The recently released Wakeham report provides an analysis of the DLHE survey for 2014/15 graduates and commentary on the outcomes for the subject areas:

- architecture and building;
- civil engineering;
- electrical and electronic engineering
- mechanical engineering.

**Architecture and building**

Of the 4,935 respondents to the DLHE survey, 79.2% are engaged in employment, which is slightly down on 2013/14 levels (79.7%). Of those employed in the UK, the most likely occupations are architectural and town planning technicians (19.3%), quantity surveyors (16.9%), chartered surveyors (9.4%) and architects (8.7%).

The predominance of graduates in employment as engineering and building professionals (nearly 50% of those in employment in the UK) is directly related to the high proportion of students who study architecture and building subjects. These subjects are vocationally oriented so it is expected that higher numbers of graduates will go on to undertake employment in professions directly related to their degree.

According to the Royal Institute of British Architects (RIBA) those who study architecture tend to go into entry occupations that have further training attached, which explains the 19.3% of graduates who go into technician level roles.

The percentage of graduates who go into further study has increased slightly on 2013/14 (5.4%) to 6.6% and conversely the percentage of those working and studying has dropped from 6.2% in 2013/14 to 5.3% in 2014/15. This is likely to be due to an increase in specialist full time further study courses, such as façade engineering.

Unemployment has remained constant at 5.3%, perhaps reflecting the range of opportunities for graduates in a stable construction industry with increases in home building and ongoing major infrastructure projects such as Crossrail, HS2 and upgrading to ‘smart motorways’. There is also an increase in worldwide construction, which may make the UK’s globally recognised degree programmes an asset for any graduates considering working overseas.

**Civil engineering**

Of the 2,325 respondents to the DLHE survey, 78.4% are engaged in employment, which is slightly higher than graduates from 2013/14. This indicates a stable flow of graduate jobs for a discipline where 61% of graduates find employment in the UK as civil engineers and a further 14.2% find work in other engineering and building professions. This is not unexpected as, like architecture and building, civil engineering is a vocational programme that normally attracts students with a relatively clear career path in mind. While civil engineer is the most popular job title among 2014/15 graduates working in the UK, others have found work in developing fields with example job titles including graduate modeller and territory manager.

The percentage of graduates engaging in further study has again increased slightly from 8.7% in 2013/14 to 9.1% in 2014/15. This may be due to an increase in specialist further study qualifications aimed at specific jobs such as Masters-level study in project management and geo-environmental engineering. The percentage of civil engineering graduates choosing further study is lower than the national average of 13.1%, which is unsurprising given that most civil engineering degrees will lead to professional or managerial employment without the need for further study.

Unemployment fell slightly from 5% in 2013/14 to 4.8% for 2014/15 graduates. This is to be expected given the annual ‘Engineering in Employment’ report shows a continued shortage of skilled civil engineers.

**Electrical and electronic engineering**

Of the 2,285 respondents to the DLHE survey, 75.7% are engaged in employment representing an increase from 73.6% in 2013/14 despite the overall national level of employment for all graduates remaining fairly static. This is most likely to be the result of the range of opportunities open to graduates from this discipline. Only 22% of these graduates in 2014/15 went into the electrical or electronic engineering professions. Graduates also embrace other professions including positions as programmers and software development professionals (9%), design engineers (7%) and other engineering professionals (7%).

The percentage of graduates engaged in further study has remained fairly stable at 9.7% for 2014/15 graduates, compared with 10.4% in 2013/14. There has been more of a drop in those engaged in work and study from 3.6% in 2013/15 to 2.7% in 2014/15. This may...
be the result of an increase in higher education institutions offering integrated Masters courses. Of those entering further study it is predominantly at Masters level in courses that may help them find specialist employment, such as information and digital forensics, and robotics.

Unemployment has fallen marginally from 8.9% for 2013/14 graduates to 8.3% for 2014/15 graduates, although this is still much higher than the national figure for all 2014/15 first degree graduates (5.7%). Given the vocational nature of the electrical and electronic degree programmes and the high levels of employment this seems surprising. However, degrees that are aimed at particular vocations do tend to lead to those not finding work in a related profession being more likely to be unemployed. This could be due to the fact that they will continue to look for work in their chosen field rather than take other unrelated work. However, it may represent the lack of skills outlined in the Wakeham report, whereby graduates are able to offer a very high level of technical skills but lack appropriate work experience and the range of 'soft skills' required by employers in these fields.

Mechanical engineering

Of the 3,815 respondents to the DLHE survey, 74.7% are engaged in employment, which is a slight drop from 2013/14 graduates at 75.2%. Again, this does not suggest a major change in the labour market for mechanical engineers and there is still a significant shortage of skilled and graduate engineers in this field.

Over 60% of graduates employed in the UK are in related engineering professions including mechanical engineers (27.6%), design and development engineers (15.1%) and other engineering professionals (11.4%). As with other engineering degree disciplines this is not surprising given the vocational nature of the courses.

Further study has not changed significantly from 2013/14 (10.3%), with 10.1% of graduates from 2014/15 going into further study. These are mainly graduates from BEng and BSc programmes or those seeking specialist Masters-level courses that may lead to specific roles. Some of the specialist courses include MSc Drone Technology and PGDip System Engineering for Defence Capability, which reflect the increasing investment in defence technology and the skilled jobs related to this sector.

Unemployment has continued to rise from 7% in 2013/14 to 7.8% for 2014/15 graduates. Given the shortage of skilled engineers and a healthy investment and growth in sectors relating to mechanical engineering, according to the ‘Engineering in Employment’ report, this does seem surprising, but again this could be due to a number of factors including graduates being unemployed while seeking employment in an engineering profession or a shortage of chartered engineers rather than graduate engineers.

Salaries

Graduates from engineering disciplines are more likely to be in professional or managerial roles six months after graduation compared to all graduates.

This is reflected in the average salaries earned by engineering graduates in full-time paid work in the UK where civil engineering graduates earn £22,700 to £27,100, mechanical engineering graduates earn £21,800 to £28,100 and electrical and electronic engineering graduates earn, £21,400 to £28,600. The average salary for architecture and building graduates has a broader range from £16,200 to £30,200, perhaps reflecting the lower salaries these graduates earn in entry level jobs while they amass the experience to progress in related careers.

Gender

According to ‘Engineering UK 2015: The State of Engineering’ there is a significant shortage of skilled professionals entering engineering roles and a particular shortage of women entering these professions. In fact, only 7.3% of respondents to the DUHE survey who studied mechanical engineering were female. According to Vince Cable, in the introduction to the Engineering UK report, ‘the continued inequality in the uptake and progression of women into engineering remains a problem. There is no way we can generate the number of scientists and engineers the economy requires without addressing this situation’. He goes on to say, however, that, ‘with an increase of 8.5% on the number of female First Degree qualifiers in the past year, there are signs that (the government's) efforts to close the gender gap are starting to have an impact’.

An increasing trend in young women taking A-level maths and physics, noted in the same report, as well as the efforts of organisations such as WISE3 to encourage more women into STEM subjects, may result in a significant change in these statistics over the coming decade.

What of the future?

The report Working Futures 2012-2022 shows that over this period engineering employers will need to recruit 2.56 million people, 257,000 of whom for new vacancies. Overall, 1.82 million of these workers will need engineering skills. This bodes well for future graduates if they can take advantage of opportunities while at university to embrace early career planning, undertake appropriate work experience and develop the soft skills that are a critical factor in successful recruitment to building and engineering positions. Encouraging more school pupils to embrace higher education study in the STEM subjects and thereafter, careers in engineering is a much more challenging problem but solutions to those problems will inevitably result in changes to future destinations.

See references & resources on page 51
ENGINEERING AND BUILDING MANAGEMENT

ARCHITECTURE AND BUILDING GRADUATES FROM 2015

SURVEY RESPONSE: 83.4% | FEMALE: 1,445 | MALE: 3,485 | TOTAL RESPONSES: 4,935 | ALL GRADUATES: 5,915

OUTCOMES SIX MONTHS AFTER GRADUATION

- Working full time in the UK: 70.8%
- In further study, training or research: 6.6%
- Working part time in the UK: 6.3%
- Working and studying: 5.3%
- Unemployed, including those due to start work: 5.3%
- Other: 3.6%
- Working overseas: 2.1%

TYPE OF COURSE FOR THOSE IN FURTHER STUDY
- Masters (e.g., MA, MSc): 63.3%
- Other postgraduate diplomas: 18.1%
- Other study, training or research: 12.6%
- Doctorate (e.g., PhD, DPhil, MPhil): 2.9%
- Professional qualification: 1.7%
- Postgraduate qualification in education: 1.5%
- Total number of graduates in further study: 325

TYPE OF WORK FOR THOSE IN EMPLOYMENT

Graduates who were in employment either full time, part time or working and studying in the UK

FEMALE: 1,125 | MALE: 2,945 | TOTAL IN EMPLOYMENT IN THE UK: 4,070

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering and building professionals</td>
<td>48.3%</td>
</tr>
<tr>
<td>Other professionals, associate professionals and technicians</td>
<td>23.1%</td>
</tr>
<tr>
<td>Managers</td>
<td>6.7%</td>
</tr>
<tr>
<td>Other occupations</td>
<td>4.4%</td>
</tr>
<tr>
<td>Retail, catering, waiting and bar staff</td>
<td>4.3%</td>
</tr>
<tr>
<td>Business, HR and finance professionals</td>
<td>4.1%</td>
</tr>
<tr>
<td>Marketing, PR and sales professionals</td>
<td>2.9%</td>
</tr>
<tr>
<td>Arts, design and media professionals</td>
<td>2.3%</td>
</tr>
<tr>
<td>Clerical, secretarial and numerical clerks</td>
<td>1.4%</td>
</tr>
<tr>
<td>Legal, social and welfare professionals</td>
<td>1.1%</td>
</tr>
<tr>
<td>Education professionals</td>
<td>0.5%</td>
</tr>
<tr>
<td>Childcare, health and education occupations</td>
<td>0.4%</td>
</tr>
<tr>
<td>Information technology (IT) professionals</td>
<td>0.2%</td>
</tr>
<tr>
<td>Unknown occupations</td>
<td>0.2%</td>
</tr>
<tr>
<td>Science professionals</td>
<td>0.0%</td>
</tr>
<tr>
<td>Health professionals</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

EXAMPLES OF 2015 ARCHITECTURE AND BUILDING GRADUATE JOB TITLES AND EMPLOYERS (SIX MONTHS AFTER GRADUATION)

- Construction manager - Bowen Consultants
- Case handler - Lloyds Banking Group
- Housing officer - UK housing association
- Senior design engineer - NGI Consulting
- Architect - SDA Architecture Ltd
- Landscape architecture - local authority in England
- Quantity surveyor - Laing O'Rourke
- Events manager - Premier Inn
- Exhibition designer - specialist design company
- Inspection manager - NHBC
- CAD technician - small building services company
- Lab technician - Thatchers Cider
- Shelf stacker - ASDA
ENGINEERING AND BUILDING MANAGEMENT

CIVIL ENGINEERING GRADUATES FROM 2015

SURVEY RESPONSE: 82.5%  FEMALE: 320 | MALE: 2,005 | TOTAL RESPONSES: 2,325 | ALL GRADUATES: 2,820

OUTCOMES SIX MONTHS AFTER GRADUATION

- Working full time in the UK: 72.2%
- In further study, training or research: 9.1%
- Unemployed, including those due to start work: 4.8%
- Working part time in the UK: 4.5%
- Working and studying: 4.0%
- Other: 3.7%
- Working overseas: 1.8%

TYPE OF COURSE FOR THOSE IN FURTHER STUDY

- Masters (e.g. MA, MSc) 80.7%
- Doctorate (e.g. PhD, DPhil, MPhil) 8.4%
- Other study, training or research 4.7%
- Other postgraduate diplomas 3.8%
- Postgraduate qualification in education 1.9%
- Professional qualification 0.5%
- Total number of graduates in further study 210

EXAMPLES OF COURSES STUDIED

- MSc Project Management
- MSc Structural Engineering
- MSc Civil Engineering
- MRes Geoenvironmental Engineering
- BSc Music Production
- ACA (Chartered Accountancy)

TYPE OF WORK FOR THOSE IN EMPLOYMENT

Graduates who were in employment either full time, part time or working and studying in the UK

FEMALE: 265 | MALE: 1,605 | TOTAL IN EMPLOYMENT IN THE UK: 1,870

- Engineering and building professionals: 75.2%
- Other professionals, associate professionals and technicians: 4.9%
- Business, HR and finance professionals: 3.9%
- Retail, catering, waiting and bar staff: 3.8%
- Managers: 3.7%
- Other occupations: 3.2%
- Clerical, secretarial and numerical clerk occupations: 1.4%
- Information technology (IT) professionals: 1.0%
- Marketing, PR and sales professionals: 0.9%
- Arts, design and media professionals: 0.7%
- Education professionals: 0.4%
- Legal, social and welfare professionals: 0.4%
- Childcare, health and education occupations: 0.3%
- Science professionals: 0.1%
- Unknown occupations: 0.1%
- Health professionals: 0.0%

EXAMPLES OF 2015 CIVIL ENGINEERING GRADUATE JOB TITLES AND EMPLOYERS (SIX MONTHS AFTER GRADUATION)

- CSD analyst - Credit Suisse
- Graduate modeller - Mouchel Consulting
- Investment bank analyst - Goldman Sachs
- ESSO territory manager - Exxonmobil
- Fundraiser - Cancer Research
- Orchestra manager - orchestra company
- Credit administrator - SMBC
- Graduate water engineer - CH2M

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ENGINEERING AND BUILDING MANAGEMENT

ELECTRICAL AND ELECTRONIC ENGINEERING GRADUATES FROM 2015

SURVEY RESPONSE: 81.2%  FEMALE: 220  MALE: 2,065  TOTAL RESPONSES: 2,285  ALL GRADUATES: 2,815

OUTCOMES SIX MONTHS AFTER GRADUATION

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working full time in the UK</td>
<td>66.1%</td>
</tr>
<tr>
<td>In further study, training or research</td>
<td>9.7%</td>
</tr>
<tr>
<td>Unemployed, including those due to start work</td>
<td>8.3%</td>
</tr>
<tr>
<td>Working part time in the UK</td>
<td>7.8%</td>
</tr>
<tr>
<td>Other</td>
<td>3.6%</td>
</tr>
<tr>
<td>Working and studying</td>
<td>2.7%</td>
</tr>
<tr>
<td>Working overseas</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

TYPE OF COURSE FOR THOSE IN FURTHER STUDY

- Masters (e.g. MA, MSc) 48.7%
- Doctorate (e.g. PhD, DPhil, MPhil) 35.1%
- Other study, training or research 9.4%
- Postgraduate qualification in education 3.6%
- Other postgraduate diplomas 2.3%
- Professional qualification 0.9%
- Total number of graduates in further study 220

EXAMPLES OF COURSES STUDIED

- MSc Information Security and Digital Forensics
- MSc Robotics
- MSc Electrical Engineering
- MA International Business
- MSc UAV Application and technology
- MSc Robotics
- MA International Business

TYPE OF WORK FOR THOSE IN EMPLOYMENT

Graduates who were in employment either full time, part time or working and studying in the UK

FEMALE: 165  MALE: 1,585  TOTAL IN EMPLOYMENT IN THE UK 1,750

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering and building professionals</td>
<td>41.2%</td>
</tr>
<tr>
<td>Information technology (IT) professionals</td>
<td>18.8%</td>
</tr>
<tr>
<td>Other professionals, associate professionals and technicians</td>
<td>8.1%</td>
</tr>
<tr>
<td>Retail, catering, waiting and bar staff</td>
<td>6.8%</td>
</tr>
<tr>
<td>Other occupations</td>
<td>6.6%</td>
</tr>
<tr>
<td>Arts, design and media professionals</td>
<td>5.9%</td>
</tr>
<tr>
<td>Business, HR and finance professionals</td>
<td>3.5%</td>
</tr>
<tr>
<td>Managers</td>
<td>3.0%</td>
</tr>
<tr>
<td>Marketing, PR and sales professionals</td>
<td>1.9%</td>
</tr>
<tr>
<td>Clerical, secretarial and numerical clerk occupations</td>
<td>1.7%</td>
</tr>
<tr>
<td>Education professionals</td>
<td>1.2%</td>
</tr>
<tr>
<td>Childcare, health and education occupations</td>
<td>0.7%</td>
</tr>
<tr>
<td>Legal, social and welfare professionals</td>
<td>0.3%</td>
</tr>
<tr>
<td>Science professionals</td>
<td>0.2%</td>
</tr>
<tr>
<td>Health professionals</td>
<td>0.2%</td>
</tr>
<tr>
<td>Unknown occupations</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

EXAMPLES OF 2015 ELECTRICAL AND ELECTRONIC ENGINEERING GRADUATE JOB TITLES AND EMPLOYERS (SIX MONTHS AFTER GRADUATION)

- Further education lecturer - educational recruitment agency
- Maths tutor - First Class Tutoring
- Space systems research associate - UK higher education institution
- Design engineer - Bosch
- Warhead electronic engineer - specialist engineering company
- Software developer - Capita
- Insurance broker - Wordell Markell
- Translator - small translation company
- Customer safety advisor - Sia Security
- Technical support engineer - Apple
- Sales assistant - small retail company
- Warehouse worker - Alliance Healthcare

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ENGINEERING AND BUILDING MANAGEMENT

MECHANICAL ENGINEERING GRADUATES FROM 2015

SURVEY RESPONSE: 83.4%  |  FEMALE: 280  |  MALE: 3,535  |  TOTAL RESPONSES: 3,815  |  ALL GRADUATES: 4,575

OUTCOMES SIX MONTHS AFTER GRADUATION

- Working full time in the UK: 66.6%
- In further study, training or research: 10.1%
- Unemployed, including those due to start work: 7.8%
- Working part time in the UK: 6.0%
- Other: 4.7%
- Working and studying: 2.7%
- Working overseas: 2.1%

TYPE OF COURSE FOR THOSE IN FURTHER STUDY

- Masters (e.g. MA, MSc): 60.3%
- Doctorate (e.g. PhD, DPhil, MPhil): 26.5%
- Other study, training or research: 7.2%
- Postgraduate qualification in education: 3.9%
- Other qualifications: 1.3%
- Total number of graduates in further study: 385

EXAMPLES OF COURSES STUDIED

- MSc Finance
- MSc Advanced Aeronautical Engineering
- MSc Aircraft Engineering
- MSc Drone Technology
- PhD Rapid Solidification
- PGCE Maths

EXAMPLES OF 2015 MECHANICAL ENGINEERING GRADUATE JOB TITLES AND EMPLOYERS (SIX MONTHS AFTER GRADUATION)

- Officer cadet - British Army
- Design and release engineer - Ford Motor Company
- Nuclear electrical control and implementation engineer - Nuvia Ltd
- Wind turbine technician - Dong Energy
- Graduate global operations - manufacturing company
- Reliability engineer - manufacturing company
- Trainee accountant - Deloitte LLP
- Recruitment consultant - small recruitment company
- Prototype buyer - Delphi Diesel Systems
- Graphic designer - small design company
- City research officer - UK higher education institution
- Trainee patent attorney - Keltie LLP

TYPE OF WORK FOR THOSE IN EMPLOYMENT

Graduates who were in employment either full time, part time or working and studying in the UK

FEMALE: 205  |  MALE: 2,665  |  TOTAL IN EMPLOYMENT IN THE UK: 2,865

- Engineering and building professionals: 61.2%
- Other professionals, associate professionals and technicians: 7.9%
- Retail, catering, waiting and bar staff: 5.8%
- Other occupations: 5.8%
- Business, HR and finance professionals: 5.6%
- Managers: 3.7%
- Information technology (IT) professionals: 3.2%
- Marketing, PR and sales professionals: 2.7%
- Clerical, secretarial and numerical clerk occupations: 1.3%
- Education professionals: 0.8%
- Arts, design and media professionals: 0.8%
- Science professionals: 0.4%
- Childcare, health and education occupations: 0.4%
- Legal, social and welfare professionals: 0.3%
- Health professionals: 0.1%
- Unknown occupations: 0.1%

EXAMPLES OF 2015 MECHANICAL ENGINEERING GRADUATE JOB TITLES AND EMPLOYERS (SIX MONTHS AFTER GRADUATION)

- Officer cadet - British Army
- Design and release engineer - Ford Motor Company
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