# Why Study (or Not Study) Economics? A Survey of High School Students

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Photo: Phil Boorman – Getty Images


## Abstract

There has been a stark decline in the size and diversity of the Year 12 Economics student population since the early 1990s. The Reserve Bank has commissioned a comprehensive survey of students to gain quantitative evidence of the factors contributing to this decline. The survey responses highlight that while economics in general is perceived to be important for society, many students lack an interest in, or understanding of, Economics as a subject. This finding is even more pronounced for students who are female, those from a lower socio-economic background and those from regional schools.


## Background

The Bank recognises the importance of education and is committed to supporting economic literacy in Australia, particularly among high school students. Nationally, there has been a dramatic decline in Year 12 Economics enrolments of around 70 per cent over the past three decades (Graph 1). To obtain deeper insight into this fall, the Bank previously conducted a case study of New South Wales, for which we were able to obtain a rich set of school-level data (as summarised in Dwyer (2017)). Alongside a similarly stark fall in Economics enrolment numbers in New South Wales, the diversity of the student population has also declined. Where there were roughly equal numbers of male and female students in the early 1990s, males have outnumbered females two-to-one in recent years (Graph 2). The shares of students from low socio-economic backgrounds and regional locations have also fallen substantially.

Why does the size and diversity of the Economics student population matter?[1] The number of students who study Economics influences the level of economic literacy in society. While there is no

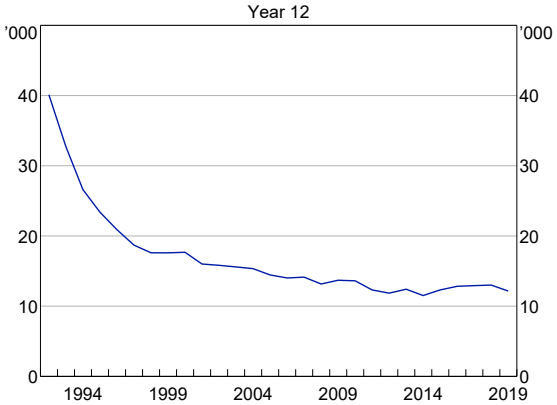
one definition of economic literacy, it encompasses an ability to apply economic skills and frameworks to explain or debate much of the world in which we live – from understanding opportunity costs in our personal decisions, through to forming a view about the efficacy of economic policies. Moreover, as studying Economics is often the start of a pathway to a career in economics, the diversity of the student body ultimately shapes the discipline. And with economists playing an integral role in determining economic policies, there are wider social benefits when the pipeline of future economists is broadly representative of society.

Why have Economics enrolments declined? The lack of enrolments in Economics could reflect students' preferences for other subjects ahead of Economics, the subject not being offered by schools, or a combination of these factors.

The Bank's liaison with educators has cited a number of factors that may explain the lack of Economics enrolments. First, too few educators are equipped to teach Economics and too little relevant Australian economic content is available, providing school leaders with limited incentive to offer (or promote) the subject. Second, it has been reported that many students do not select Economics because they do not understand what it is and how it might be relevant to them. Indeed, until the COVID-19 pandemic, there had been a lengthy period in which Australian households were not exposed to a major economic contraction or the extensive economic reforms that were a feature of national debate in the 1980s and early 1990s, drawing less attention to the relevance of economics to everyday life. Third, the introduction of Business Studies to the New South Wales Higher School Certificate (HSC) in the early 1990s saw a large number of students take up the subject instead of Economics, with reports Business Studies is perceived as being easier to learn and more helpful for employment (Graph 3).

**Graph 1**

**Economics Enrolments in Australia***

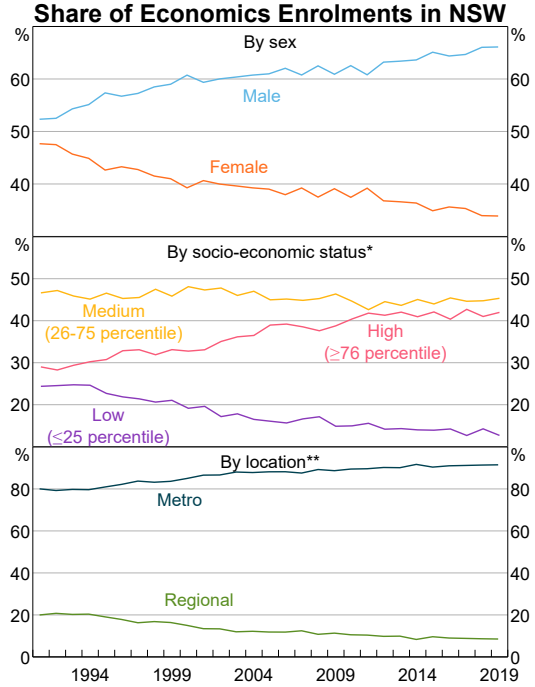



* Data from New South Wales, Queensland and Western Australia included from 1992; South Australia included from 1993 and Victoria included from 1995

Sources: NESA; QCAA; RBA; SACE Board; SCSA; VCAA

**Graph 2**

**Share of Economics Enrolments in NSW**



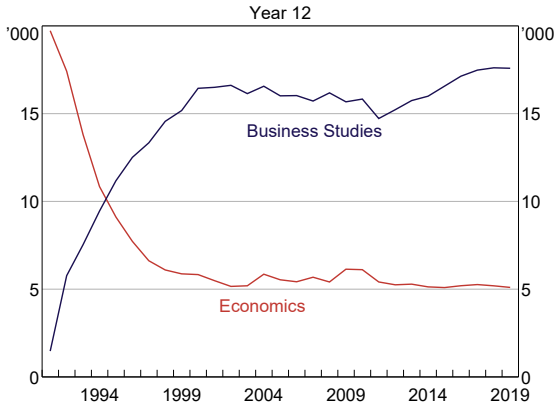

* Based on the socio-economic status of the school's location

** Metro includes schools in major cities; regional includes regional, remote and offshore schools

Sources: NESA; RBA

**Graph 3**

**Economics and Business Studies Enrolments in NSW**




Sources: NESA; RBA

**Table 1: Sample of Schools**

By stratum

| | Population<br>Number of schools | Sampled<br>Number of schools |
|---|---|---|
| Metro government boys | 20 | 1 |
| Metro government co-ed | 211 | 11 |
| Metro government girls | 23 | 3 |
| Metro non-government boys | 36 | 1 |
| Metro non-government co-ed | 165 | 16 |
| Metro non-government girls | 44 | 1 |
| Regional government | 190 | 14 |
| Regional non-government | 81 | 4 |
| **Total** | **770** | **51** |

Source: NESA, RBA

Educators have provided valuable qualitative insights into some of the broad constraints on Economic enrolments. However, a comprehensive survey of students themselves was needed to gain quantitative evidence of the factors contributing to the decline in Economics enrolments, particularly the diversity trends. As such, the survey asked students about how and why they choose subjects, as well as what is influencing their preferences for Economics (in particular their perceptions of Economics).

While there is large body of literature that draws on surveys of students at different stages of their learning, no published research in Australia or internationally has drawn on surveys of high school students' perceptions of economics, or what determines their decision to study (or not study) economics in senior high school. Consequently, the Bank-led survey contains a unique primary source of data with which to examine the drivers of falling participation and diversity in economics.

## Survey Methodology

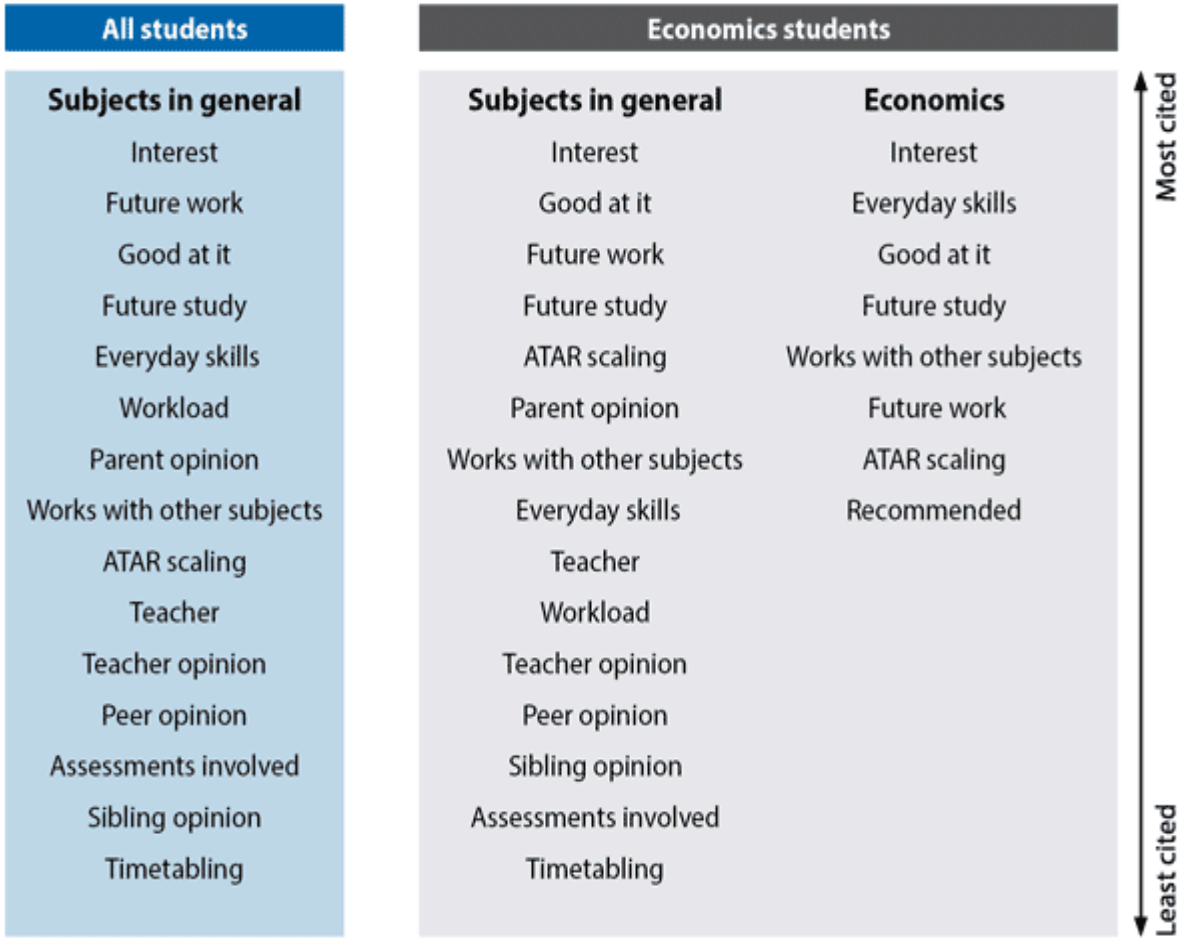
The Bank collaborated with Ipsos to undertake the 'High School Students' Subject Selection Survey' of Year 10, 11 and 12 students in New South Wales in 2019. We chose to survey schools in New South Wales, rather than other states, as a rich set of school-level data are already available to the Bank to enrich the analysis. There are also extensive permissions processes and logistical challenges that vary across the state education systems, which made it infeasible to survey multiple states in a timely way.

The overarching aim was to ensure a representative sample of the New South Wales Year 10–12 student population. The sampling frame (or relevant population) consisted of 770 schools in New South Wales after excluding institutions deemed out of scope and without approval to approach.[2]

The sample population was stratified at the school level to attain a sample with representative coverage of the government and non-government sectors, and metro and regional locations. A total of 51 schools completed the survey between July and September 2019.[3] The schools fall within eight strata, covering school sector (government or non-government), school type (co-ed, girls or boys) and location (metro or regional) (Table 1).

Each participating school was asked to administer the survey to as many Year 10, 11 and 12 students as they were willing. A total of 4,826 students completed the survey. The survey was completed in class by students on computers or devices under the supervision of a teacher.[4] Responses identified as being from potential 'skimmers' (i.e. students who completed the survey in an implausibly short time) were excluded, yielding a final sample of 4,698 responses. The characteristics of the sample are broadly representative of the NSW student population in terms of sex, school sector, and

**Figure 1: Reasons for Choosing Subjects**




Source: RBA

geographical area (see Appendix A). Of Year 11 and 12 students in the sample, 10 per cent study Economics, consistent with the state-wide figures.

## Results

### Reasons for choosing subjects

Why do students choose any subject? Whether looking at all students or only Economics students, the most common and most important reasons cited for selecting subjects in general were interest, perceived competence and whether the subject would be relevant for future study or work (Figure 1).[5] These reasons were more common than recommendations from parents, teachers, peers or siblings; or factors related to the subject (such as the teacher, timetabling, assessments and workload).[6] However, relative to other students, Economics students placed higher importance on subjects that were perceived to scale well for the Australian Tertiary Admission Rank (ATAR).

Why do students choose Economics? Economics students most commonly cited interest as the reason for selecting Economics, consistent with subjects they selected in general. The second most common reason for choosing Economics was gaining skills for everyday life, which was a lesser consideration for other subjects they selected. Being recommended Economics was the least common reason for choosing it.

### Profile of Economics students

Who chooses Economics? Without controlling for other factors, Economics students in our sample were significantly more likely to be male, from a higher socio-economic background, attend school in a major city, attend an all-boys school or choose

subjects based on ATAR scaling. This is unsurprising given the aggregate enrolment numbers, and the representative nature of our sample. A key advantage of the survey data, however, is that we are able to isolate which factors are most important to the likelihood of choosing Economics (see Appendix B for details of the model). For example, is it actually the case that males are more likely to study Economics, or can this be explained by other factors?

The result that there is a greater likelihood of males and students with higher socio-economic backgrounds studying Economics holds true even when we take into account their other demographics, other subject choices, whether students perceived Economics as interesting, as well as school-specific factors. This suggests that these differences between the sexes and students of different socio-economic backgrounds exist across schools, as well as within schools.

The finding that regional students were less likely to study Economics than students from major cities was evident even when accounting for other factors, though there was no longer a difference when accounting for the socio-economic background of schools. Consequently, one reason why regional schools may have lower participation in Economics is that, on average, they tend to have a lower socio-economic background than metro schools.

In terms of the schools sector, there was no difference across government and non-government schools in isolation. However, once controlling for other factors (most notably socio-economic background), students from non-government schools were less likely to study Economics. This again highlights that socio-economic background is an important driver of student participation in Economics.

## Perceptions of Economics

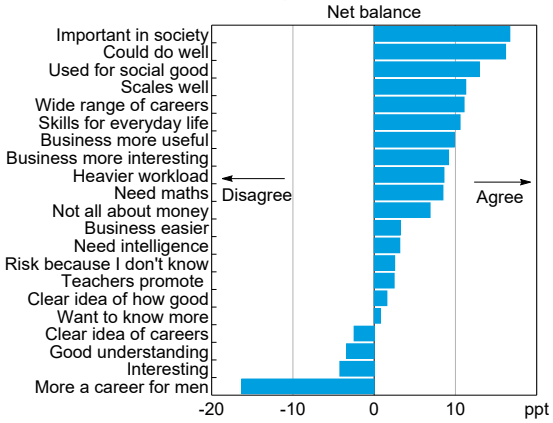
Analysing the characteristics of students who chose Economics is one way to understand low participation and diversity. However, given this is a binary outcome – that is, they choose Economics or not – it does not allow us to consider how definitively students did or did not choose Economics. Asking all students in the survey (across Years 10–12) about their perceptions of Economics regardless of whether or not they chose it, can shed light on the reasons for lower participation and diversity in Economics enrolments. We asked students a range of statements about Economics and students were instructed to state the extent to which they agree or disagree with the statements on a five-point Likert scale (from 'strongly disagree' to 'strongly agree').

What positive perceptions do students have about Economics? Students typically believe that economics (in general) can be used for social good and has a wide range of career opportunities (Graph 4). They also do *not* tend to believe economics is more of a career for men – a result contrary to anecdotal feedback. In general, students believe they could do well at Economics and that it scales well for the ATAR. They perceive that Economics provides skills for everyday life, and isn't all about money.

What negative perceptions do students have about Economics? Students generally do not perceive Economics as interesting and have little desire to know more about it. Economics is perceived as having a heavier workload than most other HSC subjects. And while Economics is seen as providing skills and tools for everyday life, students generally indicated they prefer to study Business Studies because they think it will be more useful for their future and more interesting. These results are in line

**Graph 4**

**Perceptions of Economics***




* Share of respondents who strongly agree minus share who strongly disagree

Source: RBA

with insights from liaison and the revealed preference for Business Studies over Economics in enrolment data. While students perceive economics (in general) to have a wide range of career opportunities, students are less likely to have a clear understanding of Economics (the subject) or the careers available if they were to choose Economics (as a subject).

Do perceptions of Economics differ across sub-groupings of students? Females, students from schools with a low socio-economic background, and those in regional areas generally had more 'negative' perceptions of economics. This is consistent with declining diversity shown in enrolments trends. In particular, females were less likely than males to 'find Economics interesting', feel they 'could do well in Economics', 'have a clear idea of how good they would be at Economics' and 'want to know more about Economics' (Graph 5). Females were also more likely to believe that Economics is 'a risk to study because they don't know what it is about'. Furthermore, female students perceived that teachers were less likely to promote Economics as a subject, compared with male students. Females were also more likely than males to perceive Business Studies as easier, more useful and more interesting than Economics. In terms of career development, females had fewer clear perceptions of career opportunities from studying economics. However, females were less likely to perceive 'economics as a career for men'.

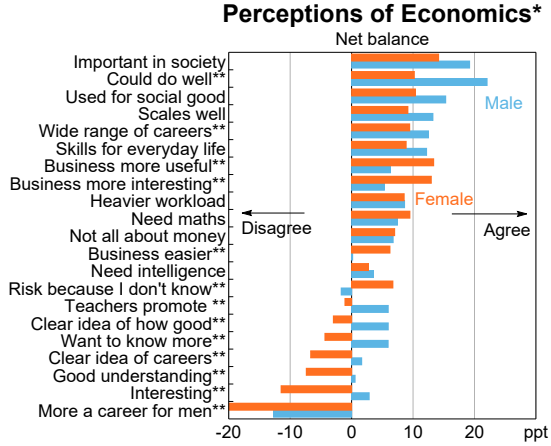
Many of these trends were also present for students in schools with a low socio-economic background (compared with high socio-economic) and regional areas (compared with metro areas) (Graph 6). In particular, a 'confidence gap' exists to the disadvantage of students from low socio-economic background and regional locations, who are less likely to feel they 'could do well in Economics'. These sub-groups are also more likely to believe that Economics is 'a risk to study because they don't know what it is about'. Importantly, these findings remained even when accounting for whether schools did or did not offer Economics in their schools.

Students who studied Commerce as a Year 10 elective also tended to have more positive perceptions of Economics (Graph 7). This suggests that Commerce may be an important stepping stone to students studying Economics. However, as the uptake and gender diversity of students in Commerce in Year 10 is much greater than in Economics in Year 11 and Year 12, this suggests that male students are more likely to transition from Commerce to Economics than female students.

Are there aspects of Economics perceptions that are consistent among sub-groups? There were no meaningful differences in perceptions between the sexes or across region or socio-economic background about needing to be 'intelligent' or 'good at maths' in order to study Economics, or about the workload or scaling of Economics. There

## Graph 5

**Perceptions of Economics***

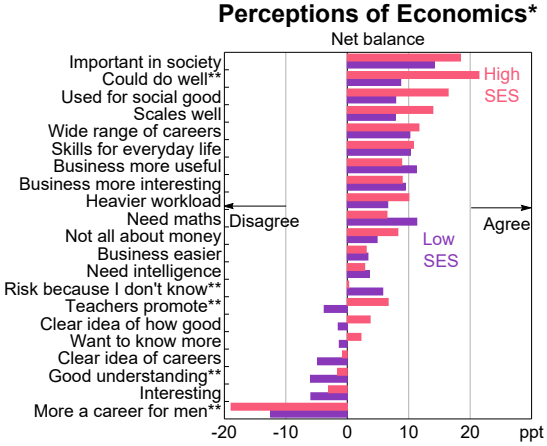



* Share of respondents who strongly agree minus share who strongly disagree
** Statistically significant difference at the 5 per cent level after controlling for school type, socio-economic status and language

Source: RBA

## Graph 6

**Perceptions of Economics***




* Share of respondents who strongly agree minus share who strongly disagree
** Statistically significant difference at the 5 per cent level after controlling for gender, school type and language

Source: RBA

were also no significant differences about whether economics is important, useful for social good or equips you with skills for everyday life across sex, region or socio-economic background.

### Topics of interest in Economics

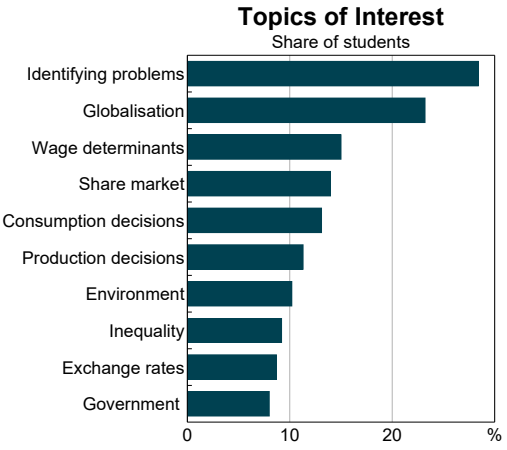
What Economics topics are students most interested in? The survey gave students a list of Economics topics (based on the Economics syllabus) and asked students to select the two that were most interesting. This enables us to consider whether the low uptake of Economics by some student sub-groups could reflect differing interests across students. It also enables us to consider which aspects of Economics could be highlighted when promoting Economics as a subject choice. Students highlighted that 'identifying problems' and 'globalisation' were the most interesting topics; however, these differed by sex (Graph 8). In particular, female students were more likely to cite 'identifying problems', whereas male students were more likely to cite the 'share market' (Graph 9).

## Implications of Initial Insights

The survey has identified areas where the efforts of the Bank's public education program – and the economics profession more broadly – can be directed to increase participation and diversity in Economics. The results may also inform how educators and careers advisors communicate with students about subject choices, and in particular Economics.

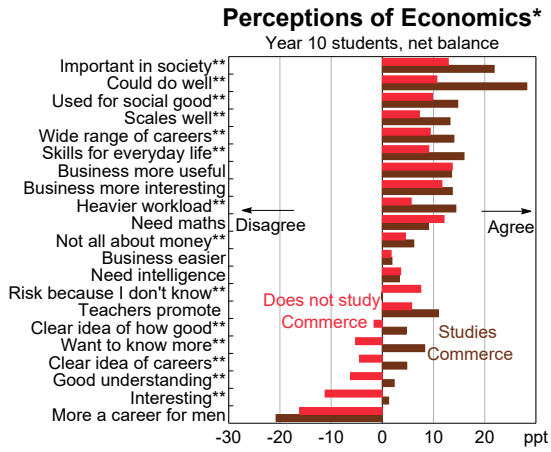
How could Economics be promoted to attract more students? We now know more about the perceived 'strengths' of Economics as well as its 'image problem'. Consequently, there is a great deal of scope to fill information gaps for students, focusing on how Economics meets the criteria of the things that matter most to students – namely, being interesting and providing future work and study paths. Additionally, positioning Economics as a subject that provides skills for everyday life could yield greater interest, as those who chose Economics rated this reason highly, and students in general consider everyday skills of relatively high importance when choosing subjects.

**Graph 8**




Source: RBA

**Graph 7**

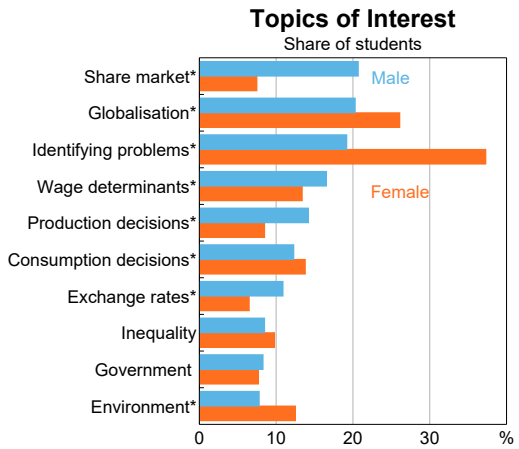



* Share of respondents who strongly agree minus share who strongly disagree

** Statistically significant difference at the 5 per cent level after controlling for gender, school type, socio-economic status and language

Source: RBA

**Graph 9**




* Statistically significant difference at the 5 per cent level after controlling for school type, socio-economic status and language

Source: RBA

We have also learnt more about differences in perception by students according to their sex, location and socio-economic background.

The results confirmed the view from liaison with educators that Business Studies is perceived as easier and more relevant for employment. Nonetheless, we learnt that students believe they have potential to do well at Economics and that it provides a range of career options. This result, however, is more typical of the views of males than females; a 'confidence gap' also exists in favour of students from high socio-economic backgrounds and metro areas. With important perception differences across types of students, tailoring communications that increase awareness of Economics to female and regional students, as well as those from a low socio-economic backgrounds, could help reduce the perceived risks associated with studying it. Highlighting the usefulness of Economics as a field of study may also help encourage students from these sub-groups to study Economics. In particular, given that girls expressed greater interest in identifying problems, it may be useful to draw to their attention that Economics is essentially about identifying and solving problems. In fact, this could be of longer-term value given the strong result that girls did not see economics as more a career for men.

## Conclusion

In order to effectively tackle the decline in the number and diversity of Economics enrolments, it is imperative to understand the underlying drivers of this fall. Asking students directly about their decision-making process for subject selection, and their perception of economics, has enabled a quantitative assessment of these drivers. The survey results confirm the view that Economics has an image problem, with students lacking interest and a good understanding of what the subject is about. The results also confirm that there are clear differences in perceptions about economics by sex, socio-economic background and metro-regional location that are consistent with trends in enrolments. There are, however, a number of surprising insights that contradict preconceptions. Students generally believe they could do well in Economics and that economics offers a range of career opportunities (that are not more suited to men than women). Students also feel that economics is used for social good, is important for society and not just all about money. This gives us comfort that some core elements of economics have broad appeal. The challenge is to build interest, relevance and understanding to motivate high school students to study Economics.

## Appendix A: Sample Characteristics

**Table A1: Sample, by Student Characteristics[(a)]**

| | Students in: | | |
|---|---|---|---|
| | **Sample** Number | **Sample** Proportion (%) | **Population** Proportion (%) |
| **Year** | | | |
| – Year 10 | 2,677 | 55 | 36 |
| – Year 11 | 1,297 | 27 | 34 |
| – Year 12 | 852 | 18 | 30 |
| **Sex** | | | |
| – Male | 2,176 | 45 | 50 |
| – Female | 2,443 | 51 | 50 |
| **Speaks another language other than English at home** | | | |
| – Yes | 1,561 | 32 | 35 |
| – No | 3,088 | 64 | 65 |
| **Studies Economics (Year 11 or 12 only)[(b)]** | | | |
| – Yes | 189 | 9 | 9 |
| – No | 1,960 | 91 | 91 |
| **Total sample** | **4,826** | **100** | **100** |
| **Total completes** | **4,698** | | |

(a) Categories do not sum to total where responses fall into an 'unknown' or 'prefer not to say' category

(b) Population proportion is based on Year 12 enrolments only

Sources: ACARA, NESA, RBA

## Table A2: Sample, by School Characteristics[(a)]

| | Students in: | | |
|---|---|---|---|
| | **Sample** Number | **Sample** Proportion (%) | **Population** Proportion (%) |
| **School Sector** | | | |
| – Government | 2,705 | 56 | 59 |
| – Non-government | 2,121 | 44 | 41 |
| **School Type** | | | |
| – Co-ed | 3,586 | 74 | 82 |
| – All-boys | 578 | 12 | 7 |
| – All-girls | 662 | 14 | 11 |
| **Selective Type** | | | |
| – Selective | 73 | 2 | – |
| – Non-selective | 4,753 | 98 | – |
| **Area** | | | |
| – Metro | 3,756 | 78 | 78 |
| – Regional | 1,070 | 22 | 22 |
| **Index of Community Socio-Educational Advantage (ICSEA)** | | | |
| – Quartile 1 (Lowest) | 605 | 13 | 28 |
| – Quartile 2 | 1,373 | 28 | 22 |
| – Quartile 3 | 679 | 14 | 25 |
| – Quartile 4 (Highest) | 2,169 | 45 | 25 |
| **Total sample** | **4,826** | **100** | **100** |
| **Total completes** | **4,698** | | |

(a) Categories do not sum to total where responses fall into an 'unknown' or 'prefer not to say' category

Sources: ACARA, NESA, RBA

## Appendix B: Regression

**Table B1: Regression Coefficient Estimates[(a)]**

Year 11 and 12 students

| | Propensity to Choose Economics<br>Marginal effects of probit model | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| Male | 0.06*** | 0.06*** | 0.04** |
| Bilingual | 0.02 | 0.02 | 0.01 |
| ICSEA | | 0.11*** | |
| Regional school | −0.10** | 0.03 | −0.10** |
| Non-government school | 0.02 | −0.08** | 0.02 |
| All-boys school | 0.04* | 0.04* | 0.05* |
| All-girls school | −0.12*** | −0.07** | −0.14*** |
| Finds Economics interesting | | | 0.07*** |
| Observations | 2,041 | 1,995 | 1,606 |
| Pseudo R-squared | 0.11 | 0.21 | 0.25 |

***, ** and * represent statistical significance at the 1, 5 and 10 per cent level, respectively

(a) Robust standard errors clustered at the school level

Source: RBA

## Footnotes

[*] Tanya Livermore is in the Information Department and Mike Major is in the Economic Research Department. The authors would like to thank Jacqui Dwyer and Benjamin Beckers for their help and suggestions.

[1] For a further discussion, see Dwyer (2018).

[2] Schools deemed out of scope included distance education providers, TAFE, international school campuses and schools without enrolment figures. Approvals were not obtained from the Catholic Education Office for all diocese, and therefore 19 schools had to be excluded from the population.

[3] A total of 90 schools were recruited, with 51 completing the survey. Fourteen schools expressed a willingness to participate but were unable to do so within the allocated fieldwork periods and 25 schools declined to participate post recruitment. The most common reasons for declining post recruitment included being unable to find a teacher to facilitate the research, or students being bound by other commitments that prevented completion within the specified fieldwork period.

[4] The average time taken to complete the survey was 10 minutes.

[5] Students were able to choose multiple reasons.

[6] However, together, about two-thirds of students cited they selected subjects based on recommendations from either a teacher, parent, sibling or peer.

## References

Dwyer J (2017), 'Studying Economics: The Decline in Enrolments and Why it Matters', Address to the Business Educators Australasia Annual Council Meeting, Sydney, 29 July.

Dwyer J (2018), 'What Happened to the Study of Economics?', Address to the Business Educators Australasia Annual Meeting, Sydney, 26 May.