

THE ENGINEERING COUNCIL 2013 SURVEY OF PROFESSIONALLY REGISTERED ENGINEERS AND TECHNICIANS

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1 EXECUTIVE SUMMARY

This survey of registered engineers and technicians is the latest in a series which Electoral Reform Services (ERS) has been conducting every 2-3 years since 1995. All of the surveys have been used to collect information on earnings and in addition each individual survey has been used to explore issues of current interest.

The 2013 survey was conducted by Membership Engagement Services (MES), a business of Electoral Reform Services, on behalf of the Engineering Council.¹ The methodology comprised a combination of postal and online surveys despatched to a total of 19,960 registered engineers and technicians (8.5% of total register and 15% of eligible sample). A combined response rate of 31.7% was achieved, as compared with 27.6% in 2010 and 32.3% in 2007. All four categories of registration were included in the 2013 survey; Engineering Technician (EngTech), Incorporated Engineer (IEng), Chartered Engineer (CEng), and Information and Communications Technology Technician (ICTTech).

The key findings from the 2013 survey are summarised below and, where relevant, comparisons have been made with the key findings of the 2007 and 2010 surveys. However, since this is the first time that ICTTech has been included no historic comparison is possible for that title.

EARNINGS

- Median annual **total** earnings in 2013 were:
 - £40,000 for EngTech, representing an 8.1% increase since 2010
 - £45,500 for IEng, representing a 5.1% increase since 2010
 - £63,000 for CEng, representing a 14.5% increase since 2010
 - £36,306 for ICTTech
- Median annual **basic** incomes not including overtime, bonus and commission payments in 2013 were:
 - £37,000 for EngTech, representing a 5.0% increase since 2010
 - £45,000 for IEng, representing a 9.0% increase since 2010
 - £60,000 for CEng, representing a 14.0% increase since 2010
 - £35,500 for ICTTech
- Median annual **overtime, bonus and commission** payments in 2013 were:
 - £4,000 for EngTech, representing a 20% decrease since 2010
 - £4,000 for IEng, representing a 20% decrease since 2010
 - £6,000 for CEng, representing a 14% decrease since 2010
 - £5,000 for ICTTech
- There was a positive correlation between the age of professionally registered engineers and technicians and median basic income. This positive correlation was present until the age of 55+ years old, when instead a decrease of 1.7% (£1000) was observed in median basic income.

¹ Between 1995 and 2010 these research studies were commissioned by EngineeringUK (formerly the Engineering and Technology Board) on behalf of both organisations.

- The median basic income for male registered engineers and technicians (£55,000) is 19.7% higher than that of female engineers and technicians (£45,941). This median basic income gap persists across all age groups of registered engineers and technicians and is at its lowest among those aged 21 to 24 (6.7%) and its highest among those aged 55 and over (18%).
- The median basic income was £57,000 for registered engineers and technicians in the private sector, £50,000 in the not-for-profit sector, and £49,000 in the public sector.
- Registered engineers and technicians working in the energy industry, including oil and gas, had the highest median (£82,000) and mean (£92,022) basic income.
- Registrants holding a postgraduate level of qualification had a median basic income that was 10.7% higher than registrants holding a graduate level, and 45% higher than registrants whose level of qualification is below graduate level. Contrary to the positive correlation between median basic income and level of qualification seen overall, both EngTechs and IEngs demonstrated a higher median basic income for those with below graduate level of qualifications than those with graduate level qualifications. Across all titles, those with a postgraduate level of qualification showed the highest median basic income.
- Those registrants whose primary place of work is abroad² had the highest median basic income (£100,000) followed by multiple locations in the UK (£70,000), England and Scotland (both £55,000), Wales (£45,000) and N Ireland (£40,000).

REGISTRATION MATTERS

- The proportion of registrants who had their institution membership subscription paid by their employer is 64%. For registration fees the proportion is 59%. It is most common for CEngs to have their subscription and fees paid and least common for ICTTechs.
- The EngTech/IEng/CEng/ICTTech registrations are valued by 86% (87% in 2010) of registrants, including 43% who value them very highly (41% in 2010).
- For those that registered in the past five years, eight out of ten found it straightforward to register. EngTechs are the most positive (96%) about ease of registration.
- Further or Higher Education teaching staff are the main source of raising awareness of professional registration (37%). The second most common source is the registrants' Professional Engineering Institution (33%), followed by their employer (13%).
- The most significant factor in the decision to seek registration is the perception that it will help with career development (78%). Greater professional status (73%) and recognition of skills and experience (67%) are also important.
- While the prospect of enhanced career development is a major motivation for 78% of registrants, 42% agreed that it has been helpful in their career development. 51% state that it has given them greater professional status, 43% state that their professional skills and experiences have been recognised, and 34% state that it has increased their employment opportunities. 20% felt that it has had no impact on their career.
- Attitudes to professional registration are generally positive; nearly all registrants say they would recommend that other engineers and technicians should become registered and that there are definite benefits in being professionally registered. However there is more doubt about the extent to which registered status is valued by employers and colleagues, and whether registration improves earnings or provides job security.

² As this survey covered respondents with a UK registered home address only, 'Abroad' indicates a primary work location outside the UK. 3% of respondents stated that their primary place of work was based outside the UK.

CONTINUING PROFESSIONAL DEVELOPMENT

- There has been a slight decrease (68% in 2013 as compared to 72% in 2010) in the proportion that recognise the importance of Continuing Professional Development (CPD) in maintaining their professional registration and ensuring skills and experience are up-to-date. More than eight out of ten believe they are able to keep their engineering competence adequately up to date for their current role.
- Among those doubtful of their ability to keep their engineering competence up to date, there were requirements for on-line access to training courses (29%), paid leave to attend courses (24%), more financial support from employers for training (21%), a better range of training courses at their place of work (20%), and opportunities to broaden experience at workplace (18%).
- Half of the registrants claim to plan their professional development objectives and more than half (59%) maintain a record of professional development activities, although both planning and keeping a record are more prevalent among more recent registrants.

2 BACKGROUND

2.1 Engineering Council

The Engineering Council (EngC) is the regulatory body for the engineering profession in the United Kingdom. It holds the national registers of over 235,000 Engineering Technicians (EngTech), Incorporated Engineers (IEng), Chartered Engineers (CEng), and Information and Communications Technology Technicians (ICTTech).

It periodically conducts research into earnings of professionally registered engineers and technicians.

2.1.1 Membership Engagement Services

Since 1995 the research department of Electoral Reform Services (ERS) has regularly been commissioned to carry out research amongst registered engineers and technicians in the UK. In January 2013, the ERS research department was merged into Membership Engagement Services (MES), a wholly-owned subsidiary of ERS. Consequently the 2013 Survey of Professionally Registered Engineers and Technicians was conducted by MES on behalf of the Engineering Council.³

2.1.2 Objectives

The objectives of this report and research were to:

- Obtain up to date information on the basic income, overtime, bonus, commission payments and total earnings amongst professionally registered engineers and technicians
- Provide a snapshot of the current state of employment
- Identify registrants' perceptions of the benefits of professional registration and the registration process
- Gain insight into Continuing Professional Development
- Monitor trends and make direct comparisons with the 2007 and 2010 report findings where appropriate

³ Between 1995 and 2010 these research studies were commissioned by EngineeringUK (formerly the Engineering and Technology Board) on behalf of both organisations.

3 METHOD

The research was conducted as a postal self-completion survey and an online survey. A random sampling technique was carried out on the national register of engineers and technicians to obtain a sample of 19,960 registrants. This random sample consisted of 13,127 registrants for the postal survey and 6,833 registrants for the online survey.⁴

POSTAL SURVEY

Covering letters, paper surveys and pre-paid envelopes (for respondents to return the self-completion survey) were sent to 13,127 postal recipients inviting them to take part in the survey. The field work was carried out over 30 days.

A copy of the postal survey and covering letters are included in the Appendices.

ONLINE SURVEY

Emails that included unique security codes and a link to the online survey were sent to 6,833 online recipients. The data collection and field work was conducted over 24 days.

3.1 Sample

The inclusion criteria for the sample consisted of professionally registered engineers and technicians from all licensed Professional Engineering Institutions (PEIs), under the age of 65 years old and living in the UK.

To ensure that the sample size was sufficient for data analysis, oversampling of potential respondents from certain target groups (new registrants who registered in the last five years, women, small institutions, EngTech, IEng and ICTTech) was carried out. The data was subsequently weighted to return these groups to their correct proportion in the total sample. A detailed description of the random sampling selection, oversampling and weighting methodology can be found in the Appendices.

Data analysis was carried out by age, gender, institution, registrant title and length of registration.

⁴ Email addresses were used whenever possible as this is a cost effective survey method. Where email addresses were not made available to EngC, postal surveys were carried out.

4 SURVEY RESPONSE

4.1 Response rates

The table below shows the response rate for the postal survey, online survey and an overall combined response rate.

Table 1: Postal, online and combined response rate for the 2013 survey of professionally registered engineers and technicians

Survey	Total number of surveys despatched	Total number of respondents	Response rate (%)
Postal	13,127	3,849	29.3%
Online	6,833	2,472	36.2%
Combined (postal and online)	19,960	6,321	31.7%

Table 2 below illustrates the response rates for the postal surveys in 2007, 2010 and 2013.

Table 2: Postal survey response rates for 2007, 2010 and 2013

Year	Total number of surveys despatched	Total number of respondents	Response rate (%)
2007	10,000	3,238	32.3%
2010	10,000	2,755	27.6%
2013	13,127	3,849	29.3%

5 MAIN FINDINGS

5.1 Basic income

Data on the basic income of professionally registered engineers and technicians was collected in 2007, 2010 and 2013. In all surveys, respondents were asked to enter their gross basic income from employment as at 5th April for that particular tax year. This included any London or large town allowance, before the deduction of Income Tax, National Insurance and pension contributions. Additionally respondents were instructed to exclude any overtime, bonus, commission payments, unearned income and pension from previous employment.

Self employed registered engineers and technicians were asked to state their net profit before tax for the particular tax year in question.

The table below illustrates the percentage change of median basic income between 2007, 2010 and 2013 by titles. Direct comparisons indicate that the median basic income has increased for all registrants in all sections of registration since 2007. Please note that comparisons were not made for *ICTTech* as this title launched in 2009, and was therefore not surveyed in 2010.

Table 3: Median basic income and percentage change from 2007, 2010 and 2013 by title

Base: All employees, self-employed and contract workers who reported a basic income

Titles	2007	2010	2013	2007 to 2010 % change	2010 to 2013 % change	2007 to 2013 % change
EngTech	£31,000	£35,000	£37,000	+12.9%	+5.0%	+19.4%
IEng	£40,000	£41,345	£45,000	+3.3%	+9.0%	+12.5%
CEng	£48,000	£52,609	£60,000	+9.6%	+14.0%	+25.0%
ICTTech			£35,500			

MEDIAN BASIC INCOME

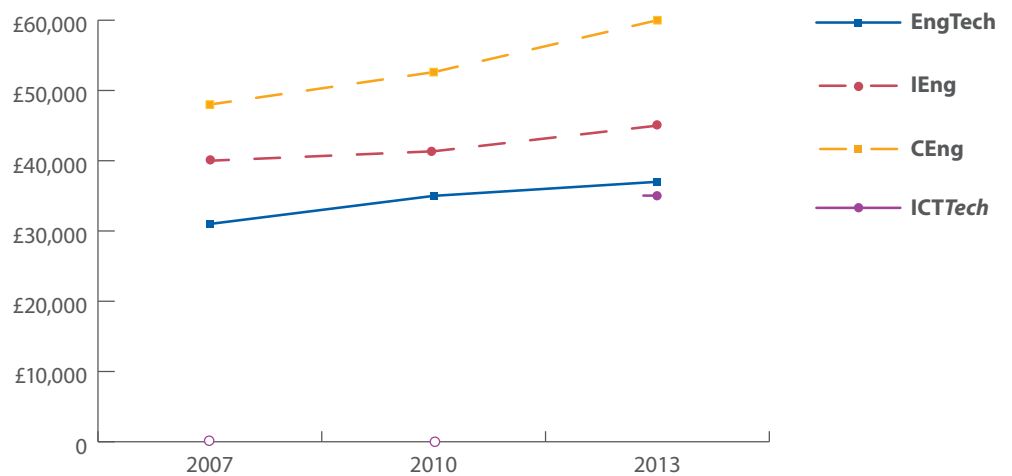
Between 2010 and 2013, the median basic annual income for CEngs increased by 14% from £52,609 to £60,000. This represents the largest increase in median basic annual income for any title between 2010 and 2013, and amounts to a 25% increase for CEngs from 2007 to 2013.

Over the past 6 years there has been a steady increase in the median basic income amongst IEngs.

There was also a progressive rise in median basic income amongst EngTechs, with the largest percentage increase (of 12.9%) from 2007 to 2010. The data from 2010 to 2013 revealed a median basic income increase of 5% from £35,000 to £37,000.

Figure 1: Median basic income in 2007, 2010 and 2013 by title

Base: All employees, self-employed and contract workers who reported a basic income

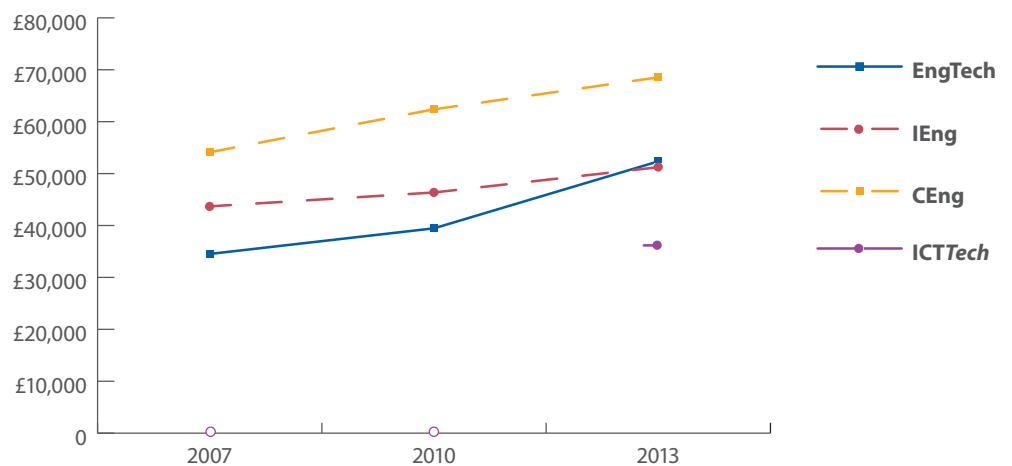


MEAN BASIC INCOME

Mean basic annual income has increased across all titles recorded since 2007, with EngTechs demonstrating the largest shift (32.7%) from 2010 to 2013.

Figure 2: Mean basic income in 2007, 2010 and 2013 by title

Base: All employees, self-employed and contract workers who reported a basic income



5.2 Basic income by demographics

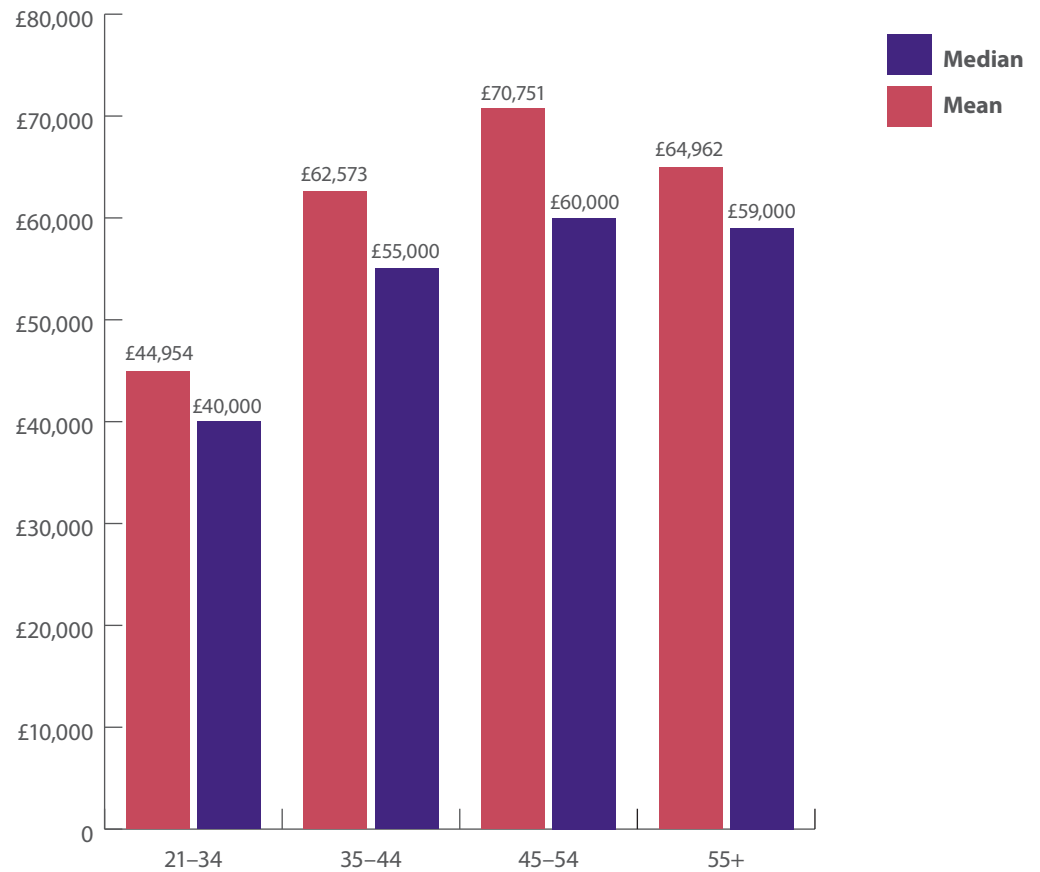
The following section analyses the median and mean basic income of professionally registered engineers and technicians from the 2013 postal and online survey. The data analysis for basic income was carried out by gender, age, employment sector, industry, level of qualification and location of primary place of work.

5.2.1 Basic income by age

The analysed data revealed that there was a positive correlation between the age of professionally registered engineers and technicians and basic income. This positive correlation was evident until the age of 55+ years old.

The median basic income for those aged 55+ was 1.7% (£1000) lower than registered engineers and technicians aged 45 to 54 years old.

Figure 3: Median and mean basic income by age (2013)



Base: All employees, self-employed and contract workers who reported a basic income

5.2.2 Basic income by gender

Professionally registered male engineers and technicians had a higher median and mean basic income in comparison to females. The median basic income for male registered engineers and technicians (£55,000) is 19.7% higher than that of females (£45,941).

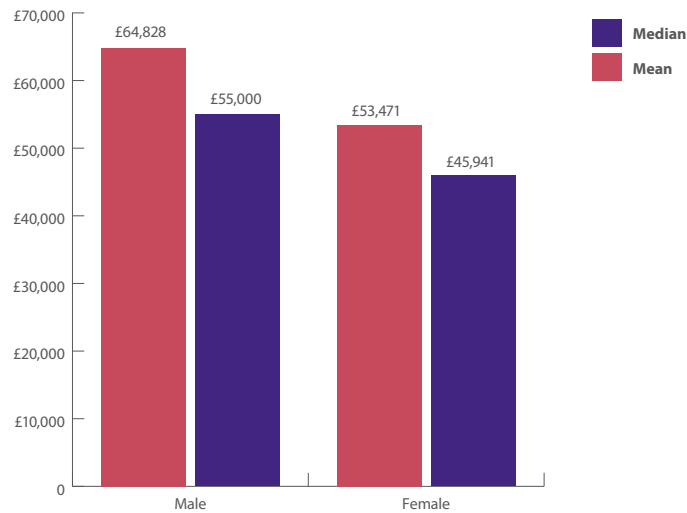
Table 4 details the basic income amounts and Figure 4 illustrates the difference in basic income by gender based on all respondents and with no other factors taken into account.

Table 4: Median and mean basic income of male and female professionally registered engineers and technicians (2013)

	Male	Female
Mean	£64,828	£53,471
Median	£55,000	£45,941

Base: All employees, self-employed and contract workers who reported a basic income

Figure 4: Median and mean basic income by gender (2013)



Base: All employees, self-employed and contract workers who reported a basic income

Figure 5 provides a breakdown of median basic income by gender and age. Responding female registered engineers and technicians consistently demonstrate a lower median basic income than their male counterparts across all age groupings. This gap is the narrowest for those aged 20 to 34, where the male median basic income is 6.7% higher, and is at its widest for those aged 55 and over, where the male median basic income is 18% higher than that of female registrants.

Figure 5: Median basic income by gender and age (2013)



Base: All employees, self-employed and contract workers who reported a basic income

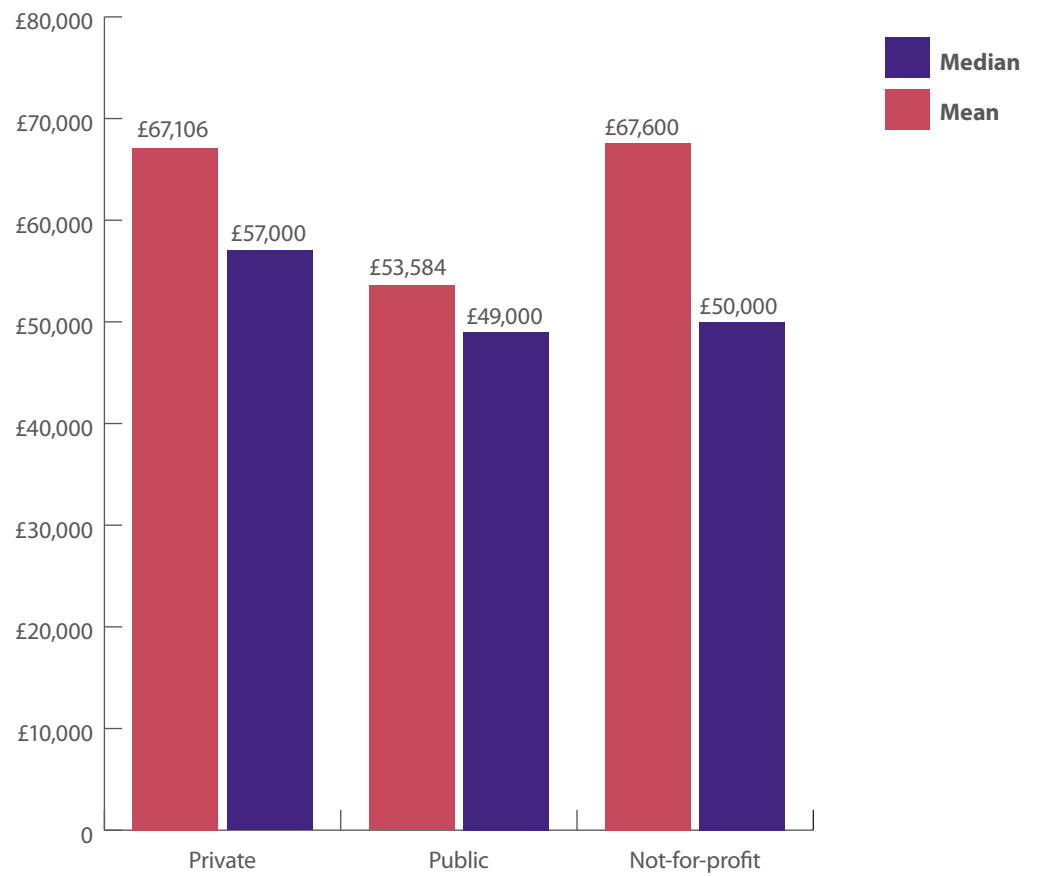
5.2.3 Basic income by sector

Registered engineers and technicians working in the private sector had the highest median and mean basic income in comparison to those working in the not-for-profit and public sectors.

The median basic income was £57,000 for registered engineers and technicians in the private sector, £50,000 in the not-for-profit sector and £49,000 for those working in the public sector.

The median basic income for registered engineers and technicians in the private sector was 14% higher than those working in the not-for-profit sector and 16.3% higher than those working in the public sector.

Figure 6: Median and mean basic income by sector (2013)



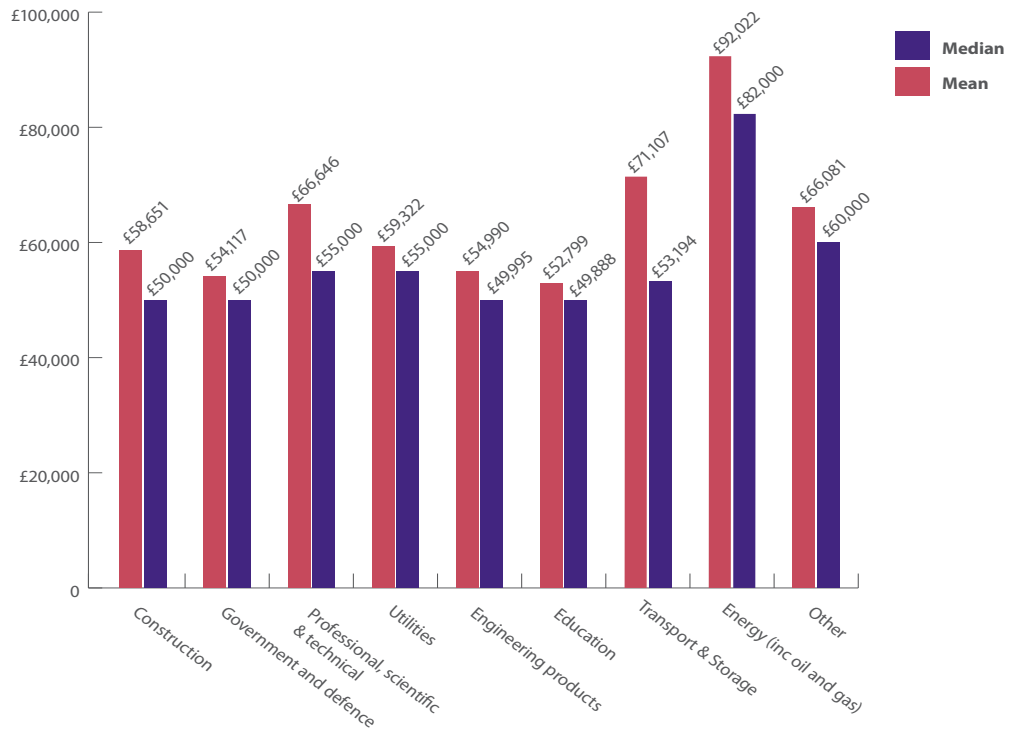
Base: All employees, self-employed and contract workers who reported a basic income

5.2.4 Basic income by industry

The results from the data collected shows that registered engineers and technicians working in the energy industry, including oil and gas, had the highest median (£82,000) and mean (£92,022) basic income.

The median basic income ranged from £49,888 for registered engineers and technicians working in education to £82,000 for those in the energy (including oil and gas) industry. Registered engineers and technicians in the construction, government and defence, professional, scientific and technical, utilities and transport and storage industry had a median basic income from £50,000 to £55,000.

Figure 7: Median and mean basic income by industry (2013)



Base: All employees, self-employed and contract workers who reported a basic income

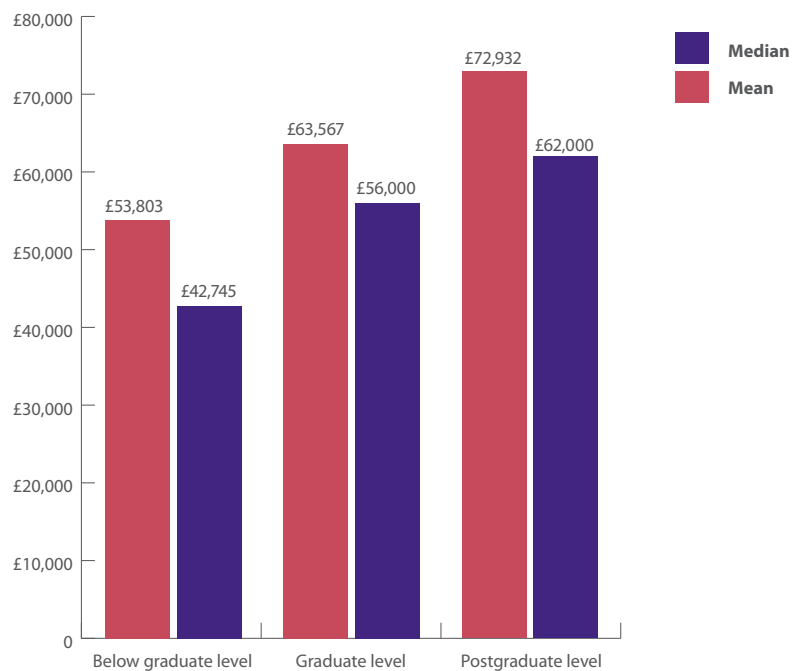
5.2.5 Basic income by level of academic or vocational qualification

There was a positive correlation between the median and mean basic income and level of qualification. Registered engineers and technicians who possessed a higher and more advanced level of qualification had a greater basic income.

For the purpose of reporting and analysis, levels of qualification were categorised as below graduate level, graduate level, and postgraduate level. Figure 8 below illustrates the rise in median and mean basic income by advancing levels of qualification.

Registered engineers and technicians who possessed a postgraduate level of qualification had a median basic income of £62,000. This figure is 10.7% higher than that of engineering professionals who hold a graduate level (median basic income of £56,000) and 45% higher than that of engineers and technicians whose level of qualification is below graduate level (median basic income of £42,745).

Figure 8: Median and mean basic income by highest level of qualification (2013)



Base: All employee, self-employed and contract workers who reported a basic income

Table 5 below shows the breakdown of median basic income by title and highest level of qualification.

Contrary to the positive correlation between the median basic income level and level of qualification seen overall in Figure 8, both EngTech and IEng demonstrated a higher median basic income for those with below graduate level qualifications than those with graduate level qualifications. Across all titles, those with a postgraduate level of qualification showed the highest median basic income.

Table 5: Median basic income by title and highest level of qualification (2013)

	Total	EngTech	IEng	CEng	ICTTech
Below graduate level	£42,745	£37,000	£45,000	£53,000	£34,250
Graduate level	£56,000	£36,000	£43,015	£58,000	£34,478
Postgraduate level	£62,000	£48,000	£47,000	£63,250	£42,500

Base: All employee, self-employed and contract workers who reported a basic income

5.2.6 Basic income by location of primary place of work

Registered engineers and technicians whose primary place of work was based abroad⁵ had the highest mean (£105,914) and median (£100,000) basic income. The next highest median basic income was for engineering professionals who work in multiple locations in the UK (£70,000), followed by registered engineers and technicians who work in England and Scotland (£55,000). Professionally registered engineers and technicians whose primary place of work is based in Northern Ireland had the lowest median basic income of £40,000.

Table 6 provides the figures of the median and mean basic income by location of primary place of work. In addition, Figure 9 illustrates the findings in a chart format.

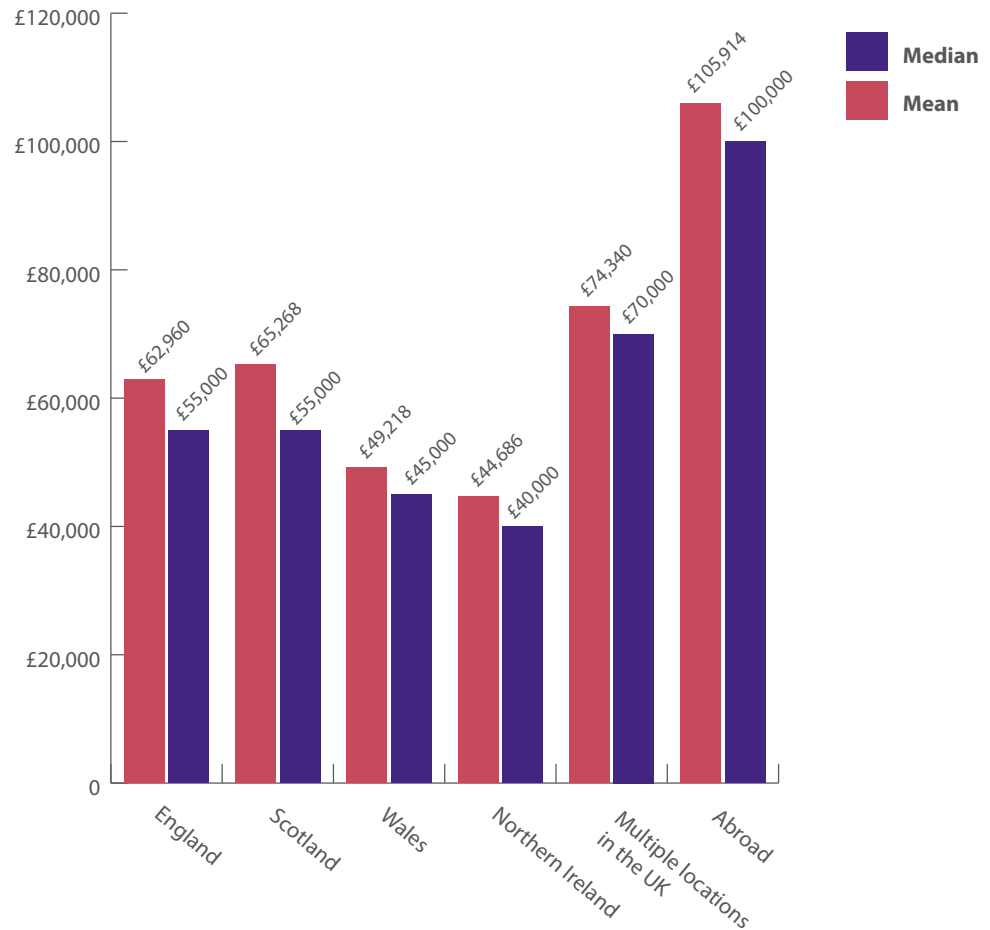
Table 6: Median and mean basic income by location (2013)

Base: All employee, self-employed and contract workers who reported a basic income

	England	Scotland	Wales	Northern Ireland	Multiple locations in UK	Abroad
Mean	£62,960	£65,268	£49,218	£44,686	£74,340	£105,914
Median	£55,000	£55,000	£45,000	£40,000	£70,000	£100,000

Figure 9: Median and mean basic income by location of primary place of work (2013)

Base: All employee, self-employed and contract workers who reported a basic income



⁵ As this survey covered respondents with a UK registered home address only, 'Abroad' indicates a primary work location outside the UK. 3% of respondents stated that their primary place of work was based outside the UK.

5.2.7 Basic income by percentile and title

The table below shows the mean basic income by the tenth, fiftieth and ninetieth percentile for the four titles. CEngs had the highest basic income for each percentile, followed by IEngs, EngTechs and ICTTechs.

Table 7: Percentile of mean income by title (2013)

Base: All employee, self-employed and contract workers who reported a basic income

Percentile	EngTech	IEng	CEng	ICTTech
10%	£25,000	£31,000	£38,000	£20,000
50%	£37,000	£45,000	£60,000	£35,500
90%	£63,500	£76,316	£110,000	£48,000

Figure 10 illustrates the distribution of the mean basic income by percentile and by titles. Between the fiftieth and ninetieth percentile CEngs had the largest difference in mean basic income, indicating that the top 50% of these registrants had an income that was significantly higher than that of IEngs, EngTechs and ICTTechs.

Figure 10: Mean basic income by tenth, fiftieth and ninetieth percentile and by title (2013)

Base: All employee, self-employed and contract workers who reported a basic income

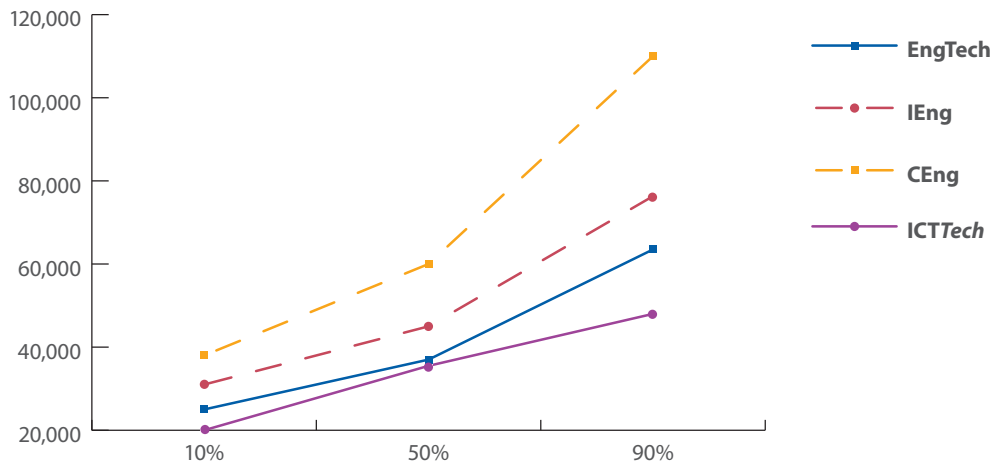


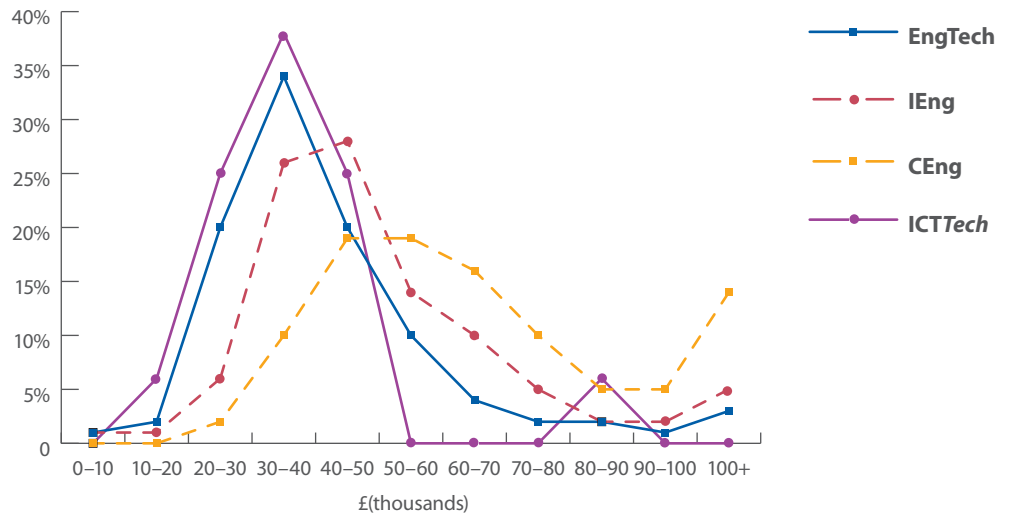
Figure 11 illustrates the distribution of percentage of basic income by titles. The data analysis revealed that the majority of CEngs had a basic income between £40,000 and £70,000 and 14% of these registrants had a salary of over £100,000.

The percentage of basic income for IEngs and EngTechs had a normal distribution with a left skew.

A large minority (38%) of ICTTechs had a basic income of £30,000 to £40,000. The peak (6%) between £80,000 and £90,000 for ICTTech should not be treated as significant due to the low number of responses for this title.

Figure 11: Distribution of basic income by title (2013)

Base: All employee, self-employed and contract workers who reported a basic income



5.3 Overtime, bonus and commission payments

Data for overtime, bonus and commission payments was collected in 2007, 2010 and 2013. All respondents were asked to enter the amount they received for these payments in the 12 months to the 5th April for the year in question.

The table below compares the median overtime, bonus and commission payments in addition to detailing the percentage change between the years from 2007 to 2013. Since ICTTechs were not surveyed in 2007 and 2010, no historic data is available for comparison.

Table 8: Median overtime, bonus and commission payments and percentage change from 2007, 2010 and 2013 by title

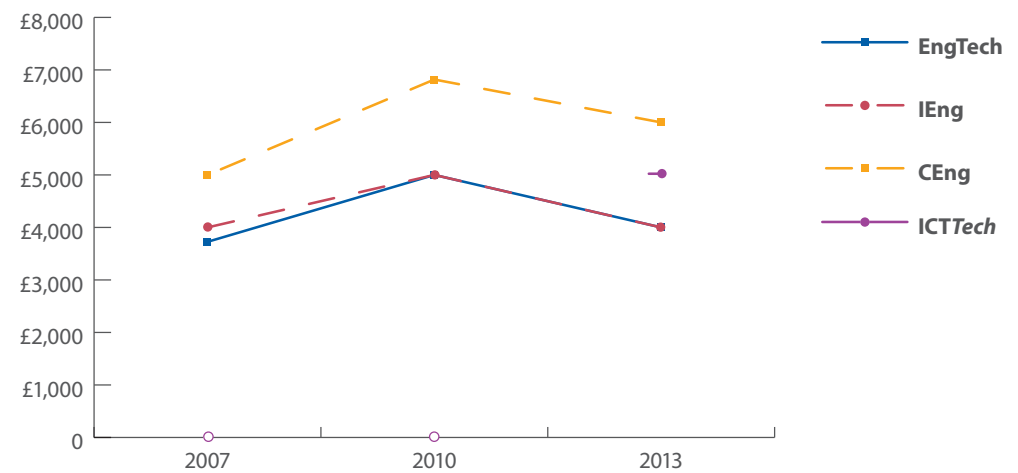
Base: All employee and contract workers who reported overtime, bonus and commission payments

Titles	2007	2010	2013	2007 to 2010 % change	2010 to 2013 % change	2007 to 2013 % change
EngTech	£3,726	£5,000	£4,000	+34.2%	-20%	+7.4%
IEng	£4,000	£5,000	£4,000	+25%	-20%	0%
CEng	£5,000	£6,817	£6,000	+36.3%	-14%	+20%
ICTTech			£5,000			

From 2007 to 2010, all registrants in the three titles with historic data (EngTech, IEng and CEng) had an increase in bonus payments. Direct comparisons with the data collected in 2010 and 2013 revealed a reduction in bonuses across all titles. EngTechs and IEngs had the largest reduction of 20% in bonus payments from 2010 to 2013.

Figure 12: Median overtime, bonus and commission payments in 2007, 2010 and 2013 by title

Base: All employee and contract workers who reported overtime, bonus and commission payments



Although EngTechs experienced an increase of £507 (6.2%) in mean bonus payments from 2010 to 2013, IEngs and CEngs saw a reduction over the same period. Table 9 below displays the figures for the mean bonus payments for registrants since 2007.

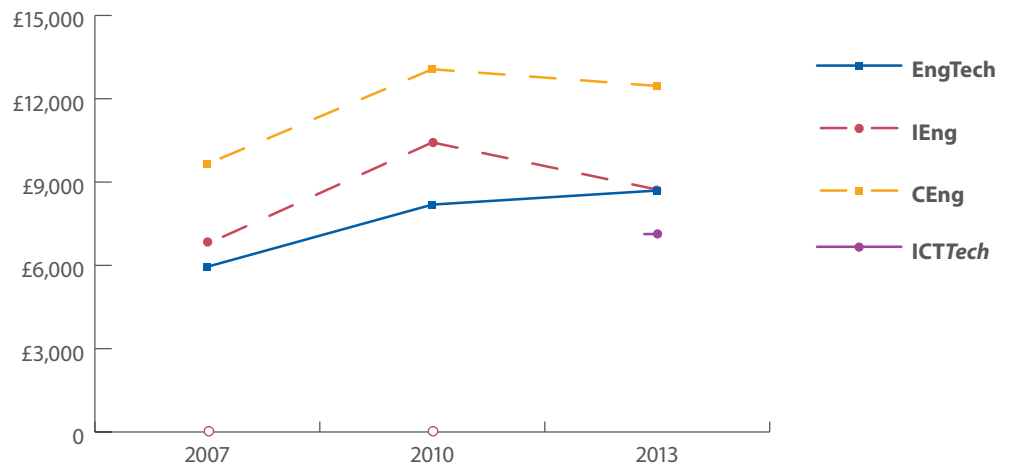
Table 9: Mean overtime, bonus and commission payments in 2007, 2010 and 2013 by title

Base: All employee and contract workers who reported overtime, bonus and commission payments

	EngTech	IEng	CEng	ICTTech
2007	£5,950	£6,777	£9,653	N/A
2010	£8,188	£10,427	£13,063	N/A
2013	£8,695	£8,728	£12,728	£7,143

Figure 13: Mean overtime, bonus and commission payments in 2007, 2010 and 2013 by title

Base: All employees and contract workers who reported overtime, bonus and commission payments



5.4 Total earnings (basic income combined with overtime, bonus and commission payments)

Information on the total earnings of professionally registered engineers and technicians was collected in 2007, 2010 and 2013. The rate of total earnings was calculated by combining the sum of basic income and overtime, bonus and commission payments.

Table 10: Median total earnings and percentage change in 2007, 2010 and 2013 by title

Base: All employee, self employed and contract workers who reported a basic income

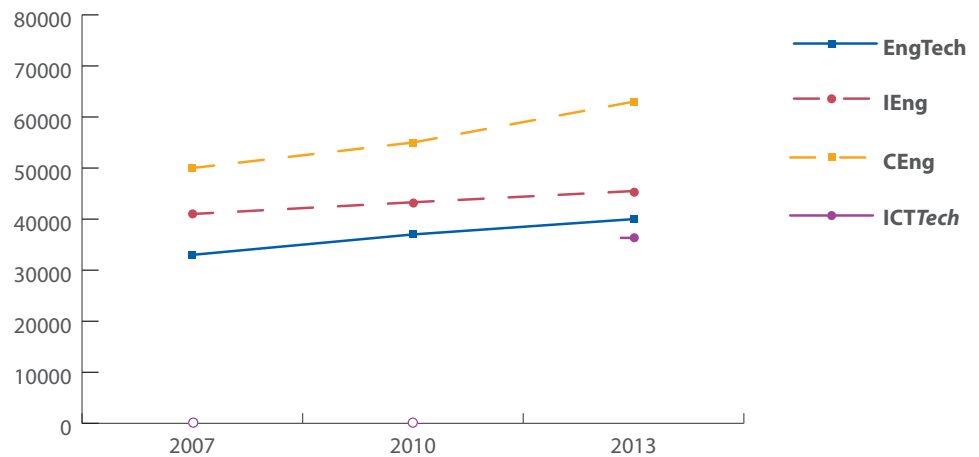
Titles	2007	2010	2013	2007 to 2010 % change	2010 to 2013 % change	2007 to 2013 % change
EngTech	£33,000	£37,000	£40,000	+12.1%	+8.1%	+21.2
IEng	£41,000	£43,300	£45,500	+5.6%	+5.1%	+11.0%
CEng	£50,000	£55,000	£63,000	+10.0%	+14.5%	+26.0%
ICTTech			£36,306			

MEDIAN TOTAL EARNINGS

The median total earnings for EngTechs, IEngs and CEngs significantly increased from 2007 to 2010 and from 2010 to 2013. Between 2010 and 2013, CEngs had the largest percentage increase (14.5%) in combined earnings from £55,000 to £63,000. EngTechs had an increase of 8.1% and IEngs had an increase of 5.1% in total earnings since 2010.

Figure 14: Median total earnings in 2007, 2010 and 2013 by title

Base: All employee, self employed and contract workers who reported a basic income

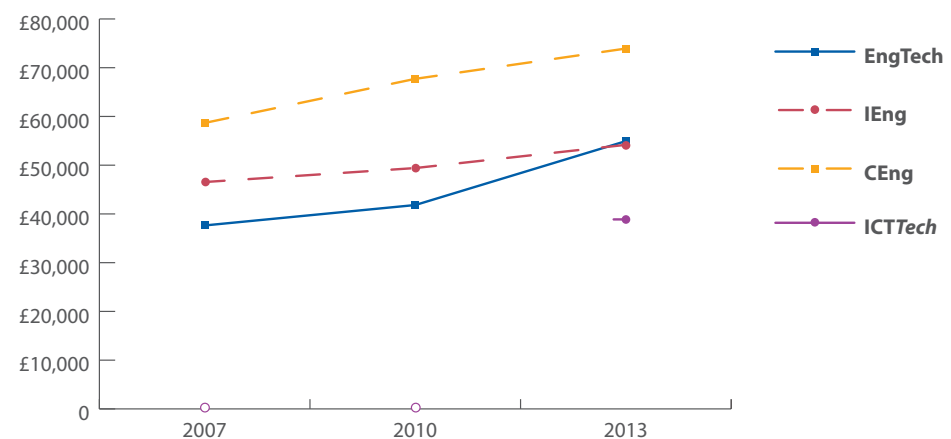


MEAN TOTAL EARNINGS

Mean total earnings have increased across all titles recorded since 2007. EngTechs demonstrated the largest shift (31.3%) from 2010 to 2013, bringing them nearly level with IEngs, who in 2010 displayed mean total earnings 18.1% higher than EngTechs.

Figure 15: Mean total earnings in 2007, 2010 and 2013 by title

Base: All employee, self employed and contract workers who reported a basic income



5.5 Current employment status

The majority of respondents in the 2013 survey were in employment. Just 1% of respondents identified themselves as unemployed and seeking re-employment. The data also revealed that 11% of respondents were self-employed and 9% retired early, were retired or were partially retired. The table below provides a snapshot of the current employment status of professionally registered engineers and technicians.

Table 11: Current employment status of respondents in the 2013 survey of professionally registered engineers and technicians

Current employment status	% of respondents
Employee	76%
Self-employed	11%
Contract worker	2%
Retired early, retired or partially retired	9%
Unemployed and seeking re-employment	1%

Base: All responding registered engineers and technicians

5.6 Registration matters

Specific questions and sections in the survey dealt with matters relating to registration and factors associated with being a registrant. These registration variables included the value placed on registration and institution membership, sources of awareness of the registration scheme, ease of registration, factors affecting registration and the impact of professional registration on the career of registered engineers and technicians.

5.6.1 Financial support from employer

INSTITUTION MEMBERSHIP FEE

The proportion of employers who pay the subscription for institution membership has increased significantly from 2010 to 2013. Table 12 shows the percentage of registrants who had their institution membership paid for by their employer.

Table 12: Percentage of registrants by title who had their institution membership paid for by their employer in 2010 and 2013

Titles	% respondents who had their institution membership paid for in 2010	% respondents who had their institution membership paid for in 2013
EngTech	43%	50%
IEng	51%	57%
CEng	61%	68%
ICTTech		29%

Base: All employee and contract workers

REGISTRATION FEE

In 2013 59% of CEngs had their registration fee paid by their employer, followed by 54% of IEngs; 46% of EngTechs and 39% of ICTTechs.⁶

Overall, the willingness of employers to offer financial support in terms of paying for institution membership and registration fees continues to increase.

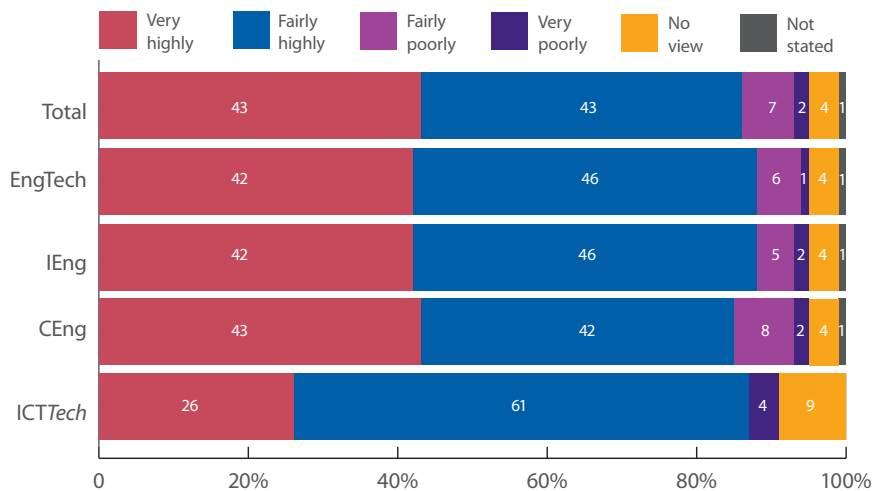
⁶ This is the first time this data has been collected independently.

5.6.2 Value placed on registration

Data relating to the value placed on **registration** was collected in the 2013 survey. Direct comparisons were not made with the 2010 report findings as the questions asked in the surveys were not identical. Consequently, analysis between like for like questions has not been carried out in the following section.

Across all titles, registrants valued their **registration** highly as shown in Figure 16.

Figure 16: Total responses of registrants who value their registration by title (2013)



Base: All responding registered engineers and technicians

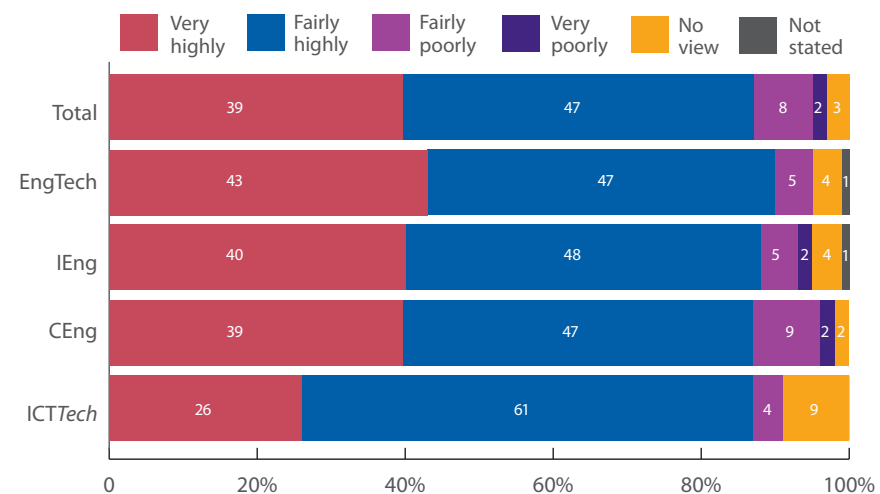
5.6.3 Value placed on institution membership

Figure 17 illustrates that almost all registrants placed a high value on their **institution membership**.

EngTech had the highest response rate for valuing their **institution membership** very highly (43%) whilst ICTTech had the lowest percentage (26%). Conversely, ICTTech had the highest response rate (61%) for valuing their **institution membership** fairly highly as compared with just under half of respondents for EngTech (47%), IEng (48%) and CEng (47%).

The highest percentage of responses for registrants who value their **institution membership** fairly poorly was amongst CEng, with a response rate of 9%.

Figure 17: Total responses of registrants who value their institution membership by title (2013)



Base: All responding registered engineers and technicians

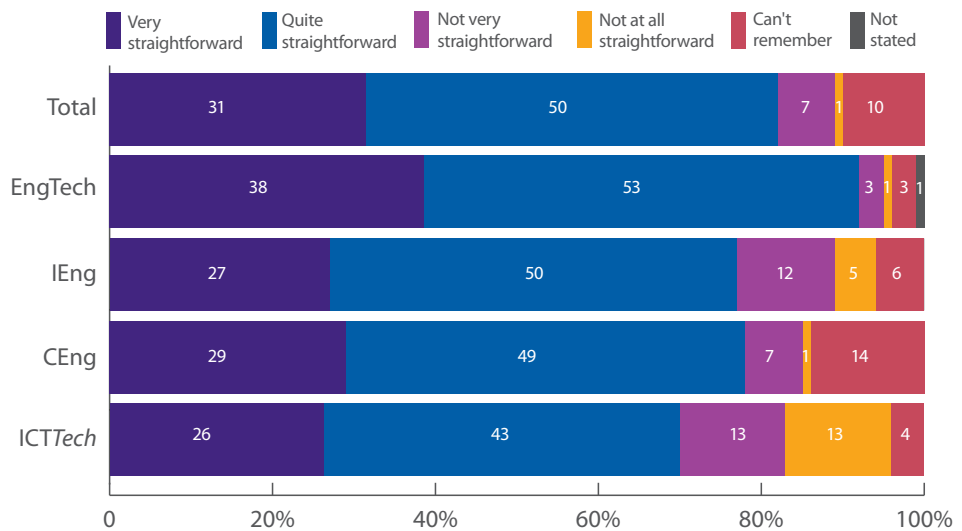
5.6.4 Registration process

The following results relate to the registration process from the data collected in the 2013 survey. Direct comparisons could not be made with 2010 findings as the questions asked in the surveys were not identical.

EngTechs who registered in the past five years found the registration process the most straightforward (96% answered very or quite straightforward), followed by CEngs (78%), IEngs (77%) and ICTechs (69%).

Figure 18: Responses of new registrants (registered in the past five years) relating to the straightforwardness of the registration process by title (2013)

Base: All responding registered engineers and technicians who became registered in the past five years

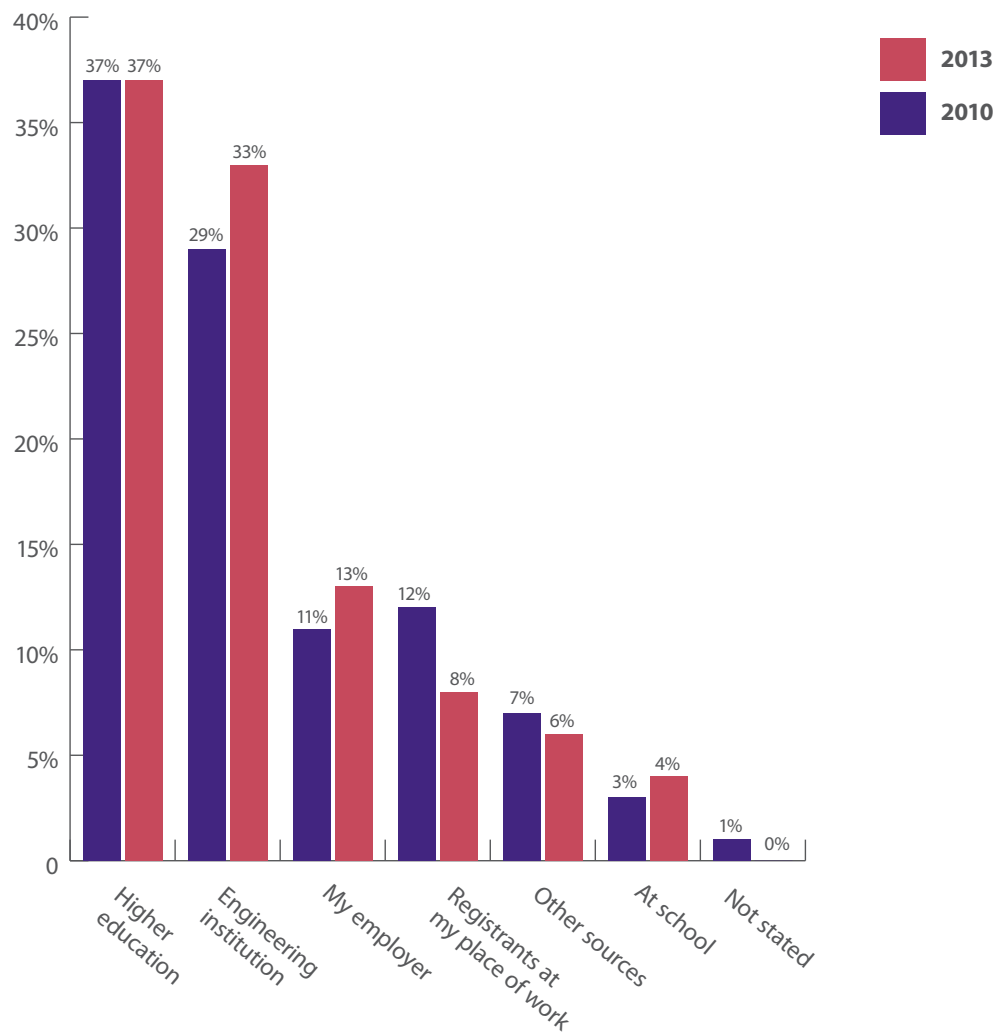


5.6.5 Source of awareness of professional registration

The results from the 2013 data analysis revealed a parallel trend to the 2010 report findings. The information obtained highlighted that over a third of all respondents (37%) were first made aware that engineers and technicians could become professionally registered by the teaching staff during their further or higher education.

The second largest percentage (33%) relating to the source of awareness associated with professional registration was from the engineering institution that the registrants had joined. Figure 19 below illustrates how the data obtained in 2013 follows a similar trend to that of 2010.

Figure 19 : Source of awareness of professional registration by year (2010 & 2013)



Base: All responding registered engineers and technicians

Figures 20 and 21 break down the source of awareness of professional registration, showing the response rates for registered engineers and technicians respectively.

Figure 20 : Source of awareness of professional registration by title (IEng and CEng, 2013)

Base: All responding registered IEngs and CEngs (2013)

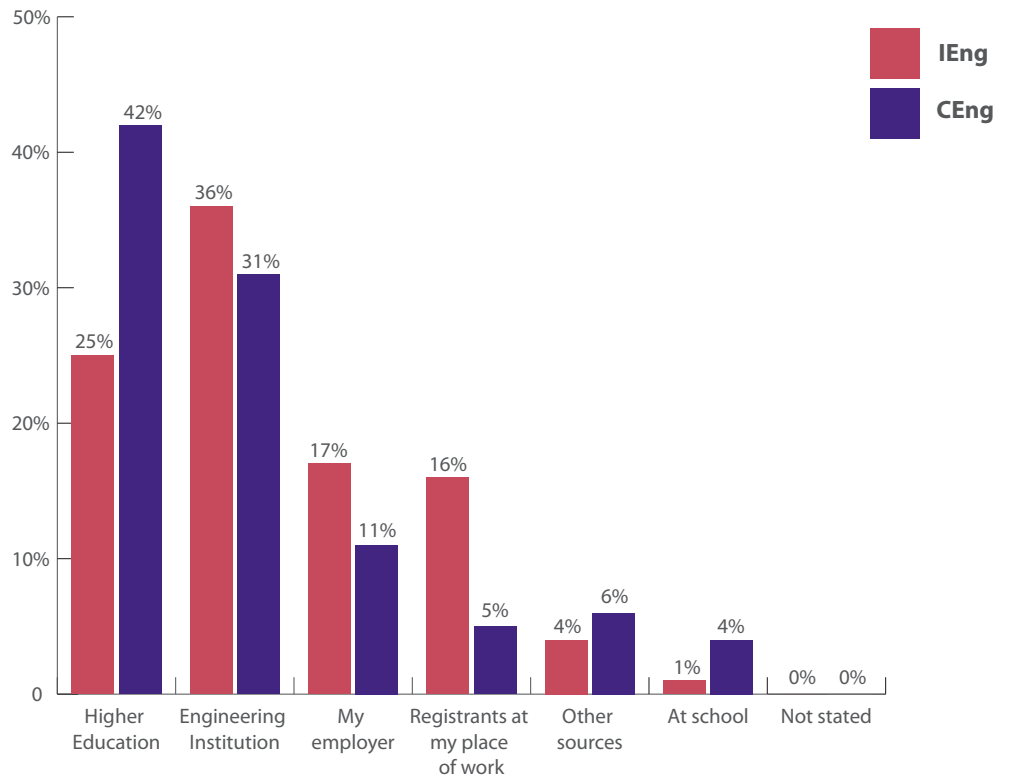


Figure 21 : Source of awareness of professional registration by title (EngTech and ICTech, 2013)

Base: All responding registered EngTechs and ICTechs (2013)

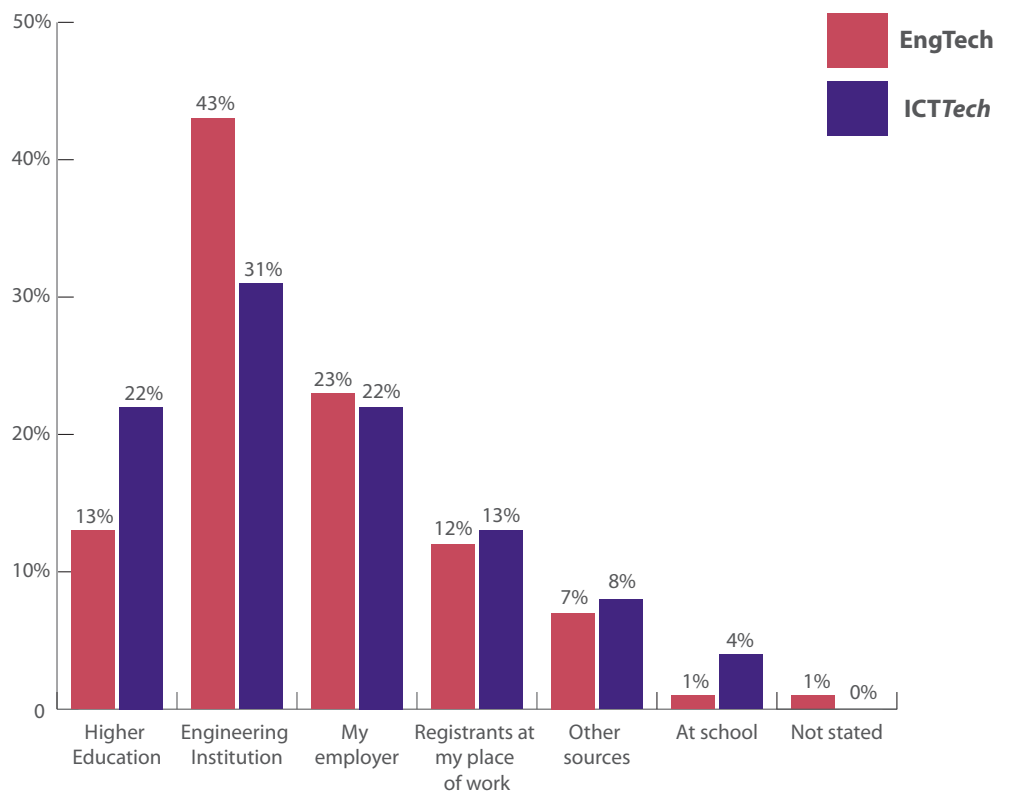


Table 13 provides the full breakdown of source of awareness of professional registration by title. EngTechs were the most likely (43%) to have been made aware of registration by their Engineering Institution. CEngs were the most likely (42%) to be made aware of registration during higher education and EngTechs were the least (13%).

Table 13: Source of awareness of professional registration by title (2013)

	Total 2013	EngTech	IEng	CEng	ICTTech
Higher Education	37%	13%	25%	42%	22%
Engineering Institution	33%	43%	36%	31%	31%
My employer	13%	23%	17%	11%	22%
Registrants at my place of work	8%	12%	16%	5%	13%
Other sources	6%	7%	4%	6%	8%
At school	4%	1%	1%	4%	4%
Not stated	0%	1%	0%	0%	0%

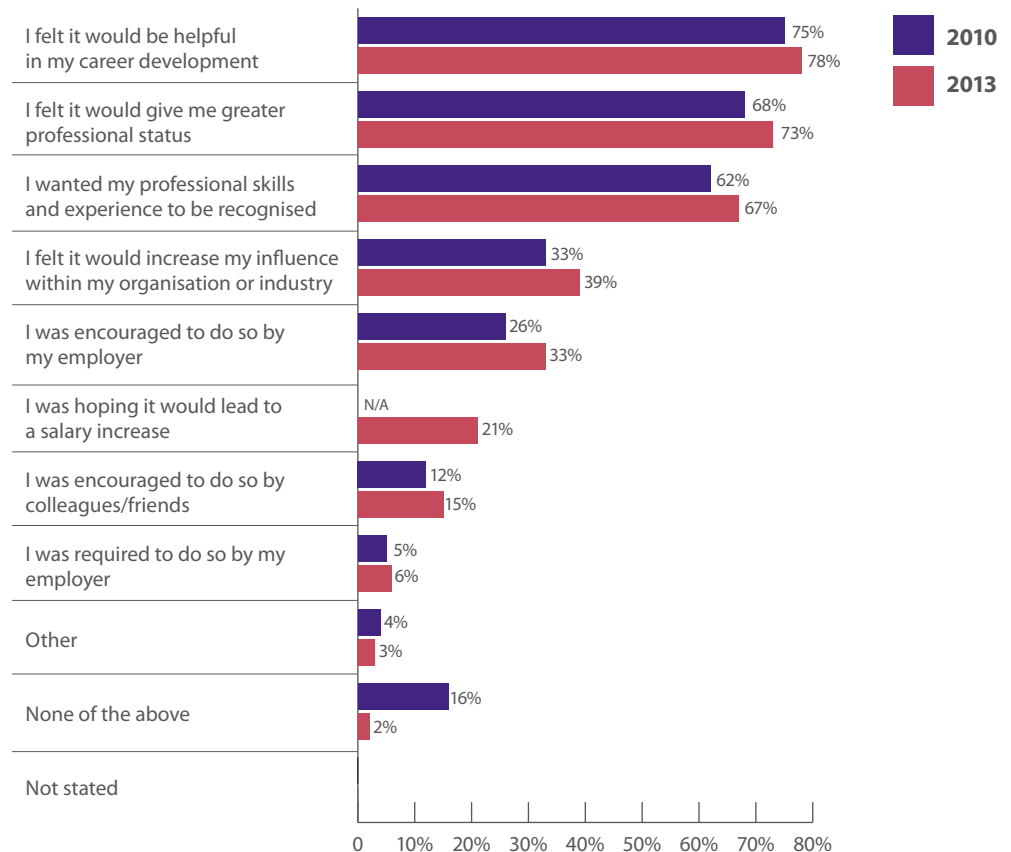
Base: All responding registered engineers and technicians

5.6.6 Significant factors in decision to seek registration

Following a list of variables provided in question 8, respondents were asked to indicate all the significant factors that applied to them in their decision to seek professional registration. Comparisons with the 2010 and 2013 data indicate that the results followed a similar pattern. The 2013 survey consisted of an additional question that was not asked in 2010. This was “I was hoping it would lead to a salary increase” that resulted in a 21% response rate.

Figure 22 shows that “I felt it would be helpful in my career development” was the most prominent factor (78%) in the decision to seek registration in 2010 and 2013.

Figure 22: Factors relating to decision making to seek professional registration (2010 & 2013)



Base: All responding registered engineers and technicians

5.6.7 Impact of professional registration on career

Comparable analysis with the 2007 and 2010 data was not made for the following section as the questions asked in the surveys were not identical to those asked in 2013.

Findings from the 2013 survey showed that 51% of registrants across all sections of registration felt that professional registration had impacted their career, as it had given them greater professional status.

There were some differences in the responses obtained between male and female registered engineers and technicians. The largest percentage difference was seen for the statement "It has increased my confidence" with 35% of females and 24% of males agreeing.

Table 14: Impact of professional registration on career by title and gender (2013)

	Total 2013 %	EngTech %	IEng %	CEng %	ICTTech %	Male %	Female %
It has been helpful in my career development	42	29	38	44	22	42	42
It has increased my influence within my organisation or industry	25	20	18	28	4	26	22
It has given me greater professional status	51	39	45	54	47	51	52
My professional skills and experience have been recognised	43	42	39	45	35	43	47
It has increased my employment opportunities	34	22	32	37	18	34	37
It has increased my confidence	25	24	24	25	21	24	35
I received a salary and/or financial reward	14	7	9	16	4	14	19
I feel it hasn't had any impact	21	27	24	20	26	21	19

Base: All responding registered engineers and technicians

5.6.8 Attitudes to registration

Eight statements relating to attitudes to registration were presented in the 2013 survey. Respondents were asked to indicate how much they agreed or disagreed with each of the statements by ticking one of five boxes on a likert scale of agreement.

The following (Figures 23 to 30) illustrate the results from respondents by presenting the total response rate of all registrants by title. The results for “agree” are calculated as the net percentage of respondents who stated that they “agree strongly” and “agree slightly” to each of the statements. The results for “disagree” are calculated as the net percentage of respondents who stated that they “disagree slightly” and “disagree strongly” to each of the statements.

The data in Figure 23 highlights how registrants from all titles would recommend to other engineers/technicians that they should become professionally registered, with CEng having the highest percentage of agreement (93%).

Figure 23: Responses by title to the statement “I would recommend to other engineers/technicians that they should become professionally registered” (2013)

Base: All responding registered engineers and technicians

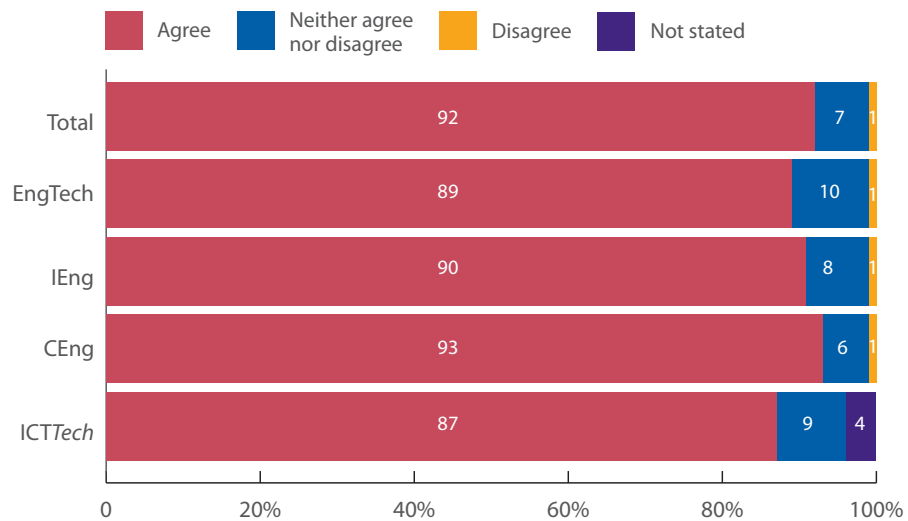


Figure 24 shows that 42% of CEngs agree that being professionally registered means they earn a higher salary and/or other financial reward. 31% of EngTechs and 26% of ICTTechs disagree.

Figure 24: Responses by title to the statement “Being a professionally registered engineer/technician means I earn a higher salary and/or other financial reward” (2013)

Base: All responding registered engineers and technicians

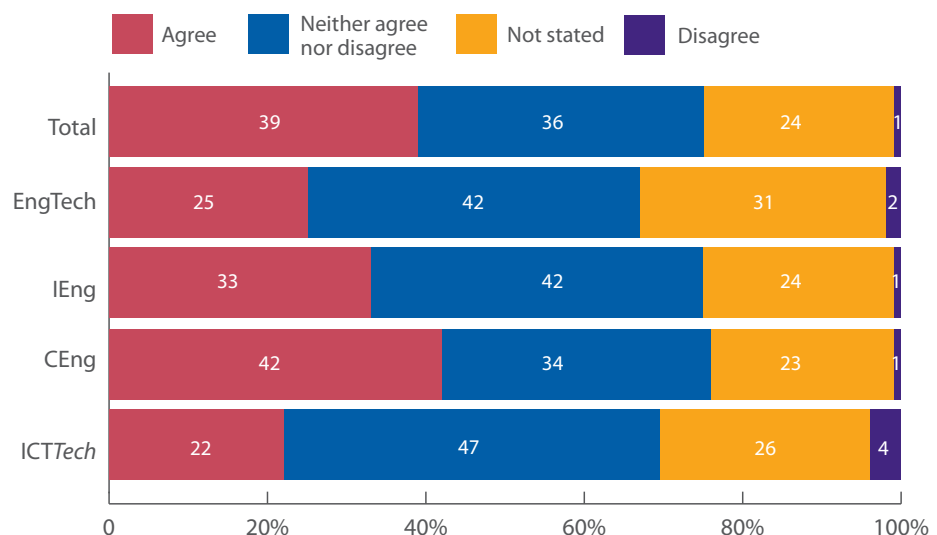
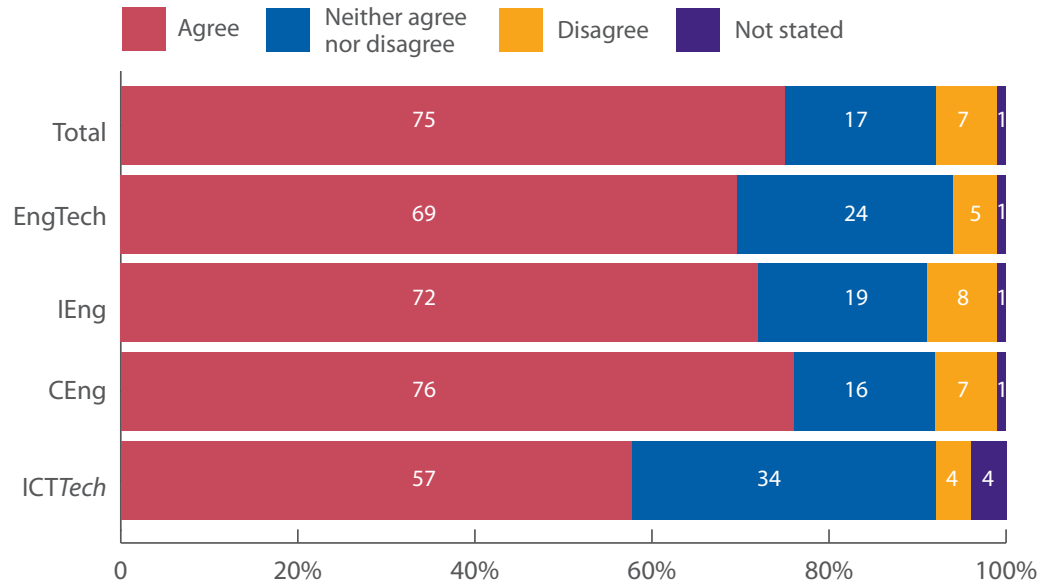


Figure 25 demonstrates that the majority of respondents agree with the statement “There are definite benefits in being professionally registered.”

The range of values for this statement corresponds to just over three quarters (76%) of CEngs who agree with this statement in comparison to 57% of ICTTechs who agree.

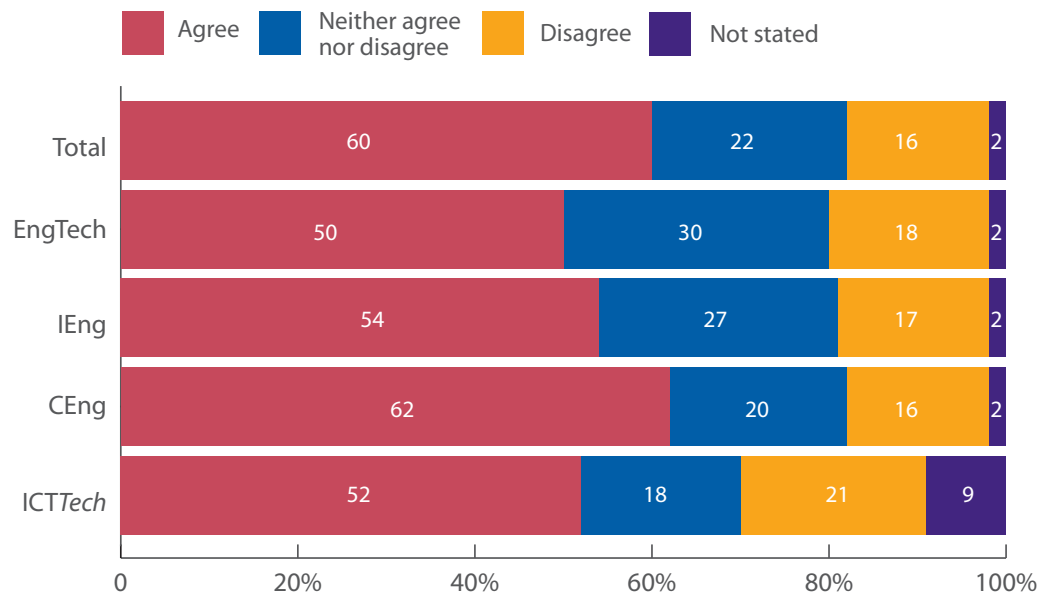
Figure 25: Responses by title to the statement “There are definite benefits in being professionally registered” (2013)



Base: All responding registered engineers and technicians

As seen in Figure 26, 54% of IEngs, 50% of EngTechs and 52% of ICTTechs agreed with the statement “My employer values the fact that I am professionally registered”. The highest percentage of agreement came from CEngs (62%).

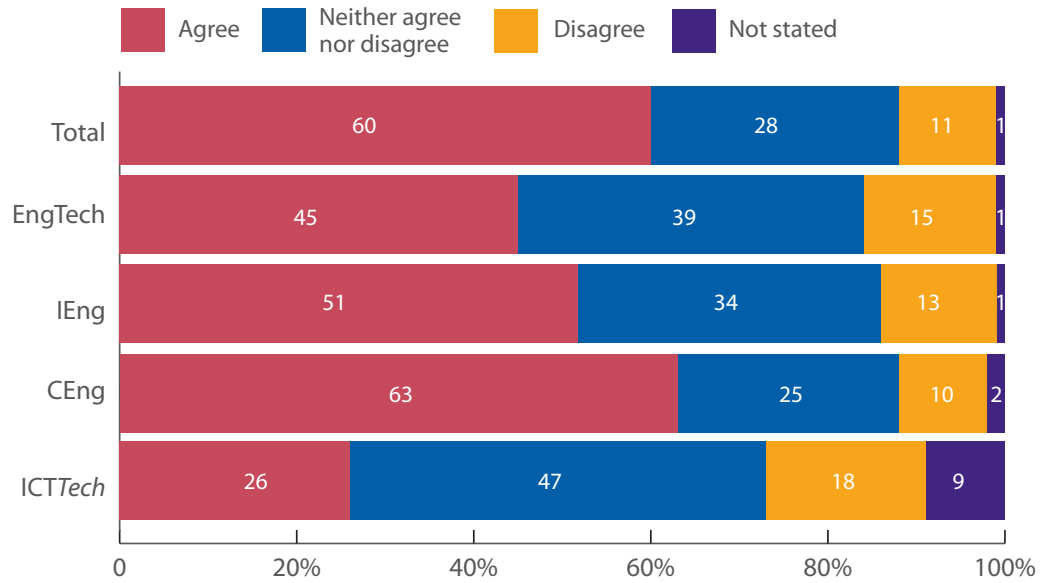
Figure 26: Responses by title to the statement “My employer values the fact that I am professionally registered” (2013)



Base: All responding registered engineers and technicians

63% of CEngs agree with the statement “My colleagues respect the fact that I am professionally registered” in comparison to 26% of ICTTechs who agree.

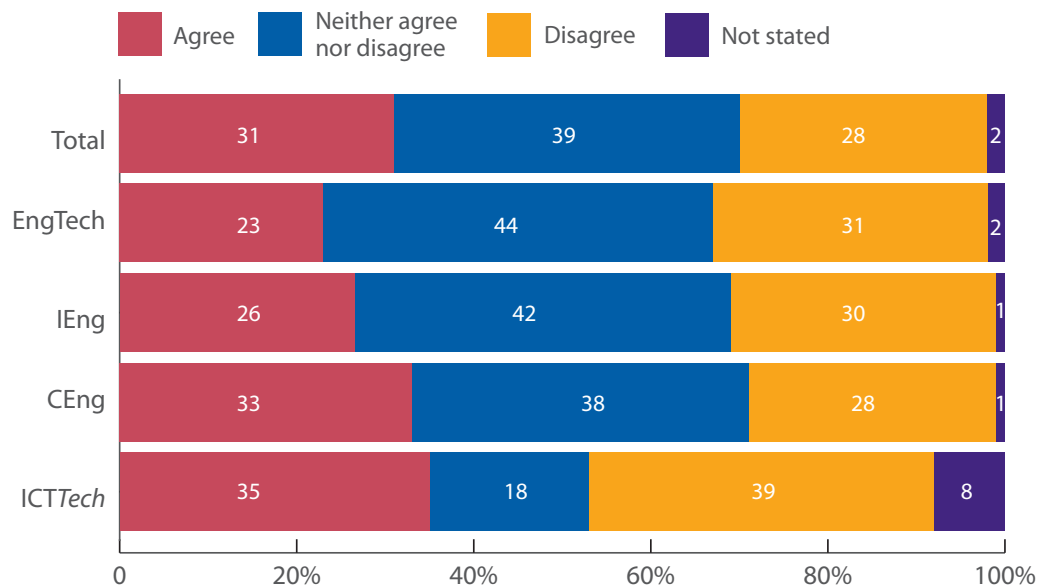
Figure 27: Responses by title to the statement “My colleagues respect the fact that I am professionally registered” (2013)



Base: All responding registered engineers and technicians

A third or more CEngs (33%) and ICTTechs (35%) agree that they are more secure in their job as a result of being professionally registered, as compared to 26% of IEngs and 23% of EngTechs.

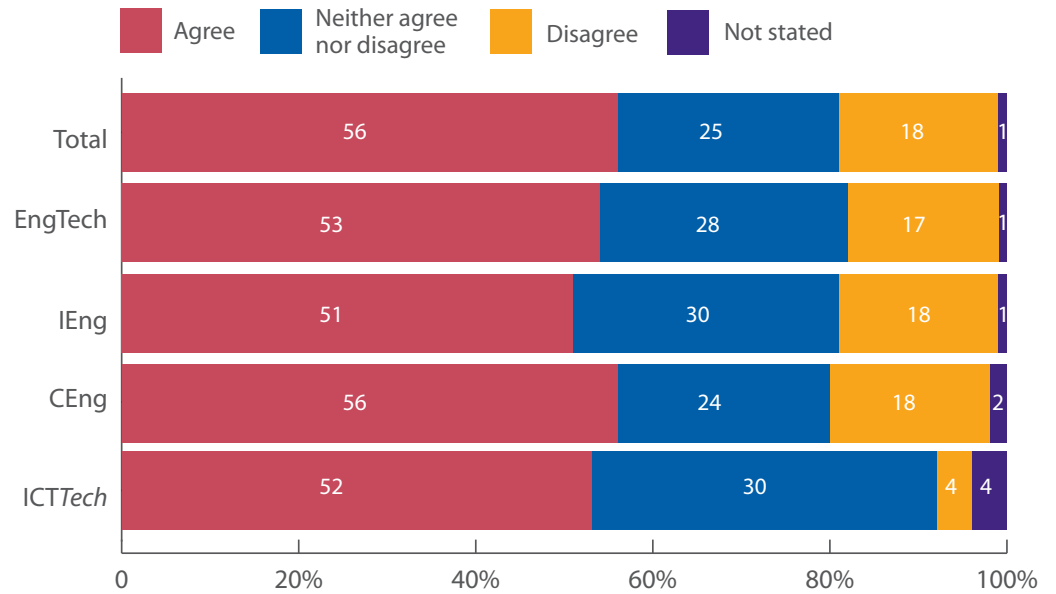
Figure 28: Responses by title to the statement “I am more secure in my job as a result of being professionally registered” (2013)



Base: All responding registered engineers and technicians

Over half of all registered engineers and technicians across all titles agreed with the statement “I think that engineers/technicians like me are valued for the work they do.” A small percentage (4%) of ICTTechs disagreed with this statement in comparison to 18% of IEngs and CEngs.

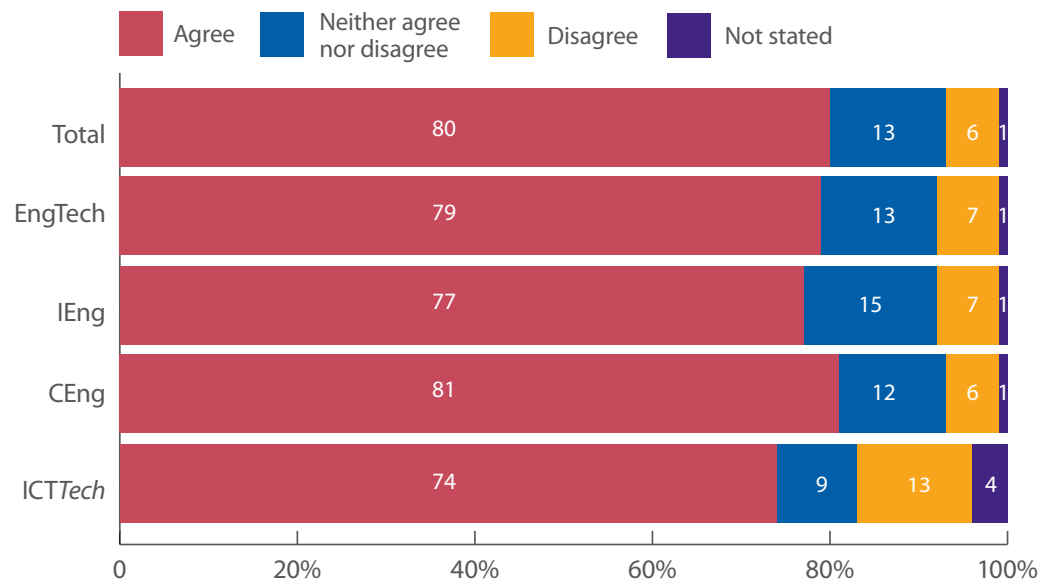
Figure 29: Responses by title to the statement “I think that engineers/technicians like me are valued for the work they do” (2013)



Base: All responding registered engineers and technicians

A large percentage (over 70%) of EngTechs, IEngs and ICTTechs agree that they are “satisfied with being an engineer/technician.” The highest response rate of 81% was for CEngs.

Figure 30: Responses by title to the statement “I am satisfied with being an engineer/technician” (2013)



Base: All responding registered engineers and technicians

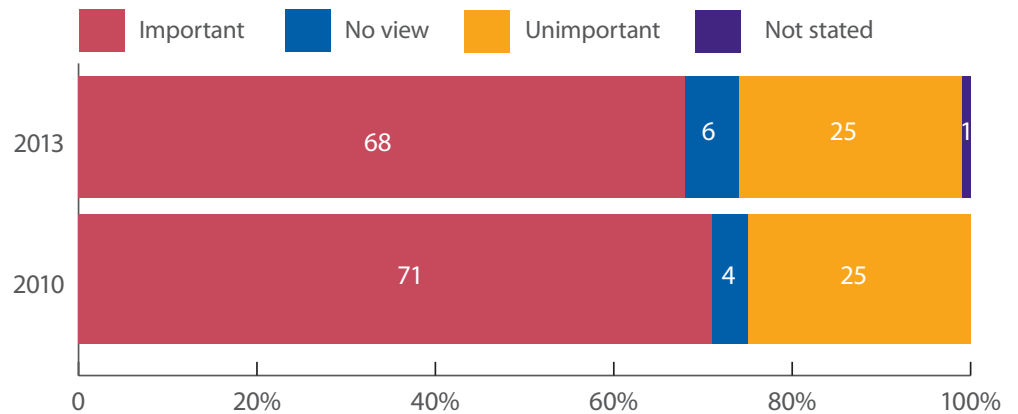
5.7 Continuing Professional Development

Respondents were asked about their Continuing Professional Development (CPD) activity and its importance in maintaining their professional registration. Comparisons with the 2010 findings were made and Figure 31 illustrates the changes in response rates.

The percentage of respondents who stated that CPD was “important” to them was calculated as the net percentage of “very important” and “fairly important.” The “unimportant” responses were calculated as the net percentage of respondents who indicated that CPD was “fairly unimportant” and “very unimportant.”

Figure 31: Response rates relating to the importance of continuing Professional Development (CPD) in maintaining professional registration for 2010 and 2013

Base: All responding registered engineers and technicians



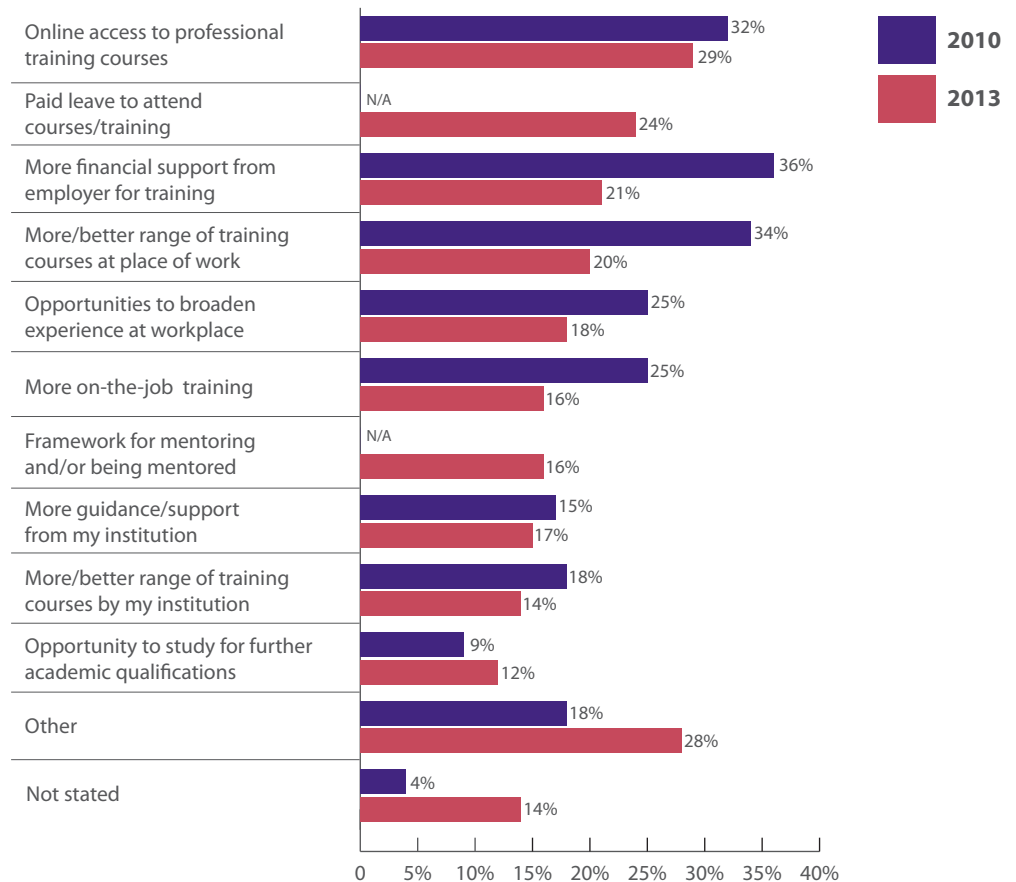
There has been a decrease of 4 percentage points from 2010 (72%) to 2013 (68%) for respondents who indicated that CPD was important to them in maintaining professional registration, ensuring that their skills and expertise were relevant and up to date.

Registered engineers and technicians who felt that they were not able to keep their professional competence up to date (11%) were asked how they could be helped to do so. Further to the options provided in 2010, the 2013 survey incorporated two additional statements which included “framework for mentoring and/or being mentored” and “paid leave to attend courses/training.”

29% of respondents from the 2013 survey indicated that “online access to professional training courses” was a significant factor that could help them keep their competence up to date. 28% of respondents indicated there were “other” factors that could help them keep their competence up to date. The third highest response rate (24%) was for “paid leave to attend courses/training”.

Figure 32 below compares the findings from the data collected in 2010 and 2013.

Figure 32: Factors that could help professionally registered engineers and technicians keep their competence up to date (2010 & 2013)



Base: All responding registered engineers and technicians who are not able to keep their professional competence up to date

6 CLOSING REMARKS

I would like to start by thanking all registrants who took time to respond to this survey. The information gathered provides a valuable and statistically valid snapshot of the profession, including employment trends and benefits. This report will be useful, not only to the Engineering Council, but also to our partners within the professional engineering community. The data will help us in particular in informing our strategy, ensuring that we are able to promote and support professionally registered engineers and technicians effectively.

With regard to salaries, it is encouraging to note that although bonus, overtime and commission payments appear to have generally decreased since 2010, overall total income for professionally registered engineers has increased well above the national average.

The unemployment figure also remains very positive, as do the responses concerning attitudes towards professional registration and the status and benefits it brings to individuals on the register.

We can already see from the steady increase reported in employers funding institution membership and professional registration for their engineering staff, that many organisations are realising the value in doing so. However, the report highlights that we still have a long way to go to really impress upon them that employing registered engineers and technicians does bring tangible benefits. This we are tackling with the assistance of our colleagues in the Professional Engineering Institutions, many of whom already have close and successful working relationships with employers across the profession.

The responses are generally consistent with results of other surveys we've conducted over the past three years, which has led us to conclude that further promotion regarding awareness and the value of registration for individuals eligible for EngTech, ICTTech and IEng is essential, in particular to employers. The data also complements current activities on diversity and tracking of the UK engineering workforce.



Jon Prichard CEng FICE FInstRE
Chief Executive
Engineering Council

APPENDICES

THE ENGINEERING COUNCIL 2013 SURVEY OF PROFESSIONALLY REGISTERED ENGINEERS AND TECHNICIANS

3 December 2013

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1 COVERING LETTER AND QUESTIONNAIRE

Appendix 1 contains the postal cover letter and paper questionnaire that was sent out. A similar email covering letter was also sent out, with the addition of a URL and a two-part security code for logging in to the online survey. The questions on both surveys were identical, apart from some minor differences in design and layout due to the different formats.



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12 June 2013

2013 Survey of Professionally Registered Engineers and Technicians

As you may be aware, the Engineering Council undertakes a regular survey of registered professional engineers and technicians every two to three years. The purpose of the survey is to provide a statistically valid snapshot of the state of employment and employment benefits among professionally registered engineers and technicians. I would therefore be grateful if you would agree to participate in this year's survey.

The survey enables us to gain detailed information about the profession, including the comparison of engineers' education, training and rewards, and compare them with those of other professions. The information gained will also enable us to promote and support professionally registered engineers and technicians more effectively.

The final report will be published in October, and will be of great interest and value to the profession.

The survey is being conducted by Membership Engagement Services (MES), a business of Electoral Reform Services Limited, who has formally carried out the survey in previous years.

Names have been randomly selected from the Engineering Council's register and yours was amongst them. If you are able to take part, then we will need to receive your completed questionnaire by 12th July 2013. Please return it to MES in the enclosed pre-paid envelope. Your response will not be passed on to others and will be treated in the strictest confidence. You will see that MES does not ask for a name or address and they will not make available any information which could possibly identify you to the Engineering Council, or indeed anyone else.

I would like to thank you, in advance, for your co-operation in this important exercise.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Jon Prichard'.

Jon Prichard
Chief Executive Officer

recognising professional excellence

2013 Survey of Professionally Registered Engineers and Technicians

All replies are in absolute confidence, and no attempt will be made to trace responses to individuals. Please return your completed questionnaire in the pre-paid envelope provided to reach **Membership Engagement Services, 33 Clarendon Road, London, N8 0NW by 12th July 2013.**

1. Which of the following best describes your current employment status? (Please tick ONE box only)

- Employee
- Self-employed (including principal or partner in a firm)
- Contract worker
- Retired early (before expected age of retirement)
- Retired or partially retired
- Unemployed and seeking re-employment
- In receipt of long term sickness benefit
- Other (please specify below)

2. Which of these best describes the level you currently work at or have most recently worked at? (Please tick ONE box only)

- Student/Apprentice
- Graduate
- Technician
- Engineer
- Supervisor
- Manager
- Director
- Other (please specify below)

3. Which of these best describes the employment sector you are currently working in or most recently worked in? (Please tick ONE box only)

- Private
- Public
- Not-for-profit

4. Were you unemployed and seeking re-employment at any time from the 6th April 2012 to the 5th April 2013?

- Yes
- No

REGISTRATION MATTERS

5. Does your employer pay the subscription for your institution membership and/or your fees for EngTech, IEng, CEng, or ICTech registration?

	Institution membership	Registration fee
Yes	<input type="checkbox"/>	<input type="checkbox"/>
No	<input type="checkbox"/>	<input type="checkbox"/>

6. How were you first made aware that engineers and technicians could become professionally registered (as EngTech, IEng, CEng or ICTech)? (Please tick ONE box only)

- Teaching staff at my school
- Teaching staff during my further or higher education
- My employer
- Registrants at my place of work
- The engineering institution that I joined
- Other sources (please describe below)

7. If you became registered in the past five years, how straightforward did you find the registration process? (Please tick ONE box only)

- Very straightforward
- Quite straightforward
- Not very straightforward
- Not at all straightforward
- Can't remember/I registered more than 5 years ago

8. Which of the following were significant factors in your decision to seek professional registration? (Please tick all that apply)

- I felt it would be helpful in my career development
- I felt it would increase my influence within my organisation or industry
- I felt it would give me greater professional status
- I wanted my professional skills and experience to be recognised
- I was required to do so by my employer
- I was encouraged to do so by my employer
- I was encouraged to do so by colleagues/friends
- I was hoping it would lead to a salary increase
- None of the above
- Other (please describe below)

9. How highly do you value your EngTech, IEng, CEng, or ICTTech registration and institution membership?

	Very highly	Fairly highly	Fairly poorly	Very poorly	No view
Registration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institution membership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. What impact has professional registration had on your career? (Please tick all that apply)

- It has been helpful in my career development
- It has increased my influence within my organisation or industry
- It has given me greater professional status
- My professional skills and experience have been recognised
- It has increased my employment opportunities
- It has increased my confidence
- I received a salary and/or financial reward
- I feel it hasn't had any impact

11. What impact has membership of your institution had on your career? (Please tick all that apply)

- It enables me to keep up to date (e.g. through events, journals, publications, technical library)
- It provides me with networking opportunities
- It has been helpful in my career development
- It gives me professional recognition
- It has allowed me to learn new skills
- I feel it hasn't had any impact

12. How well does your institution promote the benefits and value of professional registration?

	Very well	Fairly well	Fairly poorly	Very poorly	No view
EngTech	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IEng	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CEng	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ICTTech	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. How important to you is Continuing Professional Development (CPD) in maintaining your professional registration, ensuring that your skills and expertise are relevant and up to date?

- Very important
- Fairly important
- Fairly unimportant
- Very unimportant
- No view

14. Does your employer offer support for your professional development?

- Yes
- No

If yes, how? (Please tick all that apply)

- Opportunities to broaden experience at workplace (e.g. through transfers and secondments)
- A framework for mentoring and/or being mentored
- Opportunities to study for further academic qualifications
- On-the-job training
- Financial support for external training
- Paid leave to attend courses/training
- A good range of training courses at place of work
- Other (please specify below)

15. Do you believe you are able to keep your engineering competence up to date for the role you have? (Please tick ONE box only)

- Yes
- No

IF YOU HAVE ANSWERED 'NO' PLEASE GO TO Q16, OTHERWISE PLEASE GO TO Q17.

16. How could you be helped to keep your competence up to date? (Please tick all that apply)

- Opportunities to broaden experience at workplace (e.g. through transfers and secondments)
- Framework for mentoring and/or being mentored
- More guidance/support from my institution
- More financial support from employer for training
- Paid leave to attend courses/training
- More on-the-job training
- More/better range of training courses at place of work
- More/better range of training courses by my institution
- Online access to professional training courses
- Opportunity to study for further academic qualifications
- Other (please specify below)

17. Do you plan your professional development objectives? (Please tick ONE box only)

- Yes
- No

18. Do you maintain a record of your professional development activities? (Please tick ONE box only)

- Yes
- No

19. Please indicate how much you agree or disagree with the following statements by ticking the appropriate box.

(Note: By registration we mean EngTech, IEng, CEng, or ICTech)

	Agree strongly	Agree slightly	Neither agree nor disagree	Disagree slightly	Disagree strongly
I would recommend to other engineers/technicians that they should become professionally registered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being a professionally registered engineer/technician means I earn a higher salary and/or other financial reward	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There are definite benefits in being professionally registered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My employer values the fact that I am professionally registered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My work colleagues respect the fact that I am professionally registered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more secure in my job as a result of being professionally registered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that engineers/technicians like me are valued for the work they do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am satisfied with being an engineer/technician	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following questions are about your personal circumstances and will enable us to examine how conditions differ among respondents in a number of broad groups. Please be assured that all replies are in absolute confidence.

INCOME, HOURS AND BENEFITS

THE LAST FINANCIAL YEAR RAN FROM 6TH APRIL 2012 TO 5TH APRIL 2013. IF YOU ARE SELF-EMPLOYED AND YOURS ENDS AT A DATE OTHER THAN 5TH APRIL, PLEASE RESPOND TO QUESTIONS 20 TO 23 BASED ON YOUR FINANCIAL YEAR ENDING BETWEEN THESE DATES.

20. In your financial year did you work

Full-time

Part-time

IF YOU DID NOT WORK FULL-TIME IN YOUR FINANCIAL YEAR, PLEASE GO TO QUESTION 23.

21. Please enter your gross basic annual income from employment, including any London or large town allowance, before deduction of Income Tax, National Insurance and Pension contributions, as at 5th April 2013. Exclude any overtime, bonus and commission payments, unearned income and pension from previous employment.

If you are solely or partly self-employed, please state net profit before tax for the year 2012/13 less expense allowed for tax, but before the deduction of personal, capital or other expenses. If your financial year ends at a date other than 5th April, please estimate your net profit before tax for your financial year ending between 6th April 2012 and 5th April 2013.

£

22. Please enter all overtime, bonus and commission payments received in the 12 months to 5th April 2013.

IF YOU ARE SELF-EMPLOYED, PLEASE LEAVE THIS ANSWER BLANK.

£

NOTE: In the survey reports, the sum of answers to questions 21 and 22 will be taken as your current rate of annual earnings.

23. How many hours did you work in an average week during your financial year ending between 6th April 2012 and 5th April 2013?

24. Has your employer changed any of the following benefits or conditions over the last 12 months? (Please tick for each change whether it involved an increase or reduction, and leave blank if not applicable)

	Increased	Reduced/ Removed
Pay rate	<input type="checkbox"/>	<input type="checkbox"/>
Contracted hours	<input type="checkbox"/>	<input type="checkbox"/>
Bonus	<input type="checkbox"/>	<input type="checkbox"/>
Flexible working arrangements	<input type="checkbox"/>	<input type="checkbox"/>
Pension arrangements	<input type="checkbox"/>	<input type="checkbox"/>
Retirement age	<input type="checkbox"/>	<input type="checkbox"/>
Holidays	<input type="checkbox"/>	<input type="checkbox"/>
Private medical insurance	<input type="checkbox"/>	<input type="checkbox"/>
Sick Pay	<input type="checkbox"/>	<input type="checkbox"/>
Car Scheme	<input type="checkbox"/>	<input type="checkbox"/>
Overtime	<input type="checkbox"/>	<input type="checkbox"/>
Travel/subsistence allowance	<input type="checkbox"/>	<input type="checkbox"/>
London/area allowance	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe below)	<input type="checkbox"/>	<input type="checkbox"/>

None of the above has changed

BARCODE

ETHNIC GROUP

25. What is your ethnic group? (Choose ONE option that best describes your ethnic group or background)

- White
- 1. English / Welsh / Scottish / Northern Irish / British
 - 2. Irish
 - 3. Gypsy or Irish Traveller
 - 4. Any other White background, please describe

Mixed / Multiple ethnic groups

- 5. White and Black Caribbean
- 6. White and Black African
- 7. White and Asian
- 8. Any other Mixed / Multiple ethnic background, please describe..

Asian / Asian British

- 9. Indian
- 10. Pakistani
- 11. Bangladeshi
- 12. Chinese
- 13. Any other Asian background, please describe

Black / African / Caribbean / Black British

- 14. African
- 15. Caribbean
- 16. Any other Black / African / Caribbean background, please describe

Other ethnic group

- 17. Arab
- 18. Any other ethnic group, please describe

EMPLOYMENT INFORMATION

26. Please read through the following list and select the ONE industry sector that is most appropriate to your employer/firm.

- Agricultural, forestry and fishing
- Mining and quarrying – energy
- Mining and quarrying – other
- Manufacturing – food and drink
- Manufacturing – textiles and clothes
- Manufacturing – chemicals and pharmaceuticals
- Manufacturing – energy products
- Manufacturing – engineering products
- Manufacturing – other
- Utilities
- Construction
- Transport and storage
- Information and communication
- Financial, insurance activities and real estate
- Professional, scientific and technical
- Government and defence
- Education
- Health
- Other (please describe below)

27. Where is your primary place of work? (Please tick ONE only)

- England
- North East
 - North West
 - Yorkshire and the Humber
 - East Midlands
 - West Midlands
 - South West
 - East of England
 - South East
 - London
- Scotland
- Wales
- Northern Ireland
- Multiple locations in UK
- Abroad

28. How many employees are there in your organisation in all locations? (Please tick ONE box only, giving your best estimate)

- 1 – 10
- 11 – 250
- More than 250

QUALIFICATIONS

29. Please indicate which of the following qualifications or equivalents you hold. (Please tick all that apply)

- Postgraduate degree e.g. MSc, MBA, PhD, EngD
- MEng degree
- First/Bachelors/BEng honours degree
- Non-honours/Ordinary Bachelors degree
- Foundation degree
- Higher Apprenticeship
- Advanced Apprenticeship
- HNC/HND
- S/NVQ Level 4
- A Levels/Scottish Highers or S/NVQ Level 3
- NC/ND or City and Guilds Advanced Craft
- BTEC or OCR Nationals
- S/NVQ Level 2
- Trade Apprenticeship
- Foundation Modern Apprenticeship
- Advanced Trade Apprenticeship
- None of the above
- Other (please specify below)

Thank you for your co-operation.

2 LIST OF ABBREVIATIONS

Abbreviation	Full description
EngC	Engineering Council
EngTech	Engineering Technician
IEng	Incorporated Engineer
CEng	Chartered Engineer
ICTTech	Information and Communications Technology Technician
MES	Membership Engagement Services
ERS	Electoral Reform Services
UK	United Kingdom
CPD	Continuing Professional Development
PEI	Professional Engineering Institution

3 METHOD

Section 3 of the main report describes the overall methods used for conducting the study and how the sample was drawn. Additional information on the methods used are outlined below.

Sample

A sample was drawn from the database of registrants held by the Engineering Council. Respondents were systematically selected within agreed strata with a view to achieving viable groups for analysis. Registrants over the age of 65 (likely to be retired) and those with non-UK postal addresses (not reflecting UK salaries) were excluded from the sample. In addition, all engineers registered with more than one title were excluded to enable analysis by title. The issued sample comprised 19,960 individuals (8.5% of total register and 15% of eligible sample).

Several smaller groups were oversampled to ensure a representative sample throughout the survey. These included:

- EngTech
- IEng
- ICTTech
- Female registrants
- Registrants from smaller institutions

Newer registrants (registered in the last five years) were also over-sampled in order to obtain more relevant views on the current registration process. The data was subsequently weighted to restore these groups to their correct proportions in the total sample. The key elements of sample composition are described in Appendix 4 and the weighting applied is explained in Appendix 5.

Questionnaire design

In order to monitor trends, the questionnaire was based on those used in previous years, with some agreed updates.

Fieldwork

Historically this survey has been conducted as a postal survey where a sample of registrants was taken from the Engineering Council's registrant database. As this database has historically held a very low proportion of email addresses it has not previously been possible to use an online approach. This year the Engineering Council wished to use an online method in order to survey a higher number of registrants in a more cost-effective manner. It was able to obtain email addresses from a number of the Professional Engineering Institutions (PEIs) amounting to approximately 35% of registrants. This enabled the use of a methodology whereby postal and online surveys were combined.

13,127 letters containing a covering letter, a questionnaire and a pre-paid reply envelope were despatched by second class post to respondents' home addresses on 12th June 2013.

6,833 emails containing a covering letter, URL to online survey, and a two-part security code were sent out to respondents' email addresses on 20th June 2013¹. To boost response rates three email reminders were sent out on 27th June, 4th July and 11th July.

Postal responses were received until 12th July and the online survey was left open until 14th July. In total, 3,849 completed postal questionnaires (29.3% response rate) and 2,472 completed online questionnaires (36.2% response rate) were received by MES, amounting to an overall response rate of 31.7%. This is higher than the 2010 response rate of 27.6%.

A copy of the questionnaire and covering letter are shown in Appendix 1.

Incentives

No incentives were given to respondents taking part in this survey.

Quality management and information security

All researchers at MES are working in accordance with the Code of Conduct of the Market Research Society (MRS).

¹ Email addresses were used whenever possible as this is a cost effective survey method. Where email addresses were not made available to EngC, postal surveys were carried out.

4 SAMPLE COMPOSITION AND PROFILES

Issued sample

A sample was drawn from the database of registrants held by the Engineering Council. A breakdown of the issued sample is shown in the table below. It should be noted that this is not representative of the universe of registrants as differential sampling was applied (as described in Appendix 3).

Please note, due to the rounding of numbers to the nearest integer, some columns in the following tables may not add up to 100%.

	Total (%)	EngTech (%)	IEng (%)	CEng (%)	ICTech (%)
Gender					
Male	71	94	92	50	92
Female	29	6	8	50	8
Age					
21–34	17	25	11	16	82
35–44	25	22	19	25	12
45–54	32	30	36	32	4
55–64	26	23	35	26	1
Length of registration					
5 years or less	30	53	23	24	100
More than five years	70	47	77	76	0
Base: All registered engineers	(19,960)	(3,889)	(5,875)	(9,960)	(236)

Responding sample

In addition to those details about the responding sample presented in section 5 of the main report, additional demographic and other information is presented in the following tables:

- Section of registration
- Size of institution
- Gender, age and ethnicity
- Industry sector
- Job role
- Qualifications
- Primary place of work
- Size of organisation

Section of registration

The weighted and un-weighted samples by section of registration for 2007, 2010 and 2013 are shown in the table below.

	2007 (%)		2010 (%)		2013 (%)	
	Un-weighted	Weighted	Un-weighted	Weighted	Un-weighted	Weighted
EngTech	16	7	15	8	16	9
IEng	31	18	31	18	30	17
CEng	53	75	53	73	54	75
ICTTech	N/A	N/A	N/A	N/A	*	*
Base: All responding registered engineers	(3,238)	(3,238)	(2,755)	(2,755)	(6,321)	(6,321)

* Value lower than 0.1%

EngTechs, IEngs and ICTTechs were over-sampled relative to CEngs and weighted back to their true proportions as shown above.

Size of institution

The Engineering Council divides the Professional Engineering Institutions into three categories depending on size; Large (Group A) (> 5000 registrants), Medium (Group B) (1000-5000 registrants), and Small (Group C) (<1000 registrants). The distribution of responding engineers by size of institution is shown in the table below.

	Total (%)	EngTech (%)	IEng (%)	CEng (%)	ICTTech (%)
Large (Group A) (> 5,000 registrants)	89	70	79	94	100
Medium (Group B) (1,000–5,000 registrants)	7	16	15	5	0
Small (Group C) (<1,000 registrants)	4	14	6	2	0
Base: All responding registered engineers	(6,321)	(552)	(1,044)	(4,715)	(11)

Gender, age and ethnicity

The table below shows the sample by gender, age and ethnicity for the 2007, 2010 and 2013 surveys.

	2007 (%)	2010 (%)	2013 (%)
Gender			
Male	96	96	95
Female	4	4	5
Age			
21–34	9	6	10
35–44	21	23	19
45–54	31	38	35
55–64	37	32	36
Ethnicity			
White	86	93	94
Non-white	3	4	5
Not stated	11	2	1
Base: All responding registered engineers	(3,238)	(2,755)	(6,321)

Industry sector

Respondents were asked to identify from a list the one industry sector most appropriate to their employer/firm. The ranked distribution is shown in the table below. The 2013 list was considerably changed from the one used in 2007 and in 2010 to bring listed categories more in line with the Standard Industrial Classifications (SIC) the Engineering Council is using for other research projects. For this reason, comparisons from previous years' surveys are not made.

	Total (%)	EngTech (%)	IEng (%)	CEng (%)	ICTTech (%)
Agricultural, forestry and fishing	1	1	1	1	0
Mining and quarrying – energy	1	2	1	2	0
Mining and quarrying – other	0	0	0	0	0
Manufacturing – food and drink	1	1	1	1	1
Manufacturing – textiles and clothes	0	0	0	0	0
Manufacturing – chemicals and pharmaceuticals	3	4	2	4	0
Manufacturing – energy products	8	9	7	9	4
Manufacturing – engineering products	10	10	7	10	4
Manufacturing – other	3	2	4	2	0
Utilities	7	6	9	6	9
Construction	15	15	17	15	0
Transport and storage	6	6	7	6	4
Information and communication	5	6	3	6	22
Financial, insurance activities and real estate	2	2	2	2	0
Professional, scientific and technical	13	14	11	14	12
Government and defence	14	12	18	12	26
Education	4	4	4	4	9
Health	1	1	2	1	4
Other	4	3	5	3	0
<i>Other – Oil & Gas*</i>	3	-	-	-	-
Not stated	1	1	2	1	4
Base: All responding registered engineers	(6,321)	(552)	(1,044)	(4,715)	(11)

* Coded data not available at title level.

As can be seen, more than half (52%) work in the top four industry sectors:

- Construction (15%)
- Government and defence (14%)
- Professional, scientific and technical (13%)
- Manufacturing – engineering products (10%)

Job role

Respondents were asked to identify their job role, selecting from a list on the questionnaire. The question was included in the 2010 survey, but the list was changed for the 2013 survey, so no comparisons are made.

	Total (%)	EngTech (%)	IEng (%)	CEng (%)	ICTTech (%)
Student/Apprentice	0	0	0	0	0
Graduate	0	1	0	0	0
Technician	2	22	3	0	22
Engineer	29	29	37	27	31
Supervisor	5	6	6	4	9
Manager	42	26	38	45	13
Director	16	9	12	18	0
Other	5	5	3	5	0
Not stated	0	1	1	0	4
Base: All responding registered engineers	(6,321)	(552)	(1,044)	(4,715)	(11)

Qualifications

Respondents were asked to identify which academic and vocational qualifications they hold, selecting from a list on the questionnaire. The question was included in the 2010 survey, but the list was considerably changed for the 2013 survey, so no comparisons are made.

The table below provides data on the highest level of qualification held by responding engineers and technicians.

	Total (%)	EngTech (%)	IEng (%)	CEng (%)	ICTTech (%)
Postgraduate degree e.g. MSc, MBA, PhD, EngD	29	4	11	35	13
MEng degree	8	1	1	11	4
First/Bachelors/BEng honours degree	37	8	18	45	30
Non-honours/Ordinary Bachelors degree	5	3	7	5	9
Foundation degree	1	4	1	0	4
Higher Apprenticeship	1	6	4	0	0
Advanced Apprenticeship	1	9	2	0	13
HNC/HND	13	29	50	3	13
S/NVQ Level 4	1	6	1	0	0
A Levels/Scottish Highers or S/NVQ Level 3	1	5	1	0	9
NC/ND or City and Guilds Advanced Craft	1	12	2	0	0
BTEC or OCR Nationals	0	3	0	0	4
S/NVQ Level 2	0	0	0	0	0
Trade Apprenticeship	0	3	1	0	0
Foundation Modern Apprenticeship	0	0	0	0	0
Advanced Trade Apprenticeship	0	0	0	0	0
None of the above	1	3	1	0	0
Other	1	3	2	1	0
Not stated	0	0	0	0	0
Base: All responding registered engineers	(6,321)	(552)	(1,044)	(4,715)	(11)

Primary place of work

Information on primary place of work was collected and the below shows the comparison between 2010 and 2013. Different categories were used in 2007 so no comparison is made.

	2010 (%)	2013 (%)
England	81	77
Scotland	8	10
Wales	3	3
Northern Ireland	2	1
Multiple locations in the UK	3	3
Abroad ²	2	3
Not stated	1	2
Base: All responding registered engineers	(2,755)	(6,321)

The table below shows primary place of work by registration title.

	Total (%)	EngTech (%)	IEng (%)	CEng (%)	ICTech (%)
England	77	76	75	78	78
Scotland	10	9	11	10	9
Wales	3	3	3	3	4
Northern Ireland	1	1	1	1	0
Multiple locations in the UK	3	5	3	3	0
Abroad	3	3	4	3	4
Not stated	2	2	3	2	4
Base: All responding registered engineers	(6,321)	(552)	(1,044)	(4,715)	(11)

² As this survey covered respondents with a UK registered home address only, 'Abroad' indicates a primary work location outside the UK.

For registrants based in England, the distribution by region is shown in the table below.

	Total (%)	EngTech (%)	IEng (%)	CEng (%)	ICTTech (%)
England	77	76	75	78	78
North East	4	5	4	3	9
North West	10	8	10	10	4
Yorkshire and the Humber	5	4	5	5	9
East Midlands	7	6	7	7	4
West Midlands	7	8	7	6	4
South West	12	13	13	11	18
East of England	4	8	4	4	8
South East	19	17	19	19	22
London	11	7	8	12	0
Base: All responding registered engineers	(6,321)	(552)	(1,044)	(4,715)	(11)

Size of organisation

Registrants were asked about the size of the organisation they work for. This is based on the number of employees in all locations. Comparisons are made with the 2010 survey.

	2010 (%)	2013 (%)
1–10	13	13
11–250	18	16
More than 250	67	69
Not stated	3	2
Base: All responding registered engineers	(2,755)	(6,321)

The table below shows the majority of respondents across all titles work in organisations with more than 250 employees.

	Total (%)	EngTech (%)	IEng (%)	CEng (%)	ICTTech (%)
1–10	13	14	12	13	0
11–250	16	22	19	15	4
More than 250	69	62	66	70	91
Not stated	2	2	3	2	4
Base: All responding registered engineers	(6,321)	(552)	(1,044)	(4,715)	(11)

5 WEIGHTING MATRICES

The following weights were applied to correct the oversampling of key groups and restore them to their correct proportions within the universe of registrants.

EngTech												
Size of institution	Large institutions (Group A)				Medium institutions (Group B)				Small institutions (Group C)			
	<5 years		>5 years		<5 years		>5 years		<5 years		>5 years	
Gender	M	F	M	F	M	F	M	F	M	F	M	F
Unweighted responses	174	27	241	21	58	12	132	9	206	8	105	0
Weighted responses	160	6	216	3	38	1	48	1	63	1	15	0
Weight applied	0.92	0.22	0.90	0.14	0.66	0.08	0.36	0.11	0.31	0.13	0.14	0

IEng												
Size of institution	Large institutions (Group A)				Medium institutions (Group B)				Small institutions (Group C)			
	<5 years		>5 years		<5 years		>5 years		<5 years		>5 years	
Gender	M	F	M	F	M	F	M	F	M	F	M	F
Unweighted responses	259	57	681	52	49	11	304	19	77	7	395	7
Weighted responses	126	7	686	9	15	1	133	4	8	1	53	1
Weight applied	0.49	0.12	1.01	0.17	0.32	0.11	0.44	0.21	0.10	0.10	0.13	0.10

CEng												
Size of institution	Large institutions (Group A)				Medium institutions (Group B)				Small institutions (Group C)			
Length of registration	<5 years		>5 years		<5 years		>5 years		<5 years		>5 years	
Gender	M	F	M	F	M	F	M	F	M	F	M	F
Unweighted responses	148	446	707	1,051	47	40	256	69	145	28	391	60
Weighted responses	630	80	3,494	206	31	4	168	9	22	3	63	5
Weight applied	4.26	0.18	4.94	0.20	0.67	0.11	0.66	0.13	0.15	0.12	0.16	0.08

ICTTech												
Size of institution	Large institutions (Group A)				Medium institutions (Group B)				Small institutions (Group C)			
Length of registration	<5 years		>5 years		<5 years		>5 years		<5 years		>5 years	
Gender	M	F	M	F	M	F	M	F	M	F	M	F
Unweighted responses	21	1	0	0	N/A ³	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weighted responses	10	1	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weight applied	0.47	0.85	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

³ ICTTech is only offered by the Institution of Engineering and Technology (IET), a large institution.

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