

The 2010 Survey of Enterprise and Entrepreneurship in Higher Education

National Council for Graduate Entrepreneurship

Institute for Small Business & Entrepreneurship

**Paper Presented at the 33rd ISBE Conference, London, November 2010
(Version 1.2)**

Professor David Rae
ISBE & University of Lincoln,

Professor Lynn Martin
ISBE & Manchester Metropolitan University

Dr Valerie Antcliff
Manchester Metropolitan University

Professor Paul Hannon
NCGE

Keywords: Entrepreneurship; Enterprise; Higher education; Public policy

Abstract

Objectives

This reports the results of a complete survey of enterprise education in all Higher Education Institutions (HEIs) in England undertaken by the National Council for Graduate Entrepreneurship (NCGE) in partnership with the Institute for Small Business & Entrepreneurship (ISBE). The survey builds on prior work undertaken by the NCGE in England in 2006 and in 2007 (Hannon, 2007; Hannon et al., 2006).

Approach

The survey aimed to establish a complete picture of curricular and extra-curricular Enterprise & Entrepreneurship education. Comparison is made with the 2008 European survey of entrepreneurship in HE (NIRAS, 2009).

Results

The results provide a stock-take of enterprise education provision in participating HEIs and highlight the connections in institutional strategies between enterprise education, incubation/new venture support, graduate employability, innovation and academic enterprise. It reveals 'hotspots' and gaps in enterprise provision and offers 'benchmarks' for the sector.

Implications

The report is presented to professional groups including ISBE, Universities UK and Enterprise Educators UK and is available for policymakers at UK, national and regional levels, including the Department of Business, Innovation & Skills as well as HEFCE and Regional Development Agencies.

Value

The timing of the survey, in May-July 2010, was important as it reflected the end of a period of over ten years of sustained investment in enterprise in Higher Education by the Labour Government in the UK, through a range of funding initiatives. As public expenditure reductions in support for enterprise activity were anticipated, this could represent the 'high water mark' of publicly funded enterprise activity in the HE sector, and raised the question of how enterprise education and support activities would become sustainable. The report analyses existing provision, assesses its development, and provides conclusions and recommendations covering future development, resourcing, and sustainability of enterprise provision in Universities and other HEIs.

Summary report

1. Introduction & overview

This is the third survey of enterprise and entrepreneurship education and support activity covering Higher Education in England. It enables comparisons to be made with the previous surveys undertaken in 2006 and 2007. The 2010 survey, which covers the 2009-10 academic year, was undertaken by NCGE in partnership with the Institute for Small Business & Entrepreneurship (ISBE).

The 2007 report concluded that '*action needs to be taken to scale up and embed enterprise and entrepreneurship education to reach all students*' and this report shows the considerable progress that has been made towards this goal.

The timing of the 2010 survey and this report is significant. Higher Education Institutes (HEIs: universities and other institutions) have benefited from considerable investment in enterprise over a sustained period through Higher Education Innovation Funding (HEIF) and other public funding streams, as shown in section 4 of the report. The scale of enterprise provision, both in the form of curricular awards and modules, and extra-curricular activities to support student and graduate entrepreneurship, has increased significantly over this period and markedly so since the first survey in 2006.

HEIs are already being affected by funding reductions from HEFCE and it is anticipated that public spending reductions announced in the Comprehensive Spending Review will have significant implications for the HE sector. Although respondents to the survey were generally confident about future of enterprise activities, there are major questions over the future sustainability and funding for enterprise in HE.

This has to be seen in the context of the UK economy. The need to rebalance the economy and to create new business ventures, sources of wealth creation and employment means that the role of HE in stimulating student and graduate entrepreneurship cannot be over-stated: they are the entrepreneurs of the present and the future. The role of the public sector in providing graduate employment must be expected to fall considerably, meaning that graduates will require higher levels of skills in business and in enterprise to compete in the changing job market.

Universities are essential organisations in producing knowledge and in applying this through innovation and entrepreneurship. Many HEIs have demonstrated their ability to act as hubs, interacting with private and public sector partners to stimulate entrepreneurial activity around them. They have a major contribution to make both to the newly forming Local Enterprise Partnerships and at a national level to innovation and economic development. This can only be achieved through developing entrepreneurial people, in the ways set out in this report. Investment in entrepreneurship within universities must show a return, and for this reason the outputs from entrepreneurial activity in the HE sector are vitally important in demonstrating this.

Definitions

The report refers to both enterprise and entrepreneurship, and although closely associated these terms have distinct meanings which were used in completing the survey.

Enterprise:

Students learning to use the skills, knowledge and personal attributes needed to apply creative ideas and innovations to practical situations. These include initiative, independence, creativity, problem solving, identifying and working on opportunities,

leadership, and acting resourcefully to effect change. 'Enterprise' is also used as a noun to describe a small or new business or community venture.

Entrepreneurship:

The study of enterprise and entrepreneurs, including the practical and academic knowledge, skills and techniques used in being an entrepreneur. An entrepreneur is a person who identifies or creates and acts on an opportunity, for example by starting a new business venture or social enterprise. Entrepreneurship is a strong example of the application of enterprise skills and attributes in a specific context.

2. Summary of results

Key facts

- 116 HEIs in England responded to the survey from a total of 126, a response rate of 92%
- 93% of responding HEIs support student enterprise and graduate entrepreneurship
- Of these, 80% offered credit-bearing awards and modules in enterprise and entrepreneurship leading to academic qualifications while 91% provided extra-curricular support for student and graduate entrepreneurship
- The rate of student engagement in enterprise (SER) increased to 16% in comparison with 7% in 2006 and 11% in 2007
- Data on male:female participation was not collected by all universities but for the 73% of those which did male student engagement was 53% and female engagement 47%, the same as reported in 2007
- However, of those reporting gender, 19% had no female students on their accredited enterprise programmes.
- 95% of the 91 HEIs who responded support students and graduates in new venture creation

Not every HEI responded to all 67 questions in the survey. However, the response rates overall were sufficiently high for there to be a high degree of confidence in the results. We are grateful to all those who responded to a necessarily in-depth and searching questionnaire at a busy time of year.

European comparison

For the first time it is possible to compare results with a major survey of entrepreneurship education undertaken in 31 European countries in 2008¹.

This concluded that 5 million of the 21 million HE students in Europe were engaged in enterprise education, an engagement rate of 24%. Although the data is gathered in different ways, this is comparable with, and higher than, the SER for the UK of 16%. This can be compared with the 48% of HEIs in Europe offering enterprise education, compared with 77% of HEIs in England offering either accredited or extra-curricular enterprise education. This reinforces our conclusion, that sufficient enterprise provision exists in HEIs in England, but:

- (i) rates of engagement by students are markedly lower, and there is a need to make enterprise education and extracurricular activities available to as many students as possible;
- (ii) the level and depth of activity may be lower for English compared to European universities.

¹ NIRAS (2009) Survey of Entrepreneurship in Higher Education in Europe, NIRAS consultants.

3. Conclusions

Student engagement

Student engagement in enterprise has increased to 16% nationally across all HEIs, or an average of 24% for each institution. So a significant majority of students either do not choose, or do not have the opportunity, to participate in enterprise and entrepreneurship; it even appears that engagement in English universities may be lower than the European average. The voluntaristic, optional approach adopted in a significant number of HEIs is failing students, who often realise too late that they missed out on enterprise whilst at university and subsequently are disadvantaged in the increasingly competitive job market. The survey again confirms that the range of enterprise provision exists and the gap is in participation levels.

Integrating & embedding enterprise for all students

Given the need for graduates of all subject disciplines to possess not only enterprising skills, but also attributes of self-efficacy and flexibility, it is time to consider asking all HEIs to ensure that all students are given the opportunity to experience enterprising learning and skill development within their degree. There is a need to build on, and not repeat, enterprise in the school curriculum. There are many successful examples of embedding enterprising learning into the curricula of non-business subjects, such as in art & design, science and healthcare. This needs to become the norm, in the interests of graduates, employers and HEIs themselves². Also, universities need to examine their approach to attracting male and female students to enterprise and keep records which demonstrate this, for both accredited and extra curricular programmes. Currently there is mixed information for gender and less for ethnicity to identify the composition of the groups who benefit from the programmes in enterprise.

Graduate employability and enterprise

The dynamics of the graduate employment market are changing rapidly, and a decline in the previous healthy levels of demand from public sector organisations for graduates is anticipated from 2010 onwards. It is known that enterprising graduates are in general more employable. Many more graduates will need to develop career options in starting their own businesses, working in small firms, in the private sector more generally, and in social enterprises and third sector organisations. Entrepreneurship should be seen as a graduate employment outcome in the Destination of Leavers from HE (DLHE) annual survey, which is at present not the case. The graduate career and future employability need to be reconceptualised as being fundamentally about enabling graduates to be entrepreneurial in launching and developing their careers; the alternative may be high levels of graduate underemployment and unemployment, with costly economic and social consequences.

Entrepreneurial productivity & outputs

The survey confirms the range of provision, activities and engagement which exist. If this is considered as investment in the future entrepreneurial capital of graduates, the return on this investment also needs to be known. The numbers of graduates exposed to entrepreneurial experience, who have developed skills and confidence in enterprise, is one indicator. Another is the number of students and graduates who start a venture either whilst at University or shortly afterwards. Many HEIs were able to provide this data, but it was not easy for all to do so.

HEIs need to be able to demonstrate the application and impact of graduate entrepreneurship which results from their investment and public investment in enterprise education and extracurricular activities. Tracking this may not be easy but there is applicable expertise within the sector. Graduate self-employment, venture creation, employment within small firms and in social enterprises are examples of indicators which may be used, as would activism within Knowledge Transfer Projects and research and innovation projects after graduation.

² The CBI report 'Stronger together; Universities and businesses in turbulent times' (2009) recommended that 'business and universities must ensure that all students develop employability skills while still at university. These skills are self-management, teamworking, business and customer awareness, problem solving, communication and literacy, numeracy, and the application of information technology.' Enterprise makes a strong contribution to the development and practice of these skills.

Local collaborations for enterprise

University entrepreneurship must be a major contributor to economic rebalancing and growth in cities and counties following the recession. Local Enterprise Partnerships, where these are formed, can provide one forum for this. However there are likely to be many areas across England where economic activity and graduate employment are negatively affected by the aftermath of the recession and reductions in public sector expenditure. Previous experience in enterprise education has shown that collaboration between groups of HEIs, and involving other partners such as Chambers of Commerce, other business organisations, local authorities and schools, for example, can achieve greater results, of lasting benefit, more cost-effectively than individual HEIs acting alone³. There should be incentives and support for HEIs to collaborate with each other and with other local economic partners to increase the positive impact of enterprise education and entrepreneurship support, making this accessible to local small firms as well as students and graduates.

Leadership for enterprise

A significant number of HEIs, but a minority overall, demonstrate leadership of enterprise in holistic ways across the institution⁴, enabling enterprise in all subject areas and connecting curricular, extra-curricular and external engagement with business and community enterprise effectively. The leadership, culture, management structures and value systems of some, but by no means all, HEIs enable this. Those which exhibit an entrepreneurial team of academic and professional staff acting in a co-ordinated way across and outside the institution are much more able to achieve this. In many HEIs, individuals or small groups within one faculty or support department act as champions of enterprise, but there is often fragility associated with lack of institutional commitment, resources, leadership and ability to connect enterprise and entrepreneurship effectively across the organisation. Ultimately, enterprise in HEIs only works because of the commitment and effectiveness of enterprising staff, who may be increasingly vulnerable to loss of employment or redeployment from funding changes.

We recommend that HEIs, where they do not already have one, are asked to produce a policy on entrepreneurship, which has assigned leadership responsibilities; explicit connections to related agendas on teaching and learning, employability, innovation and venture creation, for example; targeted outputs and measurements; and commitments on investment of resources to achieve these.

4. Key findings

Student engagement rate (SER)

The student engagement rate is an indicator of the number of students participating in enterprise activity as a percentage of the total student population. The SER of 16% is a welcome increase on the 11% in 2007. Only 9% of students are involved in enterprise skills development and 16% in enterprise activities overall, demonstrating that the significant majority of students are not participating in enterprise in a recognised way, either within or outside the curriculum. As many HEIs have worked hard on student engagement, inertia and lack of interest from students, and in some measure from academic staff, are likely to be as much a reason for this as institutional factors.

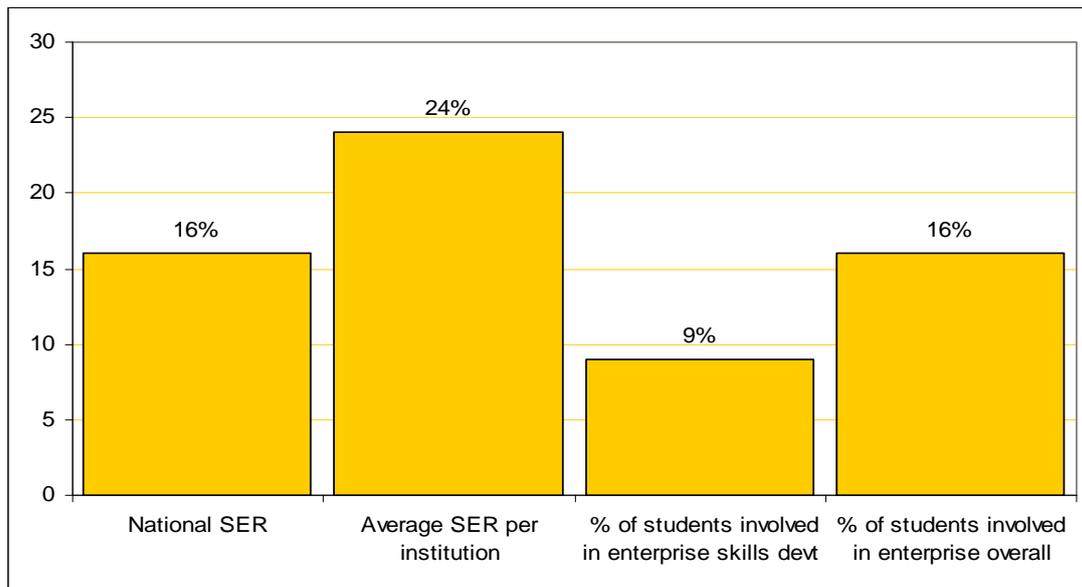
Given the importance of enterprise in economic growth and in graduate employability, consideration needs to be given to going beyond a voluntaristic approach to enterprise provision, and designing enterprise into the curriculum for all HE students.

The graphs in the following sections show the percentages of HEIs who participated in the survey which offer support in the areas specified.

³ For example the SPEED project funded by HEIF in 2004-6; subsequent venture creation projects such as Enterprise Inc. in the East Midlands; Science Enterprise Challenge networks from 2001-4.

⁴ As shown in the THES 'Entrepreneurial University of the Year' award, sponsored by NCGE.

Student Engagement Rate (SER)

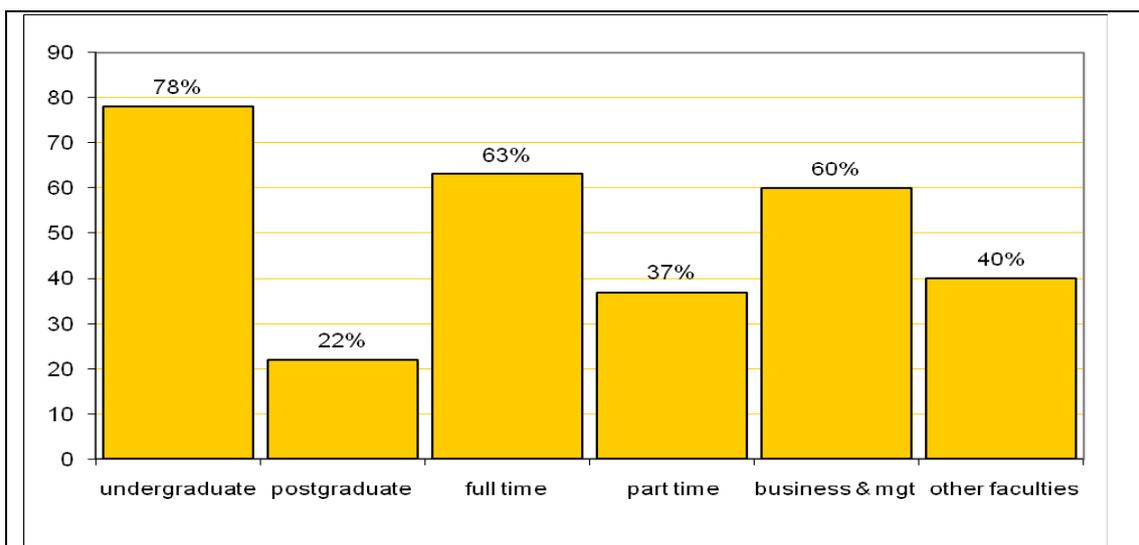


In-curricular provision of Enterprise & Entrepreneurship

This includes full awards, offered by 80% of the sample, as well as specific enterprise and entrepreneurship modules, and modules in which enterprise and entrepreneurship comprised at least 50% of the content, which were offered by 70% of the sample. Overall for in-curricula provision, 78% of the provision is for undergraduate and 22% is at postgraduate level (showing an increase of 2% in postgraduate provision since 2007), whilst 63% is for full-time and 37% is for part-time students (showing a 14% increase in part-time provision since 2007).

Business and Management provided the lead faculty subject base for 60% of the provision whilst other faculties collectively offered 40% of the total provision, which indicates little change in the provision of enterprise and entrepreneurship education since 2007.

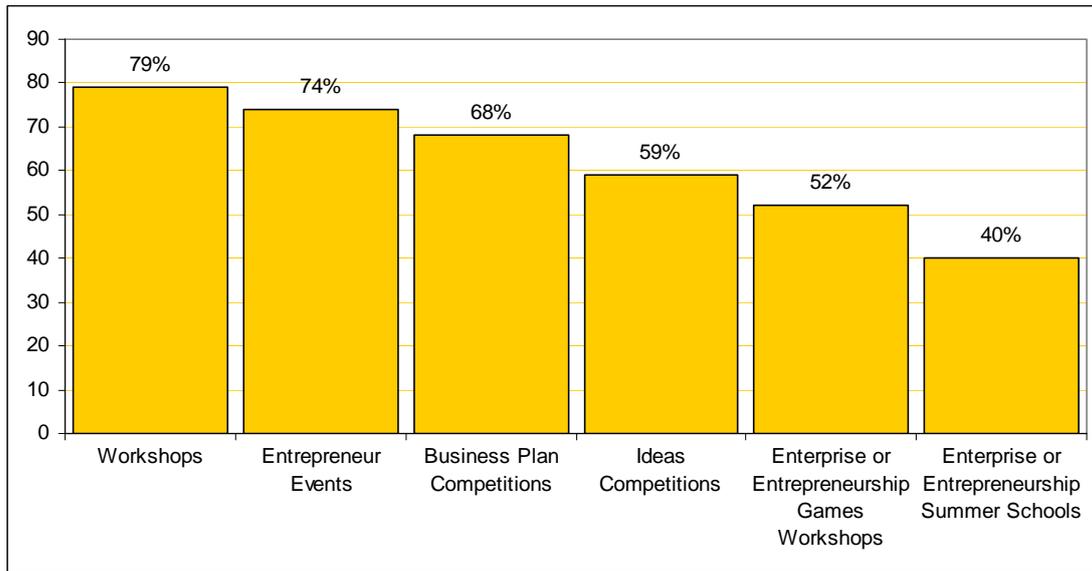
In-curricular provision of Enterprise & Entrepreneurship



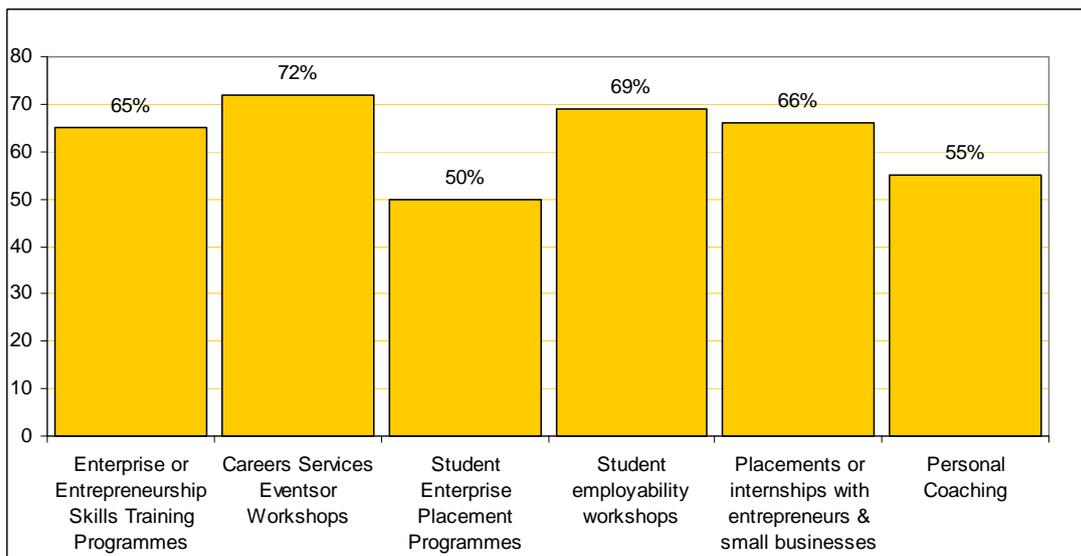
Extracurricular Enterprise & Entrepreneurship provision

Extra-curricular activities, offered by 91% of the sample, are an essential means of raising student awareness of enterprise and providing opportunities to develop skills and confidence in practical ways. The survey tracked activities in idea generation and business planning; venture creation; enterprise skills development; networking events; and events targeted at specific areas, such as social enterprise, creative industries, science and technology, ethnic minorities and female students. There is no doubt that the range, creativity and impact of extra-curricular activities have increased significantly, often supported by externally funded projects and by the formation of student enterprise clubs and societies, led nationally by NACUE⁵. In addition, facilities and resources provided by universities include incubators, dedicated centres and other provision as shown in the following chart.

Extracurricular Enterprise & Entrepreneurship provision



Enterprise Skills Development

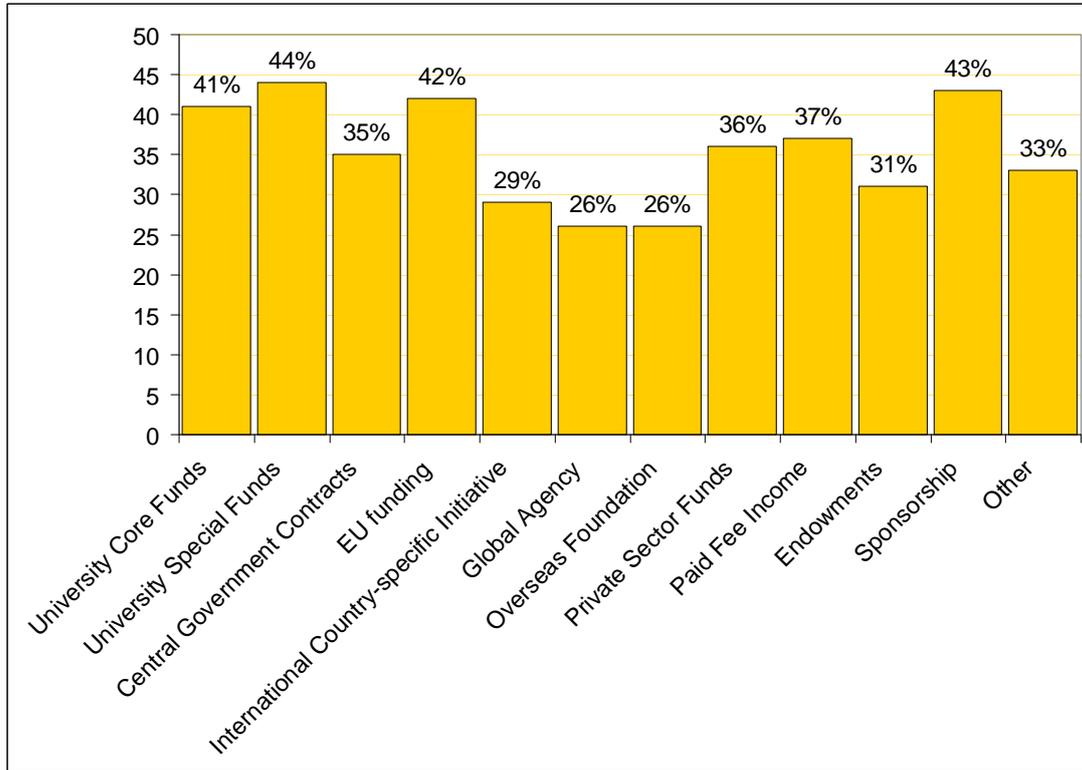


⁵ National Association for College & University Entrepreneurs.

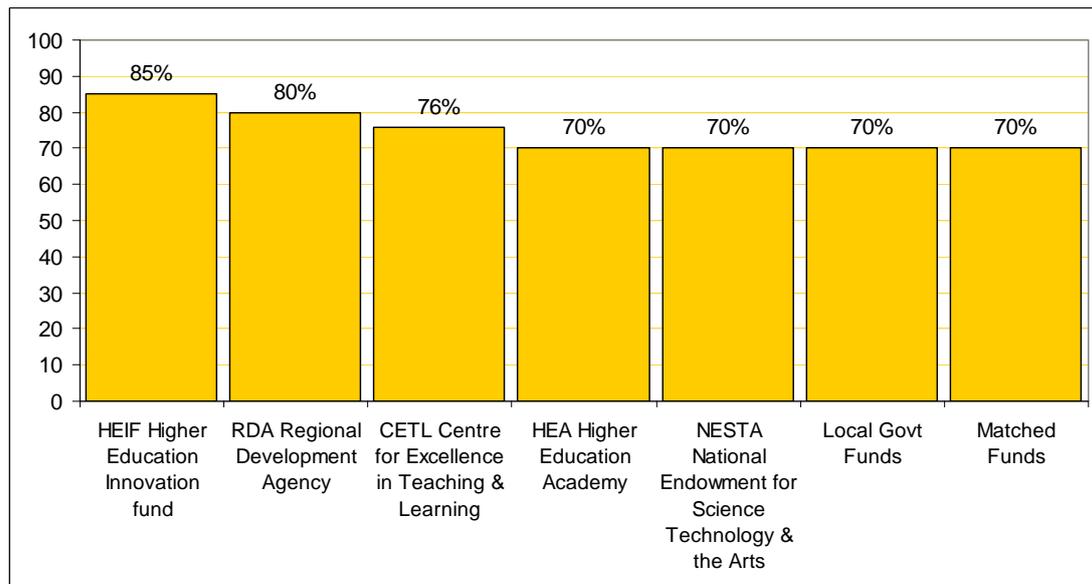
Funding sources

Enterprise and entrepreneurship activities draw on a range of funding sources. The percentages of Universities receiving funding from public and other sources are shown in the following graphs.

Universities receiving funding from all sources



Universities receiving funding from public sources

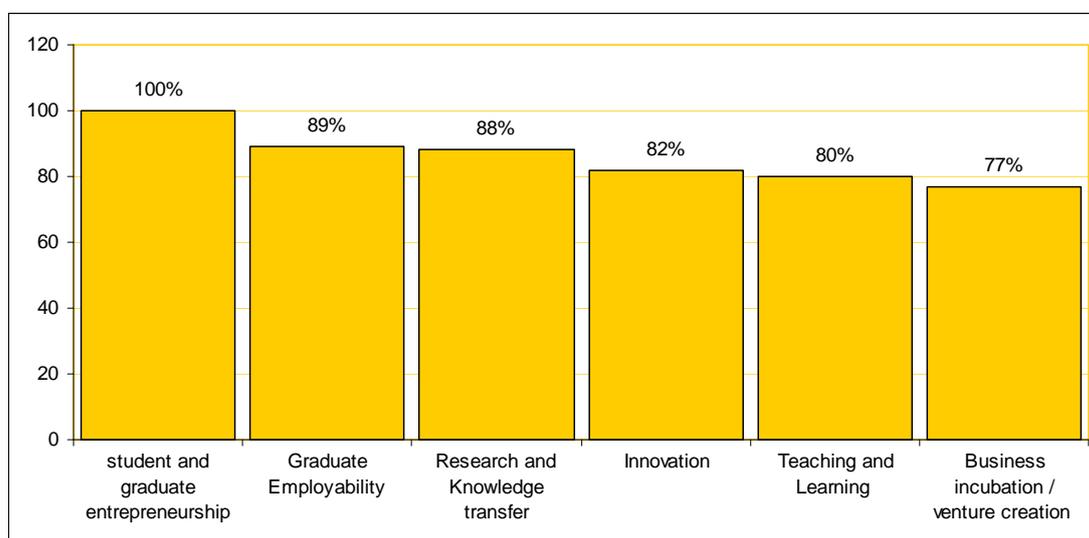


Universities have committed significant contributions to enterprise from their own funding, and other non-public sources are also evident. Of the sources of funding from the public sector, HEIF is the biggest single contributor and other principal sources have included Regional Development Agency and CETL funding, which are both ending. The average amount spent per HEI in this area from HEIF was £459,432. There is a real danger that the end of these public funding sources may seriously impair the continuity of enterprise education and support in a period when there is a growing need to identify and access more sustainable sources of funding and to increase private sector and personal investments. Given the contribution that student enterprise can make to graduate employability and to venture creation, there is an argument for funding from student fee income and from local economic development investment.

Institutional policy, infrastructure & staffing,

The survey demonstrated that a significant majority of HEIs connect their policies on support for enterprise with those for employability, teaching and learning, innovation, research and knowledge transfer, and, surprisingly to a lesser extent, business incubation.

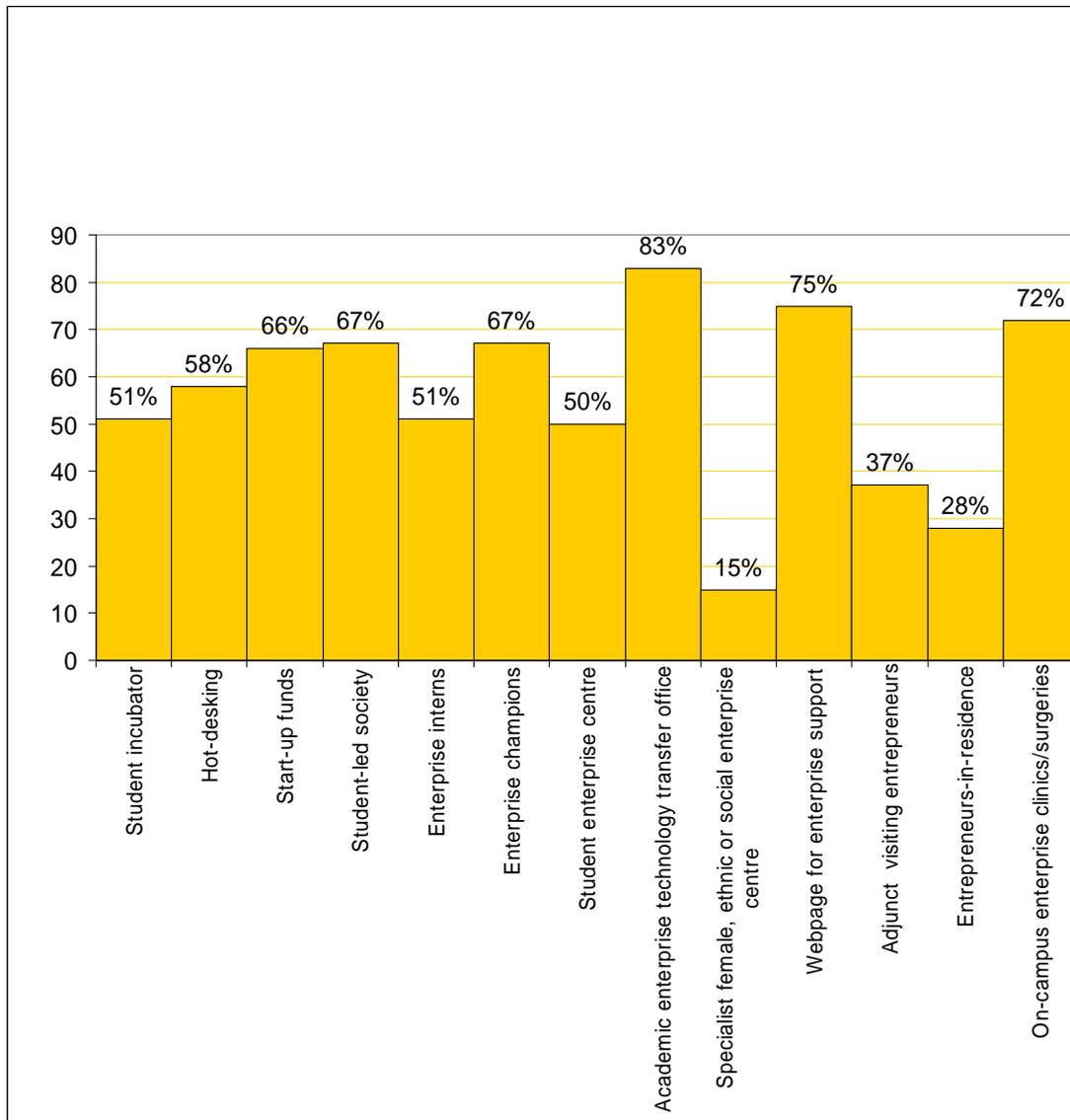
Policies for Enterprise support



Levels of institutional infrastructure for enterprise vary significantly; for example, 60% have a Pro Vice-Chancellor responsible for enterprise, and a similar proportion (63%) has enterprise embedded in the institutional mission. However other aspects vary. While an institutional policy on entrepreneurship is present in half of the respondent universities, only 33% had an external advisory board, and 40% had faculty-level entrepreneurship action plans, possibly indicating that these were not seen as priorities. External engagement was more of a priority. Enterprise in local schools and communities was supported by 63% and external engagement in communities by 70%. However, effective institutional leadership of enterprise is an area for development at a crucial time.

Infrastructure to support student enterprise activity also varies widely across the sector. 67% have a student-led enterprise club or society. There is a fairly strong level of support for staff development in enterprise (64%), and 83% have appointed academic staff to teach enterprise, 44% have appointed professors and a similar number have visiting positions for entrepreneurs.

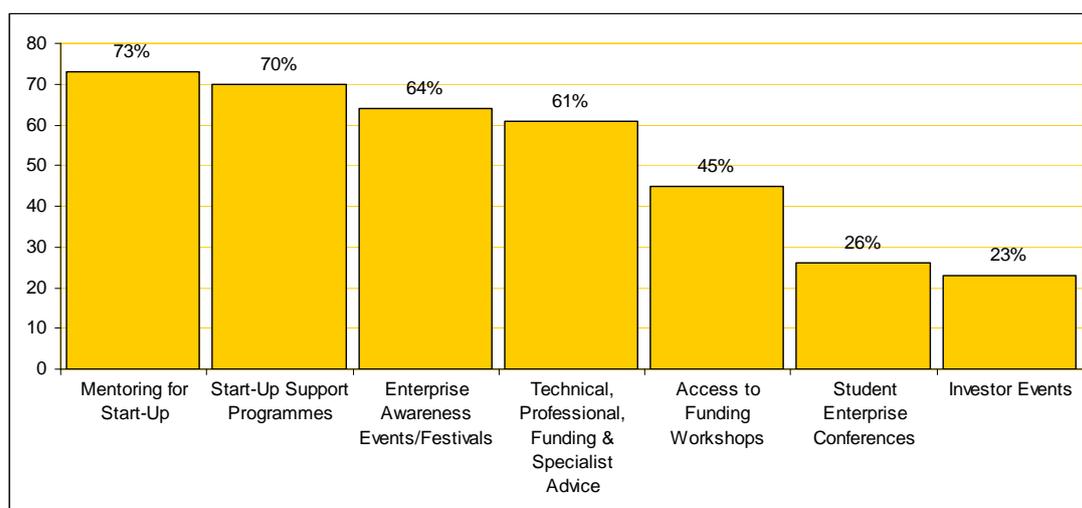
HEI Infrastructure provision



Venture creation

77% of HEIs support students and graduates in creating new business ventures. HEIs were asked how many student and graduate ventures had originated from them in 2008-9 and how many were estimated for 2009-10. The average number of start-ups per respondent institution were 22 in 2008/9 and 28 in 2009/10, an increase of 27%. It is important that HEIs should aim to capture accurate information on this, as it provides a valuable indicator of the level of their entrepreneurial output. Responses showed that 2371 new ventures were created in 2008/9 and 3277 in 2009/10. This varied enormously across institutions.

Venture creation support activities



Future confidence in enterprise activity in HE

Almost all respondents confirmed that student enterprise and entrepreneurial activities had increased over the past two years, and a similar number were confident or very confident that educational activity would be sustained over the next two years. Most were also confident that extra-curricular and start-up enterprise support would be sustained, although some commented that this depended on funding. Regarding their ability to sustain staffing infrastructure for enterprise and entrepreneurship, most were again confident of their ability to maintain this with similar concerns regarding funding. Overall, there is a stronger measure of confidence in entrepreneurial activities and staffing than might have been expected given the context of public funding, suggesting that most HEIs see these as priority activities.

Female and male participation in enterprise courses by Region

When the gender of students on enterprise courses is considered, there is a significantly higher proportion of male students on accredited programmes in enterprise than women. This is exacerbated by some courses being all male, none being all female. There are however, some programmes with high numbers of women, which account for the male: female ratio appearing more favourable than it would otherwise have done. This should cause concern if gender parity is to be an aim in business start up and growth. Figures for ethnicity were not provided by enough universities to enable analysis. However this raises concerns in the context of diversity, given both the potential talent within ethnic minority populations, and the significant growth trend in female entrepreneurship within the UK, which should be supported by HE enterprise.

Region	No of HEIs reporting accredited enterprise courses	Regional % female students enterprise accredited	Regional % male students enterprise accredited	Female average % per HEI	No of HEIs reporting gender	No of HEIs reporting gender with no females on accredited enterprise course
AWM	9	21.87	78.13	25.08	7	2
EEDA	7	38.46	61.54	30.29	6	1

EMDA	10	45.07	54.93	41.34	8	1
LDA	18	40.84	59.16	29.97	16	5
NWDA	9	38.11	61.89	38.11	8	2
ONE	4	17.76	70.56	14.22	4	1
SEEDA	18	28.33	71.67	33.61	16	4
SWRDA	10	40.13	59.87	41.78	8	4
YF	11	22.35	77.65	27.35	11	3

5. Findings by size of HEI

When the size of HEIs by student numbers is considered, student engagement generally decreases as HEI size increases, from a high level in HEIs with very small student numbers, which tend to be specialist institutions. The levels in small and very large HEIs are however similar.

Student engagement by HEI size

HEI Category (no. of students)	No in this category	% in this category	Average numbers of enterprise engagement	average SER
micro (up to 1000)	11	9	704	71
small (1001-10000)	38	33	855	27
medium (10001-20000)	31	27	2830	17
large (20001-30000)	25	22	2840	11.32
extra large (OVER 30000)	11	9	10732	29.25