

Gender and Diversity in the Patent and Trade Mark Professions

Background

The Legal Services Act requires legal regulators to act so far as is reasonably practical in a way which promotes eight regulatory objectives. These objectives are:

- Protecting and promoting the public interest;
- Supporting the principles of the rule of law;
- Improving access to justice;
- Protecting and promoting the interests of consumers;
- Encouraging an independent, strong, diverse and effective legal profession;
- Increasing public understanding of the citizen's legal rights and duties; and
- Promoting and maintaining adherence by authorised persons to the professional principles.

In relation to the encouragement of a diverse legal profession, the Legal Services Board has stated:

*A diverse legal profession is one that reflects and is representative of the full spectrum of the population it serves so as to harness the broadest possible range of talent in the meeting of the regulatory objectives. We consider that for public interest reasons and good business sense as much as for meeting this regulatory objective that the legal industry should reflect the population it serves. At entry, retention and progression we will support approved regulators in ensuring that there are no artificial barriers or discriminatory hurdles to legal careers caused by regulation. We will promote equality and diversity through our regulatory framework and we expect approved regulators to do the same.*¹

With that in mind, the LSB issued statutory guidance² which requires IPReg and the other legal services regulators to gather a comprehensive evidence base about the regulated community. This paper reviews the data obtained by the survey, places the statistics in a wider context and identifies policy conclusions which can be drawn from the data.

Women in the Patent and Trade Mark Professions

The graph below indicates the percentages of women in different categories of attorneys regulated by IPReg. Overall 34.8% of attorneys regulated by IPReg are women. 44.0% of registered trade mark attorneys³ are women. Women account for 28.5% of registered patent attorneys⁴ and 17.4% of attorneys who have both qualifications are women. Dividing the profession another way, 39.8% of

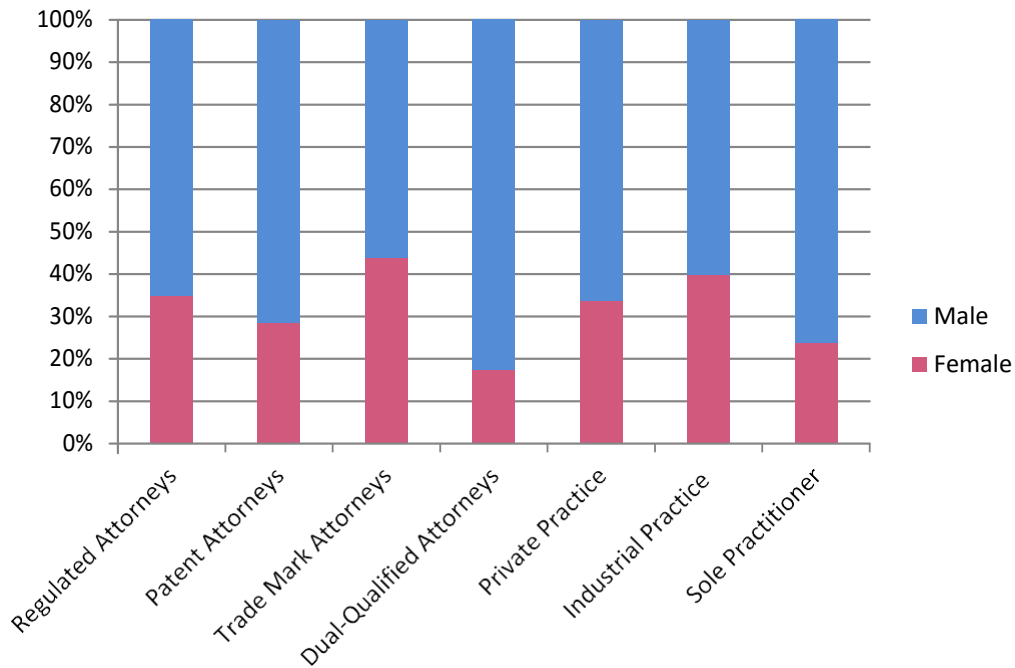
¹ Legal Services Board: The regulatory objectives, paragraph 43

² Legal Services Board: Increasing diversity and social mobility in the legal work force: transparency and evidence

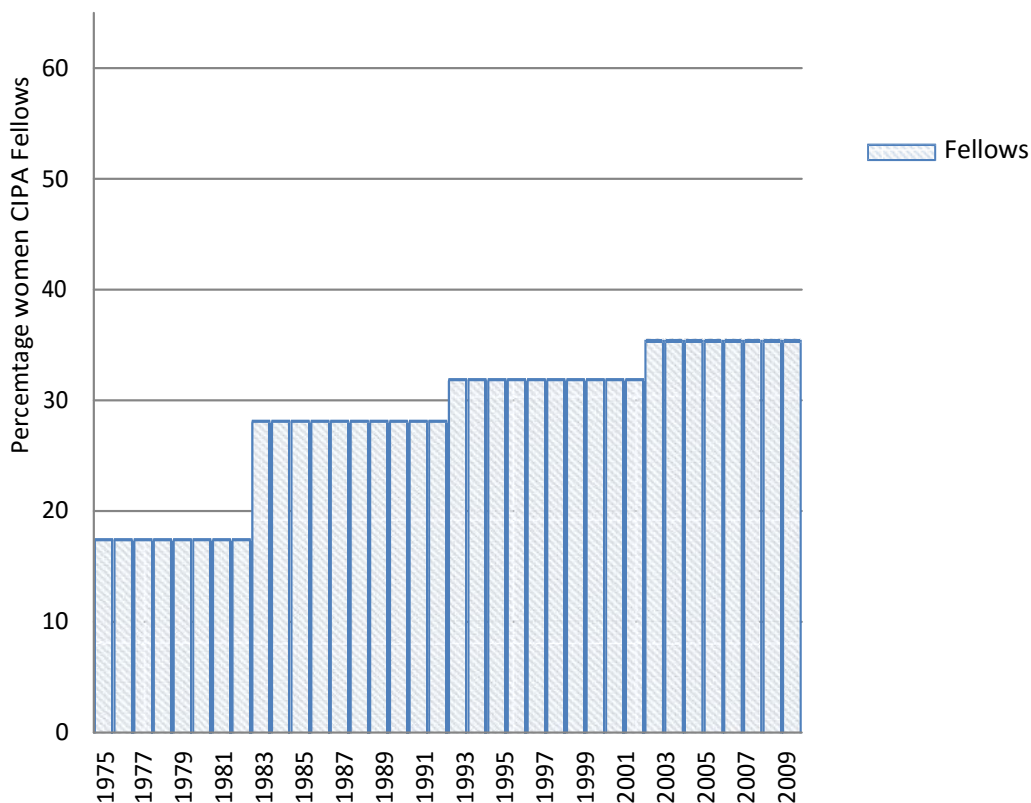
³ Includes dual qualified attorneys. Excluding dual qualified attorneys, 60.6% of Registered Trade Mark Attorneys are women.

⁴ Includes dual qualified attorneys. Excluding dual qualified attorneys, 30.6% of Registered Patent Attorneys are women.

IPReg regulated professionals working in industrial practice are women. This compares with 33.8% of attorneys in private practice and 23.7% of sole practitioners.



Virtually all patent attorneys are science, technology, engineering and medicine (STEM) graduates, and the historical and continuing under-representation of women amongst certain STEM subjects generally correlates with the under-representation of women amongst registered patent attorneys. The overall female proportion of STEM undergraduate students was 32.3% in 2003/4, increasing to 33.2 per cent in 2007/08⁵.



The graph above illustrates the percentage of women CIPA Fellows divided into 10-year cohorts.⁵ Changes in graduation rates and the relatively high numbers of women obtaining biosciences degrees may also be reflected in the different gender profiles for attorneys in private and industrial practice and amongst sole practitioners and dual-qualified attorneys.

More specifically, the slightly higher proportion of women in industrial practice compared with private practice (39.8% vs 33.8%) is probably explained by industrial practices being dominated by the patent attorney practices of pharmaceutical companies⁹ who will predominately recruit bioscience graduates.

Historical differences may also explain the different proportions of women amongst dual-qualified trade mark attorneys who are also qualified as patent attorneys (17.4%) and trade mark attorneys who only hold the trade mark qualification (60.6%). Almost all of the dual-qualified trade mark attorneys are patent attorneys who qualified before 1995 (based on their patent attorney qualification and a declaration that they undertook a substantial amount of trade mark work). Hence the gender balance of dual-qualified trade mark attorneys may reflect the gender balance amongst patent attorneys who qualified prior to 1995.

It is also plausible that historical differences may explain the lower proportion of women amongst the sole practitioners.

Ethnic Background of Patent and Trade Mark Attorneys

79.2% of attorneys identified their ethnic background when registering with IPReg Pro. The following graph illustrates the breakdown of answers given.

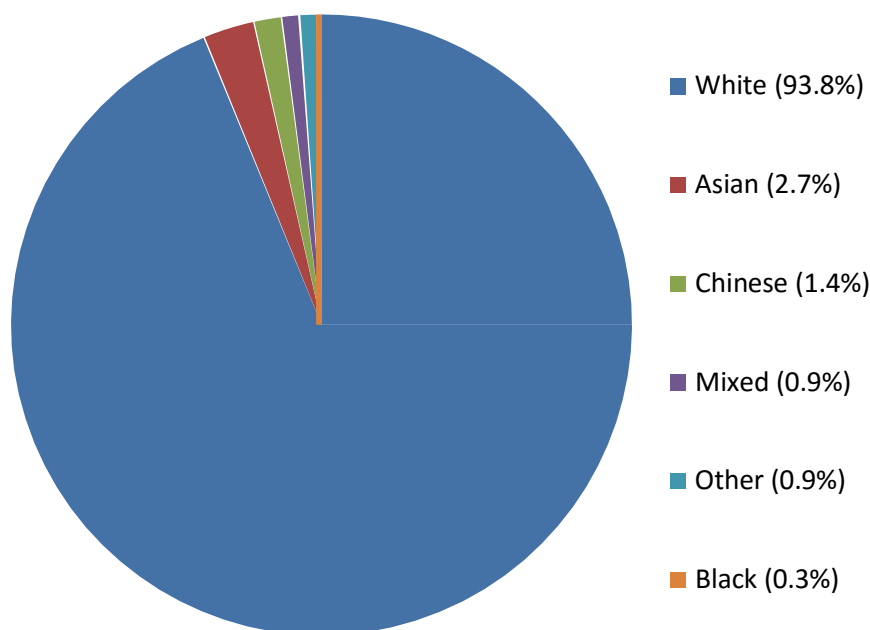
⁵ Data taken from *Women and men in science, engineering and technology: the UK statistics guide 2010*, Kirkup et al, UKRC,

⁶ Age at graduation assumed to be 23.

⁷ As reported in the 2014 PEB Self-Assessment Report. In the reported survey: 48 candidates had physical science degrees, 32 had engineering degrees and 14 had bioscience degrees.

⁸ Although not confirmed this would appear to be suggested by the previous cohort analysis undertaken on behalf of IPReg published as *Recruitment and Diversity in the Patent and Trade Mark Professions* which noted the increase in numbers of biosciences graduates (24% of trainees in 2010-2012 as opposed 14% of attorneys qualifying in 1998-2000) and a relative decline in the numbers of engineering graduates (18% of trainees compared with 33% of attorneys who qualified in 1998-2000).

⁹ The three largest pharmaceutical patent departments - GlaxoSmithKline, AstraZeneca and Pfizer - account for around a quarter of patent attorneys in industrial practice



Given the small numbers involved¹⁰ and incomplete nature of the available data, in particular that 20.1% of attorneys declined to provide ethnicity information, analysis of the ethnicity data IPReg has obtained must be approached with caution.

As can be seen from the above, Asian, Mixed and in particular Black ethnicities are under-represented.

Trainee Patent Attorneys

Some indication of the current recruitment practices in the patent profession is given by considering the student survey undertaken by the Patent Examination Board in 2014.¹¹ In the survey of 82 students, 74 (90.2%) identified themselves as White, 3 (3.6%) identified themselves as Asian, 2 (2.4%) as Chinese, 1 (1.2%) as Black and 2 (2.4%) as Mixed. Despite the very small sample size, the survey is probably reasonably representative of trainee patent attorneys given that all trainee patent attorneys must complete at least two of the Patent Examination Board exams in order to qualify as a registered patent attorney, and taking into account the fact that the sample size is similar to the numbers of trainees qualifying as patent attorneys each year.¹²

It is possible to place these figures in the context of the ethnic make-up of STEM undergraduates in the UK. In 2013/14, 86% of students beginning Physical Sciences degrees in England and Wales were White, with the proportions of Biological Science and Engineering and Technology undergraduates being slightly lower, at 79% and 73% respectively.¹³

¹⁰ IPReg regulates c. 2,700 attorneys

¹¹ Reported in the 2014 PEB Self-Assessment Report, Note 7, *Supra*.

¹² 434 registered patent attorneys qualified between 2010 and 2014 making the average annual qualification rate just under 87 per annum.

¹³ Figures taken from the Higher Education Statistics Agency

Entity Statistics

When issuing their statutory guidance,¹⁴ the LSB pushed strongly for the collection and publication of diversity statistics by individual entities. This was resisted by IPReg on the grounds that none of the entities IPReg regulates is of sufficient size that such statistics would have meaningful statistical relevance and that any publication data beyond broad headcounts for the largest IPReg regulated firms would result in significant data security issues enabling protected characteristics of individuals to be identified.

Analysis of the gender of attorneys at the largest IPReg regulated firms confirms the view that the collection and publication of data at the entity level amongst IPReg regulated firms would be of very limited value and would not justify the regulatory burden that it would impose on such firms.

The following table identifies the total numbers of attorneys, the numbers of patent attorneys and trade mark attorneys and the percentage of women attorneys, patent attorneys and trade mark attorneys at each of the IPReg regulated firms employing 30 or more attorneys in total. The data is derived directly from the names of the attorneys as they appear in the attorney registers.

<u>Firm</u>	<u>Total</u>	<u>RPA</u>	<u>RTMA</u>	<u>Total</u>	<u>RPA</u>	<u>RTMA</u>
Marks & Clerk	91	81	30	29%	19%	40%
HGF Ltd	60	50	15	30%	26%	40%
Dehns	56	50	15	45%	40%	53%
Carpmaels & Ransford	52	50	5	38%	36%	40%
Mewburn Ellis	52	46	9	38%	35%	44%
Withers & Rogers	50	43	9	24%	19%	44%
J A Kemp	48	43	9	25%	23%	44%
Boult Wade Tennant	46	39	10	43%	36%	70%
Mathys & Squire	46	41	8	33%	29%	38%
Murgitroyd & Co.	45	32	15	40%	41%	40%
Kilburn & Strode	41	36	7	39%	39%	43%
D Young & Co	37	32	9	35%	31%	33%
Venner Shipley	35	29	8	31%	24%	50%
Potter Clarkson	34	30	7	26%	23%	43%
Barker Brettell	32	22	13	50%	36%	69%
Haseltine Lake	30	26	5	37%	35%	40%
Reddie & Grose	30	29	9	23%	21%	44%

In the case of the above 17 firms, 34.3% of attorneys were identified as being women, with 29.5% of the registered patent attorneys being women and 45.9% of the registered trade mark attorneys being women. These figures closely correspond with the figures obtained from the IPReg survey for the profession as a whole.

¹⁴ Note 2 *Supra*.

The percentage of women attorneys in the above firms ranges from 23% in the case of Reddie and Grose to 50% in the case of Barker Brettell. These are two of the smaller firms in the sample, and these percentages may merely indicate the increased variation which would be expected in smaller sample sizes.

Conclusions

The survey undertaken by IPReg provides a baseline for future analysis of the Patent and Trade Mark professions. The above analysis, however, demonstrates the limitations of further statistical analysis and the importance of considering the context in which recruitment into the professions occurs.

In the case of the under-representation of women in the patent profession, this is consistent with the historically low levels of women STEM graduates. As the proportion of women STEM graduates has increased, so has the proportion of women qualifying as patent attorneys.

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