Why is education at Australian universities so costly and how can the costs be decreased?

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Introduction and Summary of Key Findings

Essential to productivity of the economy and the welfare of society is lowering the expenditure incurred by universities in delivering education. However, due to poor accountability, universities have no incentive to lower expenditure and deliver education using the most cost effective means. As consequence, as this report shows, the cost of education is rising. These higher costs are in turn passed onto students in the form of higher fees.

A primary explanation for inefficiency and cost increases in higher education is the interaction of two factors:

- The rising revenue stream made available to universities from international students; and
- Universities do not operate with the goal of producing efficiently and minimizing costs. Instead, universities aim to spend all available revenue, on an unlimited list of 'grand' projects, in an effort to increase their prestige. This is reflected in the following statement by the University of Sydney "*The University is a not-for-profit entity and re-invests all available revenue into enhancing research and teaching capabilities*" (University of Sydney, Annual report 2023, p72).

Therefore, as revenue rises from the increasing overseas fees, university management will spend this on 'any available project' and total education costs will increase. These costs increases are permanent, as the expenditure is made on projects that are difficult to reverse giving rise to a *permanent* escalation in the cost of education (e.g. buildings and other infrastructure, administrative staff and tenured academics). These permanent costs increases are then passed onto students in the form of higher fees.

This report investigates if the rising fees from international students results in increasing annual per-student costs of higher education due to inefficient expenditure by universities. We find:

- A review of the annual reports of Australian universities finds that not a single Australian university has as a stated objective to minimize the costs of education. Instead, the universities have an objective of spending all available revenue on many 'grand projects'
- Across universities there is a very high correlation between overseas fees and the per student annual cost of education. The G8 Universities have significantly greater overseas fees and as a consequence, due to the resulting inefficiencies, have significantly greater per annum education costs. In 2022 it is estimated the per student annual cost of education for the G8 was $24,728 versus $12,747 for the non-G8 Universities.
- Across time from 2004 to 2022 the per-student annual cost of education is rising and this is strongly associated with the increasing revenue stream from overseas fees. The correlation across time between the increasing overseas fees and rising costs is 0.71. The cost of education per student should have decreased significantly due to both economies of scale as student numbers have increased significantly and the cost saving benefits of technology

- Students are paying fees that have significant markup over these inefficient education costs. The average fee mark-up over costs across the universities in 2022 was 18% compared to an average mark-up of for-profit listed companies, such as Woolworths, of 6%. Therefore in addition to the costs being greater than necessary due to inefficiency, these inefficiencies are being passed onto students with a mark-up.
- The solution to this 'cost inefficiency' is not the current policies of the government such as relief of HELP debt. These policies create no incentive for universities to became efficient. Instead, they create the perverse incentive of remaining inefficient as the excessive education costs and in turn excessive fees will be paid by the government.
- Two significant changes are required to lower the cost of education
    - The universities need to have an *objective* of cost minimization and efficient delivery of education rather than an objective of "*spending all available revenue*"
    - There needs to be a significant improvement in *disclosure* and transparency in University annual financial statement of metrics to measure the annual per student costs of education and thus promote incentives for cost efficiency. The current regulatory reporting requirements provide no obligation to report on per student education costs and in turn there is no transparency and disciplinary mechanism.

The remainder of the report expands on these findings. The estimated per annum cost of higher education per full-time equivalent student is estimated for each university across the 2004 to 2022 period (hereafter 'per student education cost') based on data provide by the Department of Education. The cost is based on the expenditure incurred by the University in delivering education divided by the total number of students. This metric provides an aggregate productivity and efficiency measure for each Australian university in delivering education.[1] Fees from overseas students are measured as a % of total student fees hereafter referred to as overseas fees. This relative % measure of overseas fees provides a measure of potentially excessive available revenue. Further details on the methodology are provided in Appendix C and D.

[1] All reported amounts are adjusted for inflation, using the ABS CPI Index and are in constant 2022 dollars. The time-series graphs are based on value-weighted means where the weights are the student numbers. Value-weighting provides insight into the allocative efficiency of the Australian University system.

1. Universities lack an incentive and accountability to improve productivity and minimize the costs of higher education

- Universities do not operate with the goal of minimizing costs. Rather they have the objective of spending all available funds with a goal of increasing 'perceived' prestige and rankings. As an illustrative example from the strategic plan of Monash University
    - *'Goals: Undertaking research and education of the highest international quality that addresses global challenges'* (Annual report, 2023, p10)
- Without the disciplinary mechanism of a cost constraint, these grand objectives have the potential to give rise to significant inefficiencies and lack of productivity.
- A review of the education strategy within the annual reports of Australian G8 universities in 2023 finds that not a single university has a strategic objective of efficiency and minimizing the costs of education. In the education strategy phases such as 'productivity', 'cost efficiency' and 'lowering cost of education' are never mentioned.[2] See Appendix B for some illustrative examples of the education strategies of universities.
- Instead, the universities have an objective of spending all available revenue. This is reflected in the following statement by the University of Sydney "*The University is a not-for-profit entity and re-invests all available revenue into enhancing research and teaching capabilities*" (University of Sydney, Annual report 2023, p72)

2. As oversees fees have increased, the primary incentive of the University administrators has been to spend the funds, thus escalating and permanently increasing the cost of education

- In 2022 the average per-student annual cost of education was $15,269 across all Australian Universities. However, the variation was substantial varying from $9,359 at Charles Sturt University to $37,392 at Australian National University. See Appendix A for a list of per-student annual cost of education for each Australia University in 2022.
- If overseas fees have caused a decrease in productivity then they should explain the variation in cost inefficiency across Universities.
- Consistent with overseas fees causing cost inefficiencies the Universities with greatest international fees have significantly greater per student education costs.

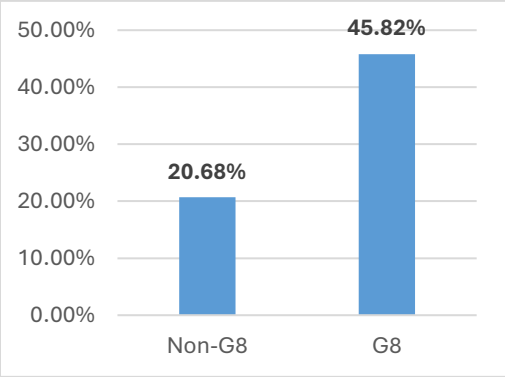
[2] In contrast to the university sector, other organizations will typically have as a strategic objective of minimizing costs which in turn benefits consumers. For example the stated strategic objective for Bunnings in 2024 "Bunnings will focus on executing a range of initiatives to ….maintain a low-cost operating model" and "Bunnings' strategy is informed by its three pillars: lowest prices, widest range and best experience" (page 25 & 26, Wesfarmers 2024 Annual report)

- As shown in Figure 1 the G8 Universities have significantly greater overseas fees as a % of total fees (46% for G8 versus 21% for non-G8) and significantly greater per student education costs ($24,728 versus $12,747).

- Figure 2 shows a strong positive association between overseas fees and the cost of education across *all* Universities. The correlation across Universities between per student education costs and overseas fees is 0.52. The correlation within the non-G8 between overseas fees and the cost of education across Universities is 0.22.

Figure 1

%Overseas Fees/Total Fees



Per Student Annual Cost of education

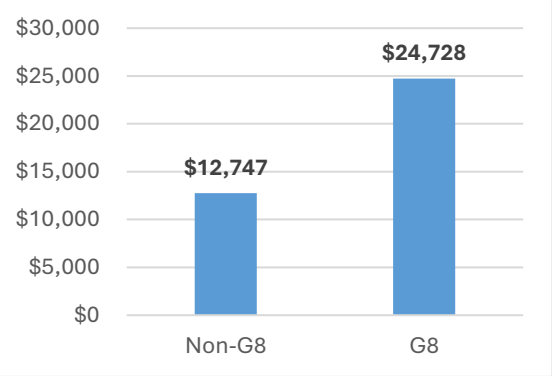
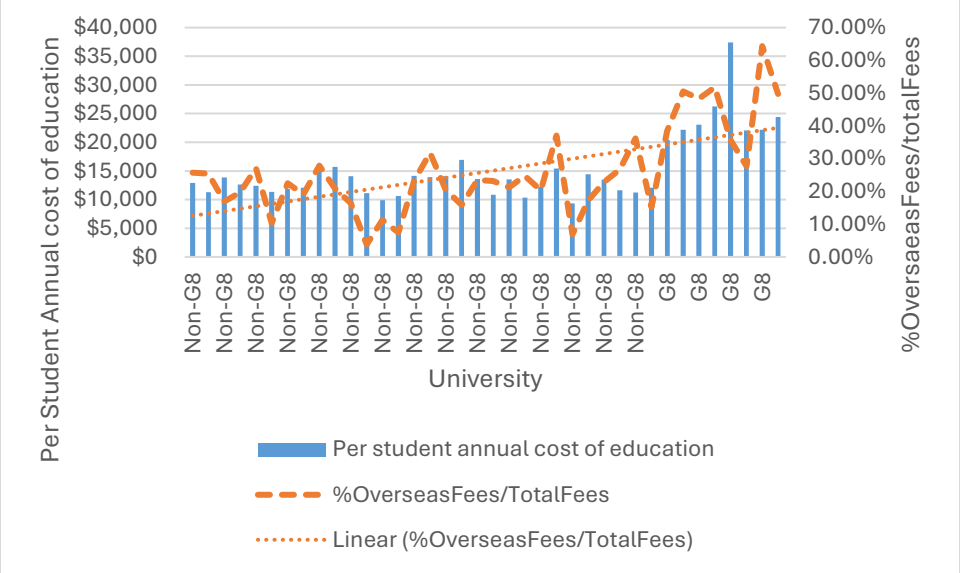


Figure 2

Overseas Fees and the Per Student Annual Cost of Education in 2022



3. The per student annual cost of higher education has increased significantly across time when it should have decreased substantially

- As shown in Figure 3 the real cost of higher education per full-time equivalent student has grown substantially across the period from 2004 to 2022.
- As shown in Figure 3 there is a strong positive association *across time* (correlation = 0.71) between increasing overseas fees and increasing per student higher-education costs.
- Thus the cost of education is greater than 20 years ago notwithstanding the significant potential scale economies from greater student numbers and significant technological shifts which should have significantly lowered the per student cost of education.
    - Education is primarily a fixed cost business (upfront investment in course material, infrastructure, administration).[3]
    - This implies that if universities were efficient then due to the benefits of economies of scale, as students numbers increased significantly across the period from 2004 to 2022, there *should* have been a substantial decrease in per student cost of education.[4] The median number of students at a G8 University has increased by 59% from 2004 to 2022 implying there should have been significant benefits to students from an efficient 'sharing of costs' as scale increases
    - The potential cost saving benefits of technology in delivering education post-internet are substantial. As an illustration the cost of a computer central processing unit (CPU) has decreased by 35% across the 2004-2022 period (see Figure 4). However, there is no evidence of this cost saving potential being used to decrease education costs across time.

[3] It is estimated that at least 60% of total education costs are fixed.
[4] The median number of students at a G8 (NonG8) university has increased from 31,609 (21,960) in 2004 to 50,318 (31,415) in 2022.

Figure 3 Per Student Annual Cost of Education compared to the % Overseas Fees/Total Fees

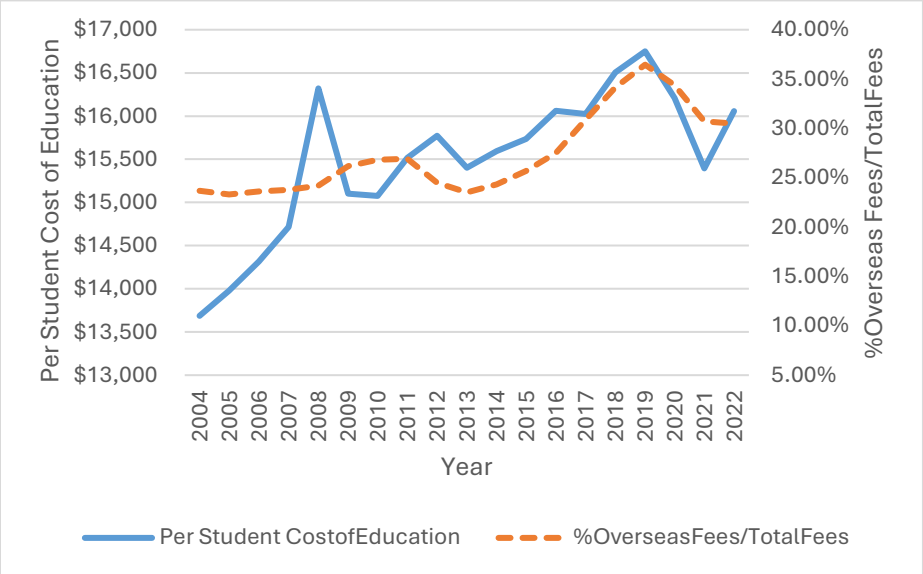
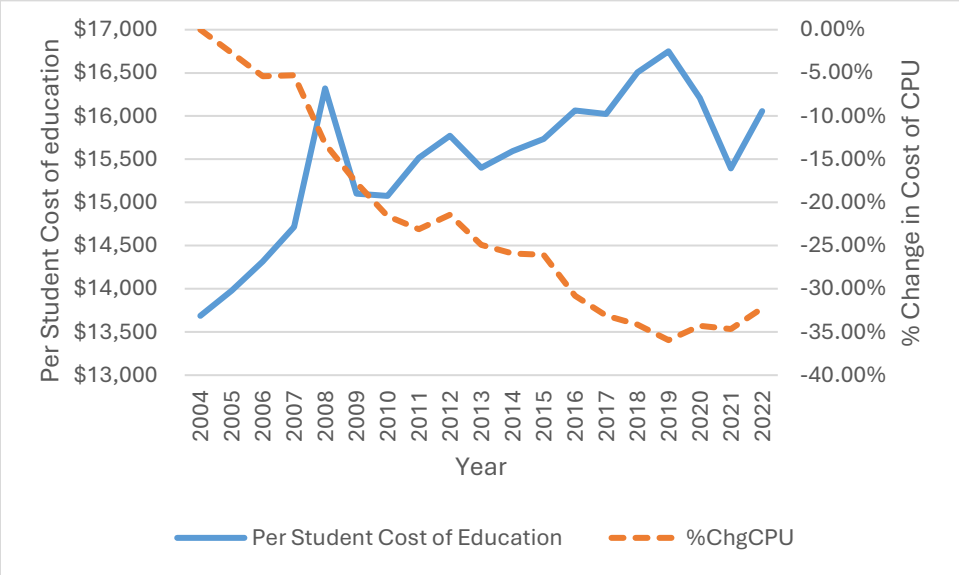


Figure 4 Per Student Annual Cost of Education compared to the % change in the cost of a computer central processing unit (CPU)[5]

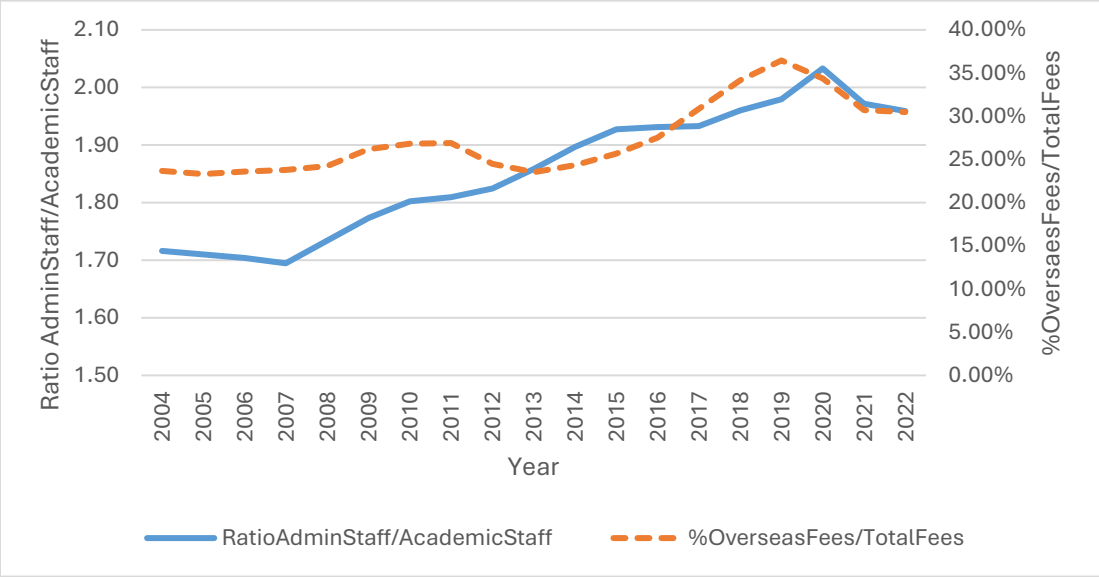


[5] Producer Price Index by Industry: Semiconductor and Related Device Manufacturing: Other Semiconductor Devices, Including Transistors, Diodes, and Semiconductor Parts Such as Wafers (PCU334413334413A) | FRED | St. Louis Fed (stlouisfed.org)

4. Direct evidence of lack of productivity

- To provide some direct evidence of the lack of productivity, Figure 5 shows a very strong positive association between the increase in administrative staff across time and increasing overseas fees. The correlation between the increase in overseas fees and the ratio of administrative staff to academic is staff is 0.75. The ratio has increased from 1.72 to 1.96 across the period from 2004 to 2022.

Figure 5 Ratio of administrative staff to academic staff and %Overseas fees/Total fees



5. There is no evidence that the increased expenditure has caused an increase in quality

There is no evidence that the increasing education costs have given rise to greater education quality.

One of the Australian Government's key measures of student experience, learning and teaching is the annual Quality Indicators for Learning and Teaching (QILT) Student Experience Survey.

The QILT survey of the higher education sector undergraduate student ratings of the *Quality of Entire Educational Experience* decreased by 4% from 79.9% in 2015 to 75.9% in 2022 (SES 2022 National Report, p 3, Table 1).[6]

[6] 2022 Student Experience Survey National Report, QILT, https://qilt.edu.au/

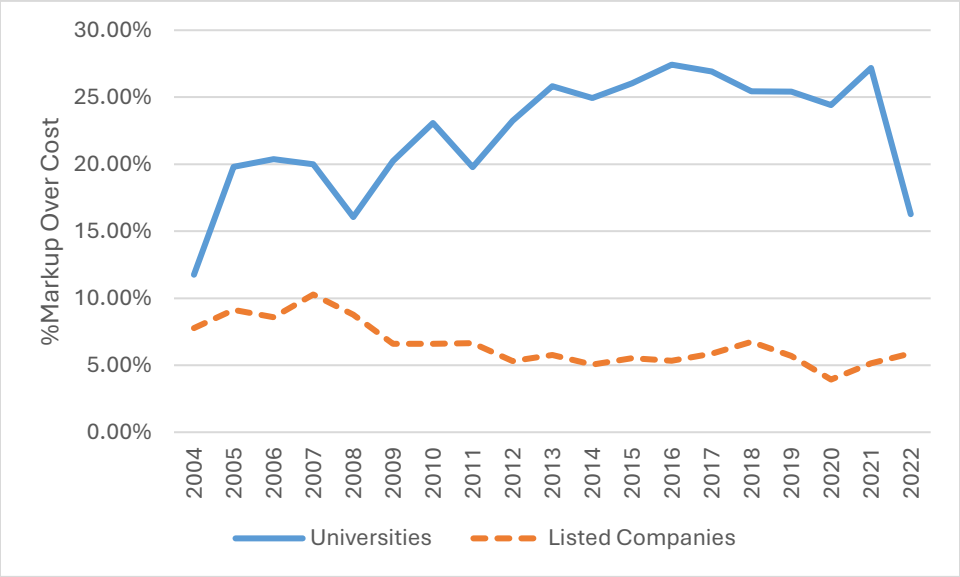
6. Who is paying for this inefficiency?

Should students be paying fees for this inefficiency and should they be paying a markup for these increasing costs? For-profit firms need to charge a mark-up over costs in order to realize a profit to compensate the capital providers. However, as the students themselves are the funding providers then there should be a zero mark-up and the fees should be equal to the cost of delivering education.

The evidence shows that the fees-per-student are significantly greater than the education costs per student implying students are paying a significant markup over the (inefficient) cost of education. The mark-up is computed as fee-per-student/education-cost-per student. The average mark-up across the universities across time is 22% compared to an average mark-up of for-profit listed companies, such as Woolworths, of 6%. Furthermore, as shown in Figure 6 this mark-up has been increasing across time.

The reason for the markup is that students are paying for the research costs incurred by a university. It is arguable that the research activity of a university is equally as unproductive as the teaching activity.

Figure 6 %Fee Markup over Per Student Annual Cost of Education



7. How to improve the efficiency of universities in delivering education

The evidence shows that individual universities are very unproductive and inefficient in delivering education and these costs are being passed onto students in the form of higher fees. The solution to this cost inefficiency is not government policy proposals such as relief of HELPS debt. This will

have the perverse effect of creating no incentives for universities to became efficient as the government will pay.

Three significant changes are required:

- The universities need to have an *objective* of cost minimization and delivering education efficiency
- There needs to be a significant improvement in *disclosure* and transparency in the annual financial statements of universities of relevant metrics to measure the annual per student cost of education and thus promote incentives for cost efficiency
- Greater *accountability* and corporate governance over these cost efficiency metrics.

Objective

Having an *objective* of cost minimization, subject to not lowering quality, is a necessary condition for incentives to both lower the cost of education and to give rise to teaching innovations. Instead, the primary operating principle of universities is to 're-invests all available revenue'. Thus, rather than attempting to minimize cost, the operating principle in higher education is cost maximization.

Disclosure

There is currently no requirement to disclose the per student cost of education or other metrics to measure the cost-efficiency of a university. Without disclosure there is no information and thus pressure to hold universities to account for their efficiency in delivering education.

The primary existing reporting requirements for universities is that they must prepare financial statements in accordance with the legislated *Australian Accounting Standards*.[7] However these accounting standards are designed for for-profit entities and thus do not provide the necessary information to hold universities to account. Therefore, the Australian Accounting Standards Board should develop non-financial reporting standards for the university sector in order to promote greater accountability.[8]

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[7]The financial statement must also comply with the Higher Education Support Act 2003, and relevant state-based legislation such as in Victoria (Financial Management Act 1994 (Vic) and Australian Charities and Not-for-profits Commission Act 2012) and the Financial Statement Guidelines (the Guidelines) prepared the Department of Education.

[8] In recent years, there has been growing international interest in developing non-financial reporting standards for the public sector (Australian Accounting Standards Board (AASB), 2021, "Agenda Consultation 2022-2026". Available at: https://aasb.gov.au/admin/file/content105/c9/ITC46_10-21.pdf

It is also worth noting that all existing university Annual reports are potentially in breach of a fundamental principle in the legally mandated *Australian Accounting Standards* with which universities state they comply.

Australian Accounting Standard AASB 18 Presentation and Disclosure in Financial Statements states

"An entity shall present separately each material class of similar items. An entity shall present separately items of a dissimilar nature or function unless they are immaterial" (para 29)

Australian Accounting Standard AASB 8 Operating Segment states[9]

"An entity shall disclose information to enable users of its financial statements to evaluate the nature and financial effects of the business activities in which it engages and the economic environments in which it operates" (para 1)

These standards require organizations to separately report expenses of a distinct nature. Universities produce two distinct products teaching and research which fit the definition of dissimilar nature in AASB 18. There is no attempt to separately report the expenditure incurred on each product implying a breach of AASB 18

Conclusion

Universities have no incentive to minimize the cost of education. There are three primary benefits to the economy and society from minimizing the costs of education:

- Expands access to higher education and increases equity as financial barriers and constraints are removed
- Allows the re-allocation of resources to more productive purposes
- Creates incentives for innovation in education and thus an increase in the quality of higher education. The primary determinant of economic welfare is innovation. A significant determinant of innovation is incentives to minimize cost and produce efficiently which in turn will lead to high quality product and lower cost. As the Australian university sector has no incentive to minimize cost they have delivered the same education product as 100 years ago but at a significantly higher cost.

[9] Technically the accounting standard AASB 8 only applies to listed companies however the spirit of the standard is equally applicable to Universities.

Appendix A

Per Student Annual Cost of University Education in 2022

University	Cost$
Charles Sturt University	9,359
University of Southern Queensland	9,893
Edith Cowan University	10,361
The University of New England	10,603
Victoria University	10,860
The University of Notre Dame Australia	11,147
RMIT University	11,226
Southern Cross University	11,269
University of the Sunshine Coast	11,349
Swinburne University of Technology	11,620
University of South Australia	11,821
Murdoch University	12,044
Australian Catholic University	12,091
Curtin University	12,256
University of Canberra	12,418
Western Sydney University	12,621
Deakin University	12,896
University of Wollongong	13,490
Queensland University of Technology	13,523
Flinders University	13,553
University of Tasmania	13,854
Macquarie University	13,885
The University of Newcastle	14,073
Central Queensland University	14,106
Griffith University	14,146
La Trobe University	14,401
University of Technology Sydney	15,401
Federation University Australia	15,507
Charles Darwin University	15,693
James Cook University	16,943
University of Adelaide	20,384
University of Western Australia	22,045
Monash University	22,160
University of Sydney	22,168
University of New South Wales	23,063
University of Queensland	24,382
University of Melbourne	26,228
Australian National University	37,392

Appendix B Illustrative Examples of a University Education Strategy from 2023 Annual Reports

The following examples are typical university strategies for education in 2023 which have the following two features a) they never discuss cost efficiency or cost minimization and b) they do promote many grand plans and prestigious goals the outcomes of which are impossible to objectively measure

Monash University (Annual Report 2023, p10

Impact 2030

Our strategic plan, *Impact 2030*, charts the path for how we will actively contribute to addressing the challenges of the age through our research, education and operations, and in collaboration with government, industry, alumni, donors and community.

The strategic goals and foundations of *Impact 2030* comprise the overall structure of the 2023 Annual Report, and includes detailing our progress towards the challenges of the age: climate change, geopolitical security and thriving communities.

Goals

> **EXCELLENT** – Undertaking **research** and **education** of the highest international quality that addresses global challenges and develops understanding and solutions for the betterment of our communities.

University of Queensland (Annual report 2023, p18

At UQ, we offer rich and varied educational experiences designed to foster a sense of belonging, while equipping our students to be leaders within their field with the agility to thrive in a global environment.

University of NSW Education Strategy (Annual report 2023, p34)

Educational Excellence

The knowledge and skills required to successfully respond to today's challenges and opportunities are changing. At UNSW, we are building on our strong employability performance to provide our students with the optimal skills and capabilities to kickstart their careers and to be positive contributors to society.

We respond by continually developing and delivering our innovative curriculum, capitalising on UNSW's tradition of curiosity and discovery, entrepreneurship and digital technology, as well as our commitment to social justice. We are also actively supporting our educators, enabling them to deliver excellent learning experiences for our students.

University of Sydney Strategy (Annual report, p13, p19)

Strategic objectives and outcomes – Our 10-year strategic aspirations

2023 was the first full year of implementation for our new strategy, *Sydney in 2032*, which sets out our aspirations for what we want to be known for over the next decade as we look to our future as one of the world's great universities.

As shown in the table below, *Sydney in 2032* sets out four key aspirations, each with related outcomes that we are working to realise over the next decade.

Our student-focused education is transformational
Outcomes: – Our teachers meet academic excellence expectations at every career stage, and we celebrate their achievements visibly as high performance in research. – We partner to create highly valued and respected lifelong learning opportunities in response to society's changing needs. – Our curricula are both learner-focused and sustainable. – Regardless of where and how they learn, our students are confident in their abilities, sure of their personal goals, and feel that they belong.

Appendix C Methodology

The starting sample is the population of the 42 Australian universities over the period from 2004 to 2022.[10] Due to non-availability of the required data 3 universities were excluded from the final sample (Bond University, Torrens University Australia and University of Divinity) leaving a final sample of 39 institutions.

All the University data used in the study is from the Department of Education. The cost of education and student fee data was extracted from the audited financial statements of these 39 institutions as provided to the Department of Education.[11]

All variables are measured for each University at an aggregate University level each year *t*.[12] All cost variables are in 2022 dollars and are defined and measured as follows.

Per annum cost of education is the annual education cost per student incurred by each University. This is measured as the annual sum of the estimated total annual expenditure on education by each University divided by the annual total number of full time equivalent students. Student numbers includes both undergraduate and post graduate but excludes PhDs.. All costs amounts are based on the expenditure reported in the annual income statement. The approach to estimating this is explained further below.

%Overseasfees is fees from overseas students as a percentage of total student fees. Fees is measured as the annual sum of all fees for both undergraduate and post graduate students for each University.

Ratio of Administrative to Academic Staff is the annual number of full-time equivalent administrative/professional staff divided by the annual number of academic staff for each university. Academic staff includes both teaching and research staff and teaching only staff. Staff that are full-time research are excluded from the academic total. All staff number are as reported by the Department of Education

[10] Australia has 42 higher education providers (HEPs) listed in the Higher Education Support Act 2003 (the Act)

[11] The financial data is from the audited financial statements that is required to be presented in a format consistent with that outlined in the department's Financial Statement Guidelines for Australian Higher Education Providers for the 2022 Reporting Period (Guidelines) The data may include adjustments agreed between the Department and the universities.

[12] In this paper, the focus of analysis is on the universities as an entity for two reasons. First, many cost are joint and shared by all students (e.g. buildings and administrative staff). Secondly, detailed data at a Faculty or Department level for all universities are not available.

Markup is the ratio of fees per student divided by per annum cost of education.

Total Student Fees

Total student fee revenue includes:

- Fees and charges from fee-paying domestic and overseas students (both undergraduate and postgraduate);
- Higher Education Loan Programs (HECS-HELP);
- Commonwealth Grants Scheme; and
- Upfront Student Payments

The Commonwealth Grants Scheme represents Australian Government financial assistance/subsidies for the cost of provision of education courses and programs.

HECS-HELP represents financial assistance provided by the Commonwealth Government (in the form of a loan between the government and the student) that allows eligible students to pay their student contribution amounts (HECS-HELP), tuition fees (FEE-HELP) and student services and amenities fee (SA-HELP).

Upfront Student Payments HECS-HELP student payment revenue is derived when a student pays their student contribution amount up-front to the University (and does not enter into a HECS-HELP loan arrangement with the Commonwealth Government if eligible to do so).

Estimation of Total Annual Expenditure on Education by Each University

Universities do not directly report the costs incurred on delivering education. Instead Universities report their total expenditure categorized by the nature of the activities such as salary and wages, libraries and IT services, infrastructure (laboratories, offices, campus facilities, etc.). The University has two primary products, education and research, with most types of expenditure being used to jointly produce both (e.g. administrative staff). The following approach and assumptions were used to attribute the costs between teaching and research functions.

There are four primary inputs into the cost of delivering education. The first is the total number of academic staff (full-time equivalent). Most academics undertake teaching and research activity. The second input is the number of administrative staff (full-time equivalent). Administrative staff administers students services, teaching and research staff, and generally facilitate the teaching and research process and buildings and grounds. Thus, academic and administrative staff are joint inputs. The third input is expenditure on all other inputs other than labor inputs. This includes expenditure on energy, non-salary academic and administration services, buildings and grounds, libraries and student services. The fourth input is the capital costs involved in providing university buildings, infrastructure, plant and equipment. This is measured using the costs of depreciation, amortisation, repairs and maintenance.

For *academic staff* the following assumptions were made. For teaching and research staff, 50% of their time was assumed to be allocated to teaching based on both industry practice and a typical University Enterprise Award agreement. For, Teaching (Research) only staff 100% (0%) of the time of was assumed to be devoted to teaching. These proportionate time estimates together with the reported staff numbers classified by T&R, Research only, Teaching only were used to allocate a % of total academic remuneration to the cost of education. An example in Appendix B illustrates this calculation.

For all three other inputs (administrative staff, non-labour inputs and capital costs) it was assumed 70% of this expenditure is allocated to education. This is based on both principal and field interviews with University management. As a principal the vast bulk of administration (e.g enrolling students) and infrastructure (e.g lecture theatres) is devoted to students rather than research. This was conformed by field interviews. An example in Appendix B illustrates this calculation.

Appendix D

The following page provides an illustration of the computation of variables using University of Melbourne in 2022 based on University data provided by Department of Education. The next page provides a copy of the financial statements. The following two pages show the calculations.

Copy of Financial Statements as provided by Department of Education

University of Melbourne	2022
Total Revenues from Continuing Operations	**2,669,229**
Australian Government Financial Assistance	**1,130,139**
Australian Government Grants	**838,282**
Commonwealth Grants Scheme and Other Grants	313,574
Education Research Grants	221,869
Other Capital Funding	6,496
Australian Research Council	56,924
Other Australian Government Financial Assistance	239,419
HECS-HELP - Australian Government Payments	**172,291**
FEE-HELP - Australian Government Payments	**115,996**
VET FEE-HELP - Australian Government Payments	**-**
VET Student Loan Program - Australian Government Payments	**-**
SA-HELP- Australian Government Payments	**3,570**
State and Local Government Financial Assistance	**67,415**
Upfront Student Contributions	**33,545**
Fees and Charges	**1,055,480**
Continuing Education	1,828
Fee Paying Overseas Students	877,161
Fee Paying Non-Overseas Postgraduate Students	55,137
Fee Paying Non-Overseas Undergraduate Students	635
Fee Paying Non-Overseas Non-Award Students	-
Other Domestic Course Fees and Charges	20,280
Student Services and Amenities Fees	5,919
Other Fees and Charges	94,520
Investment Income	**(35,909)**
Royalties, Trademarks and Licenses	**4,848**
Consultancy and Contracts	**185,975**
Other Income	**220,386**
Donations and Bequests	70,762
Scholarships and Prizes	-
Non-Government Grants	108,763
Net Gain on Disposal of Property, Plant and Equipment	-
Net Foreign Exchange Gains	218
Revenue Related to Service Concession Arrangements	-
Other Revenue	40,643
Share of Net Result	**7,350**
Total Expenses from Continuing Operations	**2,871,861**
Employee Benefits and On-Costs	**1,540,489**
Academic Employee Benefits	**888,178**
Academic Salaries	673,532
Academic Contributions to Superannuation and Pension Schemes	103,739
Academic Payroll Tax	44,140
Academic Workers Compensation	(551)
Academic Long Service Leave Expense	9,485
Academic Annual Leave	56,391
Other Academic Employee Benefits	1,442
Non-Academic Employee Benefits	**652,311**
Non-Academic Salaries	491,830
Non-Academic Contributions to Superannuation and Pension Schemes	69,357
Non-Academic Payroll Tax	31,222
Non-Academic Workers Compensation	(134)
Non-Academic Long Service Leave Expense	9,584
Non-Academic Annual Leave	46,012
Other Non-Academic Employee Benefits	4,440
Depreciation and Amortisation	**157,578**
Repairs and Maintenance	**74,899**
Finance Costs	**52,865**
Impairment of Assets	**995**
Investment Losses	**-**
Deferred Superannuation Expense	**-**
Other Expenses	**1,045,035**
Scholarships, Grants and Prizes	318,682
Non-Capitalised Equipment	35,380
Advertising, Marketing and Promotional Expenses	15,379
Net Loss on Disposal of Property, Plant and Equipment	335
Other Expenditure	675,259
Operating Result Before Income Tax	**(202,632)**
Discontinued Operations	**-**
Income Tax Expense	**-**

Example Computation of variables for Uni Melb in 2022 based on Financial Statements and students and staff numbers proved by Department of Education

Cost Per Student	
Cost of Teaching (see below)	1,709,747
Total Students (see below)	65,187
Cost per Student	26.23
Fees per Student	
Total Fees (se below)	1,694,456
Total students (see below)	65,187
Fees per Student	25.99
Mark-Up (Fees-per-student/Cost-per-student)	
Fees per Student (see above)	25.99
Cost per Student (see above)	26.23
Markup	0.99
Ratio of Administrative Staff to Teaching_FTE	
Administrative Staff	4,552
Teaching Only + T&R Academic Staff	2,173
Ratio of Admin Staff to Teaching	2.09
Computaton of Cost of Teaching	
Teaching Remuneration	
Academic Remuneration (see financial statements)	888,178
TeachingRemuneration =AcademicRemuneration*Teaching_Fraction of 36%	321,170
Administration Cost of Teaching	
Total Expenses from Continuing Operations (see financial statements)	2,871,861
TeachingExpense = ((TotalExpenses-AcademicRemuneration)*0.7)	1,388,578
Cost of Teaching (Teaching Remuneration+Teaching Aministration Cost)	1,709,749
Computaton of Teaching Fraction of All Academic Staff	
Staff Numbers provided by Department of Education	
Teaching Only	628
Research Only	1,700
Teaching and Research	1,545
Other	4,552
Total FTE	8,425
Computation	
Academic_FTE (628+1700+1545)	3,873
Teaching_FTE (628 + (1545*0.5)	1,401
Teaching Fraction (Teaching_FTE/Academic_FTE)	36.00%

Example continued of computation of variables for Uni Melb in 2022 based on Financial Statements and students and staff numbers proved by Department of Education

Total Student Fees	
Commonwealth Grants Scheme and Other Grants	313,574
HECS-HELP - Australian Government Payments	172,291
FEE-HELP - Australian Government Payments	115,996
VET FEE-HELP - Australian Government Payments	0
VET Student Loan Program - Australian Government Payments	0
SA-HELP- Australian Government Payments	3,570
Upfront Student Contributions	33,545
Fees and Charges	1,055,480
Total Student Fees	1,694,456
%Overseas Fees	
Overseas Fees	877,161
Total Student Fees	1,694,456
%Overseas Fees	51.77%
Total Students	
Included	
Master's (Extended)	2,927
Master's by Research	366
Master's by Coursework	26,186
Other Postgraduate	3,482
Bachelor	31,604
Associate Degree	0
Other Undergraduate	202
Enabling Courses	40
Non-award Courses	380
Total Students	65,187
Excluded	
Doctorate by Research	5,015
Doctorate by Coursework	0