

The Gender Balance of Academic Economics 2012: Royal Economic Society Women's Committee Survey

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Executive Summary

This report covers the ninth (2012) survey of gender balance amongst academic economists in CHUDE membership departments and research institutions in UK universities. The main findings are:

- the overall survey response rate is reasonable at 64% (67% in the 92 CHUDE departments, 47% in the 15 research institutes).
- women constitute some 24% of all academic staff in economics
- women are under-represented among Professors – more than one in three men are Professors compared to less than one in six women
- the proportion of women is substantially higher in research jobs than in standard academic jobs
- some 10% of males and females have part-time employment in the sector, these males are more often found in senior positions than the females
- the most popular research discipline for both female economists is Microeconomics, followed by Macroeconomics and Monetary Policy
- male and female student enrolments in economics have risen over the last decade. The relative number of female UK (domicile) PhD students in economics has risen (from 28 to 33%), however amongst the undergraduates female representation has declined 9% (from 30.6 to 27.8%).

It is also of interest to compare the results from the 2012 survey with that from 2010. Balanced sample comparison is less than perfect, nevertheless, the overall impression is:

- the proportion of women among academic economists increased from 21.9 to 23.9%
- the representation of women in each grade rank showed very little change
- female Professors are more commonly promoted internally 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 hard to make any definite statement about short-term movements.

Comparing the 2012 balanced sample results to those from earlier surveys:

- In aggregate, the proportion of the workforce that is female has increased substantially over the sixteen years of surveys (in 1996 women made up 17.5% of the workforce, by 2012 this has risen to more than 23%)
- the numbers of Professors amongst all staff has more than doubled over the time period (from 14.2% of all staff to 31.7%)
- women are roughly twice as common in the standard academic grades in 2012 than they were in 1996 (in 1996 women made up approximately 15% of the Lecturers, 10% of the Readers/Senior Lecturers and 4% of the Professors; in 2012 women make up some 30% of the Lecturers, 24% of the Readers/Senior Lecturers and 11% of the Professors). Amongst Professors, however, these relative gains appear to be tapering off after 2008.

1. Introduction to the 2012 survey.

This report covers the ninth survey of gender balance in academic employment in economics in Britain in a series started in 1996 by the Royal Economic Society (RES) Women's Committee and repeated bi-annually thereafter.¹

The web pages of ninety two CHUDE (Conference of Heads of University Departments of Economics) departments and fifteen leading research institutes were surveyed in November 2012 by the Women's Committee. The survey collected information on academic staff (full-time and part-time) by grade of employment, gender, and research discipline. It also collects information on promotions, new hires and job leavers. These survey entries were then emailed to respective institutions for verification in January 2013. The overall verified survey response rate from the 107 institutions is reasonable at 64% (67% or 62 responses from the 92 CHUDE departments, and 47% or 7 responses from the 15 research institutes).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). Section 2 of the report presents results from the verified returns, which is referred to as the "Respondents Survey". Results from analyzing the full web based survey (verified and non-verified data) are discussed in section 3 of the report. Section 4 of the report compares findings across the Women's Committee surveys using balanced and unbalanced analyses and presents evidence of staff changes over time. Data on student enrolments were collected from the Higher Education Statistical Agency (HESA) and are analyzed in section 5 of the report. Section 6 concludes.

¹ 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; Blanco and Mumford, 2011.

² 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 an on-going concern to the Women's Committee.

2. Overview of the findings for the Respondents Survey, November 2012.

Table 1 reports the numbers of economists employed in academia in the UK from the total verified web survey returns, including both CHUDE departments and research groups. In aggregate, information is available for 1,877 people who work as economists in academic appointments in the UK, 449 (or 23.9%) of these are women.³

Table 1. Primary employment function: All academic staff in economics departments and research institutes (responding sample, 2012).

Primary Employment Function	2012 respondent's survey			
	Female	Male	Total	% Fem
All Staff: full time				
Professors	54	418	472	11.4%
Readers	30	131	161	18.6%
Senior Lecturers	81	197	278	29.1%
Lecturers – permanent	160	392	552	29.0%
Lecturers - fixed term	7	19	26	26.9%
Senior Researchers	29	54	83	34.9%
Researchers – permanent	24	25	49	49.0%
Researchers - fixed term	19	44	63	30.2%
Totals	404	1280	1684	24.0%
All Staff: part time				
Professors	5	59	64	7.8%
Readers	1	3	4	25.0%
Senior Lecturers	1	14	15	6.7%
Lecturers – permanent	4	9	13	30.8%
Lecturers - fixed term	6	13	19	31.6%
Senior Researchers	20	38	58	34.5%
Researchers – permanent			0	-
Researchers - fixed term	8	12	20	40.0%
Totals	45	148	193	23.3%
Grand Total	449	1428	1877	23.9%

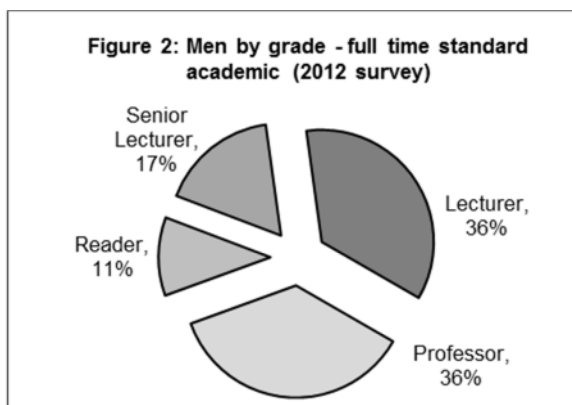
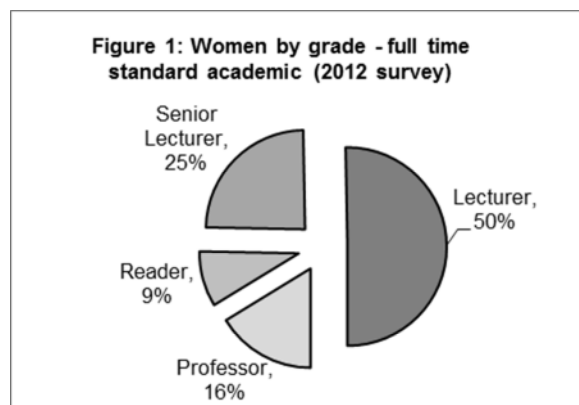
Source: RES Women's Committee Survey 2012.

³ 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).

The vast majority of these economists (85%) are working in standard academic appointments (i.e., mixed teaching and research jobs as opposed to research-only appointments); this figure is lower for women than for men (77.7% and 87.9%, respectively). If the research-only categories are excluded from the calculation, women make up 21.8% of the standard full-time academic workforce (or 349 out of 1604 employees).

Women are substantially more likely to be employed at lower academic grade levels, as is clearly seen in the final column of Table 1. Amongst full time staff, the proportion female decreases from 29% of the Permanent Lecturers, to 18.6% of the Readers and 11.4% of the Professors.

Of all the women employed full time in standard academic appointments (see Figure 1), 16% are Professors and a further 34% are Readers or Senior Lecturers. One in every two of the women is a Lecturer and less than one in six is a Professor. Carrying out a similar exercise for the men (Figure 2) reveals that 36% of the males are in the Professorial grade with another 28% in the Reader/Senior Lecturer grades. Males are roughly twice as likely to be Professors, but are substantially less likely to be Lecturers, than are females.

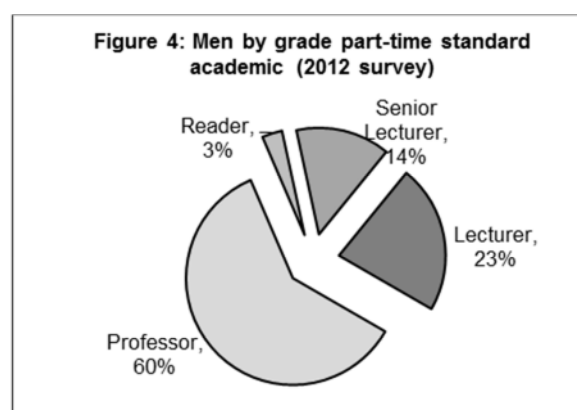
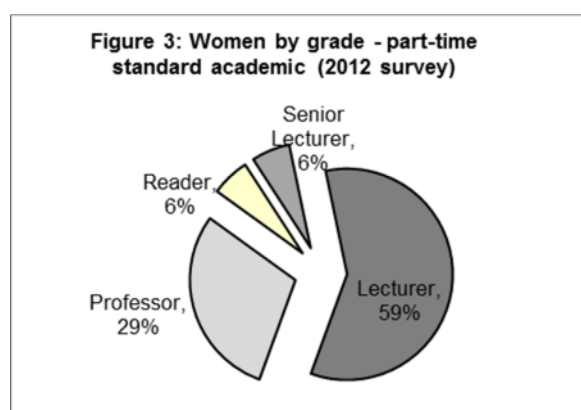


Part time employment.

The number of men working part time is considerably larger than the number of women (see the lower panel of Table 1); although, their numbers relative to the total pool of male employees are similar: some 10% of female and male economists in academia are working part-time. Men working part time are more likely to have a standard academic job whereas

part time employment is more common for women in research only positions. (Of the economists in standard academic jobs, 4.9% of the women work part-time whilst 7.8% of the males do.) Women are particularly prevalent amongst the Researchers and Lecturers working part time.

Considering all the women employed part-time in standard academic appointments, 29% are Professors and 59% are Lecturers (see Figure 3). Carrying out a similar exercise for the men (Figure 4) reveals that 60% are in the Professorial grade with 37% in the Lecturer grade. In other words, in accordance with full time staff ratios, amongst part-time employees males are twice as likely to be Professors and almost half as likely to be Lecturers as are females.



Temporary employment.

Temporary employment contracts are found to be rare for job ranks other than Lecturers and Researchers (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 fixed term employees who are also employed part-time.

Much of the information in Table 2 has already been presented and discussed 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: 29% of Lecturers, 28% of Senior Lecturers, 19% of Readers, and 11% of Professors (see panel 1 of Table 2).

Table 2. Primary employment function: All academic staff, fixed term staff, fixed term and part-time staff (responding sample, 2012).

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	59	477	536	11.0%	28.6%	
Reader	31	134	165	18.8%	8.8%	
Senior Lecturer	82	211	293	28.0%	15.6%	
Lecturer	177	433	610	29.0%	32.5%	
Senior Researcher	49	92	141	34.8%	7.5%	
Researcher	51	81	132	38.6%	7.0%	
Total	449	1428	1877	23.9%	100.0%	
Fixed term staff						
Professor	3	54	57	5.3%	10.6%	22.9%
Reader	0	1	1	0.0%	0.6%	0.4%
Senior Lecturer	0	6	6	0.0%	2.0%	2.4%
Lecturer	13	32	45	28.9%	7.4%	18.1%
Senior Researcher	16	41	57	28.1%	40.4%	22.9%
Researcher	27	56	83	32.5%	62.9%	33.3%
Total	59	190	249	23.7%	13.3%	100.0%
Fixed term and part-time staff						
Professor	3	47	50	6.0%	9.3%	87.7%
Reader	0	1	1	0.0%	0.6%	100.0%
Senior Lecturer	0	5	5	0.0%	1.7%	83.3%
Lecturer	6	13	19	31.6%	3.1%	42.2%
Senior Researcher	8	32	40	20.0%	28.4%	70.2%
Researcher	8	12	20	40.0%	15.2%	24.1%
Total	25	110	135	18.5%	7.2%	54.2%

Source: RES Women's Committee Survey 2012.

Reading across the columns in panel 1 of Table 2 reveals that, in total, there are 536 Professors, 59 of whom (11%) are female. The Professors constitute 28.6% of all academic staff (column 5). Of these Professors, 57 are working on a fixed term contract (see panel 2),

3 of whom (or 5.3%) are female. Only 10.6% of the Professors are on a fixed term contract (column 5) whilst 22.9% of all the fixed term staff are Professors (column 6).

Panel 3 reveals that the vast majority of the Professors working on a fixed term contract are also working part-time (50 out of the 57 or 87.7%, see column 6), which is also true for the three female Professors on a fixed term contract (reading down column 3). In contrast, 40.4% of the Senior Researchers are employed on a fixed term basis and 70.2% of these are also working part-time⁴. Researchers are particularly prone to be on a fixed term contract (62.9%) and 24.1% of these academics are working part-time. Researchers are also substantially more likely to be female; 40% of part-time Researchers on fixed term contracts are female. Note that males working on fixed term and part time appointments are much more likely to be at the senior ranks than are the females.

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 (in the verified web survey) the proportion of Readers, Senior Lecturers and Lecturers who are female in departments with and without a female Professor. The first four 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, considering the first row of Table 3, there are 13 departments where less than 10% of their non-professorial staff is female. Of these 13 departments, 7 of them have a female Professor. Similarly, row four reveals that ten departments (16% of the sample) had more than 30% of their Reader, Senior Lecturer or Lecturer posts taken by women: all of these departments lack a female Professor. Considering the final rows of Table 3, in aggregate, departments with a female Professor had an average of 15.1% of female staff in non-professorial job ranks, in departments with no female professor this proportion was 22.1%. Additionally, departments with at least one female Professor are larger in size, as measured by the number of staff below Professor (21.3 relative to 14.1). There is little indication that the presence of at least one Professorial woman in a department enhances the

⁴ Most (67.5%) of the Senior Researchers working on part-time fixed-term contracts are found in the Research Institutes (27 Senior Researchers and 13 Researchers on fixed-term and part-time contracts work in the research institutes; 48% of these Senior Researchers are female and 38% of the Researchers are).

representation of women more generally in that department. Taken in combination, the simple evidence presented in Table 3 does not provide compelling support for the role model hypothesis (a similar conclusion was reached for the 2006, 2008 and 2010 surveys, see Georgiadis and Manning, 2007; Mumford, 2009; Blanco and Mumford, 2011).

Table 3: Proportion of female academic staff below Professor in CHUDE departments, (responding sample, 2012)

	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<=proportion<=9%	7	6	13
9%< proportion<=19%	11	13	24
20%<proportion<=29%	8	7	15
proportion>29%+	0	10	10
Average number of staff below Professorial rank	21.27	14.11	
Average proportion of female staff below Professorial rank	15.08%	22.08%	
Number of CHUDE departments	n=26	n=36	n=62

Source: RES Women's Committee Respondents Survey 2012.

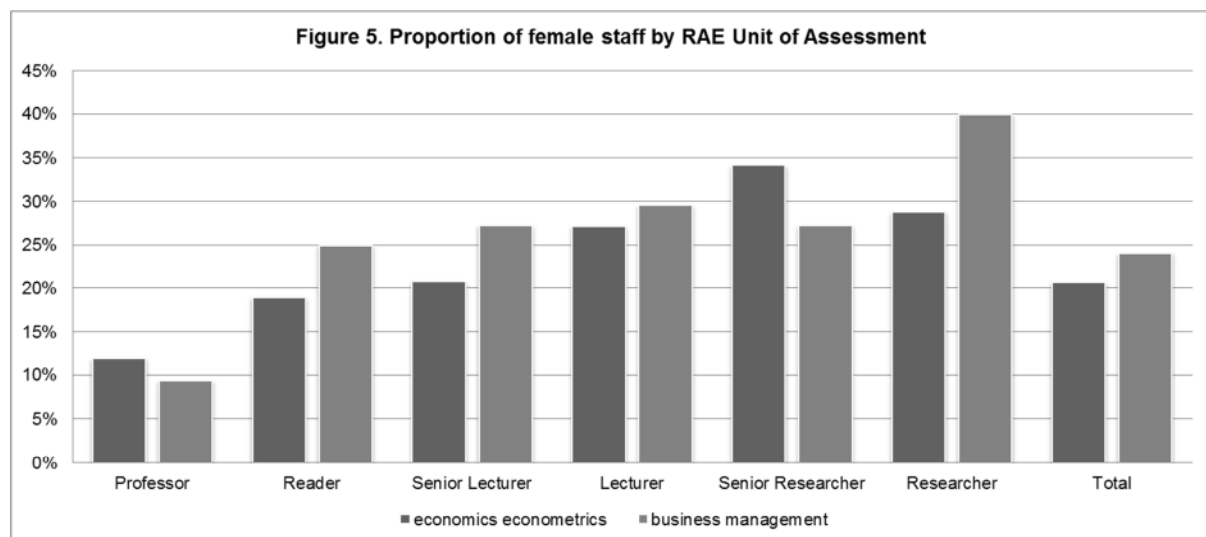
Analysis by RAE results

It may be argued that there is a relationship between the presentation of women in a department and the department's success 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 (still the most recent research assessment exercise) 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 (29 of the responding departments submitted to Economics and Econometrics; 4 to Accounting and Finance; and 42 to Business Management). For these responding departments, the

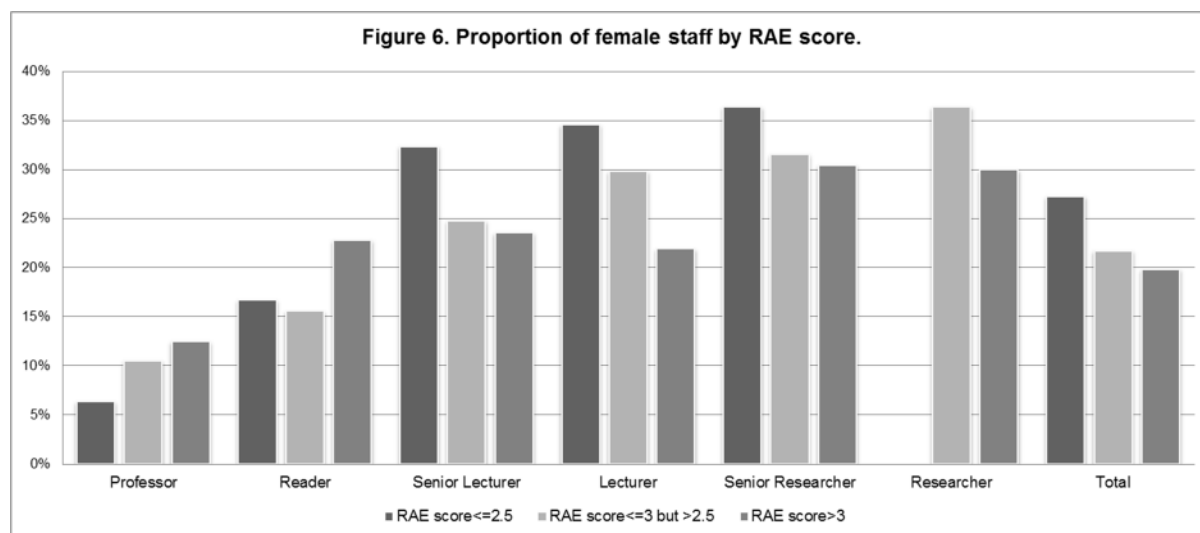
average RAE score for each of the Units of Assessment were 3.01 for Economics and Econometrics; 3.02 for Accounting and Finance; and 2.86 for Business Management. Of those departments submitting to more than one Unit of Assessment, ranking priority for categorisation of the RAE score results was set at “Economics and Econometrics” > “Business and Management” > “Accounting and Finance”. This ranking resulted in only one university being coded under “Accounting and Finance”, as the other three submitting evaluations under this category also applied under “Economics and Econometrics” or “Business and Management”. This particular department does not employ any female staff and so there are no female academics observed within this UoA in the Respondents Survey. Consequently, the analysis below focusses on only two Units of Assessment: “Economics and Econometrics” and “Business and Management”.

Figure 5 presents the proportion of female staff in each job rank for these two Units of Assessment. The proportion of total staff that is female is higher in Business and Management (24.1%) than in Economics and Econometrics (20%). The relative number of women in each rank is, however, lower for Economics and Econometrics than it is for Business and Management, with the exception of the Professor 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. For those departments submitting to more than one UoA, the same ranking process described above was again applied. 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 62 responding departments, 10 departments scored above 3 (405 staff members entered), 24 departments scored above 2.5 but equal to or below 3 (696 staff), and 26 departments scored 2.5 or below (581 staff)⁵.



On average, departments with lower RAE scores have relatively more posts held by women, as can be seen in the total columns of Figure 5 (27.3%, 21.7% and 19.8%, respectively). The relative number of female Professors and Readers is, however, larger in the higher RAE scoring departments.

Research discipline

For the first time, information was harvested on the research discipline of academic staff from the web pages⁶ and was sent for verification with the survey returns. Table 4 presents results for economists in standard academic appointments (full or part time) in CHUDE departments from the verified survey (additional information including discipline breakdown by rank and within research institutions is provided in tables A3 and A4 of the Appendix). Column 4 shows that the most popular research disciplines are unsurprisingly the core areas of Microeconomics (13.9% of all staff); Macroeconomics and Monetary Economics (13.6%);

⁵ Two departments included in the Respondents (verified) Survey did not submit to the 2008 RAE.

⁶ This information was gathered by Jonny Roman and Malgorzata Mitka.

and Mathematical and Quantitative Methods (13.3%).⁷ These are also the research areas which are the most common amongst the Professors (see column 7 of Table 4), although the ordering is slightly different with more Professors working in Mathematical and Quantitative Methods (14.5%); followed by Macro and Monetary Economics (13.5%); and then Microeconomics (13%). The distribution of research interests amongst Professors is similar to that across the total staff (comparing columns 4 and 7) with the possible exceptions of labour economics (more popular amongst Professors) and General Economics and Teaching (less popular). .

Whilst the core research disciplines are also popular research areas for women (see column 6), there are some differences between men and women (comparing columns 5 and 6). A greater proportion of women choose the most popular Microeconomics than do men (15.5% relative to 13.5%). The second most popular choice for both women and men is Macroeconomics and Monetary Policy (at 11.2% and 14.3%, respectively). Women then opt for Financial Economics over Mathematical and Quantitative Methods (10.4 and 9.3%, respectively) and vice versa for men. Health, Education and Welfare is only the sixth most popular research discipline chosen by women, it is clearly a more popular choice than it is for men.

Column 8 provides the percentage of all those choosing that research discipline who work in a department ranked above 3 in the last RAE exercise. Of the 1686 standard academics appointments, 580 or 34.4% worked in these higher ranked departments. In row one of Table 4, we can see that of the 38 staff choosing General Economics and Teaching, four (or 10.5%) of these staff members worked in a department ranked above 3. There are some small number issues (reading across columns 3, 4 and 8) suggesting caution when interpreting the percentages in column 8. Nevertheless, it becomes clear that departments with higher RAE scores have a greater proportion of staff specializing in the three core research discipline areas.⁸ The other larger research disciplines with relatively high representation in the more successful RAE departments are Economic History (56.7%) and Economic Development, Technological Change and Growth (44.6%).

⁷ In contrast, within the Research Institutions (see Appendix Table A3) the most popular research area is Health, Education and Welfare (half the staff in research institutions work in this discipline area). Labor and Demographic Economics is the second most relevant research area in these institutions with 12.6% of the staff employed by these research institutions.

⁸ Departments with RAE scores above 3 have a greater proportion of staff specializing in the core research discipline areas (46.9% of their staff) in comparison to the departments with a RAE score below 2.5 (29.5%).

Table 4. Main research discipline, by gender and RAE score in standard academic appointments (responding sample, 2012).

JEL research discipline	Female	Male	Total	%all	% Male	% Fem	% all Profs	%total in RAE>3
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A - General Economics and Teaching	11	27	38	2.3%	2.1%	2.9%	1.0%	10.5%
B - History of Economic Thought, Methodology, and Heterodox Approaches	3	21	24	1.4%	1.6%	0.8%	1.0%	25%
C - Mathematical and Quantitative Methods	35	189	224	13.3%	14.4%	9.3%	14.5%	40.6%
D – Microeconomics	58	177	235	13.9%	13.5%	15.5%	13.0%	44.3%
E - Macroeconomics and Monetary Economics	42	187	229	13.6%	14.3%	11.2%	13.5%	33.6%
F - International Economics	26	77	103	6.1%	5.9%	6.9%	5.8%	30.1%
G - Financial Economics	39	118	157	9.3%	9.0%	10.4%	8.3%	23.6%
H - Public Economics	9	39	48	2.8%	3.0%	2.4%	3.3%	37.5%
I - Health, Education, and Welfare	30	45	75	4.4%	3.4%	8.0%	4.8%	22.7%
J - Labor and Demographic Economics	31	97	128	7.6%	7.4%	8.3%	9.9%	30.5%
K - Law and Economics	1	2	3	0.2%	0.15%	0.3%	0.05%	66.7%
L - Industrial Organization	18	87	105	6.2%	6.6%	4.8%	6.8%	32.4%
M - Business Administration and Business Economics; Marketing; Accounting	10	24	34	2.0%	1.8%	2.7%	1.7%	2.9%
N - Economic History	9	24	33	2.0%	1.8%	2.4%	1.7%	57.6
O - Economic Development, Technological Change, and Growth	27	95	122	7.2%	7.2%	7.2%	7.4%	44.6
P - Economic Systems	5	23	28	1.7%	1.8%	1.3%	1.4%	39.3
Q - Agricultural and Natural Resource Economics; Environmental and Ecological	11	50	61	3.6%	3.8%	2.9%	3.5%	40.1
R - Urban, Rural, Regional, Real Estate, and Transportation Economics	10	29	39	2.3%	2.2%	2.6%	2.5%	28.2%
Z - Other Special Topics	0	0	0	0%	-	-	-	-
Total	375	1311	1686	100%	77.8%	22.2%	517	34.4%

Source: RES Women's Committee Survey 2012.

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 and across departments) can also be addressed. As the web based surveys are tracking individuals we can calculate movements more accurately (for example, tracking those who left one department but were hired into another, and if they received a promotion in this move). In the past, our data on promotions only included promotions that were internal to departments and total staff movements were essentially gross rather than net. (For comparison sake, full and balanced sample (from the 2012 and 2010 surveys) analysis using the previous gross sample measures is provided in Appendix A2.)

Table 5 presents staff movements in the 2011/12 academic year from the 2012 respondents survey (i.e. the verified returns). Columns 1 to 4 are those promotions internal to the department, columns 5 to 8 are those promoted from other UK departments. These numbers of promotions are obviously small so we should be cautious about how valid the implications of these flows for changes in relative employment stocks actually are. Nevertheless, Comparing columns 4 and 8 (showing the percentage female by rank amongst the flows) with columns 21 (showing the percentage females amongst the stock by rank), suggests very small gains were made in the 2011/12 time period via promotions, especially amongst Professors and Readers.⁹

Panel two of Table 5 provides information on hiring in the 2011/12 academic year: columns 9 to 12 presents information on new staff hired in the last year, this is staff entering the sector; and columns 13 to 16 are hires across UK departments. We can see that there were 50 Professors hired from outside of the UK sector (column 11) in the 2011/12 academic year, and a further 15 Professors hired from other UK departments (column 15). With the exception of Senior Lecturers (where females are less likely to move across departments), there is little gender difference across ranks for those being hired from other departments or from outside the sector

⁹ Comparing balanced samples, see Appendix A2, promotions increased between the 2010 and 2012 surveys, from 54 promotions in the 2010 to 68 in the 2012. However, women made up relatively fewer of these promotions in 2012 than in 2010. The relative promotion of female Professors, Senior Lecturers and Lecturers decreased in 2012, while women represent a higher percentage of those promoted as Readers and Researchers in 2012 than in 2010.

Table 5: Staff movements 2011/12 (responding sample, 2012)

	Internal promotions				Promotions from other UK dept.			
	Female	Male	Total	%Fem				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Professor	5	18	23	21.7%	1	2	3	33.3%
Reader	6	17	23	26.1%	0	1	1	-
Senior Lecturer	3	24	27	11.1%	0	4	4	-
Lecturer	7	8	15	46.7%	1	2	3	33.3%
Senior Researcher	2	6	8	25.0%	0	0	0	-
Researcher	4	3	7	57.1%	2	2	4	50%
Total	27	76	103	26.2%	4	11	15	26%
	Hires from outside sector				Hires from other UK dept.			
	Female	Male	Total	%Fem	Female	Male	Total	%Fem
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Professor	7	46	50	14%	2	13	15	13.3%
Reader	2	17	19	10.5%	1	7	8	12.5%
Senior Lecturer	11	25	36	30.6%	1	5	6	16.7%
Lecturer	27	92	119	22.3%	3	11	14	21.4%
Senior Researcher	4	21	25	16%	1	0	1	100.0%
Researcher	18	37	55	32.7%	2	4	6	33.3%
Total	69	235	304	22.7%	10	40	50	20.0%
	Separations							
	Female	Male	Total	%Fem	%Fem in grade	%Fem in grade below		
	(17)	(18)	(19)	(20)	(21)	(22)		
Professor	5	67	72	6.9%	11.0%	18.8%		
Reader	3	13	16	18.8%	18.8%	28.0%		
Senior Lecturer	9	23	32	28.1%	28.0%	29.0%		
Lecturer	26	48	74	35.1%	29.0%	34.8%		
Senior Researcher	27	88	115	23.5%	34.8%	38.6%		
Researcher	20	32	52	38.5%	38.6%			
Total	90	271	361	24.9%	23.9%			

Source: RES Women's Committee Survey 2012.

(comparing columns 12 and 16). The representation of women amongst the hiring inflow will do little to improve the overall representation of women in the stock by rank (column 21); with a very slight increase in the percentage of Professors who are female but larger fall amongst the Readers.

The third flow affecting the stock of academic economists is, of course, leavers (see panel 3 of Table 6). In aggregate, women make up a similar proportion of these separations as they do of the total pool of academic economists (24.9% relative to 23.9%, columns 20 and 21) and such separations are rare for the most senior women (Professors and Senior Researchers).

Information on the job leaver's destination was also gathered (see Table 6).¹⁰ The most common destination employment for the job leavers is to an 'unknown job' (138 out of 361 leavers or 38% of all job leavers) followed by to another academic appointment (36%) implying considerable churning within the sector, with non-employment taking up a further 20%. The proportion of female economists across job leavers (24.9%) is similar to the female share of this workforce, with a relatively high proportion of female leavers going on to academic (38 out of 90 female leavers or 42%, 34% of male leavers) and unknown jobs (41% of the female leavers, 38% of the males).

Table 6. Job leaver's destinations

Sector	Leavers sector destination				Location	Leavers geographic destination			
	Female	Male	Total	%Fem		Female	Male	Total	%Fem
	(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)
Academic	38	91	129	29.5%	United Kingdom	32	76	108	29.6%
Other Gov/NGO	1	6	7	14.3%	European Union	5	16	21	23.8%
Private sector	1	1	2	50.0%	Other	6	20	26	23.1%
Unknown job	36	102	138	26.1%	Unknown	39	124	163	23.9%
Non-employment	11	60	71	15.5%	Missing	8	35	43	18.6%
Missing	3	11	14	21.4%					
Total	90	271	361	24.9%	Total	90	271	361	24.9%

Source: RES Women's Committee Survey 2012.

¹⁰ Note there are 14 missing observations for sector destination; 29 for geographic destination (Table 7) and 9 for reasons for leaving (Table 8).

The relative findings for the UK and EU destinations suggest an international marketplace exists for academic economists, both male and female, and that females move in a similar proportion to their presence in the workforce.

The 2012 survey also asks departments about the reasons for these separations (see Table 7), the responses were not overly informative (in 60% of the cases, there are “other”, “unknown” or “missing” responses). Of the remaining 146 cases, roughly one in four leavers moved for a promotion (12% of the female leavers, 9% of the males); 36% retired (7% of females leavers, 17% of the males); about 10% cited family reasons for quitting their jobs; and 23% reported that they had reached the end of their contract. Of those who left their job due to family reasons, 46.7% are women and women are 2.6 times more likely than men to do so, which might indicate ineffective implementation of family friendly work practices in departments. Women are slightly more likely than men to leave for a promotion and they are considerably more likely to be left without a job because they reached the end of their contract.

Table 7. Reasons for leaving

Sector	Female (1)	Male (2)	Total (3)	%Fem (4)
Promotion	11	25	36	30.6%
End of contract	14	19	33	42.4%
Retired	6	47	53	11.3%
Resignation, family reasons	7	8	15	46.7%
Death	0	9	9	0.0%
Other	8	17	25	32.0%
Unknown	42	139	181	23.2%
Missing	2	7	9	22.2%
Total	90	271	361	24.9%

Source: RES Women's Committee Survey 2012.

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 8 provides balanced sample aggregate comparisons for the 2010 and 2012 surveys (the results are directly comparable to the values for the full 2012 respondents' survey return presented in Table 1).

In total, Table 8 reveals some changes in the balanced samples over the 2010 to 2012 time period (although small numbers may be responsible for misleading results). There is a decrease in the proportion of full-time female employees in the lower grade ranks relative to 2010, while the percentage of female participation in the higher ranks seems to be stabilizing for full-timers but declining for part-time Readers and Senior Lecturers. There is also some evidence of an increase in the total number of staff in the balanced sample, slightly less so for females.

3. Overview of the findings for the full web-based survey, 2012.

Table 9 provides the results from the full 2012 web-based survey compared to the 2012 respondents' survey (the verified subset of the full web based survey). There is a limit to the information that can be reliably collected from web pages. For example, information concerning full-time or part-time status, permanent or temporary employment contracts is often ambiguous hence the need to seek verification from the relevant institutions.

A striking difference in the results from the full web-based survey and the respondents' survey is the number of extra research staff members listed on the web pages but not included in the department verified responses, this is especially true for Senior Researchers. Comparing the total staff by rank in the balanced samples (column 7 with column 3 of Table 9) reveals 726 Senior Researchers relative to 141 in the verified survey (more than five times as many). 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 respondents survey of departments.

The second major finding from comparing the 2012 data sources is that including information from the web pages of the non-responding departments into the totals (see

Table 8. Primary employment function: Academic staff in economics departments and research institutes (balanced samples for the 2010 and 2012 responding samples).

Primary Employment Function	2012 respondents' sample				2012 respondents' balanced sample				2010 email survey balanced sample				2010 email survey			
	Female	Male	Total	% Fem	Female	Male	Total	% Fem	Female	Male	Total	% Fem	Female	Male	Total	% Fem
All Staff: full time																
Professors	54	418	472	11.4%	48	342	390	12.3%	35	296	331	10.6%	42	344	386	10.9%
Readers	30	131	161	18.6%	22	100	122	18.0%	13	67	80	16.3%	17	74	91	18.7%
Senior Lecturers	81	197	278	29.1%	47	147	194	24.2%	41	137	178	23.0%	52	182	234	22.2%
Lecturers - permanent	160	392	552	29.0%	118	315	433	27.3%	100	267	367	27.2%	115	302	417	27.6%
Lecturers - fixed term	7	19	26	26.9%	6	18	24	25.0%	14	22	36	38.9%	15	23	38	39.5%
Senior Researchers	29	54	83	34.9%	9	24	33	27.3%	10	13	23	43.5%	11	13	24	45.8%
Researchers - permanent	24	25	49	49.0%	5	6	11	45.5%	0	2	2	0.0%	1	2	3	33.3%
Researchers - fixed term	19	44	63	30.2%	11	33	44	25.0%	12	30	42	28.6%	18	36	54	33.3%
Totals	404	1280	1684	24.0%	266	985	1251	21.3%	225	834	1059	21.2%	271	976	1247	21.7%
All Staff: part time																
Professors	5	59	64	7.8%	3	50	53	5.7%	4	28	32	12.5%	6	36	42	14.3%
Readers	1	3	4	25.0%	0	3	3	0.0%	0	1	1	0.0%	0	1	1	0.0%
Senior Lecturers	1	14	15	6.7%	1	11	12	8.3%	1	6	7	14.3%	2	12	14	14.3%
Lecturers - permanent	4	9	13	30.8%	2	4	6	33.3%	10	13	23	43.5%	11	14	25	44.0%
Lecturers - fixed term	6	13	19	31.6%	5	8	13	38.5%	1	11	12	8.3%	1	11	12	8.3%
Senior Researchers	20	38	58	34.5%	7	9	16	43.8%	1	5	6	16.7%	1	6	7	14.3%
Researchers - permanent	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Researchers - fixed term	8	12	20	40.0%	3	4	7	42.9%	5	2	7	71.4%	5	2	7	71.4%
Totals	45	148	193	23.3%	21	89	110	19.1%	22	66	88	25.0%	26	82	108	24.1%
Grand Total	449	1428	1877	23.9%	287	1074	1361	21.1%	247	900	1147	21.5%	297	1058	1355	21.9%

Source: RES Women's Committee Survey 2010 and 2012.

Table 9. Primary employment function: Academic staff in economics departments and research institutes (balanced and unbalanced samples from the 2012 email and web based surveys).

Primary Employment Function	2012 respondents' survey				2012 web balanced sample to match the email survey				2012 full 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	59	477	536	11.0%	77	696	773	10.0%	123	965	1088	11.3%
Readers	31	134	165	18.8%	39	171	210	18.6%	59	221	280	21.1%
Senior Lecturers	82	211	293	28.0%	106	296	402	26.4%	150	453	603	24.9%
Lecturers	177	433	610	29.0%	259	616	875	29.6%	329	767	1096	30.0%
Senior Researchers	49	92	141	34.8%	257	469	726	35.4%	556	764	1320	42.1%
Researchers	51	81	132	38.6%	145	194	339	42.8%	188	224	412	45.6%
Other												
Total	449	1428	1877	23.9%	883	2442	3325	26.6%	1405	3394	4799	29.3%
Number of Departments	69				69				107			

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

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, Mumford, 2009, page 20 and Blanco and Mumford, 2011, page 23).

4. Staff changes over time.

A fundamental role for the newly established Royal Economic Society Women's Committee¹¹ 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 biennial questionnaires to all Heads of Departments listed as members of CHUDE (and to a selection of research institutions) since December 1996. As discussed in the Introduction, this report covers the ninth of these surveys.¹²

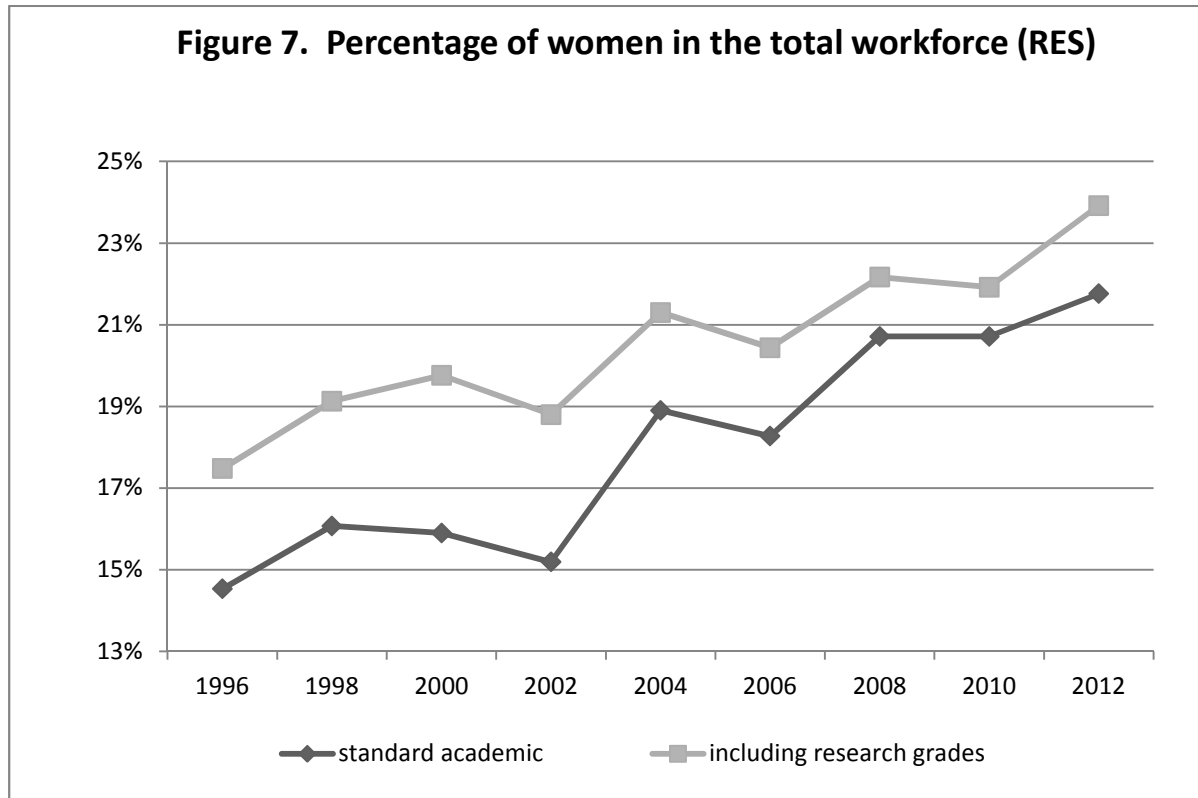
Figure 7 plots the percentage of women amongst the total academic economics workforce (including research grades) and amongst the standard academic workforce for each of the RES Women's Committee surveys using unbalanced samples (reflecting the fullest sample information for each of the surveys).¹³ An overall growth trend in the percentage of women in

¹¹At 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.

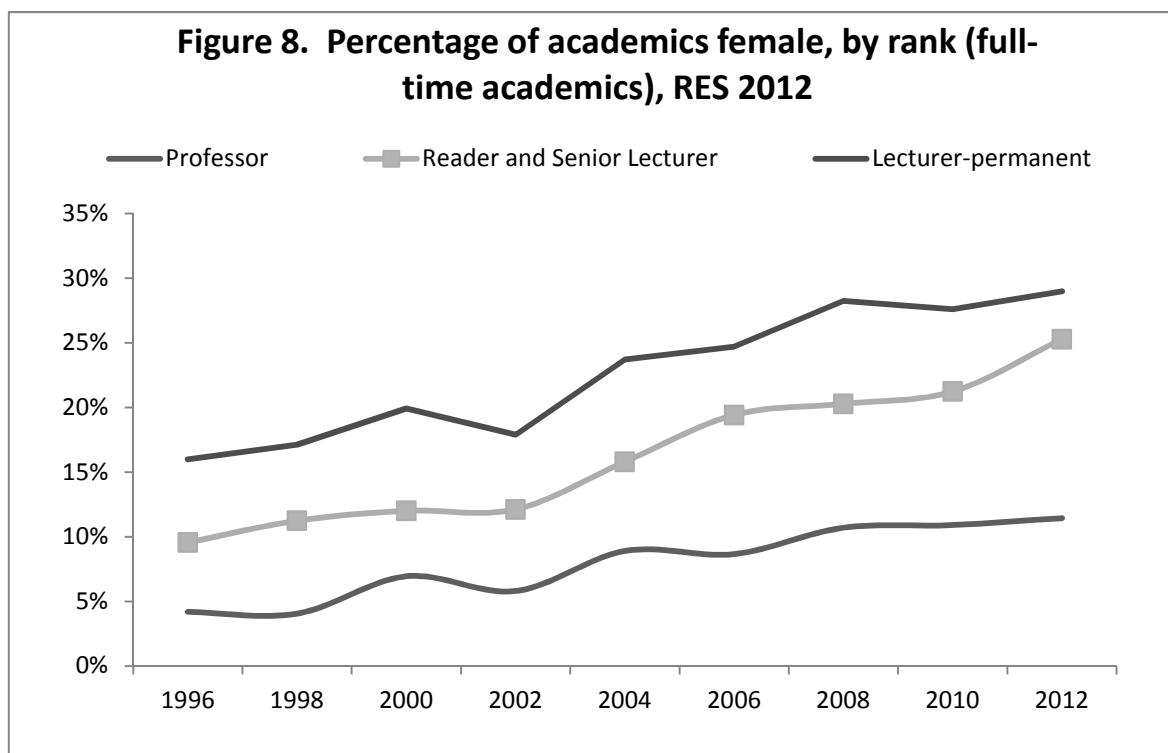
¹²Results from previous surveys are found in Mumford 1997; Booth and Burton with Mumford, 2000; Burton with Joshi and Rowlatt, 2002; Burton and Joshi, 2004, Burton with Humphries, 2006; Azariadis and Manning, 2008; Mumford, 2009; Blanco and Mumford.

¹³The 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). Constructing a genuinely balanced sample from 1996 to 2012 is not trivial, for example, some of the departments and research institutions present in 1996 have merged and/or disappeared over the time period. Furthermore, many institutions present a single return which appears to include economists working in different research clusters within their institution. The web-based surveys reveal that many of individuals associated with research institutions are also employed on standard academic appointments in departments; this is especially true for more senior ranked economists. (For more discussion of the matching of the samples over time see Mumford, 2009).

the workforce can clearly be seen in Figure 7 (with or without the inclusion of the research grades).



The percentage of the women working in full-time standard academics jobs in CHUDE departments by rank (using unbalanced samples from the bicentennial surveys) is shown in Figure 8. In 1996, approximately 5% of the Professors were female, 10% of the Senior Lecturer/Readers and 15% of the Lecturers. By 2012, these ratios had essentially doubled. Figure 8 also reveals a very small change in the representation of women amongst the Professors in recent years (especially post 2008).



Comparing the results from the first of the Women's Committee's surveys (a postal survey for 1996) with the verified survey of the web pages of the CHUDE member departments for 2012 in more detail (see appendix table A2) supports the conclusion that the grade rank composition of the workforce has changed dramatically over the 16 year period: the proportion of Professors has more than doubled (from 14.2% to 31.7%); the proportion of Readers and Senior Lecturers has increased by a 11 percentage points; whilst Lecturers are about 7 percentage points less prevalent. Strikingly, there are considerably less Researchers in 2012 relative to 1996. Women are 1.6 times more likely to be in the standard academic grades in 2012 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 aggregate 2012 verified sample, 23% of academic economists were female: 30.6% of Lecturers, 23.9% of Senior Lecturers and Readers, and 11.4% of Professors. Women have more than doubled their relative representation across the senior grade ranks between 1996 and 2012.

Figure 9. Female academics by rank, as percentage of full time female UK academics, RES 2012

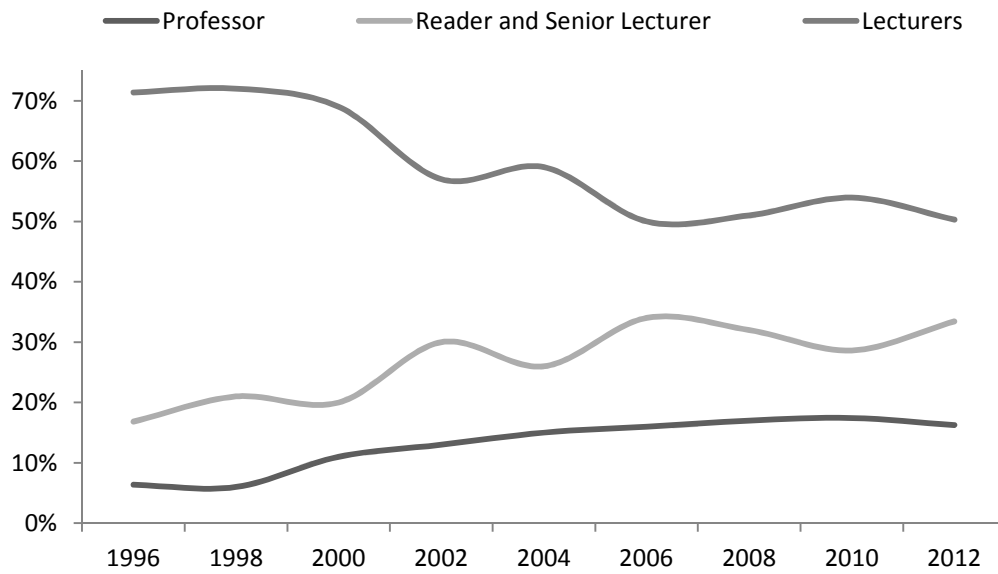
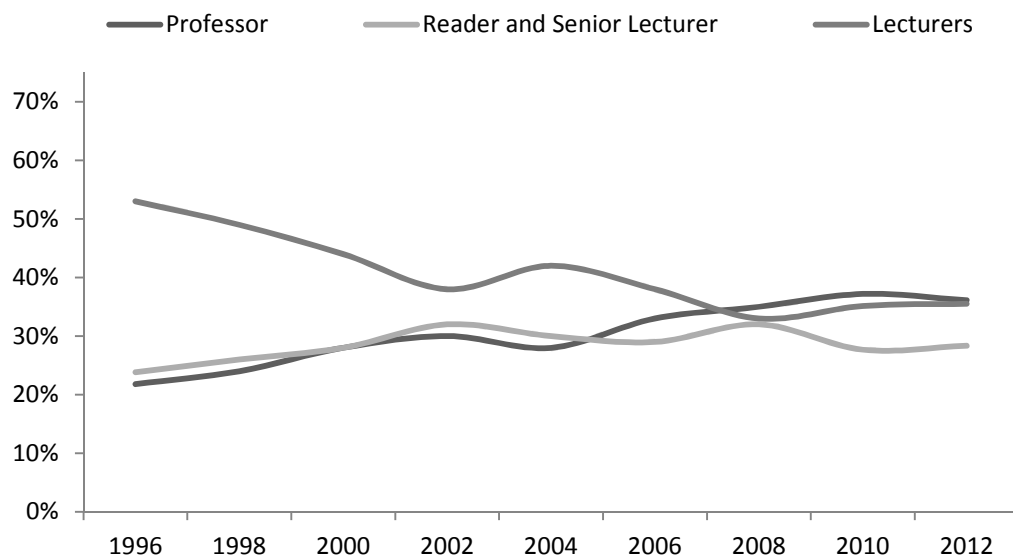


Figure 10. Male academics by rank, as percentage of full time male UK academics, RES 2012



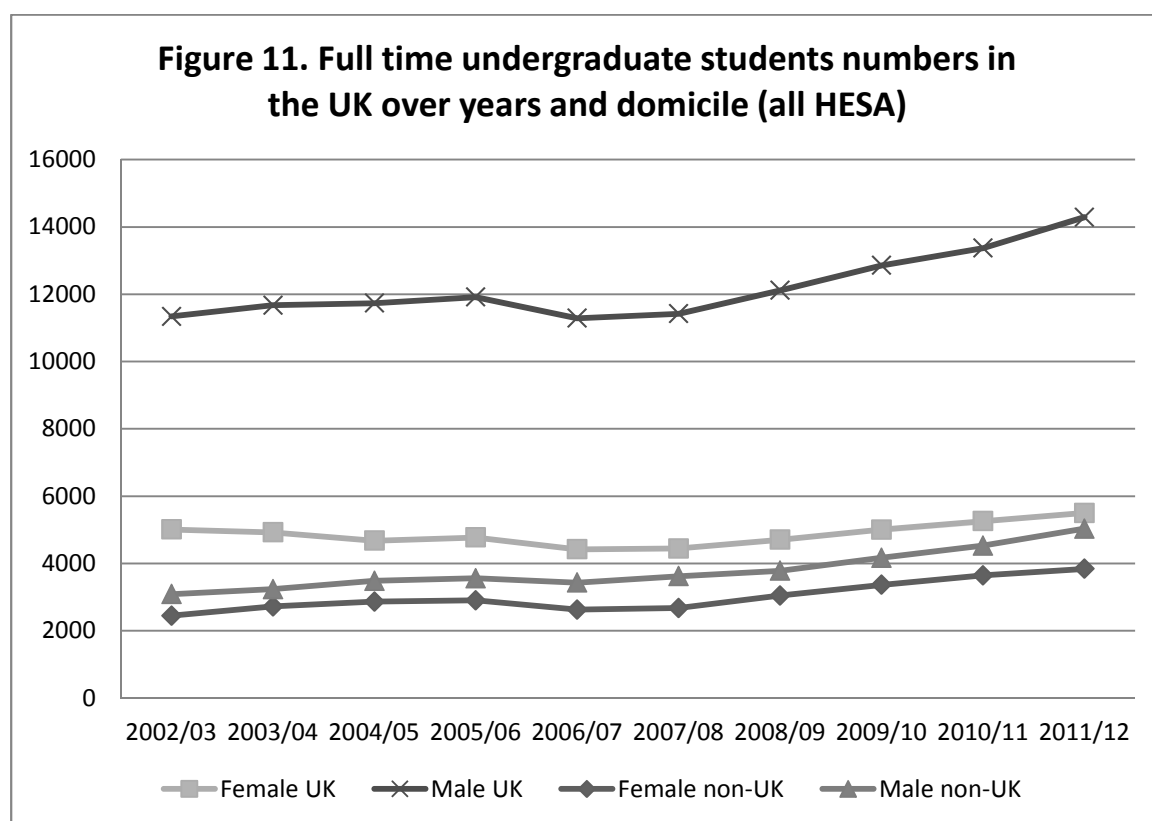
Figures 9 (and 10) show the percentage of full-time female (male) UK academics in CHUDE departments by rank over time; again using the unbalanced samples from each of the biennial surveys. (This is directly comparable information to that presented in Figures 1 and 2 for the longer time period.) In 1996, roughly one in every two males was a Lecturer and one in four males a Professor or Senior Lecturer/Reader. By 2012 men had similar proportions in each of these three academic rank groupings (see Figure 2). The opening position for women was vastly different with almost three quarters of female staff members being a Lecturer and only one in sixteen a Professor. These gaps have closed substantially for women over the years. Nevertheless, women finished the time period much less favorably than did the males with a roughly one in two chance of being a Lecturer, one in three a Senior Lecturer/Reader and only one in six of being a Professor.

It is not obvious how the relative position of women in UK academia will change over the next few years. Figure 10 clearly reveals that the pool of men in each of the grade ranks is not in steady state over the time period. Consider the Professors; it is exceptionally rare for Professors to be demoted and so they typically maintain this job rank until retirement. Increasing the pool of males Professors (these have more than doubled in numbers between 1996 and 2012, see Appendix table A2) will obviously result in a fall in the proportion of the job rank female, *ceteris paribus*. The number of female Professors has increased almost six fold over the time period but they are still only making up some 11% of the total number of Professors. The major source of growth in the pool of Professors in the last two decades is due to higher inflows. Changing the retirement laws so that the exit rate (into retirement) falls would be expected to raise the average duration of those in the Professorial pool. As we might reasonably expect more elder male cohorts than female amongst the Professors, this may lead to lower relative numbers of women amongst the Professors in the next few years. As the Women's Committee continues with its new annual individual based web surveys, we will be able to monitor both inflow and outflow rates for each grade rank enabling us to more insightfully address concerns such as why the relative proportion of female Professors has shown little change since 2008.

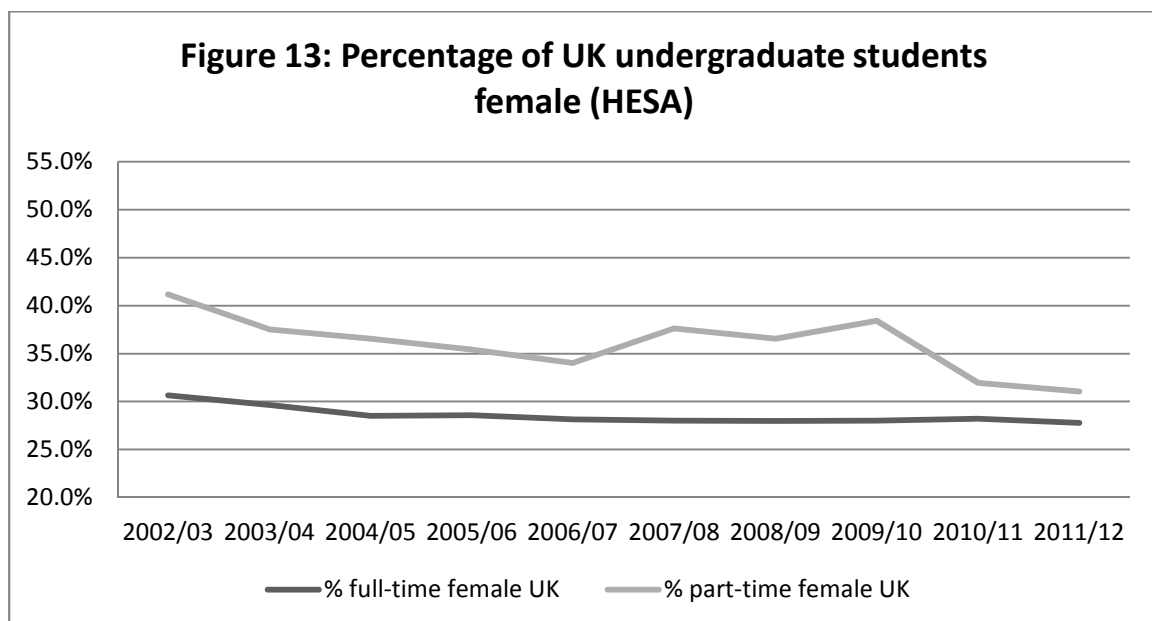
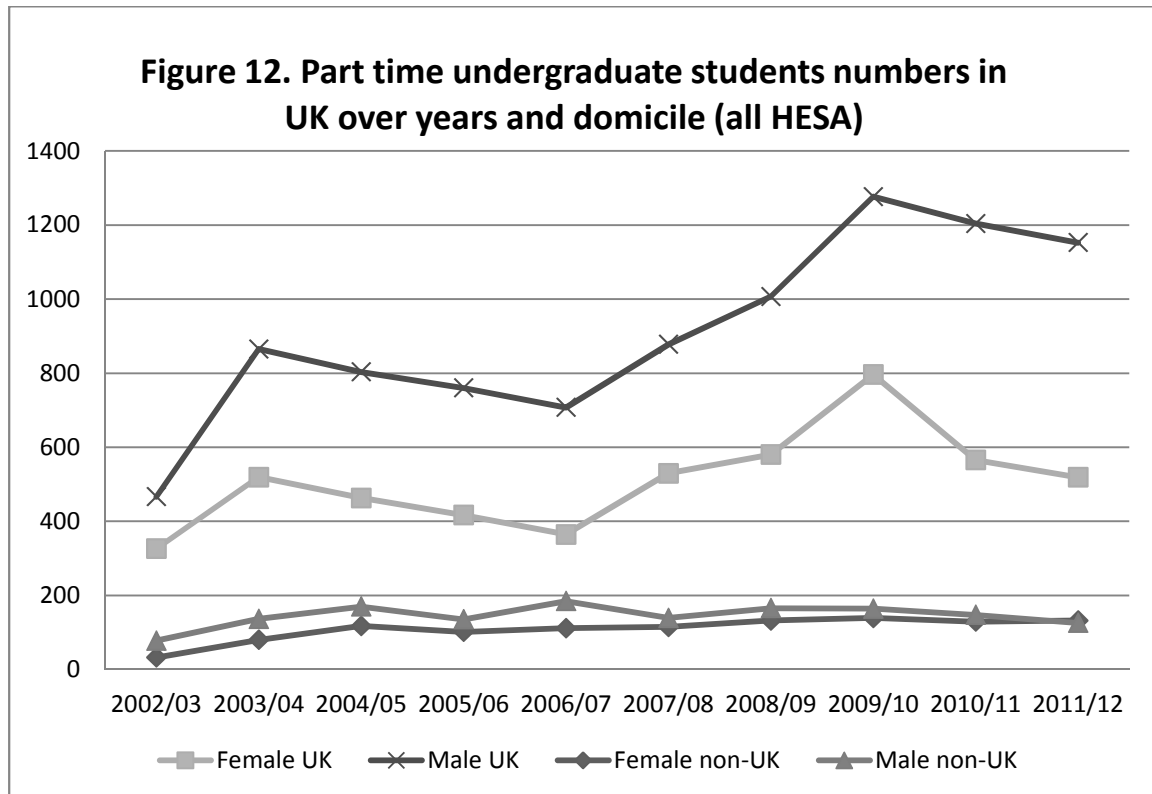
5. Students.

The Women's Committee surveys stopped asking departments for information on student enrolment in 2006 as a reaction to a low response rate in the 2004 survey and consequently subsequent reports have not included information on relative student numbers. The data presented below have been obtained from the Higher Education Statistical Association (HESA) for the time period 2002/3 to 2011/12. (Data for the current academic year, 2012/13, was not available from HESA when this report was being completed.) Earlier data are available from HESA (indeed the 1996 report included HESA data for 1994), however, a break in the series prior to the 2002/3 academic year limits comparability.

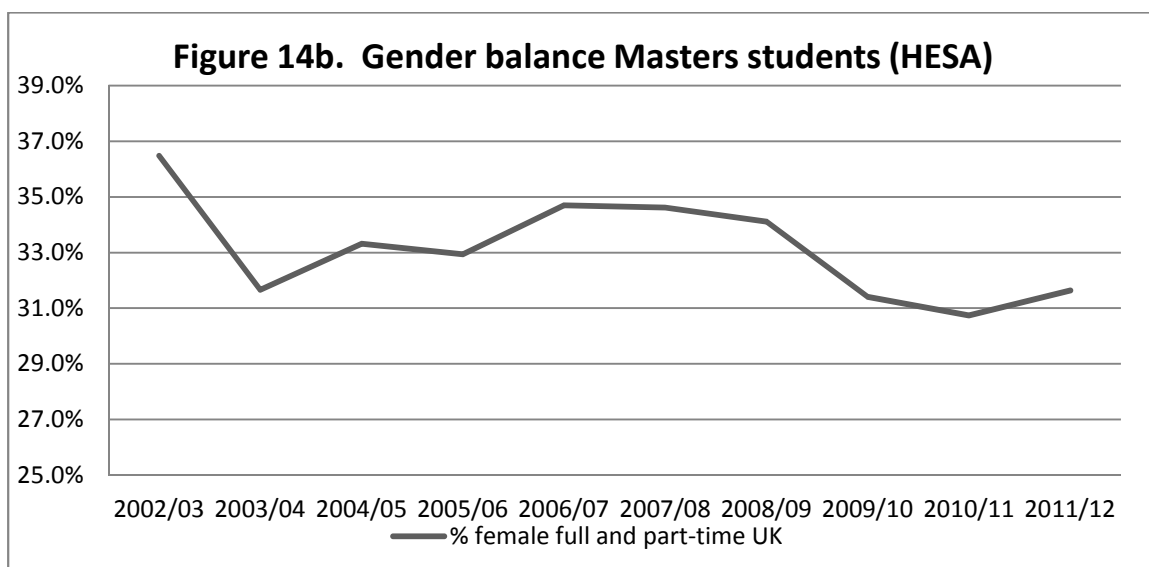
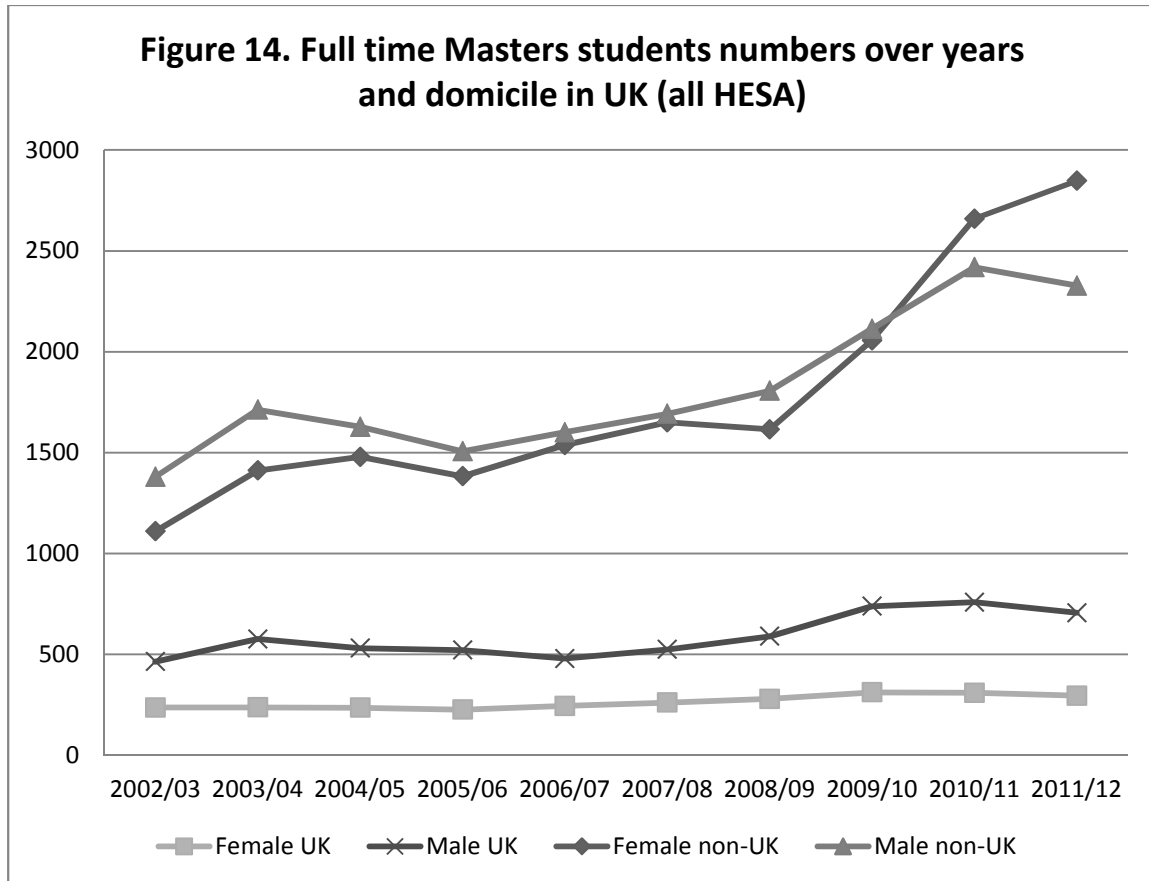
Figure 11 presents full time undergraduate students numbers in the UK by gender and nationality. The number of male UK (domicile) students have risen substantially over the last 5 years resulting in a considerably rise over the decade (from 11,341 students in 2002 to 14,290 students in 2011 or 26%). In contrast, the growth in the numbers of female UK students has been more moderate (from 5010 students in 2002 to 5500 students in 2011) resulting in a more modest rise of 9.8% over the decade. In total, the percentage female (see Figure 13 has declined by some 9%.



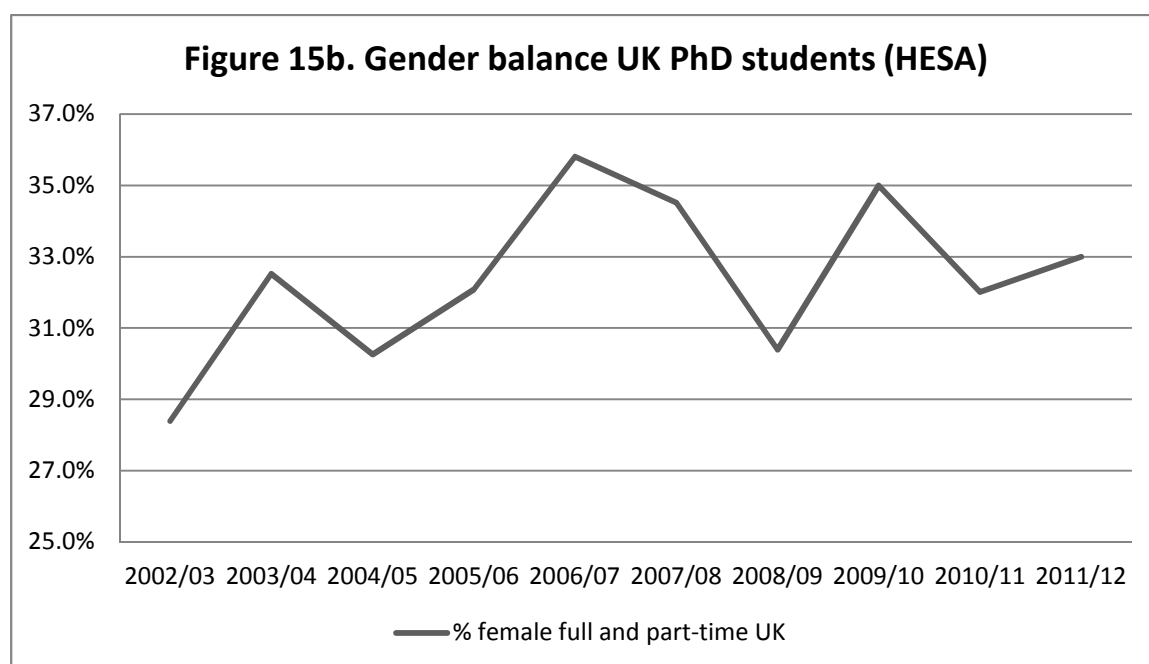
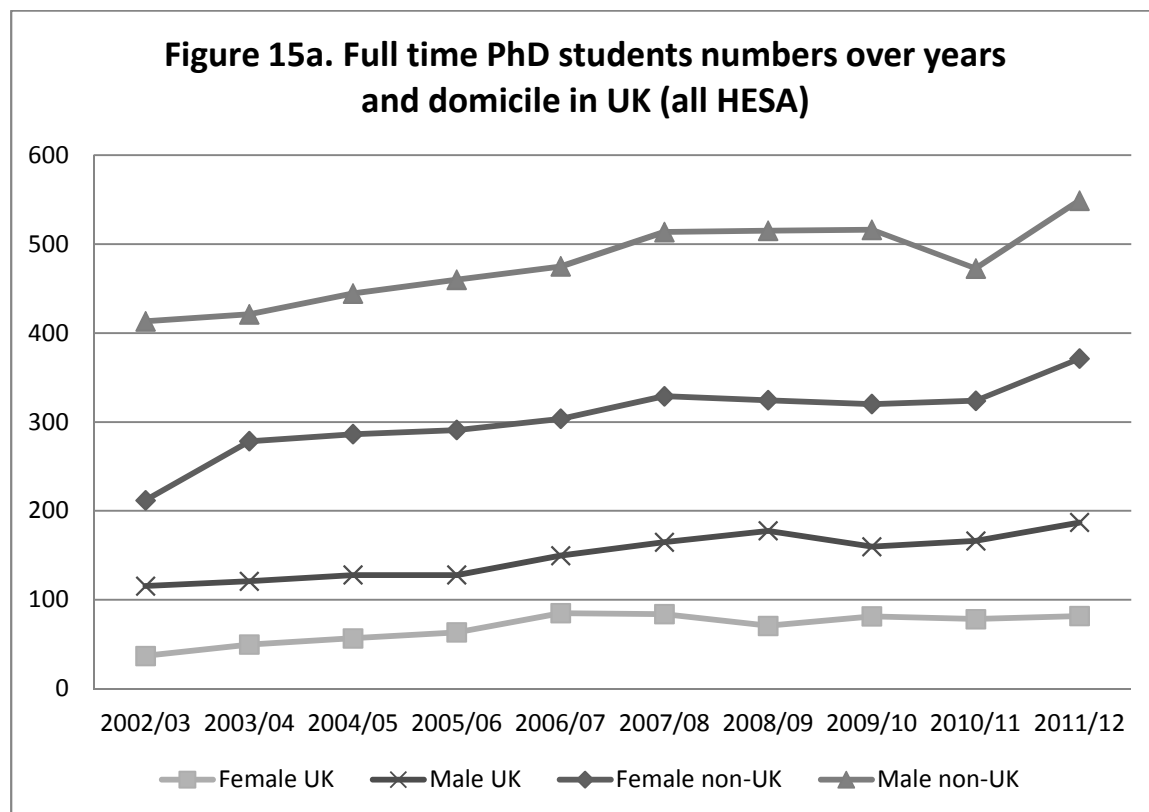
An increasing gender gap is also apparent amongst the rarer UK part-time students in economics (see Figures 12 and 13). The relative decline in these female enrolments is obvious in Figure 13, declining from some 40 to 30% of the part-time UK students. The non-UK part-time students are, in contrast, comparatively equally distributed across the genders.



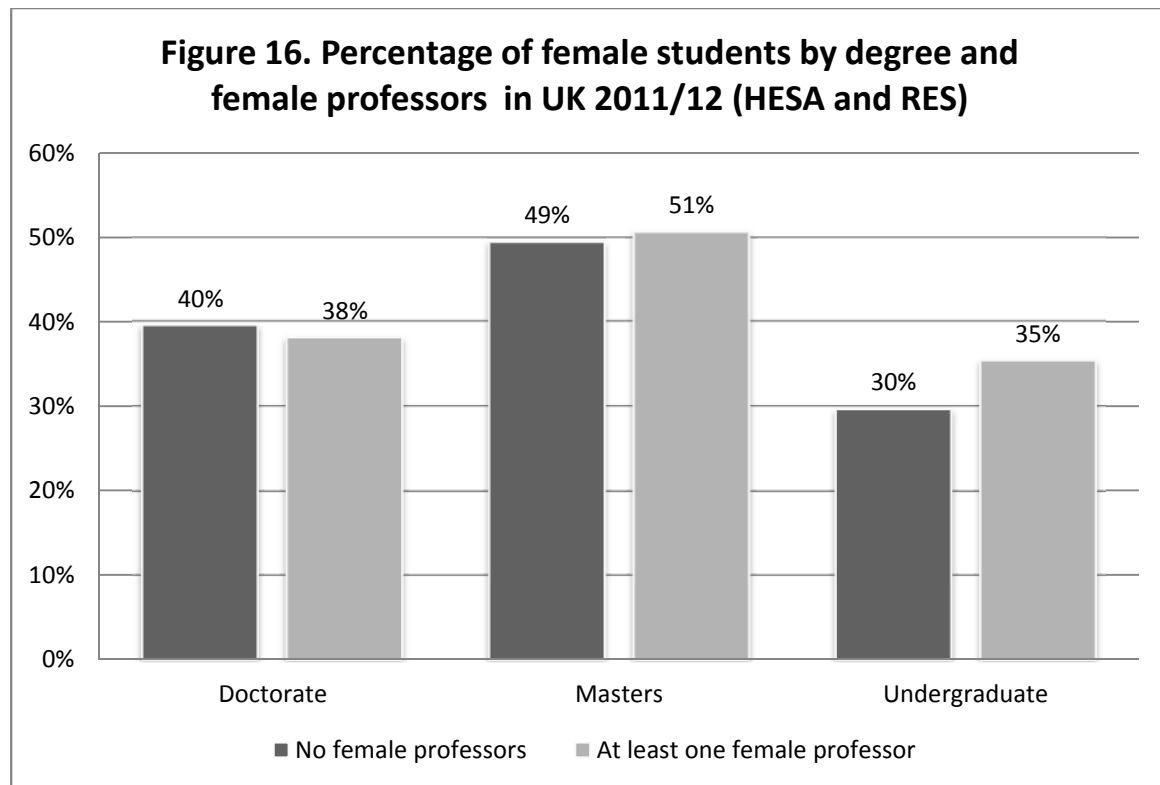
Figures 14a and 15a present similar information for Masters and PhD students in economics in the UK. Amongst graduate students, UK students are clearly in the minority although they have increased their numbers over the decade.



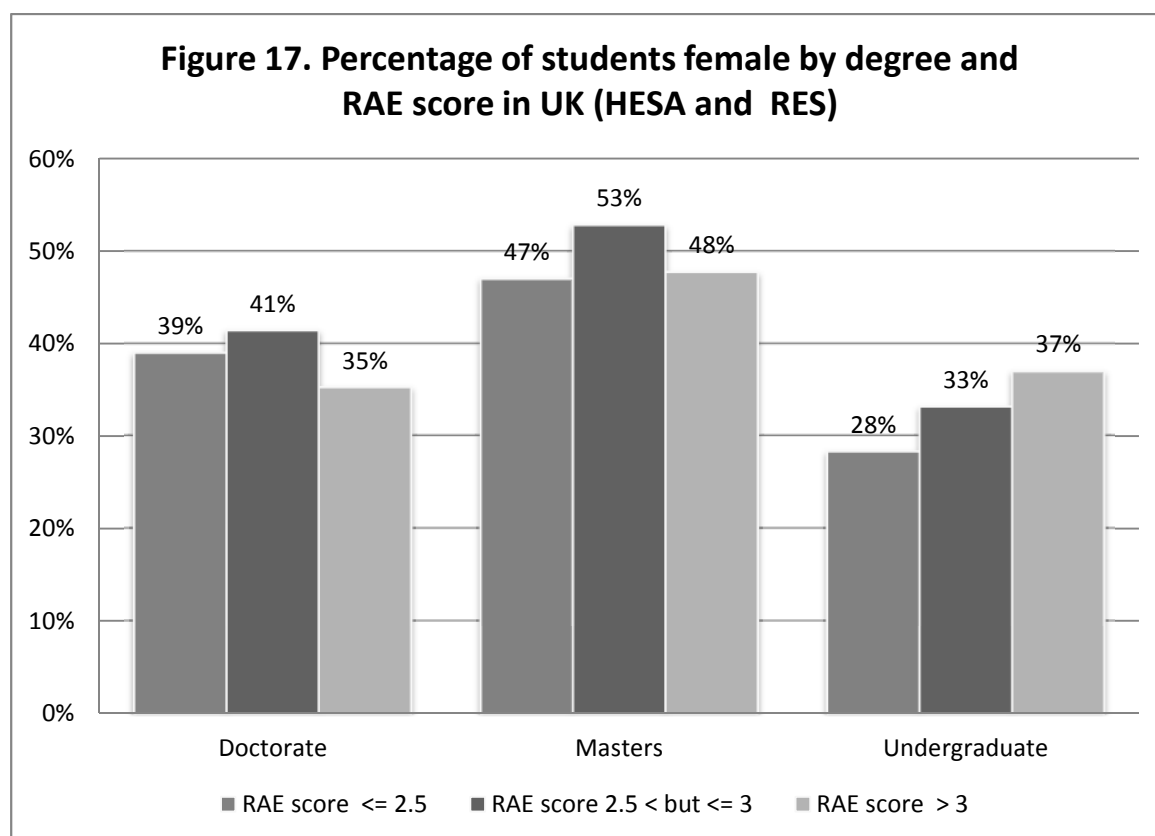
An increasing gender enrolment gap is also apparent amongst the UK Masters students (Figure 14b) with women falling from being a little below 37% of this student body in 2002 to less than 32% of it in 2011. In contrast, the relative representation of women amongst increasing numbers of UK PhD students has risen over the time period (from 28% to 33%) as shown in Figures 15a and 15b.



We can also consider the association between female student enrolment and having a female Professor in the department (see Figure 16). Whilst this relationship is not strong at the graduate level, higher female representation amongst undergraduate students is associated with the presence of a female professor in the department.



Perhaps unsurprisingly, given the discussion above, this higher female enrolment at the undergraduate level is also associated with departments who are ranked higher in the last RAE exercise (see Figure 17). However, there is little apparent relationship between female graduate student enrolment and RAE ranking.



7. 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 2012 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 2012 respondents' survey, women make up some 24% of the academic economics workforce in the CHUDE departments and research institutes: 29% of Lecturers, 24% of Readers/Senior Lecturers, and 11% of Professors. In 1996 women constituted 17% of this workforce: 15% of the Lecturers, 10% of the Readers/Senior Lecturers and 4% of the Professors.

Recent 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 tracking individuals' movements and balanced sample comparisons across the 2010 and 2012 surveys. The findings indicate that, in contrast to males, female Professors

are considerably more likely to be promoted in their own department rather than hired from another department. Job separations are also much rarer for senior ranked females than senior ranked males. Nevertheless, the increase in the proportion of professors who are female shows little growth since 2008.

The UK has seen increases in the numbers of students studying economics at all levels (undergraduate and graduate) over the last decade. Amongst UK (domiciled) students, enrolments have risen faster for males than females leading to considerable increases in the male relative to the female participation rates at the undergraduate and master's levels. Amongst PhD students, however, the growth amongst female UK students exceeded that of the males. In 2002 less than 29% of UK PhD students were female, by 2011 33% were.

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Appendix A1.

Table A1. Primary employment function: All academic staff in economics departments and research institutes (responding sample, 2012).

Primary Employment Function	2012 respondents' survey			
	Female	Male	Total	% Fem
All Staff: full time				
Professors - permanent	54	411	465	11.6%
Professors - fixed term	0	7	7	0.0%
Readers - permanent	30	131	161	18.6%
Readers - fixed term	0	0	0	-
Senior Lecturers - permanent	81	196	277	29.2%
Senior Lecturers - fixed term	0	1	1	-
Lecturers - permanent	160	392	552	29.0%
Lecturers - fixed term	7	19	26	26.9%
Senior Researchers - permanent	21	45	66	31.8%
Senior Researchers - fixed term	8	9	17	47.1%
Researchers - permanent	24	25	49	49.0%
Researchers - fixed term	19	44	63	30.2%
Totals	404	1280	1684	24.0%
All Staff: part time				
Professors - permanent	2	12	14	14.3%
Professors - fixed term	3	47	50	6.0%
Readers - permanent	1	2	3	33.3%
Readers - fixed term	0	1	1	0.0%
Senior Lecturers - permanent	1	9	10	10.0%
Senior Lecturers - fixed term	0	5	5	0.0%
Lecturers - permanent	4	9	13	30.8%
Lecturers - fixed term	6	13	19	31.6%
Senior Researchers - permanent	12	6	18	66.7%
Senior Researchers - fixed term	8	32	40	20.0%
Researchers - permanent	0	0	0	-
Researchers - fixed term	8	12	20	40.0%
Totals	45	148	193	23.3%
Grand Total	449	1428	1877	23.9%

Table A3. Main research discipline, by academic ranking (responding sample, 2012).

JEL research discipline	Professor	Reader	Senior Lecturer	Lecturer	Senior Researcher	Researcher	Total	%	% Professors
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CHUDE departments									
A - General Economics and Teaching	5	1	11	16	2	3	38	2.3%	1.0%
B - History of Economic Thought, Methodology, and Heterodox Approaches	5	4	6	8	1	0	24	1.4%	1.0%
C - Mathematical and Quantitative Methods	75	27	28	80	4	10	224	13.3%	14.5%
D – Microeconomics	67	32	30	88	5	13	235	13.9%	13.0%
E - Macroeconomics and Monetary Economics	70	14	37	96	5	7	229	13.6%	13.5%
F - International Economics	30	7	15	42	7	2	103	6.1%	5.8%
G - Financial Economics	43	13	34	59	6	2	157	9.3%	8.3%
H - Public Economics	17	7	8	15	0	1	48	2.8%	3.3%
I - Health, Education, and Welfare	25	5	8	31	6	0	75	4.4%	4.8%
J - Labor and Demographic Economics	51	16	18	39	3	1	128	7.6%	9.9%
K - Law and Economics	0	1	1	0	1	0	3	0.2%	0.0%
L - Industrial Organization	35	9	19	36	1	5	105	6.2%	6.8%
M - Business Administration and Business Economics; Marketing; Accounting	9	1	11	12	0	1	34	2.0%	1.7%
N - Economic History	9	2	5	12	3	2	33	2.0%	1.7%
O - Economic Development, Technological Change, and Growth	38	8	30	34	2	10	122	7.2%	7.4%
P - Economic Systems	7	8	5	8	0	0	28	1.7%	1.4%
Q - Agricultural and Natural Resource Economics; Environmental and Ecological	18	4	17	14	5	3	61	3.6%	3.5%
R - Urban, Rural, Regional, Real Estate, and Transportation Economics	13	2	6	13	1	4	39	2.3%	2.5%
Z - Other Special Topics	0	0	0	0	0	0	0	0.0%	0.0%
Total	517	161	289	603	52	64	1686	100%	100%

Research Institutions								
C - Mathematical and Quantitative Methods	0	0	0	0	4	6	10	5.5%
D – Microeconomics	0	0	0	0	14	4	18	9.9%
E - Macroeconomics and Monetary Economics	0	0	0	0	2	0	2	1.1%
F - International Economics	0	0	0	0	0	2	2	1.1%
H - Public Economics	0	0	0	0	13	4	17	9.3%
I - Health, Education, and Welfare	16	4	2	1	37	31	91	50.0%
J - Labor and Demographic Economics	3	0	0	0	10	10	23	12.6%
M - Business Administration and Business Economics; Marketing; Accounting	0	0	0	0	0	1	1	0.5%
O - Economic Development, Technological Change, and Growth	0	0	0	0	8	2	10	5.5%
Q - Agricultural and Natural Resource Economics; Environmental and Ecological	0	0	0	0	0	2	2	1.1%
R - Urban, Rural, Regional, Real Estate, and Transportation Economics	0	0	0	0	0	6	6	3.3%
Total	19	4	2	1	88	68	182	100%

Source: RES Women's Committee Survey 2012.

Table A4. Main research discipline, by gender and RAE score in CHUDE departments (responding sample, 2012).

JEL research discipline	Female	Male	Total	% Fem	rankrae<=2.5	2.5<raerank<=3	raerank>3	Total
A - General Economics and Teaching	11	27	38	28.9%	24	10	4	38
B - History of Economic Thought, Methodology, and Heterodox Approaches	3	21	24	12.5%	10	8	6	24
C - Mathematical and Quantitative Methods	35	189	224	15.6%	41	92	91	224
D – Microeconomics	58	177	235	24.7%	32	99	104	235
E - Macroeconomics and Monetary Economics	42	187	229	18.3%	49	103	77	229
F - International Economics	26	77	103	25.2%	29	43	31	103
G - Financial Economics	39	118	157	24.8%	60	60	37	157
H - Public Economics	9	39	48	18.8%	11	19	18	48
I - Health, Education, and Welfare	30	45	75	40.0%	17	41	17	75
J - Labor and Demographic Economics	31	97	128	24.2%	21	68	39	128
K - Law and Economics	1	2	3	33.3%	0	1	2	3
L - Industrial Organization	18	87	105	17.1%	29	43	33	105
M - Business Administration and Business Economics; Marketing; Accounting	10	24	34	29.4%	23	10	1	34
N - Economic History	9	24	33	27.3%	5	9	19	33
O - Economic Development, Technological Change, and Growth	27	95	122	22.1%	23	45	54	122
P - Economic Systems	5	23	28	17.9%	5	12	11	28
Q - Agricultural and Natural Resource Economics; Environmental and Ecological	11	50	61	18.0%	17	19	25	61
R - Urban, Rural, Regional, Real Estate, and Transportation Economics	10	29	39	25.6%	17	11	11	39
Z - Other Special Topics	0	0	0	-	0	0	0	0
Total	375	1311	1686	22.2%	413	693	580	1686

Source: RES Women's Committee Survey 2012.

Table A5 presents information on new staff hired in the academic year prior to the survey year): columns 1 to 4 for the 2012 respondents' sample; columns 5 and 6 are the 2012 survey balanced sample results for those departments responding to both the 2012 and the 2010 surveys; columns 7 and 8 are the 2010 survey balanced sample and columns 9 and 10 are the full 2010 email survey results. The numbers involved are small and implications are accordingly far from confident.

Comparing the balanced samples in columns 5 through 8, hiring in 2011/12 (the 2012 survey) can be seen to be higher than it was in 2009/10 (the 2010 survey). The balanced samples also show an increase in the percentage of women being hired in Professorial and Reading positions and a fall in the percentage of Lecturers and Researchers who are female. Returning to the full respondents survey for 2012 (columns 1 to 4) clearly reveals that the percentage of women amongst those hired as Researchers or Lecturers is considerably higher than that observed for Professors and Readers.

Table A5. New hires.

	2012 respondents' survey				2012 balanced sample		2010 balanced sample		2010 email survey	
	Female (1)	Male (2)	Total (3)	%Fem (4)	Total (5)	%Fem (6)	Total (7)	%Fem (8)	Total (9)	%Fem (10)
Professor	9	56	65	13.8%	52	17.3%	25	8.0%	26	11.5%
Reader	3	24	27	11.1%	22	13.6%	9	11.1%	10	20.0%
Senior Lecturer	12	30	42	28.6%	22	18.2%	9	22.2%	10	20.0%
Lecturer	30	103	133	22.6%	93	22.6%	83	32.5%	100	33.0%
Senior Researcher	5	21	26	19.2%	15	26.7%	4	50.0%	4	50.0%
Researcher	20	41	61	32.8%	31	25.8%	20	40.0%	29	44.8%
Total	79	275	354	22.3%	235	20.9%	150	28.0%	179	30.7%

Source: RES Women's Committee Survey 2012.

Comparing columns 4 and 10, the proportion of females amongst professorial grade hires rose (from 11.5% to 13.8%) but decreased amongst Readers (from 20% to 11.1%). In aggregate, women make up a similar proportion (22.3%) of the new hires than they do of the

total pool of academic economists (23.9% - 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 A6 presents information on promotions in the previous year and follows the same structure as Table A5: columns 1 to 4 are for the full 2012 respondents' sample; columns 5 and 6 are the 2012 balanced sample survey results for those departments responding to both the 2012 and the 2010 surveys; columns 7 and 8 are the 2010 balanced sample; and columns 9 and 10 are the 2010 survey results.

Table A6. Internal promotions.

	2012 respondents' survey				2012 balanced sample		2010 balanced sample		2010 email survey	
	Female	Male	Total	%Fem	Total	%Fem	Total	%Fem	Total	%Fem
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Professor	5	18	23	21.7%	16	25.0%	22	31.8%	27	25.9%
Reader	6	17	23	26.1%	16	25.0%	13	7.7%	15	13.3%
Senior Lecturer	3	24	27	11.1%	23	8.7%	16	37.5%	19	31.6%
Lecturer	7	8	15	46.7%	9	44.4%	2	50.0%	2	50.0%
Senior Researcher	2	6	8	25.0%	0	-	1	0.0%	1	0.0%
Researcher	4	3	7	57.1%	4	25.0%	0	-	0	-
Total	27	76	103	26.2%	68	22.1%	54	27.8%	64	25.0%

Source: RES Women's Committee Survey 2012.

These numbers of 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. Comparing the balanced samples, internal promotions increased between 2010 and 2012, from 54 promotions in 2010 to 68 in 2012. However, women made up relatively fewer of these promotions in 2012 than in 2011. The relative promotion of female Professors, Senior Lecturers and Lecturers decreased in 2012, while women represent a higher percentage of those promoted as Readers and Researchers in 2012 than in 2010.

The third flow affecting the stock of academic economists is, of course, leavers (see Table A7). In aggregate, women make up a similar proportion of these separations than they do of the total pool of academic economists (24.9% relative to 23.9%) and such separations are rare for the most senior women (Professors and Readers).

Table A7. Separations.

	2012 respondents' survey				2012 balanced sample		2010 balanced sample		2010 email survey	
	Female (1)	Male (2)	Total (3)	%Fem (4)	Total (5)	%Fem (6)	Total (7)	%Fem (8)	Total (7)	%Fem (8)
Professor	5	67	72	6.9%	60	6.7%	37	5.4%	41	7.3%
Reader	3	13	16	18.8%	10	0.0%	8	0.0%	8	0.0%
Senior Lecturer	9	23	32	28.1%	26	23.1%	14	35.7%	22	22.7%
Lecturer	26	48	74	35.1%	61	37.7%	55	30.9%	59	33.9%
Senior Researcher	27	88	115	23.5%	23	30.4%	3	33.3%	4	25.0%
Researcher	20	32	52	38.5%	18	33.3%	14	-	14	21.4%
Total	90	271	361	24.9%	198	23.2%	131	21.4%	148	21.6%

Source: RES Women's Committee Survey 2012.