Russell Jones
BSc, DipEd, BEd(Hons), PhD, is Director of Assessment, The Royal Australian College of General Practitioners, and Professor, Centre for Medical and Health Science Education, Monash University, Victoria. russell.jones@racgp.org.au

Morton Rawlin
BMed, BMedSci, FRACGP, FACRRM, is Vice President, and Past Director of Educational Services, The Royal Australian College of General Practitioners, Victoria.

Kaye Atkinson
BMed(Hons), FRACGP, FACRRM, MFM, is a general practitioner, Melbourne, and member, The Royal Australian College of General Practitioners National Standing Committee on Education, Victoria.

Lessons from the past

Historical trends in the RACGP examination

Assessment within any medical specialty college is often an area that elicits deep feelings within the medical community. The speciality of general practice is no exception, and there are a number of deeply held and widespread beliefs about The Royal Australian College of General Practitioners (RACGP) Fellowship examination. This article seeks to publish historical data from past RACGP Fellowship examinations. It is anticipated that readers with an interest in past, present and future trends will find this information useful, and it is intended that the information contained in the article will be used to inform the many debates which focus on the RACGP Fellowship examination.

The Royal Australian College of General Practitioners (RACGP) examination has been the major route to Fellowship of the RACGP for 50 years. Over that time the examination has changed in detail, but not in the delivery of, best assessment practice.[1] Assessment within any medical specialty college is often an area that elicits deep feelings within the medical community. The speciality of general practice is no exception, and there are a number of deeply held and widespread beliefs about the RACGP Fellowship examination. Such beliefs are often contradictory yet held with equal passion by their proponents. They include, for example, that the Fellowship examination:

- **is too easy, or too difficult**
- **becoming easier over time, or becoming more difficult over time**
- **has a pass mark determined by a hypothetical pass rate, or has a pass rate determined by a pass mark.**

Informed discussion is invaluable for the ongoing evolution of an assessment program and therefore it is important that those involved in the discussion are informed.

We present historical data from past Fellowship examinations that the reader can use to learn more about the RACGP Fellowship examination. This may assist the reader in making their own judgments, and may aid the debates that focus on the RACGP Fellowship Assessment Program. Specifically this article considers information on:

- enrolment trends
- international medical graduates (IMGs)
- standard setting scores
- pass marks
- pass rates
- resitting candidates, and
- the capacity of general practice to be served by a gold standard assessment process.

Sources of data

Data used in the preparation of this article are the historical data located within the Assessment Department of the RACGP. The specific data used relate to:

Jan Radford
MBBS, FRACGP, MPM, is Censor in Chief, The Royal Australian College of General Practitioners, Tasmania.

Leon Au
BA, BSc(Hons), MSc, PhD, is a statistician – Assessment, The Royal Australian College of General Practitioners, Victoria.

Dene Egglestone
BSc, MBChB, DipSportsMed(Lond), MGP, FRNZCGP, FRACGP, is Medical Educator – Assessment, The Royal Australian College of General Practitioners, Victoria.

- the number of Fellowship examination candidates enrolled in the examination within either practice eligible or training route
- the number of Australian graduate (AG) and IMG candidates enrolled in the examination in total and by gender
- the standard set scores established by practising general practitioners for each examination segment
- the pass mark
- the pass rate, and
- the number of candidates enrolled at the 2008.1 examination by venue.

Enrolment trends

The number of candidates enrolling within each examination between 2002–2008 is shown in *Figure 1*.

The Fellowship examination is held twice per year. *Figure 1* reveals that over 7 years the number of candidates applying to sit the examination has varied between 410–491. Application for the examination is via either the training route or practice eligible route. Since 2003 the number of training route candidates has generally exceeded the number of practice eligible candidates. Whereas the number of practice eligible candidates has remained fairly constant during this period the number of training route candidates has been rising since 2006 (*Figure 1*). As a consequence of the Australian Federal Government initiative to increase the number of places for medical school students,[2] once these students begin to graduate, it is anticipated that many will enter into training for general practice. Statistical modelling readily shows that this will result in significant increases to the number of training route candidates and consequently the total number of candidates applying for any given examination.

IMGs and gender

International medical graduates represent a significant proportion of the GP population within Australia (*Figure 2*).[3] Since 2003 there has been significantly greater numbers of IMGs sitting the examination than AGs.

Within Australian medical specialities, there are typically more women than men entering medical training programs and subsequently into the medical workforce.[4] However, fewer women than men have registered for the RACGP examination in recent years (*Figure 3*).

A comparison of the first two columns within each examination reveals that overall the number of female AGs applying for the examination exceeds the number of male AGs. The explanation for the greater number of male than female candidates in total is as a consequence of the considerably larger numbers of male IMGs compared to female IMGs.

Figure 1. Number of candidates within each training route

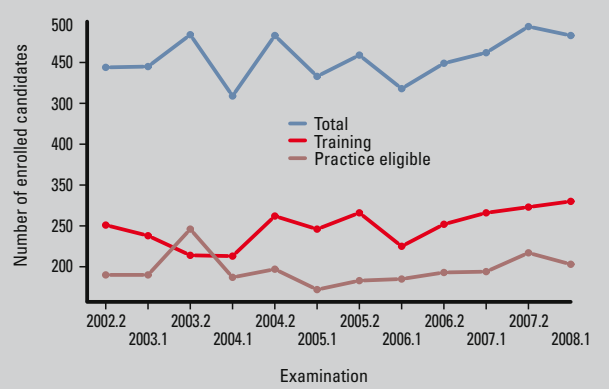
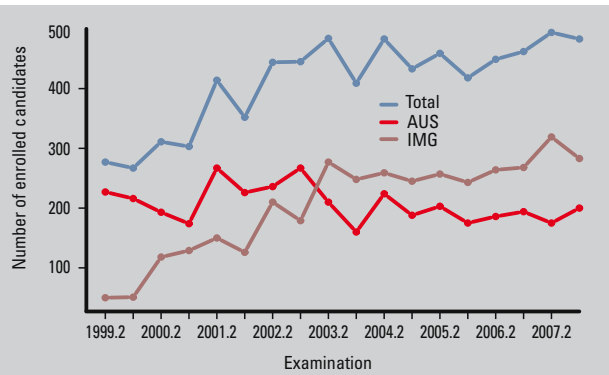


Figure 2. Number of IMG and Australian candidates



Determining the pass mark via standard setting

The Fellowship examination is criterion referenced rather than norm referenced. Furthermore, no statistical analyses are undertaken to adjust the results from one examination through a comparison of results with any other examination. An often misunderstood aspect of the examination process is the methodology of standard setting. The pass mark for each examination segment is set using the combined judgment of a panel of experienced GPs who are also examiners. The examination is comprised of three segments: an applied knowledge test (AKT), key feature problems (KFP) and objective structured clinical examination (OSCE). The GPs whose judgments determine the cut score for each segment are called 'standard setters'. Standard setters establish the cut score for each segment and provide this judgment independent of other segments.

Figure 4 reports the score determined by standard setters for each examination segment since 1999. Variations in scores between examinations are a consequence of the perceived difficulty of each

examination by the standard setters. The standards set for the most recent AKT and OSCE fall in the lower portion of these ranges over the past 9 years.

Pass mark and pass rate

Concern is occasionally raised over whether the pass marks or the pass rates are rising or falling. Often such trends are inappropriately considered to be indicative of rising or falling standards. However, as explained in the previous section, standards are established via the standard setting process and although the cut score, by definition, influences the pass mark and the pass rate, neither the pass mark or pass rate are used to adjust the cut score or the standard set by the GPs whose judgments determine the standards.

Figure 5 shows the trend of the pass mark and pass rate since 1999. When the maximum and minimum value for each of these marks is considered, it readily becomes apparent that for the most recent examination in 2008.1, these marks fall within the middle of these ranges. This indicates there is no clear upward or downward trend in either pass mark or pass rate.

It is worth noting that the pass rate fluctuates more than the pass mark. This would be expected because of the variation in the ability level of each cohort of candidates and, to a lesser extent, the variation in the standards set by the standard setters within general practice.

Venue and route

Figure 6 reports the number of candidates enrolled by examination venue and route. This data reveals some interesting findings. As might be expected, Sydney and Melbourne receive the highest number of enrolments compared to other states, containing the most eligible candidates. Southern Queensland (Brisbane) and Northern Queensland (Townsville) combined also have a large number of candidates again as a result of the number of qualified candidates in the state. Interestingly, there are more training route than practice eligible candidates from each of these three states. Conversely the Australian Capital Territory, Northern Territory, Tasmania and Western Australia all have larger numbers of practice eligible than training route candidates.

Figure 3. Number of IMG and Australian enrolments by gender

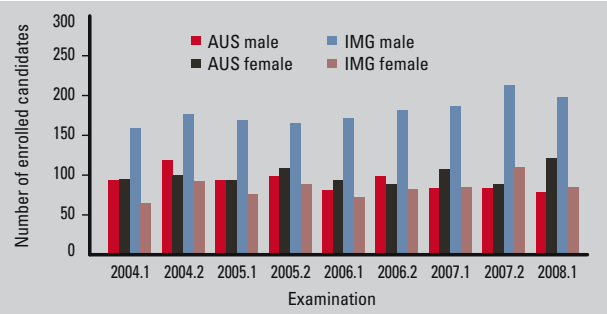


Figure 4. Standard setting score for each segment

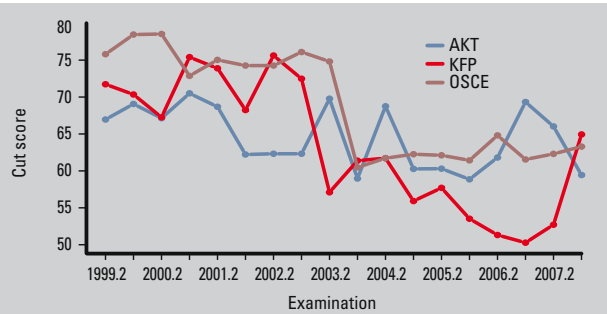


Figure 5. Pass mark and rate over time

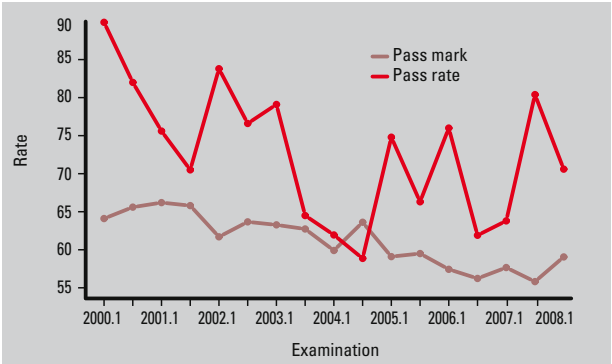
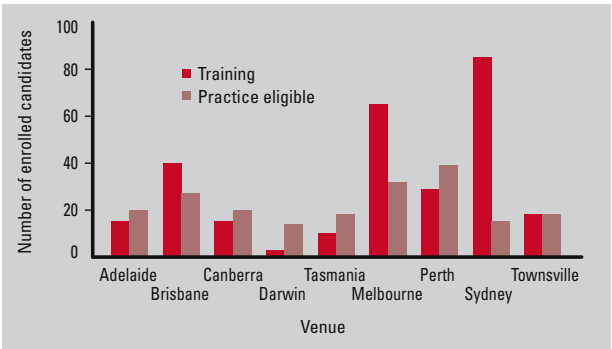


Figure 6. Number of candidates enrolled by venue and route



Conclusion

Assessment within the speciality of general practice will continue to grow in importance as general practice continues to evolve and as candidate numbers continue to grow. The RACGP Fellowship examination continues to demonstrate reliability and validity and remains a valuable mechanism for assessing the readiness of potential GPs for independent practice.

Conflict of interest: none declared.

References

1. Hays RB, Fabb WE, van der Vleuten CPM. Reliability of the Fellowship examination of The Royal Australian College of General Practitioners. Teach Learn Med 1995;7:43–50.
2. Joyce CM, McNeil JJ, Stoelwinder JJ. More doctors, but not enough: Australian medical workforce supply 2001–2012. Med J Aust 2006;184:441–6.
3. Birrell J. Australian policy on overseas-trained doctors. Med J Aust 2004;181:635–9.
4. Calder R. Medical Training Review Panel 11th report. Canberra: Commonwealth of Australia, 2007; pp. 86.

AFP CORRESPONDENCE afp@racgp.org.au