The Chartered Institute of Building

The Chartered Institute of Building (CIOB) represents for the public benefit the most diverse set of construction management professionals.

Our Mission:
To contribute to the creation of a modern, progressive, and responsible construction industry; able to meet the economic, environmental and social challenges faced in the 21st century.

Our 7 Guiding Principles:
- Creating extraordinary people through professional learning and continuous professional development.
- Promoting the built environment as central to the quality of life for everyone everywhere.
- Achieving a sustainable future, worldwide.
- Advocating exemplary ethical practice and behaviour, integrity and transparency.
- Pursuing excellence in management practice, and technological innovation rooted in evidence based science.
- Being socially responsible and working responsibly.
- Enabling our members to find an emotional resonance with the Institute; their success is our success.

We have over 47,000 members around the world and are considered to be the international voice of the construction management professional, representing an unequalled body of knowledge concerning the management of the total building process.

Chartered Member status is recognised internationally as the mark of a true, skilled professional in the construction industry and CIOB members have a common commitment to achieving and maintaining the highest possible standards within the built environment.

The Chartered Building Company and Consultancy Schemes (CBCs) are a vital part of the CIOB, providing the Institute’s members with a further business perspective.

To find out more about the benefits of either individual CIOB membership or CBC schemes go to our website www.ciob.org or call us on +44 (0)1344 630 700 today.
EXECUTIVE SUMMARY

This is the fifth annual skills survey from the Chartered Institute of Building (CIOB). The key findings from this report indicate 77% of respondents believe a skill shortage exists in the construction industry, displaying a 5% increase from the 2010 survey.

By David Hawkes, Policy & Research Officer

Contents

Executive summary 1
Introduction 2
Background information 3
New policies 4
The decrease in migrant workers 4
The survivors 4
Green shoots? 5
Methodology 6
The sample 6
Demographics 7
Results and discussion 8
Skills shortage or surplus? 8
Retirement age, tuition fees and paternity 10
Immigration and emigration 12
Apprenticeships and graduates 14
Redundancy or reward? 18
Conclusions 21

Primarily, respondents cite the lack of skilled domestic construction personnel as the principal reason; comments indicate that a scarcity of quality training and lack of investment have led to a skills shortage. In addition, the majority of respondents highlight a lack of investment from industry and government as the primary threat to the future skills agenda.

This research examines the stance of CIOB members on the current state of construction industry skills. This 2011 report centres on the prevalence of skills shortages, how Government policy such as tuition fee rises and removal of the default retirement age will affect the workforce, recruitment practices of graduates and apprentices, and whether organisations are rewarding or making redundant their employees in what are uncertain economic times.

The data garnered from this and previous CIOB skills surveys allow us to map trends over time. The data published in these reports from before, during and after the recession offers a unique insight into the condition of the industry’s workforce over the past five years.

50% of the sample believe that the construction workforce over the course of 2011/12 will decrease, as opposed to 17% believing the workforce will increase. 64% of respondents indicate that their organisations have applied either pay decreases or pay freezes in the past year, while 21% report a pay rise.

According to almost half of respondents, construction graduates leave university with insufficient levels of technical knowledge. In addition, tutors believe that graduates lack decision-making and problem-solving skills. As a counter to these points, the majority of respondents believe utilisation of work placements and greater integration between industry and academia would assist in addressing the lack of these specific skills. 43%, a majority, of respondents think that the standards of teaching at universities and colleges in built environment courses do not meet the current and future needs of the construction industry.

The removal of the UK default retirement age (DRA) will lead to an ageing workforce, according to 57% of respondents. However, this is not necessarily a negative effect, as an increase in mentoring, reinforcement of the value older workers have on firms, and the transference of skills to younger generations are highlighted as other effects that the DRA removal will have.

68% of the sample believe fewer students will enter construction courses at universities in England and Wales as a result of the tuition fee rises that came into effect in 2012. More personnel will enter the industry via apprenticeships or internships, according to 38%, while there will also be a rise in work-based or alternative learning provisions.

Encouragingly, respondents have reported a marked increase, compared to the 2010 CIOB skills survey, in the number of organisations recruiting apprentices (18% increase) and graduates (12% increase). One can argue that this sees the emergence of green shoots in construction industry recruitment.
The purpose of this research is to investigate the state of skills in construction through the perceptions of industry professionals. The CIOB will use this research to raise the awareness of the issues surrounding construction skills to industry, government, the public and, of course, our members.

In 2010, 72% of respondents believed a skills shortage existed in the UK industry alone. This figure is lower, likely as a result of the economic situation and resulting lack of available work, than the boom period of 2006, when 86% of respondents were of the opinion that a skills shortage existed.

A recent survey from Hays Recruitment of over 500 companies in China and Hong Kong indicated that construction and engineering firms in the regions were having difficulty in recruiting skilled staff. In particular, the survey illustrated a demand for Construction Managers i.e. someone who can oversee a project from inception to its end. To mitigate this skills shortage, Chinese companies often hire candidates from the UK, Australia and the United States with the relevant talents and experience. In turn, this leads to a reduction in the number of skilled professionals available in these countries, which could create a wider skills gap when construction demand improves in countries such as the UK.

New policies

In the UK, the coalition Government’s policies are predicted to have varying effects across the spectrum of skills in the construction industry. CIOB members’ views on the below topics are explored in the results section of this report.

One such example of new policy is the removal of the default retirement age (DRA), which is to be phased out between April and October 2011. Its removal means that employers will no longer be able to use the DRA to compulsorily retire employees. Although the Government is removing the DRA, it will still be possible for individual employers to operate a compulsory retirement age, provided that they can justify it. Previous CIOB research into the aging population and evidence from the Department for Work and Pensions indicates that the average age of the UK construction workforce is higher than the national average. Therefore, the removal of the DRA would likely have wide-ranging impacts on the construction sector.

Another policy introduced under the UK coalition Government is the extension of paternity leave. Under the new laws, fathers can take between 2 and 26 weeks of extra paid paternity leave. In addition to the initial 2 weeks currently allowed, offset against the mother’s maternity leave. The leave would be paid at £128.73 a week, or 90% of average weekly earnings if that is less. In terms of the construction sector, a highly male dominated industry, this means there is a high likelihood of firms being affected by the new paternity regulations. A recent study of 1,000 men, in all lines of work, who are or are planning to become fathers revealed that 41% would not take advantage of the new regulations at all, the primary reason for this was that they could not afford to take the time off. SMEs, in particular, would be harder hit by the regulations than larger firms. Another study showed that 39% of SME owners believed small companies should be exempt from the new paternity legislation, due to the additional cost burdens this will have to the business. In construction, of which 93% of organisations are classified as SMEs, the legislation would likely have an effect on businesses.

Previous research from the CIIOB into skills has indicated that there is a severe skills shortage in the construction industry, even during the recent economic downturn when work was scarce.
While the effect on males in the industry has been discussed, the impact on mothers returning to work is an issue that is not to be ignored. Previous CIOB research has indicated that the lack of apprenticeship employment is one of the largest threats to the future skills agenda in the construction industry.

Previous CIOB research has indicated that there would be 100,000 places on a new work experience scheme over the next two years, and funding for 12 new university technical colleges (UTCs), which provide technical, academic and practical training for 14-19 year-olds. Previous CIOB research has illustrated that construction does not have as much of a presence as a career in school-age children as other industries, which the establishment of UTCs and work experience can assist in addressing.

In preparation for the increase in construction activity predicted to occur from 2012 onwards, CITB-ConstructionSkills has revealed a 12% bonus on training grants awarded from August 1st 2011. This is intended to improve and enhance skills in the industry, including for apprenticeships and specialist training, in response to a likely skills shortage for when construction activity does pick up.
The survey was conducted using an internet-based questionnaire, which respondents could access through the CIOB website www.ciob.org.uk.

The survey was conducted using an internet-based questionnaire, which respondents could access through the CIOB website (www.ciob.org.uk). Respondents were asked general demographic questions regarding their age, gender, location, job level, job sector, and the number of employees within their organisation. An email was sent to 26,650 CIOB members informing them that the survey was online. The survey was also open to the general public and wider industry. Certain questions were based upon previous CIOB skills surveys in order to track trends within the industry. There were both qualitative and quantitative questions in the survey, to allow respondents the opportunity to openly express their opinions.

The sample
The sample consists of 996 construction professionals, the majority of whom describe themselves as aged between 41-50 and working at a senior management level. 91% of the sample are male, and 9% are female. 97% of the sample are from the UK, with 31% of these from London and the South East of England. The majority of respondents work in contracting and project management, with 39% working for organisations that employ over 501 staff.

The majority of respondents work in contracting and project management, with 39% working for organisations that employ over 501 staff.
RESULTS & DISCUSSION: SKILLS SHORTAGE OR SURPLUS?

Fig.7: 77% of respondents believe there is a skills shortage in the construction industry, representing a 5% increase compared to the results of the 2010 CIOB skills survey. However, it is still some way from the level of responses in the 2008 CIOB survey, taken during the early part of the year in the 'boom' period, where 93% reported a skills shortage.

Considering the widely reported decline in output of construction, and that the sector itself is still in its own recession even if the economy is not, the fact that over three quarters of respondents believe the industry is afflicted by a skills shortage is worrying indeed.

Fig.7.1: 60% state that a skills shortage exists due to a lack of skilled domestic construction personnel. When asked for comments, respondents stated that the lack of steady training and investment is a key factor to the skills shortages – the ‘feast or famine’ nature of the construction industry only exacerbates this.

Fig.7.2: Of the 18% who did not believe a skills shortage exists, the majority cite the lack of available work and the current economic climate as the primary reasons for this. Comments from respondents indicate that this skills ‘surplus’ is temporary; when work begins to become readily available, the truth picture will be revealed. Those comments are echoed in figure 8, where 85% of respondents express concern that there will be a shortage of skilled personnel when the industry begins to pick back up.

Fig.8, 9 & 10: CITB-ConstructionSkills indicates that the industry requires an average of 43,000 new personnel per year in the period 2011-15, a figure down slightly on the estimates from the period 2010-14, though representing a 10,000 increase on 2009-13 estimates.15 This is due to fluctuations in the market, which is now relying on private sector growth to boost output after expenditure cuts dramatically reduced the work provided by the public sector. Incoming initiatives such as the Green Deal, which will require a large number of accredited and skilled personnel in low-carbon retrofit and refurbishment, could push the annual recruitment requirement figure up further in the coming years.

Figures 9 and 10 demonstrate that, in the next year, demand is set to remain relatively stable (albeit at the current low levels) while the workforce decreases. Only 17% of respondents feel that the construction workforce will increase by 2012.

Only 17% of respondents feel that the construction workforce will increase by 2012.

The real evidence of the effects of the tuition fee rises will not be fully felt on the industry until at least 2015.
Immigration and emigration

FIG. 14. Data from the 2010 CIOB skills survey indicated that respondents had noticed a decrease in the number of migrant workers employed within their organisations, based on levels from the 2008 and 2009 surveys. The data here shows a further decrease, with 20% of respondents reporting a decline. This corresponds with the Migration Policy Institute’s research mentioned earlier, which connected the recession with a decline in migrant workers, particularly those from Eastern Europe.

FIG. 15. 97% of respondents are from the UK, indicating that the term ‘domestic’ in this case applies almost wholly to the UK construction workforce. A slight majority report no change, though over a third have noticed greater levels of personnel emigrating to seek construction work abroad.

On further analysis, respondents indicate that the two most popular destinations for personnel seeking work abroad are in Australia and the Middle East. Australia itself has a significant skills shortage, well-documented in its domestic market, surrounding construction professionals, engineers and project managers. The recent flooding in the country has also seen construction professionals from the UK and Ireland flock to address the temporary gap in skills, with the Australian government fast-tracking over 450 visa applications to assist in reconstruction.

The data from this survey shows a further decrease in migrant workers, with 20% of respondents reporting a decline.
Apprenticeships and graduates

Fig 16 & 16.1: In the 2010 CIOB skills survey, just 3% of respondents stated their organisations were recruiting more apprenticeships. A year on, and 21% are reporting an increase in apprenticeship recruitment, representing an 18% rise. However, this does not negate the fact that 32% of respondents state their organisations are recruiting fewer apprentices, or have terminated apprenticeships.

Fig 17: A slight majority believe the demand for apprenticeships is outstripping supply, even during the current lean period the construction industry is experiencing.

Fig 18 & 18.1: While the majority of respondents report either no change or a decrease in graduate recruitment, there is a 12% increase from the 2010 CIOB skills survey in respondents stating their organisations are recruiting more graduates. Coupled with the above data on apprentice recruitment, this is an encouraging move for the industry in what are still very straitened times.

Fig 19: Respondents were asked to choose up to five specific skills that they felt graduates were lacking to work in the industry. Over 51% of respondents believed technical knowledge was lacking, followed by 45% who believed problem solving skills were lacking. On the whole, resource management, implementing change, encouraging innovation, and project management skills were felt to be skills that graduates need to leave university with. Only 5% felt graduates did leave university with the necessary skills.

Experience is the key message from respondents on how to tackle the perceived lack of skills from graduates.
42% of respondents think that the standards of teaching at universities and colleges in built environment courses do not meet the current and future needs of the construction industry.

The overwhelming response from those 42% of respondents’ comments was that greater integration between academia and industry is required, as suggested in figure 19.1, and that these teaching the courses need regular on-site experience to keep up-to-date on the latest industry thinking.

In the 2010 CIOB skills survey, 63% of respondents believed the greatest threat to the future skills agenda was the lack of apprentice recruitment. Figures from this year show that almost 30% fewer respondents perceive the lack of apprentice recruitment as the biggest threat. Instead, as noted earlier, this has shifted to a focus on the training of apprentices.

**Fig.19.1** Experience is the key message from respondents on how to tackle the perceived lack of skills from graduates. 51% of the sample think that greater utilisation of work placements in needed, which is linked to the greater integration between industry and academia. The theme of mentoring continues, with 37% of respondents believing this will address a lack of relevant skills. Only 13% consider updated university courses to be necessary, suggesting that much of the core content taught at universities is up-to-date and relevant.

**Fig.20** 42%, the majority, of respondents think that the standards of teaching at universities and colleges in built environment courses do not meet the current and future needs of the construction industry.

**Fig.21** A lack of investment in skills from industry and government is highlighted by the majority of respondents (42%) as the biggest threat to the future skills agenda. Comments give the impression that there has been no long-term investment in skills; instead the industry has been reacting to its typical boom and bust cycles.

A lack of well-trained apprentices is noted by over a third of respondents as a threat to the future skills agenda, suggesting investment in apprentices schemes and programmes is needed. A third of respondents note the high levels of redundancies of skilled personnel as a threat, and further comments give the impression that these people may never come back to the industry, widening the skills gap.

### Fig.19.1

Which of the following do you believe would assist in addressing the concern that graduates leave university without the necessary skills to work in the industry? (select up to 3)

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Internship Scheme</td>
<td>23.94%</td>
</tr>
<tr>
<td>Greater Utilisation of Work Placements</td>
<td>51.03%</td>
</tr>
<tr>
<td>‘Sandwich’ Courses</td>
<td>34.23%</td>
</tr>
<tr>
<td>Mentoring</td>
<td>37.24%</td>
</tr>
<tr>
<td>Updated University Courses</td>
<td>12.55%</td>
</tr>
<tr>
<td>Post-Degree Training Courses</td>
<td>12.11%</td>
</tr>
<tr>
<td>Greater Integration Between Industry and Academia</td>
<td>48.95%</td>
</tr>
<tr>
<td>Greater Utilisation of Day and/or Block Release</td>
<td>38.09%</td>
</tr>
<tr>
<td>None</td>
<td>0.01%</td>
</tr>
<tr>
<td>Other</td>
<td>2.88%</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>1.67%</td>
</tr>
</tbody>
</table>

### Fig.20

Do you believe the standard of teaching in built environment courses at universities and colleges meets the current and future needs of the industry?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>33.37%</td>
</tr>
<tr>
<td>No</td>
<td>41.96%</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>24.67%</td>
</tr>
</tbody>
</table>

### Fig.21

What do you think are the biggest threats to the future skills agenda in the construction industry?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Skilled Personnel From Industry and Government</td>
<td>23.39%</td>
</tr>
<tr>
<td>Lack of Well-Trained Apprentices</td>
<td>20.16%</td>
</tr>
<tr>
<td>Not Recruiting English Apprentices in General</td>
<td>24.62%</td>
</tr>
<tr>
<td>Not Attracting People From Other Industries</td>
<td>34.44%</td>
</tr>
<tr>
<td>Ageing Workforce</td>
<td>34.9%</td>
</tr>
<tr>
<td>Lack of a Diverse Workforce</td>
<td>38.9%</td>
</tr>
<tr>
<td>Not Attracting People From Overseas Countries</td>
<td>36.9%</td>
</tr>
</tbody>
</table>
Redundancy or reward?

Fig. 22 & 22.1: 62% of the sample report that their organisation made redundancies during what was an incredibly difficult year for the construction industry. The Office for National Statistics officially reported on over 41,000 construction redundancies in the period June to December 2010 alone. [1]

Of this 62%, the majority report that between 1-10% of the workforce was made redundant. Of the respondents who stated that they are employed in organisations that employ fewer than 20 employees, 24% indicated that a third or more of their workforce has been made redundant, demonstrating the impact the economic situation had on SMEs.

Fig. 23: 25% of organisations are planning to make redundancies in the coming year. On further analysis, 45% of those working at a director or senior management level state that their organisations are not planning to make any redundancies in the next year.

Fig. 24: In data that reflects the aforementioned Panorama research into take-home pay, it is apparent that the majority of respondents and their colleagues have received pay freezes, which, when inflation is taken into account, are actually decreases in real terms. When asked for comments, respondents who stated their organisations provided pay increases noted that they were minimal rises, often in the region of fewer than 1% - technically also a decrease in real terms.

62% of the sample report that their organisation made redundancies during what was an incredibly difficult year for the construction industry.

Cuts to public expenditure in the UK are likely to lead to construction activity languishing or, worse, decline over the next year. This is backed up by the majority of respondents expecting construction demand and the workforce to either decline or remain similar in 2011-12.

The data on pay shows that there is little financial incentive for people to both join and remain in the professional side of the industry, especially as other sectors begin to pick up. Combined with the increase in tuition fees, which respondents have stated will result in fewer graduates and less investment in courses, this provides a bleak long-term picture for those working in construction management roles.

In terms of trade roles, which previous CIOB research has shown as in the greatest demand, the outlook is brighter. Respondents feel that apprenticeship uptake will rise, and this is demonstrated by an 18% increase (based on the 2010 survey) of organisations reporting that they have employed more apprentices in the past year.

University courses require further relevance, through the use of site release, sandwich courses, or other, experienced-based methods. Respondents note that the lack of technical knowledge in graduates needs to be addressed, and on-site, practical application through industry-academia integration is essential to address this.

The CIOB believes management apprenticeships are a key channel for producing future professionals, with the added benefit that they develop the leadership skills needed in the industry today. Apprenticeships have their obvious benefits for the industry, but they also develop those passing on that knowledge as well. Leadership, communication, and management skills are all improved by those who take time to teach others.

The CIOB believes management apprenticeships are a key channel for producing future professionals, with the added benefit that they develop the leadership skills needed in the industry today. Apprenticeships have their obvious benefits for the industry, but they also develop those passing on that knowledge as well. Leadership, communication, and management skills are all improved by those who take time to teach others.
The Chartered Institute of Building

The Chartered Institute of Building (CIOB) represents for the public benefit the most diverse set of construction management professionals.

Our Mission:
To contribute to the creation of a modern, progressive, and responsible construction industry; able to meet the economic, environmental and social challenges faced in the 21st century.

Our 7 Guiding Principles:
- Creating extraordinary people through professional learning and continuous professional development.
- Promoting the built environment as central to the quality of life for everyone everywhere.
- Achieving a sustainable future, worldwide.
- Advocating exemplary ethical practice and behaviour, integrity and transparency.
- Pursuing excellence in management practice, and technological innovation rooted in evidence based science.
- Being socially responsible and working responsibly.
- Enabling our members to find an emotional resonance with the Institute; their success is our success.

We have over 47,000 members around the world and are considered to be the international voice of the construction management professional, representing an unequalled body of knowledge concerning the management of the total building process.

Chartered Member status is recognised internationally as the mark of a true, skilled professional in the construction industry and CIOB members have a common commitment to achieving and maintaining the highest possible standards within the built environment.

The Chartered Building Company and Consultancy Schemes (CBCs) are a vital part of the CIOB, providing the Institute’s members with a further business perspective.

To find out more about the benefits of either individual CIOB membership or CBC schemes go to our website www.ciob.org or call us on +44 (0)1344 630 700 today.