




Australian Government  
Australian Trade and Investment Commission

# Australian State of Exporters Report

How exporters contribute to Australia's economic prosperity





The Australian Trade and Investment Commission (Austrade) acknowledges the Traditional Custodians of this country throughout Australia and their continuing connection to land, sea, and community. We pay our respects to them, their cultures, and to their Elders past, present, as well as emerging leaders.

Austrade are committed to generating opportunities for First Nations businesses and helping them succeed in international marketplaces.

## Other acknowledgements

The State of the Exporters report is a new annual publication by The Australian Trade and Investment Commission (Austrade). We appreciate the work of Austrade in preparing this report especially Laura Bateman, Anne-Louise Knight, Ashley Brosnan and Heather Cotching. We are grateful for the support from Nikhil Kant, Matthew Johnson, Ian Oliveira, Jacky Southcott, and Melanie Harris as well as the Austrade's Communications and Marketing Division, in particular Matt O'Leary, Gabrielle Easter and Madeleine Brown.

We thank the Australian Bureau of Statistics, in particular, Simon Chadwick, Lisa Gay and Talei Parker, for their support of this publication and their feedback and comments on the initial draft.

We also thank the Department of Foreign Affairs and Trade, in particular Leo Carroll, IP Australia, particularly Michael Falk, the Department of Industry, Science and Resources, particularly Razib Tuhin, Supply Nation, particularly Chris Rees, and the Department of Treasury for their feedback on and support of this report.

We thank the Australian Export Awards team and the contributions of Australian businesses for sharing their stories of success and resilience in this report including Clean & Pure Skincare, Spectainer, Dutjahn Sandalwood Oils and ResMed.

**Published by Australian Trade and Investment Commission (Austrade). First published February 2023**

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Australia's reputation for quality goods and services drives demand for our products around the world. Our critical minerals help fuel the global electronic vehicle industry, our food and wines are served up at top restaurants, and our education institutes attract students in search of world-class qualifications. Behind our nation's success are our exporters – both small and large – who are the engine room of our economy.

The Australian State of Exporters Report uses data to tell our exporters' stories. It provides an analysis around their contribution to our economy, and will inform policy to help them go further, faster.

In the 2020-21 financial year, Australian companies exported to more than 230 markets. Collectively, they had over \$1.5 trillion turnover, adding around \$650 billion to our economy, while employing around 3 million Australians.

Exporters are navigating disruptions brought by COVID-19, supply chain shocks and global tensions. Their ability to overcome challenges is second to none. In fact, companies that export have shown to be more resilient to these shocks than their non-exporting counterparts.

Free, fair and open trade is the cornerstone of the Australian economy. More trade is key to the economic future we want, with secure, high-paying jobs, and affordable living costs.

Our government is helping Australian exporters diversify their overseas markets, including through new bilateral and regional free trade initiatives. We also believe a diversified economy that harnesses Australian ingenuity will make us stronger. This means not only diversifying where we export, but what we export. A key part of this is working with partners to boost digital trade and resilient supply chains powered by green energy.

I'm pleased to present this publication to assist industry and the public to understand how exporters contribute to Australia's economic prosperity.

Regards,

**Don Farrell**

Senator the Hon Don Farrell, Minister for Trade and Tourism

# Contribution by Australian exporters in 2020-21

Over  
**\$1.56**  
trillion AUD  
turnover

Over  
**\$646.6**  
billion AUD  
value-added  
**31%** of nominal GDP

exported to  
**2.8**  
average markets

**~3 million**  
jobs  
**23%** of the labour force

## Exporters generated:

**65% more**  
value-added than non-exporters

**14% more**  
employment than non-exporters

**43% higher**  
wages than non-exporters

Exporters are  
**64% more**  
productive than non-exporters

Exporters were  
**9% more**  
likely to survive the early years  
of the COVID-19 pandemic  
(2018-19 to 2020-21)



# Executive summary

The Australian Trade and Investment Commission — Austrade — promotes Australian trade, investment, tourism and education to the world. Austrade are experts in connecting Australian firms to the world and the world to Australian firms.

As Australia's dedicated export promotion agency, Austrade has a particular interest in understanding Australian exporters. Information on exporters' average size, growth rates, trading partners and industry sectors help inform government priorities and Austrade's programs. Making this information publicly available adds to the depth of knowledge on exporters, who contribute significantly to Australia's economic activity and employment.

## **Exporters are larger and better performing than non-exporters**

The inaugural Australian State of Exporters Report provides information on how exporters contribute to Australia's economic prosperity. Exporting to a diverse range of markets, across a wide range of industries, exporters have shown to be larger, more productive, more skill and capital-intensive, more innovative and to pay higher wages than non-exporting firms.<sup>1</sup>

<sup>1</sup> Bernard & Jensen, 1995 & 1997; Wagner, 2007; Baldwin & Gu, 2004; Tuhin, 2016; Tuhin & Swanepoel, 2017

## **Exporting is also associated with a higher probability of firm survival and greater resilience to economic shocks**

The last few years have been incredibly difficult for many firms – navigating the COVID-19 pandemic restrictions, adjusting to air and sea freight disruptions, and facing increasingly frequent extreme weather events. Closed borders significantly limited mobility – both in terms of travelling to overseas markets to meet with old and new customers, as well as limiting inbound tourists, international students, working-holiday makers and skilled migrants.

Australian exporters were more resilient to the global economic shocks experienced in 2020-21 compared to non-exporters. Exporters were 9% more likely to survive during the early years of the COVID-19 pandemic than non-exporters.

This resilience could be partially attributed to exporters having higher turnover and more employees than non-exporters on average. The reasons for this increased resilience require further research, but suggest that overall, exporting activities are highly valuable to the Australian economy.

# Interpreting the figures in this report

The time frame for analysis is focused on 2020-21, as the most recent year with full financial year data available. Figures are recorded as nominal values and reported annually by financial year. All value figures quoted in the report are Australian dollar values (A\$).

2020-21 is a non-typical year for analysis, given the significant impacts of the COVID-19 pandemic on exporters, and the Australian economy overall.

Our analysis focuses on a subset of exporters from within the total cohort, where there was sufficient data available for statistical analysis.

This report uses data from the Business Longitudinal Analysis Data Environment (BLADE) and the Department of Home Affairs Integrated Cargo System (Australian Border Force) data to draw together a rich set of information on current exporter attributes and activities. As such, if we were not able to link an exporter between the two datasets using the ABN, the business has been excluded from the analysis.

The data used in this report includes both merchandise and services exporters, but due to problems with collecting services export data it is likely that services exports are under-represented in our analysis.

## Median – the middle value

When describing the typical attributes of an exporter, we have elected to use median, or ‘the middle’ value, rather than the mean value, to better reflect the wide diversity in the exporter cohort. While the vast majority of exporters are SMEs, there are a number of very large multinationals and using the median is more effective when there are extreme values, either very small or very large. Using the mean for this cohort would have skewed the results upwards, by overweighting the impact from the very large firms.

## What is an exporter?

In our analysis, we define ‘exporters’ as firms which have annual export sales greater than \$2,000. We refer to non-exporting firms which do not record annual export sales greater than \$2,000 as ‘non-exporters’. Additionally, we exclude any non-employing firms, which registered less than 1 FTE.\*

\*Full-time equivalent

## State of Exporters sample

95% of export value

24,609 firms

- ✔ Supplied ABN when exporting (in order to link to BLADE)
- ✔ Exported more than \$2k in 2020-21
- ✔ Employed at least one person

By defining the sample in this way, we are able to generate the most comprehensive insights on Australian exporting firms to date and compare exporters with non-exporting firms across a range of key metrics.

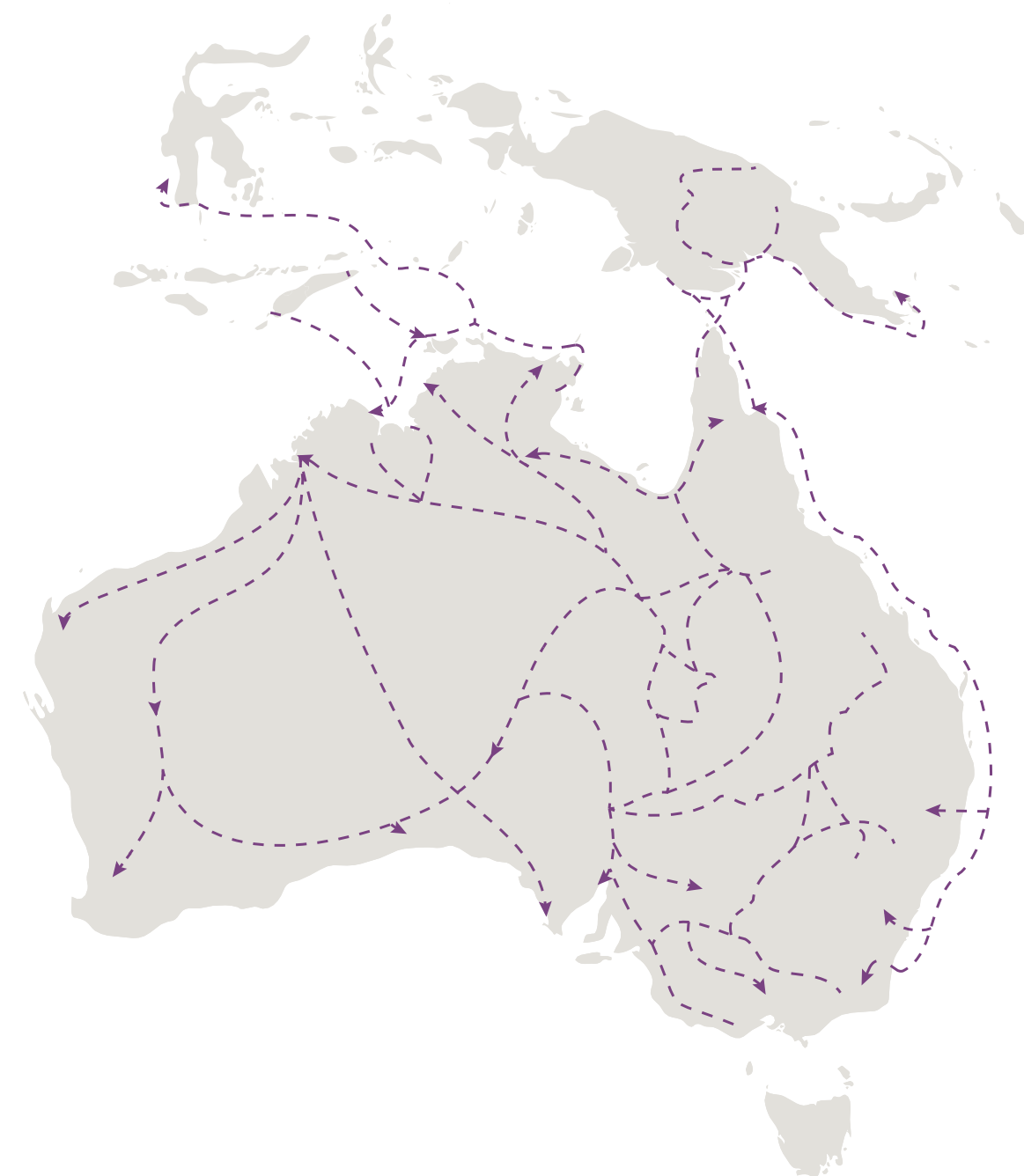
However, this selection process has a material impact on the count of the total number of exporters. This is most significant for small businesses, who by definition are less likely to employ staff or export more than \$2,000 worth of goods in a given year.

For more information on the data and methodology used in this report, see the Appendices.



# Introduction

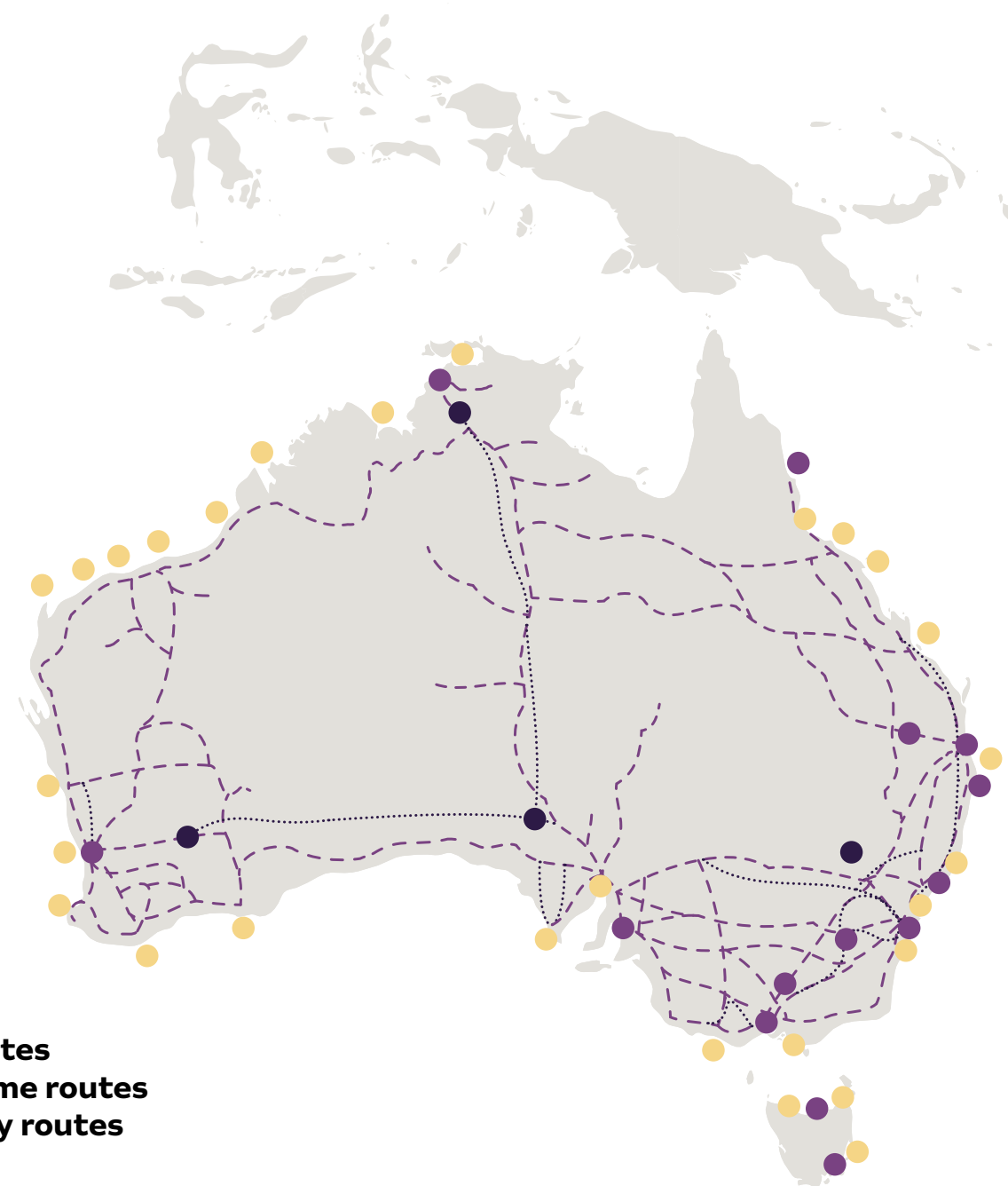
International trade has always been an integral part of the Australian economy. First Nations Australians conducted trade for tens of thousands of years prior to federation, and internationally over the past 300 years with our South-East Asian and Pacific neighbours and ‘Makassan’ fishers who sailed from Makassar in Indonesia. European colonisation disrupted these trading routes and shifted trading patterns to European and North American markets.



**Figure 1A.** Australian trading routes pre-colonisation

**Sources:** Austrade Economics; Map created from McCarthy 1939 (note these routes functioned seasonally)

Today our trade market profile is deeply connected within the Indo-Pacific but remains highly diverse, with Australian exporters serving over 234 global markets. Services, particularly education and tourism, have emerged as important exports, alongside Australia’s strengths in professional and financial services and technology. Australian exporters have adapted in the face of economic shocks and are determined to diversify to new markets.



**Figure 1B.** Australian modern day key freight routes

**Sources:** Map created from Department of Infrastructure, Transport, Regional Development, Communications, and the Arts (2022b) National key freight routes web app



60%

of Australian merchandise export transactions are shipped by sea freight or bulk carriers<sup>2</sup>



40%

of Australian merchandise export transactions are shipped by air freight

As an island, Australian merchandise trade is highly reliant on international sea and air freight. Although representing a smaller proportion by value, air freight is crucial for transporting high-value, time-critical and highly perishable goods.<sup>3</sup> Air travel is also central to Australian exporters establishing and maintaining commercial connections. The loss of air travel, and the global disruption to sea freight during the COVID-19 pandemic has therefore been extremely challenging for Australian firms.

<sup>2</sup> The percentages of merchandise trade by sea freight and air freight are calculated based off the number of export transactions

<sup>3</sup> Department of Infrastructure, Transport, Regional Development, Communications and the Arts (2022) Freight and supply chains



## Chapter 1

# Australian exporters 2020-21

# Australian exporters 2020-21

In 2020-21, exporters had to navigate COVID-19 pandemic restrictions, extreme weather events and adjust to higher air and sea freight costs and disruptions.

Therefore, the analysis throughout this report may not be representative of a 'typical' year for Australian exporters, given the challenging global business environment.

Despite this, exporters were remarkably agile and resilient, with many diversifying into new export markets and adapting products to meet changing consumer preferences.

The total value of goods and services exports in 2020-21 was

**\$458.8**  
billion

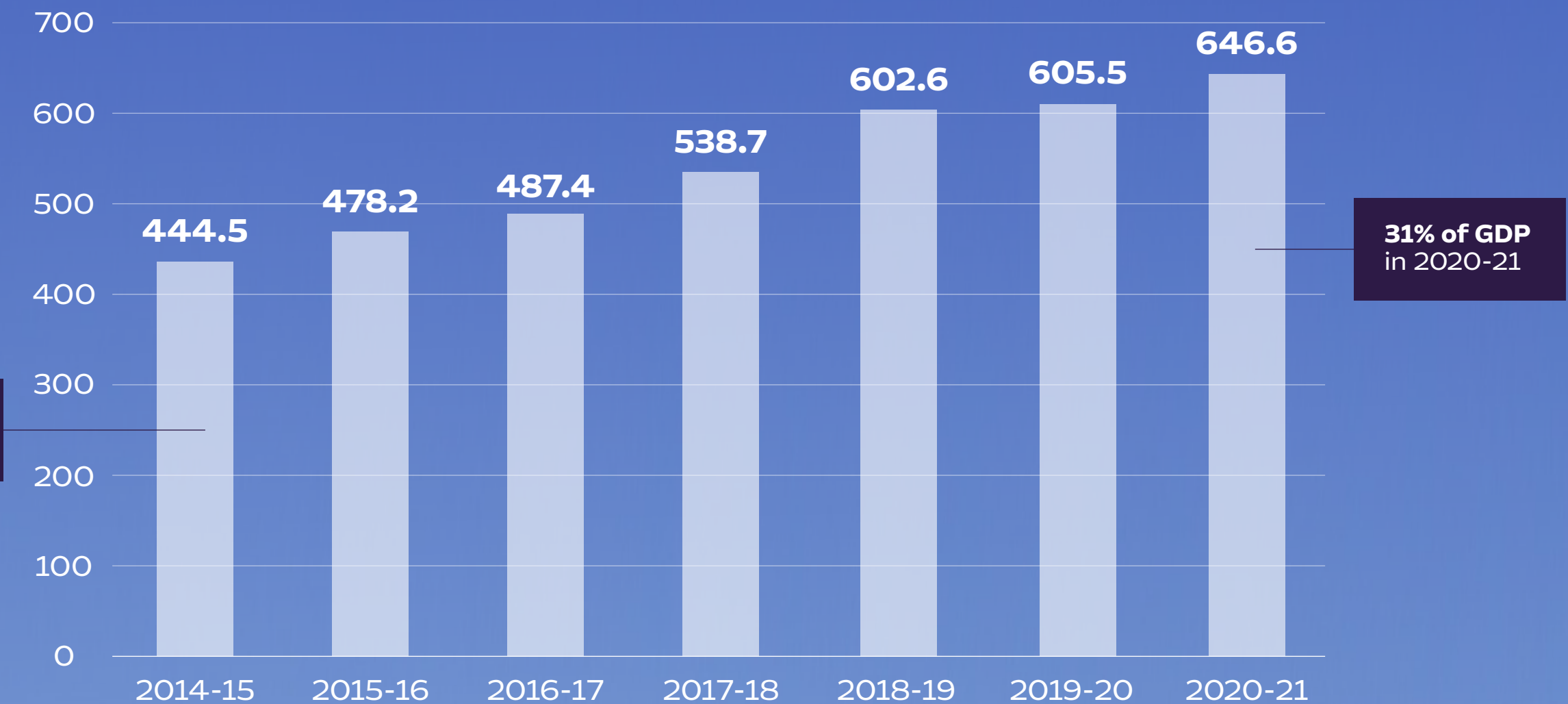
The majority of Australia's exports were merchandise goods, with the total value of merchandise exports at \$396.2 billion – 86%, and services exports worth \$62.5 billion – 14% of total exports.<sup>4</sup>

<sup>4</sup> Australian Bureau of Statistics (2022) International Trade: Supplementary Information, Financial Year

Figure 2.

## Value-added by Australian exporters 2014-15 to 2020-21

A\$ billion



Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics



The value-added<sup>5</sup> by exporters to the Australian economy has **increased 45%** over the past 7 financial years, from \$444.5 billion in 2014-15 (24% of GDP) to **\$646.6 billion** in 2020-21 (31% of GDP)

The median (middle value) turnover of exporters in 2020-21 was \$4.9 million. The median value-added by firms was \$3.7 million, the median output per employee was \$195,865 whilst the median average annual wage paid per employee was \$54,492.

The median number of people employed by exporters was 16, or 11.3 full-time equivalent (FTE). Employment refers to the number of people employed by a firm, whereas FTE refers to the full-time hours being worked at the firm, where 1 indicates full-time employment over an annual period, either by one full-time worker or a combination of part-time workers.

<sup>5</sup> Value added was derived from firm turnover minus firm operating expenses

<sup>6,7</sup> Merchandise exports only

## Key characteristics of Australian exporters 2020-21

Median values

**\$4,908,673**

Turnover

**\$3,705,739**

Value-added

**\$811,162**

Wages

**\$54,492**

Average wages

**\$195,865**

Labour productivity

**11.3 FTE**

FTE

**16 people**

Employment

**1 market<sup>6</sup>**

Number of markets

**2 products<sup>7</sup>**

Number of products

**16 years**

Age of firm

## Why export?

# Exporting has helped Clean & Pure increase demand in the domestic market

Founded in 2004, WA-based skincare company Clean & Pure commenced exporting in 2019 and won the Australian Export Award for E-Commerce only two years later in 2021. Clean & Pure offers an Australian Made skincare range using superior natural and unprocessed ingredients, servicing Australia and the world.

Their current export markets include New Zealand, Malaysia, Thailand, Singapore, China, Macau, Hong Kong, Indonesia, Vietnam, Brunei, South Korea and the United States.



Austrade – State of Exporters Report

On the benefits of exporting, Director Mark Chapman states:

“You’ll dominate the world before you dominate the Australian market”



“It’s very difficult to break in domestically. Without exporting, it would’ve been very difficult to survive and become income-generating.”

**Mark Chapman**  
Director

Clean & Pure earns around 80% of its revenue through exporting, and exporting is helping their domestic sales grow as well.

“The domestic market is starting to grow now because of the recognition we’re getting through exports.”

Mark also encourages aspiring exporters to reach out for government support.

“Participating in this award and finding government departments wanting to help my firm has been such a positive experience.”

“Now I’m talking to Austrade in Japan, South Korea and the Middle East. It’s great to have help, because doing it on your own is a hard way to learn!”

Exporters operate in a range of industries, but our largest export base operated in wholesale trade and manufacturing

The majority of exporters operated in the wholesale trade (29% of firms) and manufacturing industries (24%) followed by the retail trade (12%), professional, scientific, and technical services (11%) and construction (4%) industries in 2020-21. The remaining 20% of firms operated in all other remaining industries.

Figure 3.

**Distribution of Australian exporters by industry\***

Number of exporting firms, 2020-21



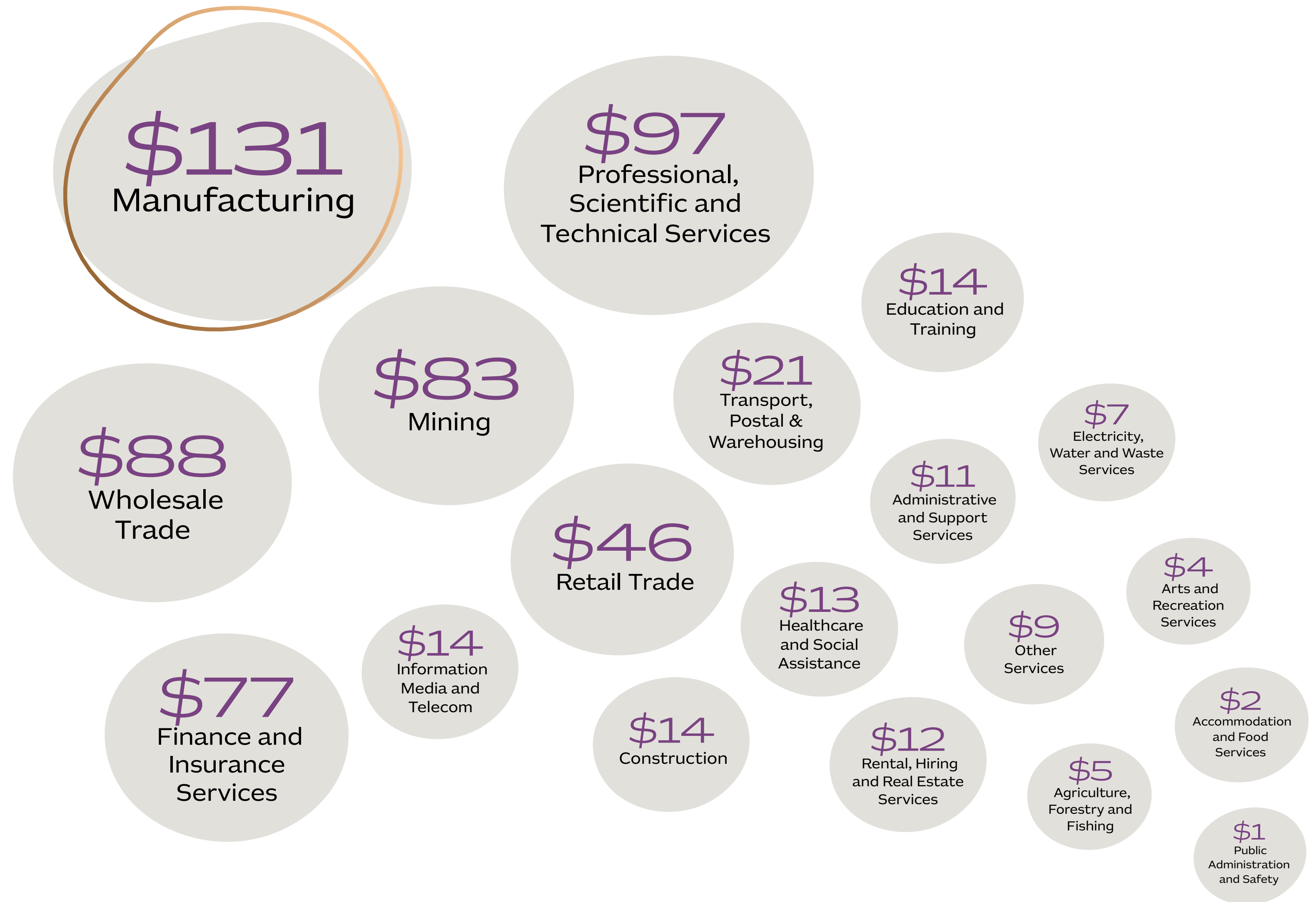
\* Industry as per ANZSIC classification

Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics

# Manufacturing made the largest contribution to value-added

Exporters in the manufacturing industry generated the most value-added to the Australian economy (20%) followed by professional, scientific, and technical services (15%) and wholesale trade (14%).

**Figure 4.**  
**Value-added by Australian exporters by industry\***  
 A\$ billion, 2020-21



\* Industry as per ANZSIC classification  
**Sources:** Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics

# Retail trade employed the largest number of people across exporting sectors

Australian exporters directly employed almost 3 million people, or 23% of the labour force, in 2020-21. Exporters in the retail trade industry employed the most Australians in 2020-21 (22% of employment generated by exporters) followed by the manufacturing (13%) and wholesale trade (1%) industries.

Figure 5.

## Employment generated by Australian exporters by industry\*

Number of employees, 2020-2021



\* Industry as per ANZSIC classification

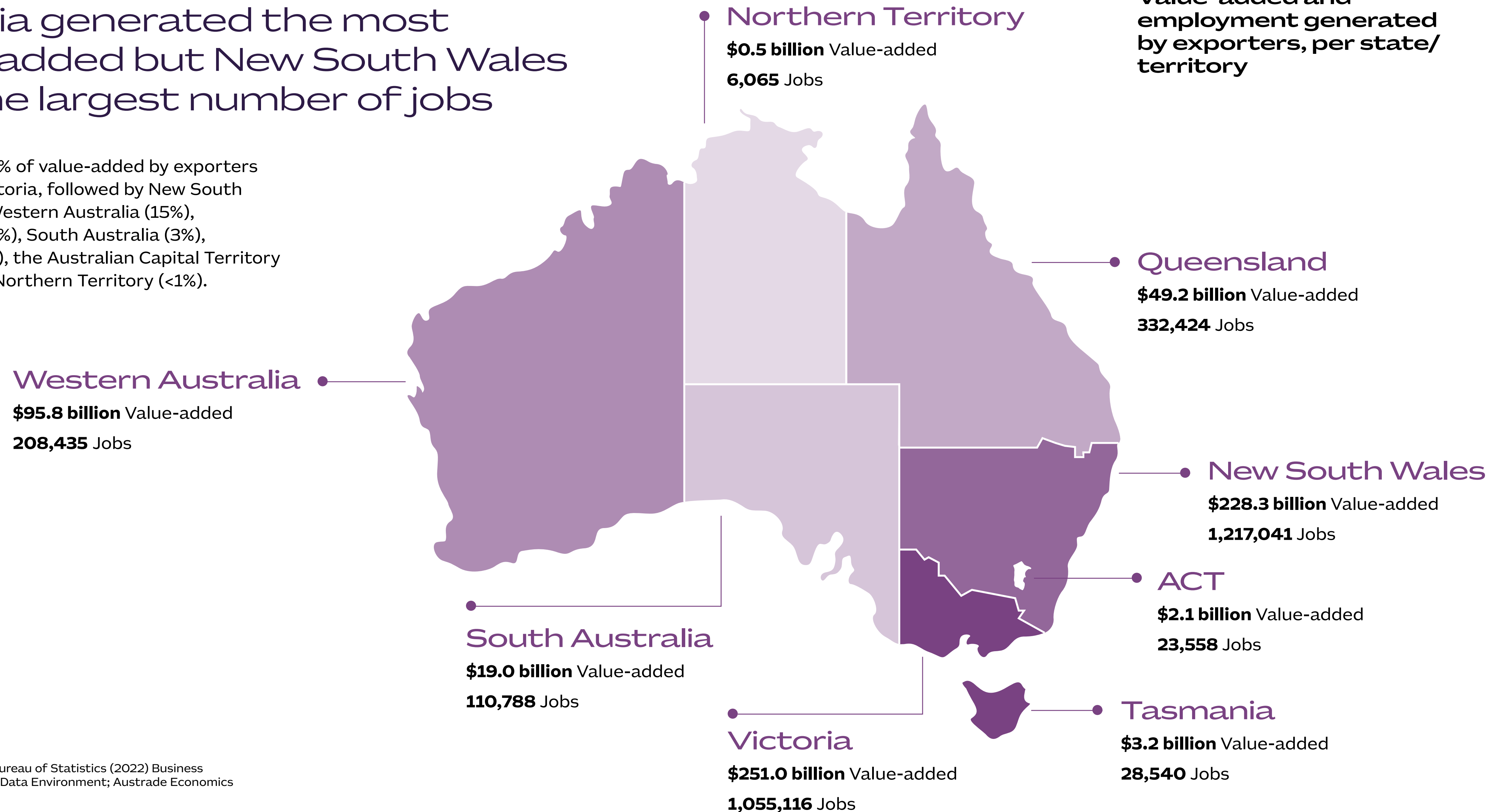
Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics



# Across the states and territories, Victoria generated the most value-added but New South Wales had the largest number of jobs

In 2020-21, 39% of value-added by exporters came from Victoria, followed by New South Wales (35%), Western Australia (15%), Queensland (8%), South Australia (3%), Tasmania (<1%), the Australian Capital Territory (<1%) and the Northern Territory (<1%).

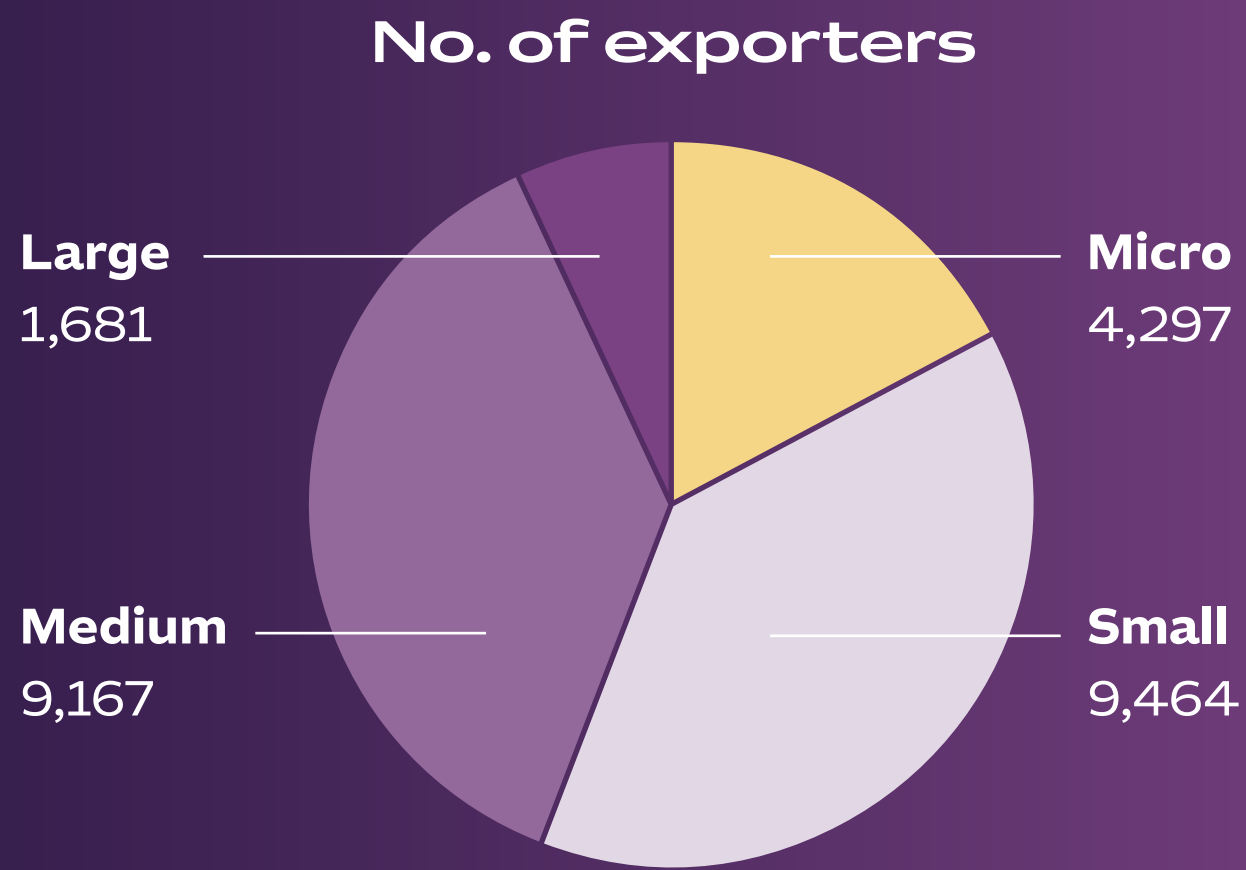
Figure 6.  
Value-added and employment generated by exporters, per state/territory



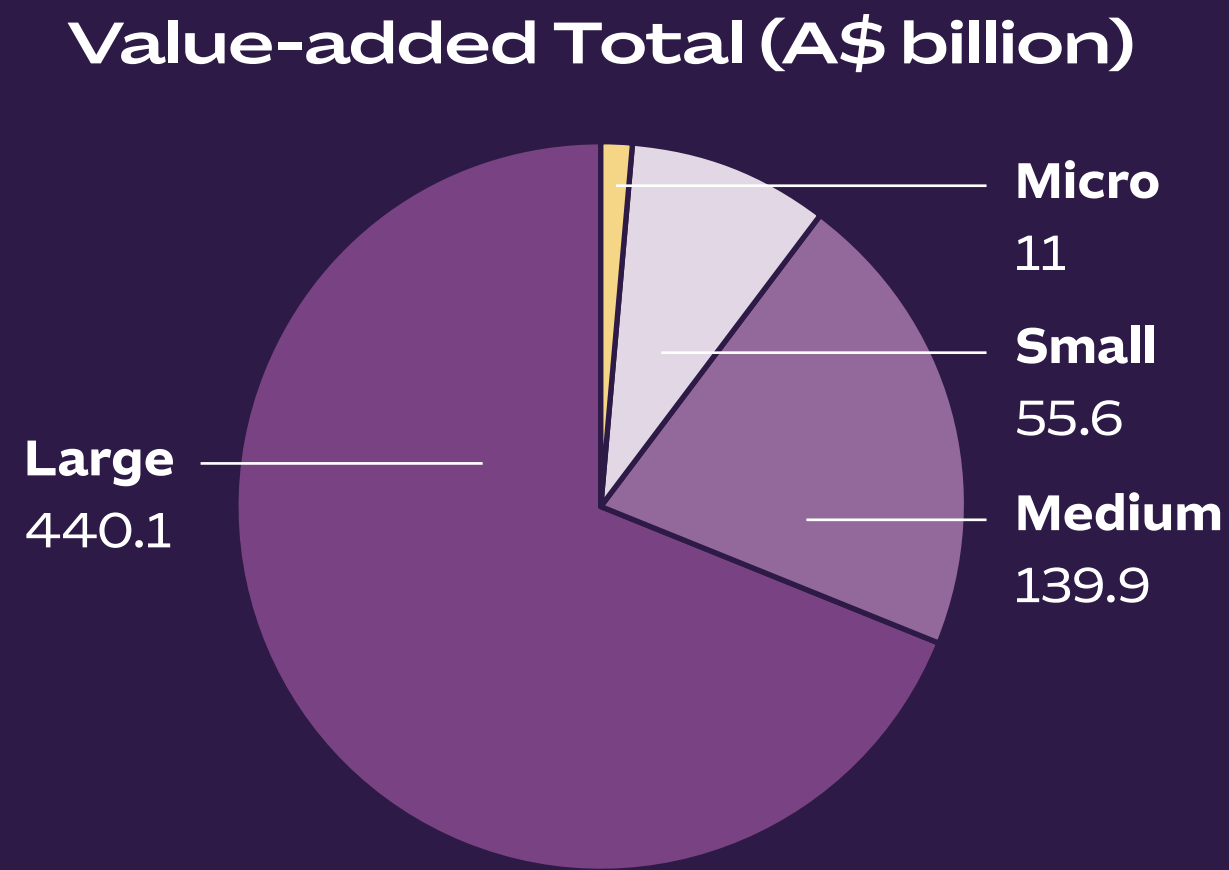
Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics

# The majority of exporters were small and medium enterprises (SMEs)

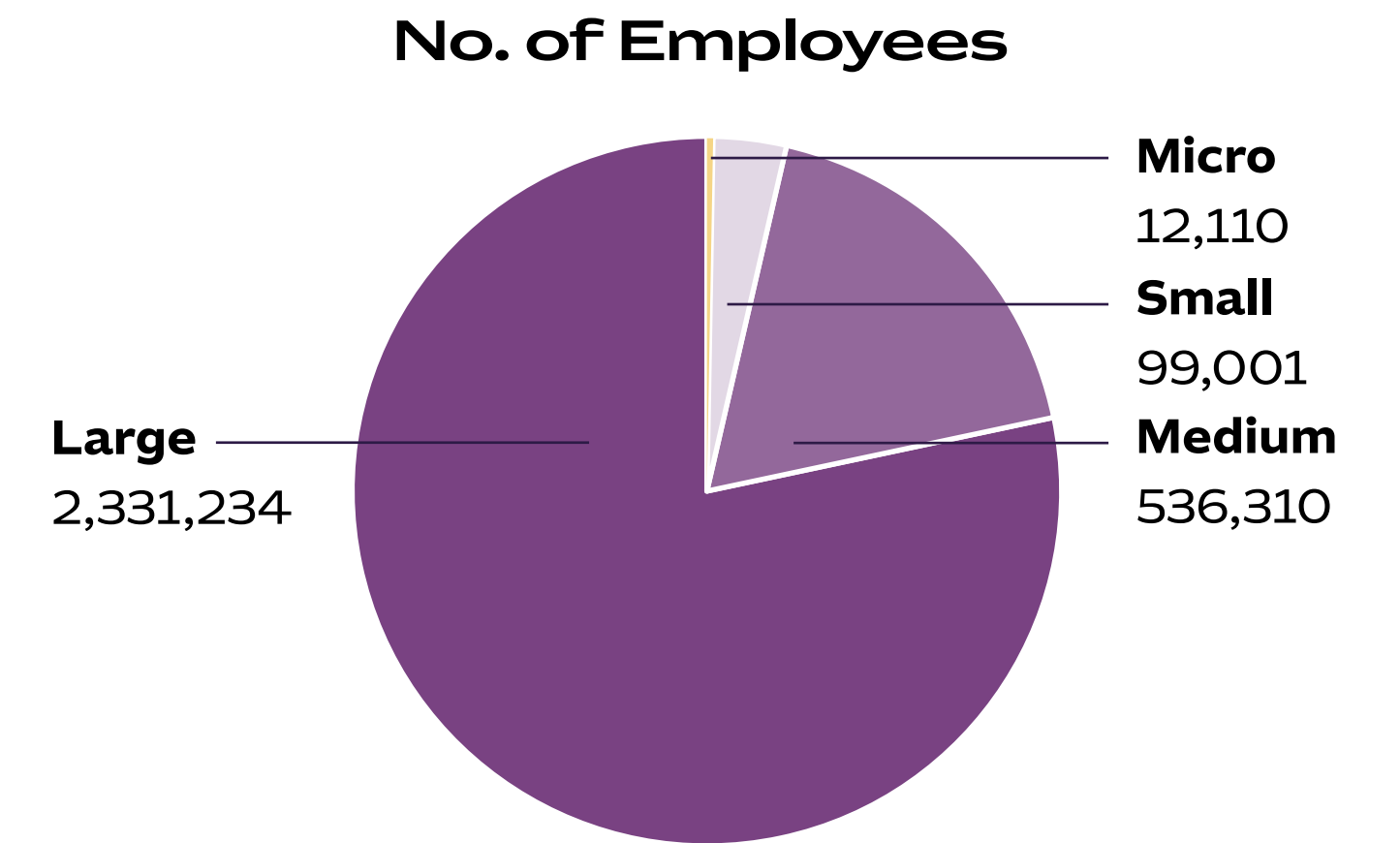
The majority (93%) of exporters were small and medium enterprises (SMEs) in 2020-21. Micro firms made up 18% and large firms 7% of the exporter population.



Large firms generated 68% of value-added, medium sized firms (21%), small (9%) and micro (2%).



Large exporters generated 78% of exporter employment, medium sized firms (18%), small (3%) and micro (1%).



**Figure 7.**  
**Economic contribution of exporters, by firm size**

**Sources:** Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics

**Note.** Micro refers to firms with less than 5 employees. Small refers to firms with 5-19 employees. Medium refers to firms with 20-200 employees and large refers to firms with >200 employees and includes multinationals operating in Australia

Because firms report their turnover and employment as total values, we are unable to separate out these metrics into exporting activities versus domestic only activities. Therefore the total value added and number of employees represented here reflect exporting firms' total value add and employment

# The typical exporting firm operated in just one or two markets with a turnover of almost A\$5 million

In 2020-21, Australian merchandise exporters serviced 2.8 markets on average, exporting 5 products on average.<sup>8,9</sup> However, the median number of markets that these firms exported to was one. This suggests a small number of large firms exported goods to several markets, while most smaller firms exported to just a single market.

Small firms typically only exported to one market, with the number of products and markets slowly increasing with firm size. Micro and small firms exported to a median of one market each. Medium sized firms exported to a median of two markets, while large firms – those that employed over 200 people, exported a median of 6 products to a median of 3 markets.

The majority of Australian exporters are experienced firms.

The median age of Australian exporters was 16 years in 2020-21.

Figure 8.

## Median no. of export markets, products, age and employees by firm size 2020-21

Firm size	No. employees	Firm age (years)	No. markets	No. products
Micro	3	10	1	2
Small	10	14	1	2
Medium	43	18	2	3
Large	404	22	3	6

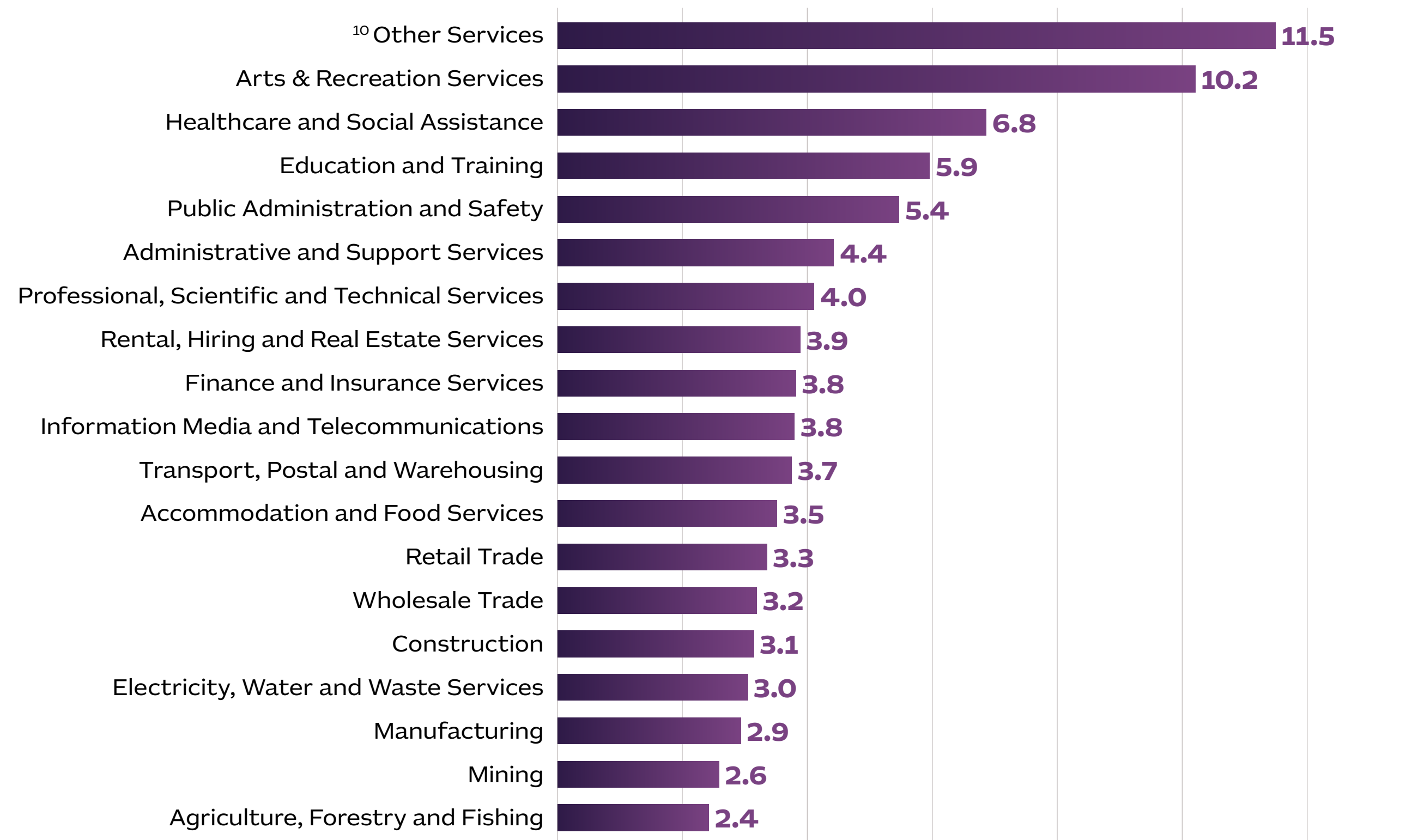
**Sources:** Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics  
**Note.** Micro refers to firms with less than 5 employees. Small refers to firms with 5-19 employees. Medium refers to firms with 20-200 employees and large refers to firms with >200 employees and includes multinational operating in Australia

<sup>8</sup> Number of products refers to the distinct count of commodities at the HS code 8-digit level

<sup>9</sup> Australian Department of Home Affairs (2022) Integrated Cargo System (ICS) data, Australian Border Force, accessed 5 December 2022

# Services exporters generated the largest median value-added by firm

**Figure 9.**  
**Median value-added per exporter by industry**  
 A\$ million, 2020-21



**Sources:** Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics

<sup>10</sup> Other services industry division includes a broad range of personal services; religious, civic, professional and other interest group services, selected repair and maintenance activities, and private households employing staff



**\$11.5 million**

Other services<sup>10</sup>



**\$10.2 million**

Arts and recreation services



**\$6.8 million**

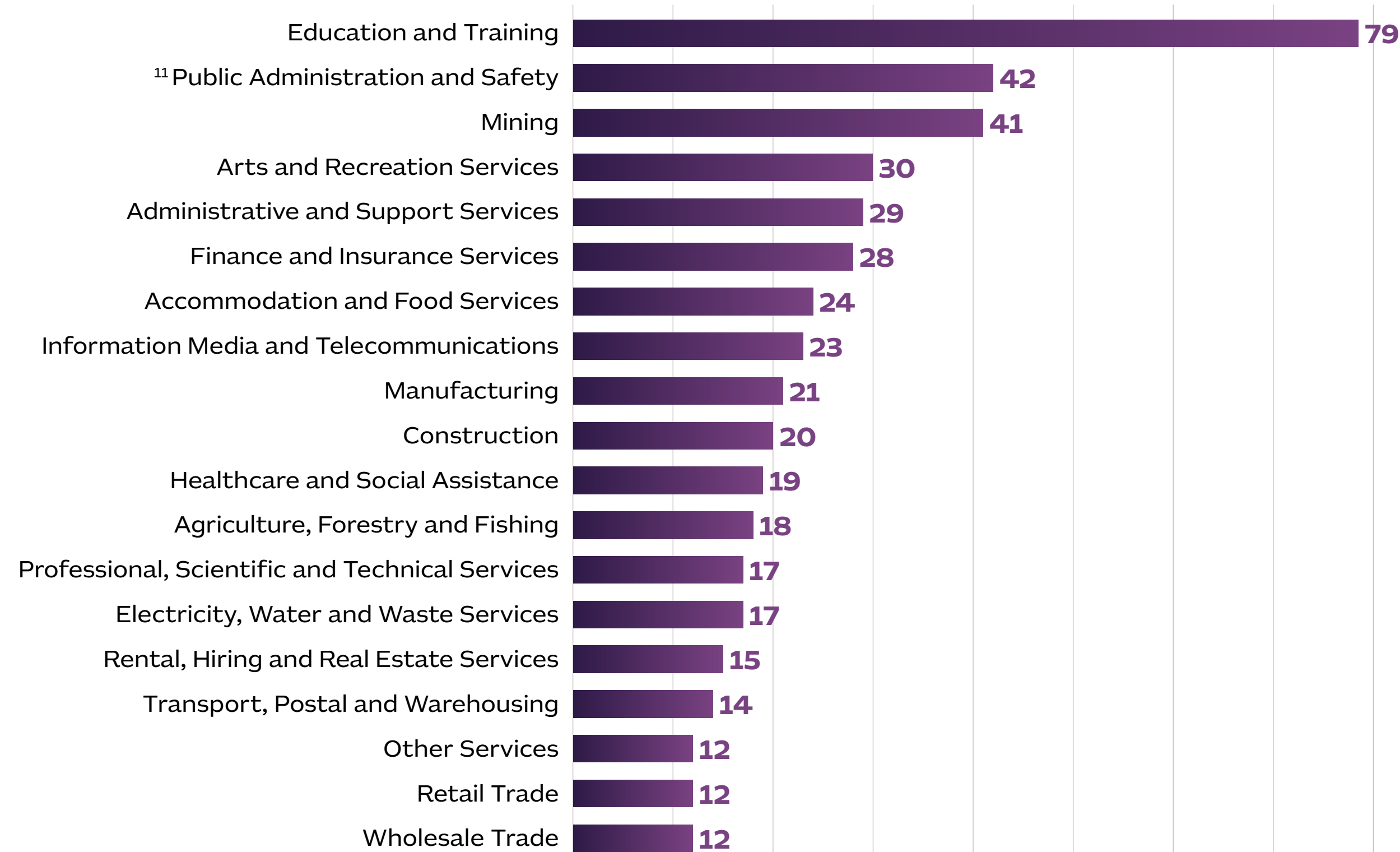
Healthcare and social assistance services

# Education and training exporters employed the largest amount of people

Figure 10.

## Median employees per exporter by industry

Number of employed persons, 2020-21



Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics

<sup>11,12</sup>Public Administration also includes private sectors like defence. The ABS (2022) classify private sector firms engaged in public administration or military defence as forming part of the Public Administration and Safety industry Division. Firms engaged in a combination of public administration and service delivery activities are classified according to the predominant activity of the unit

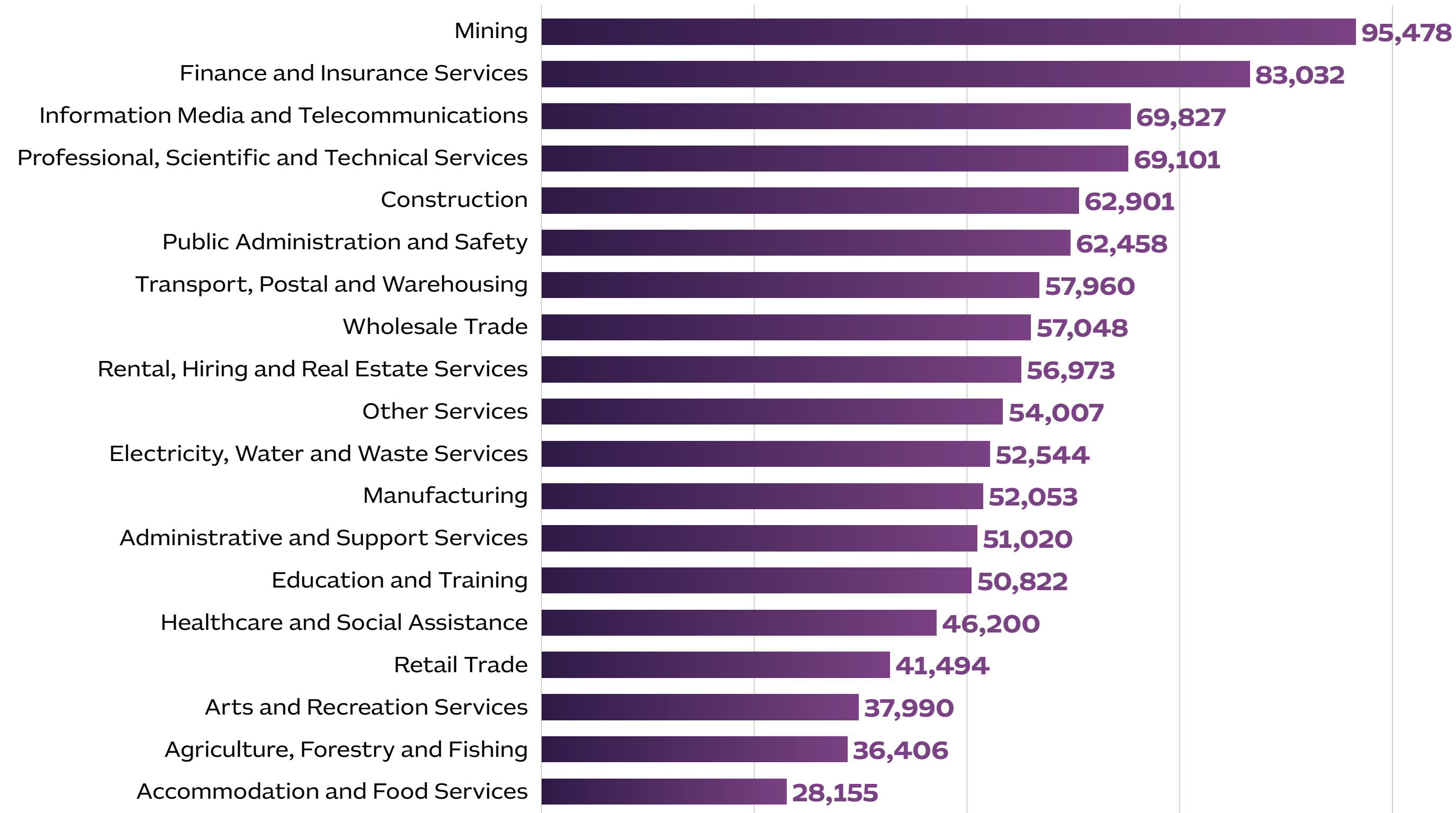
Services exporters were also among the largest employers. Education and training exporters were the largest employers on average. The median number of employees per firm in the education and training industry was 79 in 2020-21, followed by 42 in public administration and safety<sup>12</sup> and 41 in mining.



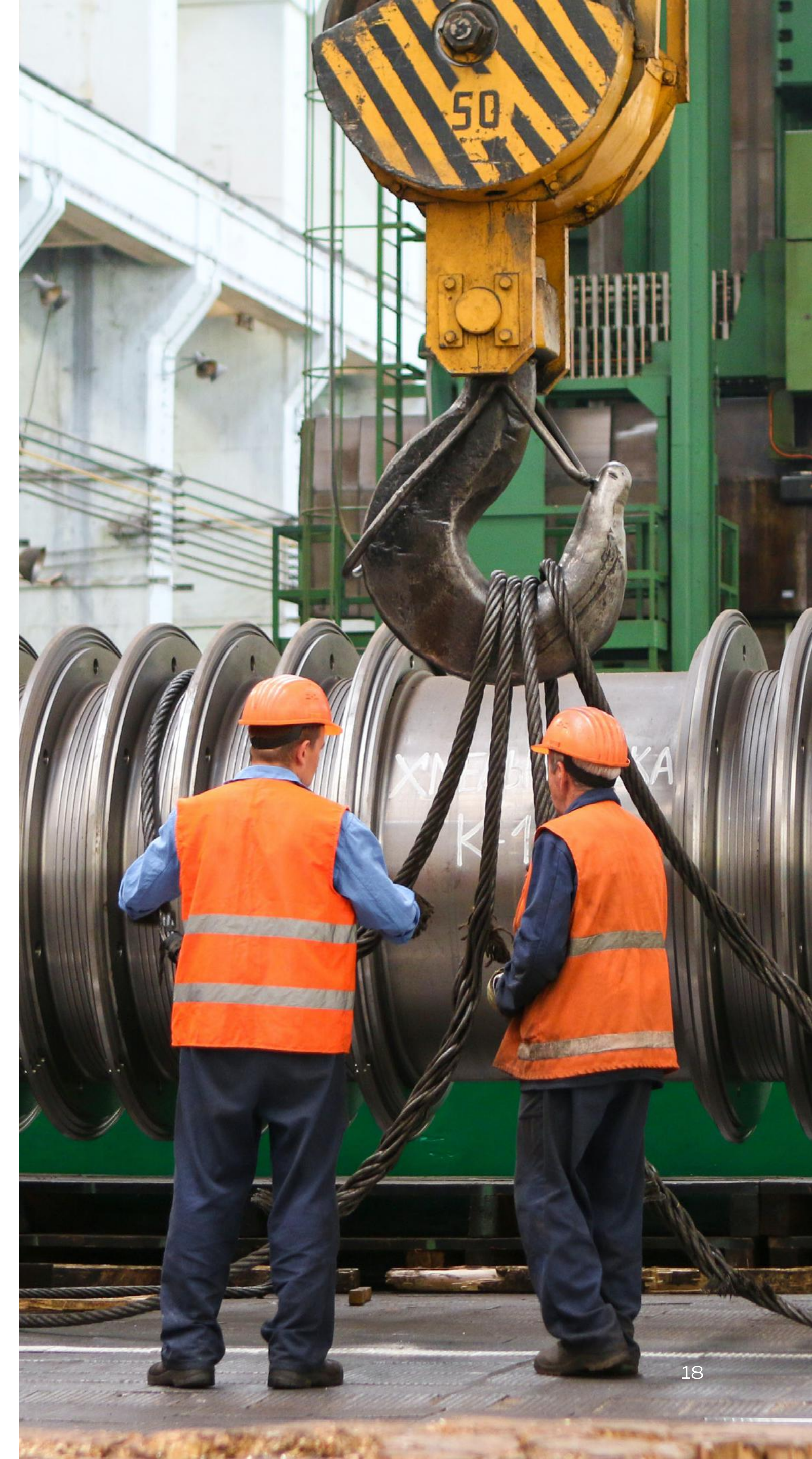
The mining and financial and insurance services sectors paid the highest average wages in 2020-21, followed by the IT, professional and scientific services, and construction industries

Figure 11.

**Average annual wages paid by exporters by industry**  
A\$, 2020-21



Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics



## In all states and industries, exporters demonstrated both higher labour productivity and higher average wages than non-exporting firms

Firms exporting to global markets face greater competitive pressures, requiring exporters to learn and innovate, and invest in productivity-enhancing improvements, which flows through to higher wages.<sup>13</sup> In 2020-21, finance and insurance services exporters were the most productive followed by wholesale trade, retail trade, mining and transport, postal and warehousing services.

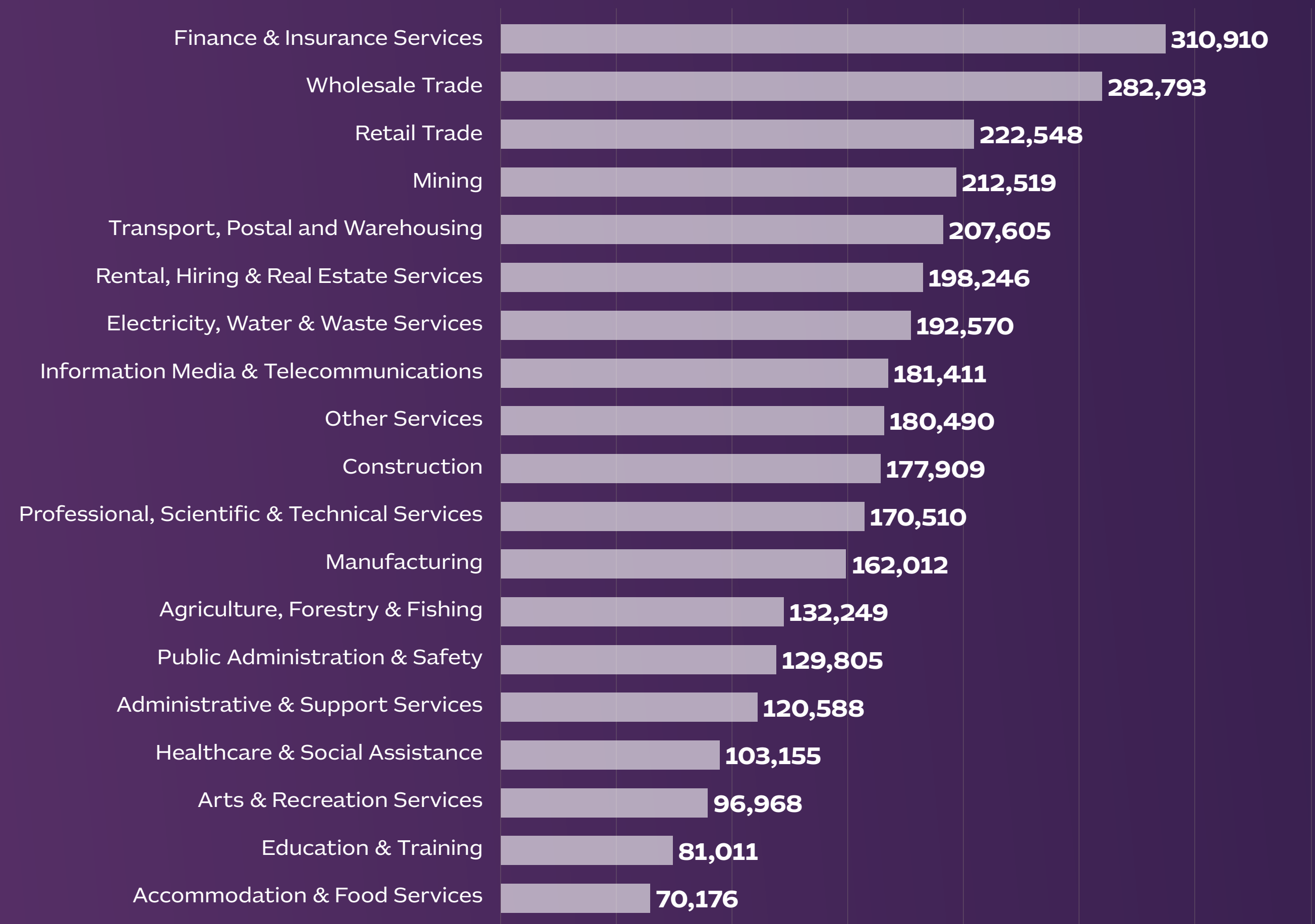
Labour productivity is defined as output per unit of labour input and was derived by value-added per number of employees. Exporters in New South Wales had the highest median labour productivity followed by exporters in Victoria and Western Australia. Exporters in the Australian Capital Territory had the highest average wages, followed by exporters in New South Wales, Western Australia and Victoria.

<sup>13</sup> Baldwin & Gu, 2004; Hallward-Driemeir, Iarossi & Sokoloff, 2002

Figure 12.

### Median labour productivity generated by exporters by industry

A\$, 2020-21

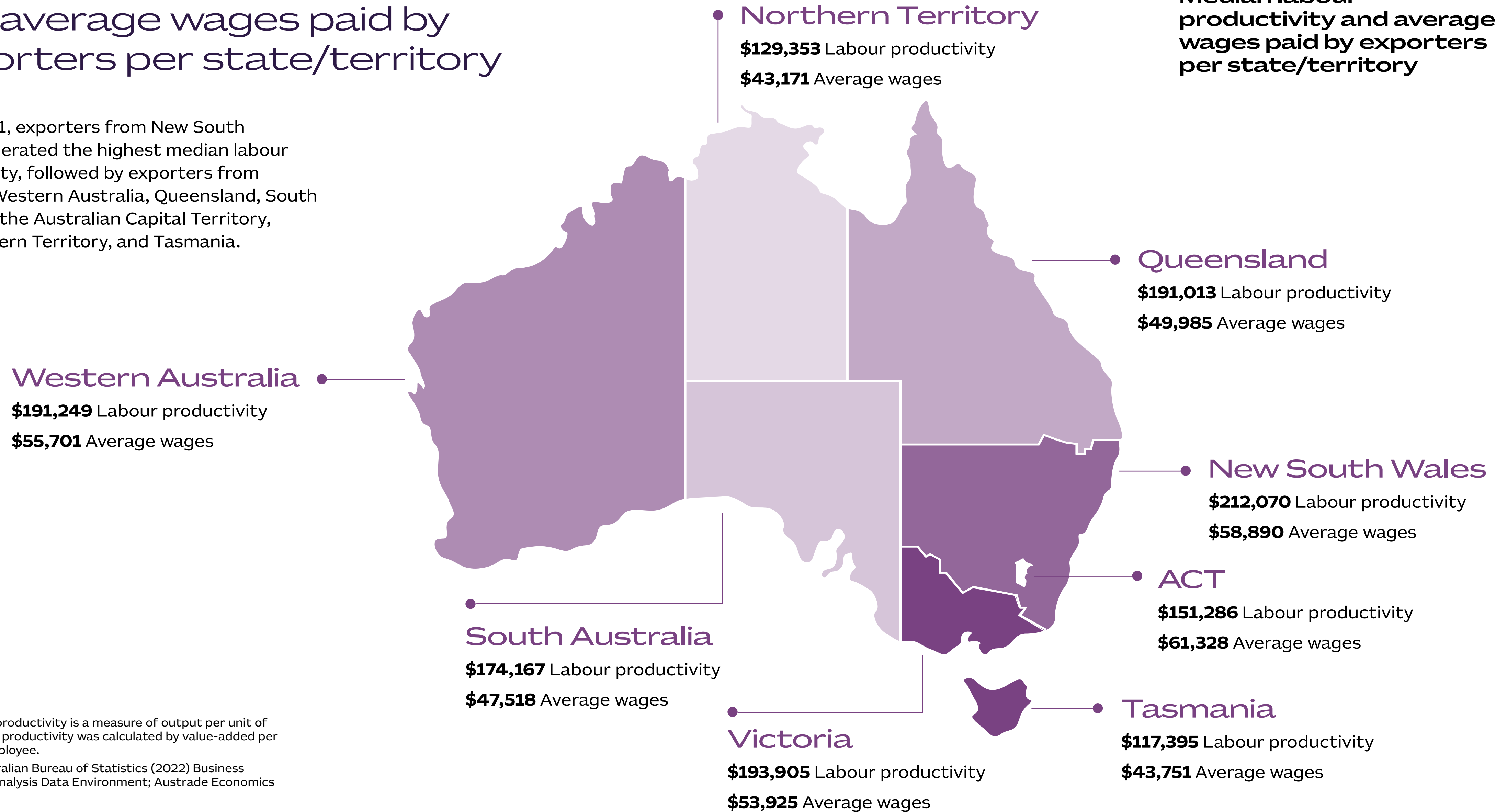


Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics

# Median labour productivity and average wages paid by exporters per state/territory

In 2020-21, exporters from New South Wales generated the highest median labour productivity, followed by exporters from Victoria, Western Australia, Queensland, South Australia, the Australian Capital Territory, the Northern Territory, and Tasmania.

Figure 13.  
Median labour productivity and average wages paid by exporters per state/territory



**Note.** Labour productivity is a measure of output per unit of labour. Labour productivity was calculated by value-added per headcount employee.

**Sources:** Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics



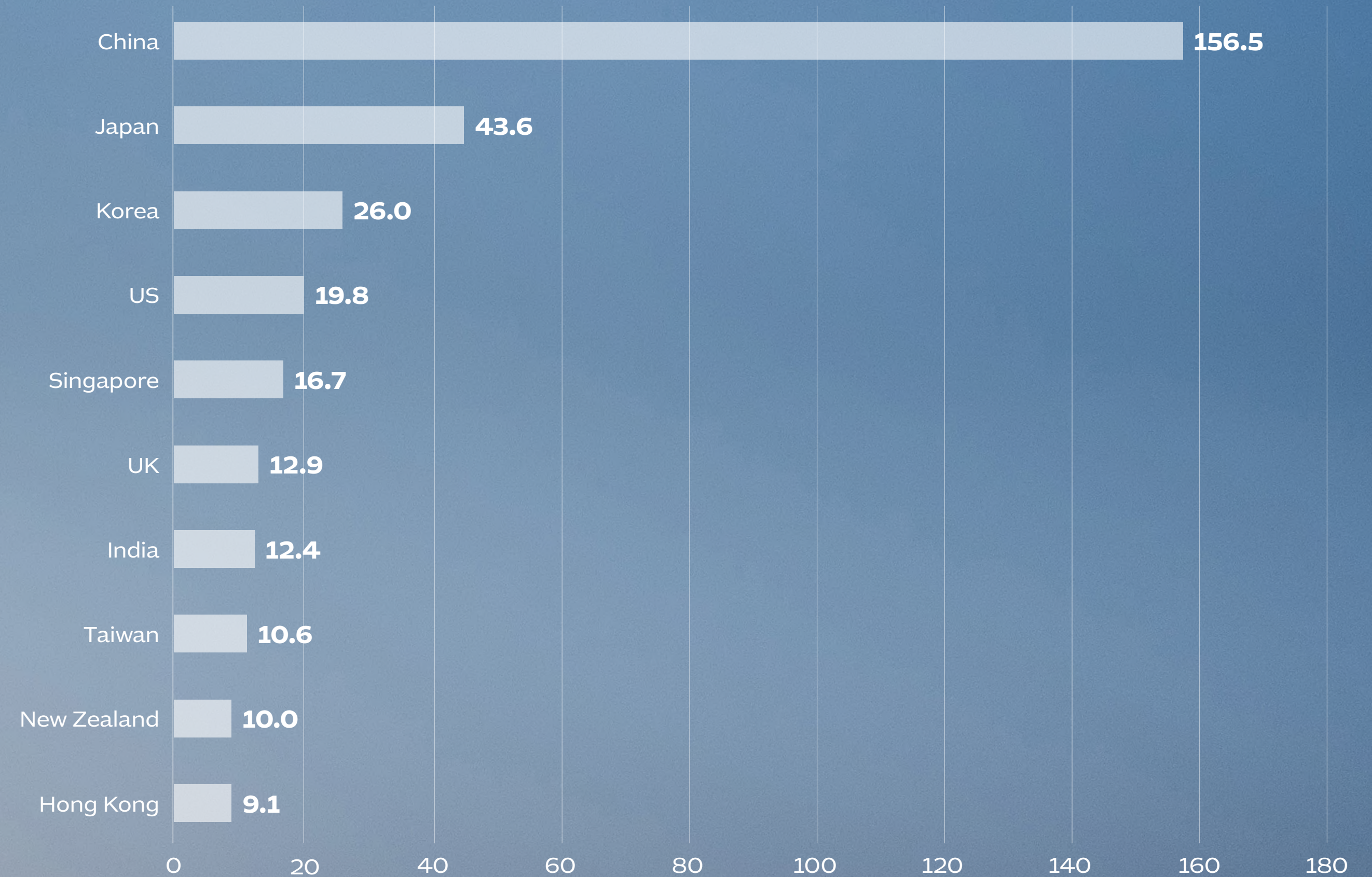
# China continues to be the highest value market for exporters

The top export markets in 2020-21 by export value were China, Japan, Korea and the United States. As set out on the right, the value of Australia's merchandise exports to China were more than three times the value of our next highest trading partner – Japan. Despite the disruptions to our trade, merchandise exports to China were \$156.5 billion in 2021-22, reflecting our economies' strong complementarity. Our merchandise exporters have also diversified to new markets throughout Asia, capitalising on new market opportunities.

Figure 14.

## Merchandise exporters Top ten markets by export value 2020-21

A\$ billion



**Note.** This information uses Australian Border Force data and represents merchandise exporters only.

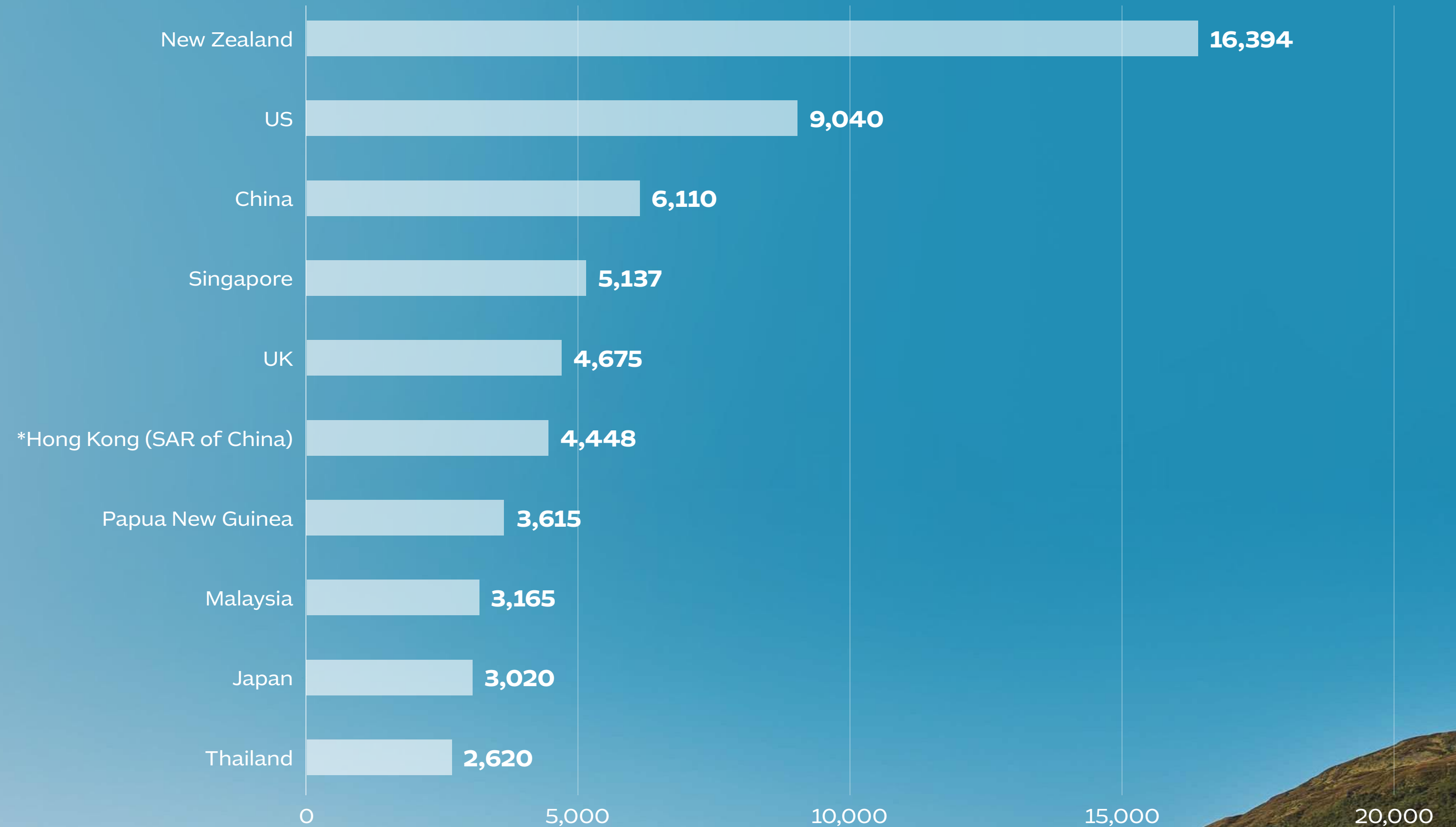
**Source:** Australian Border Force (2022); Austrade Economics

# New Zealand is the most popular market for exporters

The top export destination in 2020-21, as measured by the number of merchandise exporters, was New Zealand (16,394 exporters), with almost double the number of merchandise exporters selling to this market over any other. This suggests that Australian merchandise exporters may find it easier to export to New Zealand, given the geographical proximity and cultural and consumer similarities with Australia.

The United States and China were the second and third most popular markets, likely reflecting their status as the world's largest consumer markets. In interpreting the number of merchandise exporters per market figures, it is important to note that many merchandise exporters operate in more than one market, and this is reflected in the counts, so the total number of markets exceeds the total number of exporters.

Figure 15.  
Merchandise exporters  
Top ten markets 2020-21  
Number of exporters



\*SAR = Special Administrative Region of China

**Note.** This information uses Australian Border Force data and represents merchandise exporters only.

**Source:** Australian Border Force (2022); Austrade Economics



## Chapter 2

# Firm survival through global economic shocks

# Global economic shocks caused major disruptions to exporting activities

The COVID-19 pandemic severely disrupted exporting activities. The value of goods and services exports declined at the start of the COVID-19 pandemic but have since rebounded in response to high commodity prices.

Some exporters fared better than others – services exports decreased by \$29.5 billion in 2020-21 from the year before, driven by a rapid fall in tourism and education services exports.

A number of energy and agribusiness exporters benefitted from high commodity prices, leading to a \$14.0 billion increase in merchandise exports in 2020-21 from the year prior. Since then, merchandise exports have recovered even further through 2021-22 increasing by \$136.5 billion to reach \$532.7 billion in 2021-22. It will likely take longer for services export figures to recover to pre-pandemic levels.

Figure 16.

## Changes in Australian goods and services exports

A\$ billion

Export type	2019-20	2020-21	19-20 to 20-21 change	Change %
Goods & services	474.2	458.8	-15.4	-3%
Goods	382.2	396.2	14	4%
Services	92	62.5	-29.5	-32%

Sources: Australian Bureau of Statistics (2022) International Trade: Supplementary Information, Financial Year

### What is firm survival?

Firm survival is defined as a firm staying in continued operation throughout a given period of time – in this case, between 2018-19 and 2020-21 – a particularly challenging time for all businesses.

Exporting was associated with a higher probability of firm survival through the early years of the COVID-19 pandemic

This section presents evidence on what could be considered the most important benefit of exporting – firm survival. Given exporting makes firms vulnerable to global economic risks, any benefit from exporting in terms of higher firm survival rates is noteworthy.

We find that exporting is associated with a higher probability of firm survival. On average, between 2018-19 and 2020-21, an exporter was

9% more likely

to have survived than a non-exporter with similar characteristics.<sup>14</sup> Our findings on exporter firm survival corroborates existing research which found that exporters were associated with a higher survival rate compared to non-exporters, including in the Australian context.<sup>15</sup> This highlights the importance of programs that aim to assist exporters to continue with their international activities through economic shocks.

<sup>14</sup> Based on available data, noting the COVID-19 pandemic impacts are ongoing and vary by industry and individual firm

<sup>15</sup> Wagner, 2013; Tuhin & Swanepoel, 2017

## Case study

# ResMed pivoted their operations and thrived through the COVID-19 pandemic

The COVID-19 pandemic forced many firms to think creatively and adapt to a unique set of challenges. Here's how innovative exporters did so, what they learnt and their advice for other firms.



“Our advice to other firms is to find and follow your North Star”

**Brendan Mullins**  
VP Global Manufacturing and Engineering



“ResMed may have pivoted its entire firm, but we did these things in service to our mainstay mission and priorities.”

**Brendan Mullins**  
VP Global Manufacturing and Engineering

Prior to the COVID-19 pandemic, ventilators made up less than 10% of Sydney based health manufacturer ResMed's firm. But forecasting that COVID-19 would create unprecedented global demand for ventilators, they quickly pivoted their manufacturing operations to produce more of these devices.

For ResMed, this success was achieved by reconfiguring teams to focus on the new priorities, including COVID-safe practices, and engaging with suppliers, customers and government in new and strategic ways – all while staying true to the company's core purpose.

## Characteristics of firms more likely to survive

By sector, exporters and non-exporters that operated in the accommodation and food services industry had the lowest survival rate between 2018-19 and 2020-21. This might be attributable to the lost access to travel, tourism, and hospitality markets during the COVID-19 pandemic. This included border closures, lockdowns, and intermittent port closures, making it more difficult to service customers. Additionally, shipping and container supply constraints led to a sharp rise in shipping costs coupled with significant delivery delays and missed sailings.

Despite this, relative to non-exporters, exporters in the accommodation and food services had a higher survival rate (+6.4 percentage points). The difference between exporters and non-exporters was also pronounced in the retail trade and manufacturing industries (+6.8% and +6.5% respectively).

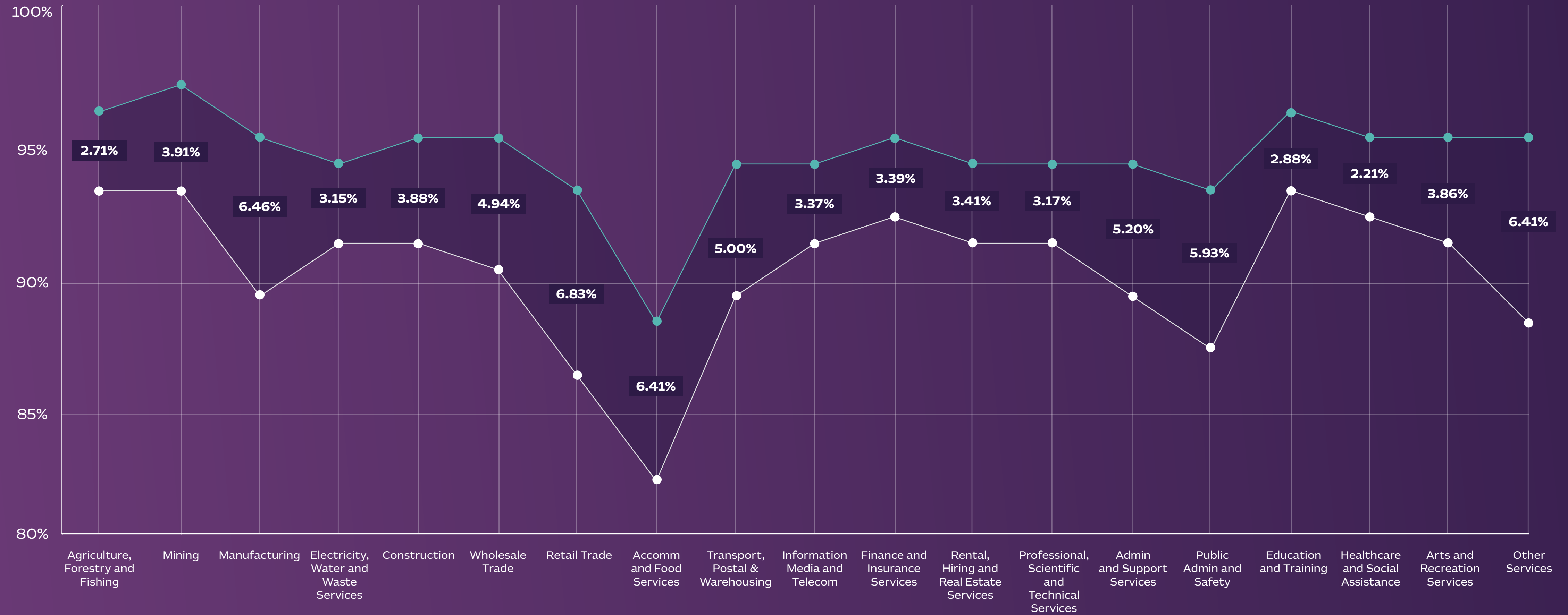


Figure 17.

## Difference between exporters and non-exporters survival rate by industry

Survival rate indicates the % of firms that were alive in 2018-19 and remained so in 2020-21

Legend ● Exporter ● Non-Exporter ○ Difference



Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics

# Exporters demonstrated higher survival rates than non-exporters across all states and territories

The difference in survival rates were broadly consistent, ranging from between 3.8 - 5.5 %.

Importantly, these comparisons don't take into account industry and firm specific differences.

Larger firm sizes had higher survival rates through the COVID-19 pandemic. The largest difference between exporters and non-exporters per firm size was medium sized firms (+5.5 percentage points).

### Legend

- Exporter
- Non-Exporter
- Difference

Figure 18.

## Difference between exporters and non-exporters survival rate by state/territory

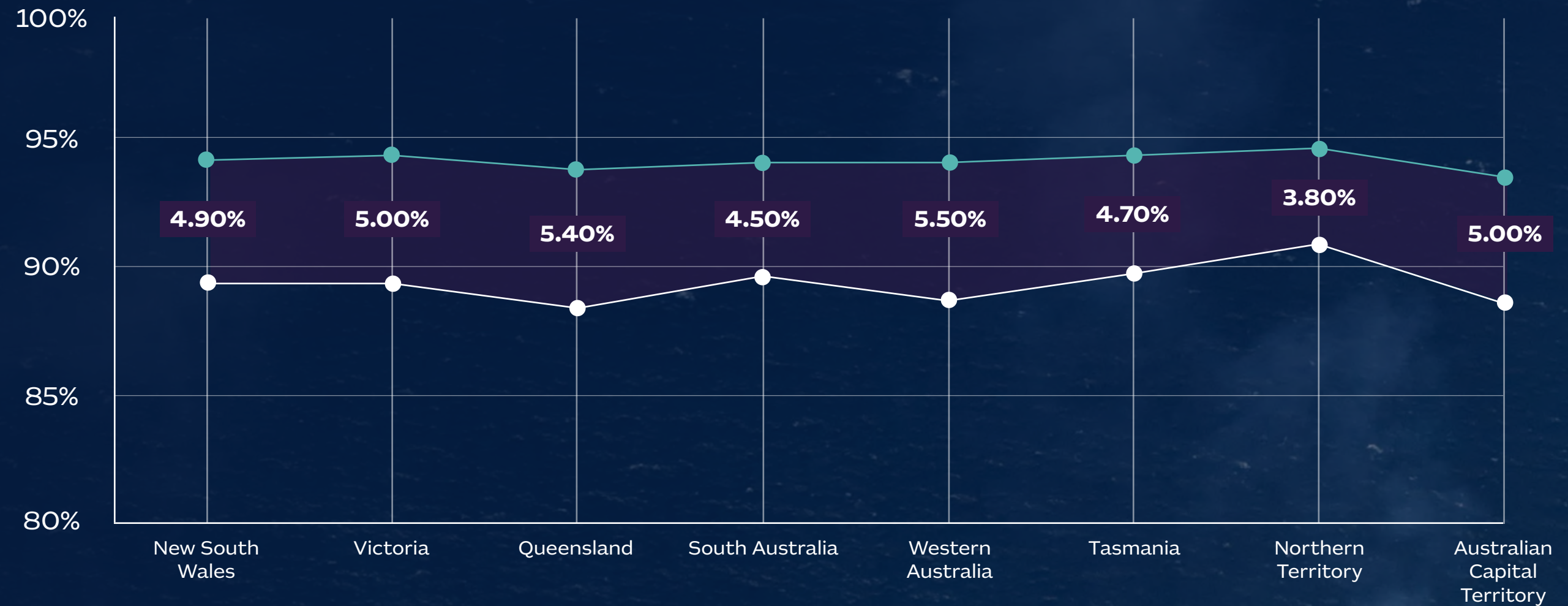
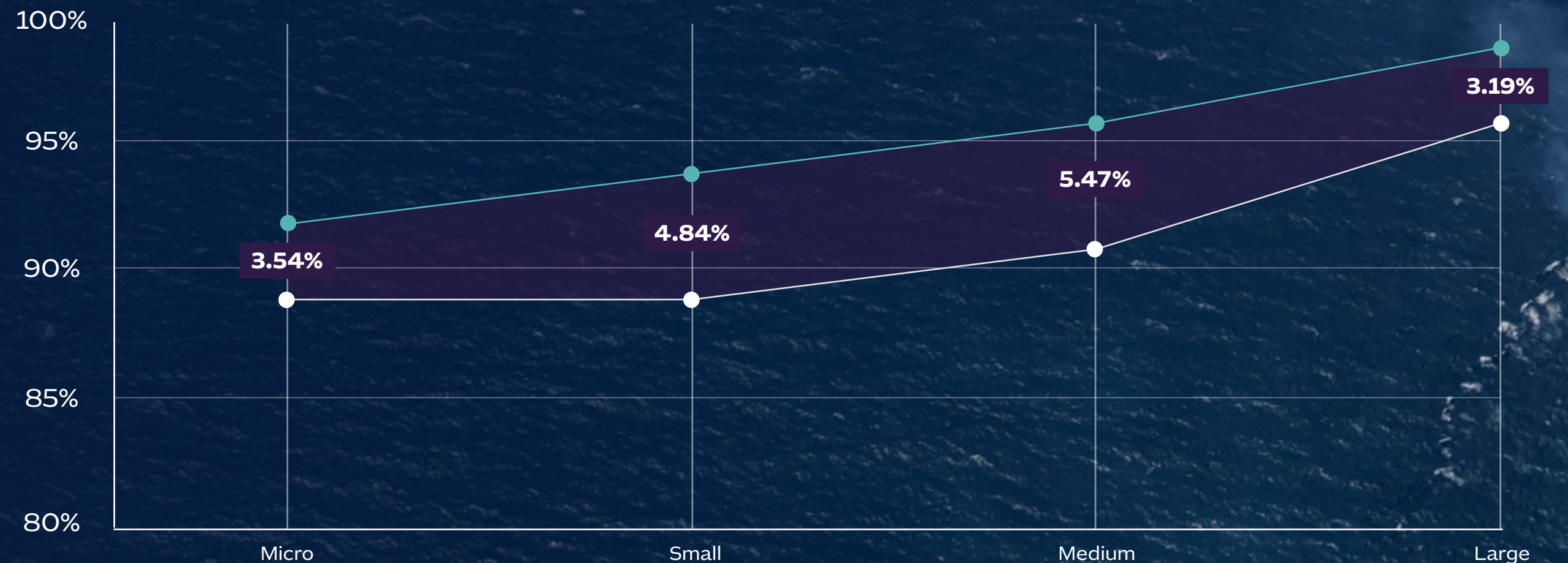


Figure 19.

## Difference between exporters and non-exporters survival rate by firm size



Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics



## Case study

# The power of partnerships helped Dutjahn Sandalwood Oils increase its exports by 44%

Born out of Aboriginal desert nomads' cultural responsibility to safeguard the Australian sandalwood tree (Dutjahn) found deep in the Gibson Desert, Dutjahn Sandalwood Oils sources and supplies sandalwood oil.



“Nature-based solutions are one of our most important allies”

**Guy Vincent**  
Chief Executive Officer



**DUTJAHN**  
SANDALWOOD OILS

“Business needs to be bold and understand that ethical business is good business.”

**Guy Vincent**  
Chief Executive Officer

When COVID-19 hit, the firm faced a potential cash flow collapse, whilst the coronavirus posed great danger to WA's isolated Indigenous desert communities. So Dutjahn shifted their focus.

Leveraging the power of partnerships, the firm signed an Australian-first deal with Givaudan, a global fragrances giant, and Melbourne skincare company Aesop to produce and distribute 250,000 sanitiser sachets, containing antimicrobial sandalwood oil, to Indigenous communities.

In doing so, Dutjahn increased its exports by 44% in 2020-21, and increased net profits by 220%— an incredible achievement in such a difficult year.



### Chapter 3

How are exporters different from non-exporting firms?

# How are exporters different from non-exporting firms?

Across a wide range of countries and industries, exporters have been shown to be larger, more productive, more skill and capital-intensive, more innovative and to pay higher wages<sup>16</sup>. Further, accessing a larger market enables increasing returns to scale.

To better understand the differences between exporters and non-exporters, we compare exporters to non-exporters in aggregate, presenting the median value for both groups on page 32.

Whilst 2020-21 was a challenging year for all firms, the results indicate that exporters report significantly higher performance on a variety of metrics than non-exporters. Using the median results, we found that exporters were older than non-exporters. They employed more people, paid higher wages, and had higher levels of turnover and value added. This suggests that overall exporting is an activity associated with more experience and maturity. More information on the sample specifications is laid out on page 4 and the methodology is available in Appendix B.

## But don't you have to be larger to be an exporter in the first place?

Firms are likely to be larger – employing more people and generating higher turnover, before they start exporting. Therefore, we are unable to separate out the unique effect of exporting and cannot attribute this as the sole cause of the difference between exporters and non-exporters. Despite this, these comparative statistics help highlight the benefits of exporting to the domestic economy.

Additionally, research examining firm performance before exporting activities begun found that exporting firms generally outperformed non-exporters before they begun exporting, with higher levels of value-add and capital expenditure for (on average) four years before beginning to export. However, **labour productivity and wages were found to be higher in exporting firms once exporting activities had begun.**

This suggests that firms may need to have greater capital expenditure and value-add to become exporters, but that **exporting may have a causal relationship with boosting labour productivity and wages.**

In 2020-21 exporters generated on average:

**\$4.2 million**

higher turnover compared to non-exporters

**\$3 million**

more value-added compared to non-exporters

**10**

more employees and 7.8 more full-time equivalent compared with non-exporters

**\$17,585**

higher wages paid on average compared to non-exporters

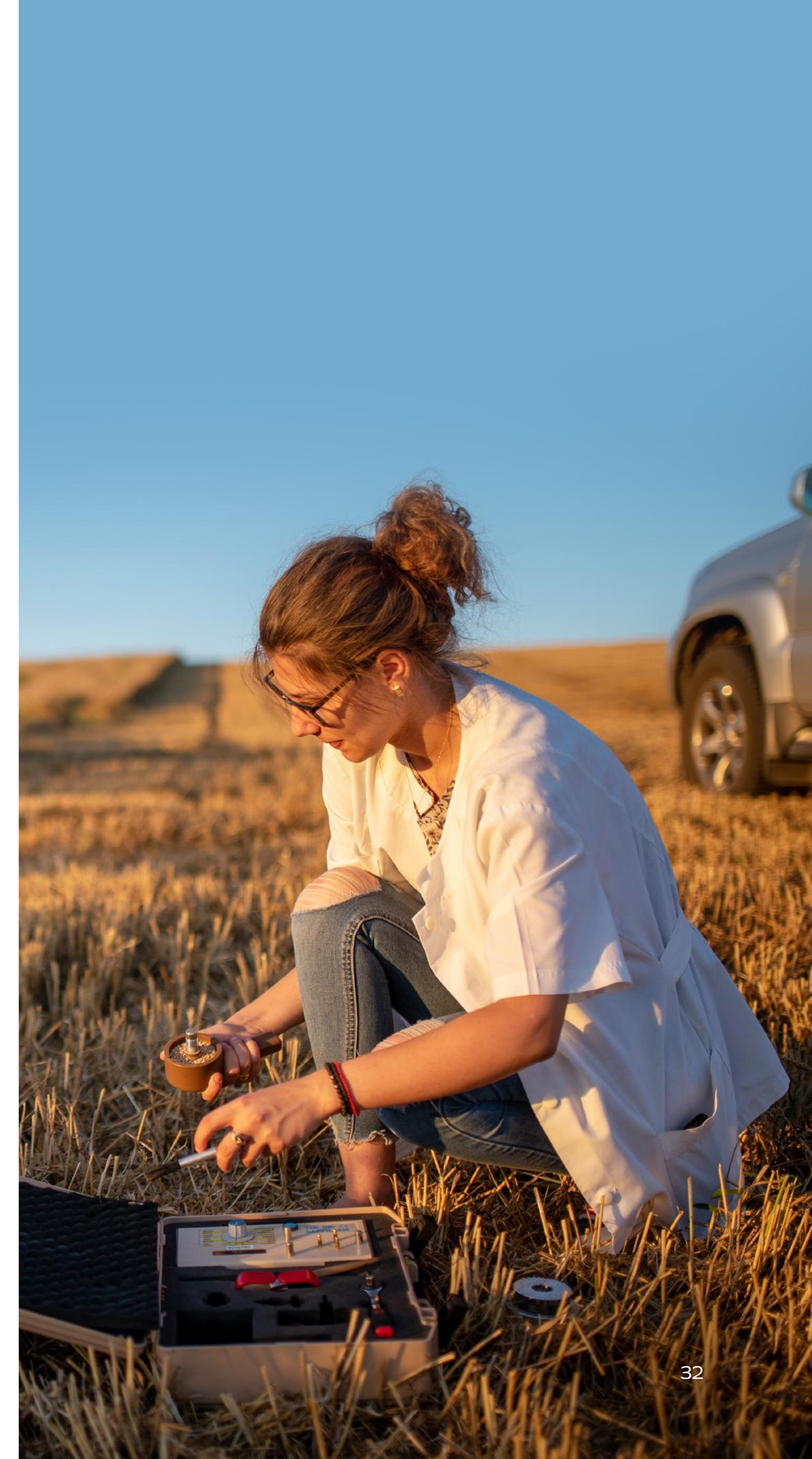
<sup>16</sup> Bernard & Jensen, 1995 & 1997; Wagner, 2007; Baldwin & Gu 2004; Tuhin, 2016; Tuhin & Swanepoel, 2017

# Exporters versus non-exporters, key performance metrics, 2020-21

Figure 20.  
Exporters versus non-exporters 2020-21

Medians	Exporters (n=24,609)	Non-exporters (n=516,772)	Difference
Turnover (\$)	4,908,673	740,159	+4,168,515
Value-added (\$)	3,705,739	718,402	+2,987,338
Wages (\$)	811,162	218,878	+592,284
FTE (#)	11.3	3.5	+7.8
Headcount (#)	16	6	+10
Labour productivity (\$)	195,865	109,489	+86,376
Average wages (\$)	54,492	36,908	+17,585
Firm age (years)	16	6	+10

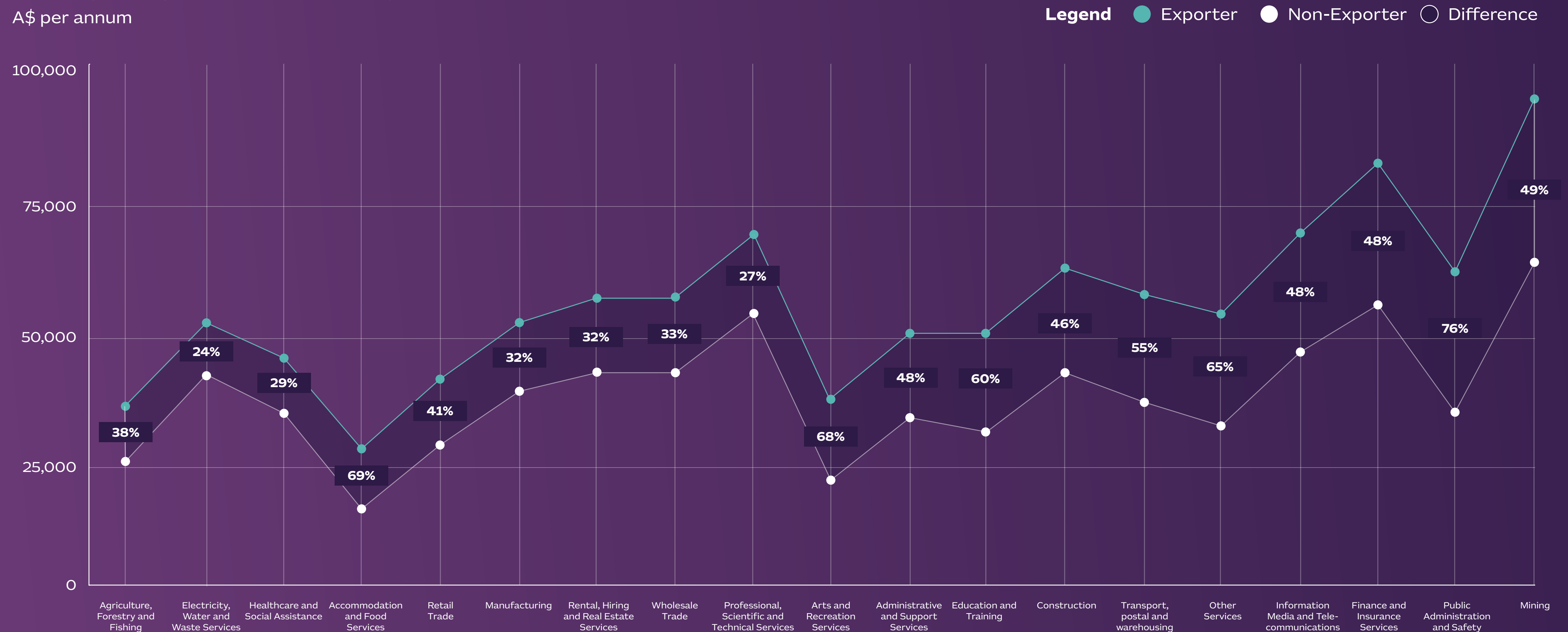
Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics  
Austrade – State of Exporters Report



# Overall, exporters paid \$17,585 higher wages on average than non-exporters in 2020-21

This size gap in median average wages was highest in mining and services industries including public administration and safety, financial and insurance services, information media and telecommunications, and other services.

**Figure 21.**  
**Average wage premium paid by exporters vs. non-exporters**  
 A\$ per annum



Sources: Australian Bureau of Statistics (2022) Business Longitudinal Analysis Data Environment; Austrade Economics

# Exporters outperform non-exporters

To better understand the sources of differences between Australian exporting and non-exporting firms, we used regression analysis to measure the differences for a variety of firm performance indicators.

Our analysis found that exporters generated 14% more employment and 65% more value-added than non-exporters. Exporters were also 64% more productive and paid 43% higher average wages. These results highlight the substantial differences between exporters and non-exporters in terms of firm performance and are consistent with Australian and international evidence.<sup>17</sup>

Comparisons between the two cohorts considered firm size, firm age, Australian New Zealand Standard Industrial Classification (ANZSIC) as well as location, to compare exporter and non-exporter performance against selected indicators.

The regression analysis is based on the subset of industry divisions where the majority of exporters operated (N= ~180,000), including wholesale trade, manufacturing, retail trade, professional, scientific, and technical services, and mining. Exporters accounted for 14% of the sample. See Appendix B for further methodological details.



Exporters generated

**65% more**  
value-added than non-exporters



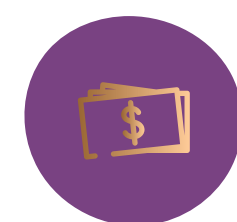
Exporters are

**64% more**  
productive than non-exporters



Exporters generated

**14% more**  
employment than non-exporters



Exporters generated

**43% higher**  
average wages than non-exporters



<sup>17</sup> Bernard & Jensen, 1995 & 1997; Wagner, 2007; Baldwin & Gu 2004; Tuhin, 2016; Tuhin & Swanepoel, 2017

## Case study

# An Australian exporter supporting net-zero ambitions in the global shipping industry

Innovative Australian exporter Spectainer is evolving the shipping and logistics industry and supporting net-zero ambitions.



“The shipping container is the backbone of the global shipping industry, but it is not ultimately efficient. I wanted to develop a solution that improves operational efficiency, saves costs and reduces environmental impact”

**Nicholas Press**  
Founder and Managing Director



**“COLLAPSECON can help lower costs, improve operational efficiency and reduce environmental impact on heavily imbalanced trade lanes.”**

Spectainer modelling shows COLLAPSECON can potentially:

Reduce container operating costs by between  
**20% to 40%**

Reduce fuel burn across the supply chain by between  
**20 to 30%**

Reduce empty container handling costs by up to  
**75%**

Reduce emissions from shipping by approximately  
**17%**

**Efficient ship movement can reduce carbon emissions by approximately 17%, according to Spectainer modelling.** The industry will also need fewer trucks and trains to transport COLLAPSECON from manufacturing hubs, container parks and port terminals. Spectainer projects can reduce carbon emissions by up to 37% across the container logistics chain.

“Australia is not generally known as a major player in the global shipping space, but we have a history of world-class innovation. As an Australian company, we are proud to be pioneering a solution to address a significant operational, economic and environmental problem”, says Nicholas Press.

Spectainer will start rolling out its first COLLAPSECON fleet in 2023. Austrade is supporting Spectainer as it takes its innovation global. “Austrade connected us to key partners in our evolution such as A\*STAR in Singapore. As we expand globally, Austrade’s insights, advice and support will help us better understand the complexities of expanding and doing business in global markets”, says Nicholas Press.

# Summary

The inaugural State of Exporters Report showcases both how exporters contribute to Australia's economic prosperity and the benefits of exporting.

Our analysis reinforces the importance of services exports such as education, tourism, professional and financial services, and technology to the Australian economy. Services exporters generated the most value-added and also employed the most people. Services sectors were also the most productive and paid the highest wages after mining.

We find that overall, compared to non-exporting firms, exporters generate more jobs, contribute more value-added to the economy, are more productive and pay higher wages on average. Importantly, exporters were found to be 9% more likely to have survived the early years of the pandemic.

Our merchandise exporters are increasingly diversified, serving 234 export markets overall and exporting to around 3 markets on average. While China continues to be the highest value market for Australian merchandise exporters, our exporters have diversified to new markets throughout Asia, capitalising on new market opportunities.

Whilst 2020-21 wasn't a 'typical' year for Australian exporters given the challenging global business environment, by analysing the 'atypical' year of 2020-21, our results highlight how exporters have proven their adaptability and resilience to these challenges and may be indicative of larger differences in exporter and non-exporter performance in future years with a comparatively more favourable international business environment.

With another tough year ahead predicted for the global economy, characterised by heightened geopolitical risk and global economic uncertainty, exporting will continue to be an important diversification and growth strategy for firms.



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# Methodological appendix

## Section A.

### Methodological notes

This paper uses data located within the Business Longitudinal Analysis Data Environment (BLADE) that integrates several administrative firm-level datasets. Within BLADE, the analysis draws on tax data from the Business Activity Statement (BAS), payroll data from Pay as you go (PAYG), firm characteristics data from the Australian Business Register and merchandise trade data from the Australian Border Force Integrated Cargo System (ICS) customs data for financial years 2014–15 to 2020–21. Data linkage occurs by using the Australian Business Number (ABN) as the primary linking variable.

For the purposes of our analysis, exporters are defined as those firms employing at least a single employee, which exported more than A\$2,000 in a single financial year and that supplied an ABN both to the Australian Tax Office (ATO) and Australian Border Force (ABF). Therefore, exporters are identified if they recorded a minimum of A\$2,000 in exports in either their Export Declaration or Business Activity Statement in a given financial year.

The specific data items utilised in the analysis are sourced as listed below:

- Business Activity Statement (BAS) — submitted by firms to report their GST obligations; data items include total sales, export sales, wages, capital and non-capital purchases, export sales.
- Pay as you go (PAYG) — provided by firms to report personal income tax obligations of their employees; this is used to model Full-Time Equivalent (FTE) and headcount employment counts.
- Australian Business Register – firm birth date, industry division, ANZSIC, state of operation, alive status.
- Merchandise trade – Free on Board (FOB) (export) value

Our analysis follows the methodology of Bernard and Jensen (1999) and Tuhin and Swanepoel (2017) and focuses on employing, exporting firms which shared their ABN on their Export Declaration form, and provided their ABN to the Australian Taxation Office in their Business Activity Statement. This means that any companies or individuals who export but did not provide an ABN on their Export Declaration are excluded from this analysis. Additionally, any non-employing firms, which recorded less than 1 FTE are also excluded from this analysis. By restricting the sample in this way, we generate the most comprehensive insights on Australian exporters to date and compare exporters with non-exporters across a range of key metrics.

The selected sample covers approximately 95% of all goods and services export value and is unlikely to have a material impact on the overall descriptive figures and analysis generated throughout the report.

## Section B.

### Model 1 specifications

We employ regression analysis to compare exporters and non-exporter performance using firm level data on around ~ 180,000 firms from selected industries where the majority of exporters operate.

$$\ln X_i = \alpha_i + \beta_1 \text{Exporter}_i + \beta_2 \text{Size}_i + \beta_3 \text{Age}_i + \beta_4 \text{Industry}_i + \beta_5 \text{State}_i + \varepsilon_i$$

Where  $\ln X_i$  is the natural logarithm of the level of the performance indicator in question,

$\text{Exporter}_i = 1$  if firm  $i$  is an exporter and 0 otherwise,

$\text{Size}_i$  is measured by log value-added for the employment equation and logged employment for all other equations,

$\text{Age}_i$  is firm age in years,

$\text{Industry}_i$  is the 4-digit ANZSIC class of firm  $i$ ,

$\text{State}_i$  is the jurisdiction of operation of firm  $i$ ,

$\varepsilon_i$  represents unobserved random variables.

**Limitations:** This analysis was limited by data availability and there may be confounding variables or potential sources of endogeneity affecting the results.

Figure 22.

#### Regression table 1

	Model 1	Model 2	Model 3	Model 4
<b>Dependent variables ▶</b>	<b>Log value-added</b>	<b>Log employment</b>	<b>Log labour productivity</b>	<b>Log average wages</b>
<b>Independent variables ▼</b>				
<b>Exporter indicator (0,1)</b>	0.499*** (0.007)	0.134*** (0.005)	0.498*** (0.007)	0.360*** (0.004)
<b>Firm age</b>	0.004*** (0.000)	0.008*** (0.000)	0.003*** (0.000)	0.010*** (0.000)
<b>Log employment</b>	0.797*** (0.002)	0.503*** (0.001)	-0.203*** (0.002)	-0.132*** (0.001)
<b>Log value added</b>		0.503*** (0.001)		
<b>Constant</b>	12.028*** (-0.020)	-5.158*** (0.025)	12.027*** (0.020)	11.215*** (0.011)
<b>R<sup>2</sup></b>	0.489	0.466	0.094	0.234
<b>N</b>	177,128	177,128	177,128	177,128

Standard error in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1  
NB. Industry and state dummies are excluded from the results table

## Section C.

### Model 2 Survival Model specifications

To determine the impact of exporting on firm survival in Australia during the COVID-19 pandemic shock (considered between 2018-19 and 2020-21) we employed a Probit model of the form:

$$S = \beta + \beta_1 X + \beta_2 Y_{it} + \varepsilon_{it}$$

where  $S$  equals 1 if the firm survived from year 2018-19 to 2020-21, 0 if otherwise

$Y_{it}$  is a vector of firm performance indicators (levels of employment, value-added, labour productivity, averages wages, firm age),

and  $X$  is a dummy variable referring to export status of the firm (i.e if the firm was continuously exporting during this time period)

Figure 23.

#### Regression table 2

	Model 1	Average marginal effects – Model 1	Model 2	Average marginal effects – Model 2
<b>Dependent variables ▶</b>	<b>Survival (0,1)</b>		<b>Survival (0,1)</b>	
<b>Independent variables ▼</b>				
<b>Covid-19 exporter indicator (0,1)</b>	1.343*** (0.028)	0.0912	1.343*** (0.028)	0.0912
<b>Log employment</b>	-0.054*** (0.002)	-0.008	0.199*** (0.001)	0.0304
<b>Log average wages</b>	0.144*** (0.003)	0.022	0.144*** (0.003)	0.022
<b>Log value added</b>	0.254*** (0.001)	0.038		0.038
<b>Log labour productivity</b>			0.001*** (0.001)	
<b>Firm age</b>	0.004*** (0.000)		0.004 (0.180)***	
<b>Constant</b>	-3.476*** (0.0308)		-3.476 (0.031)	
<b>Wald Chi<sup>2</sup></b>	41350.21***		41350.21***	
<b>Pseudo R<sup>2</sup></b>	0.092		0.092	
<b>N</b>	1,063,098		1,063,098	

Standard error in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



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