#### **REPORT FOR:**

THE ENGINEERING COUNCIL

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## 1 Executive summary

This survey of registered engineers is the latest in a series which Electoral Reform Services (ERS) has been conducting for the Engineering Council and EngineeringUK since 1995. All the surveys have been used to collect information on earnings, and individual surveys have been used to explore issues of current interest to the Council.

Key findings from the 2010 survey are summarised below. Comparisons with 2007 have been made where relevant.

- All sections of registration have seen a rise in (median) total earnings since
   2007; 10% for Chartered Engineers, 12% for Engineering Technicians and 6% for incorporated Engineers.
- Median annual total earnings in 2010 were:
  - £55,000 for Chartered Engineers
  - £43,300 for Incorporated Engineers
  - £37,000 for Engineering Technicians
- The increase in the *mean* total earnings for Chartered Engineers is somewhat higher, at 15%, accounted for by a considerable increase in the number of Chartered Engineers with earnings of £60,000 or more.
- Paid, bonus, overtime and commission payments have increased to a greater extent than basic salary, although fewer registrants have received such payments than in 2007.
- Registrants work, on average, 44 hours per week, with Engineering Technicians working slightly longer hours than other sections.
- About half of all registrants have experienced some changes to benefits in the
  past 12 months, although increases to pay account for most of this. While
  other changes are relatively small, most are in a negative direction,
  deterioration in pension arrangements being the most notable.
- The proportion of registered engineers who have their subscription and registration fees paid by their employer has increased by a few percentage points each year, from 47% in 2003 to 57% in 2010.

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- The CEng/lEng/Eng Tech qualifications are valued by 87% of registered engineers, including 41% who value them very highly. This is unchanged from 2007.
- Most registrants had found it easy to register, although only a third had found it "very easy". Engineering Technicians were more positive than others about ease of registration.
- Further or Higher Education teaching staff are the main source of awareness of the registration scheme for Chartered Engineers. Incorporated Engineers and Engineering Technicians are more likely to have heard about it from their Engineering Institution.
- The most significant factor in the decision to seek registration is the perception that it will help with career development. Greater professional status and recognition of skills and experience are also important.
- While the prospect of enhanced career development is a major motivation for registration, a substantial minority of almost four out of ten feel that it has had no effect on their career. A similar number, however, feel that registration has increased their employment opportunities.
- Attitudes to registration and the engineering profession are generally positive; nearly all registrants say they would recommend other engineers to become registered. However there is more doubt about the extent to which registered status is valued by employers and colleagues and the idea that registration improves earnings or provides job security is largely rejected.
- An increasing proportion (now 72%) recognises the importance of Continuing Professional Development (CPD) in maintaining their professional qualifications and over 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 more financial support from employers
  for training, a better range of training course at their place of work and on-line
  access to training courses.
- Under half (47%) claim to plan their professional development objectives, although planning is more prevalent among more recent registrants.



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- Of those who do plan their CDP objectives, the proportion keeping a formal record has increased since 2007 to over 70%
- There has been a further increase in the proportion of employees receiving employer financial support for professional development. Those who do receive such support show more positive attitudes to registration and feel more valued by employers and colleagues.

#### BACKGROUND AND OBJECTIVES

## 2 Background and objectives

The Engineering Council is the regulatory body for the engineering profession in the UK. It works through a number of engineering institutions to provide a standard level of assessment for individuals, education programmes and professional development programmes. The Engineering Council holds the national register of CEng, IEng and EngTech.

The Engineering Council is financially supported through the registration fees of 235,000 engineers.

Since 1995, ERS Market Research has regularly been commissioned to conduct surveys of Registered Engineers by the Engineering Council and the Engineering and Technology Board (now EngineeringUK).

The surveys have varied in length and subject matter, though they have always sought up to date information on earnings.

In addition to obtaining earnings information, the 2010 survey focussed on:

- reasons for registration
- the impact of registration on careers
- attitudes to registration and Continuing Professional Development

This report describes the findings of the 2010 survey, making comparisons with 2007 where appropriate. A brief description of the methodology is followed by the main findings in more detail, illustrated with charts and tables as appropriate. More detailed analysis of sub groups etc. can be found in the volume of computer tabulations which has been provided separately. A copy of the questionnaire, the covering letter, further technical details and a profile of the sample are contained in the Appendices.



## 3 Overview of methodology

The research was carried out by means of a postal self-completion survey. The questionnaire was designed jointly by ERS Market Research and the Engineering Council and included questions from the 2007 survey as well as some new material. A self-completion paper questionnaire was sent to c,10,000 registered engineers.

Fieldwork was carried out between 12 April and 3 May 2010.

Full details of the methodology and response rates are contained in Appendix 3.

Incorporated Engineers and Engineering Technicians were over-sampled relative to Chartered Engineers, and newer registrants (registered in the last five years) were over-sampled relative to established registrants. Women were over-sampled relative to men. The data were subsequently weighted to restore these groups to their correct proportions in the total sample. The key elements of sample composition are described in the next section and further details of the sample are provided in Appendix 4.



# 4 Sample composition

# 4.1 Section of registration

The weighted and un-weighted samples by Section of Registration for 2007 and 2010 are shown in Table 1 below. The un-weighted sample contained 1470 Chartered Engineers, 862 Incorporated Engineers and 423 Engineering Technicians.

Table 1: Section of registration

	20	07	2010		
	Un-weighted	Weighted	Un-weighted	Weighted	
Base: All responding registered engineers	(3,238)	(3,238)	(2755)	(2755)	
	%	%	%	%	
Chartered Engineer	53	75	53	73	
Incorporated Engineer	31	18	31	18	
Engineering Technician	16	7	15	8	

In both 2007 and 2010 Incorporated Engineers and Engineering Technicians were over-sampled relative to Chartered Engineers and weighted back to their true proportions as shown above.



# 4.2 Date of first registration

The data were also weighted by date of first registration to correct for the over-sampling of new registrants and the un-weighted and weighted profiles for 2007 and 2010 are shown in Table 2 below.

Table 2: Date of first registration

	2007		201	10
	Un-weighted	Weighted	Un-weighted	Weighted
Base: All responding registered engineers	(3,238)	(3,238)	(2755)	(2755)
	%	%	%	%
Registered within the last 5 years	22	16	28	16
Registered more than 5 years ago	78	84	72	84

Two thirds (66%) of the weighted sample first registered more than 10 years ago, 18% first registered 6 - 10 years ago and 16% first registered within the last five years.



# 4.3 Current employment status

The distribution of the sample in terms of current employment status for 2007 and 2010 is shown in Table 3 below.

Table 3: Current employment status

	2007	2010
Base: All responding registered engineers	(3238)	(2755)
	%	%
Employed	73	76
Self employed (including principal or partner in a firm)	10	10
Contract worker	2	2
Retired early (before expected age)	7	5
Retired or partially retired	6	4
Unemployed and seeking re-employment	1	1
In receipt of long term sickness benefit	0	0
Student in receipt of tax free grant or on reduced pay	0	0
Not stated	0	1

Compared with 2007, there are slightly more employees in the 2010 sample and slightly fewer retired.

While 1% of registered engineers were unemployed and seeking re-employment at the time of the survey, 6% had been in this situation at some time during the year ended 5 April 2010. This compares with 5% in the year ended 5 April 2007.

# **SAMPLE COMPOSTION**

There is some slight variation in employment status by section of registration, as shown in Table 4 below.

Table 4: Current employment status by section of registration

	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: All responding registered engineers	(1470)	(862)	(423)
(* = less than 0.5%)	%	%	%
Employed	76	74	78
Self employed (including principal or partner in a firm)	10	10	11
Contract worker	2	3	2
Retired early (before expected age)	5	6	4
Retired or partially retired	5	4	2
Unemployed and seeking re- employment	2	1	1
In receipt of long term sickness benefit	*	0	*
Student in receipt of tax free grant or on reduced pay	0	0	0
Not stated	1	1	1
* = less than 0.5%			

Engineering Technicians are slightly more likely than other groups to be employed and slightly less likely to be retired.



# 4.4 Employment sector

Respondents were asked to identify, from a list on the questionnaire, the sector of the economy most appropriate to their employer or business and the ranked distribution is shown in the table below. The list was considerably changed from the one used in 2007, so comparisons are not shown.

Table 5: Employment sector by section of registration

	Total	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: All responding registered engineers	(2,755)	(1470)	(862)	(423)
	%	%	%	%
Energy/Gas/Oil/Petrochemicals	15	17	11	8
Construction/Distribution	13	13	10	13
Manufacturing	12	13	13	9
Transport	9	8	8	18
Armed Forces/Defence	8	7	11	9
Utilities	7	7	6	5
IT/computing/software	5	6	2	1
Local Authority	5	3	11	7
Higher education	4	4	2	1
Communications	3	3	3	2
Government Agency	3	3	2	3
Health	2	1	3	3
Agriculture/Food industry	1	1	1	2
Banking/Finance	1	1	1	1
Schools	1	1	1	2
Further education	1	0	2	4
Central Government	1	1	1	1
Other	9	8	11	11
Not stated	2	2	2	1

Four out of ten work in the top three sectors, Energy/gas/oil/petrochemicals, Construction/distribution and Manufacturing. Engineering Technicians are less well

# SAMPLE COMPOSTION

represented than other groups in these sectors and more likely than others to be working in the Transport sector.

The table below shows the main employment sectors analysed by membership of the biggest institutions. A third (33%) of ICE members work in Construction/distribution. A quarter (25%) of IMechE members work in Manufacturing and a similar proportion (24%) in the Energy sector.

Table 6: Employment sector by institution membership

	Total	IET	ICE	IMechE
Base: All responding registered engineers	(2755)	(852)	(371)	(328)
	%	%	%	%
Energy/Gas/Oil/Petrochemicals	15	9	5	24
Construction/Distribution	13	5	33	3
Manufacturing	12	17	0	25
Transport	9	7	15	11



#### 4.5 Job role

Respondents were asked to identify their job role, selecting from a list on the questionnaire. (This has not been asked in earlier surveys). The results are shown in Table 7 below. The relatively high proportion of blank responses (18%) suggests that respondents had difficulty in fitting their job role to the descriptions on the questionnaire.

Table 7: Job role by section of registration

	Total	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: All responding registered engineers	(2,755)	(1470)	(862)	(423)
	%	%	%	%
Plant/machine operative	*	0	1	2
Departmental manager	15	15	15	13
Project manager	14	14	15	8
Designer	8	8	8	5
Consultant	17	19	11	7
Foreman/supervisor	1	*	2	11
Surveyor	1	1	4	2
Managing Director/ Chairman/ CEO	3	4	3	4
Other Director	6	8	3	3
Teacher/lecturer	3	3	3	5
Researcher (industry)	1	1	*	0
Programmer	1	1	*	*
Training Manager	*	*	1	1
Undergoing training	*	0	*	*
Other	11	10	13	19
Not stated	18	16	21	21
* = less than 0.5%				



#### 4.6 Qualifications

For the first time in 2010 details of academic qualifications were collected. The table below shows the highest level of qualification by section of registration.

Table 8: Highest level of qualification by section of registration

	Total	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: All responding registered engineers	(2755)	(1470)	(862)	(423)
	%	%	%	%
MEng or other postgraduate qualification	40	49	18	10
BEng	21	27	4	3
Below honours graduate level	38	23	77	86

The following tables show, for each section, how level of qualification differs between recent registrants and those of longer standing

Table 9: Chartered Engineers - highest level of qualification by length of registration

	Total	5 years or less	More than 5 years
Base: All responding Chartered Engineers	(1470)	(283)	(1187)
	%	%	%
MEng or other postgraduate qualification	49	60	47
BEng	27	33	26
Below honours graduate level	23	7	26

Chartered Engineers who have registered within the last five years are more likely than longer standing colleagues to have a postgraduate qualification and considerably less likely not to be qualified to at least honours graduate level (7% vs.26%).

Table 10: Incorporated Engineers - highest level of qualification by length of registration

	Total	5 years or less	More than 5 years
Base: All responding Incorporated Engineers	(862)	(305)	(557)
	%	%	%
MEng or other postgraduate qualification	18	21	18
BEng	4	13	3
Below honours graduate level	77	67	78

Among Incorporated Engineers, differences are less marked, although recent registrants are more likely than average to have at least an honours degree.

Table 11: Engineering Technicians - highest level of qualification by length of registration

	Total	5 years or less	More than 5 years
Base: All responding Engineering Technicians	(423)	(192)	(231)
	%	%	%
MEng or other postgraduate qualification	10	12	8
BEng	3	3	2
Below honours graduate level	86	84	88

More recently registered Engineering Technicians are only slightly better qualified than those of longer standing.



# 4.7 Primary place of work

Information about the primary place of work was collected under different categories from those used previously. Eight out of ten respondents worked in England.

Table 12: Primary place of work by section of registration

	Total	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: All responding registered engineers	(2755)	(1470)	(862)	(423)
	%	%	%	%
England	81	81 80		80
Scotland	8	9	8	6
Wales	3	3	4	2
Northern Ireland	2	2	1	2
Multiple locations in the UK	3	3	3	6
Abroad	2	2	2	2
Not stated	1	1	1	2

# SAMPLE COMPOSTION

# 4.8 Size of organisation

For the first time in 2010 respondents were asked about the size of their organisation. This is based on the number of employees in all locations.

Table 13: Size of organisation by section of registration

	Total	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: All responding registered engineers	(2755)	(1470)	(862)	(423)
	%	%	%	%
1 - 10	13	13	12	16
11 - 250	18	16	19	26
More than 250	67	68	66	56
Not stated	3	3	3	2

All questions in the survey were analysed by the above variables, together with gender, age, ethnic origin and institution membership (See Appendix 4). Detailed sub - group analysis can be found in the volume of computer tabulations which has been provided separately.



## 5 Main Findings

# 5.1 Earnings, hours of work and benefits

Details of basic income were collected as well as a separate figure for any overtime, bonus or commission payments. Our analysis deals briefly with these separate items below, followed by more detailed analysis of total earnings (basic income plus overtime, bonus and commission payments).

#### 5.1.1 Basic income

Respondents were asked to enter their gross basic annual income from employment as at 5<sup>th</sup> April 2010. This includes any London or large town allowance, before deduction of Income Tax, National Insurance and Pension contributions, and excludes overtime, bonus or commission payments. The self employed were asked to provide net profit before tax for the tax year 2009/10. Mean and median basic income by section of registration, for 2007and 2010 is shown in the table below.

Table 14: Average basic income

	Mean basic income			Med	income	
Base: All employees/self employed/contract workers who received a salary	2007	2010	% change	2007	2010	% change
Chartered Engineer	(1396)	(1240)		(1396)	(1240)	
	£54,116	£62,386	+15.3	£48,000	£52,609	+9.6%
Incorporated Engineer	(772)	(715)		(772)	(715)	
	£43,685	£46,362	+6.1%	£40,000	£41,345	+3.3%
Engineering Technician	(444)	(347)		(444)	(347)	
	£34,518	£39,456	+14.3%	£31,000	£35,000	+12.9%

Mean and median basic income have increased across all three sections since 2007. Mean incomes for Chartered Engineers and Engineering Technicians have increased above the rate of inflation over the past three years, while the increase for Incorporated Engineers is below or in line with the level of inflation.



### 5.1.2 Overtime, bonus and commission payments

Employees and contract workers were asked to supply the total amount of all overtime, bonus and commission payments received in the 12 months to 5 April 2010.

The table below compares the mean 2007 and 2010 overtime, bonus and commission payments among ALL employees and contract workers (i.e. including those who did not receive any such payments).

Table 15: Mean annual overtime, bonus and commission payments

	2007	2010	% change
Base: all employees and contract workers			
Chartered Engineer	(1315)	(1163)	
	£4,701	£5,833	+24.0%
Incorporated Engineer	(735)	(703)	
	£2,929	£3,179	+8.5%
Engineering Technician	(422)	(344)	
	£2,513	£2,889	+15.0%

Average overtime, bonus and commission payments appear to have risen substantially across all sections, and particularly among Chartered Engineers.



The following table shows mean and median bonus payments among those who received such payments.

Table 16: Average annual overtime, bonus and commission payments

		Mean bonus			Median bonus		
All employees and contract workers who received such payments	2007	2010	% change	2007	2010	% change	
Chartered Engineer	(645)	(490)		(645)	(490)		
	£9,653	£13,063	+ 35.3	£5,000	£6,817	+36.3	
Incorporated Engineer	(318)	(216)		(318)	(216)		
	£6,777	£10,427	+53.9	£4,000	£5,000	+25.0	
Engineering Technician	(185)	(114)		(185)	(114)		
	£5,950	£8,188	+37.6	£3,726	£5,000	+34.2	

Overtime, bonus and commission payments have increased substantially across the board. Incorporated Engineers, who saw the smallest basic salary increase, have received the largest increase in additional payments, with a mean increase of 53.9% and an increase in the median bonus of 25%. There is some indication that these increases are, at least to some extent, accounted for by increases in overtime. While mean overtime, bonus and commission payments were c. £8000 for those working up to 45 hours per week, the mean for those working between 46 and 50 hours per week was £17,692, increasing to £23,248 among those who worked more than 50 hours per week. (Note: since hours of work were not asked about in earlier surveys, it is not possible to verify the extent to which they have increased in 2010.)

In 2010, 41% of employees and contract workers reported bonus, overtime and commission payments, compared with 48% in 2007. So while fewer engineers received these payments in 2010, those who did receive them benefited from considerable increases. The proportion of respondents reporting bonuses of over £10,000 increased from 19% of all recipients in 2007 to 36% in 2010.



#### 5.1.3 Total earnings

Basic income and overtime, bonus and commission payments were combined to produce estimates of total earnings, and a comparison of the averages for 2007 and 2010 is shown in the table below.

Table 17: Average annual total earnings

	Mean total earnings			Median total earnings		
Base: all employees, self employed and contract workers who stated an income	2007	2010	% change	2007	2010	% change
Chartered Engineer	(1396)	(1240)		(1396)	(1240)	
	£58,668	£67,714	+15.4	£50,000	£55,000	+10.0
Incorporated Engineer	(772)	(715)		(772)	(715)	
	£46,543	£49,412	+6.2	£41,000	£43,300	+5.6
Engineering Technician	(444)	(347)		(444)	(347)	
	£37,636	£41,826	+11.1	£33,000	£37,000	+12.1

The increases in total earnings reflect those shown for basic income. The overtime, bonus and commission increases, while large, account for a relatively small proportion of total earnings. Chartered Engineers have seen the biggest increase over three years (15.4%) and Incorporated Engineers the smallest (+6.2%). This may be indicative of skill shortages in the Chartered and Technical areas.



The table below shows the earnings by percentile of the three sections of registration. This enables us to compare, for example, the earnings of the bottom and top 10% of earners in each group and to see the spread of earnings.

Table 18: Average annual earnings by section of registration (percentiles)

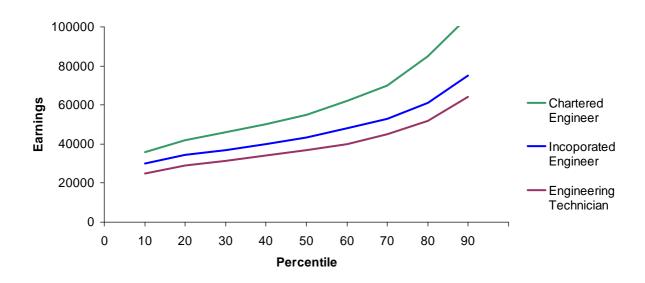
	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: all employees, self employed and contract workers who stated an income	(1240)	(715)	(347)
	£	£	£
10th Percentile	36,000	30,000	25,000
20th Percentile	42,000	34,549	29,000
30th Percentile	46,100	37,000	31,500
40th Percentile	50,300	40,000	34,000
50th Percentile	55,000	43,300	37,000
60th Percentile	62,000	48,000	40,000
70th Percentile	70,000	53,000	45,000
80th Percentile	85,000	61,000	52,000
90 <sup>th</sup> Percentile	105,000	75,000	64,000

These figures are compared graphically in Chart 1 overleaf.



Chart 1

# Total earnings by percentile



Base: All employees, self employed and contract workers who stated a salary (2302)

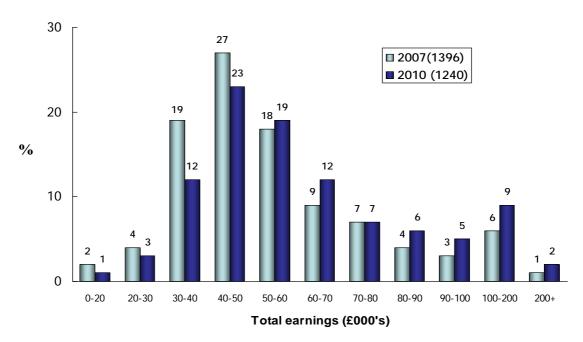
The difference in earnings between Incorporated Engineers and Engineering Technicians is similar for the lower half (up to the 50<sup>th</sup> percentile) and slightly bigger for the top half. The gap between Chartered Engineers and Incorporated Engineers shows a similar pattern, beginning to widen at the half way point. Chartered Engineers' earnings then climb more steeply from the 70<sup>th</sup> percentile, so that the top 30% of this group earn significantly more than the top 30% of the other two groups.



The following charts illustrate the earnings distribution of each section in 2007 and 2010.

#### Chart 2

# Total earnings - Chartered Engineers



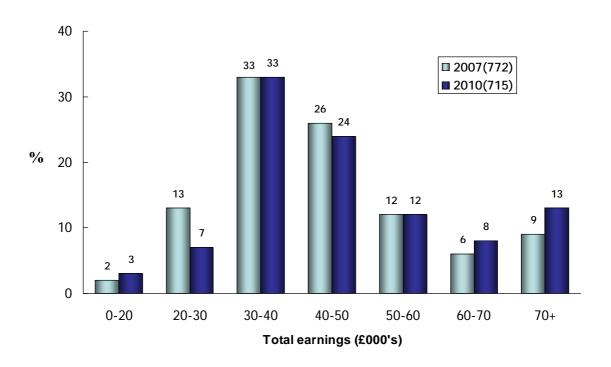
Base: All employed, self employed and contract Chartered Engineers who stated a salary

The proportion of Chartered Engineers who now earn less than £40,000 p.a. has fallen from 25% to 17% since 2007. The proportion earning £50,000 or more has grown from 48% in 2007 to 60% in 2010.



Chart 3

# Total earnings – Incorporated Engineers



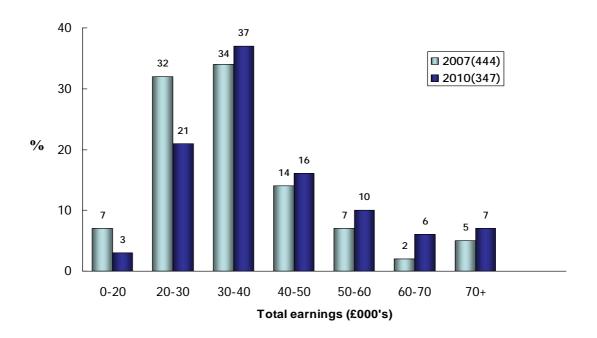
Base: All employed, self employed and contract Incorporated Engineers who stated a salary

Only 10% of Incorporated Engineers now earn less than £30,000, compared with 15% in 2007. While the proportion in the £30,000 - £60,000 band has remained relatively stable, there have been increases at the higher end of the salary scale, with 21% now earning £60,000 or more, compared with 15% in 2007.



Chart 4

# Total earnings - Engineering Technicians



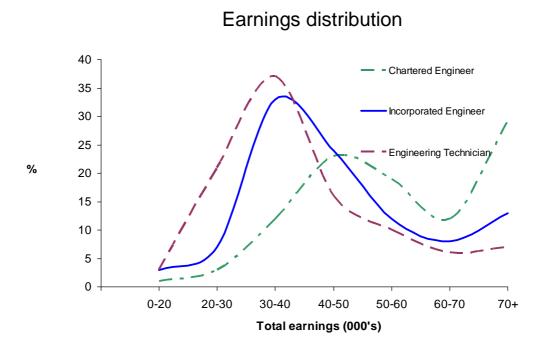
Base: All employed, self employed and contract Engineering Technicians who stated a salary

The proportion of Engineering Technicians earning below £30,000 has fallen from 39% in 2007 to 24% in 2010, with corresponding increasing in the higher bands. 13% now earn £60,000 or more, compared with only 7% in 2010.



Chart 5 compares the earnings distribution of the three sections.

Chart 5



Base: All employees, self employed and contract workers who stated a salary (2302)

The distributions for Incorporated Engineers and Engineering Technicians follow a similar pattern although the Incorporated Engineers' curve is to the right of that for Engineering Technicians indicating their higher earning potential. The curve for Engineering Technicians closely follows a normal distribution, with the mean salary falling close to the highest point of the curve. That for Incorporated Engineers, though similar, is slightly skewed, with the highest point falling below the mean and with a rising "tail" indicating a disproportionate number of higher earners.

This pattern is even more pronounced for Chartered Engineers with the highest point of the curve falling a considerable way below the mean. The sharply rising "tail" at the £60,000 p.a. point demonstrates that Chartered Engineers are much more likely than the other sections to have a significant proportion of higher than average earners.



#### 5.1.4 Hours of work

Respondents were asked, for the first time in 2010, how many hours they work in an average week.

Table 19: Hours worked in an average week by section of registration

	Total	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: all employees, self employed and contract workers	(2473	(1308)	(715)	(347)
	%	%	%	%
Less than 30	4	4	3	2
31 - 37	14	13	18	12
38 - 40	26	26	25	24
41 - 45	26	27	23	22
46 - 50	17	17	18	18
More than 50	12	12	9	18
Mean	44	44	43	46
Median	42	42	42	45
Not stated	2	2	3	4

The mean number of hours worked per week was 44. There was little variation by section of registration, although Engineering Technicians worked the longest hours, with a mean of 46. The proportion of Technicians working more than 50 hours per week was considerably higher than in the other sections, at 18%.



### 5.1.5 Changes to benefits

Again for the first time in 2010, respondents were asked about any changes made to their benefits in the last 12 months.

Table 20: Changes to benefits in last 12 months

	Increased	Decreased
Base: all employees, self employed and contract workers	(2432)	(2432)
	%	%
Pay rate	40	13
Bonus	10	20
Flexible working arrangements	9	4
Retirement age	6	3
Pension arrangements	5	15
Contracted hours	4	4
Holidays	4	3
Private medical insurance	4	5
Car scheme	3	8
Overtime	2	8
Travel/subsistence allowance	2	9
Sick pay	1	2
London/area allowance	1	2
Other	1	2
None/Not stated	46	43

Over four out of ten reported no increase or decrease in any benefits during the last 12 months. Pay rate was the item most likely to have changed, with 40% reporting an increase and 13% a decrease. 10% had received an increased bonus and 20% a decrease in bonus payments. 15% reported some deterioration in pension arrangements, although 5% said that these had been improved. Numbers reporting other changes are relatively small, but tend to be in a negative direction, with evident deterioration particularly relating to car schemes, overtime and travel/subsistence allowances.



## 5.2 Registration issues

A section of the questionnaire dealt with the value placed on the qualification, sources of awareness of the registration scheme, ease of registration, factors influencing registration and the impact of registration on career.

### 5.2.1 Financial support from employer

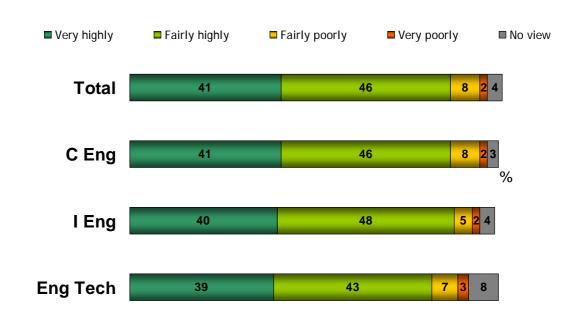
Over half of employees (57%) have their subscription and registration fees paid by their employer. This compares with 53% in 2007, 50% in 2005 and 47% in 2003 so appears to be gradually increasing. Chartered Engineers are more likely to have their fees paid (61%) than Incorporated Engineers (51%) and Engineering Technicians (43%), but the proportion in all sections has increased since 2007. Registrants of longer standing (over 15 years) are less likely than more recent registrants to have their fees paid (53% vs.60%).



#### 5.2.2 Value placed on qualification

Almost nine out of ten (87%) value their CEng/IEng/Eng Tech qualification highly and almost half of these (41% of the total) value it very highly. Although still very positive, Engineering Technicians are slightly less likely than other sections to value the qualification highly - 82% compared with 87% of Chartered Engineers and 88% of Incorporated Engineers.

Value placed on qualification



Q11 How highly do you value your CEng/lEng/Eng Tech qualification? Base: All responding Registered Engineers (2755)

Among the major institutions, members of ICE and CIBSE are most likely to value their qualifications very highly (50% and 56% respectively), while only 28% of IChemE members and 36% of SOE members gave a very high rating.

Registrants who have registered in the last five years tend to value their qualification slightly more highly than those of longer standing, with 90% rating it either very or fairly highly, compared with 86% of other registrants.



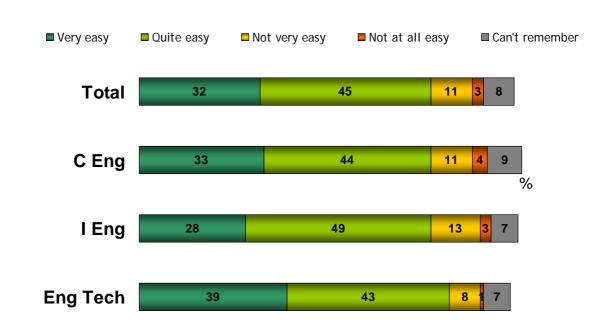
Employees are slightly less positive than others about the value of their qualification, with 39% rating it very highly, compared with 46% of self employed and contract workers. There is, however, no difference between the groups in the proportion giving a positive rating (very or fairly highly).

#### 5.2.3 Ease of registration

In 2010 respondents were asked how easy it had been to register for the first time.

Chart 7

Ease of registration



Q7 How easy did you find it to register for the first time? Base: All responding Registered Engineers (2755)

Over three quarters (77%) of all registrants had found it easy to register for the first time including a third (32%) had found it very easy. Engineering Technicians had the most positive experience, with 83% finding the process easy, including 39% who found it very easy.

Of those registered in the last five years, 80% had found the process easy, slightly more than those who registered more than five years ago (77%).



### 5.2.4 Source of awareness of registration scheme

Just over a third of all respondents (37%) first found out that engineers could become professionally registered from teaching staff during their further or higher education. While this was the most common source of information for Chartered Engineers (41%), Incorporated Engineers and Engineering Technicians were more likely to have heard about it from their institution. Registrants in these sections were also more likely than Chartered Engineers to have heard about registration through other registrants at their place of work.

Table 21: Source of awareness of registration scheme by section of registration

	2007 Total	2010 Total	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: All responding registered engineers	(3238)	(2755)	(1470)	(862)	(423)
	%	%	%	%	%
Further or higher education teaching staff	42	37	41	26	20
Engineering institution	23	29	28	31	39
Registrants at place of work	14	12	9	22	17
Employer	11	11	10	13	13
School teaching staff	5	3	4	2	1
Other sources	6	7	7	5	9
Not stated	1	1	1	1	1

Those registered with of CIBSE and SOE were more likely than average to have heard about registration through their Institution (42% and 41% respectively), while those registered with IMechE were least likely to have done so (18%)



While newer registrants of five years or less are more likely than those of longer standing to have heard about registration through their employer, longer standing registrants are more likely than newer registrants to have heard about it through their institution, as shown in the table below.

Table 22: Source of awareness of registration scheme by length of registration

	5 years or less	6 - 15 years	16 - 25 years	Over 25 years
Base: All responding registered engineers	(780)	(890)	(741)	(344)
	%	%	%	%
Further or higher education teaching staff	34	40	35	35
Engineering institution	22	25	33	39
Registrants at place of work	12	14	11	11
Employer	15	11	10	9
School teaching staff	5	3	3	2
Other sources	12	6	7	4
Not stated	1	1	0	1

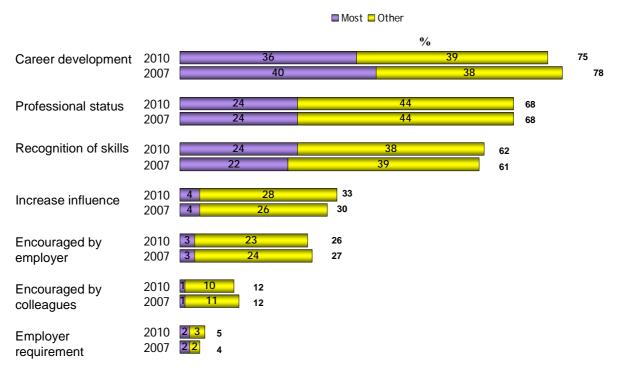


#### 5.2.5 Significant factors in decision to seek registration

Respondents were asked to choose from a list the significant factors which had influenced their decision to seek registration and to identify the *most* significant factor. These responses are shown in Chart 8 below.

Chart 8

# Factors influencing registration



Q9 Which of the following were significant factors/the most significant factor in your decision to seek registration?

Base: All responding Registered Engineers (2755)

The most significant factor for nearly four out of ten registrants (36%) and a subsidiary factor for a similar number (39%) is "I felt it would be helpful in my career development". Nearly a quarter (24%) identified the most significant factor as "I felt it would give me greater professional status" and the same proportion chose "I wanted my professional skills and experience to be recognised". When all influencing factors are taken into account greater professional status is a factor for nearly seven out of ten (68%) and recognition of skills and experience is important for six out of ten (62%). Considerably fewer (33%) felt that it would increase their influence within their organization or industry and only 4% see this as the most significant factor. About a quarter (26%) had been encouraged by their employers, but only 5% indicated that registration had been an employer requirement.



Influencing factors varied to some extent according to section of registration, as shown in the table below.

Table 23: Factors influencing registration by section of registration

	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: All responding registered engineers	(1470)	(862)	(423)
	%	%	%
I felt it would be helpful in my career development	75	74	73
I felt it would give me greater professional status	71	62	58
I wanted my professional skills and experience to be recognised	62	60	57
I felt it would increase my influence within my organisation or industry	35	27	26
I was encouraged to do so by my employer	28	19	16
I was encouraged to do by colleagues/friends	11	17	14
I was required to do so by my employer	5	4	2
None of the above	*	1	1
Other	4	1	2
Not stated	*	0	0
* = less than 0.5%			

Chartered Engineers are more likely than other sections to have felt that registration would give them greater professional status and also more likely to have felt that it would increase their influence within their organisation or industry. This in part may be because they were more likely than others to have been encouraged to register by their employer.

Those who have registered in the last five years are more likely than other groups to mention a variety of factors. Professional status was a particularly strong influence on this group, being mentioned by 74%, compared 68% of those who registered 6 - 25 years ago and only 63% of those who had registered more than 25 years ago.



## 5.2.6 Impact of registration on career

We saw that three quarters of registrants had been influenced to register by the hope that it would be helpful in their career development. Nearly four in ten registrants (38%), however, feel that registration has had no impact on their career. This was exactly the same proportion as in 2007, and, as before, was particularly true for Engineering Technicians, nearly half of whom (49%) feel there has been no impact.

A third (34%) believe that registration has increased their employment opportunities, a quarter (24%) that it has meant they are more valued by their employer and colleagues, and a similar number (23%) feel that their confidence in their professional standing has enabled them to challenge or promote significant initiatives.

Increased employment opportunities are acknowledged most by Chartered and Incorporated Engineers (35%) and are much less relevant to Engineering Technicians (20%).

Table 24: Impact of registration on career by section of registration

	Total 2007	Total 2010	Chartered Engineers	Incorporated Engineers	Engineering Technicians
Base: All responding registered engineers	(3,238)	(2755)	(1470)	(862)	(423)
	%	%	%	%	%
It has increased my employment opportunities	36	34	35	35	20
It has meant I am more valued by my employer and colleagues	26	24	26	21	14
My confidence in my professional standing has enabled me to challenge or promote significant initiatives	21	23	23	22	24
I feel it hasn't had any impact	38	38	37	37	49
Not stated	1	1	1	*	1
* = less than o.5%					



## 5.2.7 Attitudes to registration

Attitudes to a number of aspects of registration were measured by a battery of statements to which respondents were asked to signal the level of agreement on a five point scale.

The table below shows the full list of statements and the percentage agreeing or disagreeing with each one.

Table 25: Attitudes to registration

		Agree	Disagree	Neither/NS
Base: All responding registered engineers (2755)				
I would recommend to other engineers that they become registered	%	87	2	11
I am dissatisfied with being an engineer	%	9	74	17
I don't see any benefits in being registered	%	17	66	17
My employer values the fact that I am registered	%	49	23	28
I think that engineers like me are valued for the work they do	%	48	29	23
My work colleagues value the fact that I am registered	%	39	22	39
Being a registered engineer is good value for money	%	35	22	43
Being a registered engineer means I earn a higher salary	%	28	31	41
I am more secure in my job as a result of being registered	%	21	44	35

The vast majority have a positive view about the general principle of registration, with 87% saying that they would recommend to other engineers that they become registered. Three quarters (74%) express satisfaction with their work as engineers (disagreeing with the statement expressing dissatisfaction) and two thirds (66%) acknowledge the benefits of registration. However, statements concerned with specific benefits fail to gain majority agreement, with just under half agreeing that their employer values registration (49%) and feeling that they are valued for the work they do (48%). Fewer agree that their work colleagues value the fact that they are registered (39%) and that being a registered engineer is good value for money (35%). While all these statements elicit agreement from less than a majority, only about a quarter express disagreement, with the remainder staying "neutral" in the "neither agree nor disagree" category.

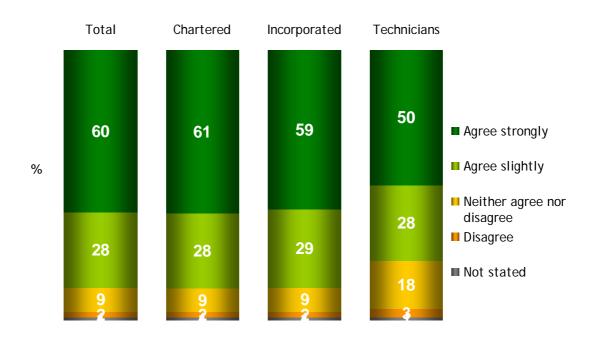


Statements regarding earning potential and job security also had a high level of "neutral" responses and views were slightly more negative than positive. While 28% agreed that registration enabled them to earn a higher salary, more (31%) disagreed with this. Twice as many registrants disagreed with the statement "I am more secure in my job as a result of being registered" as agreed with it (44% disagreed, 21% agreed). Overall the responses indicate a positive attitude to registration and engineering, some ambivalence around specific benefits and a negative view of registration as a determiner of salary or job security.

In the following pages we look at the specific statements in more detail and by section of registration.

### Chart 9

## Recommendation to others



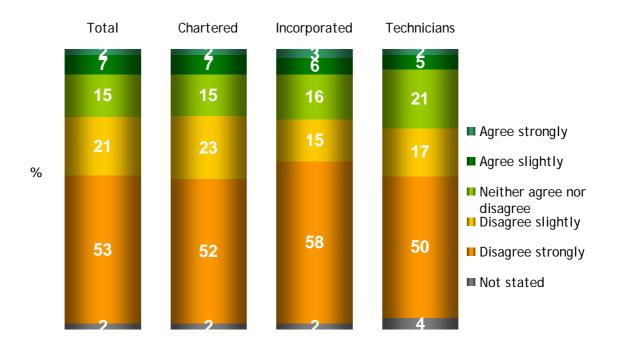
Q17 Agreement with statement: "I would recommend to other engineers that they should become registered" Base: All responding Registered Engineers (2755)

60% of all registrants agreed strongly with this statement, and a further 28% agreed slightly. The figures for Chartered and Incorporated Engineers are close to these averages. While the attitude of Engineering Technicians is a little less positive, 78% nevertheless agree with the statement, with 50% agreeing strongly. There was no significant variation by length of registration.



Chart 10





Q17 Agreement with statement: "I am dissatisfied with being an engineer" Base: All responding Registered Engineers (2755)

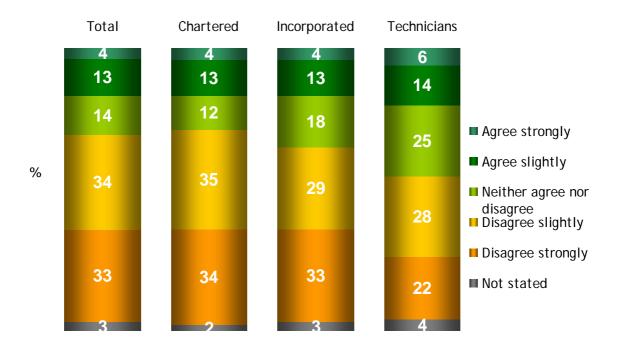
Attitudes are similar across the three sections although Incorporated Engineers indicate the highest level of satisfaction, with 58% disagreeing strongly with this statement. Engineering Technicians are rather more inclined that the other sections to agree with this statement.

Those working in construction/distribution were more likely than average to be dissatisfied (17% compared with an average of 9%).



Chart 11





Q17 Agreement with statement: "I don't see any benefits in being registered" Base: All responding Registered Engineers (2755)

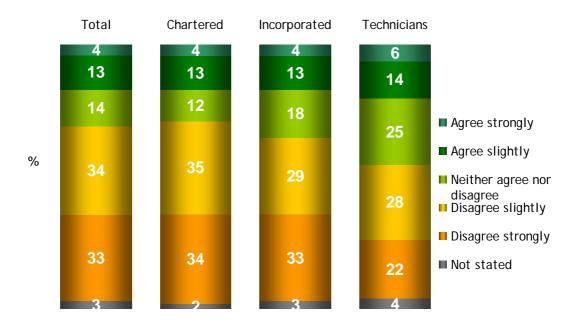
Chartered Engineers are more likely than other sections to disagree with this statement (69%) while Engineering Technicians are again the most negative, with 51% disagreeing. This section is also the most "neutral" with a quarter (25%) neither agreeing nor disagreeing, compared with an average of 14%.

There is no significant variation by length of registration. Those whose subscriptions are paid by their employer are more likely than others to appreciate the benefits of registration with 71% disagreeing compared with only 58% of those whose subscriptions are not paid.



Chart 12

# No benefits to registration



Q17 Agreement with statement: "I don't see any benefits in being registered" Base: All responding Registered Engineers (2755)

Chartered Engineers are the most positive, with around half (51%) agreeing with this statement. This compares with 47% of Incorporated Engineers and only 35% of Engineering Technicians. Almost as many Technicians (31%) disagree with this statement as agree with it, with the remaining third taking a neutral position.

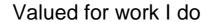
Those who have registered in the last five years are more likely than average to agree that their employer values their registration (54%) and the level of agreement declines with length of registration, reducing to 42% among those who have been registered for more than 25 years.

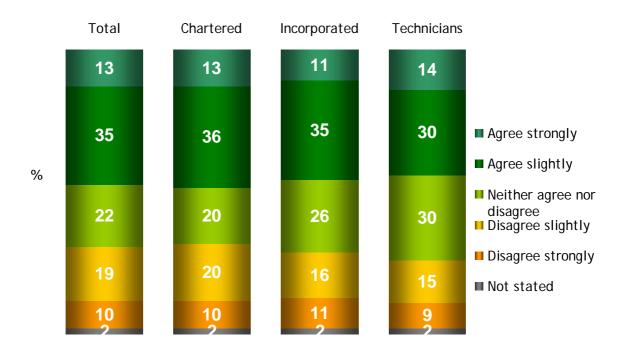
Perhaps not surprisingly, agreement is considerably higher among those whose subscription is paid by their employer (62%) than by those whose is not (35%).

The employment sectors where registration is thought to be most valued are Energy (63%), Construction/distribution (57%), Transport (55%), Armed Forces/Defence (54%) and Government Agencies (53%). Those who feel least valued work in Manufacturing (39%), Health (35%), IT and Computing (30%) and Education (30%).



Chart 13





Q17 Agreement with statement: "I think that engineers like me are valued for the work they do" Base: All responding Registered Engineers (2755)

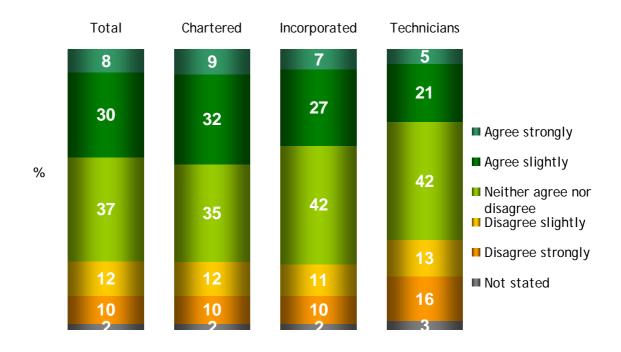
Chartered Engineers feel the most valued, with 49% agreeing with this statement, followed by Incorporated Engineers (46%) and Engineering Technicians (44%). Those with employer paid subscriptions (51%) are more likely than others (46%) to feel valued as are those with employer support for CPD, 54% of whom agreed with this statement, compared with only 40% of those who were not supported.

The highest levels of agreement were recorded by those working in Communications (59%), Health (54%) and Energy (53%) while those in Construction/distribution (45%), Education (44%) Government Agencies (41%) and Local Authorities (34%) had the lowest scores.



Chart 14

# Colleagues value registration



Q17 Agreement with statement: "My work colleagues value the fact that I am registered" Base: All Registered Engineers (2755)

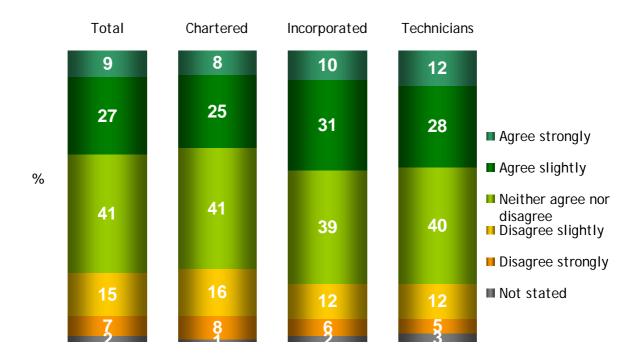
Chartered Engineers are again more positive than others on the subject of whether they felt valued by colleagues, with 41% agreeing compared with 34% of Incorporated Engineers and only 26% of Engineering Technicians. Again, those who are supported by employers paying subscriptions and in CPD were much more likely than others to feel valued by colleagues (43% vs. 29%). Those who have registered in the last five years (45%) feel more supported than longer established colleagues (around 37%).

There are wide variations by employment sector, with the highest levels of agreement recorded by those in Utilities (45%), Construction/distribution (45%) and Transport (44%) and the lowest by those in IT (28%) and Education (27%).



Chart 15

# Good value for money



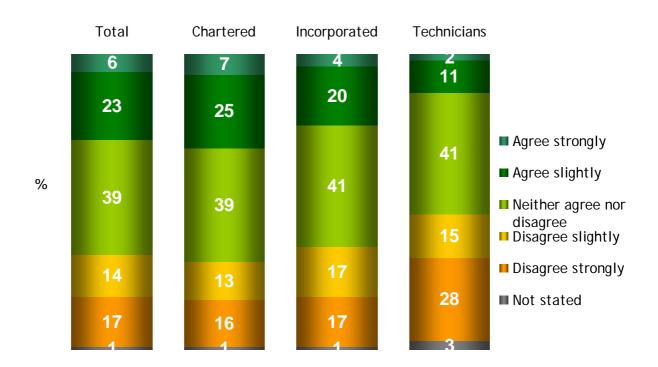
Q17 Agreement with statement: "Being a registered engineer is good value for money" Base: All responding Registered Engineers (2755)

Against the general positive trend, Chartered Engineers are least likely to agree that registration is good value for money, with 33% agreeing, compared with 41% of Incorporated Engineers and 40% of Engineering Technicians.



Chart 16





Q17 Agreement with statement: "Being a registered engineer means I earn a higher salary" Base: All responding Registered Engineers (2755)

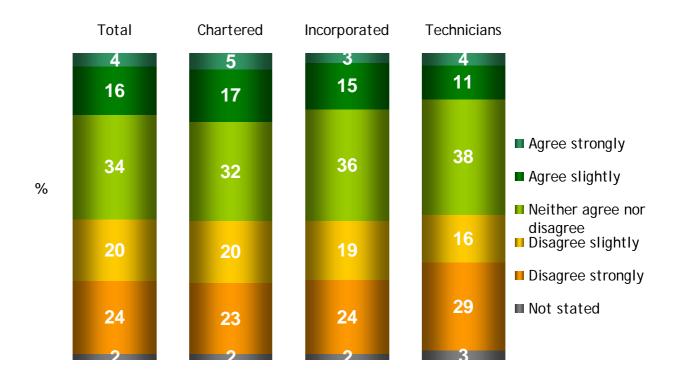
Some of the biggest differences in attitude between sections relate to earning potential. While 31% of Chartered Engineers agree that registration means a higher salary, only 24% of Incorporated Engineers and 13% of Engineering Technicians think this. While a substantial minority of each section is ambivalent, there is a relatively high number (43%) of Technicians who disagree with this statement, including 28% who disagree strongly.

Those who registered more than 25 years ago are more likely than more recent registrants to agree with this statement (33% vs. 28%). There are wide variations by employment sector, with the highest level of agreement coming from those in Construction/distribution (40%), Local Authorities (37%) and Energy (34%), and the lowest from those in IT (14%), Education (14%) and Armed Forces/Defence (18%).



Chart 17

# More job security



Q17 Agreement with statement: "I am more secure in my job as a result of being registered" Base: All responding Registered Engineers (2755)

Across the board there is little agreement that registration confers greater job security although Chartered Engineers (22%) are rather more likely than Incorporated Engineers (19%) or Engineering Technicians (15%) to think so. Those supported by employers either via subscription payment or CPD are more likely than others to agree (26% vs. 14%).

Those working in Construction/distribution (28%), Energy (25%) Local Authorities (25%) and Government Agencies (25%) have above average levels of agreement, while those in Manufacturing (14%), Education (13% and IT (15%) feel least secure.



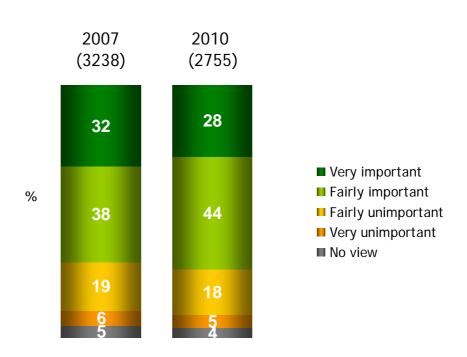
# 5.3 Continuing professional development

Respondents were asked about their continuing professional development activity and its importance in maintaining their professional qualifications.

Seven out of ten respondents (72%) rate CPD as important, including 28% for whom it is very important. While the proportion considering CPD important has increased slightly from 70% in 2005, the proportion considering it VERY important has declined from 32% to 28% since 2007.

Chart 18





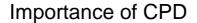
Q12 How important to you is Continuing Professional Development ((CPD) in maintaining your professional qualifications, ensuring that your skills and expertise are relevant and up to date?

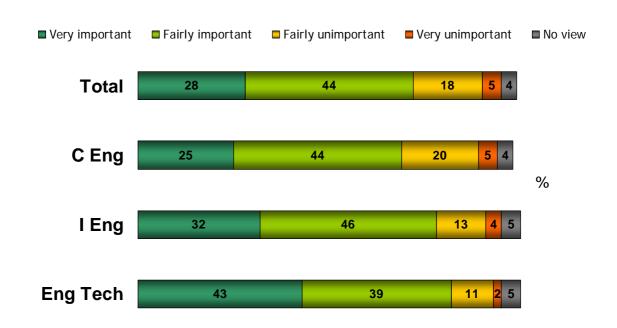
Base: All responding Registered Engineers (2755)



As Chart 19 below shows, CPD is significantly more important to Engineering Technicians than it is to other sections, with 43% seeing it as very important and a further 39% as fairly important. Chartered Engineers are the least likely to see CPD as important (70%).

Chart 19





Q12 How important to you is Continuing Professional Development ((CPD) in maintaining your professional qualifications, ensuring that your skills and expertise are relevant and up to date?

Base: All responding Registered Engineers (2755)

Over eight out of ten registered engineers (83%) believe that they are able to keep their engineering competence adequately up to date for their current role. Engineering Technicians (79%) and Incorporated Engineers (77%) are slightly less likely than Chartered Engineers (85%) to believe this.



Those who felt that they were not able to keep their professional competence up to date were asked how they could be helped to do so.

Table 26: How could be helped to keep engineering competence up to date

	Total	Chartered Engineer	Incorporated Engineer	Engineering Technician
Base: All responding registered engineers who are not able to keep their professional competence up to date	(471)	(218)	(171)	(82)
	%	%	%	%
More financial support from employer for training	36	36	34	41
More/better range of training course at place of work	34	31	32	52
On-line access to professional training courses	32	34	29	32
More on the job training	25	24	24	37
Secondments/transfers/opportunities to broaden experience at workplace	25	27	21	21
More/better range of training course at my institution	18	20	11	19
More guidance from my institution	17	17	14	23
Further academic qualifications	9	8	9	12
Other	18	19	17	18

Over a third (36%) feel they could benefit from more financial support from their employer for training and similar proportions are looking for more/better range of training courses at their place or work (34%) or on-line access to professional training courses (32%). Engineering Technicians in particular are looking for a better range of training courses at work (52%), more financial support (41%) and more on the job training (37%). They are also more likely than other sections to be looking for more guidance from their institution.





Under half of all respondents (47%) claim to plan their professional development objectives. This is similar to 2007 and is consistent across the three sections of registration. Two thirds (66%) of those who have registered in the last five years plan their professional development objectives, and the proportion declines with longer service, falling to only 32% among those who registered more than 25 years ago.

Of those who do plan their professional development objectives, 71% maintain a formal record of their professional development activities. This has increased from 64% in 2007. The proportion doing this is highest among Engineering Technicians (85%) and lowest among Chartered Engineers (68%), while the more recently registered are more likely than those of longer standing to do this (76% vs. 69%).

Nearly two thirds (64%), of employees are offered financial support for professional development by their employers, more than in 2007 (59%). Chartered Engineers (65%) are more likely than Incorporated Engineers (61%) or Engineering Technicians (57%) to receive this support although the proportion of those doing so has increased from 50% in 2007.



# 6 Appendices





Appendix 1 - The questionnaire and covering letter

# The Engineering Council and EngineeringUK 2010 Survey of Registered Engineers

22. ETHNIC GROUP (Please tick one box only.)

22. ETHNIC GROUP (Please tick one box only.)	24. Where is your primary place of work?
White British	(Please tick one box only)
Other White	England
White and Black Caribbean	Scotland
White and Black African	Wales
White and Asian	Northern Ireland
Other mixed	Multiple locations in UK
Indian	ADIOGO
Pakistani	
Bangladeshi	
Other Asian	
Black Caribbean	
Black African	<ol> <li>How many employees are there in your organisation in all locations? (Please tick one box only, giving your best</li> </ol>
Other Black	estimate)
Chinese	1-10
Any other ethnic group (Please describe below)	11 - 250
Employment information	- More than 250
23. Please read through the following list and select the one sector of the economy that is most appropriate to your employer in (Please fick one box only)	
Arrive Hurs/Enord in duetru	
Agricalary Cod madaty	QUALIFICATIONS
Energy//Gas/Oil/Petrochemicals	26. Please indicate which of the following qualifications you
Manufacturing	noid. (Please tick all that apply)
Utilities	MEng
Construction/Distribution	Other postgraduate qualification
Transport	BEng
Communications	Ordinary degree
en en en	HNC/HND/Foundation degree
11/companies of ware	S/NVQ Level 4
Banking/finance	A Levels/Scottish Highers or S/NVQ Level 3
Armed forces/defence	S/NVQ Level 2
Health	BTEC or OCR Nationals
Schools	ONC/OND or City and Guilds Advanced Craft
Further education	Trade Apprenticeship
Higher education	Foundation Modern Apprenticeship
Central government	Advanced Trade Apprenticeship
	Modern Apprenticeship
Local authority	Other post age 18 qualification (Please describe below)
Government agency	
Other (Please describe below)	
	None of these
Thank you for your co-operation	
PLEASE RETURN YOUR COMPLETED QUESTIONNAIRE IMMEDIATELY IN THE PRE-PAID ENVELOPE PROVIDED. Your completed questionnaire should be returned to reach ERS Market Research, Independence House, 33 Clarendon Road, London N8 0NW by 3 May 2010	IEDIATELY IN THE PRE-PAID ENVELOPE PROVIDED. RS Market Research, Independence House,
	RCH 1 ST
	The second secon

# The Engineering Council and EngineeringUK 2010 Survey of Registered Engineers

All replies are in absolute confidence, and no attempt will be made to trace responses to individuals. The purpose of the questions about your personal circumstances is to enable us to examine how attitudes differ among respondents in a number of broad groups.

<ol> <li>Which of the following best describes your current employment status? (Please tick one box only.)</li> </ol>	5. Does your employer offer financial support for your professional development?
An employee	(Flease tick one box only.)
Self employed (including principal or partner in a firm)	Yes
Contract worker	No
Retired early (before expected age of retirement)	
Retired or partially retired	
Unemployed and seeking re-employment	<ol><li>How were you first made aware that engineers could become professionally registered (as a CEng. IEng or</li></ol>
In receipt of long term sickness benefit	EngTech)? (Please tick one box only.)
Student receiving a tax-free grant or on reduced pay from	I was informed by teaching staff at my school
	I was informed by teaching staff during my further or higher
IF TOO ARE CORRENILT UNEMITLOTED OR IN RECEIPT OF LONG TERM SICKNESS BENEFIT	educationeducation
PLEASE ANSWER SUBSEQUENT EMPLOYMENT	I was told by my employer
QUESTIONS IN RESPECT OF YOUR MOST RECENT EMPLOYMENT.	I leamt from registrants at my place of work
<ol><li>Which of these best describes your current (or most recent) job role? (Please tick one box only.)</li></ol>	I was told by the engineering institution that I joined
Plant/machine operative	Other sources (Please describe below)
Donothmontol Monogor	
Departmental manager	
Project Manager	
Designer	
Consultant	7. How easy did you find it to register for the first time?
Foreman/supervisor	(Please tick one box only.)
Surveyor	Very easy
Director/Chairman/CEO	Quite easy
Other Director	Not very easy
	Not at all easy
l eacherlie culter in the cult	Can't remember
Researcher (industry)	
Programmer	
Training manager	
Undergoing training	<ol> <li>Which of the following were significant factors in your decision to seek registration?</li> </ol>
Other (Please describe below)	(Please tick as many as apply.)
	I felt it would be helpful in my career development
	I felt it would increase my influence within my organisation or
<ol> <li>Were you unemployed and seeking re-employment at any time during the year ending 5th April 2010?</li> </ol>	I felt it would give me greater professional status
(Please tick one box only.)	I wanted my professional skills and experience to be
Yes	
No	I was required to do so by my employer
OLITORI INCITA CITORIA	I was encouraged to do so by my employer
REGISTRATION ISSUES	I was encouraged to do so by colleagues/friends
<ol> <li>Does your employer pay your institution membership subscription, and registration fees for your CEng, IEng or</li> </ol>	None of the above
Eng Tech? (Please tick one box only.)	Other (Please describe helow)
Yes	Office (Figure Georgiae Delow)
No	

# The Engineering Council and EngineeringUK 2010 Survey of Registered Engineers

felt it would be helpful in my career development	Yes ▶ Q15
d increase my influence within my organisation or dive me greater professional status	
d give me greater professional status	No ▶ Q14
r professional skills and experience to be ed to do so by my employer employer employer engaged to do so by my employer engaged to do so by colleagues/friends engaged.	
	IE VOLI LIAVE ANEWEDED (AIQ) DI EASE CO TO 044
	OTHERWISE PLEASE GO TO Q 14,
	<ol> <li>How could you be helped to keep your engineering competence up to date? (Please tick as many as apply)</li> </ol>
Other (Please describe below)	More financial support from employer for training
	More on-the-job training
10. What impact has registration had on your career? (Please tick as many as apply.)	More/better range of training courses at place of work
It has increased my employment opportunities	More/better range of training courses by my institution
	Online access to professional training courses
Colleagues	More guidance from my institution
I feel it hasn't had any impact	Further academic qualifications
	Secondments/transfers/opportunities to broaden experience at workplace
11. How highly do you value your CEng/IEng/Eng Tech qualification? (Please tick one box only.)	Other (Please describe below)
Very highly	
Very poorly	15. Do you plan your professional development objectives? (Please fick one box only.)
No view	Yes ▶ Q.16
12. How important to you is Continuing Professional Development (CPD) in maintaining your professional qualifications, ensuring that your skills and expertise are relevant and up to date? (Please tick one box only.)	No ► Q.17
Very important	
Fairly important	16. Do you maintain a formal record of your professional
Fairly unimportant С	development activities? (Please tick one box only.)
Very unimportant	Yes
No view	No

2

က

# The Engineering Council and Engineering UK 2010 Survey of Registered Engineers

17. Here are some statements which other engineers have made about their registration and their work generally. Please indicate how much you agree or disagree with each one by ticking the appropriate box (Please tick one box in each row). (Note: By registration we mean CEng, IEng, or EngTech)

I would recommend to other engineers that they should become registered Being a registered engineer means I eam a higher salary			)		
Being a registered engineer means I eam a higher salary					
I don't see any benefits in being registered					
My employer values the fact that I am registered					
My work colleagues value the fact that I am registered					
Being a registered engineer is good value for money					
I am more secure in my job as a result of being registered					
I think that engineers like me are valued for the work they do					
I am dissatisfied with being an engineer					
D OR A STUDENT,	21. 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)	er change ast 12 mor ⁄olved an i	d any of th nths? (Plea increase o	e following ise tick for r reduction	y benefits each )
18. Please enter your gross basic annual income from		j	posedu	Reduce	Reduced/Removed
employment, including any London or large town allowance, before deduction of Income Tax, National Insurance and			[		[
e u	Pay rate				
and pension from previous employment.)	Bonus				
3	Flexible working				
	arrangements	· ·			
before tax for the year 2009/10 less expense allowed for tax,	Pension arrangements	S			
han 5th	Ketirement age				
	Holidays				
2010.	Private medical insurance				
19. Please enter all overtime, bonus and commission	Sick Pay				
payments received in the 12 months to 5th April 2010. If you are self-amployed place love this answer plank	Car Scheme				
i you are sell-elliployed, please leave tills allswel blain.	Overtime				
3	Travel/subsistence allowance				
NOTE: In the survey reports, the sum of answers to questions	London/area allowance	90			
	Other (Please describe below)				
20. How many hours do you work in an average week?					
	None of the above has changed	ıs changea	<i>*</i>		



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12 April 2010

[Click here and type address]

Dear M xxxxxxxx

2010 SURVEY OF CHARTERED ENGINEERS, INCORPORATED ENGINEERS AND ENGINEERING TECHNICIANS

Dear <insert first name>,

On behalf of the Engineering Council, I would be grateful if you would help us with a survey intended to keep us up-to-date with patterns of employment and employment benefits in the engineering profession. This will also enable us to gain detailed information about the profession, including the comparison of engineers' education, training and rewards with those of other professions. The information gained will enable us to promote and support the profession more effectively.

The survey is being conducted, as it has been for some years now, by ERS Market Research, a business of the Electoral Reform Society Limited.

Names have been randomly selected by the Engineering Council from our Register and yours was amongst them. If you agree to take part, we will need to receive your completed questionnaire by 3<sup>rd</sup> May 2010. Please return it to ERS in the enclosed pre-paid envelope.

I would like to stress that ERS guarantees absolute confidentiality. You will see that they do 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. We shall publish a full report in August, which will be of great interest and value to the profession.

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

Yours sincerely,

Andrew Ramsay CEng Chief Executive Officer Engineering Council



## Appendix 2 Technical Appendix

## 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. The issued sample comprised 10,000 individuals, details of whom are provided in Appendix 4.

Incorporated Engineers and Engineering Technicians were over-sampled relative to Chartered Engineers, and newer registrants (registered in the last five years) were over-sampled relative to established registrants. Women were over-sampled relative to men. The data were subsequently weighted to restore these groups to their correct proportions in the total sample. The key elements of sample composition are described in Section 5 of the main report and further details of the sample are provided in Appendix 4.

At the analysis stage, weighting was applied to restore these groups to their correct proportions in the total sample and details are shown in Appendix 5.

2,755 completed questionnaires were received by ERS giving an overall response rate of 28%. This is lower than the response rate of 32% achieved in the 2007 survey.

### **Fieldwork**

10,000 questionnaires were despatched by first class post to respondents' home addresses on 12<sup>th</sup> April. Fieldwork was carried out between 13 April and 3 May 2010.

A letter from Andrew Ramsay CEng, Chief Executive Officer of the Engineering Councik accompanying the questionnaire stressed our role as guarantor of confidentiality, clearly stating that we would not in any circumstances divulge information which could be linked to individuals. In this letter he says:

"I would like to stress that ERS guarantees absolute confidentiality. You will see that they do 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."

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.

## Methodological considerations

Participation in self completion surveys is of course voluntary, and there is a risk that employees who have particular dissatisfaction with aspects of their employment may be over-represented in the survey. However, the project and the questionnaire were designed to minimise the impact of self selected participation and respondent bias.

## **Quality Assurance**

This project has been carried out in compliance with ISO 20252, the International Standard for Market Research



## Appendix 3 Sample profiles

## Issued sample

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.

	Total	Chartered Engineers	Incorporated Engineers	Engineering Technicians
Base: Registered Engineers	(10,000)	(5,000)	(3,000)	(2,000)
	%	%	%	%
Gender:				
Male	85	80	89	92
Female	15	20	11	8
Age:				
21 - 34	11	10	8	17
35 - 44	28	29	27	26
45 - 54	34	34	36	31
55+	28	28	29	26
Length of registration:				
5 years or less	30	20	33	50
More than five years	70	80	67	50



## Responding sample

Details of the responding sample in terms of registration and employment have been provided in Section 4 of the main report. Further demographic information is provided below and additional analysis is contained in the separate volume of computer tabulations.

	2007	2010
Base: All responding registered engineers	(3238)	(2755)
	%	%
Gender		
Male	96	96
Female	4	4
Age		
21-24	*	*
25-34	9	6
34-44	21	23
45-54	31	38
55-64	37	32
65+	1	1
Ethnic Group		
White	86	93
Non-white	3	4
Not stated	11	2

Note: " \* " indicates a number or percentage less than 0.5.



## Institution membership

In 2010 details of institution membership were extracted from the Engineering Council database of registrants. In 2007 respondents had been asked to identify on the questionnaire which institution was most relevant to their work, so data from 2007 and 2010 are not directly comparable.

(Institutions of which less than 1% are members in 2010 have been excluded from this table)

	2007	2010
Base: All responding registered engineers	(3238)	(2755)
	%	%
Institution of Engineering & Technology	27	32
Institution of Civil Engineers	14	15
Institution of Mechanical Engineers	15	15
Institution of Chemical Engineers	5	5
British Computer Society	4	4
Institution of Structural Engineers	3	4
Chartered Institution of Building Services Engineers	4	3
Institute of Materials, Minerals & Mining	3	3
Society of Operations Engineers	2	3
Institute of Marine Engineering, Science & Technology	2	2
Royal Aeronautical Society	2	2
Chartered Institution of Water & Environmental Management	1	1
Energy Institute	1	1
Institute of Highway Incorporated Engineers	1	1
Institute of Measurement & Control	2	1
Institute of the Motor Industry	1	1
Institution of Engineering Designers	1	1
Institution of Gas Engineers & Managers	2	1
Royal Institution of Naval Architects	1	1
Welding Institute	1	1
Institution of Highways & Transportation	1	*
Other Note: " * " indicates a number or percentage less than 0.5		3

Note: " \* " indicates a number or percentage less than 0.5.



# Appendix 4 Weighting matrix

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

Chartered Engineers						
	Ma	ile	Fen	nale		
	5 years or less	Over 5 years	5 years or less	Over 5 years		
Unweighted base	181 980		102	207		
Weighted base	288	288 1624		75		
Weight applied	1.59	1.66	0.33	0.36		

Incorporated Engineers						
	Male		Female			
	5 years or less	Over 5 years	5 years or less	Over 5 years		
Unweighted base	275	490	30	67		
Weighted base	37	464	2	5		
Weight applied	0.13	0.95	0.06	0.07		

	Engineering Technicians				
	Male		Female		
	5 years or less	Over 5 years	5 years or less	Over 5 years	
Unweighted base	173	211	19	20	
Weighted base	91	133	2	2	
Weight applied	0.52	0.63	0.08	0.08	