

Students from Normal (Tech) do as well in job market as peers

Study finds they are more likely than Normal (Academic) peers to get higher qualification

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Students from the Normal (Technical) stream fared the same as their peers from the Normal (Academic) track in the labour market, with little difference in employment, earnings or wealth accumulation outcomes, a long-running cohort study has found.

The joint study by a former Ministry of Trade and Industry (MTI) economist and an NUS academic also showed that N(T) students were more likely than N(A) students to complete secondary school and attain a post-secondary qualification.

The study was published on May 22 as part of MTI's quarterly economic survey report.

It tracked between 17,000 and 21,600 students who sat the PSLE from 1993 to 1997, the years when the N(A) and N(T) courses were first offered. Among other things, it looked at their annual income data for 2015, when they were between 30 and 34 years old.

The findings challenge common perceptions about disparities between educational courses, and show that choosing a course based solely on perceived benefits might lead to adverse individual outcomes in some instances, said researchers.

For the study, researchers compared the outcomes of students whose PSLE scores were just below the cut-off for the N(A) stream with those of students who scored above the threshold and therefore could choose between N(A) and N(T). For instance, researchers included in their study students who took their PSLE in 1993 and 1994

and scored below 149, thus qualifying for the N(T) stream, as well as students who scored between 150 and 159, who could choose between N(T) or N(A).

The key assumption in this approach was that students in both groups had similar individual abilities.

The study, conducted by Dr Siddharth George, assistant professor of economics at the National University of Singapore (NUS), and Ms Afiqah Suhaiemi, former lead economist at MTI, controlled for other variables such as gender, race, household income and age at time of the PSLE exam.

It found that students who just missed the N(A) cut-off and enrolled in N(T) were 3.2 percentage points more likely to complete secondary school.

Given the baseline dropout rate of 7 per cent, this meant the N(T) course nearly halved the proportion of students that did not complete primary school – a significant achievement consistent with the course's policy goals, said researchers.

These students were also 7.6 percentage points more likely to attain a post-secondary qualification, typically an ITE certificate or Higher Nitec, compared with students who chose the N(A) stream.

N(T) students were as likely as their N(A) peers to earn a diploma, but they were 3.1 percentage points less likely to obtain a bachelor's degree from a publicly funded university.

"This suggests that while the N(T) course was effective in preventing adverse educational outcomes, it may have simultaneously reduced the likelihood of achieving

the highest levels of academic qualification," said Dr George.

Overall, the N(T) track helped students reach a higher minimum level of education and reduced the risks of negative outcomes like dropping out or leaving school without any post-secondary qualification, the study found.

Labour market outcomes studied included employment and earnings, as well as Central Provident Fund Special Account balances as a proxy for wealth accumulation. N(T) and N(A) students on average performed similarly, suggesting that either secondary school track had limited influence on longer-term labour market outcomes.

"N(T) students were less likely to have low earnings than N(A) students, perhaps reflecting the lower odds of dropping out, but also less likely to have very high earnings, perhaps reflecting the lower odds of acquiring a university degree," said Dr George.

Streaming, first introduced in 1981, grouped students into Normal, Express and Special courses, and was criticised by some for reinforcing stigma. In 1994, the Normal course was split into N(A) and N(T), the latter catering to students more inclined towards vocational subjects.

The Ministry of Education (MOE) began replacing this system in 2020 with full subject-based banding (SBB), which was fully implemented in 2024. Under SBB, students are placed in mixed form classes and take subjects at three levels – G1, G2 and G3 – based on their strengths.

MOE said the study's findings – that it is more important for students to choose an academic programme or subject level suited to their strengths, interests and learning needs – support its full SBB policy.



Mr Anders Tan, who was from the Normal (Technical) stream, attended ITE, Nanyang Polytechnic and Singapore Management University. PHOTO: INCLUS



Former Normal (Academic) stream student Anil Raj, seen here with his mother, Ms Kanti Devi, earned a diploma in engineering design with business from Republic Polytechnic in 2025. PHOTO: REPUBLIC POLYTECHNIC

"We believe that such an approach will enable our students to maximise their full potential by providing them with multiple pathways to success to achieve better educational and life outcomes," said an MOE spokesman.

NUS Associate Professor of Sociology and Anthropology Vincent Chua said the parity in outcomes can also be attributed to "good matching" and "front-loading" of skills.

"Students with strengths in hands-on, technical work are selected into courses that play to their strengths, keeping them engaged, helping them finish school, and setting them up for better outcomes afterwards," he said.

He added that the N(T) track equips students with practical skills and work experience early, making them competitive when they enter the job market.

But stigma has not disappeared, with society still viewing technical workers through a biased lens because these workers lack academic qualifications, he noted.

Additionally, academic pathways may also lead to broader alumni networks and access to exclusive leadership programmes, while

some firms still use academic credentials to screen for promotion bands, even when skills are similar, added Prof Chua.

Students who were from courses under the old streaming system told ST that, in hindsight, their stream mattered less than finding the best fit for them to learn and grow.

For Mr Anil Raj, dropping into the N(A) stream from Express in 1999 was less about the loss of career prospects than finding his own rhythm. He knew completing his O levels was always part of the plan, and just a matter of when.

Mr Raj completed his O levels in 2003, before enrolling in polytechnic the following year. He dropped out in 2005, served national service, and began working in 2007.

Over the next 12 years, he tried his hand at food and beverage, banking, sales and travel, gravitating towards roles in which he could work with his hands and see the results of his effort.

"(This journey) really led me to discover my strengths and weaknesses, what I like doing and what really motivates and drives me," said Mr Raj, now 40.

He earned a diploma in engineering design with business from Republic Polytechnic in 2025, and is now preparing to start a bachelor's degree in mechanical engineering at the Singapore Institute of Technology.

One of his counterparts from the N(T) stream, 40-year-old Anders Tan, took a different but equally circuitous path.

After his N levels, he progressed through ITE, Nanyang Polytechnic and eventually Singapore Management University, where he graduated at 28 with a degree in information systems management.

But he remembered what it felt like starting out. "Back then... I thought that I would end up sweeping the floor (as a job). That was really the mentality," he said, adding that it was unclear how his education journey would lead to a good career.

Today, he is the founder of Inclus, a social enterprise that helps people with disabilities transition into the workforce.

Both men said students should not feel pressured to rush their learning. "If you need a longer time to learn, then let it be," said Mr Tan.

Mr Raj said: "Comparison is the thief of joy. Know your own strengths and appreciate them."

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