NOTTINGHAM BUSINESS SCHOOL
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Profiling the Distribution of Learning in the D2N2 Area in 2011

This report analyses the distribution of publically-funded learning in the 2010/11 academic year based on data provided to the Nottingham & Nottinghamshire Employment & Skills Board by the SFA/BIS Data Service for learners (aged 16 +) who are resident within the D2N2 Local Enterprise Partnership. Learner starts are analysed by sector and level of course/qualification, and this is compared to the profile of the D2N2 workforce by qualification, sector and occupation, along with advertised vacancies by sector, in order to identify any possible mismatches between delivery, learner choice and labour market opportunities.

SFA/BIS data has been analysed and presented according to the terms of the Data Agreement with the NCC Employment & Skills Board (26th June, 2012). Absolute numbers are not included in any of the charts or commentary in this report, ensuring the confidentiality of both individual providers/delivery bodies and learners.

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Executive Summary

- According to earlier analysis of 2008/09 SFA data, the distribution of learning in the wider East Midlands region by sector/subject was highly heterogeneous, with little obvious relationship to the structure of local employment or advertised vacancies. Young people (aged 16-18) in Further Education were particularly likely to start courses that appeared more closely aligned to hobbies or interests rather than local labour market opportunities, with the most popular FE courses including creative & arts, sports & fitness and hair & beauty.

- There were relatively small numbers of jobs directly related to these courses, with regional sectoral strengths such as construction, advanced manufacturing, and health and social care less well represented in course choices (although adults learners in FE and learners starting Apprenticeships were more likely to start or enrol in courses related to these sectors).

- These observations were also reflected in a number of national studies. The majority of young people in schools and colleges surveyed in 2011 for City & Guilds stated that they had chosen to study subjects they were interested in, rather than subjects that may affect future employment or progression to university. For respondents who were on vocational learning routes, only 23% stated that they chose their course because they felt it would help them get a job.

- In the City & Guilds study, 61% of young respondents stated that they had a clear idea of the kind of job or career they wanted to pursue – but they were unsure of how to identify learning that would assist this ambition, and instead chose courses aligned to their personal interests, which often had little clear relevance to their desired career. A survey undertaken by the think-tank DEMOS, also in 2011 and focussing on young-people who were not intending to go to university ("the 'other' 50 %"), reported similar issues.

- DEMOS also identified long-term structural factors affecting the aspirations of young learners on vocational routes – particularly the decline in the proportion of semi- or intermediate-skilled jobs associated with qualifications at Level 2 (the Skilled Trades and Administrative & secretarial occupations) in favour of 'technician-level' jobs that are associated with a Level 3 or higher (Associate professional occupations in both production and service sectors, increasingly occupied by university graduates). At the same time, the proportion of jobs in the service sector requiring few or no qualifications has increased significantly. These factors could pose a risk for those young people who do not pursue academic learning routes to become 'trapped' in

low skill, low pay work with limited progression opportunities and greater exposure to periods of unemployment.

- The latest data analysed in this new study, 2010/11 SFA data and 2012 Labour Force Survey data, also reflects some of the impacts of the recession, and changes to the funding of Further and Higher Education, on the course choices made by young people and adults.

- The SFA data provided to the Employment and Skills Board relates to learners resident within postcodes in the D2N2 (Derby, Derbyshire, Nottingham and Nottinghamshire) Local Enterprise Partnership area. These learners could be accessing training delivered by providers within the D2N2 area or within neighbouring LEPs and regions. However, the majority (86.5%) of learners resident in D2N2 also accessed learning from providers based in D2N2. All further analysis is based on learning delivered by D2N2 providers, in order to support clear recommendations for the Employment and Skills Board (thus filtering out learning delivered in other regions, such as the North West, Yorkshire & the Humber and the West Midlands).

- The total number of learner starts delivered by D2N2 providers increased between the 2007/08 and the 2010/11 academic years. The proportion of all learning delivered to young people has also increased, as has the proportion of Apprenticeships – although this delivery stream still represents a small minority of learner starts, with Further Education accounting for a large majority.

- Further Education and training delivered in Nottingham and Nottinghamshire account for the largest shares of learner starts in D2N2, whilst Derby accounts for the smallest proportion.

- The proportion of learner starts in courses leading to an entry level or Level 1 qualification have decreased, whilst delivery at Level 2 and 3 have increased. Level 2 represents the largest share of Further Education and training in D2N2 in all areas except Nottingham city (where Level 3 accounts for the largest share).

- Courses related to Adult Social Care and Healthcare accounted for the largest proportion of learner starts (excluding Apprenticeships) in 2010/11 in the D2N2 area (and the second highest in 2007/08). This was followed by courses related to Building Services Engineering and Construction, Employability, and Process Manufacturing and Science & Engineering Technologies.

- Compared to 2007/08, the proportion of learners starting courses associated with Business Information Technology and Telecommunication declined significantly by 2010/11, which may be associated with a significant increase in courses related to Employability (with ICT increasingly being grouped within Employability rather than a sector-specific footprint).

- A number of sector footprints highlighted as most popular with young people in the original *emda* analysis of (an earlier, non-comparable version of) the SFA data have decreased in popularity, including Hair & Beauty, Active Leisure, Learning and Well-Being and Creative & Cultural and Creative Media.

- Conversely, sector footprints closely associated to important employment areas in D2N2 (e.g. Manufacturing) have increased in popularity, with a greater proportion of learner starts in Process Manufacturing and Science & Engineering Technologies. Learning in courses aligned to this sector footprint accounted for the largest proportion of starts in Derby and second largest in Derbyshire. Adult Social Care & Healthcare accounted for the largest proportion of learner starts in both Nottinghamshire and Derbyshire.

- In terms of Apprenticeship starts, Customer Service and Contact Centres and Retail accounted for the first and second largest proportions of learner starts, followed by Health, Social Care and Pharmacy Services. Learning associated with Manufacturing accounts for a relatively small proportion of Apprenticeship delivery.

- According to the Labour Force Survey for the 2012 calendar year, employment in the D2N2 area is significantly over-represented in Manufacturing compared to the national average. Public admin, education and health accounts for the largest proportion of employment in both the D2N2 area and the UK overall.

- This suggests that the high proportion of FE delivery related to Adult Social Care and Healthcare is well aligned to the sectoral structure of the D2N2 labour market.

- However, it must be noted that the data provided in the SFA Data Cube provides no indication of the quality of provision within given sector footprints or its 'fit' to employer need – it is only possible to comment on the broad match between the sector footprint of FE and training provision and the sector distribution of employment. More detailed intelligence on the quality of this provision would require an audit of current curricula and primary research into the views of the beneficiaries of the provision (both learners and employers).

- There is less evidence to suggest that the distribution of Apprenticeships reflects the structure of employment, which becomes clearer when assessing employment by occupation.

- The Skilled Trades occupations account for a higher proportion of employment in the D2N2 labour market than nationally. This occupation is closely associated with the Manufacturing and Construction sectors, initially suggesting good alignment with FE – given the relative popularity of courses related to these activities in the 2010/11 academic year.

- However, the Skilled Trades have declined significantly since 2008. This occupation is associated with skills/qualifications at Level 2. Associate Professional and technical occupations, associated with skills/qualification at Level 3 have increased in their share of the D2N2 workforce since 2008 – suggesting a need to further shift delivery from Level 2 to Level 3 to enable FE leavers to compete with HE graduates.

- Employment in Administrative and secretarial and Sales and customer service occupations have also declined significantly since 2008, posing concerns for the current concentration of Apprenticeships related to the skill requirements of these occupations. As in the case of the Skilled Trades for Manufacturing/Construction, this shift away from intermediate-skilled occupations may represent an 'up-skilling' of jobs in the service sector – suggesting that if a large proportion of Apprenticeships continue to be delivered related to activities such as customer services, they should be aiming to provide qualifications to at least Level 3 – enabling Apprentices in service-related activities to access the increasing proportion of jobs in Associate Professional roles.

- Time series analysis of occupational data confirms a high and increasing requirement for employment in Caring roles in D2N2 (i.e. healthcare and adult social care), again suggesting that the popularity of such courses in FE is well-aligned to the needs of the labour market.

- Vacancies notified with Jobcentre Plus provide a nuanced picture that needs to be interpreted with care. The largest share of vacancies by sector, both nationally and in the D2N2 area, are in 'Real estate, renting and business activities', which includes (and is likely to predominantly be) agency work. The next largest groups of vacancies were in the 'Wholesale and retail trade' and 'Health and social work'. An occupational analysis of vacancies reveals that the majority are in low skill activities, with the largest proportions in Elementary and Process, plant and machine operative occupations. Also of note is the fact that the D2N2 area appears to be under-

represented in vacancies related to Associate Professional and Technical occupations – which perhaps may partly explain the lower take-up of Apprenticeships relating to such jobs.

- Analysis of qualifications held by the current workforce counter-balances the picture provided by JC+ vacancies (which only reflect around a third of available jobs, and are known to be skewed towards lower-skill activities). Employment rates for individuals with qualifications at Level 4, 3 and 2 are higher than the average for all adults in the East Midlands – with a particular advantage for qualifications at Level 4 and above.

- However, in the D2N2 area workers qualified to a Level 4 or above account for a lower proportion of total employment than the national average – although this group still accounts for the largest share of employment (35%). Conversely, the D2N2 area has higher than average proportions of employed residents qualified to Level 3, 2 and with qualifications below Level 2. Adults with no qualifications make up a small minority of employment in both the D2N2 area and nationally.

- Concluding observations are as follows:

  o The high proportion of learning in courses (both FE and Apprenticeships) related to adult social care and healthcare appears to complement the sectoral and occupational structure of the D2N2 workforce, and is also an area where there are relatively large proportions of job vacancies. Adult social care and healthcare make up the largest proportion of learner starts in FE and other training in both Nottinghamshire and Derbyshire, reflecting the fact that employment in the relevant occupational group is over-represented in both areas;
  o This may represent an improvement in the responsiveness of provision and the information and guidance provided to learners when compared to earlier analysis. Learner starts related to activities more aligned to young people's interests than labour market opportunities (e.g. creative, arts and cultural, sport and leisure), have declined in their overall share of FE and other training, whilst courses aligned to Manufacturing have increased in their share of total starts;
  o Manufacturing is over-represented in terms of employment in the D2N2 area, especially in Derby, and this is reflected in the distribution of (predominantly FE) learning – both in D2N2 more widely, and in Derby in particular (where courses related to manufacturing account for the largest share of learner starts in FE and other training);

o However, Manufacturing is under-represented in Apprenticeship provision – which may be an area of focus for future sector strategies;

o Trends in occupational employment suggest a growing need for qualifications at Level 3 and a declining demand for Level 2 qualifications. With the exception of Nottingham, Level 2 continues to account for the highest proportion of learning delivery in the D2N2 area. If the proportion of learning at Level 3 is increased, young people on vocational learning routes will be better able to compete with HE graduates for technician-level jobs in both Manufacturing and the Services;

o The D2N2 area continues to have a lower skills profile than the national average – which is likely to be affected by both supply- and demand-side factors, such as fewer vacancies in technician-level jobs, lower proportions of delivery at Level 3 and above in some areas, and the out-migration of skilled workers; and

o Further research (including primary research with employers and learners) could investigate the quality of learning available in the D2N2 area, to assess in greater depth the extent of 'fit' with employer requirements.

1. Introduction

In July 2013, Nottingham Business School were appointed by the Nottingham & Nottinghamshire Employment and Skills Board to analyse the distribution of publically funded learning in the Derby, Derbyshire, Nottingham and Nottinghamshire (D2N2) Local Enterprise Partnership area, based on data provided by the Skills Funding Agency (SFA). This project aims to identify the extent of alignment between Further Education and other training delivery, learner choices, and the sectoral and occupational structure of the D2N2 labour market.

This study seeks to build on previous analysis, carried out in 2010 by the East Midlands Development Agency *(emda)*[1], on an earlier version of the SFA data. The findings of this earlier work suggested that the sector/subject distribution of courses delivered by providers and chosen by learners resident in the wider East Midlands region[2] was highly heterogeneous, with little obvious relationship with the structure of local employment or advertised vacancies. The authors of the 2010 study concluded that young learners in particular appeared to be choosing courses that were aligned more closely with their personal interests than with an awareness of the skills and subject knowledge associated with opportunities in the local labour market. The key observations made of the SFA and other learner data in 2010 were:

- According to learner starts/enrolments in 2008/09, the post popular subjects (by Sector Skills Council/Sector Skills Body footprint) for young-people (16-18 year olds) in Further Education in the East Midlands were: creative and arts (Creative and Cultural Skills); fitness and sport (Skills Active); beauty and hairdressing (HABIA); ICT (e-skills); construction; and hospitality (People 1st);
- For adults (19+), the most popular Further Education subjects in the East Midlands were: ICT (e-Skills); Health; general professional development (ENTO); non-compulsory education (Lifelong Learning UK); electrical installation, plumbing, air conditioning etc. (Summit Skills); and hospitality (People 1st); and
- For Apprenticeships, data for which was provided separately by the National Apprenticeship Service (NAS) at the time, the top five most popular courses by SSC/SSB Qualification Footprint were: customer service (Institute of Customer Service); hospitality (People 1st); childcare and adult services (Children and Workforce Development Council); business and administration (Council for Administration), and; beauty and hairdressing (HABIA).[3]

Therefore, although adult learners and Apprentices appeared more likely to enrol in courses related to important employment sectors in the region (e.g. health and social care, construction, etc.), the most popular subjects for young people in Further Education were related to activities where only a small number of jobs were available – i.e. creative & arts, sports & fitness and hair & beauty.

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[1] Altorjai, S., Lawton, C., and Haslam, D., 2010. *'The East Midlands Skills Priority Statement, 2011-2012.'* Nottingham: emda.
[2] Sub-regional disaggregation for the D2N2 area was not available at the time of the original 2010 study.
[3] Skills Funding Agency Learner & Sector Analysis, published in detail as Annex 3 of Altorjai, S., Lawton, C., and Haslam, D., 2010. *'The East Midlands Skills Priority Statement, 2011-2012.'* Nottingham: emda.

This observation for the East Midlands was echoed by findings from national studies published shortly afterwards, including a survey of young people (15-19) in Further Education undertaken by City & Guilds in the summer of 2011. The majority of young people surveyed (74%) stated that they had chosen to study subjects they were interested in, rather than subjects that may affect future employment or progression to university. For respondents who were on vocational learning routes, only 23% chose their course because they felt it would help them get a job. In follow-up focus groups, many participants felt they had little control over the job they would ultimately end up with. The majority of young people surveyed (on both vocational and academic courses) felt that they had received little advice on how their course choices at school and FE linked to future careers or university. Perhaps surprisingly, 61% had a clear idea of the kind of job or career they wanted to pursue – they were just unsure of how to identify learning that would assist this ambition, and instead defaulted to choosing courses aligned to their personal interests, which often had little clear relevance to their desired career.[4]

The think-tank DEMOS also published research related to this issue in 2011, in this case specifically looking at the challenges faced by the 50% of school leavers who are not going on to Higher Education (the 'other 50%'), arguing that there are failures in both the education system and the quality of Information, Advice and Guidance available to them. DEMOS conclude that these challenges are particularly acute for this cohort of young people because:

- On-going changes in the structure of the labour market across the UK have resulted in a squeeze in the number of semi-skilled and intermediate-skilled jobs. Skilled jobs in both manufacturing and services have increasingly moved towards the Associate Professional ('technician level') and Professional Occupations (i.e. jobs that were increasingly dominated by graduates), whilst employment in the Skilled Trades and Administrative & Secretarial Occupations have shrunk. This presents challenges for young people who do not have qualifications to at least a Level 3;

- Time-series analysis of Labour Force Survey data indicates a nationwide decline in the numbers of 16-18 year olds going into semi-skilled jobs in sales, retail or administrative and secretarial activities, and a rise in the numbers of young people going into unskilled elementary jobs – which can offer few opportunities for training and progression, making low-skilled job holders more exposed to future unemployment;

- The kind of informal skills that employers value are more likely to be developed through the learning and teaching models associated with Higher Education (seminars, independent project work, group presentations, etc.), and less likely to be associated with learning below a Level 3 qualification; and

- Information, Advice and Guidance in schools and FE colleges can suffer from a number of failings compared to the support received by HE students. Many of the learners, stakeholders and employers DEMOS surveyed felt that the quality of careers advice was poor, often biased against vocational learning routes (and towards attending sixth form and university) and ill-informed on labour market developments and business needs. Little to no information was provided about Apprenticeships at many of the schools surveyed. Only a

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[4] Chrysalis Research, on behalf of the City & Guilds Centre for Skills Development, '*New Directions: Young People's and Parents' Views of Vocational Education and Careers Guidance*', September 2011.

very small number of school and FE students had met their careers adviser, and no students had developed an on-going productive relationship with him or her. Current policy pressures on schools and colleges can constrain the provision of 'work-related' learning. In all schools visited for case studies in the DEMOS study, work experience placements took place in isolation from careers advice, providing little opportunity for preparation, observation and reflection. Work experience placements were of variable quality and were often disconnected from other work-related learning activities.

The DEMOS research revealed little or no engagement from local employers or businesses in school or FE college 'careers fairs' – which is in particularly stark contrast to the often well-attended careers events run by HEIs. This lack of contact between school and FE students with local industry may be one of the reasons for the relatively low numbers of young people going into technician-level, Associate Professional jobs, with many young people unaware of both the opportunities and the learning routes required to access those opportunities. DEMOS raised a general concern that, although most of the young people in question are outside the NEET group, they may become increasingly at risk from periods of future unemployment, and may become trapped in cycles of low-paid, low-skilled work. The report recommended a greater focus on the kind of skills required to progress in the labour market from an early age – i.e. 'work-related' learning – and a greater focus on schools and colleges building meaningful relationships with local employers.[5]

This new project looks at the latest available data from the SFA, to identify whether similar observations apply to the D2N2 LEP area, or whether learners in this area have become better informed of, and providers more responsive to, local employment opportunities and the courses most relevant to these opportunities. Analysis of the latest Labour Force Survey/Annual Population Survey on the structure of local employment has also been used to identify whether lower intermediate-skilled occupations (usually requiring a Level 2) have become more or less 'squeezed' in the D2N2 area, both as a consequence of long-term structural changes in the UK and local labour market, and also due to the recession and its disproportionate impacts on certain business sectors and occupations.

2. Method and Descriptive Statistics

This project comprised of two stages:

1. Analysis of the SFA 'Data Cube' to identify the distribution of learner choice/delivery by sector based on a series of cross-tabulations; and
2. Analysis of the January–December 2012 Labour Force Survey/Annual Population Survey, to identify the structure of employment in theD2N2 area (by sector and occupation) and similar analysis of notified vacancies by sector and occupation.

From these two stages, broad comparative conclusions can be drawn on the extent to which the distribution of learning by sector equivalence 'matches' those sectors and occupations that are relatively important to the D2N2 area. However, it must be noted that the SFA data provides no

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[5] Birdwell, J., Grist, M., and Margo, J., DEMOS, *'The Forgotten Half: a Demos and Private Equity Foundation Report'*, February 2011, www.demos.co.uk

indication of the quality of courses, the involvement of employers in course design, or employer feedback on the extent to which the provision meets their needs (i.e. the 'responsiveness' or 'fit' of delivery to employer demand). Within the resources available for this project, the author can only make observations on the similarity between learner choice/distribution of courses by sector/subject and the structure of employment. A more qualitative evaluation of learning provision and the extent to which it meets the needs of beneficiaries (both learners and employers) would require further work, including primary research – and is beyond the scope of this study.

2.1 Use of the Data Cube and Disclosure Control

Stage 1 focussed on Cube 2 (L17_GEOG) provided by the SFA Data Service to the NCC Employment & Skills Board under the terms of a Data Agreement (signed 26th of June, 2012). This agreement gave named members of staff (including this report's author) permission to interact with the data stored on a CD Rom, and kept at the NCC ESB premises, in line with data disclosure requirements. The author ensured that all values were converted to percentages before leaving the NCC ESB premises, and no absolute values were included in any of the charts or narrative – in order to prevent any risk of disclosing the identity of individual learners or providers, in line with the dissemination guidance set out in the Data Agreement.

2.2 Parameters of Learner Data Analysed

The data in Cube 2 is based on the home postcode of the learner (i.e. based on learners resident in D2N2, regardless of where the learning took place/the address of the provider). This is to enable comparison with the Labour Force Survey, which is a residence-based (household) survey of adults aged 16 and over. The table chosen (L17_GEOG) focuses on geographic detail but <u>excludes</u> demographic data (ethnicity etc.), enabling disaggregation of learning delivered within the constituent 'upper tier' local authorities of the D2N2 area - Derby, Derbyshire, Nottingham and Nottinghamshire.

The outputs from the Data Cube were based on learner '**Starts'** in the academic year 2010/2011. Note this is distinct from 'enrolments' (given varying conversion or 'drop-off' rates from enrolment to start for different courses) and also 'Achievements' (which may not capture all learners on a given course in a given academic year – e.g. because of delayed or referred attainment).

This differs from the *emda* analysis of the 2008/09 data, where starts and enrolments were assessed as a single variable but for different datasets. In 2008/09, all 'learner responsive' FE and other training where the funding related to the individual learner (most FE for both young people and adults) was measured in terms of 'enrolments', whilst 'employer responsive' training (Apprenticeships and Train to Gain), funded with or through employers, was measured in terms of 'starts'. These two distinctions in the funding streams do not exist in the current version of the Data Cube, due to national policy changes. Therefore this analysis of the 2010/11 academic year for both young people/adult FE & other training and Apprenticeships focuses on learner 'starts'.

In terms of both enrolments and starts, there can be significant double-counting, with individual learners able to start multiple courses within the same academic year – either at the same time, or changing within the year and starting/enrolling on another course.

The 2010/11 SFA Data Cube covers learner starts in courses provided through the following funding streams:

- o Apprenticeships
- o Adult Safeguarded Learning
- o Further Education
- o European Social Fund (ER)
- o European Social Fund (LR)
- o Other Employer-Based Training
- o Train to Gain
- o University for Industry

Note that the total for learner starts in 2010/11 **includes provision delivered outside the D2N2 area and the East Midlands region.** Learners accessing provision outside of the D2N2 area represent a minority of the 2010/11 starts. Of these, the largest numbers accessed training from providers in the North West, the West Midlands and Yorkshire and the Humber. Learning delivered by providers based in D2N2 postcodes accounted for 86.5% of starts for learners resident in D2N2 in 2010/11.

Unless otherwise stated, **all further analysis in this report filters out provision delivered outside the D2N2 area** (i.e. the statistics below relate to starts where both the learner and the provider are located in the D2N2 area).

2.3 Stage 1 Descriptive Statistics

Key descriptive features of the SFA data for 2010/11 include:

- The total number of learner starts (for courses delivered in the D2N2 area) increased between the 2007/08 and 2010/11 academic years;
- Providers in postcodes in Nottinghamshire and Nottingham City accounted for the largest proportions of learning delivered to D2N2 residents in 2010/11, at 24.9% and 24.6% respectively. Derby City accounted for the smallest proportion, at 13.6% (see Chart 1);

Chart 1: Distribution of learners resident in D2N2 postcodes by City/County of delivery location (2010/11 academic year, all levels and course types)
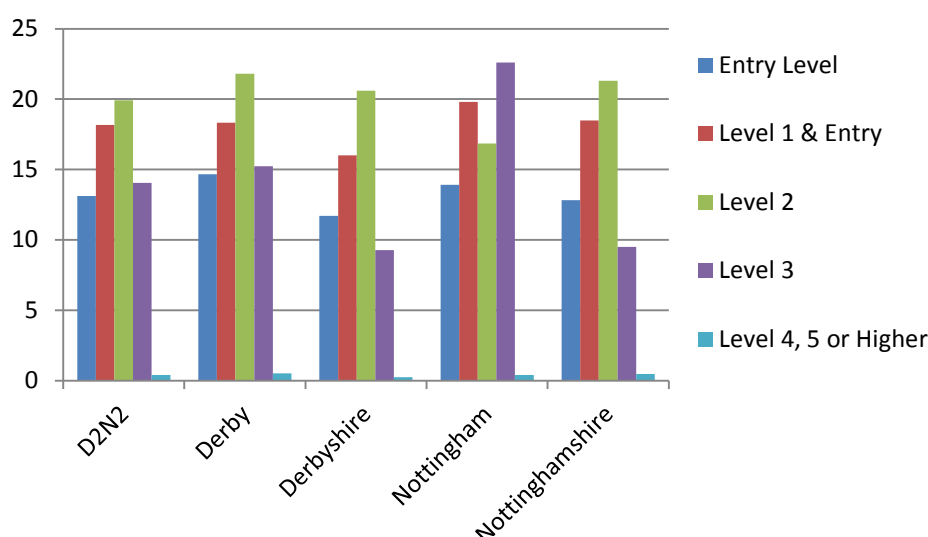

Source: SFA Data Cube 2 (L17_GEOG) – based on starts where the learner's home postcode is in the D2N2 area. Data accessed in July 2013 under the terms of the Data Agreement between the Data Service and the NCC ESB (signed 26th of June, 2012).

- Further Education is by far the largest delivery stream, accounting for 64.7% of total starts in 2010/11 (down from 2007/08, where FE accounted for 76.3% of starts);
- Apprenticeships represent a relatively small proportion of total learner starts in the D2N2 area, but this proportion has increased over time. The total number of starts in Apprenticeships at all levels from D2N2 delivery locations increased between 2007/08 and 2010/11, and the proportion increased from 3.8% to 6.8% of all learner starts; and
- Between 2007/08 and 2010/11, the proportion of learning delivered to those under 19 ('Youth' funding streams) has increased from 39.4% to 43.9%, whilst the proportion delivered to those over 19 ('Adult' funding streams) has decreased (from 60.6% to 56.1% of all starts) – which is likely to be a function of changes to national funding priorities, for example the abolition of Train to Gain.

The Data Cube provides cross-tabulations of learner starts by 'Notional' NVQ equivalence. This variable principally applies to FE-based delivery, with Apprenticeships not usually assigned an NVQ-equivalent level. Chart 2 illustrates all starts by Notional NVQ equivalence, with the largest proportion of starts identified as 'other' level (34.4% for D2N2 overall), much of which is likely to relate to Apprenticeships. Starts in courses at 'other' levels accounted for large shares in all areas in the LEP, from 26.5% in Nottingham to 42.2% in Derby. This distribution may be affected by varying shares of Apprenticeships in each area.

With the exception of starts at 'other' level, **the largest proportions of starts are for learning to Level 2** in D2N2 overall (19.9% of starts), Derby (21.8%), Derbyshire (20.6%), and Nottinghamshire (21.3%). However, in Nottingham, learning at Level 3 accounts for the largest proportion of starts, at 22.6% (compared to 16.8% for Level 2).

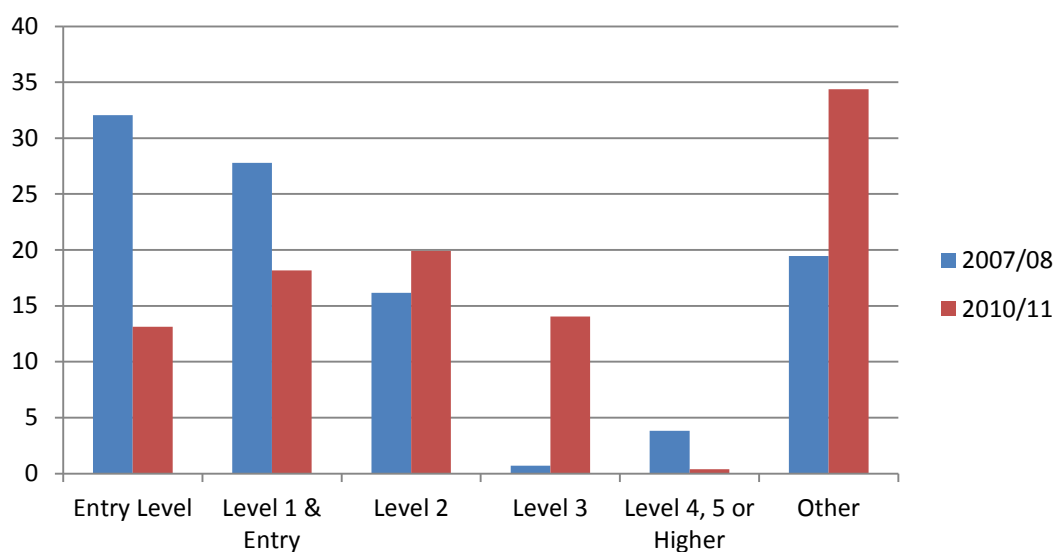**Chart 2: Notional NVQ Level of Learner Starts (% all starts, excluding 'other'), 2010/11**

Source: SFA Data Cube 2 (L17_GEOG) – based on starts where the learner's home postcode is in the D2N2 area. Data accessed in July 2013 under the terms of the Data Agreement between the Data Service and the NCC ESB (signed 26th of June, 2012).

Chart 3 illustrates how this has changed over time, comparing 2010/11 to 2007/08 for the D2N2 area overall. This shows that:

- The proportion of learning delivered at entry level has decreased significantly, from 32.1% of all starts to 13.1%;

- The proportion at Level 1/and entry has also decreased, from 27.8% to 18.2% of all starts, whilst **delivery at Level 2 and Level 3 have both increased (with a particularly strong increase in the case of Level 3)** - from 16.2% to 19.9% and from 0.7% to 14% respectively;

- Delivery at Level 4, 5 and higher has decreased to a very small proportion (and in terms of absolute numbers), from 3.8% to 0.4% of all starts, whilst the proportion of starts at 'other' level has increased, from 19.5% to 34.4% - which is likely to be due to the increasing number and proportion of Apprenticeships; and

- This decrease in the proportion of starts at lower NVQ levels (e.g. entry level) and strong increase in Level 3 has occurred in all areas of D2N2, with particularly large increases in the proportions of learners starting courses at Level 3 in Derby and Nottingham cities (from 0.8% to 15.2% and from 0.8% to 22.6% of learner starts respectively).

Chart 3: Notional NVQ Level of Learner Starts delivered in the D2N2 area (% all starts of learners with D2N2 postcodes), 2007/08 compared to 2010/11

Source: SFA Data Cube 2 (L17_GEOG) – based on starts where the learner's home postcode is in the D2N2 area. Data accessed in July 2013 under the terms of the Data Agreement between the Data Service and the NCC ESB (signed 26th of June, 2012).

3. Distribution of D2N2 Learning by SSC/SSB Sector

Analysing the distribution of learning by the sector associated with a given course or subject is a key step in this project, as it enables broad comparisons between learner choice, provider capacity and local labour market structure.

3.1 Derived Sector of FE (and other learning) for young people and adults

The SFA Data Cube enables cross-tabulation by **'derived' sector,** based on the 'best-fit' Sector Skills Council (SSC) or Sector Skills Body (SSB) ownership of a given course. However, only Apprenticeships have explicit sector 'ownership', as they are formally delivered through a SSC or SSB National Framework. Therefore, the sector ownership of other courses, including FE (the majority of provision), is mapped from the stated aim of the course. The consequence of this is that a large proportion of FE and other learning cannot be assigned a derived sector (for a variety of reasons, including limited available detail on the course 'aim', etc.).
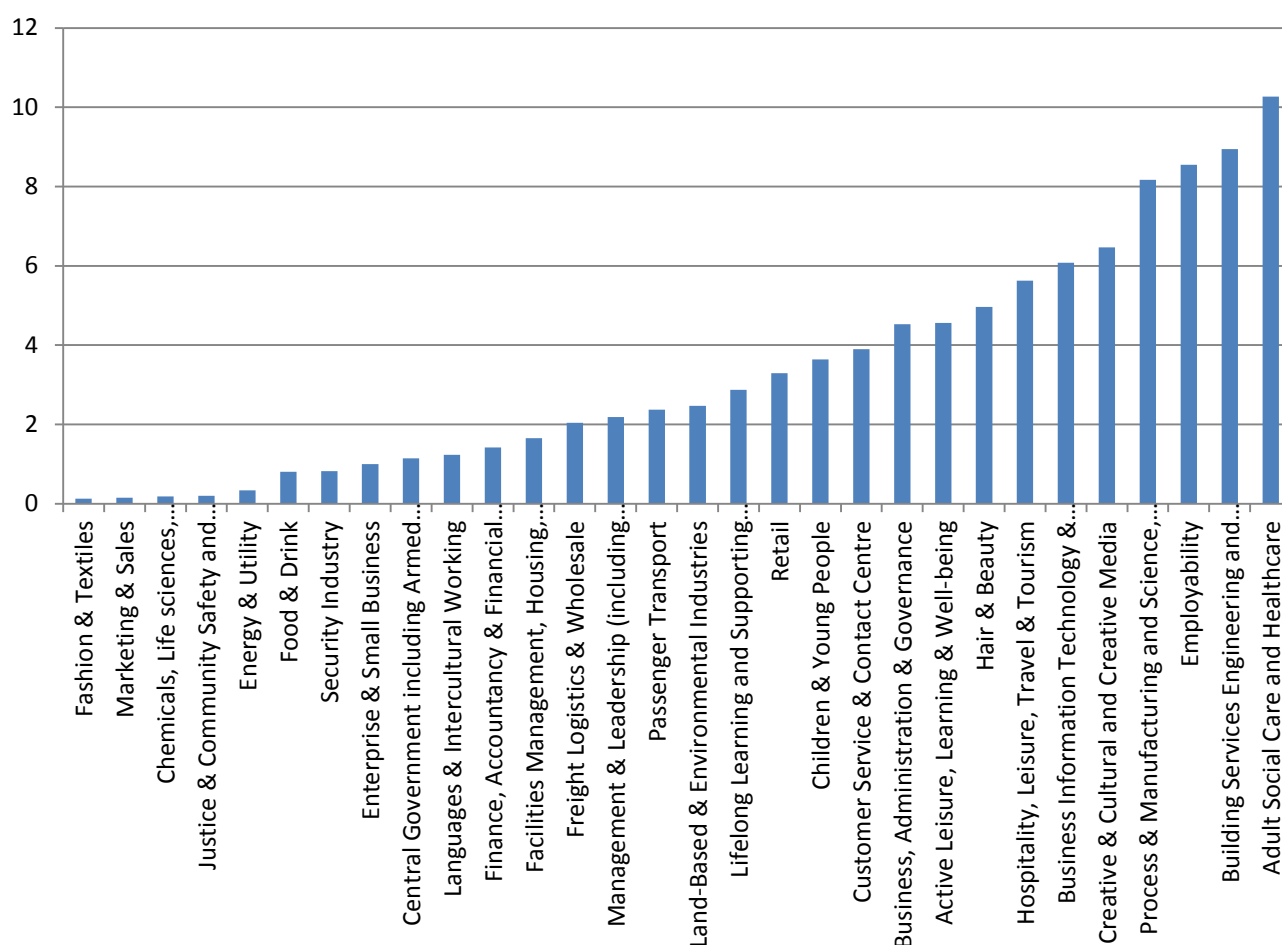
In terms of all starts delivered within the D2N2 area in 2010/11, 65% are coded as sector 'unknown'. Therefore analysis of the distribution of learning by sector is based on a minority of course starts.[6] The following analysis of 'derived sector' captures the proportion of learning where the sector is known, excluding Apprenticeships. Apprenticeships are discussed separately in section 3.2.

Chart 4 shows the percentage distribution of starts for aggregated SSC/SSB derived sectors in 2010/11 for learning delivered in the D2N2 area overall. This shows that:

- Courses related to **Adult Social Care and Healthcare accounted for the largest proportion of learner starts** delivered in the D2N2 area, at 10.3% of all starts where the sector is known in 2010/11; and
- This is followed by **Building Services Engineering and Construction, Employability and a range of activities related to manufacturing engineering and technology (Process & Manufacturing and Science, Engineering & Manufacturing Technologies - including Automotive)** - all accounting for over 8% of learner starts.

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[6] SSC/SSB classifications of sector and sub-sector are non-overlapping/mutually exclusive – so can be aggregated to broader sectors to improve the meaning of any comparative analysis of distribution of provision/take-up by sector. For example, starts mapped to a number of SSCs/SSBs for 'Adult Social Care', 'Adult Social Care/Healthcare' and 'Healthcare' can be readily combined under a single, aggregated sector.

Chart 4: Starts for D2N2 residents by derived SSC/SSB sector where learning is delivered from a D2N2 post code (as a % of all learner starts where sector is known), 2010/11
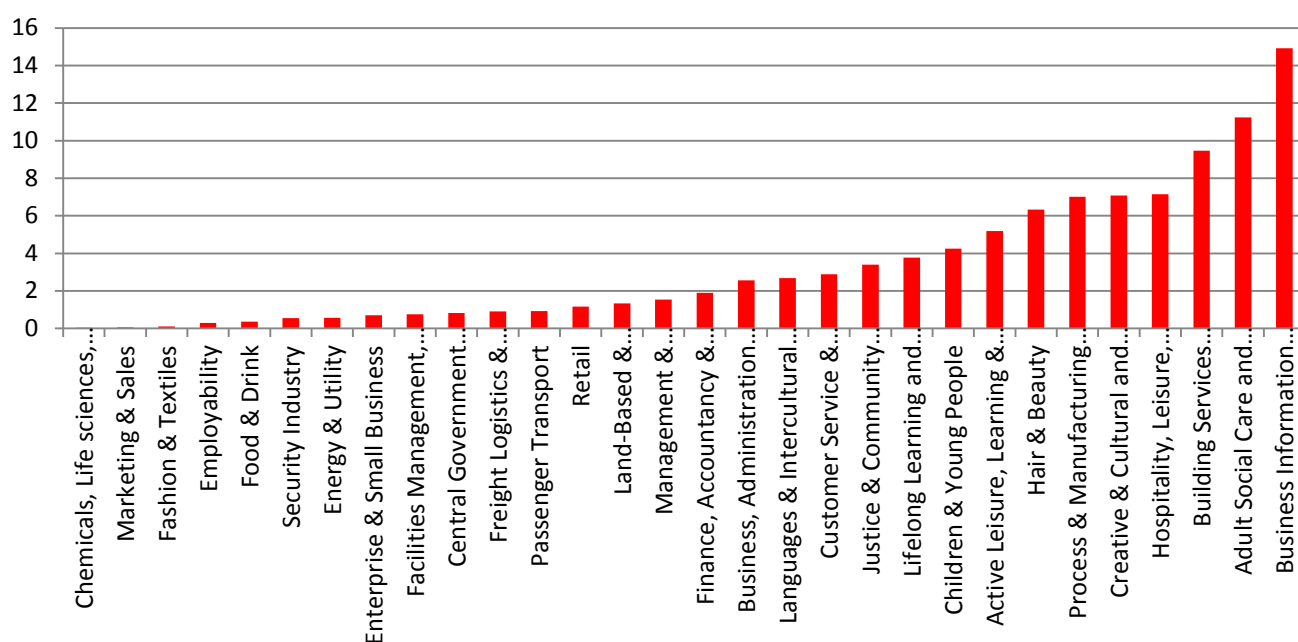

Source: SFA Data Cube 2 (L17_GEOG) – based on starts where the learner's home postcode is in the D2N2 area. Data accessed in July 2013 under the terms of the Data Agreement between the Data Service and the NCC ESB (signed 26th of June, 2012).

Chart 5 illustrates how this has changed over time, presenting comparable analysis for 2007/08 for the D2N2 area overall.   In this case, the proportion of learner starts where the sector lead was unknown was at 66.4%. The chart shows starts by derived sector as a proportion of all starts where the sector is known.

As Chart 5 shows, **the largest proportion of learner starts in 2007/08 was in Business Information Technology and Telecommunication** – at 14.9% of all learner starts (where the sector is known). This share decreased to 6.1% in 2010/11, possibly indicating a shift of ICT-related learning from more sector/occupation specific courses towards delivery aligned to 'employability' (in line with the wider move in the UK to regard ICT as a key employability skill alongside numeracy and literacy).

Chart 5: D2N2 LEP area total - Starts of D2N2 residents by derived SSC/SSB sector where learning is delivered from a D2N2 post code (as a % of all learner starts where sector is known), 2007/08

Source: SFA Data Cube 2 (L17_GEOG) – based on starts where the learner's home postcode is in the D2N2 area. Data accessed in July 2013 under the terms of the Data Agreement between the Data Service and the NCC ESB (signed 26th of June, 2012).

Adult Social Care and Healthcare accounted for the second largest proportion in 2007/08, at 11.2% (a larger share than in 2010/11, where it accounted for 10.3%), and **Building Services Engineering and Construction was also comparatively important**, accounting for 9.5% of starts (again, a larger share compared to 8.9% in 2010/11).

A number of areas identified as popular in 2007/08 declined in their relative share by 2010/11. Hair & Beauty accounted for 6.3% of starts in 2007/08 compared to 5.6% in 2010/11. Active Leisure, Learning and Well-Being accounted for 5.2% of starts in 2007/08 compared to 4.6% in 2010/11.

Two other areas that have decreased in their share of learner starts are Creative & Cultural and Creative Media, accounting for 7.1% in 2007/08 and 6.5% in 2010/11; and Hospitality, Leisure, Travel & Tourism, accounting for 7.2% of starts in 2007/08 and 5.6% in 2010/11.

A key area of growth has been courses associated with 'Employability', which have increased from only 0.3% of starts in 2007/08 to 8.5% in 2010/11. It is possible, as observed above, that some of the increase in learning aligned to 'Employability' may account for the decline in learning associated with Business Information Technology & Telecommunication.

Another important area of increase has been learning related to manufacturing ('Process & Manufacturing and Science, Engineering & Manufacturing Technologies incl' Automotive'), which has increased from 7% of learner starts to 8.2%.

Annex 1 provides charts showing the sub-regional variations in starts by sector in 2010/11 for each of the Upper Tier Local Authority areas in the D2N2 area (Derby, Derbyshire, Nottingham and Nottinghamshire). Observations from these charts are as follows:

- In **Derby** (i.e. where Derby is the delivery location), the largest proportion of provision/take up is in courses mapped to **manufacturing engineering and technology (including automotive)[7]** SSC/SSB sector-leads, at 12% of total 2010/11 starts (as a proportion of all starts where the sector is known); followed by Business Information Technology and Communications (9.7% of starts) – see Chart A1.1;

- Where the delivery takes place in **Derbyshire**, learning related to the **Adult Social Care and Healthcare** sector leads accounts for the largest share of learner starts, at 12.8%, followed by **manufacturing engineering and technology (including automotive)**, at 9.5%, and **Building Services, Engineering and Construction**, at 9.3% of starts where the sector is known – see Chart A1.2

- Where the delivery takes place in **Nottingham**, learning related to **Creative & Cultural and Creative Media** sector leads accounts for the largest share of provision, at 15.3% of starts, followed by **Building Services, Engineering and Construction**, at 11.7% of all starts where the sector is known – see Chart A1.3;

- Where the delivery takes place in **Nottinghamshire**, learning related to the **Adult Social Care and Healthcare** sector again accounts for the largest share of learner starts, at 11.4%, followed by **Building Services, Engineering and Construction**, at 8.8% - see Chart A1.4; and

- Courses related to the 'Employability' sector lead account for a significant proportion of starts in all four areas of D2N2 (8.5% of all starts in D2N2 overall and 11.2% of starts in Nottingham).

3.2 Sector Footprint of Apprenticeships

A very high level of detail on the SSC/SSB sector footprint of apprenticeships is available on the SFA Data Cube, with 214 fields according to sector/level of apprenticeship. These have been manually aggregated up to the 21 broad sectors that make up the majority of learner starts (87% of all Apprenticeship starts). The proportion of starts related to each of these broad aggregations of SSC/SSB frameworks is shown in Chart 6. The chart shows that:
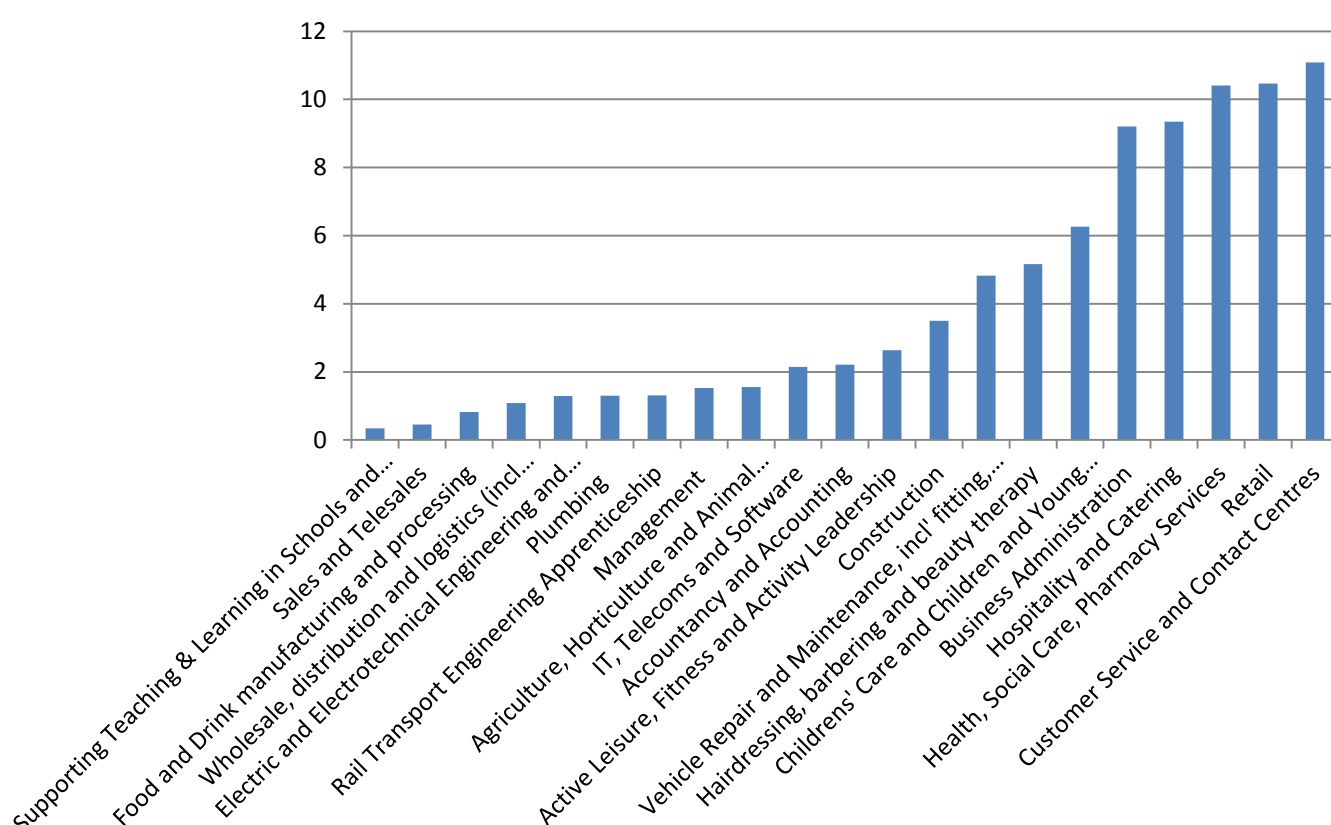
- In 2010/11, **Apprenticeships associated with Customer Services and Contact Centres accounted for the largest share of starts, at 11.1%;**

- **This was followed by Retail, at 10.5%;**

- In line with other learning (principally FE) shown in Charts 2-7, **Health and Social Care (including Pharmacy Services) also accounts for a relatively large share of Apprenticeship starts, at 10.4%, as does Hospitality (9.3%) and Business Administration (9.2%)**. However, the Apprenticeship frameworks include separate categories for ICT and software design/development (aggregated within Employability and Business Information Technology

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[7] This aggregated derived SSC/SSB group includes the following 'sector leads': Automotive Industries; Science, Engineering & Manufacturing Technologies; and Process & Manufacturing.

and Telecommunications respectively within the FE-based categories in Charts 4 and 5), which accounted for a further 2.1% of Apprenticeship starts in 2010/11; and

- **Children's Care and Young People's Development** also accounts for a significant proportion of Apprenticeships in D2N2 in 2010/11, at 6.3% of all starts, as does Hairdressing, barbering and beauty therapy, at 5.2% (similar to the share of other, mainly FE-based learning shown in Chart 4 in D2N2 in 2010/11).

Chart 6: Apprenticeships by SSC/SSB Ownership delivered in the D2N2 area (% all apprenticeship starts for learners with D2N2 postcodes), 2010/11

Source: SFA Data Cube 2 (L17_GEOG) – based on starts where the learner's home postcode is in the D2N2 area. Data accessed in July 2013 under the terms of the Data Agreement between the Data Service and the NCC ESB (signed 26th of June, 2012).

Notable differences between the distribution of Apprenticeships shown in Chart 6 and other (mainly FE-based) learning shown in Chart 4 include **the lower share of Apprenticeships in activities related to Construction (3.5% of Apprenticeship Starts in 2010/11) and manufacturing-related activities**.

Manufacturing and engineering-related Apprenticeships are distributed across a number of specific sub-areas, includes electrical engineering, rail transport engineering, and food & drink manufacturing, but together these footprints account for only 3.4% of Apprenticeship starts with D2N2 providers in 2010/11.
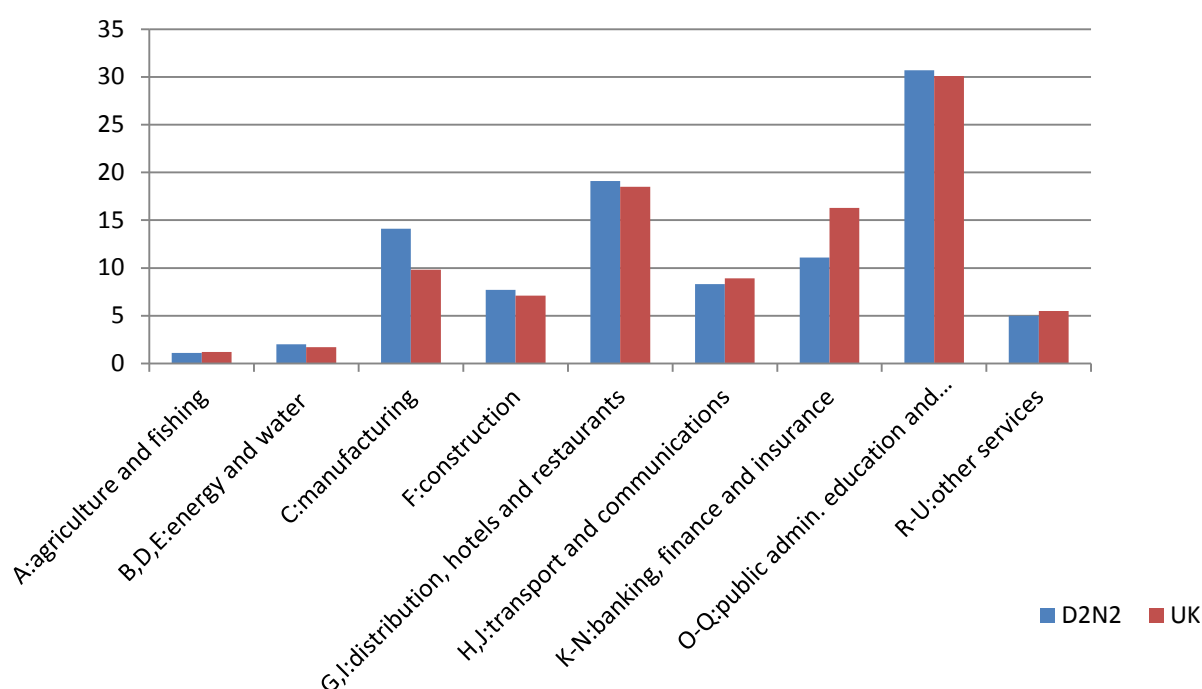
4. Structure of Employment and Vacancies in the D2N2 Area

This section presents the key findings from Stage 2 of the project, analysing Labour Force Survey and other data on the structure of the D2N2 labour market and the likely level and type of skills needed. The main themes of this analysis relate to the sector and occupation of employment in the area.

4.1 Employment by Sector

In labour market statistics, 'sectors' describe the context in which individuals work - the activities their employers engage in and the products and services they produce. Labour Force Survey data is published according to the internationally comparable Standard Industrial Classification (SIC) (2007). SIC groups differ from SSC/SSB footprints (which are defined by the sector skills organisations themselves), but broad, qualitative comparisons are possible.

Chart 7: Structure of D2N2 and UK Employment by Sector (SIC 2007), % of employed residents, 2012

Source: ONS Crown Copyright, 2013. '*Annual Population Survey*', January-December 2012. From NOMIS [accessed 23rd July, 2013].

Chart 7 shows the sectoral composition of employment in the D2N2 area compared to the UK average:

- In both the UK overall and the D2N2 area, Public admin, education and health (including adult social care) accounts for the largest proportions of employment, at 30.1% and 30.7% respectively;
- Distribution, hotels and restaurants (which includes retail and hospitality sub-sectors) accounts for the next largest proportion of employment in both the UK and D2N2, at 18.5% and 19.1% respectively;

- Manufacturing is significantly more important to employment in D2N2 than in the UK overall. It is the third largest employment sector in the LEP area, accounting for 14.1% of employed residents (compared to 9.8% in the UK);
- Construction is also relatively more important than nationally, accounting for 7.7% of D2N2 employment (compared to 7.1% in the UK);
- Conversely, a number of service sectors are under-represented in the D2N2 area compared to the UK, notably Banking, finance and insurance. This sector accounts for 16.3% of employment in the UK, and is the third largest employment sector nationally, compared to 11.1% in D2N2, the fourth largest employment sector locally; and
- Transport and communications and 'Other services' (including marketing, design, film, music, and other creative sub-sectors) are both slightly smaller than in the UK overall – with 'Other services' accounting for only 5% of employment in D2N2 compared to 5.5% nationally.

Estimates for the sub-areas within D2N2 demonstrate a significant concentration of Manufacturing employment in Derby (accounting for 20.2% of employed residents in the city). Construction is relatively more important in Derbyshire and Nottinghamshire (accounting for 8.2% and 8.4% of employment in the two counties respectively), whilst Public admin, education and health accounts for above average proportions of employment in Nottingham and Nottinghamshire (32% and 32.5% respectively). Banking, finance and insurance is relatively under-represented in all the sub-areas of the D2N2 LEP area compared to the national average, including in Nottingham (where it accounts for 13.8% of employment, the third largest sector in the city after Public admin, education & health and Distribution, hotels & restaurants).

Two important observations stand out from this initial broad analysis. Firstly, **the local significance of Manufacturing would imply a greater than average need for technician-level skills from employers in D2N2**, and FE courses and Apprenticeships aligned to engineering and manufacturing technologies (including STEM subjects). Secondly, these estimates show the local and national significance of the public services to employment, especially healthcare, with **a high demand for skills related to adult social care and healthcare,** particularly in Nottingham and Nottinghamshire.

Unfortunately the sub-regional data on employment by sector from the LFS/APS is very broad-brush. It is only published for single digit SIC/broad industry groups for local areas due to sample size. Much greater sub-sectoral detail is available from the ONS' employer-based survey, the Business Register and Employment Survey (BRES - which replaces the Annual Business Inquiry - ABI). However, detailed access to this data requires a Chancellor's Notice, which is outside the resources available for this project.

4.2 Employment by Occupation

The kinds of jobs individuals do within the workplace are described by 'occupations'. This concept covers the activities entailed by a job and the level of skill is required to do it. Sector and occupation are closely linked, with some sectors more closely associated with a given occupation than others (Manufacturing and Construction require larger proportions of Associate Professionals/technicians and Skilled Trades, for example), whilst other occupations are required across sectors (Managers, for example).

The 2010 Standard Occupational Classification (SOC) is a hierarchical model that groups individuals' jobs by *skill specialisation* and *skill level*. An example of the *skill level* element is as follows:

- SOC 1 and 2 jobs (Managers and Professionals) are associated with skills that are equivalent to a Level 4 qualification (a first degree etc.)[8]; whilst
- SOC 8 and 9 jobs (Process, plant and machine operatives and Elementary occupations) are associated with skills that are equivalent to Level 1 qualifications (the competence associated with compulsory, general education).

The demand for skills can be indicated by the relative proportion employed in occupations associated with different levels of skill. A local area, or sector, with a lower proportion of employment in occupations requiring higher levels of skill could reasonably be said to have a relatively low demand for skills.

Over the last four decades, the decline of primary and manufacturing industries and a shift towards services has resulted in changes in the occupational structure of all developed economies. There has also been a fundamental change in the way the production of goods and services are organised within industrial sectors, with trends such as the increasing use of ICTs, the mechanisation of production, and the outsourcing of shared services. In the UK, this had led to an increase in employment in highly-skilled managerial and professional occupations and a decrease in intermediate-skilled manual occupations.
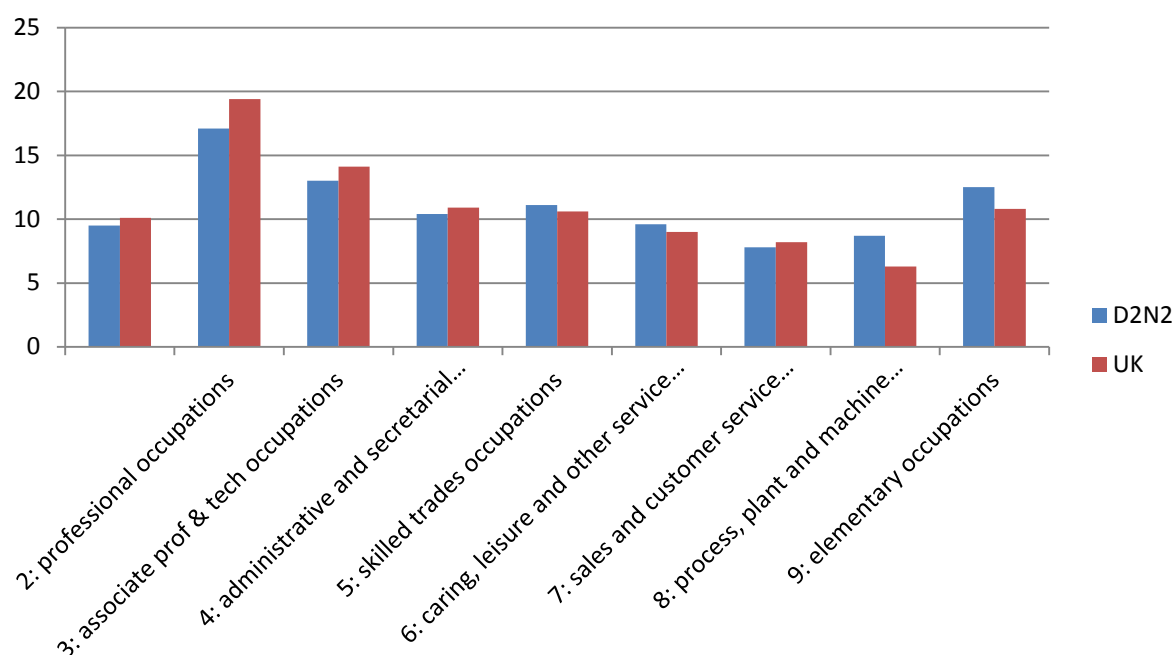
Chart 8 illustrates the occupational structure of employment in D2N2 compared to the UK average according to the latest data available at the time of writing. Generally speaking, the chart shows that occupations associated with higher levels of skill are relatively under-represented in the D2N2 area, and those associated with low levels of skill are over-represented:

- Professional (associated with qualifications at a Level 4+) and Associate Professional (associated with qualifications at Level 3+) occupations are relatively under-represented, accounting for 17.1% and 13% of employment respectively in D2N2 (compared to 19.4% and 14.1% nationally). However, these occupations still account for the first and second largest share of employment in the D2N2 area;
- Associated with the importance of Manufacturing and Construction in the D2N2 area, the Skilled Trades (requiring skills or qualifications equivalent to a Level 2 or 3) are relatively more important than in the UK as a whole, accounting for 11.1% compared to 10.6% of employment;
- Caring, leisure and other service occupations – a large proportion of which is associated with the healthcare and adult social care sectors – are also over-represented in the D2N2 area, accounting for 9.6% compared to 9% of employment nationally. These occupations generally require skills or qualifications equivalent to a Level 2 or 3; and

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[8] Note that individuals in such jobs do not necessarily hold *qualifications* at these levels, but would reasonably be expected to demonstrate *skills* at an equivalent level (whether or not they can be accredited). A good example is an owner-manager, who needs to use a high level of skill in a number of areas to undertake his/her job effectively, but may not have any formal qualifications. Despite this caveat, qualifications are often used as a proxy measure of skill in labour market statistics because they can be readily measured.

- The two occupational groups that are usually associated with little or no requirement for skills or formal qualifications, Process, plant and machine operatives (related to Manufacturing and distribution/logistics/wholesale) and Elementary occupations (unskilled jobs found in both production and service sectors) are both significantly over-represented in the D2N2 area. Process, plant and machine operatives account for 8.7% of employment compared to 6.3% in the UK, whilst Elementary occupations account for 12.5% compared to 10.8%.

Chart 8: Structure of D2N2 and UK Employment by Occupation (SOC 2010 Major Group), % of employed residents, 2012

Source: ONS Crown Copyright, 2013. '*Annual Population Survey*', January-December 2012. From NOMIS [accessed 23rd July, 2013].

Chart 9 illustrates how employment by occupation has changed over time, comparing the 2012 calendar year LFS data to the same period in 2008 - capturing the structure of the D2N2 labour market prior to the impacts of recession, which exacerbated some of the long-term trends described at the start of this section (e.g. the decline of the Skilled Trades). This shows that:

- Although still under-represented compared to the UK average in 2012, employment in Professional and Associate Professional occupations increased significantly in the D2N2 area since 2008, from 16.2% to 17.1% and from 11.9% to 13% respectively, demonstrating the on-going 'up-skilling' of the workforce and increasing demand for skills/qualifications at Levels 3 and 4+;

- Conversely, employment in the Skilled Trades declined significantly, from 13.6% to 11.1% of total employment over the period. This reflects intermediate-skilled job losses in Manufacturing and, especially, Construction, as a result of the recession in addition to the long-term changes to skill requirements observed earlier. This potentially points to a quite

steeply declining demand for skills at Level 2 related to Manufacturing and Construction (and a shift towards Level 3 when viewed alongside the increase in employment in Associate Professional/technician occupations);

- Intermediate skilled jobs associated with the service sector also experienced a relative decrease, with Administrative and secretarial occupations declining slightly from 10.9% to 10.4% of D2N2 employment and Sales and customer service occupations declining more significantly, from 9.1% to 7.8%. This shows that the shift in demand towards higher skill occupations has also affected service-related activities, and is likely to result in a decreased requirement for skills/qualifications at Level 2 and an increased requirements for skills/qualifications at Level 3 and above; and

- Employment in caring, leisure and other services increased in the D2N2 area, from 8.5% to 9.6% of employment, which is likely to be driven by the strong increase in demand for staff in health care and adult social care, a trend which is widely projected to continue in the future given the UK's ageing population.

Chart 9: Structure of D2N2 Employment by Occupation (SOC 2010 Major Group), % of employed residents, 2008 and 2012

Source: ONS Crown Copyright, 2013. '*Annual Population Survey*', January-December 2008 and January-December 2012. From NOMIS [accessed 23rd July, 2013].
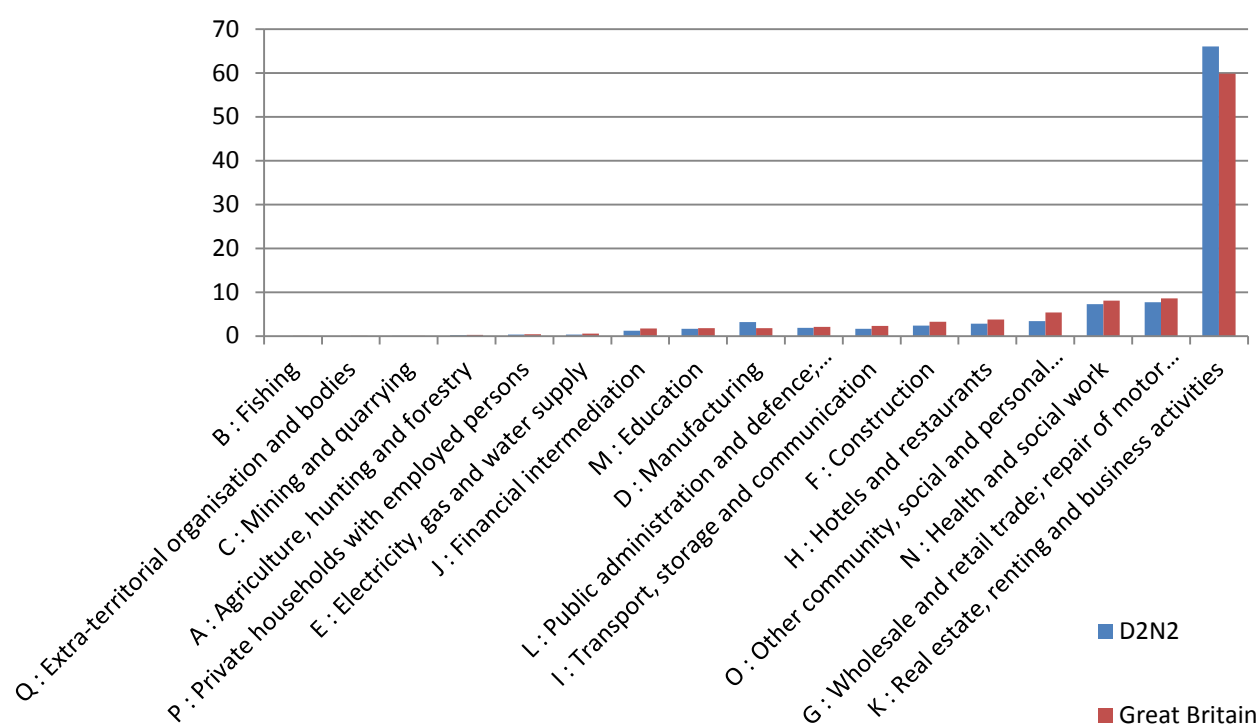
4.3 Vacancies by Sector and Occupation

Jobcentre Plus publishes monthly counts of the number of notified vacancies by both sector and occupation. Notified vacancies provide a snapshot of jobs currently available in the local labour market, although it is estimated that only about a third of all vacancies at any one time are registered with Jobcentre Plus (with employers choosing to advertise vacancies through a variety of

other routes, such as through commercial employment agencies and through online or newspaper advertisements). There is also likely to be a strong skills-bias in the vacancies notified through JC+, with employers recruiting for managerial and professional occupations often choosing other routes, such as specialist recruitment channels related to specific professions or sectors. Therefore it is important not to infer too much from the lower skill level implied by the distribution of vacancies by occupation, an issue that is illustrated further in Section 4.4 on employment by qualification level.

Chart 10 shows vacancies notified with the JC+ offices in the D2N2 area by sector[9], over the period September to November 2012. The majority of vacancies are classified as 'Real estate, renting and business activities' (66.1% in D2N2 compared to 59.9% in Great Britain). Vacancies in this sector predominantly relate to recruitment and temporary employment agencies, providing staff for a wide variety of activities.

Chart 10: Notified Vacancies by Sector (SIC 1992) (%), September-November 2012, D2N2 and Great Britain
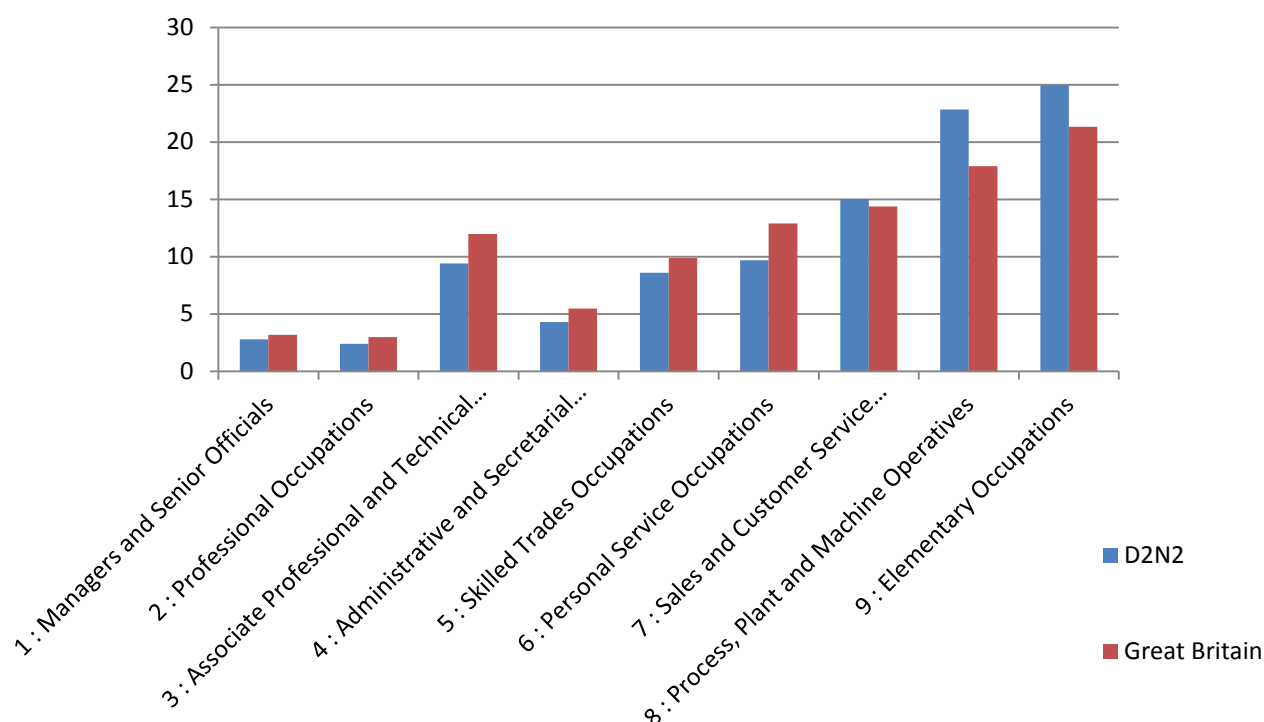

Source: Department of Work and Pensions, 2013. '*Vacancies – Notified by Industry*', September-November 2012 aggregated, from NOMIS [accessed 1st August 2013].

Of those vacancies where the eventual activity (and thus the associated skill needs) can be clearly identified, two sectors account for the largest proportion of available job in both the D2N2 area and Great Britain: Wholesale and Retail trade (7.7% in D2N2 and 8.6% in Great Britain) and Health and Social Work (7.2% in D2N2 and 8.1% in Great Britain). Manufacturing is significantly over-

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[9] Note that JC+ classify vacancies by 1992 SIC.

represented in vacancies notified through D2N2 JC+ offices, accounting for 3.1% of notified vacancies in the LEP area compared to 1.8% nationally. In Derbyshire County, Manufacturing accounts for 7% of notified vacancies. Derby City and Nottinghamshire County stand out in terms of the proportion of vacancies related to Health and Social Work, at 9.5% and 9.3% respectively.

Chart 11: Notified Vacancies by Occupation (SOC2000) (%), September-November 2012, D2N2 and Great Britain

Source: Department of Work and Pensions, 2013. '*Vacancies – Notified by Occupation*', September-November 2012 aggregated, from NOMIS [accessed 1st August 2013].

Chart 11 shows the distribution of notified vacancies by occupation. This clearly illustrates the bias in vacancies notified through JC+ towards lower skill activities, with the largest proportions of vacancies in Elementary and Process, Plant & Machine Operative occupations. However, the chart does demonstrate that D2N2 is relatively over-represented in these lower-skilled job vacancies when compared to the national average. Process, Plant & Machine Operatives accounted for 22.8% of vacancies in the LEP area compared to 17.9% nationally, whilst Elementary occupations accounted for 25% of LEP area vacancies compared to 21.3% nationally. Associate Professional and Technical occupations (requiring qualifications equivalent to at least Level 3, and accounting for an increasing proportion of employment in D2N2) also account for a significant proportion of vacancies, at 9.4% - but this is significantly lower than the national share of 12%.
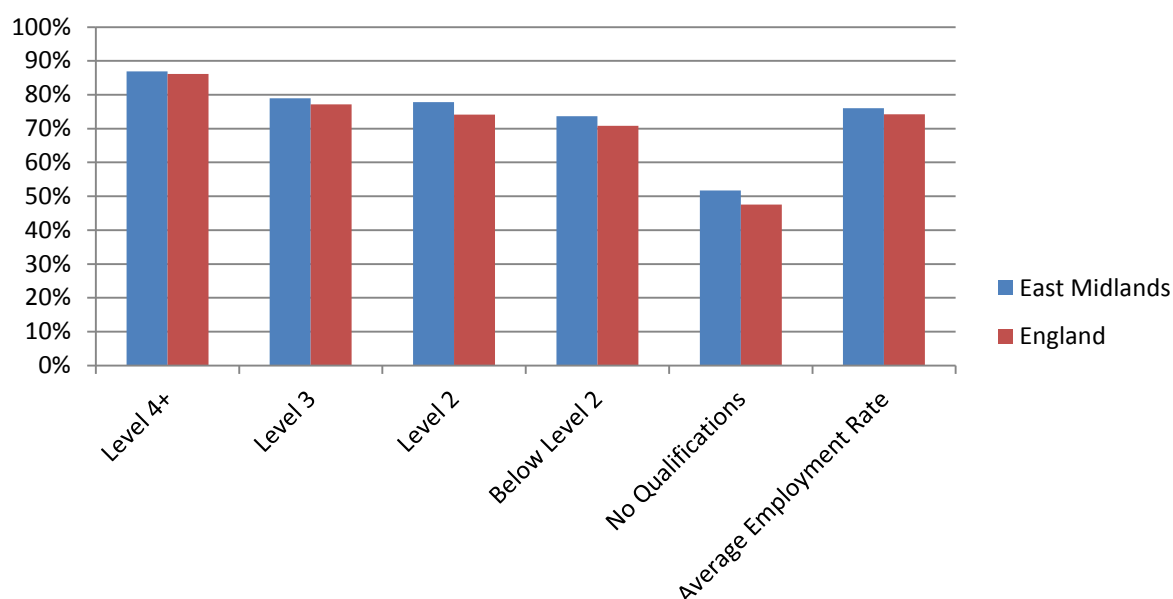
Although positive for individuals with low levels of skill, there is a concern related to the high proportion of vacancies in low or unskilled occupations, in that many of these roles are likely to provide limited opportunity for progression, and are more likely to be short-term or particularly vulnerable to future labour market shocks.

4.4 Qualifications in the D2N2 Workforce

Labour Force Survey estimates have consistently demonstrated a strong association between higher levels of qualification and higher rates of employment.   Chart 12 shows employment rates by highest level of qualification held in 2008 (the latest year for which this supplementary LFS analysis was published).
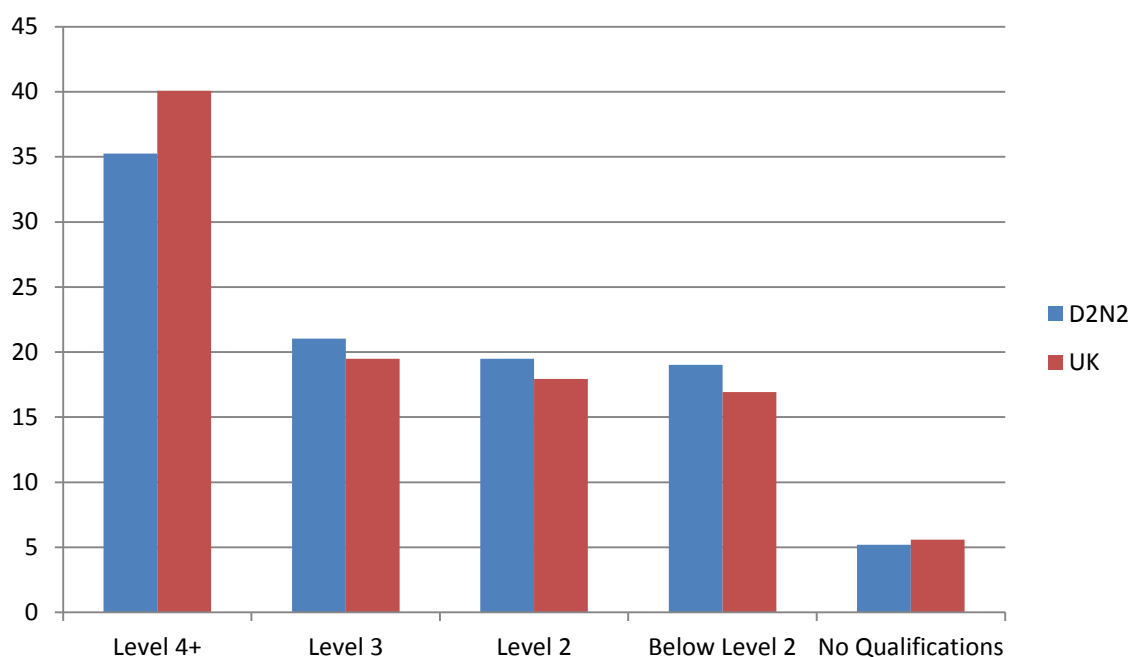
This shows that, in the East Midlands region and England, the employment rate for adults qualified to a Level 4 or higher is significantly higher than both the overall employment rate and the rates for lower levels of qualification, at 86.9% in the East Midlands and 86.2% in England (compared to average employment rates of 76% and 74.3% respectively). In the East Midlands, employment rates for adults qualified to either Level 3 or Level 2 are higher than the average rate of employment, at 78.9% and 77.8% respectively, but in England overall the employment rate for adults qualified to a Level 2 is slightly lower than average – suggesting a greater advantage associated to a Level 3 compared to a Level 2 in England overall (but less so in the East Midlands). Employment rates for adults with qualifications below Level 2 are lower than average in both the East Midlands and England, but only by a few percentage points in each case. However, employment rates for those with no qualifications are very significantly lower, at 51.7% in the East Midlands and 47.6% in England overall.

Chart 12: Employment Rate (%) by Highest Level of Qualification, 2008

Source: ONS Crown Copyright, 2011. 'LFS/APS supplementary table 6: Employment Rates by highest qualification of population aged16-59/64 (2001-2008)' [accessed 1st August 2013].

If Chart 12 demonstrates the potential benefits of higher levels of qualifications to individual employability, with variations between the national and regional average reflecting the different occupational structures, Chart 13 illustrates the current profile of the D2N2 workforce compared to the national average.

Chart 13: Highest Level of Qualification of Adults in Employment (%), 2012

Source: ONS Crown Copyright, 2013. '*Annual Population Survey*', January-December 2012. From NOMIS [accessed 23rd July, 2013].

Chart 13 shows that adults qualified to a Level 4 and above account for the largest share of employed residents in both D2N2 and the UK overall, but that the proportion is significantly lower in the D2N2 area, at 35.3% compared to 40.1%. Adults with a Level 3 qualification (but no higher) account for a higher share of employment than those with qualifications at Level 2 and qualifications below Level 2, at 21% compared to 19.5% and 19% respectively in the D2N2 area and 19.5% compared to 17.9% and 16.9% respectively in the UK overall. Finally, adults with no qualifications account for a small minority of the employed workforce in both the LEP area and nationally, at 5.2% and 5.6% respectively.

5. Concluding Observations

As far as it is possible to say, within the parameters of this project (given this is principally a descriptive analysis of secondary data, and is unable to establish cause and effect) there appears to be a notable shift in the behaviour of learners and/or the responsiveness of providers compared to the previous study published by *emda* in 2010.

Manufacturing is over-represented in terms of employment in the D2N2 area, especially in Derby, and represents an area of distinct comparative advantage, with internationally important employers such as Rolls Royce, Bombardier and Toyota and their supply chains. The latest SFA data suggests that this is now reflected in the distribution of (predominantly FE) learning – both in D2N2 more widely, and in Derby in particular (where courses related to manufacturing account for the largest share of learner starts in FE and other training).

The high proportion of learning in both FE and Apprenticeship courses related to adult social care and healthcare appears to complement the sectoral and occupational structure of the D2N2 workforce, and this is also an area where there are relatively large proportions of job vacancies. Adult social care and healthcare make up the largest proportion of learner starts in FE and other training in both Nottinghamshire and Derbyshire, reflecting the fact that employment in the relevant occupational group is over-represented in both areas.

Learner starts related to activities that appeared more aligned to young people's interests than labour market opportunities (e.g. creative, arts and cultural, sport and leisure), have declined in their overall share of FE and other training, whilst courses aligned to Manufacturing have increased in their share of total starts

However, Manufacturing is under-represented in Apprenticeship provision – which may be an area of focus for future sector strategies in the D2N2 area.

National and local trends in occupational employment suggest a growing need for qualifications at Level 3 and a declining demand at Level 2. With the exception of Nottingham, provision at Level 2 continues to account for the highest proportion of (predominantly FE) learning delivery in the D2N2 area. If the proportion of learning at Level 3 is increased, young people on vocational learning routes will be better able to compete with HE graduates for technician-level jobs in both Manufacturing and the Services.

The D2N2 area continues to have a lower skills profile than the national average – which is likely to be affected by both supply- and demand-side factors, such as fewer vacancies in technician-level jobs, lower proportions of delivery at Level 3 and above in some areas, and the out-migration of skilled workers.

It must be noted, however, that the data provided in the SFA Data Cube provides no indication of the quality of provision within given sector footprints or its 'fit' to employer need – it is only possible to comment on the broad match between the sector footprint of FE and training provision and the sector distribution of employment. More detailed intelligence on the quality of this provision would require an audit of current curricula and possibly a degree of primary research into the views of the beneficiaries of the provision (both learners and employers).

Annex 1: Charts for Derby, Derbyshire, Nottingham and Nottinghamshire

Chart A1: Derby - Starts of D2N2 residents by derived SSC/SSB sector where learning is delivered from a Derby post code (as a % of all learner starts where sector is known), 2010/11
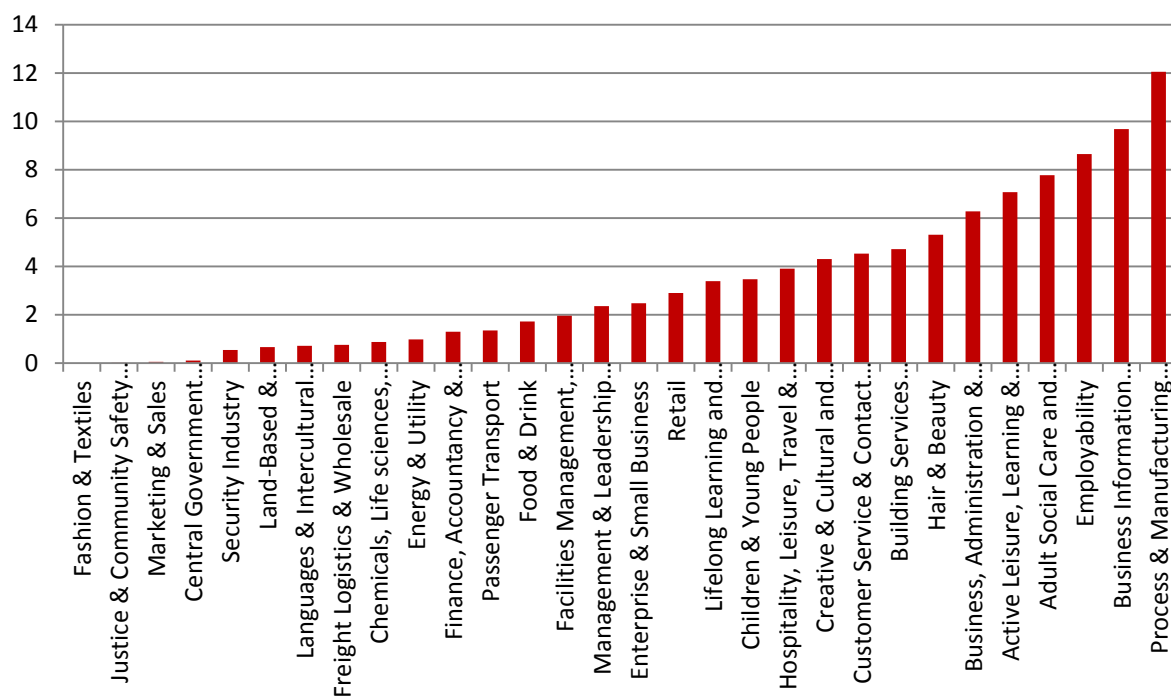

Chart A2: Derbyshire - Starts of D2N2 residents by derived SSC/SSB sector where learning is delivered from a Derbyshire post code (as a % of all learner starts where sector is known), 2010/11
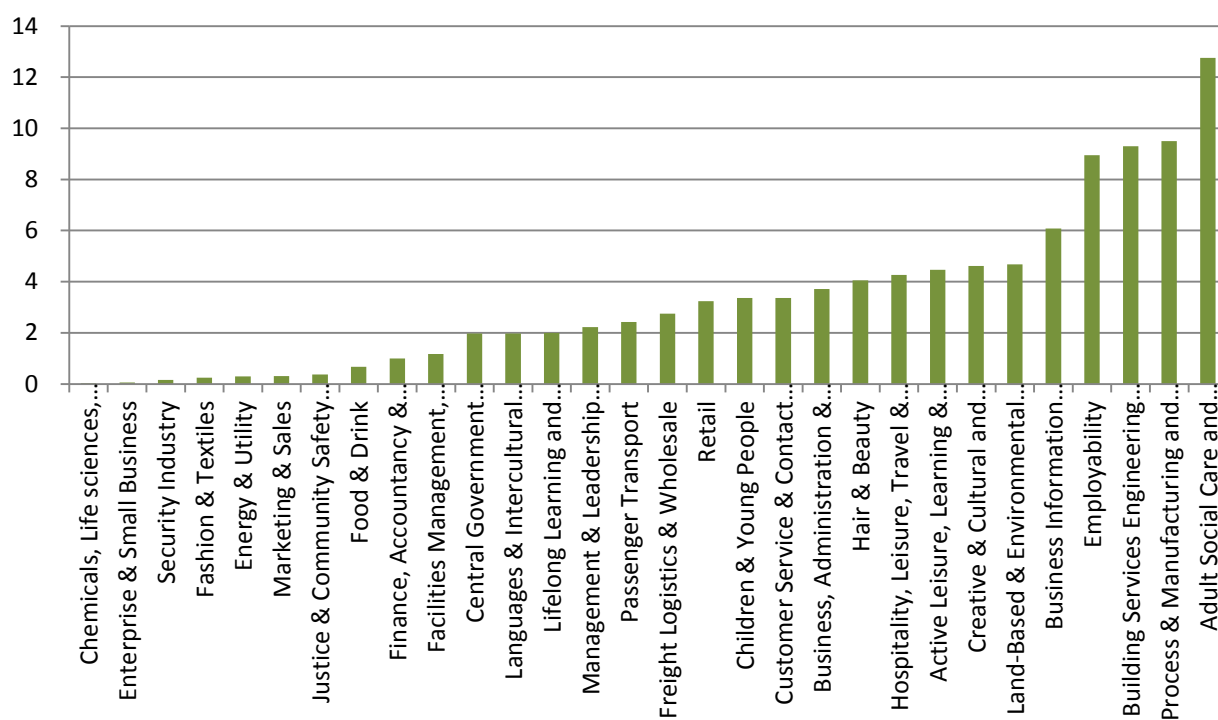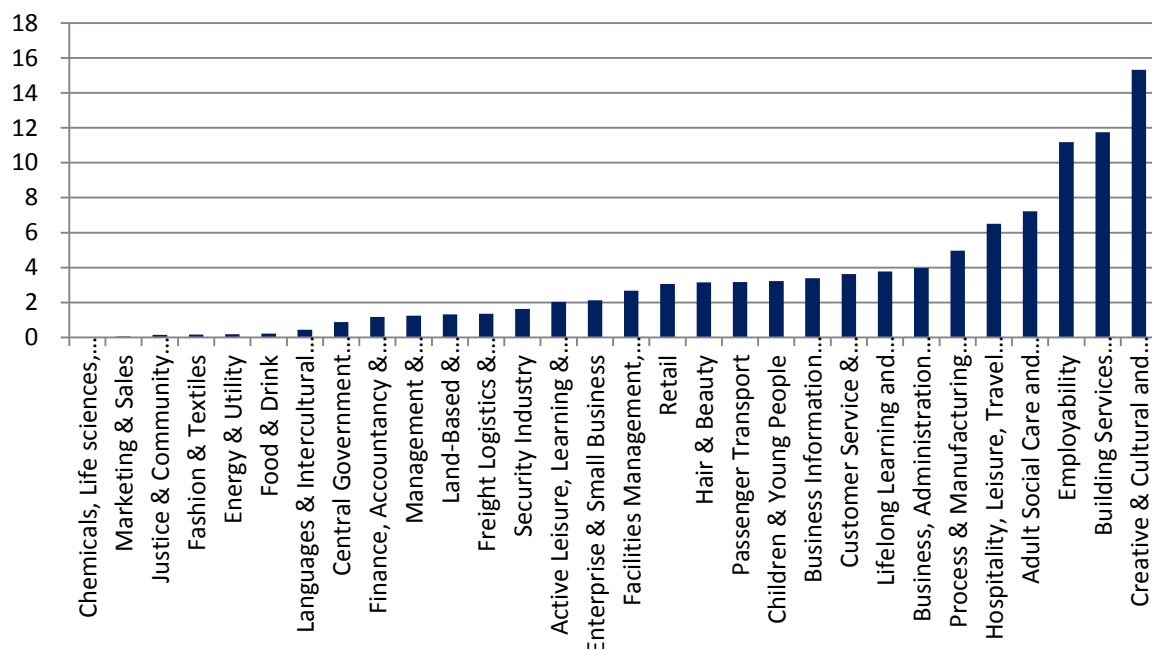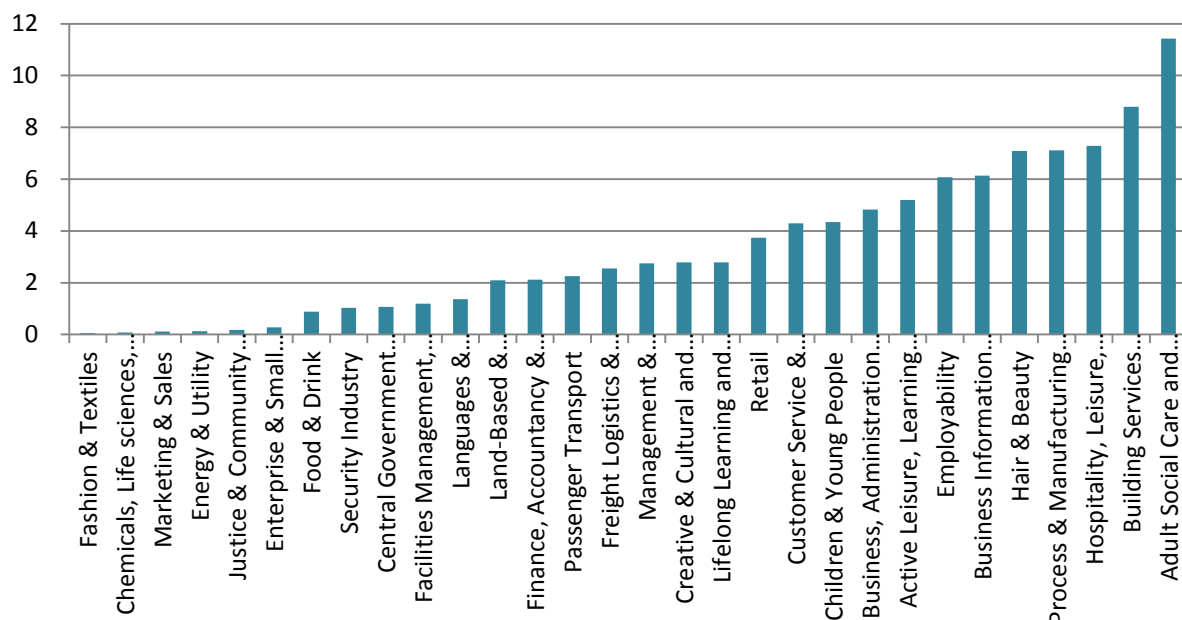
Chart A3: Nottingham- Starts of D2N2 residents by derived SSC/SSB sector where learning is delivered from a Nottingham post code (as a % of all learner starts where sector is known), 2010/11

Chart A4: Nottinghamshire - Starts of D2N2 residents by derived SSC/SSB sector where learning is delivered from a Nottinghamshire post code (as a % of all learner starts where sector is known), 2010/11

Source for charts A1-A4: SFA Data Cube 2 (L17_GEOG) – based on starts where the learner's home postcode is in the D2N2 area. Data accessed in July 2013 under the terms of the Data Agreement between the Data Service and the NCC ESB (signed 26th of June, 2012).

Chart A5: Structure of Derby and UK Employment by Occupation (SOC 2010 Major Group), % of employed residents, 2012
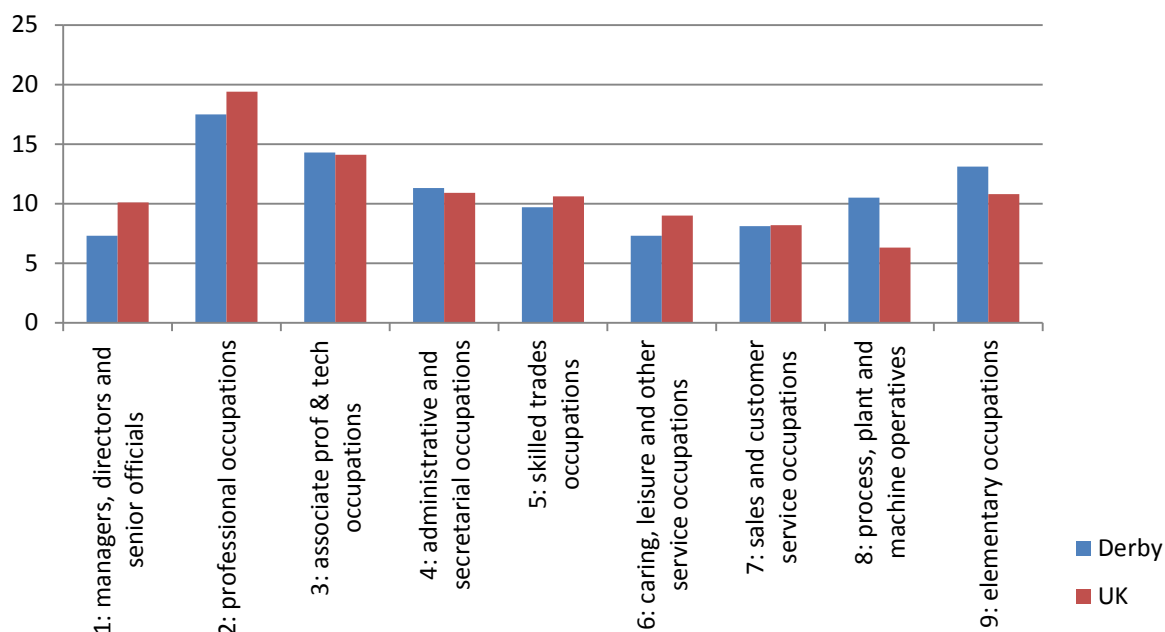

Chart A6: Structure of Derbyshire and UK Employment by Occupation (SOC 2010 Major Group), % of employed residents, 2012
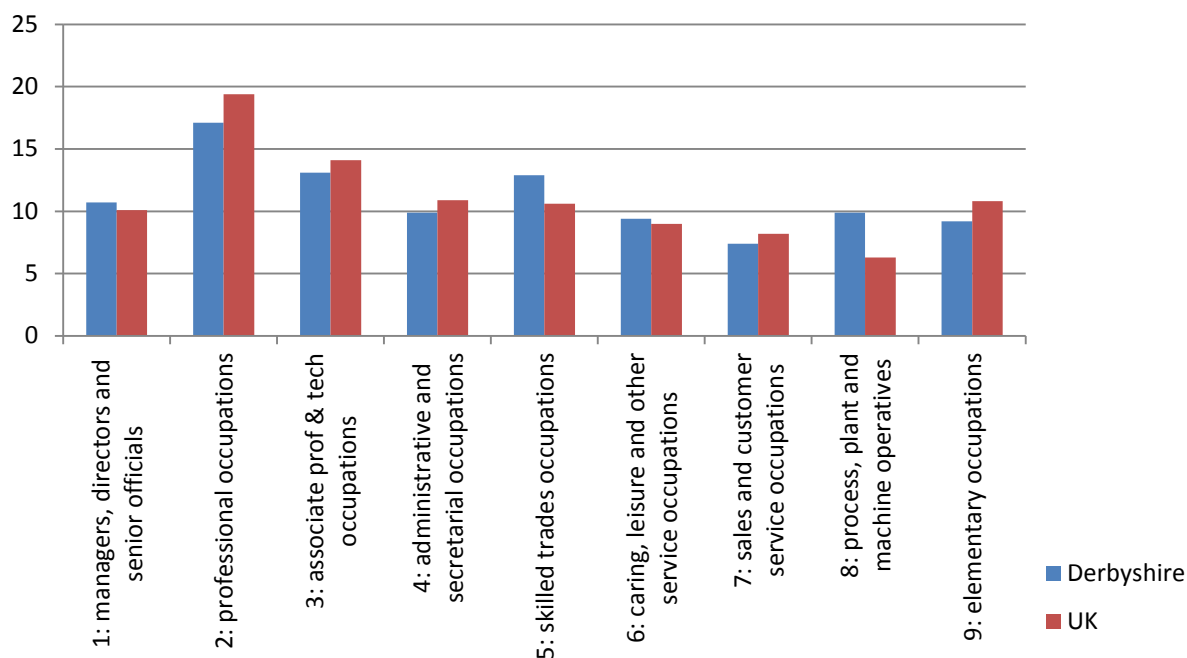
Chart A7: Structure of Nottingham and UK Employment by Occupation (SOC 2010 Major Group), % of employed residents, 2012
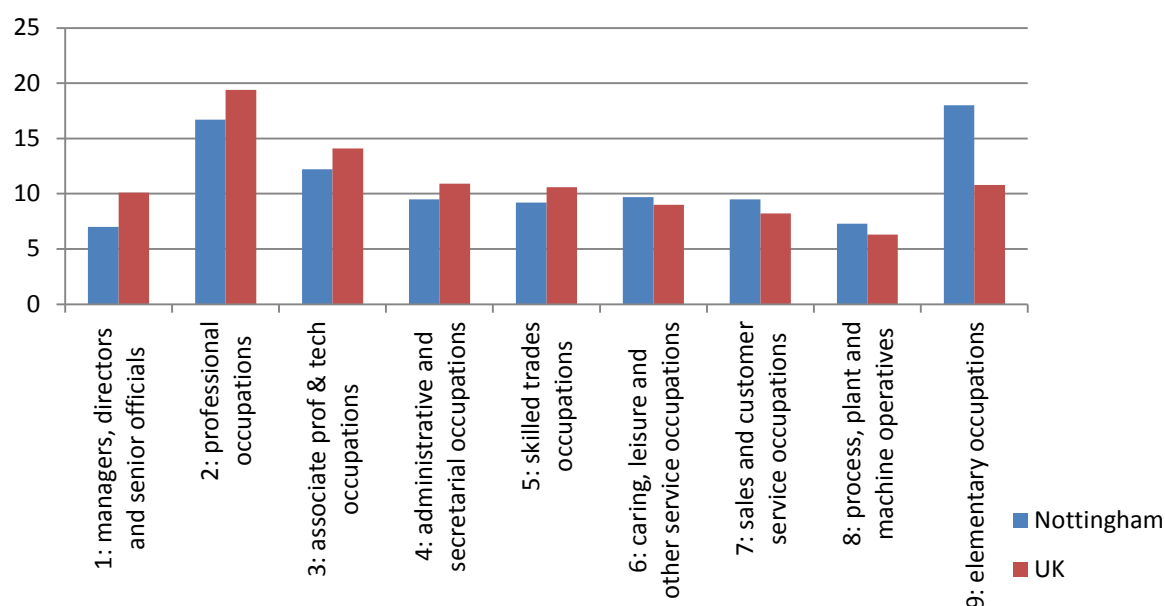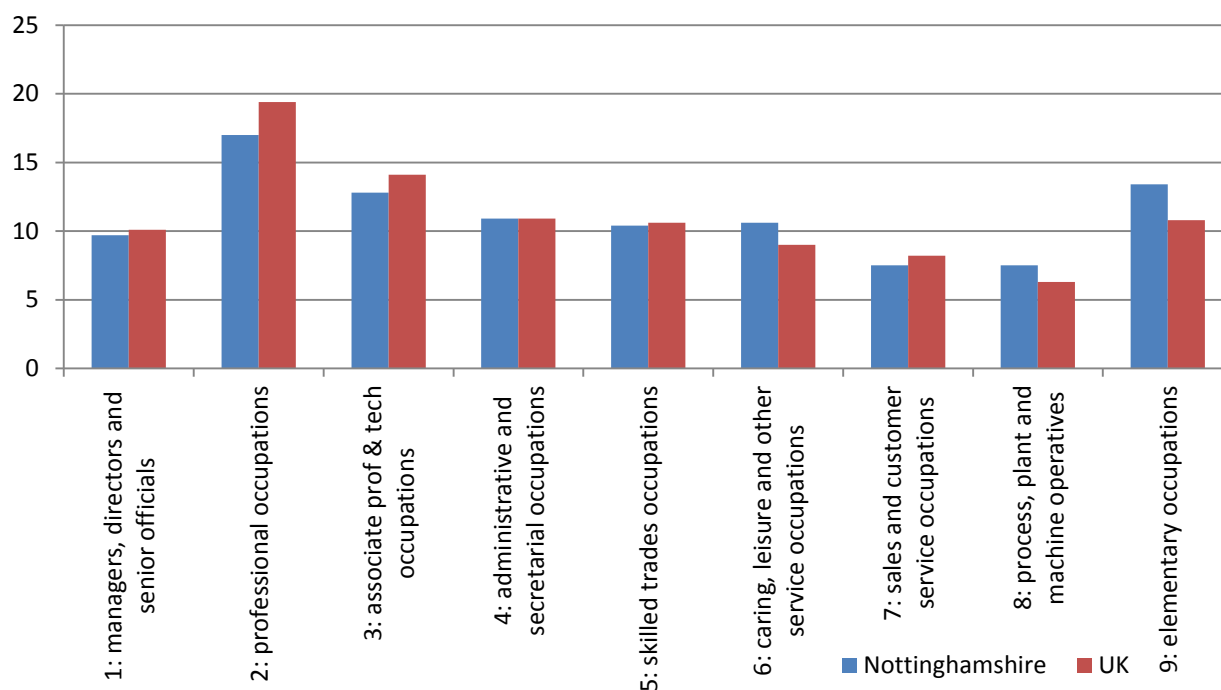

Chart A8: Structure of Nottinghamshire and UK Employment by Occupation (SOC 2010 Major Group), % of employed residents, 2012

Source for charts A5-A8: ONS Crown Copyright, 2013. '*Annual Population Survey*', January-December 2012. From NOMIS [accessed 23rd July, 2013].