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**Higher National Qualifications and  
Higher Education in Further  
Education Colleges: an analysis  
and discussion of the available data**

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# Introduction

I am pleased to present the outcome of Professor Jim Gallagher's excellent research into the progression pathways of HN students. This is part of a programme of research commissioned by SQA to help inform policy developments — in this case the programme for modernising HNCs and HNDs.

Professor Gallagher has identified many relevant sources of data (including other research papers) and has suggested ways in which these might be interrogated to gain a better understanding of where and how students enter HN programmes, how they commit their time to study and how they progress (especially to the later stages of degree programmes) following success in their HNC or HND.

As a result, we now have a much clearer picture of the role of HNs as the premier route to higher education for ambitious people in employment and for young people with a practical and problem solving aptitude who initially chose a vocational educational route at college in preference to the more directly academic.

We are clearer still about the further questions we must ask and the work that remains to be done. I am grateful for Professor Gallagher's initial work and look forward to the fruits of our future collaboration.



Neil Robertson  
General Manager

# Higher National Qualifications and Higher Education in Further Education Colleges: an analysis and discussion of the available data

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Higher National (HN) provision within further education (FE) colleges makes a very distinctive contribution to the overall provision of higher education (HE) in Scotland and colleges are now major providers of HE at undergraduate level. In 2000-01 34% of all HE level undergraduate students in Scotland were enrolled in FE colleges (Scottish Executive, 2002)<sup>1</sup>. Much of this is provided through Higher National Certificates (HNCs) and Higher National Diplomas (HNDs) programmes. However behind this headline figure there is a complex pattern of provision. This paper will look at what can be learned about HN provision from existing sources, and identify some of the issues which need to be examined further if the contribution of this form of provision to higher education in Scotland is to be fully understood.

## 1 The Growth of Higher Education within the Scottish FE Colleges

During the last fifteen to twenty years the FE colleges have emerged as a much larger and stronger feature of the higher education system in Scotland. This can be seen from the figures presented in Table 1.

**Table 1 Students enrolled in HE level courses in FE colleges**

	1985-86	1990-91	1995-96	2000-01
F/T	6,996	9,431	25,328	31,293
P/T	23,029	23,722	35,390	41,168
<b>Total</b>	<b>30,025</b>	<b>33153</b>	<b>60,718</b>	<b>72,461</b>

Source: SOEID 1998 and Scottish Executive, 2002

<sup>1</sup> Most of the data used in this paper relates to academic year 2000-01. This is the most recent year for which data were available from most of the sources which were used in producing this paper.

It can be seen from this table that the numbers of students participating in higher education programmes increased by 141%. These students are mainly enrolled on HNCs and HNDs and other vocationally oriented programmes validated by the Scottish Qualification Authority (SQA).

The importance of these programmes within HE in Scotland has grown associated with the substantial re-shaping of vocational education and training which followed the establishment of the Scottish Vocational Educational Council (SCOTVEC). The modular National Certificate system was introduced in 1985 to create a more flexible and responsive system for non-advanced vocational education, while a new structure for HNCs, and HNDs was introduced based on a unitised framework of provision.

These new structures were designed to provide colleges with greater flexibility to develop provision which was responsive and relevant to local markets as well as providing vocational qualifications which would be recognised and valued at the national level. This system provided by SCOTVEC, and more recently the Scottish Qualifications Authority (SQA), which has now replaced it, has enabled colleges to work within a national system of development, validation and certification, and to develop their own programmes of higher education which are distinct from and independent of the higher education institutions. This appears to have been an important factor in encouraging and sustaining the rapid growth of HN provision in the FE sector during the 1990s. However it is difficult to get a clear picture about the extent of this provision and its distinctive contribution to HE in Scotland on the basis of the data sources currently available. This paper attempts to examine these sources, analyse the different types of data and information they provide, and identify issues which require further investigation.

- ◆ FE colleges are now major providers of higher education in Scotland with 34% of all HE level undergraduate students in Scotland enrolled in FE colleges in 2000-01.
- ◆ The numbers of students participating in higher education programmes in FECs has increased by 141% between 1985/86 and 2000/01.
- ◆ Changes associated with the introduction of the new structure for HNC/HNDs have allowed FE colleges greater flexibility to develop their own HN provision which is distinct and independent of the HEIs while, at the same time, is recognised at a national level.

## **2 What do different data sources tell us about the extent of participation in HN courses?**

As indicated in Table 1 data published by the Scottish Executive (based on data collected by the Scottish Further Education Funding Council (SFEFC)) shows that there were 72,461 HE level students in FE colleges in Scotland in 2000-01. This

figure can be disaggregated on the basis of information contained within the Infact Database available through the SFEFC website ([www.sfeffc.ac.uk/infact/](http://www.sfeffc.ac.uk/infact/)) (Table 2).

As a result of the changes outlined above, FE colleges have developed a strong and distinctive tradition of higher education, independently of the HEIs. The importance of the FE sector in providing HE in Scotland can be seen from Table 2. It can be noted that while almost two thirds of HE students in FE colleges (46,164) are enrolled on HNC or HND programmes, and only 3% are enrolled on undergraduate degree programmes, a further one third are not on programmes of this type. A substantial group (10,840 or 15%), are enrolled on a variety of certificate and diploma programmes, a number of which are Professional Development Awards (PDAs). These awards are linked to professional development in a wide range of occupations including childcare, construction, graphic design and management. A further substantial group of students (15%) are not registered on any programme, but are engaged in a more limited programme of study involving one or more HN Unit.

**Table 2 Students on undergraduate higher education level courses in Scottish FE colleges: 2000-01**

Type of course	Number of students	Percentage of all HE level students in FE courses
First degree	2,324	3
Professional body qualification	1,304	2
SVQ/NVQ 4 & 5	908	1
HND or equivalent	19,358	27
HNC or equivalent	26,806	37
Other HN level Dips or Certs	10,840	15
HN Units only	10,921	15
Total	72,461	100

Source: SFEFC, 2002

The numbers of students who are recorded by the Scottish Executive as being on HNC and HND programmes is similar to the figures on the SFEFC Infact Database. There are however some small differences (HNC 27,286; HND 20,648), and this presumably reflects differences in how some courses are being grouped together (Scottish Executive, 2002).

SQA also provides data about the numbers of students registered for its awards. However this data relates to ‘*entries*’ and ‘*awards*’, and no overall number of students enrolled on HNC/HNDs is provided. ‘*Entries*’ were defined at the time at which this data was gathered as ‘entries for a year (eg 1/8/00–31/7/01) — ie the centre estimates that the candidate will complete the award within that time

period' (SQA, 2002. p3)<sup>2</sup>. On the basis of this definition SQA has recorded 16,294 entries to HNCs and 9,958 entries to HNDs for 2000-01. This is a total of 26,252, and is clearly a much lower figure than the number of enrolments recorded by SFEFC and the Scottish Executive (46,164).

These differences will in part reflect a difference between SQA's focus on entries for one year, and the total number of enrolments recorded in the SFEFC/Scottish Executive figures. However it may also reflect a practice on the part of the colleges that they do not 'enter' all students enrolled on HN programmes, but may only enter students when they are expected to complete the programme. On this basis it seems possible that a substantial number of students initially enrolled on HNC/HND programmes are never registered with SQA.

However, a further set of data is produced by SFEFC as part of its 'Examination Results and First Destination Statistics' data gathering exercise. This provides information on 'final year student HE group award enrolments'. These data indicate that in 2000-01 there were 20,785 students enrolled on the 'final year' of an HNC and 14,168 enrolled on the 'final year' of an HND. In this context it is assumed that 'final year' refers to those students who could be expected to complete that year. While this is fairly clear for one year full-time HNCs, and two year full-time HNDs, this definition may be more complex with part-time programmes, of which there are many, particularly at HNC level. While this group of students might be expected to be similar to the students who are recorded as 'entries' in the SQA system, there are clearly large differences in the numbers involved. These differences may again reflect the practice of not 'entering' all students with the SQA who have been enrolled on college HNC/HND programmes. However, in order to obtain more accurate data on the actual numbers of students involved in these programmes, some clarification of the definitions, and categories of students would be useful.

- ◆ Data from SFEFC indicate that almost two thirds of HE students in FE colleges (46,164) are enrolled on HNC or HND programmes.
- ◆ SQA data record a total of 26,252 'entries' on HNC or HND programmes.
- ◆ The differences in these data may reflect differences between SFEFC and SQA in the ways in which they measure participation in HN programmes.
- ◆ In order to obtain more accurate data on the actual numbers of students participating in these programmes, clarification of the definitions and procedures for recording participation, will be required.

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<sup>2</sup> This definition and the measurement of entries has now been changed by SQA. Entries are now based on a 'process date' which is the first time a college registers a student with SQA. This change will have an impact on the figures recorded by SQA in future years. However, given that this report is based on published data for 2000-01, the definition in force at that time is used.

### 3 What is the role of the FE sector as a provider of higher education in Scotland?

The FE sector is not just a major provider of HE in Scotland. It also provides higher education which is in many respects different from that provided by the university sector, and the student group involved also has distinctive characteristics.

An important feature of HE provision in the FE colleges is the extent to which part-time provision remains the dominant mode, despite an important growth in full-time provision over the past ten years or so (Table 3).

**Table 3 Undergraduate students in Higher Education in Scotland, 2000-01, by mode of attendance and sector**

	HEIs	FECs	Total
Full-time	116,253 (82%)	31,293 (43%)	147,546 (69%)
Part-time	26,378 (18%)	41,168 (57%)	67,546 (31%)
Total	142,631	72,461	215,092

Source: Scottish Executive 2002

It can be seen from the data presented in Table 3 that 57% of all undergraduate HE students in FE colleges are part-time, and on this basis it can be calculated that while students in FE colleges account for 34% of all HE undergraduates, they account for 61% of all part-time undergraduate students. Within the FE sector part-time study is particularly common among students on HNCs (58%) and students studying for other certificates and diplomas (86%). This reflects the continuing tradition of undertaking study while in employment, as part of continuing professional development.

However, it must be noted that only 14% of FE students on HE level courses are studying through a block release or day release arrangement, and only 1% are recorded as being on programmes which are based on the assessment of work based learning. A substantial number of these students (20%) are attending at the evenings or weekends, while 10% are studying through some distance or open learning mode. It should also be noted that in both the FEC and HEI sectors many part-time students are not completing programmes which lead to qualifications such as HNC/HNDs or degrees, but are undertaking study which may only consist of one or two Units or modules, or a short course of some kind.

However, while these part-time programmes remain a strong feature of HN provision within the colleges, the recent growth of full-time HN courses must also be noted. Table 1 indicates that the numbers enrolled on full-time HE level courses increased by 347% over the period 1985-86 to 1999-00, while the overall growth of HE level provision was only 141%. This growth has been particularly concentrated in HND programmes, where 90% of students are full-time. However, there has also been an important growth of full-time HNC programmes, where 42% of students are now full-time (SFEFC, 2003).

HN programmes also continue to be distinctive in the range of programmes which are provided. As might be expected, given their origins, there is a strong vocational orientation. Some indication of this can be seen in Table 4 which lists the top 10 HNC and HND programmes on the basis of entries for these awards in 2001. While these are only 10 of the numerous HNC or HND programmes available, they do account for almost 50% of all entrants (53% of HNCs and 45% of HNDs).

**Table 4 Top 10 HNC and HND programmes on the basis of entries: 2001**

HNCs		HNDs	
Computing	1,708	Business Administration	752
Social Care	1,318	Computing: Support	571
Child Care and Education	1,253	Computing: Software Development	528
Business Administration	999	Accounting	505
Administration and Information Management	988	Social Sciences	436
Accounting	796	Administration and Information Management	431
Social Sciences	534	Beauty Therapy	352
Management	341	Sports Coaching with Sports Development	321
Engineering:Mechatronics	336	Travel with Tourism	308
Engineering: Electronics	323	Graphic Design	255

Source: SQA, 2002

In addition to the strongly vocationally oriented programmes, it is also notable that Social Sciences is now included in the top ten programmes for both HNCs and HNDs. These programmes have a more academic orientation, and many students use them as a stepping-stone towards a degree programme. However this is also increasingly true for a number of other programmes, such as Business Administration. This reflects the increasingly important role that HN courses in FE colleges now have as a route into degree level study in HEIs. This will be discussed further below.

While there are some similarities between the range of programmes provided in the FE colleges, and those provided in the HEIs, there are also important differences. With respect to similarities, Business and Administrative Studies is the single largest subject group within the HEIs, with 16% of all students, and Social Studies and Engineering and Technology, with 11% and 8% respectively, are also important subject groups (SHEFC, 2002). When differences in the range of programmes offered is considered it can be noted that the second largest subject group within the HEIs is Subjects allied to Medicine with 12% of all

students, and Humanities and Languages together account for 9% of all students. However no similar programmes exist within the FE sector. Similarly the HEIs are the sole providers of programmes in the professional areas of Medicine and Dentistry.

These differences between the two sectors are, in many respects to be expected, given the very different histories of these sectors, and the degree of complementarity which exists is, in many respects, a valuable and useful aspect of the Scottish tertiary education system. However the differences between the two systems can also restrict the range of options available to students who wish to make the transition from HN programmes in the FE sector to degree programmes in the HEI sector, an issue which will be discussed further below.

A further important feature of participation in HE in the FE sector is that a higher proportion of students are older than those in the HEI sector (Table 5).

**Table 5 Undergraduate students in Higher Education in Scotland, 2000-01, by age, mode of attendance and sector**

	Full-time		Part-time		All undergraduates	
	HEIs	FECs	HEIs	FECs	HEIs	FECs
<b>20 &amp; under</b>	54%	55%	4%	15%	45%	32%
<b>21 -24</b>	32%	15%	11%	12%	28%	13%
<b>25 – 29</b>	6%	9%	14%	15%	7%	13%
<b>30 &amp; over</b>	8%	21%	70%	58%	20%	42%
<b>Total number of students</b>	116,253	31,293	26,378	41,168	142,631	72,461

Source: Scottish Executive 2002

In 2000-01 55% of HE students in FE colleges were aged 25 or older, while only 32% of these students were under 21. By contrast, only 27% of undergraduate students in HEIs, were over 25, while 45% were under 21 (Scottish Executive, 2002). These differences in the age profiles partly reflect the large numbers of part-time working students in the FECs.

In both the FEC and HEI sectors, as could be expected, the proportions of older students among those who are studying part-time are far higher than among those studying full-time. Thus 73% of all part-time students in FECs are aged 25 or over, while 84% of part-time students in HEIs are also in this age group.

However, as noted above the proportion of part-time students in the FEC sector is much higher than in the HEIs, reflecting the type of provision available in this sector. Thus on the HNC programmes, where 58% of students are part-time, 55% of students are aged 25 or older. The other (non HNC/HND) HN level certificates and diplomas have an even higher percentage of older students; 68% are aged 25 or older. The relatively high numbers of older students is also likely to reflect the

role of FE colleges in providing a route back into education for many older students who do not have traditional educational qualifications (Gallacher et al, 1997, and Gallacher et al, 2000). Thus 75% of students who are only registered for one or more HN Units, rather than a programme which will lead to a recognised qualification, are aged 25 or older. It seems likely that many of these students may be taking one or two Units as part of a process of re-engagement with education. However further research is required to establish exactly who these students are and why they are pursuing this type of study. Among full-time students, while the percentage of older students is still relatively high (30% are aged 25 or over in the FEC sector, compared with 14% in the HEI sector), they are much lower than among part-time students. This is again reflected in the age profile of students on HND programmes, where 90% of students are full-time, and a relatively lower figure of 30% of students are aged 25 or over, while 57% are aged 20 or under.

Another important part and distinctive aspect of the profile of HN students is the extent to which they are drawn from areas of social disadvantage. The work of Gillian Raab and her colleagues at Napier University is the main source of data on this issue (Raab, 1998). This study involved establishing Standardised Participation Ratios (SPRs) for the areas in which people lived. Areas were identified on the basis of an Education Advantage Score. This is a Census based score based on two Census indicators: the proportion of heads of households in social classes 1 & 2; and the proportion of adults with post school qualifications. Postcode sectors were ranked on this score and divided into seven equal categories, where 7 represents the most educationally advantaged. (Raab, 1998, p38). SPRs are based on a calculation where *'a ratio of 100 represents the national average. This means that the number of people participating in HE from a locality is equal to the number we would expect, averaged for the whole of Scotland, taking into account the age structure of the population in that locality.'* (Raab, 1998, p 6) A figure of over 100 means a higher than average SPR. A figure of less than 100 means a lower than average SPR.

While it can be seen from Table 6 that there is a clear overall gradient between advantaged and disadvantaged areas, it can also be seen that this is even more pronounced among participants in HEIs, while participation in FE colleges is much closer to what might be expected as a national average. Participation rates in FE colleges for those from the most disadvantaged areas are about twice as high as those found in the HEI sector. Scottish FE colleges would therefore appear to have a key role in widening access to higher education. This evidence of differential participation rates between sectors can also be observed in UK national data (see for example UCAS, 1999).

**Table 6 Standardised participation ratios by educational advantage score category for Scottish domiciled students (not post graduate): 1996-97**

Advantage Score Category	All	In HEIs		In FE colleges		Distance Learning
		Full-time	Part-time	Full-time	Part-time	
<b>1 = low</b>	55	42	41	85	76	44
<b>2</b>	79	66	67	100	104	72
<b>3</b>	89	82	73	105	100	94
<b>4</b>	99	98	88	108	95	112
<b>5</b>	116	117	112	108	118	125
<b>6</b>	130	143	131	109	110	132
<b>7 = high</b>	164	203	238	86	104	149

Source: Raab/SHEFC, 1998

This evidence of differential participation rates in the different sectors of Scottish HE has been up-dated in a more recent study by Raab and her associates (Raab and Sankey, 2001). In this case they used the Carstairs Deprivation Index as the basis for their study (Table 7). From this table it can be seen that while students numbers from the least deprived areas increased by 8.4% between 1996-97 and 1998-99 in the ‘ancient’ universities, those from the most deprived areas only rose by 0.4%.

However, over the same period, the ‘old’ (1960s) and ‘new’ (post ’92) universities both had much higher percentage increases from students from the most deprived areas (13.3% and 10.5% respectively). These were similar increases to those recorded by the FECs (11.4%). On this basis they conclude that ‘over the two years 1996-97 to 1998-99, while the differences between the ‘ancient’ universities and other types of institution had become even more pronounced, the differences between the old and new universities and the FECs may have narrowed somewhat’ (Raab and Storkey, 2001, p 17).

**Table 7 Percentage change in student numbers by type of institution and deprivation group: 1996-97 to 1998-99**

Deprivation Group	Ancient	Old	New	FECs
1 = least deprived	8.4	3.7	3.3	9.5
2	11.3	7.6	7.3	10.0
3	6.5	6.1	5.1	11.6
4	1.7	10.2	7.3	6.5
5 = most deprived	0.4	13.3	10.5	11.4

Source: Raab & Storkey/SHEFC, 2001

More recent confirmation of the continuing role of the FECs in attracting students from areas of deprivation can be seen in the data gathered by SFEFC (Table 8). This shows that almost 50% of participants in HNC and HND programmes come from areas within the two most deprived bands. While an almost equally high percentage of students taking only HN Units (46%) come from these areas, there is also some evidence that a somewhat higher proportion of these students do not come from deprived areas. As we have indicated above there is little systematic knowledge about these students and their reasons for participation in these Units, and further investigation of this issue is clearly required.

**Table 8 Percentages of students from areas of deprivation on HN programmes or Units in FE colleges participating in 2000-01**

	HND or equivalent	HNC or equivalent	HN Units only
<b>Undefined</b>	5	3	5
<b>Band 1: not deprived</b>	13	13	19
<b>Band 2: below average deprivation</b>	17	17	16
<b>Band 3: average deprivation</b>	17	18	14
<b>Band 4: above average deprivation</b>	23	24	29
<b>Band 5: High deprivation</b>	25	25	17

Source: SFEFC, 2002

- ◆ FE colleges provide higher education which is in many respects distinctive when compared with that provided by HEIs
- ◆ Part-time study is more prevalent in FECs than in the HEIs with FE students accounting for 61% of all part-time undergraduate students
- ◆ There has also been a growth in the numbers enrolled in full-time HN courses in the FECs, particularly on HND programmes, where 90% of students are full-time.

- ◆ While HN programmes have kept their distinctive vocational orientation some popular courses now have a more academic orientation.
- ◆ There are differences between FECs and HEIs in the range and orientation of programmes on offer.
- ◆ A higher proportion of HE students in FE are older than those in HEIs, 55% are aged 25 or older while only 27% of undergraduates in HEIs are aged over 25. This partly reflects the large numbers of part-time working students in the colleges, but also the role of the FE colleges in providing a route back into education for students who do not have traditional educational qualifications.
- ◆ HN students in FE colleges are more likely than their HEI counterparts to come from the most disadvantaged social areas.

## 4 Completion rates on HN programmes

An important question regarding the data currently available about students on HN programmes concerns the numbers of students who successfully complete these programmes. Attempting to establish completion and withdrawal rates for HN programmes is difficult, since data in this form are not currently published by SQA or SFEFC. This partly reflects a number of difficulties with the existing data, some of which have been referred to above. Firstly the fact that many HN students are part-time students who may take several years to complete their programmes makes it difficult to establish completion rates for any given cohort. This would require a tracking process for which current reporting systems do not appear to be designed. Secondly, as has been indicated above, the base line from which to measure completion rates does not appear to have been clearly drawn.

It has been indicated that data collected and recorded by SFEFC seems to be different from that collected and recorded by SQA. It would be necessary to agree at what point a student can be considered to have enrolled on an HN programme to establish the base data on which completion and withdrawal rates could be measured. In the circumstances it is therefore only possible to draw attention to existing data sources, and the limited conclusions which can be drawn from them.

The first, and most obvious source available is the data which SQA publishes on 'entries' and 'awards'. At the time at which the data used in this report was gathered 'entries were defined as 'Entries' are entries for a year (eg 1/8/00-31/7/01) – ie the centre estimates that the candidate will complete the award within that time period.' We have noted that this definition has now changed. However the published data used for this report are based on this definition.

'Awards' are awards certificated within a year (eg 1/8/00–31/7/01) — ie the certificate is actually awarded within that time period. (SQA, 2002, p3). SQA indicates that these are new reporting arrangements 'it is possible that the number of awards in any one time period could exceed the number of entries if candidates complete the course at a different time than that originally estimated by the centre' (SQA, 2002, p3). It is also not altogether clear how these arrangements

operate with regard to the many part-time students registered on HN programmes, and particularly on HNCs. SQA also indicate that these reporting arrangements have only been introduced from 2000-01, so a time series is not possible at this point.

The data available for HN group awards in 2000-01 is presented in Table 9.

**Table 9 HN entries and awards, in FE colleges: 2001**

Qualification	Entries	Awards	Entries as % of Awards
HNC	16,038	12,561	78%
HND	9,119	6,197	68%
HN PDA	1595	1,266	79%

Source: SQA 2002

Overall it would appear that around 75% of students entered for HN group awards received awards in 2001. However, this cannot be taken as an accurate indicator of completion rates on the basis of information currently available, and further investigation of the relationship between entries and awards is required. It must also be noted that these figures are not based on the numbers of students who originally registered on these programmes in the FE colleges, but on the numbers who have registered for the award with SQA, which may be a considerably lower number. Some indication of completion rates based on the numbers of students enrolled in the FE colleges is available from data collected from the colleges by SFEFC (Examination Results and First Destination Statistics). This data is reported in Table 10.

**Table 10 Qualification results for final year group award enrolments: 2000-01**

Qualification	Total	Passed	Did not complete	Fail	Other
HND	14,168	7,595 (54%)	4,256 (30%)	1,988 (14%)	329 (2%)
HNC	20,785	12,052 (58%)	5,320 (26%)	2,946 (14%)	467 (2%)
Other advanced diploma/certificate	3,612	2,767 (77%)	360 (10%)	398 (11%)	87 (2%)

Source: SFEFC, 2003

It can be seen that the number of students recorded here as enrolled on these programmes are considerably higher than the numbers of 'entries' recorded by the SQA. The numbers of passes are closer to the 'awards' figures recorded by SQA, although there are still significant differences between these two sets of data. These figures give us some further information about completion rates for HN group awards, however further investigation will again be required to establish what exactly this data is telling us, and how robust it is.

It is difficult to draw any firm conclusions at this point about completion and withdrawal rates for HN programmes. However it is useful to put these programmes in context. In the first place there is evidence of wide variations in withdrawal and completion rates between different higher education institutions. Data published by HESA indicates that while the figure for progression after year of entry for full-time undergraduates in all Scottish institutions was 87%, there was considerable variation between institutions, and while some institutions had a 96% progression rate in others the progression rate was only 77% (HESA, 2002). While these differences are associated with a complex range of factors, those universities which are able to be highly selective in their choice of students, and have a student group which is relatively homogeneous with respect to their academic background are likely to have higher progression rates. It is also of interest to note that progression rates for mature students are in general lower than those for younger students. Thus the overall Scottish progression rate for mature students is 83%, while one institution has a progression rate of only 68% for this group, and three others have progression rates of 76% or 78%.

While separate data is not published for part-time students, there is also evidence that progression rates for these students are also lower. These differences in progression rates reflect a wide range of factors, including preparation for study, cultural and social issues, and domestic, work and financial commitments (Davies et al, 2002; Osborne et al, 2001; Callender, 2003). Given the characteristics of HN programmes, and the students who participate in them, which have been discussed above, it might therefore be expected that progression rates will be lower than in institutions with a more homogeneous intake. However the importance of ensuring the highest possible progression rates for students on HN programmes must also be recognised.

- ◆ Completion and withdrawal rates for HNC/HNDs are not published and the base line from which to measure HN completion rates has not yet been clearly drawn.
- ◆ Reporting systems are not designed to take into account HN students who take several years to complete their courses.
- ◆ Qualification results for final year group award enrolments 2000-01 collected by SFEFC indicate that 58% of HNC students and 54% of HND students passed.

## **5 What do HN students do after completing their programmes?**

There have been no national studies to determine what HN students do after completing their programmes of study. However, as with the other issues discussed above, there is some evidence on the basis of which some conclusions can be drawn. When considering this issue one of the first points which must be borne in mind is the high proportion of part-time students on these programmes. It has been noted above that 57% of all HN level students in FE colleges are part-

time. This pattern can also be seen to be repeated when the profiles of students completing their awards is considered (Table 11).

**Table 11 Mode of attendance for students completing HN group awards: 2001**

Award attained	Full-time	Part-time	Total
HND or equivalent	6,667 (88%)	928 (12%)	7,595
HNC or equivalent	6,340 (53%)	5712 (47%)	12,052
Other advanced certificate/diploma	238 (9%)	2529 (91%)	2,767

Source: SFEFC (2003)

Many of the students on these part-time programmes will already be in employment, and will continue in this employment, or move on to other positions when their studies have been completed. However little systematic data is available for this group.

With respect to the full-time students some limited information is available regarding their progression to employment or further study. This is available from the First Destination study which colleges are required to undertake. Since this depends on obtaining responses from graduates/diplomates, the data is not comprehensive, and the results must be viewed with caution. They do however present an interesting picture (Table 12). These figures are for the year 1999-00 as the 2000-01 data are not yet published. They also include all graduates/diplomates, and so will include a relatively small number of degree students as well as HN diplomates. Diplomates are defined for this purpose as students completing certificates or diplomas at higher education level, below first degree level. They will therefore include HNCs as well as HNDs.

When these data are considered it is perhaps interesting to note that a fairly high percentage of these students (36%) progress into further study, and a lower proportion (25%) are reported as having progressed into any form of employment. This is also reflected in data published by the Scottish Executive which indicates that in 1999-00, 6,925 entrants to undergraduate programmes in Scotland had an HNC or HND as their highest qualification (Scottish Executive, 2002). It should of course be noted that a substantial number of these students will be ones with HNCs who are progressing to HNDs, but these figures also reflects the growing importance of HN programmes, and particularly full-time programmes as a progression route into degree level study for many of these students.

**Table 12 First destination of graduates and diplomats: 1999-00**

	<b>FECs</b>	<b>HEIs</b>
<b>Full-time study</b>	5,157 (36%)	4,974 (17%)
<b>Permanent home employment</b>	3,079 (22%)	10,869 (37%)
<b>Temporary home employment</b>	322 (2%)	3,087 (11%)
<b>Overseas employment</b>	92 (1%)	935 (3%)
<b>Believed unemployed</b>	391 (3%)	963 (3%)
<b>Not available</b>	73 (1)	1,247 (4%)
<b>Other</b>	5,138 (36%)	7,033 (24%)
<b>Total</b>	<b>14,252</b>	<b>29,108</b>

Source: Scottish Executive, 2002

The extent to which these HN programmes are either a route to further study or to employment will vary between programmes. This is reflected in data published by SFEFC which indicates considerable variations, by subject group, in the percentages of students who gain HN Group Award and progress to degree level study. Thus in 1999-2000 this data shows that 34% of social science students progressed to degrees, 30% of science and maths students, and 23% of business and management students. However, in a strongly vocational subject area such as social work, only 8% of students went on to degree study. It should also be noted that this data is limited, in that there was no information on destination for 36% of students who completed HN awards (SFEFC, 2001). While all of this data is limited, and must be treated with care, it can be seen to be indicating a growing differentiation in the role of HN programmes and qualifications. Some will continue to be largely vocational in orientation, with high numbers of part-time students, while others will have an increasingly important role in preparing students for further degree level study as well as possible preparation for the job market. While there is no systematic study of links between the FE and HE sectors there is again some data which gives some indication of the patterns which are emerging.

SHEFC report 3,703 entrants to Scottish HEIs in 1999-00 had HNC/HNDs as their highest qualification at entry (SHEFC, 2002). Given that the figures reported above indicate that about 13,000 students complete full-time HN programmes, and that it seems likely that many of the 6,300 students on HNC programmes will progress to HND programmes, a figure of 3,703 entrants to degree programmes could well be a fairly large proportion of all students completing full-time HNC/HND programmes who are not progressing to another HN programme. A study by Gallacher et al, which is based on students from 13 HN programmes in 6 FE colleges throughout Scotland (Gallacher et al, 1997), indicated that 65% of the HN students, whom the researchers were able to track, proceeded to degree study. However, more detailed investigation would be required to establish accurate national figures regarding progression from HN to degree programmes. It is, nevertheless, clear that many students, and particularly full-time students, who begin their studies in FE colleges wish to carry on to complete degree level study

in universities. However, it is also clear that the opportunities for progression of this kind are often limited, and are unevenly spread between different institutions.

It can be seen from Table 13 that despite the fact that the ‘ancient’ universities admitted more than 10,000 students only 303 entered on the basis of an HNC or HND. The outcome is that, while it has been noted above that FE colleges have had considerable success in widening access, the progression routes available to students after study in FE colleges are still limited, and the main opportunities exist in the post ’92 sector.

**Table 13 Students entering HEIs in Scotland for whom HNC/HND or similar was highest qualification on entry: 1999-2000**

	Number of entrants with HNC/HND as highest qualification	Percentage of all entrants
‘Ancient’ universities	303	3%
1960s universities	568	8%
Post ’92 universities	2,665	25%
Art/ music colleges	167	13%
<b>Total</b>	3,703	13%

Source: SHEFC, 2002

A similar conclusion is reached by McLaurin in a study which attempts to identify former FE students who have progressed into HEIs. The technique used in this study is known as probability matching. On the basis of this study he concluded that there was a total of 5,135 students (at all stages of their programme) in HEIs in Scotland in 1999-00 who had entered with an HNC/HND as their highest entry qualification. While 71% of these students were in post ’92 universities, only 8% were in ‘Ancient’ universities and 19% were in the 1960s universities (McLaurin and Osborne, 2002). An earlier study of links between FE colleges and HEIs in Scotland also showed that the majority of these links have been established between the FE colleges and the post 1992 universities (Alexander et al, 1995).

- ◆ No national studies have been carried out to establish what HN students do after completing their programmes and available evidence is limited, especially for part-time students.
- ◆ Data for full-time HN students indicate that more than a third of these students progress to further study (36%), which will include degree level study, and a lower proportion progress into employment (25%).
- ◆ There is evidence of increasing variation in the role of HN programmes. Some continue to have a primary function as a vocational qualification (often with a high percentage of part-time students), while others are increasingly used as entry routes to further academic study.

- ◆ Progression routes for former HN students into degree level study are often limited, and are spread unevenly between the HEIs, with the main opportunities existing in the post '92 universities. Only 3% of entrants to the 'ancient' universities had an HNC/HND as their highest qualification on entry compared with 25% in the post '92 universities.

## 6 Conclusions and issues for further investigation

The data presented here show that HN provision within the FE colleges is now a major aspect of the HE system in Scotland which makes a very distinctive contribution to this system. A relatively high proportion of these students are older, many are part-time, although full-time HN programmes have grown considerably, particularly at HND level. The courses still have a strong vocational orientation, although many students now use them to progress to further study, before entering employment. These courses also attract a high percentage of students from areas of social deprivation, and make a valuable contribution in widening access to higher education. Overall the picture which emerges is one of considerable complexity and heterogeneity. It is also clear that with respect to a number of key questions the data is limited, and there is a need to address these limitations if the contribution of HN courses to the development of higher education, and social and economic development in Scotland is to be fully understood.

Some key issues for investigation have emerged from this study, and can be identified as follows.

- ◆ How can the numbers of participants on HN programmes be most accurately measured?
- ◆ Should completion rates for students on these programmes be investigated further?
- ◆ Who are the students who take HN Units, rather than HN programmes, and why are they undertaking this study?
- ◆ What proportion of students progress from HN programmes to degree courses in HEIs, and to what extent are there different patterns between HN programmes in different subject areas?
- ◆ To what extent are HN programmes now fulfilling different purposes for different student groups?

It is suggested that studies to investigate these issues would significantly enhance our understanding of the contribution of HN to the education and training system within Scotland. It is also suggested that a regular series of reports on participation and completion of the kind covered by this paper, which would establish trends, would be of considerable value.

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