
Sapere Research Group for the Copyright Agency

Value of Australian educational publishing exports

Final Report

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About Sapere Research Group Limited

Sapere Research Group is one of the largest expert consulting firms in Australasia and a leader in provision of independent economic, public policy and forensic accounting services. Sapere provides independent expert testimony, strategic advisory services, data analytics and other advice to Australasia's government agencies, regulatory bodies, private sector businesses and major law firms.

Melbourne Level 8, 90 Collins Street GPO Box 3179 Melbourne VIC 3001 Ph: + 61 3 9005 1454 Fax: + 61 2 9234 0201	Sydney Level 14, 68 Pitt St GPO Box 220 Sydney NSW 2001 Ph: + 61 2 9234 0200 Fax: + 61 2 9234 0201	Canberra Unit 3, 97 Northbourne Ave Turner ACT 2612 GPO Box 252 Canberra City ACT 2601 Ph: +61 2 6267 2700 Fax: +61 2 6267 2710
Wellington Level 9, 1 Willeston St PO Box 587 Wellington 6140 Ph: +64 4 915 7590 Fax: +64 4 915 7596	Auckland Level 8, 203 Queen St PO Box 2475, Shortland St Auckland 1140 Ph: +64 9 909 5010 Fax: +64 9 909 5028	

For information on this report please contact:

Name: Matt Balmford

Contents

Executive Summary.....	vi
Context.....	vi
Value of educational publishing exports	vi
1. Purpose and Scope	1
1.1 Purpose.....	1
1.2 Scope.....	1
2. Context.....	2
2.1 Global industry context.....	2
2.2 Exporting from Australia.....	3
3. Value of educational publishing exports	5
3.1 Educational resources exports	5
3.1.1 Overview.....	5
3.1.2 Publishing segment	5
3.1.3 Product format	7
3.1.4 Export markets	8
3.1.5 Trends	9
3.2 Additional perspective – international students consuming educational publishing.....	10
3.3 Employment attributable to educational publishing exports	11
4. Case studies.....	13
Case study #1 – Origo Education	13
Case study #2 – Cengage Learning Australia.....	14
Case study #3 – 3P Learning.....	15
Case study #4 – Haese Mathematics.....	16
Case study #5 – Eleanor Curtain Publishing	17
Case study #6 – R.I.C. Publications	18
5. International comparisons	20
5.1 Overview	20
5.2 Exports from each country	21
Appendix 1 – Notes on method.....	24
Value of educational publishing exports	24
International students spending on educational resources	26
Employment attributable to educational publishing exports.....	29
Appendix 2 – Industry participants	31
Appendix 3 – Summary results.....	33
Schools publishing exports.....	33
Tertiary publishing exports	34

Tables

Table 1 – At a glance comparison of educational publishing exports	20
Table 2 – Educational publishing exports from UK, by category, 2015, 2013 and 2011	21
Table 3 – Educational publishing exports from UK, export region by category, 2015	21
Table 4 – Number of international students in Australia on a student visa	26
Table 5 – Summary of calculation for international students	28
Table 6 – Summary of input sources for international students	28
Table 7 – List of APA members in educational publishing	31
Table 8 – Schools export revenue by product category, 2015-16	33
Table 9 – Schools export revenue by export market, 2015-16	33
Table 10 – Tertiary export revenue by product category, 2015-16	34
Table 11 – Tertiary export revenue by export market, 2015-16	34

Figures

Figure 1 – Export markets for Australian-published educational resources, 2015-16	vii
Figure 2 – Publishing segment of all educational publishing exports	6
Figure 3 – Detailed publishing segment for primary school exports (%)	6
Figure 4 – Format of schools educational publishing exports	7
Figure 5 – Format of schools educational publishing exports (%)	7
Figure 6 – Export markets of Australian tertiary educational publishing	8
Figure 7 – Export markets of Australian schools educational publishing	8
Figure 8 – Export markets of Australian schools educational publishing (%)	9
Figure 9 – Estimated value of Australian-published educational materials consumed by international students in Australia, 2015	11
Figure 10 – Promotional image for Origo Stepping Stones in the US	13
Figure 11 – Examples of the PM Collection for the Middle East	15
Figure 12 – Example of Mathletics in the UK	16
Figure 13 – Haese Mathematics materials for IB students	17
Figure 14 – Materials in the Flying Start to Literacy program for the US	18
Figure 15 – R.I.C. Publications materials marketed overseas	19
Figure 16 – Simplified graphic of sources of revenue for Australian educational publishers	24
Figure 17 – Summary of two options for calculating industry-wide export aggregates	25

Executive Summary

Context

Education in all its forms is commonly recognised as a source of competitive advantage for Australia, and is a prominent and growing part of Australia's exports. Education publishers are not just publishers of books, but experts in effective learning. They constitute key parts of education delivery systems, and are key contributors to an emerging innovation economy.

Educational publishing includes physical and digital content for students and teachers such as textbooks, learning guides and other support materials. This spans primary, secondary and tertiary/higher education, plus reference and professional technical resources.

Educational publishing is undergoing profound structural change, with innovations across product design, supply chain management, pricing models and publisher-education provider relationships. Challenges for the 100+ Australian educational publishers are particularly pronounced, given our industry's mid-size and physical distance from major international markets. Yet, until this project, little contemporary information was available on the overall picture of Australian educational publishing exports.

Value of educational publishing exports

Our best estimate is that **over \$165 million of annual revenue for Australian publishers is associated with exports**. This has two components:

- exports of Australian-published educational resources to users overseas; and
- use of Australian-published educational materials by international students in Australia.

Exports of Australian published educational resources

Nature of exports

Many large and small Australian publishers export high-quality educational materials to overseas markets. For some it is a useful conduit for additional sales; for others it is their core business strategy.

Mechanisms can include sale or licensing of rights to the content to overseas publishers, to overseas distribution of materials originally created in Australia, to adaptation of Australian materials for specific international markets (which can involve tailoring of materials to relevant curricula, cultural sensitivities or language).

Case studies highlight examples of innovative and agile Australian educational publishers achieving exports to countries around the world. These include content developed within Australian arms of multinational publishers (like Cengage Learning Australia's renowned PM readers) and content developed by independent Australian publishers (like Origo Education and Eleanor Curtain Publishing achieving strategic relationships with school education providers in key international markets).

Scale and value of educational resource exports

Our best estimate is that **exports of Australian-published educational resources generated at least \$62 million** for Australian publishers across all segments in 2015-16.

Competing globally, Australia has most strength in schools publishing, with at least \$57 million exports of school-aged content – mainly for primary school ages.

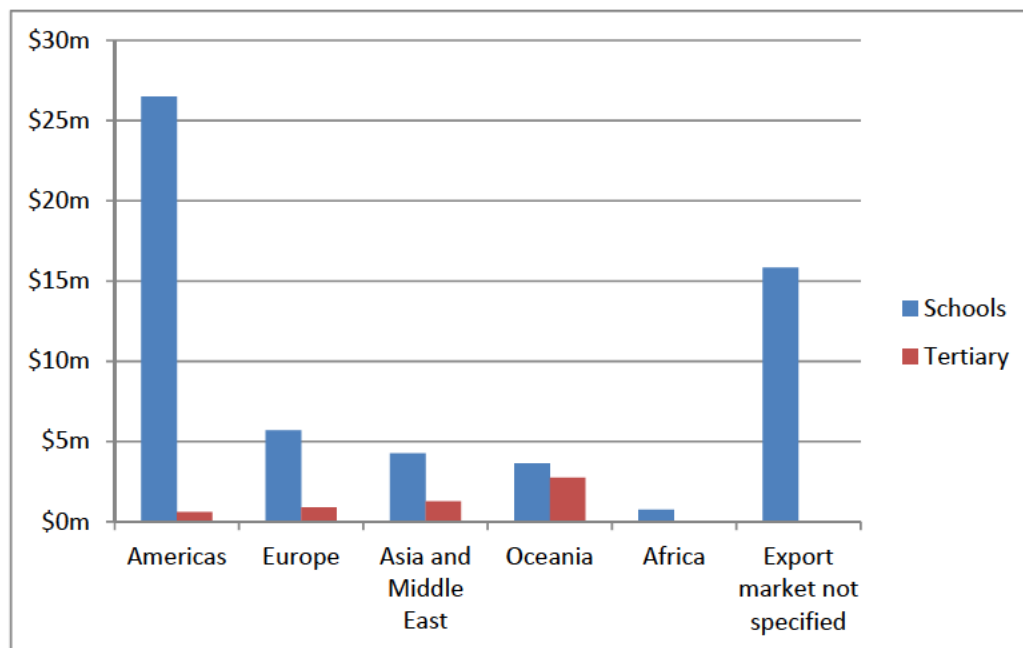
- Within primary school content, literacy products account for the bulk of exports, with mathematics also having a significant presence.
- Physical products (including those with a digital add-on) still dominate export markets, accounting for around two thirds of schools export revenue (best estimate \$35 million). Products only published digitally such as interactive learning products – which have only existed relatively recently – contribute best estimate \$20 million.
- Our publishing industry exports educational materials to all continents, with a wide range of different markets for school products, particularly across the Americas and to smaller extent Europe, Asia and the Middle East and Oceania. Notably, Australia's exports of schools resources to North America of around \$26 million (one of our largest markets) may be on a par with or even slightly greater than United Kingdom educational publishing exports to North America.

There is at least \$5.5 million of tertiary exports.

- The bulk of tertiary products are exported to Oceania, particularly New Zealand.

Export trends across the sector vary, with some publishers experiencing growth in educational exports and some contraction. One source suggests that, across the industry, educational publishing exports have contracted by a third over the last five years.

Figure 1 – Export markets for Australian-published educational resources, 2015-16



Source: Sapere analysis

International students consuming educational publishing

In addition, use of **Australian-published educational materials by international students in Australia could account for as much as \$100 million each year** – mostly related to tertiary education and vocational training. This is different kind of revenue to exporting educational resources overseas, but possibly relevant to consider given international education itself is a ‘services export’.

High-quality Australian educational publishing underpins the quality of much Australian education. When Australian educational resources are used overseas, they arguably also drive awareness and enhance our international reputation for teaching and learning quality across all ages. Education quality is a key factor affecting the choice of destination for international students (at least, for those who are principally seeking an educational outcome).

Employment attributable to educational publishing exports

We can roughly attribute at least 450 Australian full time equivalent (FTE) jobs in publishing and associated services to educational publishing exports (both educational resource exports *and* international student consumption), and possibly as many as 650. These jobs not only relate to work in Australia to foster international relationships or adapt resources for international markets, but also in developing new educational resources including for Australian students and educators.

Moreover, as exports constitute external demand for the outputs of Australian industry, it can be argued that educational publishing exports have a broader impact across the Australian economy. Well over 1,300 FTE jobs across the Australian economy could rely on export demand for Australian educational publishing.

1. Purpose and Scope

1.1 Purpose

Sapere Research Group was commissioned by the Copyright Agency to assess the contemporary value of Australian education publishing exports. The purpose is to help industry and government better understand how Australian educational publishers and content creators are engaging with international markets and supporting a sustainable local publishing sector.

1.2 Scope

The scope of this research covers education publishing in all its phases, including both traditional printed and digital materials.

The research incorporates content on:

- the overall value of Australian educational publishing exports (in 2015-16 as the most recent year), including by country/region
- short case studies that illustrate export innovation and success across the sector
- an estimate of the number of Australian jobs that are directly supported by educational publishing exports.

This report was developed over the period August to October 2016. It was informed by interviews with stakeholders including representatives of the Australian Publishers Association (APA), various individual publishers, and academics and other publishing and education industry experts, as well as a survey of members of the APA and selected other publishers. We thank participating stakeholders for their integral contribution to this research.

2. Context

2.1 Global industry context

Publishing is broadly divided into two main segments: general trade publishing (i.e. fiction and non-fiction for general audiences), and educational publishing.

Educational publishing includes physical and digital content for students and teachers such as textbooks, learning guides and similar learning materials, across informal, institutional and professional education. Key segments reflect age or learning stage: primary, secondary and tertiary/higher education, plus reference books and technical materials for use in specific professions.

Global trends suggest opportunities and challenges for educational publishing:

- The challenging contemporary context for educational publishing includes disruption at virtually every stage. This includes consumer preferences for digital discovery and customisation, growth in use of legal and pirated free content, diminished roles of traditional retail channels, and new business models such as textbook rentals.¹
- The global educational publishing market is predicted to grow at the low compound annual growth rate of 1.9% over the period 2016-2020 (albeit slightly higher than 1.7% for the overall publishing sector).² However, clearly different international markets (and segments within them) are growing at different rates. Newly developed countries (including in Asia) offer particular opportunities for growth as educational publishing markets, given rising middle classes and increased spending on education.³
- Digital segments are growing faster than the whole, with a predicted annual growth rate of 12% for digital educational publishing over the period 2016-2020.⁴ While digital learning is growing (including as teachers and students become more experienced with such technology), print books may continue to have an important role in many subject areas or contexts. For example, print books can be easily shared around a classroom and transferred to new students over time, notwithstanding the capacity for digital to also do this when appropriate hardware is available.

In response, educational publishing is undergoing profound structural change, with innovations across product design, supply chain management, pricing models and publisher-education provider relationships.

¹ Zwar J 2016, *Disruption and Innovation in the Australian Book Industry: case studies of trade and education publishers*, Research Paper 1/2016, Macquarie Economics Research Papers, Macquarie University, February

² Drawn from PwC 2016, *Global entertainment and media outlook 2016-2020*, <http://www.pwc.com/gx/en/industries/entertainment-media/outlook/segment-insights/book-publishing.html>

³ "What new publishing stats tell us about the book export market", Ingenta blog article, 8 July 2013

⁴ *Global Digital Educational Publishing Market 2016-2020*, http://www.researchandmarkets.com/research/nklm6x/global_digital

Many publishers are positioning themselves not as companies that just ‘sell books’ but education service providers that ‘deal in information’⁵, including some diversifying into products such as educational testing or learning management platforms.

2.2 Exporting from Australia

Education in all its forms is commonly recognised as a source of competitive advantage for Australia, and is a prominent and growing part of Australia’s exports. For example, we are one of the top three or four nations worldwide for international tertiary students, with around 6 per cent of the world total.⁶ Total spending by international students in Australia reached \$19.9 billion in 2015-16, with education exports rising to \$20.3 billion if also including offshore tuition and other services provided by Australian educational institutions.⁷ Education services are now Australia’s third-largest export after iron ore and coal, and our largest services export.⁸

Educational publishing is different to educational services, but draws on the skills and expertise of highly regarded Australian educators.

The Australian educational publishing sector includes diverse organisations of varying size of scale. The sector includes Australian branches of multinational publishers such as Pearson, Oxford University Press, McGraw-Hill, Macmillan Education and Cengage Learning, as well as large and small independent Australian publishers who often specialise in particular subjects or types of resource. As a broad indication, around 75 members of the APA are involved with educational publishing⁹ – noting that not all publishers are APA members.

Many Australian publishers export high-quality educational materials to overseas markets: including physical resources, through traditional books and other physical materials, and/or digital resources through individual digital products or subscriptions. Mechanisms can span from:

- the sale or licencing of rights to content originally published in Australia to publishers in other territories, who then go on to make available or adapt this content for their markets; to
- distribution of materials created in Australia (some of which are specifically designed for international purposes) to students and teachers in overseas markets, sometimes with in-market sales intermediaries; to

⁵ Carmody T 2012, “Why Education Publishing Is Big Business”, *Wired*, January, <https://www.wired.com/2012/01/why-education-publishing-is-big-business/>

⁶ <http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx>

⁷ Australian Government Department of Education and Training 2016, *Export income to Australia from international education activity in 2015-16*, International Research and Analysis Unit, November, <https://internationaleducation.gov.au/research/Research-Snapshots/Documents/Export%20Income%20FY2015-16.pdf>

⁸ “Education revenue soars to become Australia’s \$20 billion export”, *Australian Financial Review*, article by Tim Dodd, 3 February 2016, <http://www.afr.com/news/policy/education/education-revenue-soars-to-become-australias-20-billion-export-20160203-gmke3k>

⁹ According to APA Industry Directory, accessed 10 August 2016. This includes about 50 for primary or secondary materials, around 45 with tertiary or professional education materials, and many with both.

- adaptation of Australian materials by Australian publishers for specific international markets, which can involve tailoring of materials to local curricula or cultural or language sensitivities.

Yet, we lack contemporary information on the size and scale of Australian educational publishing exports, and its role within Australian publishing and Australian education services more generally.

The last widely-reported figure on these Australian educational publishing exports was \$80 million in 2010.¹⁰ Prior to that, the last official Australian Bureau of Statistics (ABS) figures on educational publishing exports are from over a decade ago: around \$74 million in 2003-04 (compared to imports of around \$186 million). Of these exports, 45% by value were primary (\$33 million), 9% secondary (\$6 million), 18% tertiary (\$14 million) and 28% professional and reference (\$21 million).¹¹ Excluding professional and reference, educational publishing exports totalled to around \$53 million in 2003-04.

¹⁰ Reported in PwC 2011, *Cover to cover: A market analysis of the Australian book industry*, report for the Department of Innovation, Industry, Science and Research, May. This was derived, as we understand it, from APA surveys

¹¹ ABS 2005, *Book Publishers, Australia, 2003-04*, cat. no. 1363.0, Table 9 and Table 14, 17 August. The data was derived from a special Book Publishers Survey funded by the then Australian Government Book Industry Assistance Plan initiative.

3. Value of educational publishing exports

3.1 Educational resources exports

3.1.1 Overview

Our best estimate is that **exports of Australian educational resources to overseas countries generated at least \$62 million** for Australian publishers in 2015-16. This consisted of around \$57 million in school-aged content – mainly for primary school ages – and at least \$5.5 million in tertiary content. (All figures are in Australian dollars unless otherwise stated.)

Sapere used various data sources, including an original survey, to estimate these figures. (See Appendix 1 on method.) Sapere was not able to independently validate the financial information contributed by publishers, although Sapere did seek and receive clarification where publishers' initial responses appeared to include reporting or interpretation errors.

Given data availability, the analysis below mainly focuses on aggregated 'schools' exports incorporating both primary and secondary materials and aggregated 'tertiary' exports mainly including higher education materials but also some professional learning. A more detailed break-down is made where available data can support it, without compromising commercial confidentiality.

3.1.2 Publishing segment

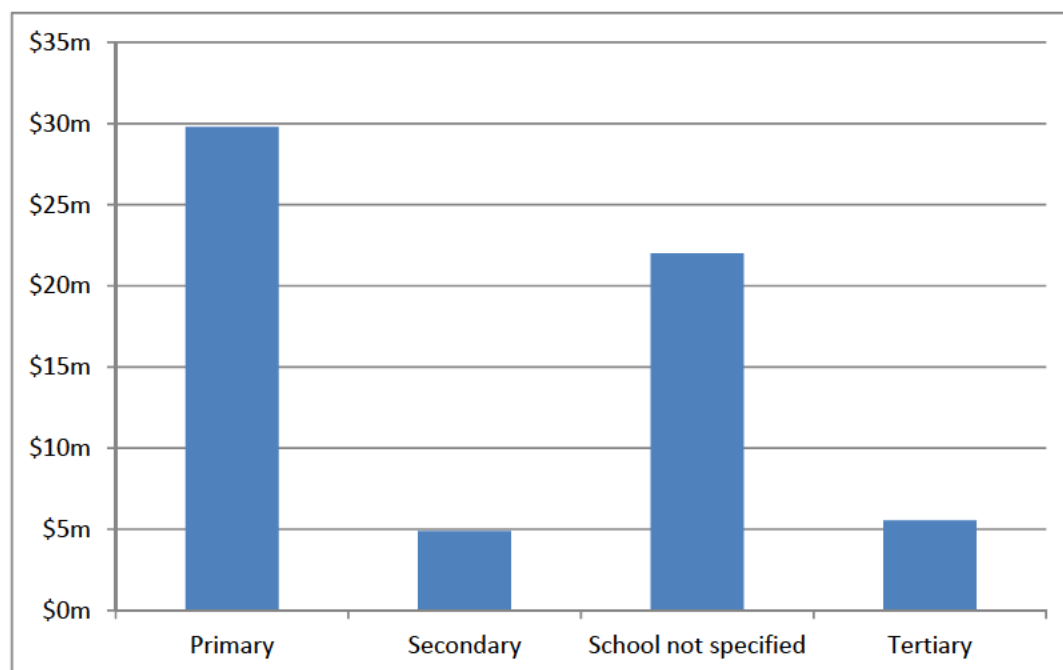
Content for schools – particularly primary schools – is the dominant segment for Australian exports (Figure 2).

Exports of primary school resources are between \$30 million and \$52 million, with a best estimate of \$49 million (or 78% of exports by value).¹² Exports of secondary school resources are between \$5 million and \$27 million (best estimate \$8.0 million, or 13%). In total, schools exports are \$57 million (91%).

Tertiary exports are a substantially lower \$5.5 million (9%).

¹² The range results from \$22 million of schools exports where information was not available on year level (i.e. primary or secondary). The best estimate applies the proportions of primary and secondary within the known amount to the total amount.

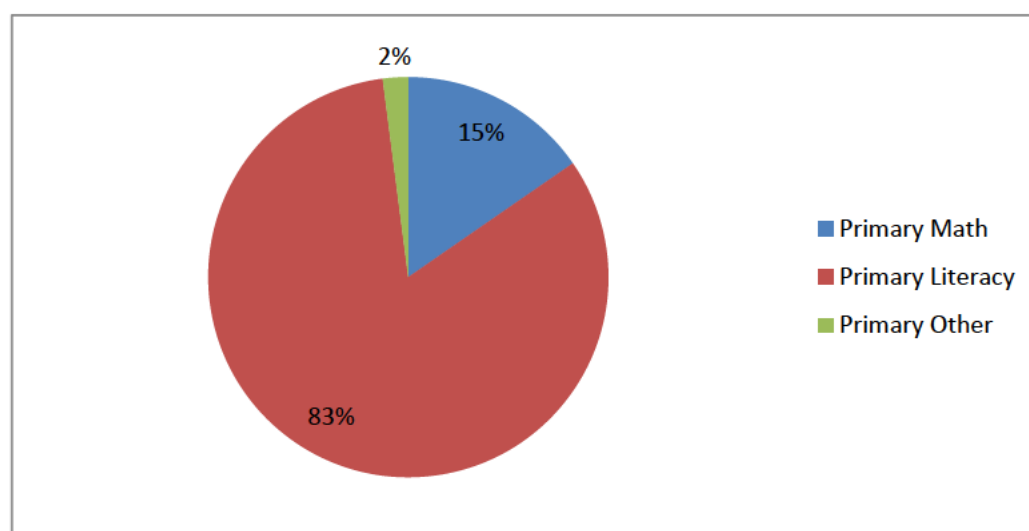
Figure 2 – Publishing segment of all educational publishing exports



Source: Sapere analysis Note: 'School not specified' could include Primary and/or Secondary

Within primary school content (Figure 3), literacy products dominate export activity (83%), with mathematics also having significant scale (15%).

Figure 3 – Detailed publishing segment for primary school exports (%)



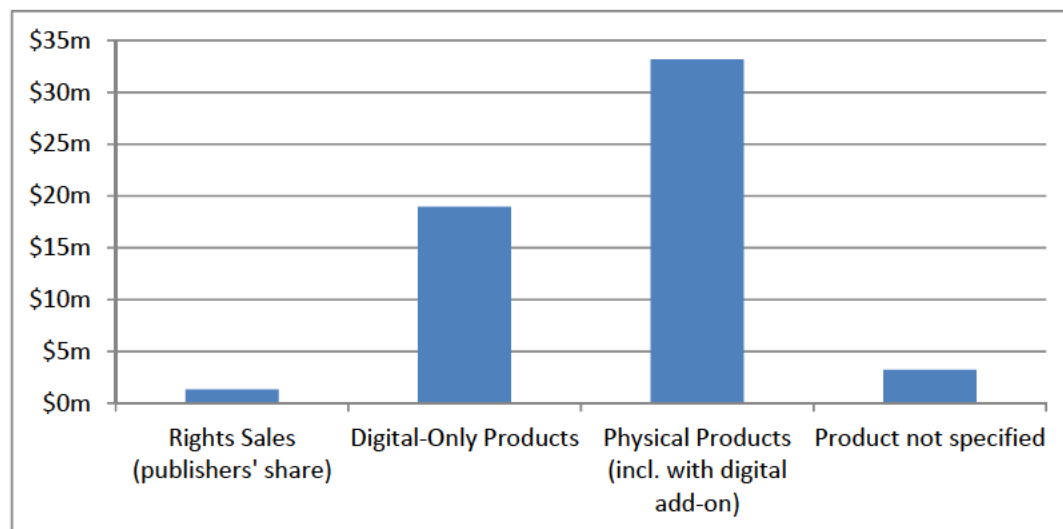
Source: Sapere analysis Note: Does not include where publishing segment not specified

3.1.3 Product format

Across the industry there is a mix of physical products such as books and ‘born-digital’ resources (Figure 4).

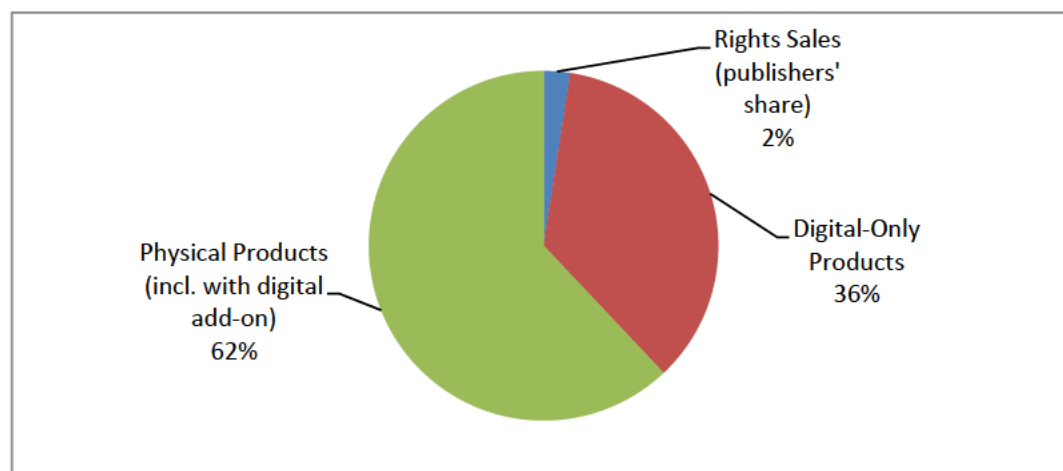
With respect to schools exports, physical products (including those with a digital add-on) still dominate export markets, constituting between \$33 million and \$36 million (best estimate \$35 million). Products only published digitally such as interactive learning products – which have only existed relatively recently – are a significant component of exports, between \$19 million and \$22 million (best estimate \$20 million). Overseas rights sales are relatively minor, just over \$1 million in total.¹³ In general, we can assume nearly two thirds of schools export revenue is for physical products (including those with a digital add-on) (Figure 5).

Figure 4 – Format of schools educational publishing exports



Source: Sapere analysis

Figure 5 – Format of schools educational publishing exports (%)



Source: Sapere analysis Note: Does not include where format not specified

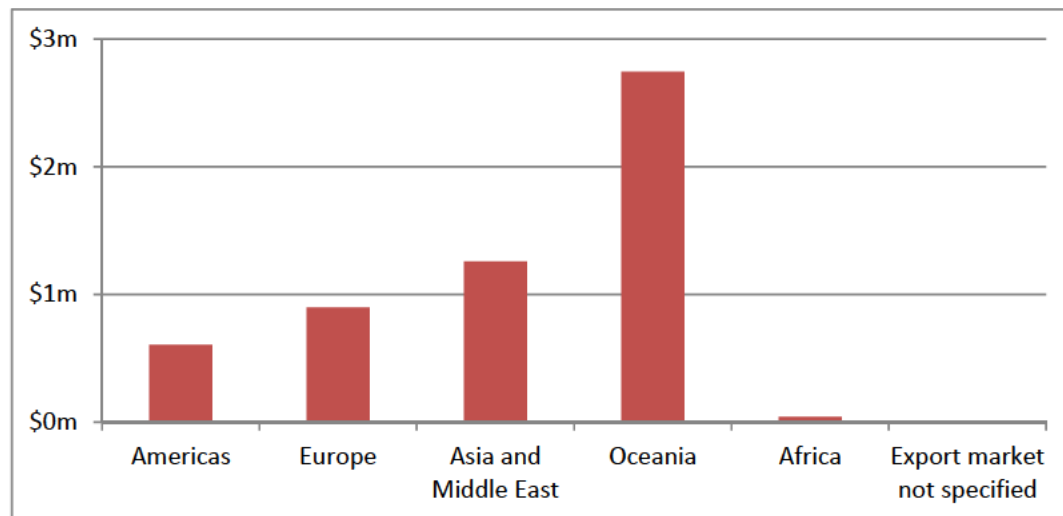
¹³ However, it may be that some survey respondents are not able to break out rights sales from other export revenue streams associated with physical or digital products, so this should be interpreted with caution.

3.1.4 Export markets

Australia's educational publishing industry exports educational materials to all continents. The export markets vary substantially by either school or tertiary resources.

The bulk of tertiary exporting (Figure 6) is to Oceania, particularly New Zealand. In general this reflects that higher education materials tend to be tailored to local context which limits their use to other markets, or the content is of principally of local interest.

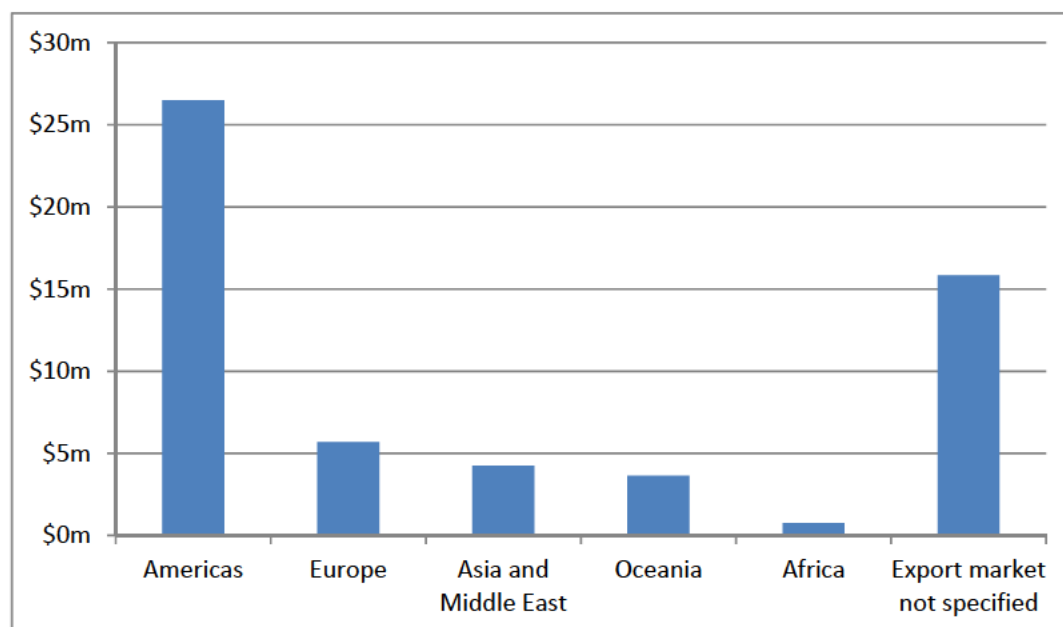
Figure 6 – Export markets of Australian tertiary educational publishing



Source: Sapere analysis

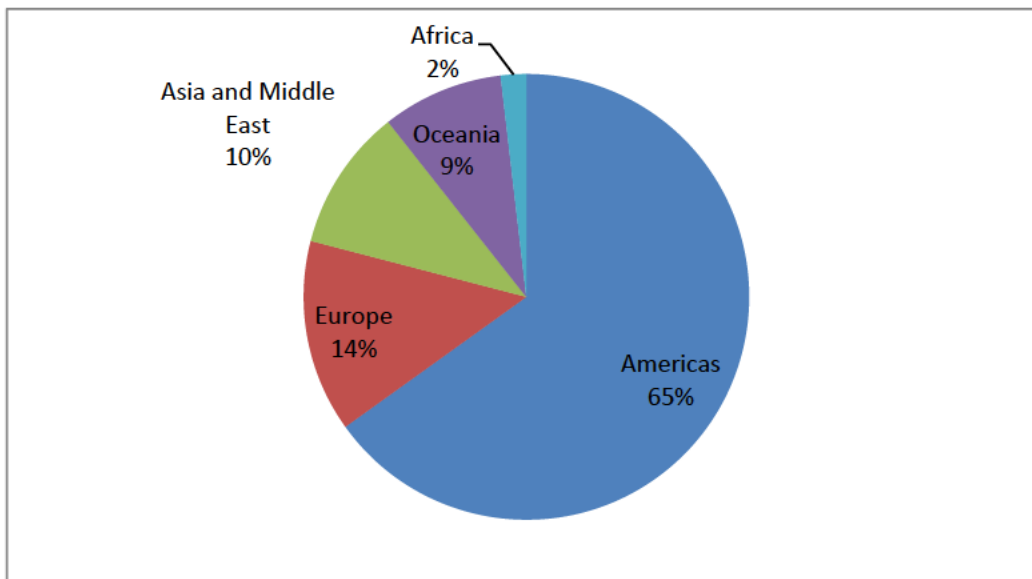
By contrast, school materials – the bulk of exports – are exported in scale to a wider range of countries, albeit with a high proportion to the Americas. (Figure 7 and Figure 8).

Figure 7 – Export markets of Australian schools educational publishing



Source: Sapere analysis

Figure 8 – Export markets of Australian schools educational publishing (%)



Source: Sapere analysis Note: Does not include where export market not specified

Within the Americas, the United States (US) accounts for most of Australian schools exports. In Europe, the United Kingdom (UK) and Ireland constitute most revenue. In Asia and the Middle East, sub-regions of East/South-east Asia and the Middle East are roughly equal in scale of Australian exports.

3.1.5 Trends

Reported export trends across the sector vary, with some publishers experiencing growth in educational exports over the last five years and some contraction.

Overall, schools publishing exports (the bulk of the sector's exports) appear to be reasonably stable or possibly slightly increasing. Our rough estimate from available data suggests an overall 5% increase over the last five years excluding one digital content publisher, or around a 40% increase including that publisher. We stress that this sector-wide statement is based on limited information and should be interpreted with a high degree of caution, particularly as it contrasts with APA data that may be more reliable.¹⁴

Unpublished data collected by the APA from a core group of major Australian educational publishers suggests that exports decreased each year between 2010 and 2015 – or, over five years, by roughly a third. Such a downward trend would be likely driven by domestic market conditions in major export markets, the US in particular. Early this decade, the US schools market experienced a period of no growth, and negative growth in some segments, related to constrained public school budgets influenced by the Global Financial Crisis as well as domestic curriculum policies. For example, the Association of American Publishers reported net sales of K-12 instructional materials decreasing from \$3.6 billion in 2010 to \$2.8 billion in

¹⁴ The APA data source may be more reliable as it was collected contemporary to each year from 2010 to 2015, whereas Sapere asked publishers in 2016 to report their exports five years previously or the approximate change over that time. However, Sapere's survey covered a broader range of publishers.

2012, albeit having now risen again past pre-contraction levels.¹⁵ In addition, Australian schools publishing exports can also be affected by periodic aid-supported procurement in Pacific countries such as PNG, which inflated figures in 2010-11.

Despite the limitations of sector-wide financial data, there is evidence (including in the case studies in section 4) of individual Australian publishers engaging with and exporting to more diverse markets over the last five years, including growing economies in Asia and the Middle East. Increased diversification in Australian export markets is likely to continue as a trend, as well as further penetration into North America.

3.2 Additional perspective – international students consuming educational publishing

Providing education services to international students who are living in Australia to study – e.g. at Australian universities – is considered a ‘services export’ from Australia. Overall spending by international students in Australia totalled \$19.9 billion in 2015-16, roughly 47% of which was fees and 53% other goods and services.¹⁶ These other goods and services consist of many things, including spending by international students on Australian-published educational resources used in their studies.

Such Australian-published education materials consumed by international students in Australia are inputs to ‘exported’ education services, and in a broad sense might reasonably be considered exports themselves. While a different kind of revenue to direct exports of educational resources to countries overseas, they are possibly relevant to a full consideration of Australian educational publishing and international trade.

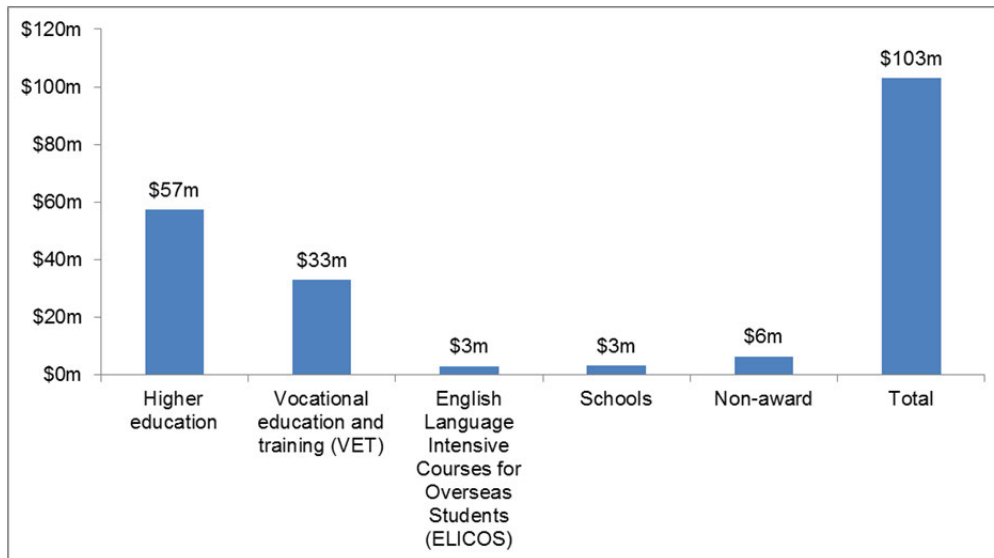
Our calculations suggest **annual spending by international students in Australia on Australian-published educational resources could be up to \$103 million** (Figure 9).¹⁷ Higher education students generate just over half this, with the remainder from students in vocational education and training (VET), English Language Intensive Courses for Overseas Students (ELICOS), non-award courses, and schools. Details of the calculations and a cross check are provided in Appendix 1.

¹⁵ AAP 2015, ‘Educational Publishing and Digital Directions: A USA Perspective’, presentation by Jay Diskey, Executive Director PreK-12 Learning Group, 28 May 2015, <https://www.nomura.com/events/nomura-media-summit-new-york/resources/upload/aap.pdf>

¹⁶ ABS 2016, *International Trade: Supplementary Information, Financial Year, 2015-16*, cat. no 5368.0.55.004, 18 November, Table 9.1 (International Trade in Services, Credits, Education Related Travel, by Educational Sector, by Type of Expenditure by Financial Year, \$m)

¹⁷ In summary, the method for calculating this is: no. of international students by type * spending on textbooks and other educational publishing per student (by type) * Australian-published proportion of Australian domestic educational publishing sales (by type).

Figure 9 – Estimated value of Australian-published educational materials consumed by international students in Australia, 2015



Source: Sapere calculations

The quality of educational institutions, their reputations and course offerings are key factors affecting the choice of destination for international students (at least, for those who are principally seeking an educational outcome).¹⁸

High-quality Australian educational publishing is one contributor to the quality of Australian educational services in general, given the entwined relationship between Australian education and the local published resources often used within our schools, universities and other educational institutions. Also, when Australian educational resources are used overseas, they arguably also drive awareness and enhance our international reputation for teaching and learning quality across all ages.

International students consistently report high satisfaction levels with course content and resources once studying, which in the view of the Department of Education and Training indicates a well-developed sector that has the resources required to help students (including international students) achieve.¹⁹

3.3 Employment attributable to educational publishing exports

A significant number of Australian jobs in educational publishing – and innovation in educational resources – rely on publishers generating revenue from international customers.

¹⁸ Productivity Commission 2015, *International Education Services*, Commission Research Paper, p.40, <http://www.pc.gov.au/research/completed/international-education/international-education.pdf>

¹⁹ Australian Government Department of Education and Training, *International Student Survey 2014 – Overview Report*, April 2015, p.6, <https://internationaleducation.gov.au/research/research-papers/Documents/ISS%202014%20Report%20Final.pdf>

We can roughly attribute at least 450 Australian full time equivalent jobs in publishing and associated services to the income generated from educational publishing exports. This consists of around 353 jobs within publishing companies, or around 474 jobs if including both publisher employees and freelance jobs (e.g. authors, illustrators, designers, editors and others who are paid in royalties or fees). Less conservative assumptions might suggest as many as 491 jobs within publishing companies, or 659 if including both publisher employees and freelance jobs.

These employment figures are calculated using the export revenue detailed in this section (both direct exports *and* international student consumption) combined with other data on industry expenses and average wages. (See Appendix 1 for detail on method and calculation.)

These jobs not only include the direct work in Australia to foster international relationships or adapt existing works for international markets. For some publishers, the creation of many new educational resources also depends on exports. Australian sales expectations alone may not be sufficient to justify research and development to create new educational resources, but the business case is justified when also taking into account export potential. In this situation, without the international market many products that directly benefit Australian students may not be created in the first place. In general terms, exports can help sustain the ongoing creation of high-quality resources for Australian students and educators and the Australian educational publishing sector more broadly.

Moreover, as exports constitute external demand for the outputs of Australian industry, it can be argued that educational publishing exports have a broader impact across the Australian economy. Using publishing industry-specific economic multipliers developed by the ABS, as many as 1,382 full time equivalent jobs across the Australian economy (persons employed full time for 2016) could rely on export demand for Australian educational publishing as related expenditure by Australian publishers flows through the economy.

4. Case studies

Below are examples of innovative and agile Australian educational publishers achieving exports to countries around the world. Case studies include content developed within Australian arms of multinational publishers and content developed by independent Australian publishers.

Case study #1 – Origo Education

Based in Brendale in outer Brisbane, ORIGO Education was established in 1997 by two mathematics educators (as Prime Education) to meet growing demand for primary mathematics education resources.

Today, ORIGO Education specialises in high-quality mathematics resources as well as professional learning services for teachers. Its products include traditional printed products to digital interactive resources and professional learning, ranging from the core curriculum to manipulatives. ORIGO Education's mathematics products include ORIGO Stepping Stones (a core program for primary schools K-6) and GO Maths.

After achieving success in Australian primary schools, ORIGO redeveloped its products for American elementary schools and their local curricula. Its first major success with Americanised materials was US publisher McGraw Hill acquiring 18 titles and providing six-figure revenue.²⁰

Figure 10 – Promotional image for Origo Stepping Stones in the US



Source: Origo Education, <https://www.origoeducation.com/>

ORIGO's Stepping Stones program was adopted in 2014 by Hawaii as a state-wide mathematics program for its 255 public elementary schools.²¹ Purchasing contracts were

²⁰ Tutty J 2016, "James Burnett and Calvin Irons from ORIGO Education find right formula for success", *The Courier-Mail*, 29 February, <http://www.couriermail.com.au/business/origo-education-find-right-formula-for-success/news-story/01aa523a435d575123e73393e52bff5b>

²¹ <http://www.ednetinsight.com/news-alerts/prek-12-market-headlines/hawaii-adopts-origo-stepping-stones-as-its-core-curriculum.html>

subsequently secured within New Mexico and Texas school districts.²² This reflects three out of the largest 50 school districts in the US – reaching half-a-million students. ORIGO now generates 80 per cent of its revenue in the US.²³

ORIGO's next major focus has been Thailand. It has been working closely with the Institute for the Promotion of Teaching Science and Technology (IPST) to develop a national mathematics program that aligns with Thailand's new national curriculum. ORIGO is working with IPST to deliver professional learning modules and to make mathematics curriculum materials available for the 2017 school year.^{24 25}

Sales, distribution and professional learning services are provided by offices in St Louis (US) and Chiang Mai (Thailand). ORIGO Education products are also distributed in other countries including Canada, NZ and other parts of Asia. As *Stepping Stones* is also published in Spanish for the American market, ORIGO is positioned for further penetration into South America.

Case study #2 – Cengage Learning Australia

Cengage Learning Australia, based in Melbourne, is a leading provider of learning solutions for the school and higher education markets. The Australia/NZ arm of multinational firm Cengage Learning was established in 2007, although has predecessors in other firms.

A key Cengage product for primary schools (K-6) are the PM readers, a collection of over 1,000 levelled fiction and non-fiction texts for student reading providing a complete literacy program to teachers. Cengage (and its predecessors) have been developing products under the PM series for about 25 years, and many of these products have been distributed internationally. Cengage has informally estimated that schools globally would have spent between \$800 million to \$1 billion on PM readers over the last 20 years.²⁶

PM resources are also specially adapted for overseas markets. For example, PM Collection has been designed to support English learning for primary school students and teachers in the Middle East. It contains vocabulary and photographs relevant to the Middle East and content familiar to Middle Eastern children (see Figure 11).²⁷

²² <http://www.tiq.qld.gov.au/awards/winners/case-studies/origo-education/>

²³ "Blue Sky does the maths and invests in Brisbane edutech player ORIGO Education", *Courier-Mail*, 13 September 2015

²⁴ Tutty J 2016, op cit

²⁵ Bitu N 2015, "Maths levels a fraction of what's required at primary schools", *The Australian*, 9 September, <http://www.theaustralian.com.au/national-affairs/education/maths-levels-a-fraction-of-whats-required-at-primary-schools/news-story/5b57baebef98c81f4cf7e0ce9679bf93>

²⁶ David O'Brien, Cengage Learning Australia, quoted in Zwar 2016, pp. 254

²⁷ <https://cengage.com.au/primary/browse-series/pm/pm-collection>

Figure 11 – Examples of the PM Collection for the Middle East



Source: <https://cengage.com/au/primary/browse-series/pm/pm-collection>

Case study #3 – 3P Learning

3P Learning Ltd, based in Sydney, provides cloud-based online education products for schools and students (K-12) covering mathematics, spelling, literacy, reading and science. Its most notable product is Mathletics, which 3P Learning states is a globally leading e-learning platform for mathematics. Other products more recently developed include Spellodrome and IntoScience.

In 2016, annual revenue had grown to more than \$18 million outside Australia/NZ (\$6 million in the Americas and \$13 million across Europe, the Middle East and Africa). This is substantial growth from around \$4 million outside Australia/NZ in 2011.²⁸

The company first developed a CD-ROM version of Mathletics software in 2004, for primary and secondary students (K-10). Mathletics was launched online with an initial online release of Live Mathletics in Australia in 2005. The company expanded to NZ in 2006, then over the next few years launched products in the UK, US, South Africa, Canada, and Hong Kong.

Mathletics now contains over 50 courses that meet the requirements of various international (national and regional) curricula including the US common core, the International Baccalaureate, the English curriculum and those in Canada, South Africa and Singapore. An Arabic language of Mathletics was launched in 2012.

²⁸ Derived from 3P Learning investor & analyst presentations for financial year 2016 and financial year 2015, available at <http://www.3plearning.com/investors/results/>

Figure 12 – Example of Mathletics in the UK



3P Learning has used collaborative events to engage schools and students and promote its products that teach educational content in new and interesting ways. For example, it has since 2012 organised the week-long ‘Pakistan Maths Challenge’ seeing students from K-8 competing in live, multi-player challenges through using Mathletics to answer self-paced adaptive curriculum-based questions. In 2016, more than 13,400 students from around 75 schools (including major private schools) from 24 cities in Pakistan participated.²⁹

Awards include Mathletics winning Math Website in the Upper Elementary category at the Best Education Software (BESSIE) Awards 2016.³⁰

Case study #4 – Haese Mathematics

Haese Mathematics, based in Adelaide, specialises in mathematics textbooks and associated software for primary and secondary school students and teachers. It was established in 1979 as Haese & Harris Publications. Haese Mathematics currently employs 24 people. Its books are only printed in English, and its materials are also available in digital form.

With an initial focus on South Australian schools, Haese diversified into textbooks for the International Baccalaureate (IB) Diploma Mathematics courses in 2004.

In 2008 Haese extended into IB Middle Years Programs and in 2009 the Cambridge IGCSE (International General Certificate of Secondary Education). The IB and IGCSE curriculums are taught in thousands of schools across the world.³¹ Other products include the

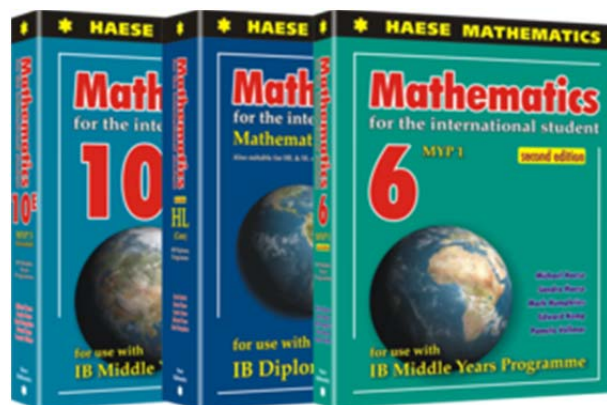
²⁹ Haider A 2016, “Weeklong Pakistan Maths Challenge to commence today”, *Daily Times* (Pakistan), 17 October, <http://dailytimes.com.pk/punjab/17-Oct-16/weeklong-pakistan-maths-challenge-to-commence-today>

³⁰ <http://www.3plearning.com/mathletics-bessie-award-2016/>

³¹ <https://www.haesemathematics.com.au/pages/about-us>

INFINITY: Test and Homework Generator providing teachers with questions for everyday exercises in class, for homework, or formal tests and exams.

Figure 13 – Haese Mathematics materials for IB students



Source: Haese Mathematics, <https://www.haesemathematics.com.au/international-baccalaureate-ib>

Today, Haese Mathematics exports into around 150 countries worldwide. Its export sales of more than \$3 million constitute more than 70 per cent of the company's sales.³²

Haese maintains warehouses in Adelaide, Los Angeles and Chicago, and for Europe has a distribution partnership with Dietmar Mohnstein Services in Leverkusen, Germany.

Its presence in Asia includes support for the annual North East Asian Mathematics Competition, bringing together students from over 25 international/IB-teaching schools from China, South Korea, Japan, Hong Kong and Bangladesh.

Case study #5 – Eleanor Curtain Publishing

Eleanor Curtain Publishing (ECP) is based in Melbourne and was founded in 1991. It develops, produces and markets specialised reading programs and literacy materials for primary schools (K-5) including reading books, support material for teachers and other ancillary material for students.

ECP's product range includes the literacy programs Alpha Kids, Explorations: Strategies for Comprehension for informative texts, and its flagship Flying Start to Literacy program. The company has total revenues of less than \$20 million and has 18 core staff and 45 contractors (in both Australia and overseas).

With content wholly developed and designed in Australia, its products are sold to schools through distribution and licensing in multiple export markets including NZ, the US, Canada, South Africa, the UK, South Korea, the United Arab Emirates (UAE), Taiwan, China and Hong Kong.³³

³² Haese Mathematics submission to the Productivity Commission, 26 May 2016, http://www.pc.gov.au/__data/assets/pdf_file/0005/200795/subdr306-intellectual-property.pdf

³³ <http://ecpublishing.com.au/about-us/>

The US is a major market. In 2008, ECP co-founded US-based Okapi Educational Publishing (in which ECP holds a majority shareholding) which sells ECP product in the US under licence. Recent major US school district orders for Flying Start to Literacy include a US\$2.5 million order from a Denver school district in 2015 and a US\$8.5 million order in 2015.³⁴

Figure 14 – Materials in the Flying Start to Literacy program for the US



Source: Okapi Educational Publishing, <https://myokapi.com/>

ECP always develops for the US and Australian/NZ markets concurrently, sometimes developing the US version of a product first and then producing the Standard English version. It adapts content and language to suit the individual export markets, including aspects such as spelling, linguistic structure and for cultural sensitivities. ECP translated the Flying Start program into Spanish for use in dual literacy programs in the US, and translated Alphakids into French for Canada and into various South African languages. For the UAE, ECP re-published a significant proportion of one program, replacing content or illustrations that could be inappropriate for Muslim culture.

ECP received a Commendation in the Arts, Entertainment & Design category of the 2006 Governor of Victoria Export Awards. It also received a Distinguished Achievement Award from the American Educational Publishers' Association in the Early Literacy Program category in 2013.

Case study #6 – R.I.C. Publications

R.I.C. Publications, based in Perth, provides supplementary resources for Australian schools in areas including maths, English, science, the arts and more. It was originally established in 1986 by a group of teachers. It is now the largest supplementary resource publisher in Australia, as well as owning operations in the UK, Ireland, South Africa, Malaysia and NZ.

R.I.C. Publications employs 45 people in Perth, a further 8 persons across Australia, and an additional 50 people across offices in other countries.

³⁴ Eleanor Curtain Publishing submission to the Productivity Commission, November 2015, http://www.pc.gov.au/__data/assets/pdf_file/0006/194667/sub069-intellectual-property.pdf

The company has a publishing list of over 1,200 titles, and publishes in excess of 60 new educational resources every year. A significant proportion of product created within Australia is licensed or distributed overseas, currently to 22 countries.³⁵ Many of its products are ‘blackline masters’, intended for licensed photocopying for classroom use.

The significant international growth for R.I.C. Publications has come from product created within Australia. Their team of external authors and in-house writers have created workbooks that have become part of the main teaching strategic in six international countries. Sales of the company’s workbooks in these international markets are valued at over \$2 million annually.

Figure 15 –R.I.C. Publications materials marketed overseas



Source: R I C Publications (South Africa), <https://ricpublications.co.za>

R.I.C. Publications’ other significant international product suite are the box range of Comprehension Box, Literacy Box and the new Maths Box. All these products are now selling in six international markets yielding sales of over \$1 million per year. The new Maths Box is currently with a US partner for decision of R.I.C. creating a US Common Core version of this product for their market.

The company’s international products are all created in its Perth base. This has led to significant job opportunities in the creative areas. Export markets account for over 50% of staff time in the production suite.³⁶

³⁵ R.I.C. Publications submission to the Productivity Commission,
http://www.pc.gov.au/__data/assets/pdf_file/0018/200916/subdr336-intellectual-property.pdf

³⁶ R.I.C Publications, personal communication with Managing Director Seamus McGuinness

5. International comparisons

5.1 Overview

Benchmarking Australia's educational export performance requires similar data about educational publishing from comparable countries. Unfortunately, for most countries, no information is accessible on the contemporary value of educational publishing exports, either from official statistics or industry reporting.

Albeit highly indicative, Table 1 provides a general comparison of various principally English language countries.

Table 1 – At a glance comparison of educational publishing exports

Exports from publishers in:	School resources only	School and tertiary resources
Australia (2015-16)	At least \$57m	At least \$62m
United Kingdom (2015)	£379m (\$642m)	£924m (\$1,565m)
Canada (2014)	Unclear, but possibly less than C\$10m (\$10m)	Unclear, but possibly less than C\$68m (\$68m)
New Zealand (2013)	Unclear, but possibly slightly less than NZ\$21m (\$20m)	NZ\$21m (\$20m)
South Africa (2014)	R41m (\$3.9m)	Unclear, but at least R41m (\$3.9m)
Ireland	Not known	Not known

Note: Schools resources are assumed to include English language teaching products. For comparison to Australian dollars, we treat the most recent year available in each country as a proxy for 2015-16, and apply a recent exchange rate. This avoids distortions of differing exchange rates across time.

Total export revenue is not necessarily directly related to the size of a country's publishing sector or domestic market size, if individual products or publishers are successful overseas. Nonetheless, the overall scale of Australia's educational publishing exports, in aggregate, appears to substantially larger than South Africa and NZ, smaller than the UK, and around the same as Canada (but much larger than Canada if only considering schools resources). On a per-capita basis, Australia is roughly the same as NZ as an educational publishing exporter, but much smaller than the UK.

In international terms, Australia has relative strength in schools publishing. Notably, Australia's exports of schools publishing to North America of around \$26 million (one of our largest markets) may be on a par with or even slightly greater than the UK's.³⁷

³⁷ Applying the proportion of North American exports in Table 3 (which only relate to physical products) to all UK schools (including ELT) exports suggests a total of around £13.6 million, or around \$22 million.

5.2 Exports from each country

United Kingdom

Educational publishing exports from the UK were at least £924m in 2015, according to the UK publishing association.³⁸ Over half was in academic/professional materials.

Table 2 – Educational publishing exports from UK, by category, 2015, 2013 and 2011

Exports from UK	2011	2013	2015
School	£108m	£118m	£129m
English-language teaching (ELT)	£241m	£268m	£250m
Academic/professional	n/a	£590m	£545m
Total	n/a	£976m	£924m

Note: Net invoiced value of physical and digital books, 2013 and 2015 Net invoiced value of physical books, 2011 Does not include reference books, as disaggregated data is not available in the non-fiction/reference category

Aside from the adjacent market of Europe, key markets for UK exports for schools resources (inclusive of ELT) are the Middle East, East & South Asia and South America. North America is a key market for academic/professional publishing but not, in relative terms, for school materials.

Table 3 – Educational publishing exports from UK, export region by category, 2015

Exports from UK	School	ELT	Acad/prof	Total
Europe	£16m	£103m	£119m	£238m
Middle East / North Africa	£56m	£38m	£42m	£136m
Africa Sub-Sahara	£10m	£3m	£26m	£39m
East & South Asia	£19m	£42m	£58m	£119m
Australasia	£2m	£1m	£12m	£15m
North America	£4m	£9m	£42m	£55m
Other Americas	£19m	£42m	£3m	£64m
Unspecified	£0m	£0m	£1m	£1m
Total	£126m	£237m	£303m	£667m

³⁸ The Publishers Association (UK) 2016, *PA statistics yearbook 2015*

Note: Net invoiced value Compared to the previous table, this table only includes physical books Data on markets of digital books not available

Ireland

No statistics are available on the contemporary value of Ireland's educational publishing exports from official statistics or industry reporting.

The relatively small number of Irish educational publishers³⁹ are focused on their domestic market. For example, Irish publishers produce 95% of the educational content used in Irish schools, which is specifically written and produced for the Irish schools' curriculum.^{40 41} Anecdotally, the UK is principal overseas market for Irish educational materials.

Canada

No statistics on the contemporary value of Canada's educational publishing exports are available from official statistics or industry reporting.

Some contemporary data is available for Canadian publishing's exports in general: a total C\$232 million exports of Canadian publishers' own titles in 2014. However, this cannot be segmented into trade and educational or in other ways.⁴²

As a very broad estimate, contemporary educational publishing exports could be less than C\$68 million in 2014 if we apply the share of Canada's publishing exports that are educational reported in the most recent year available to the 2014 data.⁴³ The most recent data on Canada's educational publishing exports was C\$43m in 2001, which was just under a third (29%) of Canada's total publishing exports at that time.⁴⁴

³⁹ The Irish Educational Publishers' Association has 10 members.

⁴⁰ <http://www.iepa.ie/iepa-survey-for-2015.asp>

⁴¹ Sinclair M, McCleery A, Graham MC 2004, *Review of publishing – a review of Scottish publishing in the 21st century – summary report*, Scottish Arts Council, <http://www.scottisharts.org.uk/resources/publications/research/pdf/RES3%20Review%20of%20Publishing.pdf>

⁴² Statistics Canada 2016, Table 361-0090 'Book publishers, detailed financial statistics by country of control', accessed September 2016 from <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3610090&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=>

⁴³ Statistics Canada 2003, *Book publishers and exclusive agents: data tables*, Table 20 'Net sales outside Canada of own titles of publishing firms, by category of the title', 87F0004XIE, November, accessed September 2016 from http://www5.statcan.gc.ca/access_acces/alternative_alternatif.action?l=eng&loc=/pub/87f0004x/87F0004XIE.xls

⁴⁴ In 2001, schools (elementary and high) textbook publishing accounted for 3% of Canada's total book exports, and post-secondary textbook, scholarly, and professional and technical accounted for around 27% of total book exports, a combined 29%. Exports were defined as 'products having physically crossed the Canadian border going to a foreign address'. This therefore excludes rights sales and books printed outside Canada that did not enter Canada (which together constitute the bulk of foreign sales), however all books segments could be expected to be affected proportionally.

It has been argued that Canadian K-12 materials tailored to particular provincial or regional curricula limits the export potential of these resources (indeed, their potential across provinces).⁴⁵

New Zealand

New Zealand educational publishing exports were a reported NZ\$21 million per year in 2013⁴⁶. Six educational publishers reported exports of over \$1.5 million.

The most frequently reported export markets were Australia, USA, UK, Canada and Singapore. Literacy for primary and secondary age learners and teaching practice resources were reported as the most common export products.

No further information is available on the contemporary value of NZ's educational publishing exports from official statistics or industry reporting.

South Africa

In 2014, South Africa's educational publishing exports valued R41 million, including mostly exported books plus a minimal amount of rights sales.⁴⁷ This covered educational resources for schools, adult education and technical vocational education and training. No information was available on higher education exports. Educational products constitute the bulk of the South African publishing sector in general, with trade products only accounting for a small component.

⁴⁵ PwC 2015, *Economic Impacts of the Canadian Education Sector's Fair Dealing Guidelines*, June, p.36, https://www.accesscopyright.ca/media/94983/access_copyright_report.pdf

⁴⁶ Education New Zealand 2013, *Educational Publishing Export Programme – Export Growth Strategy (2013-2016)*, p.2, <http://www.enz.govt.nz/assets/Uploads/Export-Growth-Strategy-June-2013.pdf>. Based on data collected from 22 educational publishers by Jules Annear for the Publishers Association of New Zealand on behalf of Education New Zealand.

⁴⁷ Publishers' Association of South Africa 2016, *Annual Book Publishing Industry Survey 2014*, Table 3, June, accessed from <http://www.publishsa.co.za/documents/industry-statistics>. Possibly, exports may have included re-exportation of imported print books as the underlying data may not be reliable.

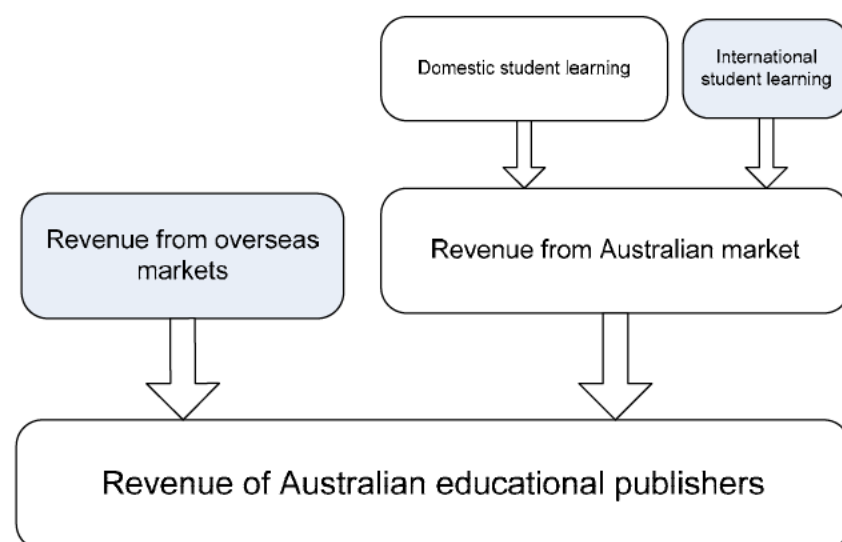
Appendix 1 – Notes on method

Value of educational publishing exports

Revenue of Australian publishers associated with exports has two possible components (Figure 16):

- exports of Australian-published educational resources to users overseas – which is the main (which are the core, typical and usual ; and
- use of Australian-published educational materials by international students in Australia.

Figure 16 – Simplified graphic of sources of revenue for Australian educational publishers



Source: Sapere analysis

For revenue from overseas markets, Sapere developed a bespoke spreadsheet-based survey in September 2016, asking Australian publishers to provide (confidential) financial information on their revenue generated from exports of Australian-published resources from their most recent available year (typically 2015-16). This was distributed to relevant publishers through the APA and the Copyright Agency.

Sapere received a response reporting non-zero exports from 15 schools publishers (7 major multinational publishers and 8 independent publishers) and 9 tertiary publishers (5 multinationals and 4 independents), plus others that reported zero or effectively zero exports. Sapere was not able to independently validate the figures contributed by publishers. Where there seemed to be calculation errors or reported figures seemed disproportionate, Sapere did check with the publisher which in some cases resulted in the publisher making adjustments to their response.

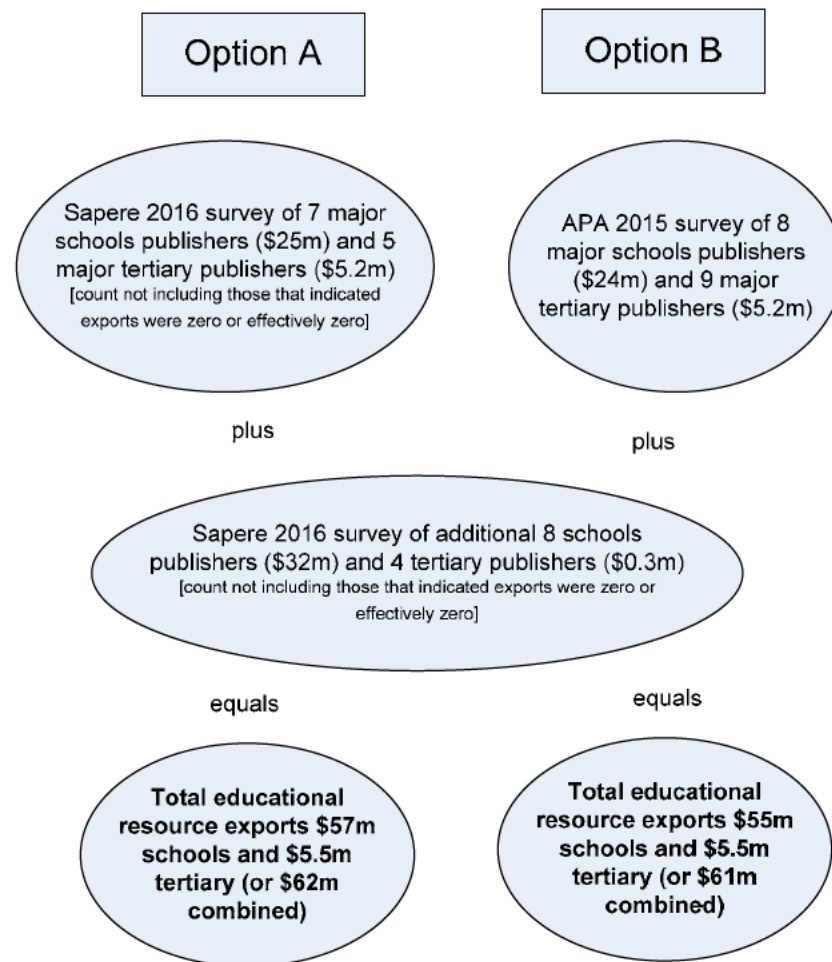
Aggregating these results gave a total of \$56.5 million schools and \$5.5 million tertiary, or \$62.2 million combined (see Option A in Figure 17).

A small number of major tertiary publishers did not provide a response to the Sapere survey. This had the potential to under-report industry-wide figures for tertiary publishing in Option A.

For the purposes of validation, Sapere also had access to figures for 2014-15 provided by 8 school publishers in schools and 9 tertiary publishers (10 in total, given most publish both types) to the APA to inform its non-public Industry Report for 2015. This covered all the major publishers, although the names of the specific contributors to the APA Industry Report are specified by the APA as not for disclosure. (In the same spirit, we do not disclose the names of the publishers that contributed data to Sapere.). An alternative Option B uses the APA figures for the major publishers (adjusted to remove the APA's own subjective adjustment to scale up results from major publishers to the full industry)

The results for the major publishers is very similar between the two options, including the major tertiary publishers. This gives confidence that Option A, as used in this report, is an appropriate reflection across the educational publishing sector.

Figure 17 – Summary of two options for calculating industry-wide export aggregates



International students spending on educational resources

The general method for calculating annual spending by international students in Australia on Australian-published educational resources involved:

- number of international students (by type), multiplied by
- spending on textbooks and other educational publishing per student (by type), multiplied by
- Australian-published proportion of Australian domestic educational publishing sales (by type).

Number of international students

As at June 2016 the number of international students in Australia is 406,949 (see Table 4). This only includes students who are on a student visa, where more than half (229,132 students) are doing higher education and the other four types combined comprise 177,817 students.⁴⁸

Table 4 – Number of international students in Australia on a student visa

Student category	No. of students	By %
Higher education	229,132	56%
Vocational education and training (VET)	91,691	23%
English Language Intensive Courses for Overseas Students (ELICOS)	44,818	11%
Schools	17,433	4%
Non-award	23,875	6%
Total	406,949	100%

International students in higher education are divided into three segments – undergraduate (61%), postgraduate coursework (33%) and postgraduate research (6%)⁴⁹. These proportions are applied to the higher education student numbers above to estimate students for these three categories.

Spending on textbooks and other educational publishing per student

International higher education student spending on textbooks per year is estimated as \$611 for undergraduate, \$565 for postgraduate coursework, and \$202 for research.⁵⁰ We assume no change between 2016 and the report from 2012.

⁴⁸ Australian Government Department of Education and Training (DET) 2016, International Student Enrolment Data, accessed from https://internationaleducation.gov.au/research/International-Student-Data/Documents/INTERNATIONAL%20STUDENT%20DATA/2016/2016_0106.pdf

Note the number we adopted is the “total in month” number but not the international student number (by enrolment) in Australia as adopted in many other researches. The former is more accurate for our purpose, while the latter counts accumulative enrolment numbers and is likely to overestimate the result.

⁴⁹ DET, uCube, accessed September 2016 from <http://highereducationstatistics.education.gov.au/Default.aspx>

For spending per school student, no direct evidence was available. We have assumed \$260 per student. This draws from estimates of “metropolitan Australia estimated [secondary] schooling costs in 2016” from Australian Scholarships Group (ASG) to make the inference that school educational publishing spending per student is \$245 for government schools, \$281 for systemic (e.g. Catholic) schools and \$320 for private schools.⁵¹ Our assumption of \$260 reflects a weighted average of total students across each sector.⁵² Using metropolitan secondary school figures appears reasonable given the student numbers relate to students on visas studying independently in Australia, and that most international students study in metropolitan areas.⁵³ We further assumed international students’ educational publishing spending does not differ systematically from domestic students’.

For VET and ELICOS, the figures of per student spending are based on statements about expected textbook costs on provider websites.^{54 55} Spending on educational publishing for non-award courses is assumed to be the same as undergraduate coursework.

Australian-published proportion of Australian domestic educational publishing sales

Using the most recent ABS publication about the sector⁵⁶, the share of sales of printed books in Australia (by value) originated and published by Australian publishers for primary and secondary is about 70%. The equivalent values for tertiary and professional & reference are 44% and 73% respectively. While this publication is now over a decade old, it provides the most robust available data.

Calculation and cross-check

Through combining these inputs by student type, a total \$103 million is calculated (see Table 5 and Table 6).

Various estimates of the total domestic market for Australian-published educational resources range from around \$313 million (reported by the ABS in 2005) to \$410 million (reported by Zwar in 2016) to some proportion (possibly around a half) of \$740 million (adapted from figures

⁵⁰ Derived from Universities Australia 2013, *University student finances in 2012: a study of the financial circumstances of domestic and international students in Australia's universities*, report by Emmaline Bexley, Suzanne Daroesman, Sophie Arkoudis and Richard James for the Centre for the Study for Higher Education at The University of Melbourne, July, Table 9.5, accessed from <https://www.universitiesaustralia.edu.au/ArticleDocuments/210/Final%20report%20University%20student%20finances%20in%202012.pdf.aspx>

Inflation adjustment applied, using inflation data from ABS, cat. 6401.0, Tables 1 and 2, accessed from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6401.0Jun%202016?OpenDocument>

⁵¹ Assuming 60% of the costs under the “Necessities” category are educational publishing materials, accessed September 2016 from http://www.asg.com.au/doc/default-source/Media-Releases/Planning-for-Education-Index-2016/ASG_EdCosts_SchoolCosts_2016_NAT_Metro.pdf

⁵² Table 31a, ABS cat. No 4221.0, accessed September 2016 from <http://www.abs.gov.au/ausstats/subscriber.nsf/log?openagent&table%2031a%20all%20schools,%202001-2015.xls&4221.0&Data%20Cubes&05721AF354AD0129CA257F790033B53C&0&2015&18.03.2016&Latest>

⁵³ DET 2016, *Study locations of international students in 2015*, https://internationaleducation.gov.au/research/Research-Snapshots/Documents/Regional%20study%20locations_FINAL.pdf

⁵⁴ Assumed \$495 given uniforms, equipment and textbooks costs range from \$300-\$2500 depending on course, as per TAFE NSW International (<http://www.studyintafe.edu.au/study/tafe/fees>)

⁵⁵ Assumed \$95 given ELICOS textbook costs between \$70-\$120 depending on course, as per University of Canberra (<http://www.canberra.edu.au/future-students/courses/english-language/english-language-intensive-courses-for-overseas-students-elicos/elicos-fees>)

⁵⁶ ABS 2005, *Book Publishers, Australia*, cat. no. 1363.0, Table 14, 17 August.

reported by PwC in 2010)⁵⁷. A total of \$103 million consumed by international students in Australia would reflect at most a third of Australian-published educational resource sales. Given roughly a quarter of total higher education students in Australia are international, the estimate seems broadly reasonable, in the absence of more accurate measurement.

Table 5 – Summary of calculation for international students

Type		No. of students	Spending per student	Australian share	Calculated expenditure
Higher education	Undergraduate	138,802	\$611	44%	\$37m ⁵⁸
	Postgraduate coursework	76,350	\$565	44%	\$19m
	Postgraduate research	13,980	\$202	44%	\$1m
VET		91,691	\$495	73%	\$33m
ELICOS		44,818	\$95	73%	\$3m
Schools		17,433	\$260	70%	\$3m
Non-award		23,875	\$611	44%	\$6m
Total					\$103m

Table 6 – Summary of input sources for international students

Type		No. of students	Spending per student	Australian share
Higher education	Undergraduate	Department of Education and Training (DET)	Universities Australia	ABS cat. 1363.0
	Postgrad coursework	As above	Universities Australia	
	Postgrad research	As above	Universities Australia	
VET		DET	NSW TAFE	As above
ELICOS		DET	University of Canberra	As above
Schools		DET	Derived from ASG and ABS	As above
Non-award		DET	As per coursework	As above

⁵⁷ \$820 million (total) - \$80 million (exported) = \$740 million, page 15 and page 23, PwC 2011 *Cover to cover*.

⁵⁸ Due to rounding, total may not correspond with the multiplication or the sum of the separate figures.

Employment attributable to educational publishing exports

Directly attributable jobs is calculated using the income from both direct exports *and* international student consumption, combined with other data on industry expenses and average wages. The same method can be used to estimate the impact of direct exports only.

Firstly, a relationship is drawn between sector revenue and employment:

- In 2003-04 the Australian publishing sector (not solely educational publishing) had total income of \$1,493 million and directly employed 5,300 persons.⁵⁹ In rough terms, one person was employed for every \$281,660 in income, or 3.6 persons for every \$1 million in income. This does not include freelance authors, illustrators, designers, editors and others who are paid in royalties and fees rather than wages and salaries – arguably equivalent to a further 1,805 persons using the same average wages and salaries as for employees. Including both gives 4.8 employees and freelancers per \$1 million in income.
- Accounting for rising wages since 2003-04 (using data on full time earnings in the Information Media and Telecommunications division of the Australian and New Zealand Standard Industrial Classification (ANZSIC)⁶⁰, which publishing falls within), we can estimate that today (mid-2016) there is roughly 2.9 employees and freelancers for every \$1 million in publisher revenue (or 2.1 for employees only).
- Given contemporary export income associated with educational publishing of around \$165 million (\$62 million in educational resource exports and \$103 million in content to international students in Australia), this translates to around 474 employee and freelance jobs in 2016 (or around 353 for employees only).
- However, this may be an under-estimate if wages in publishing are rising at a slower rate than the ANZSIC division as a whole (as is likely given the average division-wide annual growth rate of around 9%). More Australians would be employed in the publishing sector per unit of publisher revenue than is estimated above. As a sensitivity test at 3% annual wage growth (perhaps more reflective of educational publishing), the equivalent figures are 659 employee and freelance jobs (or around 491 employees only).

Moreover, as exports constitute external demand for the outputs of Australian industry, it can be argued that educational publishing exports have a broader impact across the Australian economy.

- For 'book and other publishing', the gross value added multiplier was 1.29 and FTE employment multiplier (for every million dollars of expenditure) was 17 in the year 1996-97⁶¹
- In 1996-97 terms, contemporary export income associated with educational publishing would be \$102 million after adjusting for Australian economy-wide price changes (or \$38 million for direct educational resource exports only).⁶²
- We conservatively assume domestic expenditure attributable to the export income was 80% of that income. As justification, across Australian educational publishing in general,

⁵⁹ Data from ABS 2005, *Book Publishers, Australia*, cat. no. 1363.0, Tables 1, 5 and 8, 17 August. This is the most recent year of publication.

⁶⁰ Data from ABS 2016, *Average Weekly Earnings, Australia, May 2016*, cat. no. 6302.0, Table 10H, 18 August,

⁶¹ ABS 2002, 'Multipliers for culture-related industries', report for the Cultural Ministers Council Statistics Working Group, http://culturaldata.arts.gov.au/publications/statistics_working_group/other/multipliers_for_culture-related_industries#Australian%20multipliers%20for%20culture-related%20industries

⁶² ABS 2016, *Consumer Price Index, Australia, Jun 2016*, cat. no. 6401.0, 27 July

expenses were equivalent to 92% of income in 2003-04.⁶³ Most expenses would be domestically incurred, with some printing undertaken overseas a notable exception.

- Consequently:
 - the increase in gross value added (approximately the increase in GDP) associated with the export income would be around \$171 million for 2016; and
 - employment across the Australian economy associated with that export income is equivalent to 1,382 persons employed full time for 2016 (or 520 if considering direct educational resource exports only).⁶⁴

⁶³ ABS 2005, op cit, Table 3

⁶⁴ Calculated as $17 * 101.6 * 80\% = 1,382$ persons, and $17 * 38.3 * 80\% = 520$ persons.

Appendix 2 – Industry participants

For general background, current members of the Australian Publishers Association (APA) involved in educational publishing are below. Note that APA members do not reflect all Australian publishers, and not all of these publishers have material levels of exports.

Table 7 – List of APA members in educational publishing

Schools Education (Primary or Secondary)	Tertiary and Professional
ANZAC Day Commemoration Committee	Aboriginal Studies Press (AIATSIS)
Artbeat Publishers	Allen & Unwin
Artroom Productions	ATF Press
Australian Academy of Science	Australian Academic Press Group
Australian Children's Television Foundation	Australian Council for Educational Research (trading as ACER Press)
Australian Council for Educational Research (trading as ACER Press)	Batchelor Press Batchelor Institute
Batchelor Press Batchelor Institute	Bookery
Boolarong Press	Boolarong Press
Butternut Books	Boyer Educational Resources
Cambridge University Press	Cambridge University Press
Cengage Learning Australia	Cengage Learning Australia
Cool Australia	Creatavision Publishing
Currency Press Pty Limited	CSIRO Publishing
Eleanor Curtain Publishing	Currency Press
Era Publications	Eleanor Curtain Publishing
Firefly Education	Elsevier Australia
Footprint Books	Footprint Books
Garratt Publishing	Garratt Publishing
Harbour Publishing House	Geddes a Drink Publications
InHouse Publishing	Harbour Publishing House
Insight Publications	Horizon Publishing Group
Jabiru Publishing	Insight Publications
Kennedy Press	LexisNexis Australia
Knowledge Books & Software	McGraw-Hill Education (Australia)
Macmillan Science and Education Australia	National Gallery of Australia (NGA)
McGraw-Hill Education (Australia)	Nutrition Consultants Australia
Of Primary Importance	Oxford University Press Australia (OUP)
ORIGO Education	Pademelon Press
Oxford University Press Australia (OUP)	Pearson Australia
Pademelon Press	Plainspeak Publishing
Pascal Press	Primary English Teaching Association Australia
Pearson Australia	Reedy Books
Plainspeak Publishing	RenBro Publishing
Primary English Teaching Association Australia	Rosenberg Publishing
Psych4Schools	Spinifex Press
Quirky Kid	St. Plum-Blossom Press
R.I.C. Publications	Taylor & Francis Group
Reedy Books	The Spinney Press

Schools Education (Primary or Secondary)	Tertiary and Professional
Scale Free Network Scholastic Australia Serenity Press Thames and Hudson Australia The Base Factory Products The Spinney Press Touguar Ink Urban Lyrebirds Walker Books Australia Wild Dog Books Wiley Woodslane (Distribution)	Tigerace Books Touguar Ink UNSW Press/New South Books UWA Publishing Why Warriors Wiley Wolters Kluwer - Health LRP Woodslane (Distribution)

Source: APA Industry Directory, accessed 10 August 2016

Appendix 3 – Summary results

Further detail on the export figures discussed in section 3.1 is below. The results are not disaggregated further to avoid making commercially sensitive financial data public, given some segments or export markets have a small number of participants.

Schools publishing exports

Table 8 – Schools export revenue by product category, 2015-16

	\$'000's
Primary Titles	29,790
Secondary Titles	4,894
Not otherwise categorised	157
Schools titles not specified	21,834
TOTAL	56,674

Table 9 – Schools export revenue by export market, 2015-16

	\$'000's
<u>Americas</u>	
USA	17,220
Canada	2,448
Other North America & South America	8
Americas not specified	6,816
Sub-total Americas	26,492
<u>Europe</u>	
UK and Ireland	4,796
Other Europe	251
Europe not specified	638
Sub-total Europe	5,686
<u>Asia and Middle East</u>	
Middle East	1,585
India and subcontinent	558
Other Asia (e.g. China, Japan, south-east Asia)	1,719
Asia not specified	400
Sub-total Asia and Middle East	4,262
<u>Oceania</u>	
New Zealand	1,486

PNG	2,137
Other Oceania (e.g. Fiji)	11
Sub-total Oceania	3,633
<u>Africa</u>	
South Africa	275
Other Africa	1
Africa not specified	478
Sub-total Africa	754
Export market not specified	15,847
TOTAL	56,674

Tertiary publishing exports

Table 10 – Tertiary export revenue by product category, 2015-16

	\$'000's
Tertiary Textbooks	4,156
Other Tertiary	1,390
TOTAL	5,545

Table 11 – Tertiary export revenue by export market, 2015-16

	\$'000's
<u>Americas</u>	
USA	502
Canada	98
Other North America & South America	5
Sub-total Americas	605
<u>Europe</u>	
UK and Ireland	878
Other Europe	20
Sub-total Europe	898
<u>Asia and Middle East</u>	
Middle East	0
India and subcontinent	2
Other Asia (e.g. China, Japan, south-east Asia)	1,255

Sub-total Asia and Middle East	1,258
<u>Oceania</u>	
New Zealand	2,469
PNG	105
Oceania not specified	170
Sub-total Oceania	2,744
<u>Africa</u>	40
TOTAL	5,545