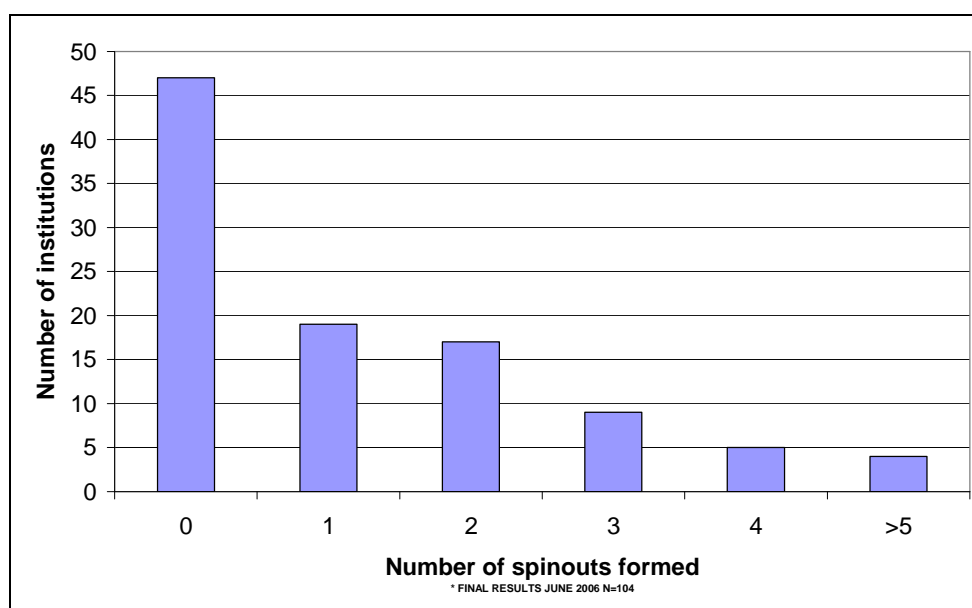


# Spinout Company Activity

## NUMBER OF SPINOUT COMPANIES ESTABLISHED

54 institutions created 125 new spinout companies (defined as companies based upon IP developed within the institution and where the University normally holds equity in the company) during the 2005 financial year (see Figure 24). 45% of respondents did not form any spinout companies while 48% formed between one and four spinout companies. Only four% of respondents formed more than five spinout companies.

**Figure 24: Number of spinouts formed in FY2005**



On average, one spinout company was formed per institutions amongst all the respondents. This average increases to two per institution when excluding respondents that did not form any spinout companies.

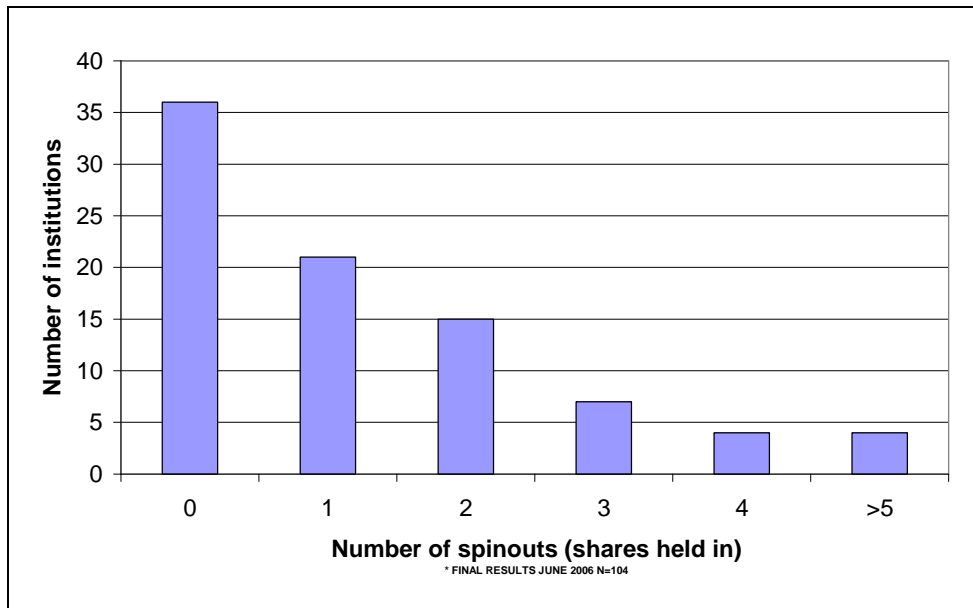
## Matched Sample Analysis

The total number of spinout companies formed during the 2005 financial year has fallen from the previous year for the matched sample. 111 companies were formed during FY2005 compared to 181 during FY2004. The average number of spinout companies formed per institution has also fallen from two in FY2004 to one in FY2005.

## NUMBER OF SPINOUT COMPANIES (SHARES HELD IN)

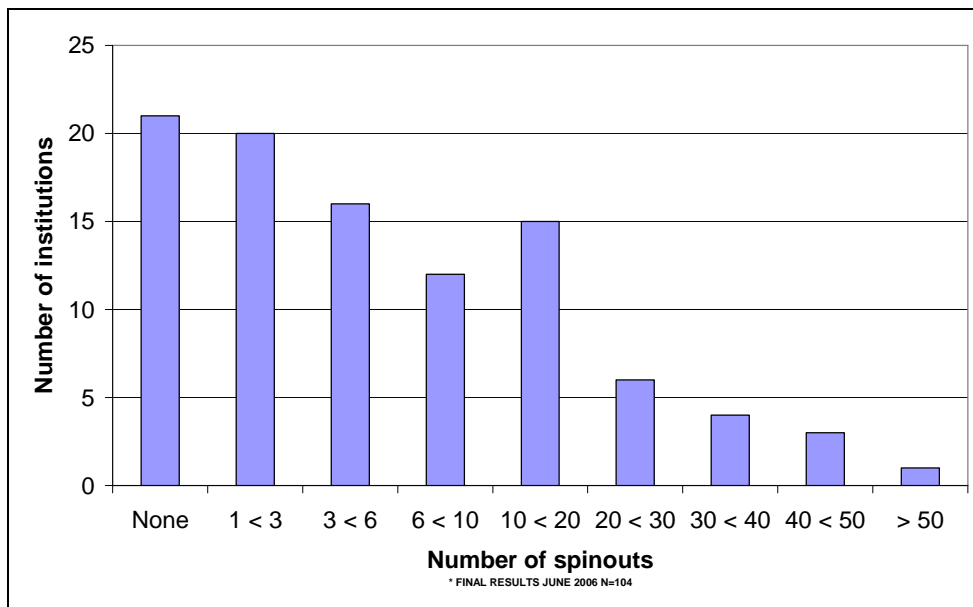
Of the spinout companies formed during the 2005 financial year, 111 (89%) are part or wholly owned by the institutions that formed them. 45% of institutions hold shares in between one and four of the spinout companies formed during the year (see Figure 25). The average number of spinout companies (formed in FY2005) that institutions hold shares in is one.

Figure 25: Number of spinouts formed in FY2005 in which the institution held shares



857 existing spinout companies have shares held in them by the institutions that created them (see Figure 26). 20% of institutions hold no shares in any of the existing spinout companies with 35% holding shares in between one and six spinout companies and 26% holding shares in between six and twenty spinout companies.

Figure 26: Number of existing spinouts in which institutions held shares at the end of FY2005

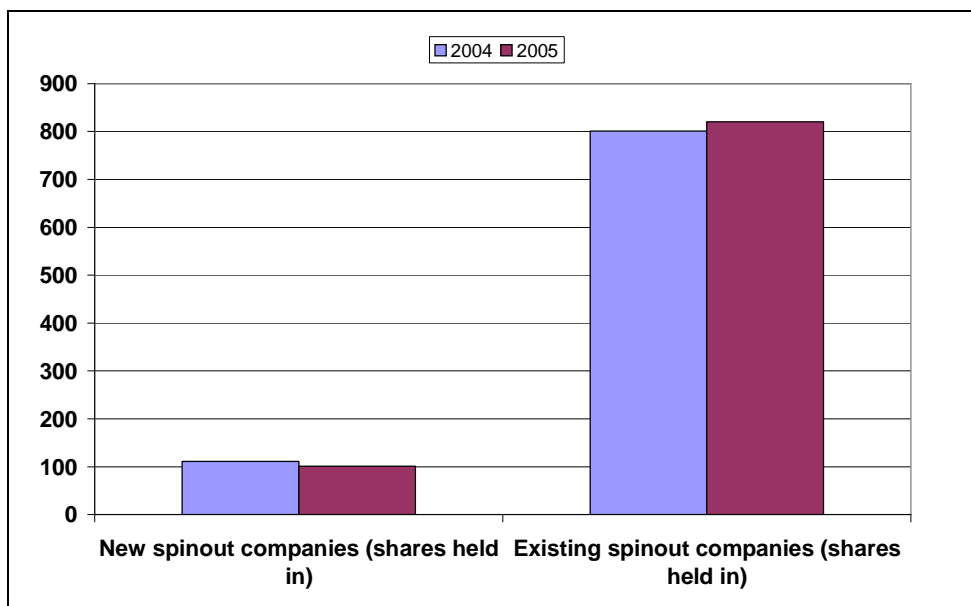


### Matched Sample Analysis

Of the 111 spinout companies established by institutions in the matched sample, 101 (91%) have shares held in them by the institutions that created them. This is a much larger proportion than in FY2004 where 61% of spinout companies set up had shares held in them by the institutions that created them.

The number of existing spinout companies that have shares held in them by founding institutions has remained in line with FY2004 (see Figure 27). In FY2005, 820 existing spinout companies have shares held in them compared to 801 in FY2004. The average number of existing companies that institutions hold shares in is ten (this is in line with the average from FY2004).

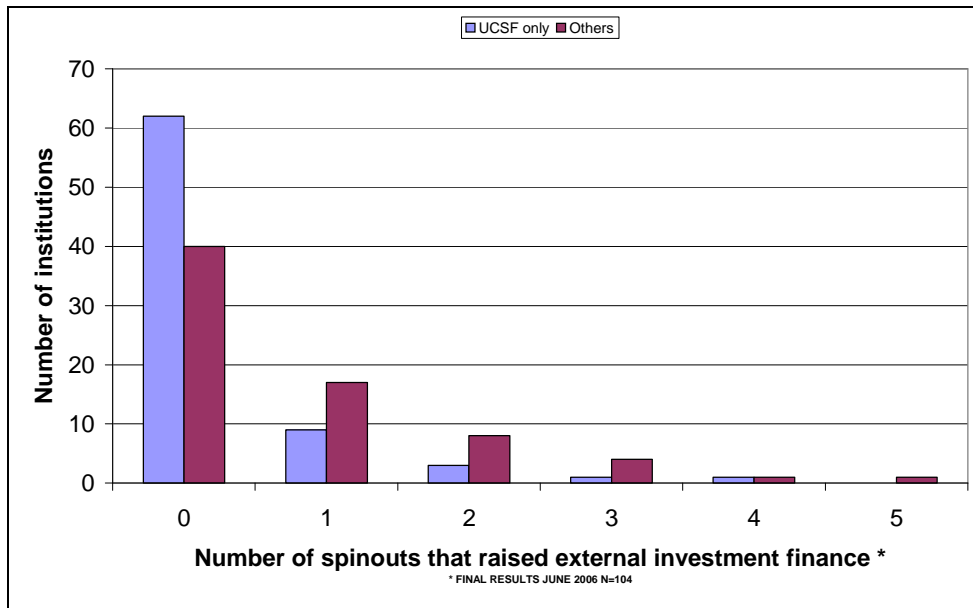
**Figure 27: Shares held in spinout companies FY2005**



## NUMBER OF SPINOUT COMPANIES THAT RAISED EXTERNAL INVESTMENT FUNDING

61% of the total spinout companies formed during FY2005 were raised with external investment funding. In total, 65 institutions did not form any new spinout companies using external investment funding. Looking at Figure 28, we can see that of the spinout companies formed with external investment funding, a greater proportion was formed from non-UCSF (University Challenge Seed Fund) funding.

Figure 28: Number of spinouts formed in FY2005 that raised external investment finance



In total, 22 spinout companies were formed with investment raised from UCSF and 54 from other sources of external investment. The maximum number of spinout companies formed with UCSF funding by an individual institution was four and the maximum from other external investment sources was also four.

### Matched Sample Analysis

The trend here appears to follow that for the whole sample. Over half (59%) of the total spinout companies formed in the 2005 financial year were raised with external investment funding compared to 43% in FY2004. In total, 65 spinout companies were formed with external investment funding in FY2005 compared to 77 in FY2004.

# Appendix A

## Methodology

The UNICO University Commercialisation Survey was sent to 188 higher education institutions at the end of April 2005. It was sent to both members and non-members of UNICO. The survey was sent out by post but returns were accepted by post, fax and electronically. Had respondents not returned their completed survey by a fixed date, they were chased by telephone.

Respondents were asked to give data for the reporting period August 2004 to July 2005. Fieldwork was closed on 1<sup>st</sup> June 2006. This included replies from 104 institutions and gives a response rate of 57%. The 2005 sample contained 45 of the top 50 research organisations in terms of research income including the top 35 research income organisations. A list of participants that have agreed to be listed can be found in Appendix B.

We do recognise that there may be some slight inconsistency in the population sampled between the FY2004 and FY2005 surveys. In order to ensure trends observed are valid, analysis has also been carried out between a matched sample between FY2004 and FY2005. UNICO is working with the universities to increase response rates year on year and will looking at measures to ensure better comparability in years to come.

# Appendix B

## Participants FY2005<sup>7</sup>

<b>Universities</b>
Anglia Ruskin University
Aston University
Bath Spa University College
Bell College
Bournemouth University
Brunel University
Cardiff University
Coventry University
Cumbria Institute of the Arts

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<sup>7</sup> Includes participants that have agreed to be listed

Glasgow Caledonian University
Imperial College of Science
Institute of Education
Keele University
King's College London
Kingston University
Lancaster University
Liverpool Hope University
London School of Hygiene & Tropical Medicine
London South Bank University
Middlesex University
North East Wales Institute of Higher Education
Northumbria University
Norwich School of Art & Design
Nottingham Trent University
Oxford Brookes University
Queen Mary and Westfield College
Ravensbourne College of Design & Communication
Royal Northern College of Music
Royal Veterinary College
Scottish Agricultural College
Sheffield Hallam University
St. George's University of London
Staffordshire University
The Open University
UHI Millennium Institute
University College London
University of Aberdeen
University of Abertay Dundee
University of Bath
University of Birmingham
University of Bolton
University of Brighton
University of Bristol
University of Cambridge
University of Central England
University of Chester
University of Derby
University of Dundee
University of Durham
University of East Anglia
University of East London
University of Edinburgh
University of Essex
University of Glasgow
University of Glamorgan
University of Hertfordshire
University of Huddersfield
University of Hull
University of Kent
University of Leeds
University of Leicester
University of Liverpool
University of Luton
University of Manchester
University of Newcastle upon Tyne
University of Nottingham

University of Oxford
University of Plymouth
University of Reading
University of Salford
University of Southampton
University of St. Andrews
University of Stirling
University of Strathclyde
University of Sunderland
University of Surrey
University of Sussex
University of Teesside
University of Wales Institute, Cardiff
University of Wales, Aberystwyth
University of Wales, Swansea
University Of Warwick
University of Westminster
University of Wolverhampton
University of York
Writtle College
York St. John University College
<b>Other organisations</b>
Medical Research Council Technology
Natural Environment Research Council
Institute of Cancer Research
Genecom Ltd (for Roslin Institute, Moredun Research Institute & IAH)
Central Science Laboratory

# Appendix C

## Questionnaire

<b>Name of Institution:</b>		
<b>Contact Name:</b>		
<b>Contact Details:</b>		
Reporting Period:		From: <b>1 August 2004</b> To: <b>31 July 2005</b>
1.	In which year did your University establish its technology transfer activity?	
2.	What was the total number of Full Time Equivalents that were employed in your technology transfer and commercialization activities at the end of the reporting year?	
3.	How many new invention disclosures were received by your technology transfer office?	
4.	How many new, priority patent applications were filed by your institution?	
5.	How many patents were granted/issued to your institution?	UK: US: Other:
6.	How much did your institution spend in protecting its IP on patent costs, external legal fees, and specialist IP consultancy advice in the reporting year? Please indicate if this is an estimate.	£
7.	How many (a) Licence Agreements (b) Option Agreements (c) Assignment Agreements did your institution execute? (Please exclude software and biological material end-user licences under £1,000.)	(a) (b) (c)
8.	How many out of all your institution's existing Licence/Option/Assignment Agreements yielded income to your institution?	
9.	What was the total amount of Licence income received by your institution? (Please include option, up-front, milestone fees and running royalties.)	
10.	How many new spin-out companies did your institution set up? These are companies based upon IP and people in your institution?	
11.	Of the number in Question 10, how many does your institution hold shares in?	
12.	Of the number in Question 10, how many raised external investment finance?	UCSF only: Others:
13.	In how many existing spin-out companies did your institution still hold shares at the end of the reporting period?	

# Appendix D

## Responses

Q1. In which year did your University establish its technology transfer activity?

	All institutions	
	Count	Col %
1970	2	1.90%
1971	1	1.00%
1980	1	1.00%
1982	3	2.90%
1984	4	3.80%
1985	3	2.90%
1986	4	3.80%
1987	1	1.00%
1988	3	2.90%
1989	3	2.90%
1990	4	3.80%
1991	2	1.90%
1992	5	4.80%
1993	4	3.80%
1994	5	4.80%
1995	3	2.90%
1996	6	5.80%
1997	4	3.80%
1998	1	1.00%
1999	1	1.00%
2000	15	14.40%
2001	9	8.70%
2002	6	5.80%
2003	4	3.80%
2004	6	5.80%

Q2. What was the total number of Full Time Equivalents that were employed in your technology transfer and commercialisation activities at the end of the reporting year?

	All institutions	
	Count	Col %
None	2	1.90%
1 < 4	35	33.70%
4 < 7	19	18.30%
7 < 10	9	8.70%
10 < 15	12	11.50%
15 < 20	9	8.70%
20 < 30	8	7.70%
> 30	8	7.70%

Q3. How many new invention disclosures were received by your technology transfer office?

	All institutions	
	Count	Col %
None	15	14.40%
1 < 5	12	11.50%
5 < 10	16	15.40%
10 < 20	12	11.50%
20 < 30	6	5.80%
30 < 40	9	8.70%
40 < 50	8	7.70%
50 < 60	5	4.80%
60 < 70	2	1.90%
70 < 100	7	6.70%
> 100	8	7.70%

Q4. How many new, priority patent applications were filed by your institution?

	All institutions	
	Count	Col %
None	24	23.10%
1 < 5	33	31.70%
5 < 10	13	12.50%
10 < 20	18	17.30%
20 < 30	7	6.70%
30 < 40	2	1.90%
40 < 50	3	2.90%

Q5. How many patents were granted/issued to your institution?

	All institutions	
	Count Total	Col %
None	40	38.50%
1	4	3.80%
2	12	11.50%
3	5	4.80%
4 < 7	8	7.70%
7 < 10	7	6.70%
10 < 15	3	2.90%
15 < 20	4	3.80%
> 20	9	8.70%

	All institutions	
	Count UK	Col %
None	44	42.30%
1	21	20.20%
2	10	9.60%
3	7	6.70%
4 < 7	7	6.70%
7 < 10	1	1.00%
10 < 15	1	1.00%

	All institutions	
	Count US	Col %
None	59	56.70%
1	16	15.40%
2	5	4.80%
3	5	4.80%
4 < 7	5	4.80%
7 < 10	1	1.00%

	All institutions	
	Count Other	Col %
None	57	54.80%
1	7	6.70%
2	4	3.80%
3	4	3.80%
4 < 7	4	3.80%
7 < 10	2	1.90%
10 < 15	6	5.80%
> 20	7	6.70%

Q6. How much did your institution spend in protecting its IP on patent costs, external legal fees, and specialist IP consultancy advice in the reporting year?

	All institutions	
	Count	Col %
None	16	15.40%
£0 < £10K	13	12.50%
£10K < £30K	13	12.50%
£30K < £50K	9	8.70%
£50K < £100K	13	12.50%
£100K < £250K	22	21.20%
£250K < £500K	7	6.70%
£500K < £750K	3	2.90%
£750K < £1million	1	1.00%
> £1million	3	2.90%

Q7. How many (a) Licence Agreements (b) Option Agreements (c) Assignment Agreements did your institution execute?

	All institutions	
	Count Total	Col %
None	27	26.00%
1 < 3	20	19.20%
3 < 6	23	22.10%
6 < 10	9	8.70%
10 < 20	6	5.80%
20 < 30	11	10.60%
30 < 40	1	1.00%
40 < 50	1	1.00%
> 50	3	2.90%

	All institutions	
	Count Licence Agreements	Col %
None	35	33.70%
1 < 3	22	21.20%
3 < 6	22	21.20%
6 < 10	6	5.80%
10 < 20	7	6.70%
20 < 30	5	4.80%
> 50	3	2.90%

	All institutions	
	Count Option Agreements	Col %
None	74	71.20%
1 < 3	17	16.30%
3 < 6	6	5.80%
6 < 10	3	2.90%

	All institutions	
	Count Assignment Agreements	Col %
None	57	54.80%
1 < 3	21	20.20%
3 < 6	16	15.40%
6 < 10	3	2.90%
10 < 20	2	1.90%
40 < 50	1	1.00%

Q8. How many out of all your institution's existing Licence/Option/Assignment Agreements yielded income to your institution?

	All institutions	
	Count	Col %
None	27	26.00%
1 < 5	30	28.80%
5 < 10	11	10.60%
10 < 20	10	9.60%
20 < 30	8	7.70%
40 < 50	1	1.00%
> 50	6	5.80%

Q9. What was the total amount of Licence income received by your institution?

	All institutions	
	Count	Col %
None	28	26.90%
£0 < £50K	29	27.90%
£50K < £100K	5	4.80%
£100K < £250K	9	8.70%
£250K < £500K	11	10.60%
£500K < £750K	3	2.90%
£750K < £1million	3	2.90%
£1million < £2million	6	5.80%
> £2million	3	2.90%

Q10. How many new spinout companies did your institution set up?

	All institutions	
	Count	Col %
0	47	45.20%
1	19	18.30%
2	17	16.30%
3	9	8.70%
4	5	4.80%
>5	4	3.90%

Q11. Of the number in Question 10, how many does your institution hold shares in?

	All institutions	
	Count	Col %
0	36	34.60%
1	21	20.20%
2	15	14.40%
3	7	6.70%
4	4	3.80%
>5	4	3.90%

Q12. Of the number in Question 10, how many raised external investment finance?

	All institutions	
	Count UCSF Only	Col %
0	62	59.60%
1	9	8.70%
2	3	2.90%
3	1	1.00%
4	1	1.00%

	All institutions	
	Count Others	Col %
0	40	38.50%
1	17	16.30%
2	8	7.70%
3	4	3.80%
4	1	1.00%
5	1	1.00%

Q13. In how many existing spinout companies did your institution still hold shares at the end of the reporting period?

	All institutions	
	Count	Col %
None	21	20.20%
1 < 3	20	19.20%
3 < 6	16	15.40%
6 < 10	12	11.50%
10 < 20	15	14.40%
20 < 30	6	5.80%
30 < 40	4	3.80%
40 < 50	3	2.90%
> 50	1	1.00%