

Current demographics in the school teaching population in Scotland

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Abstract:

Before appointment to teach in a state school in Scotland, the aspiring teacher must register with the General Teaching Council for Scotland. The Register represents, therefore, a comprehensive list of all those entitled to be employed as teachers. The Council produces annually a statistical digest which summarises data from the Register.

A longitudinal study of these digests offers insights into the demographics within the profession, tracing the changing age and gender balances in primary and secondary teaching. Analysis of this data, used in conjunction with the Scottish Executive's annual census of teachers, enables the identification of issues that affect the future planning of the teacher workforce. This in turn informs decisions on the allocation of places on initial teacher education programmes. These include information on likely future retirement patterns among teachers, current recruitment patterns and the altering gender balance, all of which are issues that will require to be addressed in the near future.

The paper will outline the demographic patterns suggested by comparing the last three annual statistical digests and identify areas of interest in workforce planning. The paper will pose questions for potential future research such as the implications of the changing age balance in the teaching population on teacher effectiveness in the classroom.

Paper

Headlines about recruitment in the teaching profession have been dramatic in recent months. There have been stories teachers completing their probationary service have found it difficult to obtain permanent, or even significant temporary, employment, especially in the central belt¹, yet these have contrasted with articles featuring recruitment difficulties and teacher shortages, notably in Aberdeenshire² and featuring the recruitment of teachers from overseas³. All this has led to criticism of the effectiveness of the Scottish Government's workforce planning process. But how fair is such criticism? This paper will examine movements in the Register of the General Teaching Council for Scotland between 2005 and 2007 to detect trends in the demography of the profession and reflect on their implications for the future planning of the teacher workforce.

Before appointment to teach in a state school in Scotland, the aspiring teacher must register with the General Teaching Council for Scotland. The Register represents, therefore, a comprehensive database of all those entitled to be employed as teachers. The Council publishes an annual statistical digest based on entries on the Register on 31 March each year. This can be broken down by a variety of categories to give insight into the demographic structure of the profession and thus to trace trends in that structure.

Size of the profession

Given the recent recruitment campaigns and the rising numbers of teachers in the Teacher Induction Scheme over the past three years, it is not surprising that the number of teachers in all categories on the Register increased by 5,544 between 2005 and 2007, representing a rise of 6.9% on the 2005 total of 80,042. (Table 1)

Table 1 - Number of teachers Registered with GTC Scotland

2005	2006	Change 2005-2006	2007	Change 2006-2007	Change 2005-2007
80 042	81 882	1 840 (+2.3%)	85 586	3 704 (+4.5%)	5 544 (+6.9%)

To an extent this figure is misleading, as during the same period the number of teachers over the age of 65, therefore less likely to be active in the classroom, increased from 1,838 to 2,636, so a more accurate view of the profession may be given by the number of those aged under 65, which rose from 78,204 to 82,950, a rise of just under 6.1%.

Age distribution

The most dramatic demographic shift revealed by changing patterns in the Register is the age distribution of the teaching population. There is a rapidly growing number of young teachers, as might be expected from the large numbers participating in the Teacher Induction Scheme in recent years, but just as significant is the growth in numbers of those approaching retirement.

This is illustrated in Tables 2a and 2b, showing numbers and percentages of fully registered teachers by age. In terms of workforce planning it is clear that the greatest challenges will arise over the next ten years, as in 2007 almost a quarter of fully registered teachers (23.6%) are aged between 56 and 65, a proportion which had grown slightly over the previous two years. Although much recent attention has focussed on that statistic, even more striking is that the proportion of the profession aged between 46 and 55 is even larger at over one third of the total (36.1% in 2007). Thus the recruitment issue is not one of short term duration. Over the next twenty years three out of every five teachers will become eligible for retirement, with the biggest bulge in retirements projected to take place as those aged 51-55 at present reach potential retirement age. This is supported by the analysis of the annual staff census conducted by the then Scottish Executive in 2006⁴, which noted that there was a major peak in the age profile at age 53 and that 18% of all employed teachers were aged 55 or over. The latter figure is lower than the proportion of fully registered teachers above as that figure includes some who have retired but are still registered, but does not include the provisionally registered group who are in employment but mostly in younger age groups.

Table 2a - Number of fully Registered teachers by age range

Age range	2005	2006	% change 2005-2006	2007	% change 2006-2007	% change 2005-2007
21-25	1 830	2 037	11.3	2 286	12.2	24.9
26-30	5 218	5 762	10.4	6 611	14.7	26.7
31-35	6 142	6 301	2.6	6 587	4.5	7.2
36-40	6 168	6 388	3.6	6 759	5.8	9.7
41-45	7 757	7 760	<0.1	7 675	-1.1	-1.1
46-50	13 075	11 943	- 8.7	10 829	- 9.3	- 17.2
51-55	16 197	16 138	- 0.4	15 922	- 1.3	- 1.7
56-60	11 366	12 255	7.8	13 416	9.5	18.0
61-65	3 657	3 802	4.0	4 051	6.5	10.8
Over 65	67	9	-86.6	14	55.5	-79.1
Unknown	0	0	-	3	-	-

Table 2b – Percentage of fully registered teachers by age range

Age range	2005	2006	change 2005- 2006	2007	% change 2006- 2007	% change 2005-2007
21-25	2.5	2.8	0.3	3.1	0.3	0.6
26-30	7.3	8.0	0.7	8.9	0.9	1.6
31-35	8.6	8.7	0.1	8.9	0.2	0.3
36-40	8.6	8.8	0.2	9.1	0.3	0.5
41-45	10.9	10.7	- 0.2	10.4	- 0.3	- 0.5
46-50	18.3	16.5	- 1.8	14.6	- 1.9	- 3.7
51-55	22.7	22.2	- 0.5	21.5	- 0.7	- 1.2
56-60	15.9	16.9	1.0	18.1	1.2	2.2
61-65	5.1	5.3	0.2	5.5	0.2	0.3
Over 65	0.1	<0.1	-	<0.1	-	-

It is therefore clear that recruitment will have to continue at a substantial rate, despite any temporary shortage of posts for those completing their Induction year. The 2007 figure of 3,343 provisionally registered teachers between the ages of 21 and 30 shows that at present the flow of recruits is adequate, but this level of recruitment will have to be maintained for some years to come to address the potential shortages caused by retirement.

An examination of the figures for provisionally registered teachers reveals an increase in the proportion of these in the age ranges 21-25 and 26-30. This group includes not only the newly qualified teachers joining the profession either via the undergraduate route or the Professional Graduate Diploma in Education (PGDE) route, but also people offered provisional registration when entering teaching through Exceptional Admissions to the Register, including migrants to Scotland. In 2005 20.6% of provisionally registered teachers were in the former age group and 17.7% in the latter, but by 2007 these proportions had grown to 26.7% and 19.8% respectively. Although those aged over 30 still outnumber the younger groups overall, this is an indication that teaching remains an attractive proposition for young potential recruits to the profession.

Table 3a – Number of provisionally registered teachers by age range

Age range	2005	2006	% change 2005-2006	2007	% change 2006-2007	% change 2005-2007
16-20	1	1	0	0	-	-
21-25	1 447	1 659	14.6	1 919	15.7	32.6
26-30	1 244	1 230	-1.1	1 424	15.8	14.5
31-35	1 035	887	-14.3	892	0.6	-13.8
36-40	812	771	-5.0	797	3.4	-1.8
41-45	801	759	-5.2	735	-3.2	-8.2
46-50	694	576	- 17.0	562	- 2.4	- 19.0
51-55	547	475	- 13.2	453	- 4.6	- 17.2
56-60	351	317	-9.7	317	0	-9.7
61-65	101	88	-12.9	100	13.6	<0.1
Over 65	1	0	-	1	55.5	-

Table 3b – Percentage of provisionally registered teachers by age range

Age range	2005	2006	change 2005- 2006	2007	% change 2006- 2007	% change 2005-2007
16-20	-	-	-	-	-	-
21-25	20.6	24.5	3.9	26.7	2.3	6.1
26-30	17.7	18.2	0.5	19.8	1.6	2.1
31-35	14.7	13.1	-1.6	12.4	-0.7	-2.3
36-40	11.5	11.4	-0.1	11.1	-0.3	-0.4
41-45	11.4	11.2	-0.2	10.2	-1.0	-1.2
46-50	9.9	8.5	-1.4	7.8	-0.7	-2.1
51-55	7.8	7.0	-0.8	6.3	-0.7	-1.5
56-60	5.0	4.7	-0.3	4.4	-0.3	-0.6
61-65	1.4	1.3	-0.1	1.2	-0.1	-0.2
Over 65	<0.1	-	-	<0.1	-	-

A comparison with figures published recently by the General Teaching Councils in England⁵ and Wales⁶ shows some interesting differences. Though the Scottish figures are based on slightly different five year age groupings (eg 26-30 whereas England and Wales use 25-29), there is a different age balance between the countries in the 2007 figures (Table 4).

Table 4 – comparison between Scotland, England and Wales as at March 2007

Age range	%age of registered teachers (Scotland)	%age of registered teachers (England)	%age of registered teachers (Wales)
Up to 25(S) / Under 25 (E/W)	5.1	3.4	3.1
26-30 (S) / 25-29 (E/W)	9.7	13.7	12.9
31-35 (S) / 30-34 (E/W)	9.0	13.7	13.2
36-40 (S) / 35-39 (E/W)	9.1	11.8	12.5
41-45 (S) / 40-44 (E/W)	10.1	11.1	10.5
46-50 (S) / 45-49 (E/W)	13.5	11.6	10.4
51-55 (S) / 50-54 (E/W)	19.3	15.5	14.6
56-60 (S) / 55-59 (E/W)	16.3	13.9	15.0
61-65 (S) / 60-64 (E/W)	4.9	4.2	6.4
Over 65 (S) / Over 64 (E/W)	3.1	1.0	1.4

This reveals that the age distribution of the profession in England and in Wales is spread much more evenly than that in Scotland, where the proportion of those aged over 45 is much higher (57.1%) than it is in England (46.2%) or in Wales (47.8%).

Gender

The Register would support the contention, commonly recognised worldwide⁷ as causing concern, that teaching continues to be an increasingly feminised profession. Research undertaken for the then Scottish Executive and published in 2005⁸ noted that the proportion of men in the active teaching workforce had declined from 30% in 1994 to one quarter in 2003. Figures from the Register confirm that this trend is continuing, for by 2007 76% of all registered teachers were women.

The domination of primary school teaching by women has been traditional for generations, but there is increasing evidence that the secondary sector is also moving in that direction. Already there is a clear female majority in secondary schools and even in this brief period of measurement the trend is clear: in 2005 40.0% of all registered secondary teachers were men; in 2006 this fell to 39.7%; and in 2007 there was a further fall to 39.3%. Interestingly, there has been a slight growth in the number and proportion of male teachers in primary schools over the period. Though the proportion of men in all primary registrations has risen only from 6.3% in 2005 to 6.7% in 2007, the proportion of provisionally registered male primary teachers, while still small, is significantly higher than that for all registered teachers and is growing slightly: in 2005 10.4% were men and by 2007 this figure had reached 10.9%.

Table 5a Number of all registered teachers by gender and sector

	2005		2006		2007	
	Primary	Secondary	Primary	Secondary	Primary	Secondary
Male	2 291	15 804	2 401	16 047	2 598	16 683
Female	34 055	23 685	34 927	24 332	36 435	25 719

Table 5b Percentage of all registered teachers by gender and sector

	2005		2006		2007	
	Primary	Secondary	Primary	Secondary	Primary	Secondary
Male	6.3	40.0	6.4	39.7	6.7	39.3
Female	93.7	60.0	93.6	60.3	93.3	60.7

Subject specialists

The age profile of subject specialists in Secondary schools suggests that the issue of an ageing profession is more pressing in certain areas than in others⁹. In 2006 the subjects with the highest proportion of active teachers over 50 were Home Economics (51.6%), Geography (44.6%), Chemistry (43.97%), History (43.31%), French (41.96%) and Art (41.38%). However, the biggest issue lies in Learning Support, where the average age of active teachers has reached 50 and 62.6% are aged 50 or over. By contrast, only 2.4% of Learning Support teachers were aged under 30 in 2006, by contrast with Physical Education, with 28.5% and Music with 27.5%. Biology and English also had almost 20% aged under 30.

It also remains true that there is considerable gender stereotyping by subject in Secondary schools. In the 2006 Census, which recorded the gender of those offering specific main subjects, 59.5% of active Secondary school teachers were female. However, certain subjects rely much more heavily on women teachers, as revealed in Table 7.

Table 6 - Proportion of women Secondary teachers by subject 2006

Subject	%age of female teachers
Home Economics	95.3
Learning Support	83.6
Additional Support for Learning (including hearing and visual impairment)	83.0
Business Studies	80.2
Modern Languages (combined figures for individual languages)	79.5
Speech and Drama	76.0
English	71.1
PSE/Guidance	68.4
Music	66.7
Biology	63.1
Art	60.1
Geography	52.5
General Science	52.5
Mathematics	52.3
Religious Education	51.8
Physical Education	50.9
Modern Studies	50.3
History	47.3
Chemistry	47.1
Computing Studies	42.3
Physics	24.3
Technical Education	11.9

While few of these figures are surprising, they illustrate that attempts to interest males in areas traditionally perceived as female domains have, at least in teaching, had little effect, with only marginally greater evidence involvement of females in teaching traditionally male subjects. Only in the Social Subjects, Religious Education, Physical Education and Chemistry is there an approximate balance between male and female teachers, though it is interesting that the proportion of women teaching Computing Studies suggests that computing is less of a male sphere than is often supposed. At the extremes, it is now slightly more common to find women teaching Technical Education than men teaching Home Economics. Female dominance in the various forms of Learning Support is strong and as already noted this is also an area in which nearly two thirds of teachers are aged 50 or over, so the evidence suggests provision of Learning Support is heavily reliant on experienced female teachers. This may imply that in a few years time there will be a particularly acute shortage in this critical area of secondary education, so it may require particular consideration in workforce planning.

Ethnic origins

GTC Scotland holds limited information on the ethnic origins of teachers on the Register, partly because the Council did not begin collecting such data until 1993 and partly because teachers have the right to withhold this information. However, the returns to the Scottish annual census show that the number of teachers from minority ethnic groups remains very low. In the 2006 census, if the category "white - other" is discounted, they accounted for just over 300 out of a total of over 49,000 teachers in publicly funded primary and secondary schools in Scotland¹⁰. There were no figures for people from minority ethnic groups in Head Teacher or Depute Head Teacher posts, though the use of asterisks in some columns to indicate a number less than five indicates that a very small number of people from these communities held such posts.

In view of the press coverage referred to above alleging that Scottish schools are being drowned in an influx of foreign teachers with no understanding of Scottish culture or, in some cases, with

limited ability to communicate in fluent English, an analysis of applications to GTCS for Exceptional Admission to the Register is instructive.

Table 7 - Countries of Origin: Applicants for Exceptional Admission to the Register

Applicant Country	2004-05		2005-06		2006-07	
	Total	%	Total	%	Total	%
Scotland/United Kingdom	11	1.0	6	0.5	28	2.6
England	611	56.2	620	53.3	527	48.0
Wales	34	3.1	27	2.3	19	1.7
Northern Ireland	17	1.6	33	2.8	15	1.4
Republic of Ireland	8	0.7	25	2.1	19	1.7
<i>Total UK and Ireland</i>	681	62.6	711	61.1	608	55.4
Australia	110	10.1	79	6.8	80	7.3
Canada	54	5.0	62	5.3	32	2.9
New Zealand	36	3.3	39	3.4	30	2.7
South Africa	29	2.7	38	3.3	35	3.2
USA	33	3.0	41	3.5	43	4.2
Poland	11	1.0	26	2.2	69	6.3
Germany	11	1.0	12	1.0	5	0.5
Spain	19	1.7	21	1.8	14	1.3
Other Europe	41	3.6	41	3.5	38	3.5
India	14	1.3	18	1.5	18	1.6
Pakistan	8	0.7	6	0.5	6	0.5
Other Asia	4	0.4	11	1.0	10	0.9
Ghana	8	0.7	34	2.9	53	4.8
Zimbabwe	13	1.2	6	0.5	11	1.0
Other Africa	11	1.0	14	1.2	31	2.8
South America	3	0.3	2	0.2	5	0.5
Central America/Caribbean	1	0.1	0	0	7	0.6
Middle East	0	0	2	0.2	2	0.2
All applications	1 087		1 163		1 097	

The table demonstrates that well over half of the “foreign” teachers actually originated within the United Kingdom and Ireland. When the other major English-speaking nations are included, the proportion rises to 86.8% (2004-05), 83.4% (2005-06) and 75.5% (2006-07). Despite the rise in applicants from Ghana and Poland, the figures do not support the proposition that foreign teachers form a significant proportion of recruitment to Scottish schools. Indeed, in partnership with the statistics from the Census for 2006 quoted above they demonstrate that recruitment to teaching in Scotland remains dominated by people who are white, largely Scottish and overwhelmingly British, in origin. Minority ethnic communities remain under-represented in the teaching workforce, especially by comparison with the number of pupils from such communities in some schools. The danger is not that an influx of overseas teachers threatens the transmission of Scottish culture, but rather that the curriculum, often criticised for being too parochial, may continue to be so and to lose opportunities for cultural enrichment without the contribution of a teaching force with a broader experience and perspective.

Reflections

The issues involved in workforce planning and teacher recruitment are very complex. Apart from the basic demographic data on the current age profile of the profession, in total, by sector and by subject in the Secondary sector, there is the need to consider projections of future school population, nationally and at local authority level, as well as the need to factor in an allowance for a pool of supply teachers to cover absence. The last of these is easier said than done in some areas of the country as it has become a common complaint that, even in a time when there are complaints of probationers finding difficulty in obtaining post-Induction positions, many are

reluctant, or unable, to move from the central belt to work in more remote areas. If this is true for full-time posts, the position is likely to be even more challenging in planning for supply cover. Some local authorities have attempted to resolve this issue by taking steps to employ a permanent pool of supply teachers, but there is no guarantee that members of that pool will remain content with such a position should a full-time post become available.

At any time this process is a tricky one to manage, but it becomes much more difficult in a time when there is a demographic bulge in a particular age range, resulting in significant numbers of teachers approaching retirement in a short period of time. In some years, the number of those retiring may be greater than the capacity of teacher education institutions to produce new recruits to the profession, therefore it may be necessary to plan to spread the training of new recruits across more than one year. This would produce a risk that in a specific year there may be more newly qualified teachers than required to fill vacancies, but the alternative would be the inverse, where there would be unfilled vacancies. The planner is therefore in a cleft stick. Whichever solution is followed is likely to provoke adverse publicity.

On the issue of the gender balance in the profession, there is no consensus on whether the continuing and increasing feminisation of teaching should be regarded as concerning. Some have suggested that a scarcity of male role models is damaging to the development of boys, but others have challenged this proposition, concluding that the quality of the teacher is more important than the gender. This will remain an open question and is certainly one worthy of further academic research.

The third key issue in this paper is that of the involvement of minority ethnic communities in teaching. In some Scottish schools there are significant numbers of pupils from minority ethnic communities; yet there appear to be very few teachers from these communities. It would be of great interest to know what barriers might face young people from these communities, especially whose families are second or third generation residents of Scotland, that make teaching less attractive as a career for them. This might form a very revealing theme for researchers.

¹ Stories in the local press in Renfrewshire and Fife have supplemented items in the national press. For example, *Paisley Daily Express*, 14 May 2007 12; *Courier and Advertiser*, 14 June 2007 5.

² See, for example, *Press and Journal*, 11 June 2007 1; *Press and Journal*, 2 July 2007 6.

³ *Scottish Daily Mail*, 23 October 2007 1, 4. The headline read "Foreign teachers swamping Scottish schools".

⁴ *Teachers in Scotland, 2006*, Scottish Executive Statistical Publication, Education Series, Edn/G5/2007/2 (27 March 2007), 2.

⁵ *Profile of the Teaching Profession Annual Digest of Statistics 2006-2007* (2007) London, GTC England.

⁶ *Annual Statistics Digest March 2007* GTC Wales.

⁷ Cathy Wylie, *Trends in feminisation of the teaching profession in OECD countries 1980-1995* (2000) Geneva, International Labour Office; M.T. Siniscalco, *A Statistical Profile of the Teaching Profession* (2002) Geneva, ILO/UNESCO.

⁸ S. Riddell, L. Tett, A. Ducklin, A. Stafford, M. Winterton, C. Burns, J. Ferrie, *Gender Balance of the Teaching Workforce in Publicly Funded Schools in Scotland* (2005) Edinburgh, Scottish Executive Education Department.

⁹ *Teachers in Scotland, 2006*, Scottish Executive Statistical Publication, Education Series, Edn/G5/2007/2 (27 March 2007), 24.

¹⁰ *Teachers in Scotland, 2006*, Scottish Executive Statistical Publication, Education Series, Edn/G5/2007/2 (27 March 2007), 15, 21. Over 1,100 teachers were recorded as "not disclosed/not known".