

Skewed selection needs rethink

Back in 1961 the Universities' Central Council on Admissions was a brilliant idea. Instead of applications to dozens of universities, a single form sufficed for a maximum of six applications per candidate. Universities were happy (fewer applications/less administration) as were applicants (just one application). In the 1990s, after the development in the 1980s of PCAS for the polytechnics, and its merger with UCCA to form UCAS (Universities and Colleges Application Scheme), it is time for change. In 1994 the UCAS system creaks audibly. UCAS fails to live up to its own mission, at least as far as engaging in research is concerned, particularly with respect to ensuring that it does "provide applicants with equal opportunities".

Since 1980 we have been researching the selection of medical students. Our first two surveys, of 1981 and 1986 applicants to St Mary's medical school, London provided the first statistically sound evidence that ethnic minority applicants fared less well than equivalently qualified white applicants.

Our most recent study of 5,553 applicants for admission in 1991 (70 per cent of all home applicants for medicine), published tomorrow in the *British Medical Journal*, was carried out jointly with the medical schools of University College London, United Medical and Dental Schools, and the Universities of Sheffield and Newcastle-upon-Tyne. Although designed to study the problems of ethnic minority applicants, it has produced disturbing results concerning the fairness of the system for all candidates. We

conclude that the selection process needs to be rethought.

First, there is a need for anonymous application forms. Applicants from ethnic minorities were 46 per cent (1.46 times) less likely to be accepted than white applicants with equivalent grades. There were no differences between ethnic groups. The best predictor of success was not ethnic origin *per se* but not having a non-European surname. Since surnames are arbitrary labels, the implication is that surnames identify applicants from ethnic minorities who are then discriminated against. One solution would be to anonymise forms before they are forwarded to universities, with names only being provided by UCAS at the interview stage.

Our latest survey studied the process of application and selection. Most of the applicants in our study were taking A-levels. Pre-A-level applicants take GCSEs, and on the basis of these the referee and teachers predict A-level grades; this information, together with other data, is used by universities to make offers. Applicants subsequently obtain A-level grades, and on the basis of these they obtain an acceptance, either through a conditional offer, or through continuing application or clearing. Any of these processes could differ between white and non-white applicants. Our statistical analysis shows that the first, and probably key difference, is the way in which A-level predictions affect offers; white applicants with equivalent estimated grades are more likely to be accepted than non-whites. Additionally non-white applicants are

The universities' admissions system is unfair and must be changed say Chris McManus and Peter Richards

less likely to be accepted through clearing and other procedures.

Seventy two per cent of medical school applicants in our surveys are now applying to UCAS before taking A-levels compared with the 63 per cent of 1981. Instead of depending on the reliable criterion of actual A-level grades, selection depends mainly on the baser currency of estimated A-level grades, with their potential for discrimination: This is not to say that referees are not trying to give a fair appraisal of each candidate, although some will be tempted to call their geese swans. However A-level estimates are not particularly accurate, and it does not make sense for them to be used in preference to exam results.

The problem of flawed estimates, along with the mad August rush after A-level results are announced, would be abolished if UCAS applications were restricted to candidates who had taken their exams. This would mean either changing the timing of school-leaving exams or of university selection, or streamlining the process with the aid of information technology.

Medicine has long had a "Catch-22" for applicants. If candidates made one university application for a subject other than medicine as an insurance choice, it was sometimes assumed that they were not fully committed to medicine. In 1990 the deans of United Kingdom medical schools tried to dispel that theory,

saying that, "in future medical schools should adopt a policy of 'no detriment' to candidates who list one non-medical choice on their UCCA forms".

In fact, neither teachers nor applicants believed the deans, and in 1991 only 8.2 per cent of applicants made an insurance choice compared with 7.1 per cent in 1986.

But what of the brave applicants who did put one insurance choice? Simple arithmetic dictates that they inevitably had a 25 per cent (1.25 times) greater chance of being rejected since they made fewer applications. In fact the outcome was worse: an equivalently qualified candidate making an insurance choice was 3.19 times more likely to be rejected.

More generally, candidates can be disadvantaged if individual universities know which other universities and courses applicants have applied for. The implication is that universities should only be told about the application to their own course, and not to others.

The UCAS system has now been changed to allow eight choices, with applicants being "advised" to make no more than five applications for medicine, and to use the remaining three as insurance choices. However, our preliminary analyses indicate that among candidates making five medical choices, only 41 per cent receive offers if they also make insurance choices, compared with

57 per cent of those who do not make insurance choices. Also, about 8 per cent of candidates put more than five choices, and those who put six medical choices along with insurance choices receive more offers than those putting just five medical plus insurance choices. Again it would seem that despite assertions that insurance choices are "without prejudice", the "commitment to medicine" of those making such choices was still doubted by some selectors — at least in 1991.

AS levels were introduced to broaden the curriculum. Of our applicants only 19 per cent took AS levels, and 83 per cent of them took just one. More worryingly there was no evidence that those taking an AS level along with three A levels did better at selection than those taking three A levels. In contrast the number of A levels taken is a clear predictor of success. The implication is that this additional qualification was ignored by selectors. In so far as candidates may have diverted time from A-level subjects to the AS level they were potentially disadvantaged by taking an AS level.

UCAS applications are received from September until December 15, with Oxbridge applications having to be received by October 15. The UCCA handbook for 1991 said "It is in the best interest of all candidates to apply before December 15". The implication is that all applications meeting that advice are treated equivalently. However they are not. In our 1981 survey, our 1986 survey and again in 1991 we found that applicants applying earlier fared far better in selection. In

part this is because better qualified applicants apply earlier, but our analyses show that equivalently qualified applicants are 3.4 times more likely to be accepted if they apply on October 1 rather than December 15. The reason is obvious. UCAS forwards applications on receipt, medical schools read them, interview candidates and make offers, all long before December 15; so that by UCAS's closing date, many or even most places have been filled. Again a ready solution exists — UCAS should forward all applications to the universities after its closing date.

Our empirical studies of medical student selection have suggested a number of desirable procedural changes in the UCAS application process. Briefly, application would be fairer if forms were anonymous, if the role of qualifying examination estimates was removed by post-qualification application and if universities were not aware of other applications on the form.

Finally, there should be a shorter application and selection period and acceptance of offers should be time-limited and binding. UCAS's mission in research should be extended to include initiating research, providing a service to universities by anticipating change and using its statistical resources proactively for applicants to ensure that selection is as fair as possible.

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