

Which Fields of Study Have Higher Proportion of Males/ Females?

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Introduction

Over the years, residents in Singapore have made significant progress in education. In 2020, the proportion of residents aged 45 years and over with a polytechnic diploma or university qualification was 30.0 per cent for males and 18.9 per cent for females, up from 9.3 per cent and 3.1 per cent in 2000 respectively. Among those aged 25-34 years in 2020, the proportion was closer at 70.1 per cent for males and 73.8 percent for females.

With more residents obtaining polytechnic diplomas and university qualifications, do the fields of study with a larger proportion of males or females in 2000 continue to be so in 2020? How has the distribution by sex within the fields of study changed over the same period?

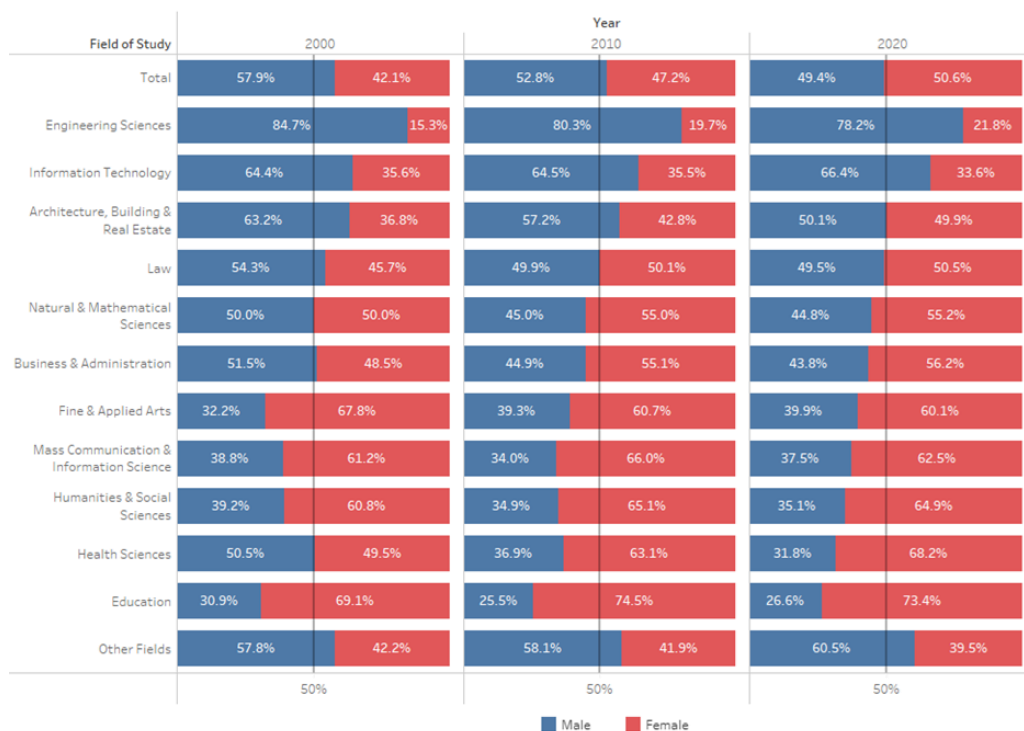
This article examines these questions using data on residents aged 25 years and over with a polytechnic diploma or university qualification¹ from the Censuses of Population 2000, 2010 and 2020. Residents comprise both Singapore citizens and permanent residents.

Sex Distribution by Field of Study

Engineering Sciences and Education Remained the Top Fields of Study with More Male and More Female University Graduates Respectively

In 2020, there were as many female university graduates as their male counterparts. This was unlike two decades ago when males outnumbered females (Chart 1). The distributions have also become

CHART 1
RESIDENT UNIVERSITY GRADUATES AGED 25 YEARS AND OVER
BY FIELD OF STUDY AND SEX, 2000, 2010 AND 2020



Note: Figures may not add up to 100 per cent due to rounding.

¹ Data exclude those who were attending educational institutions as full-time students. Those who were upgrading their qualifications through part-time courses are included.

less equal within more fields of study over the years, with females outnumbering males in more than half of the fields of study since 2010.

Education has consistently been the field of study with the largest proportion of female graduates. From 69.1 per cent in 2000, the share of female graduates in this field of study increased to close to 75 per cent in 2010 and 2020. Health Sciences, which had an equal proportion of males and females in 2000, saw a sizeable increase for females over the last two decades, with close to 7 in 10 being females in 2020.

Fine & Applied Arts, Mass Communication & Information Science and Humanities & Social Sciences continued to have a larger share of female graduates since 2000. While there continued to be more females in Fine & Applied Arts, the proportion had declined from 67.8 per cent in 2000 to 60.1 per cent in 2020.

Engineering Sciences remained the field of study with the largest proportion of male university graduates. In 2020, close to 8 in 10 university graduates in Engineering Sciences were males. Despite the increase in the proportions of females for most fields of study, the share of male university graduates in Information Technology continued to increase from 64.4 per cent

in 2000 to 66.4 per cent in 2020. This field of study had the second highest proportion of male graduates.

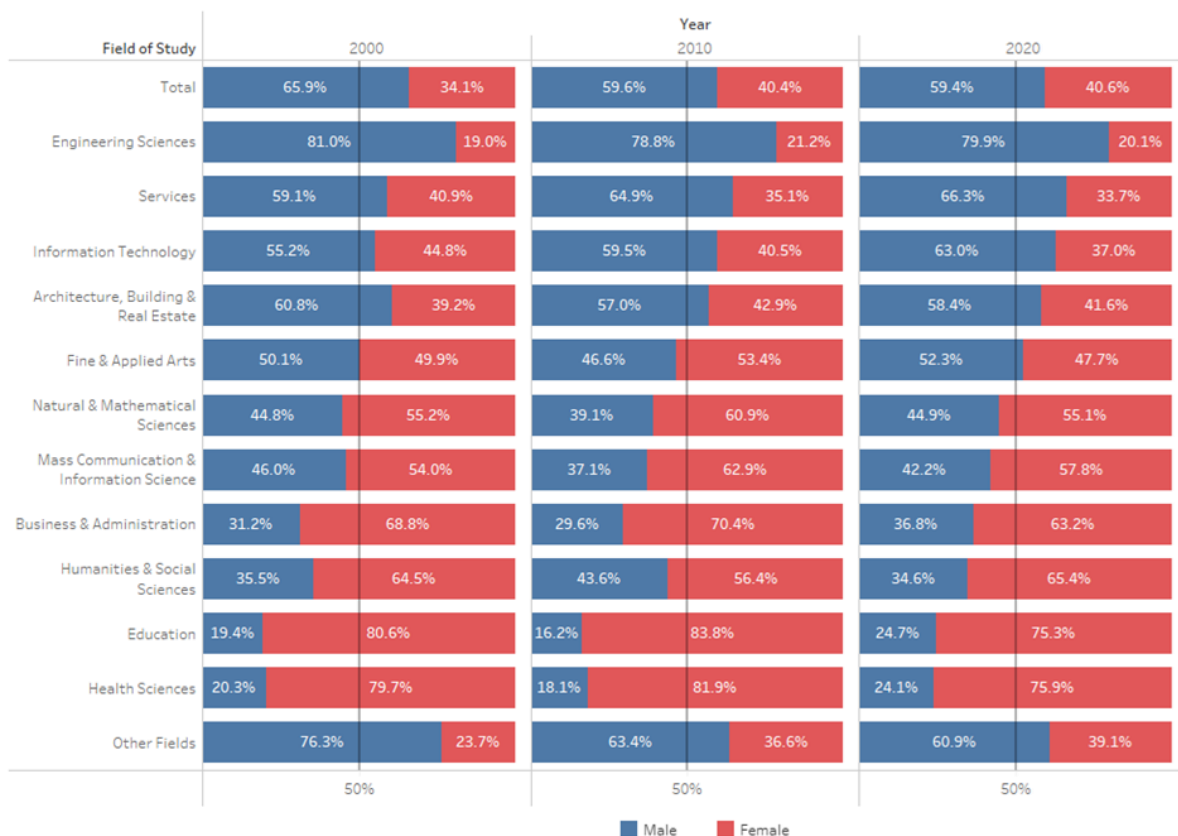
Architecture, Building & Real Estate as well as Law saw an equal split between the sexes among university graduates in 2020. For the former, less than 4 in 10 of the university graduates in this field of study were females two decades ago.

Health Sciences and Education Had Highest Share of Females While Engineering Sciences Had Highest Share of Males among Polytechnic Diploma Graduates Since 2000

Similar to university graduates, the proportion of females among polytechnic diploma graduates also rose compared to 2000. However, unlike university graduates, the proportion of males remained higher than that of females, although it had declined from 65.9 per cent in 2000 to 59.4 per cent in 2020 (Chart 2).

Health Sciences and Education remained the fields of study with the highest proportions of females among polytechnic diploma graduates with more than 7 in 10 being females, despite slight declines in the proportions over the past two decades.

CHART 2
RESIDENT POLYTECHNIC DIPLOMA GRADUATES AGED 25 YEARS AND OVER
BY FIELD OF STUDY AND SEX, 2000, 2010 AND 2020



Note: Figures may not add up to 100 per cent due to rounding.

Similarly for Business & Administration, which traditionally had more females, the share of females declined from 68.8 per cent in 2000 to 63.2 per cent in 2020.

Approximately 8 in 10 polytechnic diploma graduates in Engineering Sciences were males in 2020, making it the field of study with the highest proportion of males. This stayed unchanged since 2000. Male polytechnic graduates continued to outnumber females in fields such as Services, Information Technology, as well as Architecture, Building & Real Estate in 2020. While the proportion of males in Architecture, Building & Real Estate had declined slightly over the two decades, the other two fields of study observed increases.

Sex Distribution by Field of Study and Age Group

Among University Graduates in 2020, Education Had Higher Proportion of Females among Younger Age Groups, Whereas Engineering Sciences Had Higher Proportion of Males among Older Age Groups

For university graduates, fields of study with disproportionately more females tend to have higher proportions of females among the younger age groups relative to the older age groups (Chart 3). This is

apparent for Education, which had the highest proportion of females in 2020. Among university graduates aged 25-34 years in this field, 80.6 per cent were females, higher than those in the age groups of 35-44 years (73.7 per cent) and 45 years and over (69.5 per cent).

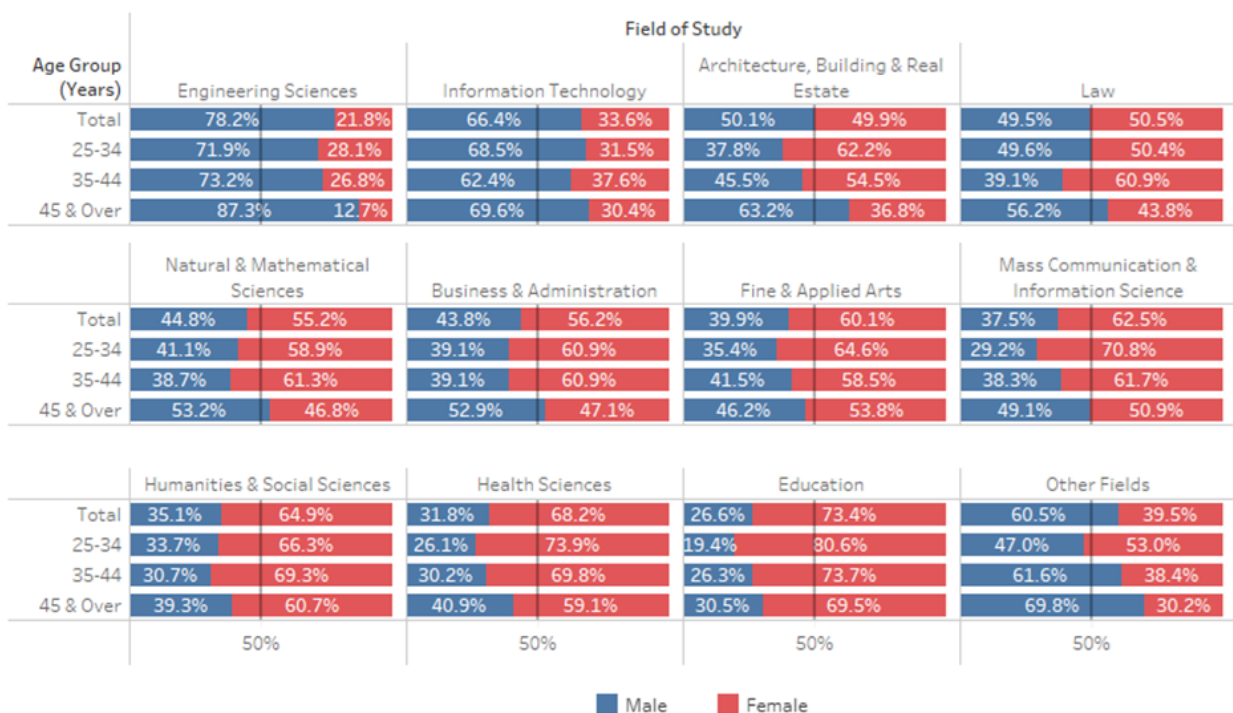
Notably, Mass Communication & Information Science university graduates aged 25-34 years and 35-44 years also had a larger proportion of females at 70.8 per cent and 61.7 per cent respectively. Those aged 45 years and over had almost equal proportions of males and females.

On the other hand, Engineering Sciences had the highest proportion of males, with a considerably higher proportion of males among the older age groups. Among graduates aged 45 years and over, 87.3 per cent were males compared to 73.2 per cent and 71.9 per cent for those aged 35-44 years and 25-34 years, respectively.

Despite an overall equal split between both sexes in Architecture, Building & Real Estate, the younger age groups of 25-34 years and 35-44 years had higher proportions of females, unlike those aged 45 years and over. In contrast, Law saw an equal share of male and female graduates among those aged 25-34 years. Among those aged 35-44 years, females formed a larger share, while the opposite was true for those aged 45 years and over.

CHART 3

RESIDENT UNIVERSITY GRADUATES AGED 25 YEARS AND OVER BY AGE GROUP, FIELD OF STUDY AND SEX, 2020



Note: Figures may not add up to 100 per cent due to rounding.

