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Ask NUS Economists

University admissions not solely about grades: Some surprise results

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Q How will aptitude-based admissions affect the types of students enrolled in Singapore's universities?

A In a bid to shift emphasis away from academic grades, the two largest local universities – National University of Singapore (NUS) and Nanyang Technological University – announced last year that more students would be admitted through aptitude-based admissions.

Instead of assessing them based solely on grades, consideration will be given as well to other merits and achievements, including their demonstrated ability and interest in the course, work experience, leadership, community service and other exceptional talents.

Broader criteria are already used in the admissions processes of the four other autonomous universities – Singapore Institute of Technology, Singapore Management University, Singapore University of Social Sciences and Singapore University of Technology and Design.

The then-Minister of Education Ong Ye Kung had explained that the expansion of aptitude-based admissions was necessary to ensure more porosity across pathways. "Our admissions system needs to rely less on academic grades and more on other meritorious yardsticks, so that the full range of an individual's aptitude and attributes can be taken into account," he said in January last year.

What implications will the shift towards aptitude-based admissions have for the composition of students?

Such admissions recognise the non-academic skills and talents of students, such as leadership and teamwork. It is reasonable to expect that students admitted through this process possess more such non-cognitive skills and abilities, which are highly rewarded in the labour market.

But is this borne out by the data? At the same time, because students entering through aptitude-based admissions typically fall short of the usual academic cut-off requirements for university entry, are they are able to keep up with their peers academically?



Students at Nanyang Technological University which, like the National University of Singapore, will admit more students through aptitude-based admissions. A study shows that such admissions policies can allow educational institutions to better identify those who could be more successful in the labour market. ST PHOTO: NG SOR LUAN

THE DISCRETIONARY ADMISSIONS SCHEME

To study this, we used merged administrative student records and employment survey data of recent graduates from NUS. Traditionally, admission to NUS was primarily based on academic performance.

However, since 2004, NUS has also set aside a certain share of places each year for aptitude-based admissions.

Through this scheme, formerly known as "Discretionary

Admissions" (DA), applicants who do not meet the usual academic cut-off requirements may be able to gain admission, if they can demonstrate to the selection committee that they possess certain exceptional traits or achievements, subject to a minimum level of academic competence.

In practice, the latter clause implies that students admitted through DA are those who missed the academic threshold requirement narrowly for regular admission.

We find that, despite entering with lower pre-university grades, DA students were comparable to students from the bottom IOth percentile of regular admission in terms of grades, and were, in fact, more likely to graduate with an honours degree and be enrolled in a minor or second major programme.

To evaluate whether selection based on non-academic attributes makes a difference in the types of students enrolled, we compared students who were admitted through the DA scheme – who narrowly missed the academic cut-off requirement but who were able to demonstrate exceptional non-cognitive skills or talents – to regular admissions.

We focused on the regular admission students in the bottom 10th percentile of incoming academic performance – who marginally made it through regular admission – since this would be the group most similar to the students entering through the DA scheme in terms of incoming academic abilities.

We examined several outcomes of interest, including university academic performance, the likelihood of graduating with an honours degree, and the likelihood of participating in optional college activities, as well as short-term labour market outcomes such as earnings and employability six months after graduation.

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DA students were also more likely to participate in optional university activities such as residential college life and outbound programmes than the majority of regular admission students.

More interestingly, we found that DA students outperformed the bottom 10th percentile of regular admission students in the labour market six months after graduation.

They received starting salaries about 3 per cent higher, were 3 percentage points more likely to secure a full-time permanent job, and were 4 percentage points more likely to report working in a job related to their field of study.

Although these findings were based on NUS' experience, they suggest that admissions policies which focus on a holistic evaluation of students' abilities can allow educational institutions to better identify and select individuals who would be more successful in the labour market and contribute to the diversity of student experiences in university.

It also suggests that aptitude-based admissions potentially rewards individuals who may be somewhat weaker academically but who may possess desirable non-cognitive skills, by allowing them a chance to acquire a university education.

Had academic performance been the sole yardstick for admission, they may well have been denied the opportunity to study in their university of choice.

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These are their personal views and do not represent those of NUS.

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