

Royal Economic Society Women's Committee Survey on the Gender and Ethnic Balance of Academic Economics 2010

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Executive Summary

This report describes the data from the eighth, 2010, survey of gender and ethnic balance amongst academic economists in CHUDE membership departments in UK universities. The main results from the 2010 survey are:

- women constitute 22% of all academic staff in economics
- women are under-represented among Professors – one in three men are Professors compared to one in six women
- the proportion of women is substantially higher in research jobs than in standard academic jobs
- the proportion of women is higher among part-timers than full-timers
- 18% of staff are from ethnic minorities, 12% of Professors belong to these minority groups
- women are disproportionately represented amongst the ethnic minorities
- the response rate among departments is reasonable at 61%.

It is also of interest to compare the results from the 2010 survey with that from 2008. The lower response rate in 2010 limits this balanced sample comparison but the overall impression is:

- the proportion of women among academic economists has remained stable between 2008 and 2010 at around 20%, although there are some increases amongst all academic ranks, except for Lecturers in permanent positions
- female Professors are promoted rather than hired
- job separations are rare for senior females
- changes that are observed over the two years are not generally significantly different from zero making it difficult to make any definite statement about trends.

Comparing the 2010 balanced sample results to those from the 1996 survey:

- In aggregate the workforce has grown over the fourteen years, from 2346 to 2857 academic economists (a 21.8% growth rate).
- in 1996 women made up 17.5% of the workforce, by 2010 this has risen to 21.9%
- the numbers of Professors has more than doubled over the time period (from 14.2% of all staff to 26.3%)
- women are twice as likely to be in the standard academic grades in 2010 than they were in 1996 (in 1996 women made up approximately 15% of the Lecturers, 10% of the Readers/Senior Lecturers and 5% of the Professors; in 2010 women make up some 30% of the Lecturers, 20% of the Readers/Senior Lecturers and 10% of the Professors).

1. Introduction to the 2010 survey.

This report covers the eighth survey of the gender and ethnic balance in academic employment in economics in Britain in a series started in 1996 by the Royal Economic Society (RES) Women's Committee (Mumford 1997) and repeated bi-annually thereafter (Booth and Burton with Mumford, 2000; Burton with Joshi and Rowlatt, 2002; Burton and Joshi, 2004, Burton with Humphries, 2006; Azariadis and Manning, 2008; Mumford, 2009). In 1998, the RES also undertook a survey into the ethnic composition of academic employment in economics (Blackaby and Frank, 2000), and since 2000 the two surveys have been combined.

The Gender and Ethnic Balance 2010 questionnaire was emailed out by Tim Worrall (CHUDE Secretary) on November 2nd, 2010, to around 95 institutions drawn, as in previous years, from the CHUDE mailing list.¹ The survey aimed to collect information as of November 1st 2010 on academic staff (full-time and part-time) by grade of employment, gender, ethnicity, and country of birth. It also collected information on promotions, new hires and job leavers (in the academic year 2009/2010).

By March the 11th 2011, 57 questionnaires had been returned: a reasonable response rate of 60%.² Multiple attempts to obtain a return from each of the non-responding departments were made, nevertheless, there were a substantial number who did not participate perhaps reflecting a weakness in survey design or apathy on the part of departments (Georgiadis and Manning, 2007; page 3). A substantial decline in response rates coincided with the inclusion of the ethnicity component in the survey; it may also be that collection of this type of information is considered to be more onerous by departments. Section 2 of the report presents results for this emailed survey.³

¹ There are major difficulties in covering economists working outside conventional economics or business departments. The failure to identify economists working in policy studies or inter-disciplinary settings in the surveys is of concern to the Royal Economics Society's Women's Committee.

² This represents a decrease from the 73 received in 2008, an increase from the 45 received in 2006 and a decline from the 79 received in 2004. However as fewer questionnaires were issued in 2006, the response-rate (at 47% of eligible institutions) was consistent with that achieved in 2004 (when it was also 47%), whilst the 2000 survey achieved a 60% response rate.

³ The excel files for the individual departmental survey returns were merged by Paul Hodgson.

For the 2006 survey, Francesco Marriotti and Karen Mumford surveyed a subsample of departmental web-sites for the non-respondents and coded, by gender, the staff listed on them (see Georgiadis and Manning, 2007; Appendix). For the 2008 and 2010 surveys, Gwen Postle and Karen Mumford carried out a similar exercise for all of the CHUDE departmental websites that the emailed surveys were sent to. The 2010 web based data are included in the analysis below and results are discussed in section 3 of the report.

Comparisons are also made between alternative samples of responding institutions using ‘balanced’ panels from previous surveys. In particular, section 4 of the report compares findings from the original 1996 survey with those for the 2010 web-based survey.

2. Overview of the findings for the emailed survey, 2010.

The Gender and Ethnic Balance 2010 survey collected information as of November 1st 2010 on academic staff (full-time and part-time) by grade of employment, gender, and ethnicity. It also collects information on promotions, new hires and job leavers (in the academic year 2009/2010). The last usable response was returned on March the 11th 2011, at which time 57 completed questionnaires had been returned (with one being unusable): a response rate of 60%. Table 1 shows the numbers of economists employed in academia in the UK from the total email survey return. In aggregate, information is available for 1,355 people who work as economists in academic appointments in the UK, 297 (or 21.9%) of these are women.⁴

The vast majority of these economists (93%) are working in standard academic appointments (i.e., mixed teaching and research jobs as opposed to research-only appointments), this figure is slightly less for women than for men (87.9% and 94.4%, respectively). The majority of academic economists are also working full-time (92.5%) and this figure is also slightly lower for women (92.3%) than for men (92.6%). If the research-only categories are excluded from the calculation, women make up 20.7% of the standard full-time academic workforce (or 241 out of 1166 employees).

⁴ Teaching Fellows were excluded from the sample, and those ranked as Principal Lecturers are coded as Senior Lecturers (maintaining continuity with grade ranking in previous reports).

Table 1. Primary employment function: All academic staff in economics departments and research institutes (responding sample, 2010).

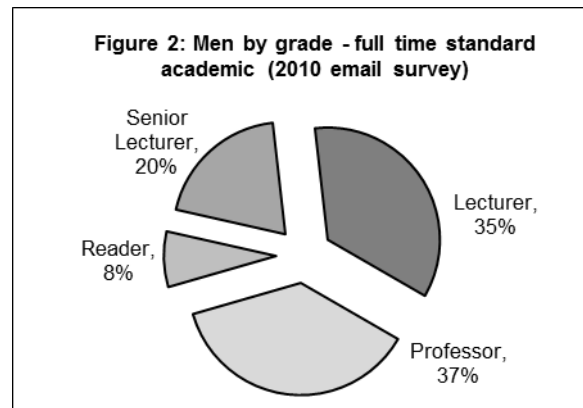
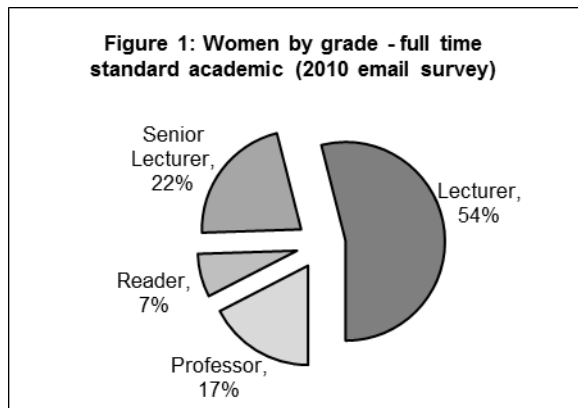
Primary Employment Function	2010 full email based survey			
	Female	Male	Total	% Fem
All Staff: full time				
Professors	42	344	386	10.9%
Readers	17	74	91	18.7%
Senior Lecturers	52	182	234	22.2%
Lecturers - permanent	115	302	417	27.6%
Lecturers - fixed term	15	23	38	39.5%
Senior Researchers	11	13	24	45.8%
Researchers - permanent	1	2	3	33.3%
Researchers - fixed term	18	36	54	33.3%
Totals	271	976	1247	21.7%
All Staff: part time				
Professors	6	36	42	14.3%
Readers	0	1	1	0.0%
Senior Lecturers	2	12	14	14.3%
Lecturers - permanent	11	14	25	44.0%
Lecturers - fixed term	1	11	12	8.3%
Senior Researchers	1	6	7	14.3%
Researchers - permanent	0	0	0	-
Researchers - fixed term	5	2	7	71.4%
Totals	26	82	108	24.1%
Grand Total	297	1058	1355	21.9%

Source: RES Women's Committee Survey 2010, email based.

Women are more commonly employed at the lower academic grade levels, as is clearly seen in the final column of Table 1. For example, amongst full-time staff, the proportion female decreases from 27.6% of the Permanent Lecturers, to 22.2% of the Senior Lecturers, 18.7% of the Readers and 10.9% of the Professors.

Of all the women employed full time in standard academic appointments (see Figure 1), 17% are Professors and a further 29% are Readers or Senior Lecturers. Roughly one in every two of the women is a Lecturer. Carrying out a similar exercise for the men (Figure 2)

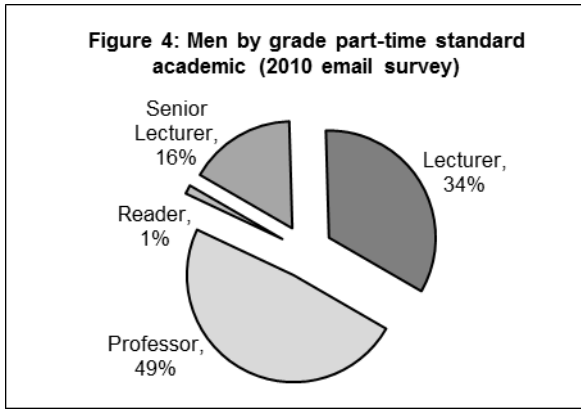
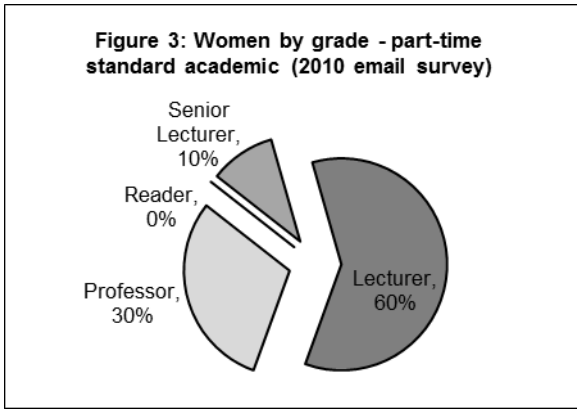
reveals that 37% of the males are in the Professorial grade with another 28% in the Reader/Senior Lecturer grades. Roughly one in every three men is a lecturer. Males are roughly twice as likely to be Professors but only slightly more likely to be Senior Lecturers or Readers than are the women.



Part time employment.

Concentrating on the part-time employees (see the lower panel of Table 1), the number of men working part-time is considerably larger than the number of women; however, their numbers relative to the total pool of male employees are smaller: 8.8% of female economists in academia are working part-time and 7.8% of male are. Of the female economists in standard academic jobs, 7.7% work part-time whilst 7.4% of the males do. Women are particularly prevalent amongst the part-time Lecturers in permanent positions and the part-time Researchers in fixed term contracts (comparing the higher and lower panels of Table 1).

Of the part-time women employed in standard academic appointments, 30% of these women are Professors and 60% are Lecturers (see Figure 3). Carrying out a similar exercise for the men (Figure 4) reveals that 49% of the part-time males are in the Professorial grade with 34% in the Lecturer grade. In other words, part-time males are 1.6 times as likely to be Professors and roughly half as likely to be Lecturers as are part-time women.



Temporary employment.

Temporary employment contracts are found to be rare for job ranks other than Lecturers and Researchers, indeed, there are no Readers or Senior Lecturers amongst the responding sample that are on fixed term contracts (see Appendix 1). Table 2 presents data for all staff (full-time and part-time, permanent and fixed term) in panel 1; panel 2 lists those staff who are on fixed term contracts; and panel 3 lists those temporary employees who are also part-time.

Much of the information in Table 2 has already been presented above, for example, the fixed term and part-time status for Lecturers and Researchers is presented in Table 1. However, Table 2 also presents this information for Professors and Senior Researchers. Combining part-time and full-time staff, temporary and permanent staff, women constitute: 28.9% of Lecturers, 21.8% of Senior Lecturers, 18.5% of Readers, and 11.2% of Professors (see panel 1 of Table 2).

Reading across the columns in panel 1 of Table 2 reveals that, in total, there are 428 Professors, 48 of whom (11.2%) are female. The Professors constitute 31.6% of all academic staff (column 5). Of these Professors, 12 are working on a fixed term contract (see panel 2), 1 of whom (or 8.3%) is female. Only 2.8% of the Professors are on a fixed term contract (column 5) whilst 8.2% of all the fixed term staff are Professors (column 6).

Table 2. Primary employment function: All academic staff, fixed term staff, fixed term and part-time staff (responding sample, 2010).

Primary employment function	Female (1)	Male (2)	Total (3)	% Fem (4)	% of all staff in the rank (5)	% of fixed term staff in the rank (6)
All staff						
Professor	48	380	428	11.2%	31.6%	
Reader	17	75	92	18.5%	6.8%	
Senior Lecturer	54	194	248	21.8%	18.3%	
Lecturer	142	350	492	28.9%	36.3%	
Senior Researcher	12	19	31	38.7%	2.3%	
Researcher	24	40	64	37.5%	4.7%	
Total	297	1058	1355	21.9%	100.0%	
Fixed term staff						
Professor	1	11	12	8.3%	2.8%	8.2%
Reader	0	1	1	0.0%	1.1%	0.7%
Senior Lecturer	0	2	2	0.0%	0.8%	1.4%
Lecturer	16	34	50	32.0%	10.2%	34.0%
Senior Researcher	8	13	21	38.1%	67.7%	14.3%
Researcher	23	38	61	37.7%	95.3%	41.5%
Total	48	99	147	32.7%	10.8%	100.0%
Fixed term and part-time staff						
Professor	1	6	7	14.3%	1.6%	58.3%
Reader	0	1	1	0.0%	1.1%	100.0%
Senior Lecturer	0	2	2	0.0%	0.8%	100.0%
Lecturer	1	11	12	8.3%	2.4%	24.0%
Senior Researcher	0	4	4	0.0%	12.9%	19.0%
Researcher	5	2	7	71.4%	10.9%	11.5%
Total	7	26	33	21.2%	2.4%	22.4%

Source: RES Women's Committee Survey 2010, email based.

Panel 3 shows that the majority of the Professors working on a fixed term contract are also working part-time (58.3%, see column 6), which is also true for the only female Professor on a fixed term contract (reading down column 3). In contrast, more than two thirds

(67.7%) of the relatively scarce Senior Researchers are employed on a fixed term basis and 12.9% of them are also working part-time. Researchers are particularly prone to be on a fixed term contract (95.3%) and about a tenth of these academics are also working part-time. Researchers are also substantially more likely to be female; 71.4% of part-time Researchers on fixed term contracts are female.

Considering a role model effect

It may be that departments with female Professors find it easier to recruit, promote and/or retain other women (a role model effect). Table 3 reports (for all academic staff employed as economists) the proportion of Readers, Senior Lecturers and Lecturers who are female in departments with and without a female Professor. The first five rows of the first column of Table 3 provide alternative ranges of the percentage of staff below the grade of Professor that are female. The second column relates specifically to departments with at least one female Professor, and the third column to those departments with no female Professors. For example, reading across the first row of Table 3, there are 16 departments where less than 10% of their non-professorial staff is female. Of these 16 departments, half of them have a female Professor. Only four departments (7% of the sample) had more than 30% of their Reader, Senior Lecturer or Lecturer posts taken by women: half of which have a female Professor. In general, these findings provide little indication that the presence of at least one Professorial woman in a department enhances the representation of women more generally in that department.

Considering the final rows of Table 3, in aggregate, departments with a female Professor had an average of 16.2% of female staff in non-professorial job ranks, in departments with no female professor this proportion was 20%. Additionally, departments with at least one female Professor are larger in size, as measured by the number of staff below Professor (16.41 relative to 12.97). Taken in combination, the evidence presented in Table 3 does not provide compelling support for the role model hypothesis (a similar conclusion was reached for the 2006 and 2008 surveys, see Georgiadis and Manning, 2007; page 9; and Mumford, 2009; page 9).

Table 3: Proportion of female academic staff below Professor, (responding sample, 2008 email survey)

	Number of departments with a female Professor	Number of departments with no female Professor	Number of departments
Proportion of female staff below Professorial rank			
0<=pr<=9%	8	8	16
9%< pr<=19%	9	10	19
20%<pr<=29%	8	10	18
pr>29%+	2	2	4
Average number of staff below Professorial rank	16.41	12.97	
Average proportion of female staff below Professorial rank	16.20%	20.02%	
Number of departments	<i>n=27</i>	<i>n=30</i>	<i>n=57</i>

Source: RES Women's Committee Survey 2010, email based.

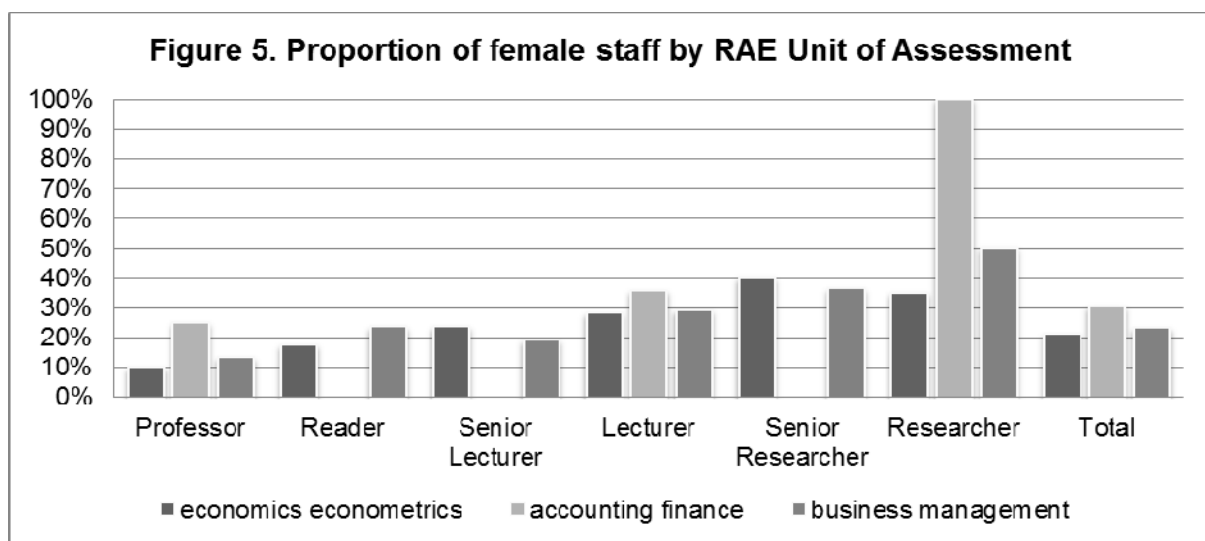
Analysis by RAE results

It may be argued that there is a relationship between the presentation of women in a department and the department's rank in the Research Assessment Exercise (RAE). This is another issue that has been explored in the previous surveys and reports, without convincing results supporting the hypothesis.

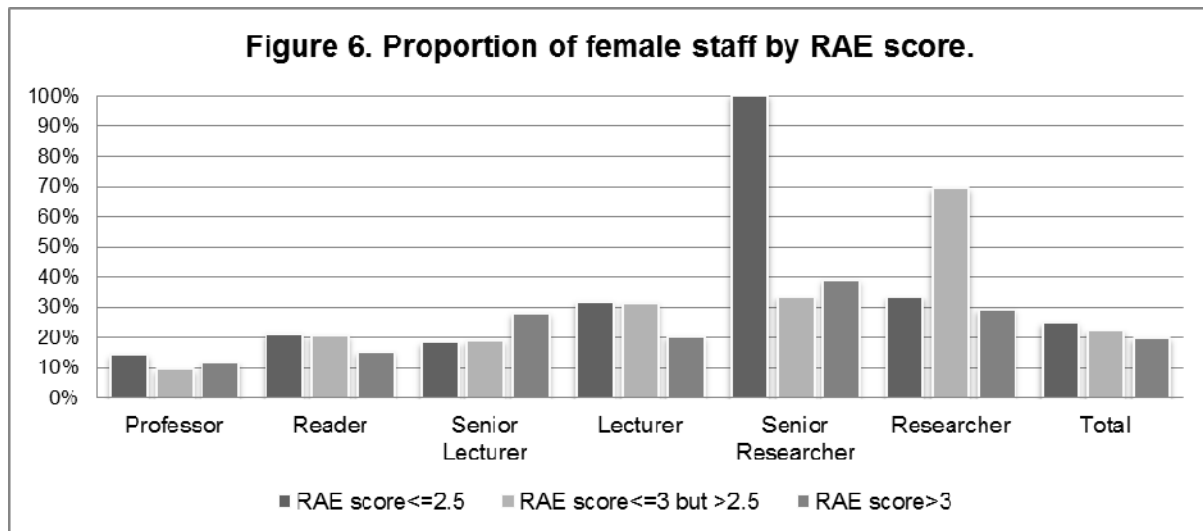
During the 2008 RAE, departments could be rated under different Units of Assessment (UoA). The data were analysed to see if there were any differences between departments rated in the "Economics and Econometrics" unit (UoA 34); the "Accounting and Finance" unit (UoA 35); and the "Business and Management" unit (UoA 36). Departments could submit to multiple units and many did (30 of the responding departments submitted to Economics and Econometrics; 7 to Accounting and Finance; and 50 to Business Management)⁵. For these responding departments, the average RAE score for each of the Units of Assessment were 2.85 for Economics and Econometrics; 2.36 for Accounting and Finance; and 2.45 for Business Management. Figure 5 presents the proportion of female staff

⁵ There was one department who responded to the survey that was not included in either of these Units of Assessment (Staffordshire University).

in each job rank by the three Units of Assessment. Accounting and Finance is clearly the outlier with large swings in the proportion female associated with no observations in some ranks (such as Reader, Senior Lecturer or Senior Researcher). The proportion of total staff that is female is the highest in this unit (30.4%), followed by Business and Management (23.2%), whereas in Economics and Econometrics about one out of five staff members is female. Concentrating on the other two assessment units, the relative number of women in each rank is typically lower for Economics and Econometrics than it is for Business and Management, with the exception of the Senior Lecturer and Senior Researcher ranks.



The responses were also analysed to see whether there were differences between those departments with a higher score in the 2008 Research Assessment Exercise or not. Of those departments submitting to more than one Unit of Assessment, ranking priority for categorisation of the RAE score results was set at “Economics and Econometrics” > “Business and Management” > “Accounting and Finance”. Figure 6 shows the proportion of female staff in each grade rank by the RAE score of the department. The departments were divided into those who scored (i) below 2.5; (ii) 2.5 or above but below 3; and (iii) 3 or above. Of the 56 responding departments who submitted to these units of assessment, 10 departments scored above 3 (465 staff members), 22 departments scored above 2.5 but equal to or below 3 (545 staff), and 24 departments scored 2.5 or below (338 staff); none of the departments scored below 1.



On average, departments scoring 2.5 or below in the 2008 RAE have relatively more posts held by women (24.9%) than those rated above 2.5 but below 3 (22%) or those rated greater 3 or above (19.8%), as can be seen in the totals column of Figure 5. The lower RAE scoring departments are more likely to have females amongst the different rank grades except for Senior Lecturers and Researchers (however the numbers in the senior ranks in these departments are small; 70 Professors and 19 Readers). Of the higher RAE scoring departments, the relative number of female Professors, Senior Lecturers and Senior Researchers is higher in those departments scoring above 3 than in those scoring above 2.5 but below 3. There is also an apparent concentration of separate research clusters with Senior Researchers in those departments that rated highly in the RAE, indeed of the 338 staff members present in the lower scoring departments, there is only one Senior Researcher. This single Senior Researcher is female and is therefore recorded as 100% female representation in this grade rank in Figure 6.

Flows into and out of standard academic positions in the previous year

Changes in the stock of individuals in any job rank due to inflows from new hires, job separations (resignations and retirements), and promotions (within departments) can also be addressed. Table 4 presents information on new staff hired in the last year in the respondent department: columns 1 to 4 for the full 2010 email sample; columns 5 and 6 are the 2010 survey balanced sample results for those departments responding to both the 2010 and the 2008 surveys; and columns 7 and 8 are the full 2008 email survey results. The numbers

involved are small and implications are accordingly far from confident. Comparing the balanced samples in columns 5 and 7, hiring in 2010 can be seen to be fractionally lower than it was in 2008. A decreasing percentage of women are hired as the grade ranks increase in the balanced sample: while 45% of new non-academic staff is female, this percentage drops to 20% for Readers and below 12.5% for Professors.

Table 4. New hires.

	2010 full email survey				2010 balanced sample		2008 email survey	
	Female (1)	Male (2)	Total (3)	%Fem (4)	Total (5)	%Fem (6)	Total (7)	%Fem (8)
Professor	3	23	26	11.5%	24	12.5%	24	8.3%
Reader	2	8	10	20.0%	10	20.0%	3	33.3%
Senior Lecturer	2	8	10	20.0%	9	22.2%	8	12.5%
Lecturer	33	67	100	33.0%	96	32.3%	100	36.0%
Senior Researcher	2	2	4	50.0%	4	50.0%	7	28.6%
Researcher	13	16	29	44.8%	28	42.9%	37	37.8%
Total	55	124	179	30.7%	171	30.4%	179	31.3%

Source: Balanced samples for 2008 and 2010: RES Women's Committee Survey 2008 (Mumford, 2009; page 13), RES Women's Committee Survey 2010, email based.

Moving on to the full 2010 email responses, given the numbers of the new hires are small, comparing columns 4 and 6 reveals a very small growth in the number of female Lecturers and Researchers from this source (amongst those department who responded in 2010 but not in 2008). This hiring rate increased the proportion of females in the professorial grade (from 10.7% to 11.2%). In aggregate, women make up a larger proportion (30.7%) of the new hires than they do of the total pool of academic economists (21.9% - see Table 1), however, the majority of these hires are concentrated in the lower academic grade ranks (especially Lecturer and Researcher).

The majority of inflows into the senior academic grades (Professorial, Reader or Senior Lecturer) may be due to promotion rather than new hires. Table 5 presents information on internal promotions (i.e., those promotions within the department) and follows the same structure as Table 4: columns 1 to 4 are for the full 2010 email sample; columns 5 and 6 are the 2010 balanced sample survey results for those departments responding to both the 2010 and the 2008 surveys; and columns 7 and 8 are the 2008 survey results.

Table 5. Internal promotions.

	2010 full email survey				2010 balanced sample		2008 email survey	
	Female (1)	Male (2)	Total (3)	%Fem (4)	Total (5)	%Fem (6)	Total (7)	%Fem (8)
Professor	7	20	27	25.9%	27	25.9%	25	24.0%
Reader	2	13	15	13.3%	15	13.3%	20	30.0%
Senior Lecturer	6	13	19	31.6%	18	33.3%	39	30.8%
Lecturer	1	1	2	50.0%	2	50.0%	7	14.3%
Total	16	47	63	25.4%	62	25.4%	91	27.5%

Source: Balanced samples for 2008 and 2010: RES Women's Committee Survey 2008 (Mumford, 2009; page 14), RES Women's Committee Survey 2010, email based.

These numbers of internal promotions are also obviously small so we should again be cautious about how valid the implications of these flows for changes in relative employment actually are. Nevertheless, women gaining 7 of the 27 professorial promotions in 2010 keeps the relative stock of female Professors stable (10.7% in 2008 and 10.9% in 2010). If this trend in promotions continued, *ceteris paribus*, it would take another more than a generation to bring the relative stock of female Professors to the proportion of females in the Reader grade (which is 18.7%). Similar analysis can be carried out for the other academic grades (see Table 6). Compared to 2008, the relative promotion of female Readers decreased by more than half, while Senior Lecturers show similar results to those in 2008.

Table 6. : The proportion of internal promotions awarded to female economists (responding sample, 2010)

	Female (1)	Male (2)	Total (3)	%Fem (4)	%Fem in grade (5)	%Fem in grade below (6)
Professor	7	20	27	25.9%	11.2%	18.5%
Reader	2	13	15	13.3%	18.5%	21.8%
Senior Lecturer	6	13	19	31.6%	21.8%	28.9%
Lecturer	1	1	2	50.0%	28.9%	
Total	16	47	63	25.4%	20.7%	

Source: RES Women's Committee Survey 2010, email based.

The third flow affecting the stock of academic economists is, of course, leavers (see Table 7). In aggregate, women make up a similar proportion of these separations than they do of the total pool of academic economists (21.6% relative to 21.9%) but such separations are rare for the most senior women (Professors and Readers).

Table 7. Separations.

	2010 full email survey				2010 balanced sample		2008 email survey	
	Female (1)	Male (2)	Total (3)	%Fem (4)	Total (5)	%Fem (6)	Total (7)	%Fem (8)
Professor	3	38	41	7.3%	40	7.5%	33	3.0%
Reader	0	8	8	0.0%	8	0.0%	7	0.0%
Senior Lecturer	5	17	22	22.7%	22	22.7%	29	13.8%
Lecturer	20	39	59	33.9%	59	33.9%	44	29.5%
Senior Researcher	1	3	4	25.0%	4	25.0%	7	42.9%
Researcher	3	11	14	21.4%	12	25.0%	31	32.3%
Total	32	116	148	21.6%	145	22.1%	151	20.5%

Source: Balanced samples for 2008 and 2010: RES Women's Committee Survey 2008 (Mumford, 2009; page 15), RES Women's Committee Survey 2010, email based.

Information on the sector of the job leaver's destination job, and its geographical location, was also gathered (see Table 8). The most common destination employment for the job leavers is another academic appointment (71.4%) implying considerable churning within the sector, followed by non-employment (15.1%). The proportion of female economists in

these categories is very similar to their share of the workforce, with a higher proportion of female leavers going into academic (73.1%) and unknown jobs (11.5%).

Table 8. Job leaver's destinations

Sector	Leavers sector destination				Location	Leavers geographic destination			
	Female (1)	Male (2)	Total (3)	%Fem (4)		Female (5)	Male (6)	Total (7)	%Fem (8)
Academic	19	66	85	22.4%	European Union	2	16	18	11.1%
Non-employment GES or Bank of England Other Gov/NGO (not including GES or Bank of England)	3	15	18	16.7%	Other	6	23	29	20.7%
	0	1	1	0.0%	Unknown	2	4	6	33.3%
						15	50	65	23.1%
	0	2	2	0.0%	United Kingdom				
Private sector	1	3	4	25.0%					
Unknown job	3	6	9	33.3%					
Total	26	93	119	21.8%	Total	25	93	118	21.2%

Source: RES Women's Committee Survey 2008, email based.

The majority of job leavers remain in the UK (55.1%), however, a further 39.8% travel to other countries. Of the 118 academic job placements, 18 went to the EU (of which 2 were women); 65 remained in the UK (15 women); 29 to other countries (6 women); and there were 6 whose destination was unknown. These findings suggest an international marketplace exists for academic economists, both male and female.

The 2010 survey also asks respondents about the reasons for these separations. Some one out of five leavers moved for a promotion (21.3%) and a similar number retired (19.7%), while one out of ten leavers cited family reasons for quitting their jobs and 13.1% reported that they had reached the end of their contract. In 35% of the cases, there are other or unknown reasons for leaving the job. However, 30.8% of those who left their job due to family reasons are women and women are 1.6 times more likely than men to do so, which might indicate ineffective implementation of family friendly work practices within departments. Women are less likely than men to get a promotion, but more likely to reach the end of their contract, which is no surprise since women are overrepresented in the staff with fixed term contracts: women represent 32.7% of the staff with fixed term contracts and 20.6% of those with permanent contracts.

Table 9. Reasons for leaving

Sector	Female (1)	Male (2)	Total (3)	%Fem (4)
Promotion	4	22	26	15.4%
End of contract	4	12	16	25.0%
Retired	1	23	24	4.2%
Family reasons	4	9	13	30.8%
Other	10	22	32	31.3%
Unknown	3	8	11	27.3%
Total	26	96	122	21.3%

Drawing together the information on inflows, separations and promotions allows us to consider the major sources of the aggregate employment shifts in the sector. Table 10 provides balanced sample aggregate comparisons for the 2010 and 2008 surveys (the results are directly comparable to the values for the full 2010 email survey return presented in Table 1).

In total, Table 10 reveals some changes in the balanced samples over the 2008 to 2010 time period: in particular, there is an increase on the proportion of full-time female employees in the lower grade ranks relative to 2008, while the percentage of female participation in the higher ranks seems to be stabilizing for Professors but declining for part-time Readers and Senior Lecturers. There is some evidence of a decline in the total number of staff in the balanced sample, more so for females (21.5%) than males (18.7%). The proportion of females amongst part-time Professors has also continued to show a slight growth.

Table 10. Primary employment function: Academic staff in economics departments and research institutes (balanced samples for the 2008 and 2010 responding samples).

	2010 email survey balanced sample				2008 email survey				2008 email survey balanced sample			
Primary Employment Function	Female	Male	Total	% Fem	Female	Male	Total	% Fem	Female	Male	Total	% Fem
All Staff: full time												
Professors	40	330	370	10.8%	46	384	430	10.7%	36	326	362	9.9%
Readers	17	73	90	18.9%	22	105	127	17.3%	15	83	98	15.3%
Senior Lecturers	51	172	223	22.9%	65	237	302	21.5%	50	196	246	20.3%
Lecturers - permanent	105	286	391	26.9%	129	328	457	28.2%	103	272	375	27.5%
Lecturers - fixed term	15	21	36	41.7%	12	26	38	31.6%	7	19	26	26.9%
Senior Researchers	10	13	23	43.5%	10	19	29	34.5%	9	18	27	33.3%
Researchers - permanent	1	2	3	33.3%	1	9	10	10.0%	1	8	9	11.1%
Researchers - fixed term	18	36	54	33.3%	23	43	66	34.8%	20	41	61	32.8%
Totals	257	933	1190	21.6%	308	1151	1459	21.1%	241	963	1204	20.0%
All Staff: part time												
Professors	5	36	41	12.2%	5	42	47	10.6%	5	31	36	13.9%
Readers	0	1	1	0.0%	1	3	4	25.0%	0	2	2	0.0%
Senior Lecturers	2	11	13	15.4%	5	7	12	41.7%	2	7	9	22.2%
Lecturers - permanent	8	13	21	38.1%	8	13	21	38.1%	5	13	18	27.8%
Lecturers - fixed term	1	8	9	11.1%	10	15	25	40.0%	10	15	25	40.0%
Senior Researchers	1	6	7	14.3%	7	6	13	53.8%	6	6	12	50.0%
Researchers - permanent	0	0	0	-	0	0	0	-	0	0	0	-
Researchers - fixed term	4	2	6	66.7%	10	6	16	62.5%	10	6	16	62.5%
Totals	21	77	98	21.4%	46	92	138	33.3%	38	80	118	32.2%
Grand Total	278	1010	1288	21.6%	354	1243	1597	22.2%	279	1043	1322	21.1%

Source: Balanced samples for 2008 and 2010: RES Women's Committee Survey 2008 (Mumford, 2009; page 17), RES Women's Committee Survey 2010, email based.

Ethnicity

Table 11 reports the findings from the 2010 survey on the composition of academic employment by gender, grade and ethnic group. Overall, amongst the responding sample, 81.9% of academic economists are considered to be white, adding to a trend of decline observed since 2004 (Georgiadis and Manning, 2007; pages 16-18): white academic economists went from representing 86% of the sample in 2004 to 84.2% in 2006; 82.9% in 2008 and 81.9% 2010 .

Considering the ethnic groupings on a separate basis, the numbers are very small, nevertheless the relative representation of South Asian academics amongst the workforce returned to its 2004 level (of 8.4%); the numbers of Chinese academics showed some recent decrease (from 3.4% in 2008 to 2.8% in 2010); there was a further decline in the representation of black academics (from 2.4% in 2008 to 1.4% in 2010); and the representation of all other ethnic minorities levelled off somewhat (from 2% in 2004, to 5.1% in 2006, to 4.8% in 2008, and to 5.6% in 2010).

Within academic rank grades (see Panel 3 of Table 11; Georgiadis and Manning, 2007; pages 16-18; and Mumford, 2009, pages 17-19), the proportion of whites amongst the more senior grade ranks typically displayed a slight trend downwards, including Professor (91.38% in 2004, 90.76% in 2006, 88.5% in 2008, 87.6% in 2010); Reader (90.5% in 2004, 84.9% in 2006, and 84.6% in 2008, 83.3% in 2010); and Senior Lecturer (84.9% in 2004, 85.8% in 2006, and 85.4 in 2008, 82.2% in 2010).

Table 11 reveals that female academic economists are more likely to be non-white than are males: using the full 2010 email sample returns, of the 1328 academics for whom ethnicity data is available for, 75.3% of the females are considered to be white whereas 83.7% of the males are (see panels 1 and 2 of Table 11). Women make up 21.6% of the total workforce presented in Table 11 but they constitute 40.5% of the Chinese academic economists, 28.4% of other ethnic minorities, and 29.5% of the South East Asians. It is only amongst the black ethnic minority grouping that females occur in disproportionately low numbers.

Table 11: Rank, gender and ethnicity.

	South Asian (1)	Black (2)	Chinese (3)	Other (4)	White (5)	Total (6)	%White (7)
Females							
Professor	6	0	0	3	37	46	80.4%
Reader	0	1	0	1	13	15	86.7%
Senior Lecturer	4	0	5	3	41	53	77.4%
Lecturers - permanent	16	1	9	9	86	121	71.1%
Lecturers - fixed term	2	0	0	1	13	16	81.3%
Senior Researcher	0	0	0	1	11	12	91.7%
Researcher - permanent	0	0	0	0	1	1	100.0%
Researcher - fixed term	5	0	1	3	14	23	60.9%
Total	33	2	15	21	216	287	75.3%
Males							
Professor	24	1	1	17	332	375	88.5%
Reader	6	0	1	6	62	75	82.7%
Senior Lecturer	16	3	5	7	158	189	83.6%
Lecturers - permanent	27	12	10	17	243	309	78.6%
Lecturers - fixed term	3	0	2	3	26	34	76.5%
Senior Researcher	0	0	1	0	18	19	94.7%
Researcher - permanent	0	0	0	0	2	2	100.0%
Researcher - fixed term	3	0	2	3	30	38	78.9%
Total	79	16	22	53	871	1041	83.7%
All academics							
Professor	30	1	1	20	369	421	87.6%
Reader	6	1	1	7	75	90	83.3%
Senior Lecturer	20	3	10	10	199	242	82.2%
Lecturers - permanent	43	13	19	26	329	430	76.5%
Lecturers - fixed term	5	0	2	4	39	50	78.0%
Senior Researcher	0	0	1	1	29	31	93.5%
Researcher - permanent	0	0	0	0	3	3	100.0%
Researcher - fixed term	8	0	3	6	44	61	72.1%
Total	112	18	37	74	1087	1328	81.9%
%Fem	29.5%	11.1%	40.5%	28.4%	19.9%	21.6%	

Source: RES Women's Committee Survey 2010, email based

The correlation between gender and ethnicity occurs predominantly via non-white women particularly at the Researcher and Lecturer (permanent) levels, whilst non-white males are more likely to hold fixed-term lectureships.

4. Overview of the findings for the web-based survey, 2010.

For the 2008 and 2010 surveys, Gwen Postle and Karen Mumford surveyed all of the CHUDE departmental websites and coded, by gender, the staff listed on them. There is limited information that can be reliably collected from web pages. For example, full-time or part-time status, permanent or temporary employment contracts and/or ethnicity are generally not available. In most cases, departments were contacted with minor and/or specific queries only to do with job rank or gender. The aim was to generate the information from web pages rather than to mimic the emailed survey with a telephone survey and so queries were kept to a minimum. Table 12 provides the results from the 2010 web-based survey⁶ compared to the 2010 emailed survey.

A striking difference in the results from the web-based surveys and the email surveys is the number of extra senior staff members listed on the web pages but not included in the email responses, this is especially true for Professors and Senior Researchers. Comparing the total staff by rank in the balanced samples (column 7 with column 3 of Table 12) reveals 648 Professors in the balanced web sample and only 428 in the email survey (more than a third extra in the web sample), and 183 Senior Researchers relative to 31 in the email survey (almost six times as many). There is also a greater concentration of males amongst these senior ranks on the web pages (comparing columns 4 and 8). It may be that these extra staff members are actually in Emeritus, Visiting or Honorary positions not considered to be “salaried members of academic and research staff” as required for inclusion in the email survey of departments. The preponderance of males amongst this group is also predictable if membership is associated with older cohorts of academic economists. Nevertheless, it suggests a greater presence of senior male economists in prestigious appointments in the departments.

⁶ Web based survey; data collected by Gwen Postle and Karen Mumford, analysed by Mumford. To match the web and email surveys, Associate Professors in the web survey were coded as Readers. The web pages were all surveyed in November 2010 to match the email survey collection period and to include new academic year information on the web pages.

Table 12. Primary employment function: Academic staff in economics departments and research institutes (balanced and unbalanced samples from the 2010 email and web based surveys).

Primary Employment Function	2010 email survey				2010 web balanced sample to match the 2010 email survey				2010 full web survey			
	Female (1)	Male (2)	Total (3)	% Fem (4)	Female (5)	Male (6)	Total (7)	% Fem (8)	Female (9)	Male (10)	Total (11)	% Fem (12)
All Staff												
Professors	48	380	428	11.2%	61	587	648	9.4%	90	775	865	10.4%
Readers	17	75	92	18.5%	36	116	152	23.7%	49	152	201	24.4%
Senior Lecturers	54	194	248	21.8%	57	257	314	18.2%	105	361	466	22.5%
Lecturers	142	350	492	28.9%	166	427	593	28.0%	238	573	811	29.3%
Senior Researchers	12	19	31	38.7%	64	119	183	35.0%	451	643	1094	41.2%
Researchers	24	40	64	37.5%	29	45	74	39.2%	100	119	219	45.7%
Other	-	-	-	-	135	312	447	30.2%	168	384	552	30.4%
Total	297	1058	1355	21.9%	548	1863	2411	22.7%	1201	3007	4208	28.5%
Number of Departments	57				57				107			

Sources: RES Women's Committee Survey 2010, web based; RES Women's Committee Survey 2010, email based

The second major finding from comparing the 2010 data sources is that including information from the web pages of the non-responding departments into the totals (see columns 9 to 12) does not suggest that the departments choosing not to participate in the 2010 email survey were less likely to contain women (this is consistent with the 2006 findings of Georgiadis and Manning, 2007; page 3 and Mumford, 2009, page 20).

5. Changes over time.

A fundamental role for the newly established Royal Economic Society Women's Committee⁷ in 1996 was to monitor and, where necessary, collect data on the position of female economists in academic appointments in the UK. In response to a shortage of available data suitable to its needs, the Committee Chairs have carried out a series of questionnaires to all Heads of Departments listed as members of CHUDE since December 1996. As discussed in the Introduction, this report covers the eighth survey in a series started in 1996 and repeated bi-annually thereafter (Mumford 1997; Booth and Burton with Mumford, 2000; Burton with Joshi and Rowlatt, 2002; Burton and Joshi, 2004, Burton with Humphries, 2006; Azariadis and Manning, 2008; Mumford, 2009).

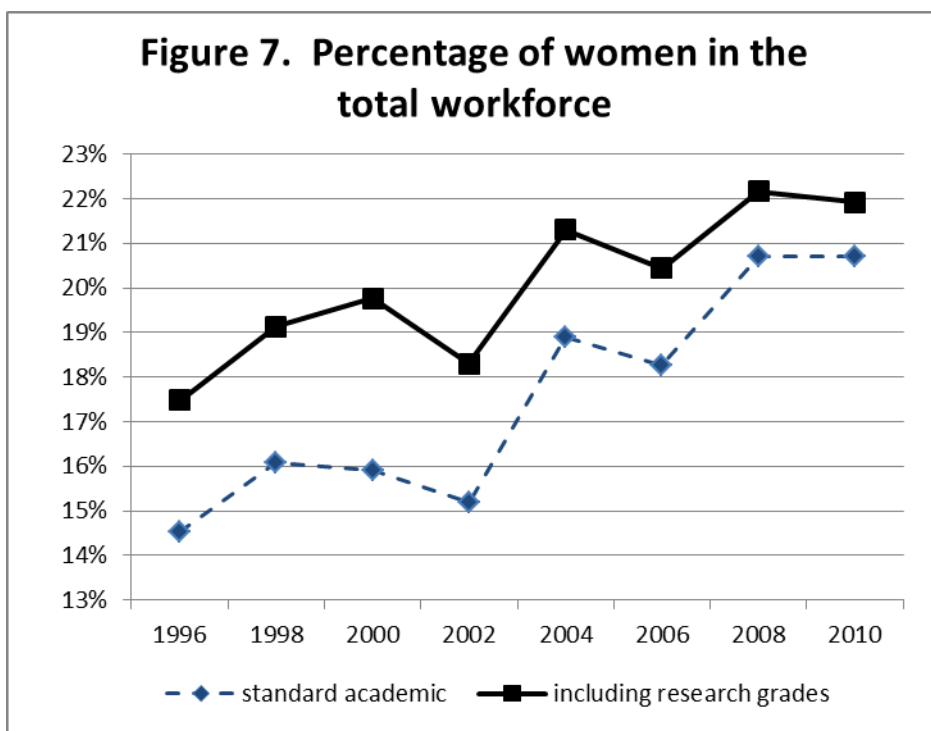
Constructing a genuinely balanced sample from 1996 to 2010 is not trivial, for example, some of the institutions present in 1996 have merged into new structures by 2010. Many of the research clusters present in the 1996 survey have also merged and/or disappeared (this is especially the case within institutions). Furthermore, many institutions present a single return which appears to include economists working in different research clusters within their institution. The web-based surveys also reveal that many of individuals who are associated with research centres are also often departmental members within institutions; this is especially true for more senior ranked economists. (For more discussion of the matching of the samples over time see Mumford, 2009). Nevertheless, a balanced sample attempt comparing 1996 and 2010 is provided (for full results see Table A2 in the Appendix). In particular, comparing the results from the first of the Women's Committee's surveys (a

⁷At its meeting in November 1996, the Council of the Royal Economic Society established a Women's Committee to promote the role of women in the UK economics profession. The founding membership of the Women's Committee was Denise Osborn (Chair), Tony Atkinson, Stephen Hall, David Hendry, Karen Mumford, Carol Propper, Maureen Pike and Amanda Rowlatt.

postal survey for 1996) with a balanced survey of the web pages of all the CHUDE member departments for 2010 suggests that, in aggregate, the workforce has grown over time by 21.8% (see Table A2). The number of women has increased substantially whilst the number of males has increased at a lower rate: in 1996 women made up 17.5% of the workforce, by 2010 this has risen to 21.9%. The grade rank composition of the workforce has also changed over the 14 year period: the proportion of Professors has almost doubled (from 14.2% to 26.3%); the proportion of Readers and Senior Lecturers has increased by a little under 5 percentage points; whilst Lecturers are about 15 percentage points less prevalent. Strikingly, there are considerably less Researchers in 2010 relative to 1996. Women are considerably more likely to be in the standard academic grades in 2010 than they were in 1996. In 1996, 17.5% of academic economists were female: 16.8% of Lecturers, 9.6% of Senior Lecturers and Readers, and 4.2% of Professors. In the 2010 balanced sample, 23.2% of academic economists were female: 28.8% of Lecturers, 22.1% of Senior Lecturers and Readers, and 9.6% of Professors. Women have essentially doubled their relative representation across the grade ranks between 1996 and 2010.

Figure 7 plots the percentage of women amongst the total academic economics workforce (including research grades) and amongst the standard academic workforce for each of the RES Women's Committee surveys.⁸ These are results from unbalanced samples, reflecting the fullest sample information from each of the surveys. An overall growth trend in the percentage of women in the workforce can clearly be seen in the figure (with or without the inclusion of the research grades), with some evidence of stabilizing between 2008 and 2010.

⁸ The samples changed quite dramatically in 2002 and 2006. In 2006 there were only 45 responding departments from the CHUDE membership list (in contrast to the 79 in 2004 and the 93 included in the web survey of 2008). In 2002 the survey was sent to many more groups beside just those departments listed as CHUDE members (to 192 institutions of which 55 were economics departments and a further 74 were business and management centres, Burton and Joshi, 2002; page 4).



6. Conclusion

Much of the conclusion has been presented in brief in the executive summary above. At the risk of being repetitive, the major findings generated from analysis of the survey data are that the great majority of economists working in academia in the UK have standard academic (teaching and research as opposed to research-only) jobs which are full-time and permanent. Using evidence from the 2010 email survey, women make up 20.7% of the academic economics workforce in the CHUDE departments: 28.9% of Lecturers, 21.8% of Senior Lecturers, 18.5% of Readers, and 11.2% of Professors.

Changes in the stock of individuals in any job rank due to inflows from new hires, job separations (resignations and retirements), and promotions (within departments) were addressed via balanced sample comparisons across the 2010 and 2008 surveys. The findings indicate that, in contrast to males, female Professors are promoted rather than hired and that job separations are rare for senior females.

Female academic economists are found to be more likely to be non-white than are males, 75.3% of the females are considered to be white whereas 83.7% of the males are. Women

make up 21.9% of the total workforce but they constitute 40.5% of the Chinese academic economists, 28.4% of other ethnic minorities, and 29.5% of the South East Asians. It is only amongst the black ethnic minority grouping that females occur in disproportionately low numbers. The correlation between gender and ethnicity occurs predominantly via non-white women being more prevalent at the Researcher and Lecturer (permanent) levels, whilst non-white males are more likely to hold fixed-term lectureships.

Comparing the results from the first of the Women's Committee's surveys (a postal survey for 1996) with a balanced survey of the web pages of all the CHUDE member departments for 2010 suggests that, in aggregate, the workforce has grown over time by 21.8%. The number of women has increased substantially whilst the number of males has increased at a lower rate: in 1996 women made up 17.5% of the workforce, by 2010 this has risen to 21.9%. The grade rank composition of the workforce has also changed over the 14 year period: the proportion of Professors has almost doubled (from 14.2% to 26.3%); the proportion of Readers and Senior Lecturers has increased by a little under 5 percentage points; whilst Lecturers are about 15 percentage points less prevalent. Strikingly, there are considerably less Researchers in 2010 relative to 1996.

In 1996 women made up approximately 15% of the Lecturers, 10% of the Readers/Senior Lecturers and 5% of the Professors; in 2010 women make up some 30% of the Lecturers, 20% of the Readers/Senior Lecturers and 10% of the Professors. Women have essentially doubled their relative representation across the grade ranks between 1996 and 2010.

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7. Appendix

Table A1. Primary employment function: All academic staff in economics departments and research institutes (responding sample, 2010).

Primary Employment Function	2008 full email based survey			
	Female	Male	Total	% Fem
All Staff: full time				
Professors - permanent	42	339	381	11.0%
Professors - fixed term	0	5	5	0.0%
Readers - permanent	17	74	91	18.7%
Readers - fixed term	0	0	0	-
Senior Lecturers - permanent	52	182	234	22.2%
Senior Lecturers - fixed term	0	0	0	-
Lecturers - permanent	115	302	417	27.6%
Lecturers - fixed term	15	23	38	39.5%
Senior Researchers - permanent	3	4	7	42.9%
Senior Researchers - fixed term	8	9	17	47.1%
Researchers - permanent	1	2	3	33.3%
Researchers - fixed term	18	36	54	33.3%
Totals	271	976	1247	21.7%
All Staff: part time				
Professors - permanent	5	30	35	14.3%
Professors - fixed term	1	6	7	14.3%
Readers - permanent	0	0	0	-
Readers - fixed term	0	1	1	0.0%
Senior Lecturers - permanent	2	10	12	16.7%
Senior Lecturers - fixed term	0	2	2	0.0%
Lecturers - permanent	11	14	25	44.0%
Lecturers - fixed term	1	11	12	8.3%
Senior Researchers - permanent	1	2	3	33.3%
Senior Researchers - fixed term	0	4	4	0.0%
Researchers - permanent	0	0	0	-
Researchers - fixed term	5	2	7	71.4%
Totals	26	82	108	24.1%
Grand Total	297	1058	1355	21.9%

Table A2. Primary employment function: Academic staff in economics departments and research institutes (1996 postal and 2010 web site surveys).

Primary Employment Function	1996 postal survey							2010 web based survey						
	Female	Male	Total	% Fem	% Total Staff	% of all Females	% of all Males	Female	Male	Total	% Fem	% Total Staff	% of all Females	% of all Males
All Staff	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Professors	14	320	334	4.19	14.24	3.41	16.53	72	680	752	9.6%	26.3%	10.9%	31.0%
Readers and Senior Lecturers	37	350	387	9.56	16.5	9.02	18.08	129	456	585	22.1%	20.5%	19.5%	20.8%
Lecturers	157	779	936	16.77	39.9	38.29	40.24	211	521	732	28.8%	25.6%	31.9%	23.7%
Senior Researchers	11	47	58	18.97	2.47	2.68	2.43	70	134	204	34.3%	7.1%	10.6%	6.1%
Researchers	107	171	278	38.49	11.85	26.1	8.83	30	47	77	39.0%	2.7%	4.5%	2.1%
Other	84	269	353	25.21	15.05	20.49	13.9	150	357	507	29.6%	17.7%	22.7%	16.3%
Total	410	1936	2346	17.48				662	2195	2857	23.2%			
Number of Departments	83							75						
Response rate	92%							n/a						

Sources: RES Women's Committee Survey 1996 (Mumford, 1997; page 3); RES Women's Committee Survey 2010, web based.