

# **ATHENA PROJECT**

**Statistical Annex to Report 27  
to the UK Research Councils and the Wellcome Trust  
Sanger Institute  
on the 2004 Athena Survey of Science Engineering and  
Technology (ASSET)**

**December 2005**

# The Athena Survey of Science Engineering and Technology in Research Institutions

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#### **Notes:**

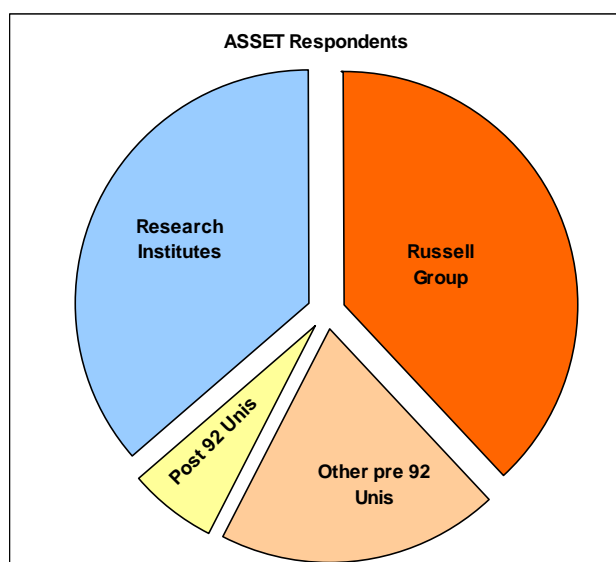
1. Tables showing aggregated results include all respondents
2. Tables disaggregated by Research Council show responses from respondents employed by the BBSRC, CCLRC, MRC and NERC, but exclude those from Sanger due to small numbers.
3. When viewing tables disaggregated by grade, readers should be aware of the small numbers of male respondents in the top grade, and of women in the top 2 grades.
4. HEIs = Higher Education Institutions, RIs = Research Institutes/centres

## SECTION 1 THE SURVEY PARTICIPANTS

**Table 1 Participant Organisations- number and gender of respondents**

	All	Male	Female	Male	Female
<b>ALL</b>	<b>2,444</b>	<b>1,474</b>	<b>970</b>	<b>60%</b>	<b>40%</b>
BBSRC	716	388	328	54%	46%
CCLRC	488	409	79	84%	16%
MRC	870	433	437	50%	50%
NERC	270	182	88	67%	33%
Sanger	100	62	38	62%	38%

**Figure 1 Respondents by organisation type**



**Table 2 Respondents by career level and gender**

	Male	Female	All
Research Director	48	11	59
Principal Scientist	263	65	328
Senior Scientist	478	155	633
Scientist	651	729	1380
Other	34	10	44
<b>ALL</b>	<b>1,474</b>	<b>970</b>	<b>2,444</b>

Male	Female	All
3%	1%	2%
18%	7%	13%
32%	16%	26%
44%	75%	56%
2%	1%	2%
<b>100%</b>	<b>100%</b>	<b>100%</b>

% Male	% Female
81%	19%
80%	20%
76%	24%
47%	53%
77%	23%
<b>60%</b>	<b>40%</b>

Range across councils	Male	Female
Research Director	1-5%	0-4%
Principal Scientist	13-27%	3-9%
Senior Scientist	27-38%	12-27%
Scientist	35-57%	57-81%

% Male	% Female
75%-100%	0%-25%
69%-93%	9%-31%
68%-88%	12%-32%
41%-76%	24%-59%

**Table 3 Respondents by contract type**

Full time or part time contract		FTE	%
Full time	94%	50%	21%
Part time	6%	< 50%	5%
		> 50%	74%
Contract type		Male	Female
Permanent, indefinite, open ended	74%	78%	67%
Fixed term, short term	25%	29%	32%
Visiting scientist	*	0%	*
Other	1%	2%	1%

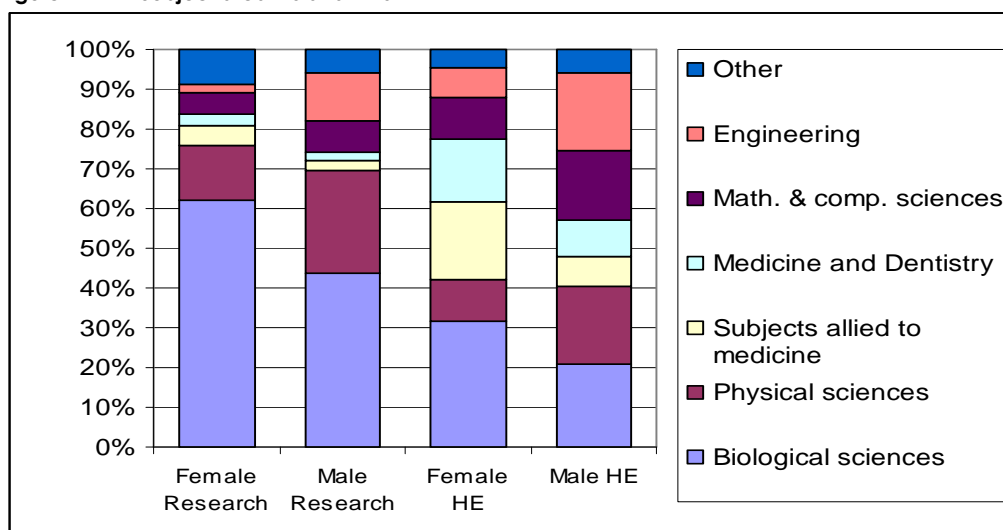
\* <1%

**Table 4 Respondents by subject area and career level**

Subject of Highest Degree/Qualification	Male						Female					
	Res Dir	Pr Sci	Sen Sci	Sci	Oth	ALL	Res Dir	Pr Sci	Sen Sci	Sci	Oth	ALL
Medicine and Dentistry	*	*	*	13	0	30	0	*	*	15	0	27
Subjects allied to medicine	*	*	10	15	0	36	0	*	*	35	0	47
Biological sciences	15	118	175	307	6	621	*	40	78	449	*	575
Vet.science, agric & related	*	17	16	16	0	50	*	*	*	31	0	42
Physical sciences	16	79	137	129	*	366	*	*	28	92	*	130
Math. & comp. sciences	*	19	41	44	*	111	0	*	12	29	*	48
Engineering	*	13	69	71	12	169	0	*	*	14	*	22
Other	0	*	13	16	*	33	*	*	*	27	*	38
Unknown	0	*	*	40	*	58	0	*	*	37	2	41
	Total Male respondents 1,474						Total Female respondents 970					

\* denotes <10 respondents

**Figure 2 Subject area RIs and HEIs**



**Table 5a Respondents by age**

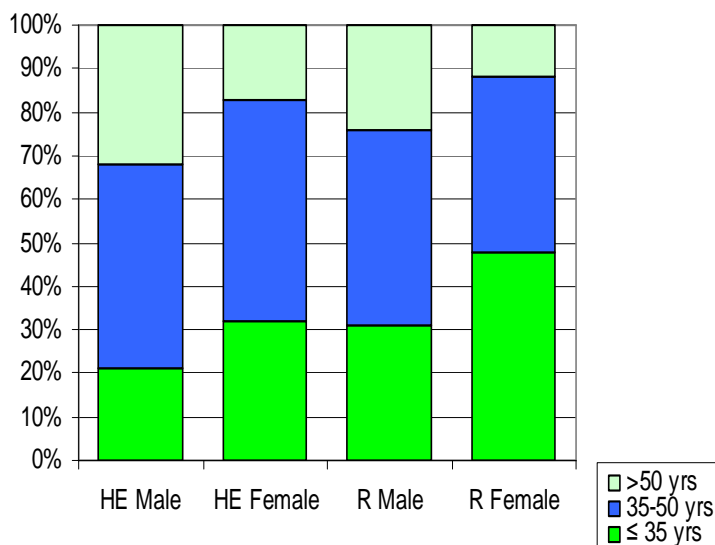
	≤ 35 yrs	35-50 yrs	>50 yrs
Male	31%	45%	24%
Female	48%	40%	12%
<b>Range across councils</b>	<b>≤ 35 yrs</b>	<b>35-50 yrs</b>	<b>&gt;50 yrs</b>
Male	20-36%	41-53%	23-27%
Female	30-54%	32-48%	5-14%

**Table 5b Mean age by grade and gender (using mid point of age groups)**

Sex	Grade	Mean	N	Std. Deviation
Male	Research Director	53.5	48	5.85
	Principal scientist	49.4	257	7.53
	Senior scientist	43.5	459	9.12
	Scientist	37.1	631	9.50
	Other	43.7	29	9.89
All male		42.1	1,424	10.28

Sex	Grade	Mean	N	Std. Deviation
Female	Research Director	52.1	11	5.39
	Principal scientist	45.5	63	6.95
	Senior scientist	42.8	151	8.53
	Scientist	35.8	713	9.00
	Other	42.5	10	9.56
All Female		37.8	948	9.50

**Figure 3 Age profile Research and HE**



**Table 6 Respondents by nationality and ethnicity**

<b>Nationality</b>	<b>Male</b>	<b>Female</b>	<b>All</b>		<b>Male</b>	<b>Female</b>	<b>All</b>
<b>UK</b>	1,154	709	1,898		78%	73%	76%
<b>European</b>	111	120	231		8%	12%	9%
<b>ROW</b>	75	75	150		5%	8%	6%
<b>Unknown</b>	134	66	200		9%	7%	8%
<b>Ethnicity</b>	<b>Male</b>	<b>Female</b>	<b>All</b>		<b>Male</b>	<b>Female</b>	<b>All</b>
<b>White</b>	1,259	859	2,118		86%	89%	87%
<b>Black</b>	*	*	11		*	*	*
<b>Asian</b>	60	55	115		4%	6%	4%
<b>Mixed</b>	*	*	18		1%	*	1%
<b>Other</b>	*	*	17		*	1%	1%
<b>Unknown</b>	126	39	165		9%	4%	7%

\* denotes < 10

\* denotes < 1%

**Table 7 Estimated salary by age band**

The questionnaire used salary bands, which were recoded using the midpoint of each of the ranges enabling the computation of an estimate of average salaries by m/f and age.

<b>Age band</b>	<b>Male</b>	<b>Female</b>	<b>F salary as % of M</b>	<b>Male N</b>	<b>Female N</b>
<b>&lt;26</b>	£21,093	£20,158	<b>96%</b>	43	60
<b>26-30</b>	£24,597	£23,429	<b>95%</b>	154	175
<b>31-35</b>	£27,700	£26,162	<b>94%</b>	212	194
<b>36-40</b>	£31,771	£27,657	<b>87%</b>	221	137
<b>41-45</b>	£34,368	£29,339	<b>85%</b>	193	118
<b>46-50</b>	£38,098	£30,815	<b>81%</b>	173	100
<b>51-55</b>	£40,859	£36,134	<b>88%</b>	145	56
<b>56-60</b>	£42,642	£31,766	<b>74%</b>	116	32
<b>61-65</b>	£48,267	£40,714	<b>84%</b>	30	7

## SECTION 2 CAREER PROGRESSION

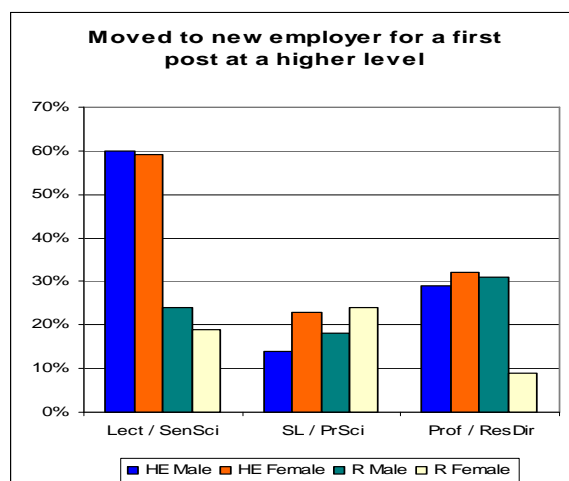
**Table 8** Where respondents had worked

	Male%	Female%	Male N	Female N	All
Research Institutes only	29%	38%	434	37	807
Research Institutes and elsewhere	71%	62%	1040	597	1637

**Table 9** Reasons for working in their chosen sector, Research Institutes and HEIs

RIs	M	F	HEIs	M	F
Research area	27%	23%	Research area	28%	21%
Academic freedom	18%	14%	Academic freedom	43%	29%
Better facilities/funding for research	18%	13%	Better facilities/funding for research	7%	6%
Better working conditions	16%	13%	Better working conditions	10%	8%
Better prospects for career progression	16%	12%	Better prospects for career progression	8%	10%
Wanted permanent contract	14%	11%	Wanted permanent contract	9%	6%
Better work/life balance	12%	11%	Better work/life balance	17%	13%
More resources	13%	9%	More resources	3%	3%
Experience good for CV	11%	9%	Experience good for CV	6%	9%
Other factors	11%	8%	Other factors	9%	7%
More flexible hours	9%	9%	More flexible hours	21%	21%
More security	10%	8%	More security	8%	5%

**Figure 4** Moved to new employer for first post at higher level, Research Institutes and HE Institutions





**Table 10a Number of applications for first post in a Research Institute**

LEVEL	MALE		FEMALE	
	Mean	N	Mean	N
Research Director	1.20	5	-	-
Principal Scientist	2.24	25	1.8	10
Senior Scientist	1.75	110	1.59	22
Scientist	2.60	905	2.45	612
Other	2.29	379	2.45	304
<b>Total</b>	<b>2.44</b>	<b>1424</b>	<b>2.42</b>	<b>948</b>

**Table 10b Level of 1<sup>st</sup> post by current level**

Male Level of 1st post	Current Level					All	N
	Other	Scientist	Senior Scientist	Principal Scientist	Research Director		
Research Director	-	-	-	-	100%	*	**
Principal scientist	-	-	15%	70%	15%	2%	27
Senior scientist	1%	6%	59%	31%	4%	8%	118
Scientist	*	44%	33%	20%	3%	63%	926
Other	8%	60%	26%	5%	1%	27%	397
<b>All</b>	<b>2%</b>	<b>44%</b>	<b>32%</b>	<b>18%</b>	<b>3%</b>	<b>100%</b>	<b>1,474</b>

Female Level of 1st post	Current Level					All	N
	Other	Scientist	Senior Scientist	Principal Scientist	Research Director		
Research Director	-	-	-	-	-	0%	0
Principal scientist	-	-	10%	80%	10%	1%	**
Senior scientist	-	-	59%	32%	9%	2%	22
Scientist	*	73%	18%	7%	1%	65%	626
Other	2%	87%	9%	2%	-	32%	312
<b>All</b>	<b>1%</b>	<b>75%</b>	<b>16%</b>	<b>7%</b>	<b>1%</b>	<b>100%</b>	<b>970</b>

\* <1%

\*\* ≤10 respondents

**Table 11 Percentages not interviewed for current appointment, by length of time in grade**

Not Interviewed Level of current appointment	Been in grade			
	≤ 2yrs	3-5 yrs	6-10yrs	>10 yrs
Research Director	20%	21%	7%	36%
Principal scientist	8%	7%	7%	8%
Senior scientist	11%	4%	13%	12%
Scientist	7%	9%	8%	11%

**Table12 All male selection panel**

<b>% of those interviewed who had an all male interview panel</b>						
	<b>Been in grade</b>				<b>All</b>	<b>N</b>
	<b>≤ 2yrs</b>	<b>3-5 yrs</b>	<b>6-10yrs</b>	<b>&gt;10 yrs</b>		
Research Director	50%	67%	77%	29%	60%	45
Principal scientist	55%	46%	66%	73%	61%	304
Senior scientist	39%	42%	56%	52%	45%	574
Scientist	33%	33%	41%	47%	37%	1,266

<b>% of those interviewed who had an all male interview panel and had been in grade ≤ 2 yrs</b>				
	<b>Male</b>		<b>Female</b>	
	<b>Male</b>	<b>N</b>	<b>Female</b>	<b>N</b>
Research Director	40%	10	100%	2
Principal scientist	56%	43	50%	12
Senior scientist	42%	147	30%	43
Scientist	36%	227	30%	270

<b>Male respondents</b>	<b>Number of years since interview</b>						
	<b>&lt;1 year</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>&gt; 5 yrs</b>
<b>Make up of panel</b>							
All female	-	3%	1%	2%	-	1%	1%
Mostly female	5%	3%	3%	3%	2%	1%	1%
<b>All male</b>	<b>43%</b>	<b>36%</b>	<b>34%</b>	<b>41%</b>	<b>38%</b>	<b>29%</b>	<b>56%</b>
Mostly male	25%	34%	41%	34%	43%	49%	26%
Roughly even	22%	18%	18%	19%	17%	20%	9%
Don't know/can't remember	4%	5%	3%	2%	1%	-	7%

<b>Female respondents</b>	<b>Number of years since interview</b>						
	<b>&lt;1 year</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>&gt; 5 yrs</b>
<b>Make up of panel</b>							
All female	7%	-	2%	2%	-	2%	3%
Mostly female	16%	9%	7%	10%	3%	6%	3%
<b>All male</b>	<b>23%</b>	<b>29%</b>	<b>39%</b>	<b>31%</b>	<b>31%</b>	<b>39%</b>	<b>55%</b>
Mostly male	31%	27%	30%	36%	26%	33%	23%
Roughly even	24%	31%	19%	19%	37%	20%	11%
Don't know/can't remember	-	4%	3%	2%	3%	-	5%

**Table 13 Respondents with children**

	Men	Women	All
Children under 6	17%	14%	16%
Children aged 6-16	24%	18%	22%
Children over 16	21%	13%	18%
Children of any age	50%	39%	45%

**Table 14 Career breaks and difficulties in returning, Research Institutes and HEIs**

<b>Taken career breaks</b>	<b>HEIs</b>	<b>RIIs</b>
Men	6%	4%
Women	31%	32%
<i>All</i>	15%	15%
<b>Difficulty when returning to work</b>	<b>HEIs</b>	<b>RIIs</b>
Men	19%	14%
Women	32%	29%
<i>All</i>	28%	25%

**Table 15 What would help with the transition back to work? (respondents who had taken career breaks)**

<b>HE Men</b>	<b>N=144</b>	<b>RI Men</b>	<b>N=61</b>
Contact with dept	49%	Peer networks	44%
Flexible working	31%	Mentoring	31%
Peer networks	30%	Contact with dept	26%
Childcare	25%	Training	25%
P/t building up to f/t	25%	P/t building to f/t	23%
Mentoring	18%	Shorter hours	23%
Training	17%	Flexible working	21%
Shorter hours	13%	Childcare	8%
Other	5%	Other	5%
<b>HE Women</b>	<b>N=457</b>	<b>RI Women</b>	<b>N=312</b>
Flexible working	81%	Mentoring	84%
Childcare	77%	Contact with dept	78%
P/t building up to f/t	59%	Shorter hours	66%
Contact with dept	56%	Peer networks	57%
Shorter hours	38%	Childcare	33%
Mentoring	30%	Training	22%
Peer networks	28%	P/t building to f/t	19%
Training	18%	Flexible working	16%
Other	8%	Other	7%

**Table16 Knowledge of promotion criteria and procedure**

Criteria	N		48		11		263		65		478		155		651		729	
	All		Research Dir		Principal Sci.		Senior Sci.		Scientist									
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Yes	28%	15%	77%	91%	52%	38%	29%	28%	14%	10%								
Fairly good knowledge	26%	19%	13%	9%	26%	40%	34%	29%	21%	15%								
Some knowledge	30%	40%	6%	0%	16%	20%	28%	34%	39%	44%								
No knowledge	16%	25%	4%	0%	5%	2%	9%	10%	27%	31%								
Procedure	All		Research Dir		Principal Sci.		Senior Sci.		Scientist									
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Yes	32%	19%	83%	100%	56%	48%	37%	36%	16%	12%								
Fairly good knowledge	22%	16%	10%	0%	24%	32%	29%	26%	17%	13%								
Some knowledge	27%	36%	2%	0%	16%	20%	23%	25%	36%	40%								
No knowledge	18%	29%	4%	0%	4%	0%	10%	13%	30%	36%								

**Table 17 Junior scientists with no knowledge of promotion criteria/procedure**

Post-doc/Scientist	Criteria	Procedure
HEI male	35%	43%
HEI female	39%	50%
RI male	27%	30%
RI female	31%	36%
Lecturer/Senior Sci.	Criteria	Procedure
HEI male	8%	18%
HEI female	11%	21%
RI male	9%	10%
RI female	10%	13%

**Table 18 Encouragement to apply for senior appointments**

Current grade	Invited or encouraged to apply for a post at this level †							
	Principal Scientist				Research Director			
	All	Male	Female	N	All	Male	Female	N
Research Director	56%	57%	50%	41	79%	81%	71%	43
Principal Scientist	60%	60%	62%	198	18%	20%	10%	247
Senior Scientist	25%	28%**	16%**	380	3%	4%	1%	346
Scientist	3%	3%	3%	618	*	*	0%	585
All	20%	26%	11%	1237	7%	10%	2%	1221

<1%

† This question was optional and non response was higher than average, however differences in m/f non response were not significant. The percentages reported here are of those that answered the question.

\*\* Male/female differences statistically significant (these differences remain significant if we look at all respondents, not just those answering the question)

## SECTION 3 RESPONDENTS' ACTIVITIES

**Table 19 Research activity**

	Research Director	Principal Scientist	Senior Scientist	Scientist
<b>Member of interdisciplinary group</b>				
Male	63%	47% *	32%	18%
Female	55%	60% *	36%	19%
<b>Member of departmental research group</b>				
Male	58%	63%	43% *	35%
Female	55%	72%	53% *	42%
<b>Member of research committee</b>				
Male	60%	35%	14%	2%
Female	82%	35%	12%	2%
<b>Member of international research group</b>				
Male	56%	51%	31% *	12%
Female	36%	54%	37% *	11%

\* differences statistically significant

**Table 20 Responsibilities**

	Research Dir.		Principal Sci.		Senior Scientist		Scientist	
	M N=48	F N=11	M N=263	F N=65	M N=478	F N=155	M N=651	F N=729
<b>Responsibilities</b>								
Student supervision	75%	82%	86%	86%	71%	71%	47%	50%
Staff supervision & training	79%	82%	84%	85%	72% *	81% *	38% *	45%
Project management	71%	91%	86%	91%	70%*	77%*	28%*	20%*
Line manager	96%	100%	93%	92%	73%	76%	22%*	17%*
Risk assessments	67%	73%	60%	63%	55%	50%	30%	30%
External research collaboration	81%	91%	83%	78%	59%*	66%*	23%	20%
Safety responsibilities/mgt	63%	45%	59%	62%	51%	44%	31%*	26%*
Arrange seminar/research series	63%	55%	57%	54%	31%	37%	10%	9%
Sign offs	60%	64%	43%	42%	35%*	25%*	14%*	6%*
Leader of collaborative research group	60%	82%	64%	65%	31%	30%	2%	1%
Centre/council rep at specialist mtgs	77%	91%	44%*	28%*	27%	20%	8%*	4%*
Selected to manage special project	46%	27%	29%*	15%*	20%	13%	9%	8%
External client customer consultancy	46%	27%	36%	28%	22%*	13%*	7%*	4%*
Contract negotiation	52%	45%	35%	25%	23%	17%	6%	2%
Member of EC expert groups	29%	27%	15%	23%	5%	6%	1%	1%
Due diligence activities	27%	27%	8%	3%	5%*	1%*	2%*	0%*
Council representative on gov bodies	38%	45%	9%	11%	3%	3%	0%	0%
<b>None of the above</b>	0%	0%	0%	2%	4%	3%	28%	26%

\* differences statistically significant

**Table 21 Committee activity**

	All			Research Dir		Principal Sci		Senior Sci		Scientist	
	All [2444]	M [1474]	F [970]	M [48]	F [11]	M [263]	F [65]	M [478]	F [155]	M [651]	F [729]
<b>Committee Chairs</b>											
Chair of dept meetings	7%	10%	4%	75%	64%	25%*	14%*	6%	7%	2%	2%
Chair of promotion panel	3%	4%	2%	58%	45%	10%	15%	2%	3%	0%	0%
Chair of selection panel	11%	14%	5%	81%	82%	39%	28%	12%	12%	1%	1%
<b>Participation in Committees</b>											
Council	1%	2%	1%	8%	9%	3%	2%	1%	3%	1%	0%
Finance/planning/resources c'ttee	6%	8%	3%	56%	45%	14%	9%	8%	6%	3%	2%
Promotion committee	6%	8%	4%	54%	64%	21%	25%	7%	9%	0%	0%
Research committee	11%	14%	7%	60%	82%	35%	35%	14%	12%	2%	2%
None of the above	84%	80%	89%	23%	0%	53%	54%	78%	75%	95%	97%
<b>Appointment committees</b>											
Appts committee - for own area	29%	33%	24%	79%	100%	68%*	82%*	40%	54%	12%	11%
Appts committee - other areas in centre	12%	14%	9%	60%	73%	37%	49%	14%	23%	3%	2%
Appts committee - externally	7%	8%	5%	44%	55%	21%	25%	7%	11%	2%	1%

\* differences statistically significant

**Table 22 Percentages who are current members of internal committees**

	Male	Female	All
<b>Research Director</b>	94%	100%	95%
<b>Principal Scientist</b>	70%	69%	70%
<b>Senior Scientist</b>	46%	49%	47%
<b>Scientist</b>	21%	19%	20%
<b>All</b>	36%	40%	28%

**Table 23 Internal Committee, gender of membership and timing**

Membership of committees		Committees held in working time?	
		<b>Yes</b>	82%
<b>All female</b>	1%	<b>Mainly yes</b>	15%
<b>All male</b>	16%	<b>Half and half</b>	1%
<b>Mixed</b>	98%	<b>Mainly no</b>	1%
		<b>No</b>	1%

**Table 24 Consultancy**

<b>Undertaken professional consultancy</b>					
	<b>Research Director</b>	<b>Principal Scientist</b>	<b>Senior Scientist</b>	<b>Scientist</b>	<b>All</b>
Male	54%	44%	28%	10%	23%
Female	36%	42%	25%	5%	11%

<b>Consultancy by discipline of highest degree or qualification</b>					
	<b>Yes</b>	<b>In past</b>	<b>No</b>	<b>Not answered</b>	<b>N</b>
<b>ALL</b>	<b>6%</b>	<b>12%</b>	<b>64%</b>	<b>10%</b>	<b>2444</b>
Medicine and Dentistry	19%	7%	58%	15%	57
Vet sciences, agriculture & related	13%	14%	61%	12%	92
Math. & computing sciences	9%	20%	66%	4%	159
Engineering	3%	13%	66%	18%	191
Technologies	0%	11%	67%	22%	9
Physical sciences	9%	12%	70%	8%	496
Biological sciences	5%	11%	71%	13%	1196
Subjects allied to medicine	5%	12%	73%	10%	83
Other SET	4%	8%	68%	20%	25
Other Non SET	3%	25%	64%	8%	36

**Table 25a Conference activity**

	<b>Research Director</b>		<b>Principal Scientist</b>		<b>Senior Scientist</b>		<b>Scientist</b>	
	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>
<b>Past or present</b>								
Specialist/break out session speaker	73%	82%	59%	69%	35%	30%	11% *	7% *
Sessional chair	75%	73%	56%	66%	22%	23%	3%	2%
Keynote plenary speaker	69%	82%	51%	58%	21%	17%	4%	3%
None of these	13%	9%	15%	9%	34% *	43% *	57%	57%

\* differences statistically significant

**Table 25b Conference participation as session chair or specialist / breakout / keynote speaker**

<b>RIs</b>	<b>Research Director</b>	<b>Principal Scientist</b>	<b>Senior Scientist</b>	<b>Scientist</b>
Male	87%	85%	66% *	43%
Female	91%	91%	57% *	43%
<b>HEIs</b>	<b>Professor</b>	<b>Senior Lecturer</b>	<b>Lecturer</b>	<b>Post-doc</b>
Male	95%	77%	65% *	46% *
Female	98%	78%	56% *	39% *

\* differences statistically significant



**Table 26 Other external activities**

	Research Director		Principal Scientist		Senior Scientist		Scientist	
	M	F	M	F	M	F	M	F
<b>Past or present</b>	48	11	263	65	478	155	651	729
Assessor for a Research Council	73%	64%	50%	38%	21%	15%	2%	1%
On editorial board of academic journal	65%	82%	44%	43%	15%	14%	2%	1%
Member of Research Council committee	58%	55%	15%	12%	5%	3%	1%	0%
Member of grant giving panel	56%	73%	21%	26%	8%	5%	0%	0%
Undertake professional "representative" duties	46%	36%	24%	15%	10%	11%	2% *	0%*
Trustee/gov/member of a public body	31%	45%	9%	6%	4%	1%	1%	1%
Editor of academic journal	27%	27%	19% *	6%*	5%	5%	1%	0%
An EU evaluator	25%	0%	15%	22%	5%	3%	0%	0%
Non-exec director public company	19%	18%	1%	3%	2%	1%	0%	0%
Member of Research Council	6%	9%	2%	2%	1%	1%	2%	1%

\* differences statistically significant

## SECTION 4 AMBITIONS AND PERCEPTION

Table 27 Career ambitions

	Research Director		Principal scientist		Senior scientist		Scientist	
	M	F	M	F	M	F	M	F
<b>Hope to achieve:</b>								
Satisfied with current level	63%	64%	49%*	35%*	27%	25%	18%*	27%*
Senior scientist level			2%		7%	6%	27%*	32%*
Principal scientist level			10%	11%	43%	42%	28%*	19%*
Research Director level	23%	18%	27%*	35%*	13%*	6%*	8%*	3%*
	Research Director		Principal scientist		Senior scientist		Scientist	
	M	F	M	F	M	F	M	F
<b>Ambitions to be:</b>								
Head of a research centre	50%	43%	23%	33%	15%	7%	15%*	5%*
Head of a research division	73%	25%	43%	51%	38%*	28%*	28%*	14%*
Head of a research group	69%	50%	71%*	90%*	66%	67%	61%*	50%*
Member of senior management	79%	80%	51%*	69%*	52%	45%	37%*	30%*

\* differences statistically significant

Range across research councils	Male	Female
<b>Hope to achieve:</b>		
Satisfied with current level	26-32%	9-31%
Senior scientist level	12-18%	25-27%
Principal scientist level	24-37%	21-38%
Res Dir level	8-16%	4-24%
<b>Ambitions to be:</b>		
Head of a research centre	8-21%	4-19%
Head of a research division	29-36%	16-36%
Head of a research group	51-71%	52-58%
Member of senior management	36-51%	26-62%

### Ambitions (scientists only)

		Male	Female
<b>All scientists</b>	Head of a research centre	15%	5%
	Head of a research division	28%	14%
	Head of a research group	61%	50%
	Member of senior management	37%	30%
<b>Range across research councils</b>	Head of a research centre	7-19%	3-15%
	Head of a research division	22-34%	11-38%
	Head of a research group	49-69%	45-59%
	Member of senior management	33-44%	21-59%

**Table 28 Current aspirations**

	Male				Female			
	Yes	Possibly	No	Don't know	Yes	Possibly	No	Don't know
<b>Research Director</b>								
In Higher Education	20%	47%	33%	0%	11%	44%	44%	0%
In Research Centres/Institutes	71%	23%	6%	0%	91%	9%	0%	0%
In industry	4%	37%	59%	0%	0%	14%	86%	0%
In SET policy/management	22%	30%	48%	0%	0%	43%	57%	0%
Running own business	10%	34%	55%	0%	0%	13%	75%	13%
Something completely different	10%	45%	42%	3%	20%	30%	40%	10%
<b>Principal scientist</b>								
In Higher Education	8%	48%	41%	3%	4%	59%	33%	4%
In Research Centres/Institutes	75%	18%	4%	3%	66%	25%	9%	0%
In industry	2%	34%	61%	3%	2%	30%	62%	6%
In SET policy/management	6%	22%	67%	6%	4%	38%	56%	2%
Running own business	4%	17%	76%	3%	2%	19%	79%	0%
Something completely different	8%	36%	49%	7%	12%	35%	37%	17%
<b>Senior scientist</b>								
In Higher Education	9%	44%	43%	3%	8%	39%	47%	6%
In Research Centres/Institutes	64%	27%	5%	4%	63%	29%	5%	3%
In industry	4%	46%	45%	5%	2%	29%	67%	2%
In SET policy/management	2%	21%	72%	5%	7%	19%	62%	13%
Running own business	3%	32%	61%	4%	2%	14%	79%	5%
Something completely different	6%	49%	37%	8%	9%	54%	26%	11%
<b>Scientist</b>								
In Higher Education	14%	46%	34%	6%	8%	46%	40%	6%
In Research Centres/Institutes	47%	40%	7%	6%	45%	43%	6%	6%
In industry	10%	49%	36%	6%	5%	47%	41%	7%
In SET policy/management	2%	14%	71%	13%	3%	19%	66%	12%
Running own business	5%	32%	55%	8%	2%	25%	67%	6%
Something completely different	10%	48%	32%	10%	8%	54%	26%	11%

**Aspirations Male and female range across research councils**

	Yes		Possibly		No	
	Male	Female	Male	Female	Male	Female
In Higher Education	3-19%	4-11%	40-47%	30-48%	32-50%	36-63%
In Research Centres/Institutes	55-60%	43-60%	28-32%	34-43%	2-7%	2-7%
In industry	5-9%	3-8%	38-50%	39-43%	36-52%	41-52%
In SET policy/management	2-5%	1-14%	13-24%	17-33%	64-75%	46-68%
Running own business	3-6%	2-3%	27-36%	21-28%	52-65%	59-72%
Doing something completely different	6-10%	7-11%	40-55%	47-60%	32-45%	23-31%

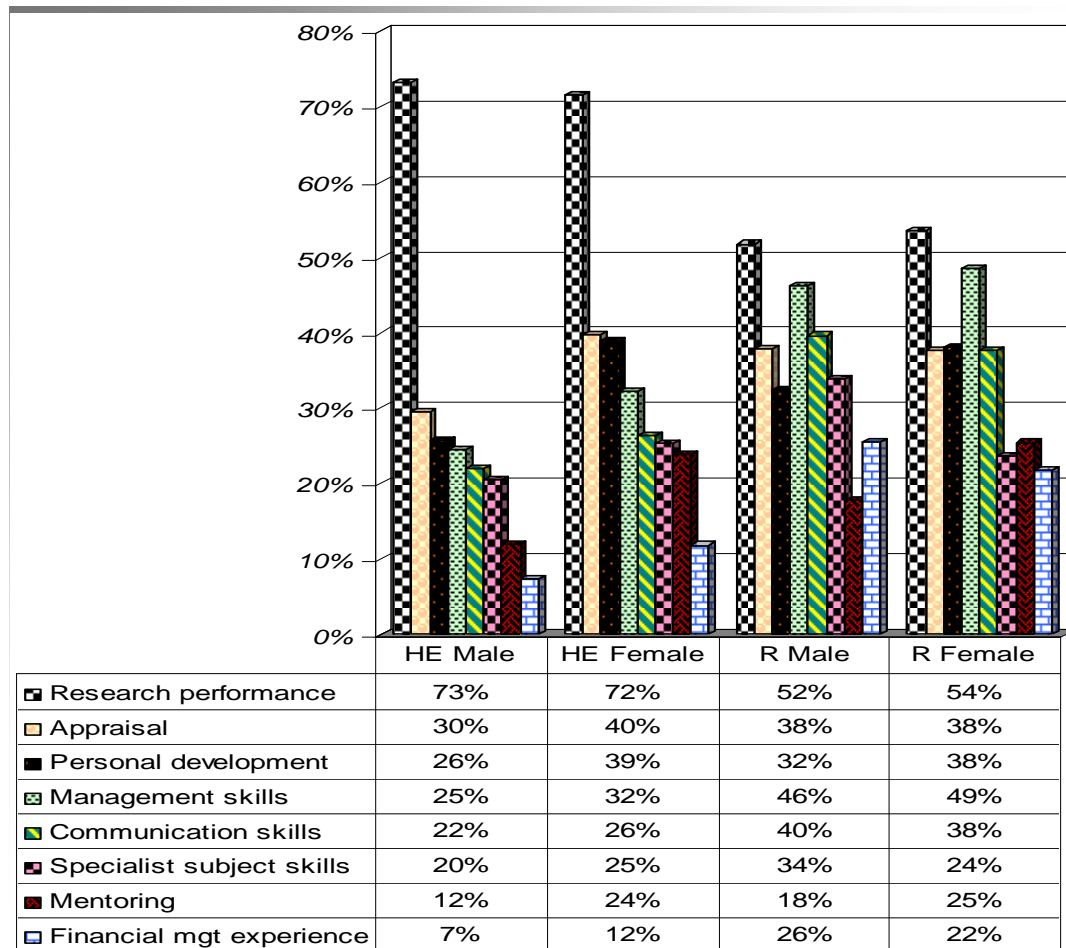
**Table 29 Wish to continue career at current institution**

	<b>Yes</b>	<b>No</b>	<b>Undecided</b>
<b>Research Director</b>			
Male	66%	11%	23%
Female	82%	0%	18%
<b>Prin Scientist</b>			
Male	75%	7%	18%
Female	62%	10%	29%
<b>Senior Scientist</b>			
Male	76%	6%	18%
Female	74%	5%	21%
<b>Scientist</b>			
Male	60%	14%	26%
Female	63%	9%	28%
<b>Other</b>			
Male	56%	3%	41%
Female	70%	10%	20%
<b>ALL</b>	<b>67%</b>	<b>9%</b>	<b>24%</b>
All Male	68%	10%	22%
All Female	65%	9%	26%
<b>Range across councils</b>			
All	61-74%	5-12%	22-26%
All Male	62-74%	5-14%	19-24%
All Female	61-76%	1-11%	21-29%

**Table 30 Personal development needs - ALL**

<b>What will help you progress to your "ideal level"?</b>	<b>Male</b>	<b>Female</b>
Research performance	48%	52%
Management supervisory skills	44%	44%
Leadership skills	44%	39%
Appraisal, staff/performance review	39%	45%
Communication skills	38%	38%
Specialist skills	37%	34%
Personal development	36%	45%
Problem solving skills	32%	29%
Flexibility	23%	27%
Career development of others	22%	18%
Financial management experience	22%	14%
Negotiating skills	21%	18%
Mentoring	20%	25%
Other	12%	14%
Mobility	9%	7%

Figure 5 Personal developments needs of Principal and Senior scientists in Research and HE



**Note**

'Leadership skills' chosen by 39% of women (44% of men) in research was not included in the list for HE

**Table 31a Availability of career development**

	All	Male*	Female*
<b>Management or supervisory skills training</b>			
Available	77%	80%	71%
Unavailable	5%	5%	5%
Don't know	18%	14%	24%
<b>Communication skills training</b>			
Available	74%	78%	67%
Unavailable	4%	4%	4%
Don't know	22%	17%	29%
<b>Personal Development Training</b>			
Available	70%	74%	64%
Unavailable	7%	7%	7%
Don't know	23%	19%	29%
<b>Formal Mentoring Scheme</b>			
Available	26%	33%	17%
Unavailable	31%	30%	31%
Don't know	43%	37%	52%

\* Male/female responses statistically significant for all 4 areas

**Table 31b Participation in career development areas, by gender**

<b>Participation in career development areas (% are of all respondents)</b>	All	Male	Female
Management or supervisory skills training	43%	50%*	32%*
Communication skills training	32%	35%*	27%*
Personal Development Training	48%	51%*	41%*
Formal Mentoring Scheme	7%	8%*	6%*

<b>Participation in career development areas (% are of respondents who said scheme was available)</b>	All	Male	Female
Management or supervisory skills training	56%	62%*	45%*
Communication skills training	56%	45%*	40%*
Personal Development Training	68%	68%	67%
Formal Mentoring Scheme	24%	23%*	34%*

\* Male/female differences statistically significant

**Table 32 Contributors to a successful Research Institute career**

<b>ALL Respondents</b>	<b>Male</b>	<b>Female</b>
Research publications	67%	74%
Working on high profile/successful projects/progs/research	57%	58%
Obtaining external research funding	43%	45%
Initiating and contributing to new projects/programmes	41%	43%
Collaborative working - across/within research centre	36%	41%
Collaborative working - externally	35%	41%
Meeting targets/delivering on time	33%	34%
Coordination of research projects	31%	31%
Project management experience	30%	30%
Networking within the research centre	29%	30%
Networking outside the research centre	27%	27%
International experience	24%	21%
Conference keynote-plenary speaker	16%	19%
Conference attendance	11%	15%
Raising profile of research centre in media	11%	15%
Attracting new PhD students	11%	13%
Participating in the scientific eval of your research centre/inst	11%	11%
Patenting	9%	7%
Refereeing	6%	6%
Membership of a nat/gov committee	6%	6%
Editor of academic journal	6%	5%
Assessor grant giving bodies	6%	4%
Member of editorial board of academic journal	5%	4%
Client/customer consultancy	4%	3%
Chair of division committees	4%	3%
Membership of division committees	4%	3%
Professional consultancy work	3%	3%
External examiner	3%	2%
Course director/leader/coordinator	3%	2%
Member of Council	3%	2%
Membership of fin/planning/resource committees	2%	2%
Member of cross council committee	2%	1%
Membership of appointments committees	2%	1%
Membership of industry/standards board	1%	1%
Other	16%	16%

**Table 33 Contributors to a successful career, comparison of senior scientists with all respondents**

	<b>N=2,444</b>	<b>ALL</b>	<b>Res Dir &amp; Prin Sci</b>
Research publications	1,702	70%	81%
Working on high profile/successful projects/prog/research	1,399	57%	73%
Obtaining external research funding	1,072	44%	63%
Initiating and contributing to new projects/programmes	1,019	42%	55%
Collaborative working - across/within research centre	928	38%	41%
Collaborative working - externally	917	38%	45%
Coordination of research projects	779	32%	40%
Meeting targets/delivering on time	771	32%	37%
Networking within the research centre	731	30%	33%
Project management experience	710	29%	34%
Networking outside the research centre	681	28%	36%
International experience	562	23%	42%
Conference keynote-plenary speaker	374	15%	33%
Conference attendance	344	14%	
Participating in the science eval of your res centre/inst	298	12%	
Attracting new PhD students	289	12%	
Raising profile of research centre in media	270	11%	
Patenting	197	8%	
Refereeing	158	6%	
Assessor grant giving bodies	142	6%	
Editor of academic journal	138	6%	
Membership of a nat/gov committee	130	5%	
Member of editorial board of academic journal	114	5%	
Client/customer consultancy	90	4%	
Chair of division committees	81	3%	
Membership of Division committees	80	3%	
Course director/leader/coordinator	75	3%	
Professional consultancy work	68	3%	
External examiner	67	3%	
Member of Council	66	3%	
Membership of fin/planning/resource committees	50	2%	
Member or cross council committee	45	2%	
Membership of appointments committees	40	2%	
Membership of industry/standards board	29	1%	
Other	384	16%	



**Table 34 Contributors to a successful career, comparison of senior group\* with HE equivalents**

<b>In HEI</b>		<b>In Research Institutes</b>	
Research publications	90%	Research publications	81%
Obtaining ext research funding	77%	Working on high profile projects	73%
		Obtaining external research funding	63%
		Initiating/contributing to new projects	55%
		Collaborative working - externally	45%
Attracting new PhD students	41%	Collaborative working - internally	41%
Conference keynote-plenary speaker	41%	International experience	41%
		Coordination of research projects	40%
		Meeting targets/delivering on time	37%
		Networking outside the research centre	36%
		Project management experience	34%
		Conference keynote speaker	33%
Editor of academic journal	27%	Networking within the research centre	33%
Member of editorial board	22%		
Innovative teaching	21%		

\* Senior group = professors, senior lecturers in HEIs and research directors and principal scientists in RIs

## SECTION 5 WORK LIFE BALANCE

**Table 35 Employing organisation's approach to work life balance**

N		Good	Adequate	Poor
2,327	<b>All</b>	<b>37%</b>	<b>50%</b>	<b>13%</b>
56	Res Dir	50%	41%	9%
317	Prin Sci	33%	52%	15%
612	Sen Sci	38%	50%	12%
1300	Scientist	37%	51%	13%
42	Other	36%	36%	29%

**Table 36 Most important contributors to a good work life balance**

	All	Men with children	Women with children
Flexibility in hours / days worked / work pattern	80%	79%*	86%*
Being able to ask for time off at short notice within leave allocation, with no need to give reasons	55%	54%	59%
Awareness of issue being shown by senior management	43%	47%	49%
Home working	40%	42%	46%
Meetings finishing on time, especially those at the end of the day	29%	28%*	44%*
Important meetings/activities on a regular pattern to allow planning	18%	15%*	26%*
More support from colleagues	15%	12%*	22%*
More notice of important meetings	13%	14%*	18%*
Take up of existing work-life provision by senior managers	12%	12%*	17%*
Ability to buy additional leave with salary sacrifice	11%	8%*	18%*
Other	7%	8%	7%

\* Male/female differences statistically significant

**Table 37 Facilities available / in operation**

	All	Res Dir	Prin Sci	Sen Sci	Sci
Flexibility in hours / days worked / work pattern	68%	85%	74%	73%	64%
Being able to ask for time off at short notice within leave allocation, with no need to give reasons	59%	64%	58%	61%	58%
Home working	33%	61%	51%	40%	25%
Awareness of issue being shown by senior management	23%	49%	34%	29%	17%
Important meetings/activities on a regular pattern to allow planning	19%	44%	20%	18%	18%
Meetings finishing on time, especially those at the end of the day	13%	34%	21%	13%	10%
More support from colleagues	11%	19%	9%	11%	12%
More notice of important meetings	10%	24%	11%	10%	10%
Ability to buy additional leave with salary sacrifice	7%	15%	7%	7%	7%
Take up of existing work-life provision by senior managers	5%	12%	7%	6%	4%
Other	2%	2%	3%	3%	1%

**Table 38 Travel requirements of job**

	All	M	F	Dir	Prin sc	Sen sci	Sci
Acceptable	86%	85%	86%	83%	85%	86%	86%
Too much	6%	6%	6%	15%	12%	8%	3%
Too little	8%	8%	7%	2%	3%	6%	11%

**Table 39 Most important in making travel requirements easier**

	M	F	M	F	All
Work from home immediately before & after travel	157	103	11%	11%	11%
Compensatory leave allocation for long periods away from home	152	89	10%	9%	10%
Additional care costs contribution/cover	129	97	9%	10%	9%
Adequate notice of required travel	122	90	8%	9%	9%
Ability to take partner	148	55	10%	6%	8%
Support/cover by colleagues during absence	81	82	5%	8%	7%
Involvement in planning of travel commitments	82	66	6%	7%	6%
Established "no go" periods for travelling	84	61	6%	6%	6%
Other	56	34	4%	4%	4%
Established min period at home between periods of travel	46	37	3%	4%	3%
Info on travel commitments of colleagues	28	16	2%	2%	2%
Regular pattern of travel rather than ad hoc	24	13	2%	1%	2%

## SECTION 6 VALUED TREATED AND SUPPORTED

Table 40a Support opportunity and encouragement, by level and gender

Statement (full wording given in Table 40b)		Male			Female		
		A + AS	Neither	D+DS	A + AS	Neither	D+DS
<b>Research Director</b>							
Senior colleagues supportive		87%	7%	7%	82%	18%	0%
Line manager supportive		86%	12%	2%	100%	0%	0%
Research contribution valued		83%	15%	2%	89%	11%	0%
Admin contribution valued		88%	12%	0%	91%	9%	0%
Socially integrated		80%	16%	5%	73%	27%	0%
Opp. to participate in imp. c'ittees, mtgs, projects		89%	5%	7%	100%	0%	0%
Encouraged to develop CV		79%	9%	12%	90%	10%	0%
Successes celebrated		57%	31%	12%	88%	0%	13%
External professional activities valued		71%	21%	9%	63%	38%	0%
<b>Principal scientist</b>							
Senior colleagues supportive	*	72%	19%	9%	48%	28%	25%
Line manager supportive		78%	14%	9%	63%	23%	13%
Research contribution valued		72%	15%	13%	60%	19%	21%
Admin contribution valued		53%	34%	14%	42%	33%	25%
Socially integrated		66%	21%	13%	52%	29%	19%
Opp. to participate in imp. c'ittees, mtgs, projects	*	64%	22%	14%	49%	21%	30%
Encouraged to develop CV	*	65%	23%	12%	46%	28%	26%
Successes celebrated		40%	29%	31%	38%	25%	38%
External professional activities valued		49%	38%	14%	48%	36%	16%
<b>Senior scientist</b>							
Senior colleagues supportive		65%	22%	13%	55%	28%	17%
Line manager supportive	*	83%	10%	7%	73%	17%	10%
Research contribution valued		64%	20%	16%	57%	24%	19%
Admin contribution valued		48%	36%	16%	46%	38%	17%
Socially integrated		63%	22%	15%	65%	20%	15%
Opp. to participate in imp. c'ittees, mtgs, projects		49%	30%	22%	43%	26%	31%
Encouraged to develop CV		55%	29%	15%	50%	29%	22%
Successes celebrated		29%	37%	34%	32%	37%	31%
External professional activities valued		36%	43%	21%	35%	39%	26%
<b>Scientist</b>							
Senior colleagues supportive		0%	0%	0%	0%	0%	0%
Line manager supportive		63%	23%	14%	63%	26%	11%
Research contribution valued		81%	12%	8%	79%	13%	8%
Admin contribution valued		53%	31%	16%	58%	28%	14%
Socially integrated	*	34%	46%	20%	36%	48%	16%
Opp. to participate in imp. c'ittees, mtgs, projects		58%	26%	16%	67%	22%	11%
Encouraged to develop CV	*	33%	30%	38%	30%	31%	39%
Successes celebrated		52%	22%	26%	46%	28%	26%
External professional activities valued		29%	40%	31%	27%	45%	28%
External professional activities valued		23%	55%	22%	23%	59%	18%

\* denotes m/f differences in response are statistically significant

**Table 40b Full wording of support, opportunity and encouragement statements**

Senior colleagues are supportive

My line manager is supportive

My research contribution to the research centre/institute is valued

My administrative contribution to the research centre/institute is valued

I feel socially integrated within my research centre/institute

I have the opportunity to participate in important research centre/institute committees, meetings and projects

I am encouraged to undertake activities which will contribute to my career development

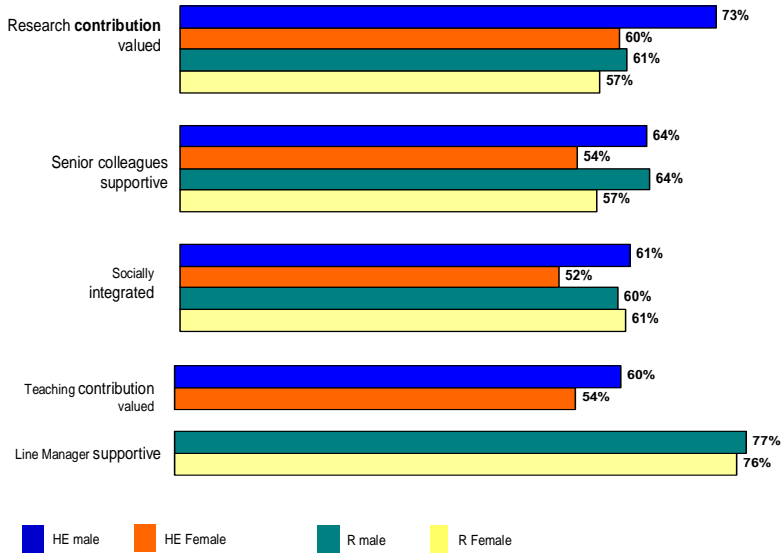
Successes in my working life are celebrated by my research centre/institute

My research centre/institute places value on external professional activities

Figure 5 Support opportunity and acknowledgement, age band 35 to 50, by gender in RI and HEI

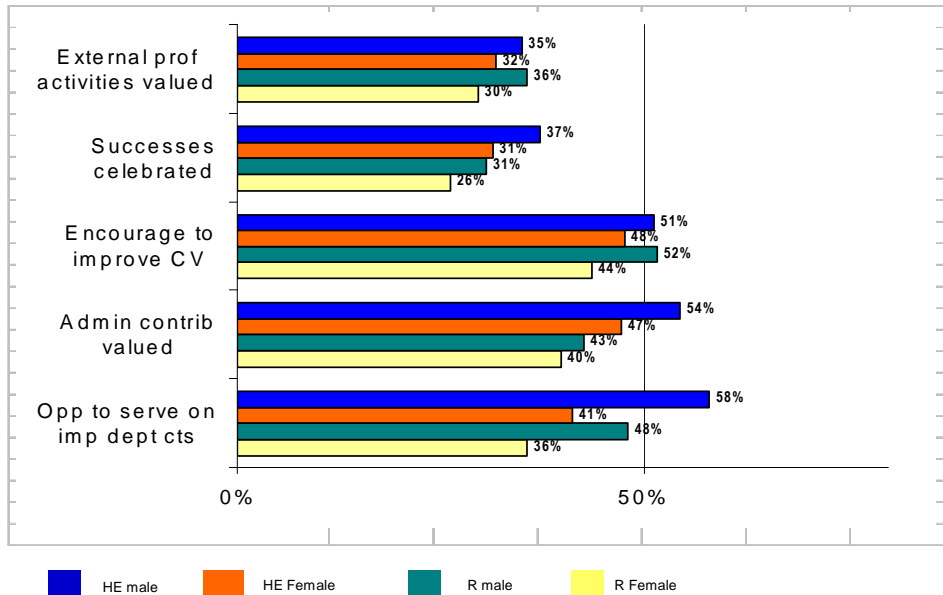
## The workplace culture – a sense of belonging?

Areas where the majority agreed they were valued or supported  
(in HE, male agreement significantly higher than female)




## The workplace culture – a sense of belonging?

Areas where <50% of women agreed they were valued or supported



**Table 41 Advantage and disadvantage, by level and gender**

	Male		Female		
	Women disadvantaged	No difference	Women Disadvantaged	No difference	
<b>1 Research Director</b>					
Promotion	21%	77%	27%	64%	
Salary	9%	89%	45%	55%	*
Access to career dev & training	9%	89%	9%	91%	
Visibility to senior management	20%	72%	27%	73%	
Access to funds		96%		100%	
Office space		94%	9%	82%	
Lab space		96%		82%	
Admin/office support		93%	9%	82%	
Sabbatical leave	5%	81%		64%	*
<b>2 Principal scientist</b>					
Promotion	22%	69%	48%	48%	*
Salary	10%	82%	39%	44%	*
Access to career dev & training	7%	89%	38%	61%	*
Visibility to senior management	16%	68%	59%	40%	*
Access to funds	2%	92%	25%	72%	*
Office space	0%	96%	11%	85%	*
Lab space	0%	91%	6%	82%	*
Admin/office support	1%	90%	14%	78%	*
Sabbatical leave	2%	68%	8%	58%	*
<b>3 Senior scientist</b>					
Promotion	18%	64%	56%	39%	*
Salary	7%	74%	29%	52%	*
Access to career dev & training	4%	86%	27%	69%	*
Visibility to senior management	14%	64%	51%	42%	*
Access to funds	3%	80%	15%	71%	*
Office space	1%	92%	14%	80%	*
Lab space	0%	86%	8%	77%	*
Admin/office support	2%	84%	12%	79%	*
Sabbatical leave	2%	61%	8%	53%	*
<b>4 Scientist</b>					
Promotion	11%	65%	39%	46%	*
Salary	6%	69%	23%	52%	*
Access to career dev & training	3%	83%	13%	78%	*
Visibility to senior management	9%	64%	30%	50%	*
Access to funds	3%	67%	8%	61%	*
Office space	1%	86%	5%	89%	*
Lab space	1%	83%	3%	86%	*
Admin/office support	1%	76%	4%	74%	*
Sabbatical leave	1%	56%	4%	47%	*

 denotes "women disadvantaged" responses of >20% from men, and ≥ 30% from women

**Figure 6 Advantage and disadvantage by level and gender in RIs and HEIs**

