AgEconPlus CONSULTING

Gillespie Economics
Environmental and Resource Economics

WINE AUSTRALIA

Economic Contribution Australian Wine Sector 2025

Report prepared for:

7 August 2025

Wine Australia

Disclaimer

All description, figures, analyses, forecasts, and other details have been prepared in good faith from information furnished to Michael Clarke and Dr Rob Gillespie by other parties. These data are believed to be correct at the date of preparation of this report.

However, it should be noted that predictions, forecasts, and calculations are subject to assumptions which may or may not turn out to be correct and AgEconPlus and Gillespie Economics expressly disclaim all and any liability to any persons in reliance, in whole or in part, on the report in total or any part of its contents.

AgEconPlus Pty Ltd
ABN 41 107 715 364
Michael Clarke
M: 0438 844 024
W: www.AgEconPlus.com.au
E: clarke@AgEconPlus.com.au

Gillespie Economics
ABN 13 317 461 682
Dr Rob Gillespie
M: 0419 448 238
W: www.gillespieeconomics.com
E: gillecon@bigpond.net.au

Contents

Tables

Figures

Abbreviations

ABS	Australian Bureau of Statistics
CGE	Computable General Equilibrium (model)
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GI	Geographical Indication
GVP	Gross Value of Production
IO	Input Output (model)
np	not published (in relation to data sourced from TRA)
TRA	Tourism Research Australia

Acknowledgements

Peter Bailey – Manager Market Insights, Wine Australia
Angelica Crabb – Senior Analyst, Wine Australia
Suzanna Lim – Market Analyst, Wine Australia
Philippa Hamilton - Data Analyst, Data Analysis and Insights, Tourism Research Australia
Sandy Hathaway – Senior Analyst, Wine Australia

Executive Summary

This report is an economic assessment of the wine sector's direct and flow-on contribution to the Australian economy in 2025[1]. It updates the studies that were prepared for Wine Australia in 2015 and 2019.

The Australian wine sector includes grape growing, wine making and wine-related tourism. The wine sector makes a direct and significant contribution to output (the gross value of business turnover), gross domestic product (GDP) and employment. In addition to the wine sector's direct economic contribution, the sector also makes a flow-on contribution via strong linkages to other businesses that supply goods and services required for grape growing, wine making and the wine tourism experience, as well as the goods and services demanded by employees.

Wine grapes are grown in every Australian state with South Australia, NSW and Victoria being the largest wine grape producers. In 2024, there were estimated to be 5,408 wine grape growers with a vineyard area of 146,244 ha generating a gross wine grape sales value of $994 million.

Wine is Australia's fifth largest agricultural export industry. In 2024 there were estimated to be 2,156 Australian wineries and total Australian wine production was 1.04 billion litres with a gross value to the wine makers of $5.7 billion.

Australian wine is export oriented with approximately 58% of output headed for wine markets including China, the United States, United Kingdom, Canada and Hong Kong.

Tourism Research Australia estimated that there were 7.5 million visits to wineries from both domestic and international travellers in year ending March 2024. For those travellers that included a visit to a winery, they spent $11.6 billion during their entire trip and are typically higher spenders with an average spend per trip of $1,487. While domestic travellers made up the majority (89%) of visits to wineries, they were only 59% of the spend.

Revenue, expenditure and employment profiles were developed for each of grape growing, wine making and wine related tourism. Input-Output analysis was then used to quantify both direct and flow-on output, value-added, income and employment for each of grape growing, wine making and wine related tourism. Total direct and flow-on impact was adjusted to eliminate double counting when each component within the sector was summed to estimate total economic impact – Table E1.

[1] Using 2024/25 data where this is available and the most recent alternative where it is not. For example, ABS Regional Employment data is from calendar year 2021.

Table E1 Direct and Indirect Impact of the Total Wine Sector 2025

	Direct Effect	Production Induced	Consumption Induced	Total Flow-on	TOTAL IMPACT
OUTPUT ($'M)	16,225	15,087	20,003	35,090	51,315
Type 11A Ratio	1.00	0.93	1.23	2.16	3.16
VALUE-ADDED ($'M)	7,894	6,590	10,890	17,480	25,374
Type 11A Ratio	1.00	0.83	1.38	2.21	3.21
INCOME ($'M)	5,176	4,132	5,655	9,787	14,963
Type 11A Ratio	1.00	0.80	1.09	1.89	2.89
EMPLOYMENT (No.)	84,151	46,574	72,667	119,241	203,392
Type 11A Ratio	1.00	0.55	0.86	1.42	2.42

Because Input-Output modelling only examines backward linkages, this analysis does not capture margins on wine sales through wholesale, retail and restaurant sales. Values for wine sales and grape sales are at the winery/farm gate. Inclusion of wholesale, retail and restaurant sales would make the estimates of total direct and flow-on contribution higher.

Input-Output analysis has shown that the Australian wine sector (defined as wine grape growing, wine making and wine related tourism):

- Contributes $51.3 billion in gross output to the Australian economy. Gross output includes $25.4 billion in value (value-added) and $15.0 billion in wages and salaries from full and part time employment.
- Supports 203,392 direct and indirect full and part-time jobs[2], most of which are located in regional Australia, including 5,408 directly in grape growing, 15,411 directly in wine making and 69,146 directly associated with wine tourism. Estimates of full and part time employment are associated with economic activity linked to grape growing, wine making and wine tourism and do not include forward linkages such as employment in the retail sector.

This study builds on a similar report completed in 2019 and caution is needed when comparing single year 'snapshots' from this study and the 2019 report. 'Snapshots' do not account for changes in data, refinements in modelling methods or the impact of inflation. However, analysis has shown that since 2019, losses in the economic contribution of grape growing, and wine making have been offset by growth in wine tourism. Overall, the sector's contribution to GDP (gross output) is up 12.7% over the six years since 2019 or approximately 2.1% per annum. Growth has been less that the national rate of inflation.

Unlike Computable General Equilibrium modelling[3], Input-Output analysis does not generate taxation indicators. Input Output analysis accounts for tax paid on inputs purchased by grape

[2] As defined in the Australian National Accounts as 'Full time and part time employees, employers, own account workers and contributing family workers'

[3] Computable General Equilibrium (CGE) analysis is unsuitable for providing a 'snapshot' of an existing industry and its inter-sectoral linkages and is more applicable to assessing the effects of a change or shock to the economy. For instance, NZIER (2014) 'The economic contribution of the New Zealand wine sector, the impact of growth since 2008', used CGE to examine the impact of growth in the wine and grape industry in New Zealand compared to if growth had stagnated at 2008 levels. Consequently, for this Australian study which is focused on providing a 'snapshot' of an existing industry, Input-Output analysis was preferred.

growers, wine makers and the wine tourism sector and this tax paid is captured in estimates of value-added.

Input-Output analysis has shown that the average effects of a contraction or expansion within the wine sector would be:

- The economy would gain an extra $2.16 million for every additional $1 million of gross output generated by the wine sector.
- The economy would gain an extra $2.21 million in contribution to value-added for every additional $1 million of value-added generated by the wine sector.
- The wider economy would gain an extra 1.42 jobs for every job gained in the wine sector.

The Australian wine sector will continue to adjust and build on the economic contributions described in this report.

1. Introduction

The Australian wine sector makes a significant contribution to the Australian economy. This includes the economic activity associated with grape growing in vineyards and wine production and extends to the economic activity from wine related tourism. These three components of the Australian wine sector also have strong linkages to other sectors of the Australian economy, in particular the businesses that supply the goods and services required for grape growing, wine making and the wine tourism experience, as well as the goods and services demanded by employees. Consequently, the contribution of the Australian wine sector to the Australian economy is greater than just its direct effects.

This report is an economic assessment of the wine sector's direct and indirect contribution to the Australian economy in 2025. It provides a current 'snapshot' of the sector and a comparison with estimates prepared in 2019.

Section 2 of the report locates the industry geographically and provides an overview of the nature and scope of the components of the wine sector. Section 3 outlines the input-output (IO) modelling method used to examine the direct and indirect economic effects of the wine sector. Section 4 combines available data to develop a revenue, expenditure and employment profile for the grape growing, wine making, and wine tourism sectors of the Australian economy. The modelling of these sectors to assess their flow-on effects for the economy is then reported in Section 5. Conclusions and a comparison with estimates prepared in 2019 is provided in Section 6.

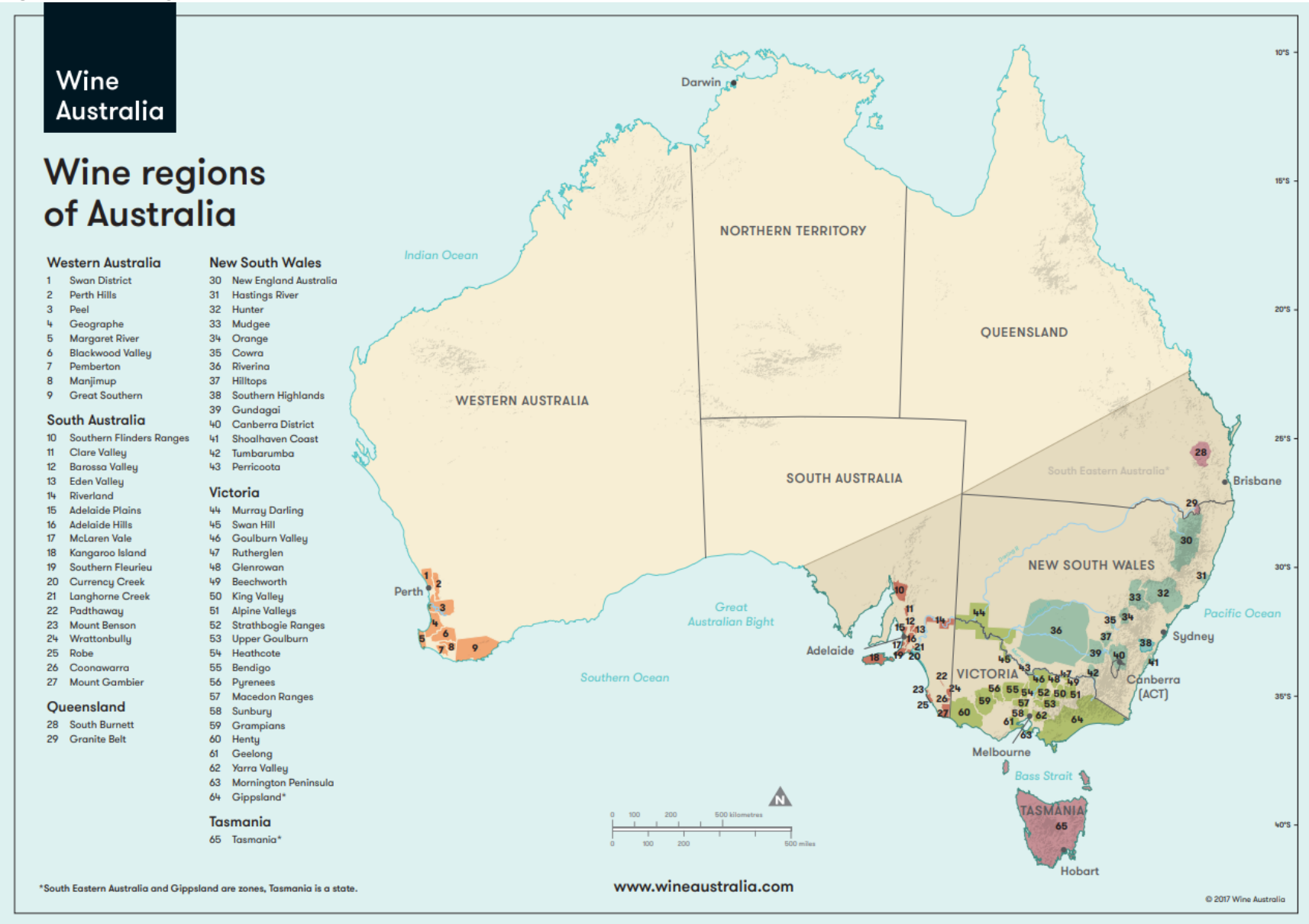
2. Australian Wine Sector

2.1 Locality

Wine grape growing, wine making and wine related tourism occur in all Australian states. Australia has sixty-five wine regions[4]. The main Australian wine regions are shown on Figure 1.

[4] South Eastern Australia and Gippsland are zones, Tasmania is a state.

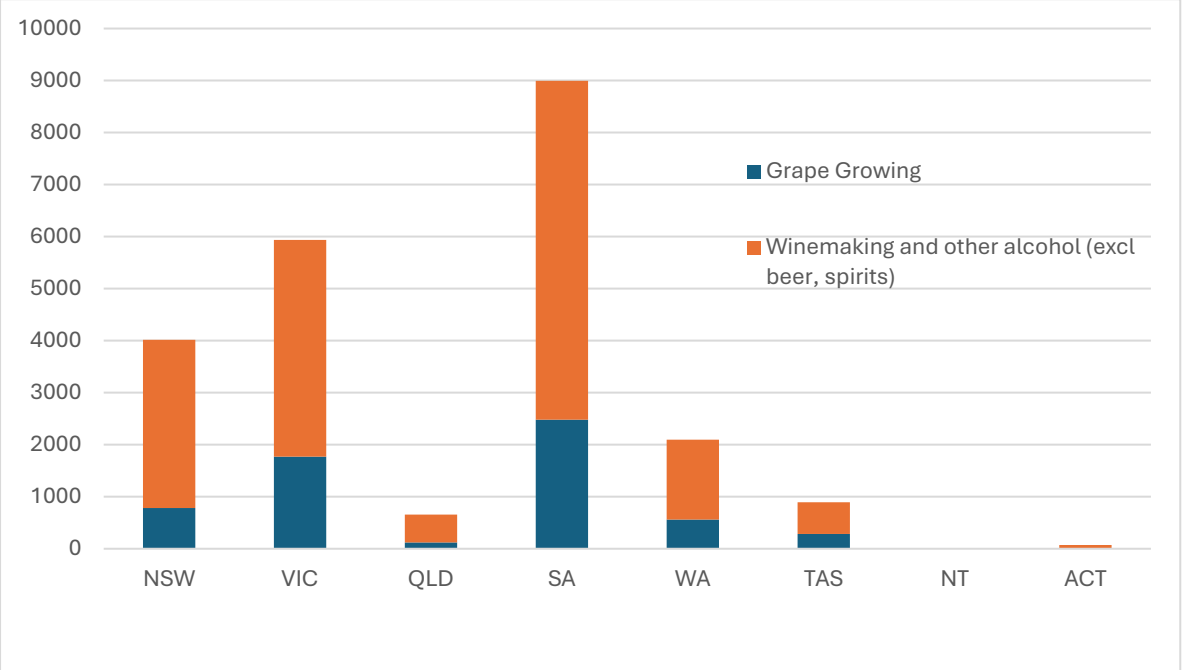
Figure 1. Wine regions of Australia



Source: Wine Australia, at https://www.wineaustralia.com/getmedia/9da8ba52-21da-46e8-b27e-3521d362b1c3/Australian-Wine-Regions.pdf

The relative scale of direct economic activity by state and territory is indicated by Australian Bureau of Statistics (ABS) 2021 employment levels in the Grape Growing Sector[5] and Wine and Other Alcoholic Beverage Manufacturing Sector[6] - see Figure 2. From this data it is evident that the wine sector is most significant in South Australia, Victoria and NSW.

Figure 2. Employment in grape growing and winemaking 2021 (no. people employed)



Source: ABS 2021 Census of Population and Housing – 4 digit employment by state.

No ABS employment data is available for wine tourism because there is no specific tourism industry sector in the Australian and New Zealand Standard Industrial Classification. The 'tourism sector' is made up of components of several industry sectors, including transportation, accommodation, food and beverage, recreation and entertainment and travel services. Economic activity, including employment, for the tourism sector needs to be generated based on visitation levels and expenditure. This is discussed further in Section 3 and Tourism Research Australia data is presented in Section 2.4.

2.2 Wine Grape Growing

Wine grapes are grown and crushed in every Australian state with South Australia, NSW, and Victoria being the largest grape producers – Table 1.

[5] Employment estimates include wine grape, table grape and dried grape production.
[6] Employment estimates include winemaking, wine blending, wine vinegar, fermentation of cider and alcoholic beverages not elsewhere classified.

Table 1: Grape crush by state 2024 and 2025 (tonnes)

State	Production 2024	Production 2025
South Australia	693,600	747,700
Victoria	245,000	277,700
Tasmania	16,800	18,800
NSW	412,800	478,000
Queensland	800	800
Western Australia	40,600	42,000
Total	**1,409,600**	**1,565,000**

Source: Wine Australia, Vintage Survey.

In 2024, there were an estimated 5,408 wine grape growers (after allowing for table and dried grape growers) with 146,244 ha of grape growing area producing 1,409,600 tonnes of grape crush. Crush increased from 1,409,600 tonnes to 1,565,000 in 2025 (Wine Australia, National Vintage Report 2025).

Grape growing area of 146,244 ha was sourced from the National Vineyard Scan 2019 and advise was sought from Wine Australia about changes in wine grape production area over the five years to 2024. Wine Australia advised that in South Australia, the largest grape growing state, there has been a net reduction of 753 ha in 2023, representing 1% of the state's grape growing area (SA Wine Grape Crush Survey 2024). However, there were also pockets of new plantings in SA in 2024. The same is true of other states. Anecdotally, the inland regions of Riverina and Murray Darling & Swan Hill report seeing significant reductions (in the order of a few hundred hectares) in the past couple of years that would amount to about 1% of production area and given the margin for error in the 2019 estimate, as well as the lack of accuracy in the 1% figure, it is appropriate to retain the current known estimate (146,244 ha) (Wine Australia, pers. comm, May 2025).

Historical wine grape crush, 2015 to 2025 is shown in Figure 3. Grape crush in both 2023, 2024 and 2025 are less than the ten-year Australian average.

Figure 3. Grape crush 2015 to 2025 (tonnes)

Source: Wine Australia, Vintage Survey.

In 2024, the total wine grape crush was valued at $994 million with an average purchase price of $614/tonne. Average purchase price was made up of warm inland production which accounted for 72% of output and attracted an average price of $344/tonne. Average cool/temperate wine grape price as $1,533/tonne (Wine Australia, National Vintage Report 2025).

The cost of growing wine grapes varies according to the size of the vineyard, the degree of mechanisation and the method of irrigation. Harvesting and pruning can be labour-intensive, although mechanisation is increasing within the industry. The location of the vineyard, fluctuations in yields achieved and prices received also cause variation in enterprise return.

Approximately 80% of Australian wine grape growing enterprises operate on less than 50 ha, 2% of enterprises operate on more than 500 ha. Similarly, almost 98% of enterprises employ fewer than 20 people and this is due to the high number of family management vineyards. Grape growing is often reliant on the grower's own labour plus the labour of family members.

2.3 Wine Making

There are estimated to be 2,156 wineries in Australia (Wine Australia – Australian Wine Sector at a Glance, December 2024). Wine makers may grow their own grapes and/or purchase grapes from wine grape growers. Wine makers also sell grapes, bulk wine, and merchandise at the cellar door. Some wine makers contract crush and pack for other wineries. Wine businesses can be classified into small, medium, and large on the following basis.

Table 2: Characteristics of wine making businesses – small, medium and large

Criterion	Small (<50,000 cases)	Medium (50,000 - 350,000 cases)	Large (>200,000 cases)
Ownership	Typically, an owner operated business.	Predominantly owner operated. May have full time employees.	Public or private ownership.
Production facilities	Single production site producing branded product or uses another winery to process its grapes.	The business owns / controls its wine making facility and has a combination of estate vineyards and contracted grape purchases.	Single or multiple production sites, some contract crushing, mix between branded production and bulk wine production, mix between own and purchased grapes.
Capacity	Annual processing capacity of less than 750 tonnes of wine grapes.	Processing capacity is between 750 and 5,000 tonnes of wine grapes.	Processing capacity exceeds 7,000 tonnes and may be in excess of 120,000 tonnes.
Sales turnover	Wine sales of less than 50,000 cases and $5 million in sales revenue. Does not incorporate revenue from cellar door merchandise, sale of grapes, bulk wine or processing and packaging.	Wine sales of between 50,000 and 350,000 cases and between $5 million and $20 million in bottled wine sales revenue. May include income from merchandise, bulk wine, processing and packaging.	Gross case sales revenue exceeding $20 million and 200,000 cases. Extra-large wine makers may have sales of 500,000 cases or bulk wine sales in excess of 100 million litres.
Market	Direct sales via cellar door, website and local restaurants.	Sales targeted to a range of markets. Likely to have a 'marketing team'. Use additional income sources to supplement revenue and profitability.	Predominantly a branded production business. Extra-large businesses include bulk wine sales.

Source: AgEconPlus 2019 (adapted from Wine Australia & WFA 2007)

Australia is the world's fifth largest wine exporter and Australian wine accounts for 85% of domestic wine sale (Wine Australia, Australian Wine Production, Sales and Inventory 2023/24). Wine maker sales in 2023/24 are shown in the table below.

Table 3: Australian wine sales 2023/24

	Sales Volume (million L)	Sales Value ($ billion)
Export	619	2.2
Domestic	457	3.5
Total	**1,076**	**5.7**

Source: Wine Australia, Australian Wine Production, Sales and Inventory 2023/24

In 2024, China rebounded to again become Australia's number one export market by value. However, sales were still well down on previous levels. The relative importance of China and other export customers is shown in the table below (NB: the China total only includes three months of sales post re-opening of this market to Australian wine).

Table 4: Australian wine exports – top 5 destinations 2023/24

	Export Value ($ million)
China – mainland (18%)	400
USA (16%)	356
UK (16%)	353
Hong Kong (13%)	275
Canada (7%)	146
Total all markets	**2,200**

Source: Wine Australia, Australian Wine Sector at a Glance, December 2024

Most Australian wine exports are red and rose (55%) and white wine varieties (42%). The balance is made up of sparkling, carbonated, and fortified wine. The five most important Australian still wine varieties in the off-trade (domestic) market by value are shown in the table.

Table 5: Top selling Australian still wine varieties in the domestic market 2024

	Share of Sales (%)
Shiraz	21
Sauvignon Blanc	11
Chardonnay	10
Cabernet Sauvignon	9
Pinot Grigio	5

Source: Wine Australia, Australian Wine Sector at a Glance, December 2024

2.4 Wine Tourism

Tourism Research Australia estimated that there were 7.5 million visits to wineries from both domestic and international travellers in year ending December 2024. For those travellers that included a visit to a winery, they spent $11.6 billion during their entire trip and are typically higher spenders with an average spend per trip of $1,487.

Table 6: Wine tourism visits and spend (year ending December 2024)

	Domestic Day	Domestic Overnight	International	Total
Visits (million)	2.7	4.0	0.8	7.5
Visitor nights (million)	0.0	18.3	40.6	58.9
Spend in Australia ($'billion)	0.8	6.1	4.7	11.6
Average stay (nights)	n/a	5	49	8
Average spend per trip ($)	284	1,538	5,758	1,487

Source: Tourism Research Australia

While domestic travellers made up the majority (89%) of visits to wineries, internationals contributed 41% of the spend in Australia and on average spent $5,758 during their trip. The United Kingdom was the largest source of international visitors to Australian wineries in the year ending December 2024. Visitors from China spent the most on their trip - see table below.

Table 7: Profile of international visitors to Australian wineries (year ending December 2024)

Year ending December 2024	Winery visitors (000)	Proportion of winery visitors	Average stay (nights)	Expenditure per trip ($)
United Kingdom	108	13%	45	4,748
Korea	102	12%	23	4,681
Singapore	74	9%	18	3,334
United States of America	69	8%	32	3,979
China	62	8%	60	12,568
New Zealand	52	6%	20	3,040
India	30	4%	99	6,285
Malaysia	30	4%	26	3,587
Japan	26	3%	65	5,812
Germany	25	3%	61	5,054
Hong Kong	21	3%	30	5,964
France	20	2%	115	8,039
Canada	18	2%	47	5,539
Indonesia	15	2%	61	7,703
Viet Nam	14	2%	46	6,159
Philippines	13	2%	101	3,882
Netherlands	12	2%	39	5,491
Thailand	9	1%	51	5,015
Taiwan	np	np	np	np
Scandinavia	np	np	np	np
Italy	np	np	np	np
Switzerland	np	np	np	np
Other Asia	17	2%	88	9,244
Other Europe	30	4%	87	7,420
Other Countries	36	4%	89	7,611
Total	**823**	**100%**	**49**	**5,758**

Other Asia excluding Philippines & Vietnam from 2023 onwards.

2.5 Industry Status and Outlook

The Australian wine sector experienced rapid growth through the 1990s followed by a period of consolidation and rationalisation in the early part of the new century. In the 2010s, the sector reinvented itself with whole bunch fermentation, lower alcohol, earlier picking, brighter red wine styles, a knack for seeking out the best from old vines, unique sites, unsung regions and a mesh of new, interesting grape varieties from outside the mainstream.

A new generation of experimental wine makers began to gain favour, with artisan production and organic/biodynamic credentials being explored. Wine makers focussed on freshness, natural acidity and regional distinction. Cool climate wine production gained prominence. A buoyant Australian wine sector found a peak in 2018/19 with export sales of $2.8 billion in an industry valued at $6.3 billion. In the twelve months to June 2018, sales to China accounted for 36% of Australian wine exports and were valued at $1.1 billion (Wine Australia, December 2018).

In late 2020, China imposed anti-dumping tariffs of up to 218% on Australian wine and exports to China immediately declined 97%. China was Australia's most important market, and its sudden collapse created problematic oversupply, especially for red wine. Australian wine producers struggled to find alternative buyers at the same price point as China. The loss of the China market was exacerbated by a global oversupply of wine, disrupted supply chains caused by COVID-19, a decline in global wine consumption, and damage to the premium positioning of Australian wine following Chinese market closure.

In March 2024, China lifted punitive tariffs on Australian wine and there was a rebound in sales to that market. In the twelve months to March 2025, total Australian wine exports reached $2.6 billion with sales to China approaching $1 billion (see Figure 4 below).

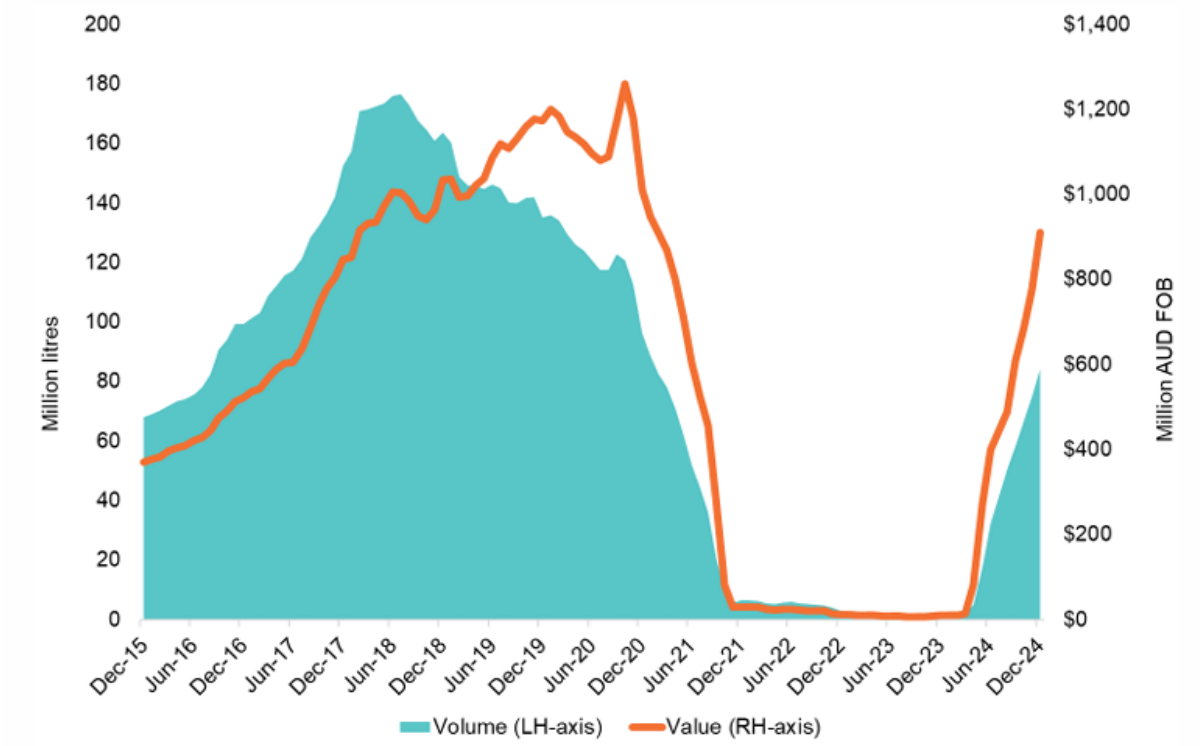
In 2025, the supply of Australian white wine is roughly in balance while red wine remains in over-supply. Three of the last five Australian vintages have been below average in size with the red wine grape crush falling by more than the white wine grape crush. Both warm inland and cool/temperate regions have seen a significant drop in the red grape crush over the last two years. Grape prices, especially for Shiraz sourced from warm inland regions, have continued to decline. However, there has been very little reduction in the area under vine in warm inland areas (Wine Australia, March 2025).

Globally, there has been a contraction in southern hemisphere supply with Australia, Argentina, Chile, New Zealand, and South Africa all producing less wine. In 2025, Argentina has regained its position as the largest southern hemisphere producer. In the northern hemisphere, France experienced the largest reduction in supply. While Spain and Italy increased output. Italy reclaimed the title of the world's largest wine producer. Global wine supply is falling but still exceeds demand (Wine Australia, March 2025).

For Australia, a strong rebound in the China market has offset declines in other world markets especially the United States and the United Kingdom. However, exports to China have still not recovered to their full historical peak (Figure 4).

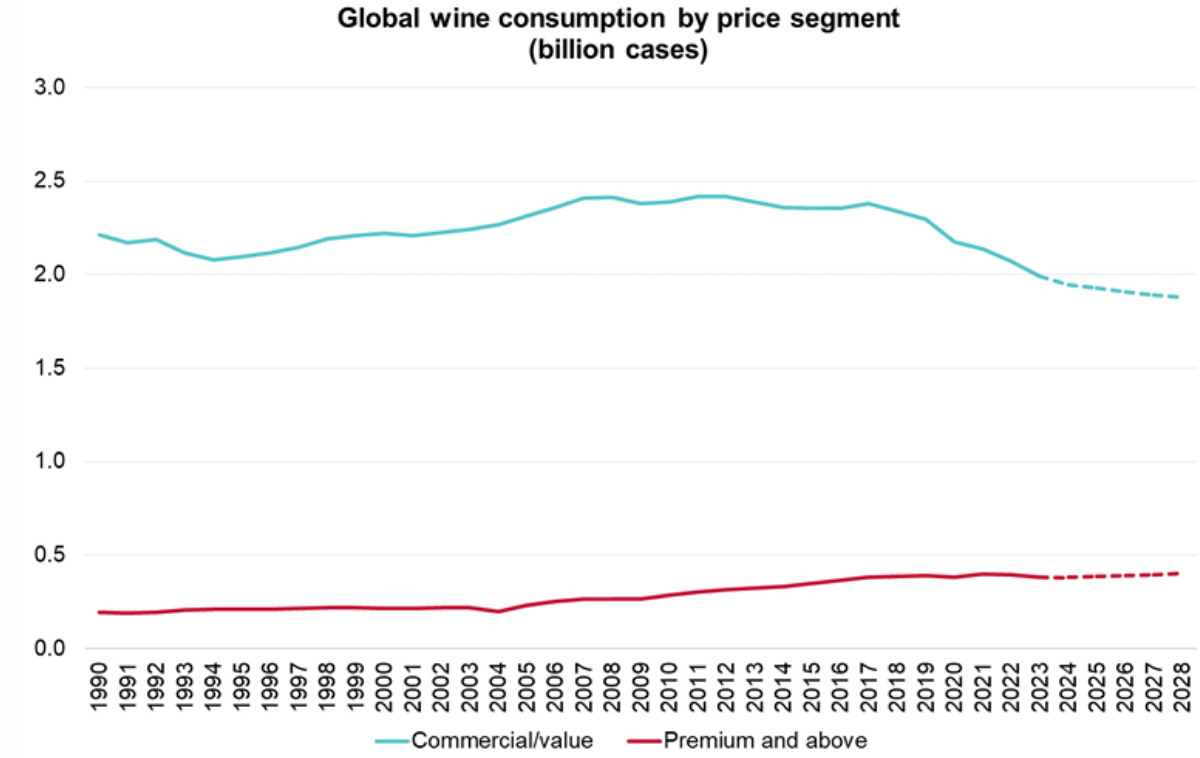
Worldwide, as total wine consumption has declined there has been a shift from lower priced 'commercial' wine to higher priced 'premium' product (Figure 5). The trend toward 'premium' product is particularly pronounced in the Australian domestic market (Wine Australia, March 2025).

Figure 4. Australian wine exports to China 2015 to 2024



Source: Wine Australia, March 2025

Figure 5. Global wine consumption – premium Vs commercial 1990 to 2028



Source: IWSR data via Wine Australia, March 2025

In terms of the outlook for Australian wine, there remains opportunity across priority markets such as Australia, the United States, United Kingdom, Canada, China, South Korea, Japan, and parts of Southeast Asia where the industry can defend or increase market share (mature markets) or grow the overall wine category (emerging markets).

However, global wine supply and consumption are at their lowest since 1961 and further contractions are forecast for the next five years. Forecasts point to a consolidation of the Australian wine sector's position rather than a period of sector growth.

2.6 Industry Statistics

Key Australian wine industry statistics assembled with the assistance of Wine Australia are summarised in the table.

Table 8: Australian wine sector statistics

Measure	Year	Quantity	Unit
Wine Grape Growing			
Wine grape growers	2021	5,408	number
Wine grape vineyard area	2019	146,244	hectares
Wine grape crush	2024	1,409,600	tonnes
Gross value of wine grape sales	2024	994,000,000	$
Direct employment in grape growing	2021	5,408	number
Wine Making			
Wine making enterprises	2024	2,156	number
Wine production	2024	1,042,000,000	litres
Domestic sales of Australian wine	2024	3,500,000,000	$
Domestic sales of imported wine	2024	618,000,000	$
Export sales of Australian wine	2024	2,200,000,000	$
Direct employment in wine making	2021	15,411	number
Wine Tourism			
Domestic visitor day trips	2024	2,700,000	number
Domestic day trip expenditure	2024	778,000,000	$
Domestic overnight visitors	2024	4,000,000	number
Domestic visitor nights	2024	18,000,000	number
Domestic overnight expenditure	2024	6,000,000,000	$
International visitors	2024	800,000	number
International visitor nights	2024	41,000,000	number
International visitor expenditure	2024	4,700,000,000	$

Source: various

Summary statistics provide a foundation for analysis of the economic contribution of the Australian wine sector.

3. Input Output Modelling

There are two main methods that can be used to analyse the economic contribution of an industry, they are:

- Input-output (IO) analysis; and
- Computable general equilibrium (CGE) analysis.

However, the most appropriate method to use depends on what type of impact is being examined.

IO analysis can be used to:

- Develop a snapshot of an existing industry in a particular year including its direct and indirect linkages; or
- Assess the effects of a change or shock to the economy e.g. an expansion or contraction or a new activity.

CGE analysis is unsuitable for providing a snapshot of an existing industry and its inter-sectoral linkages and is more applicable to assessing the effects of a change or shock to the economy. For instance, NZIER (2014) 'The economic contribution of the New Zealand wine sector, the impact of growth since 2008', used CGE to examine the impact of growth in the wine and grape industry in New Zealand compared to if growth had stagnated at 2008 levels. Consequently, for this Australian study which is focused on providing a snapshot of the sector at a point in time and comparing it to a snapshot at a previous point in time, IO analysis is used.

IO is primarily concerned with the effect of an impacting agent e.g. an individual business or sector, on an economy in terms of a number of specific economic activity indicators, such as gross regional output, value-added, income and employment.

These indicators can be defined as follows:

- **Gross regional output** – the gross value of business turnover.
- **Value-added** (gross regional product) – the difference between the gross value of business turnover and the costs of the inputs of raw materials, components and services bought in to produce the gross regional output.
- **Income** – the wages paid to employees including imputed wages for self-employed and business owners.
- **Employment** – the number of people employed (including full-time and part-time).

An impacting agent may be an existing activity within an economy e.g. an ongoing tourism venture or may be a change to a local economy e.g. a new tourism development. In this study the impacting agent is the existing grape growing, wine making and wine tourism sectors.

The economy on which the impact is measured can range from a township to the entire nation. This study is concerned with examining the impacts of the grape growing, wine making and wine tourism sectors on the Australian economy.

Input-output analysis essentially involves two steps:

- Construction of an appropriate IO table (regional transaction table) that can be used to identify the economic structure of a defined region and multipliers for each sector of the economy; and
- Identification of the initial impact or stimulus of an industry in a form that is compatible with the IO equations so that the IO multipliers and flow-on effects can then be estimated.

For this study, the latest National IO Table produced by the Australian Bureau of Statistics for 2022-23, adjusted to 2025 values, was used.

Identification of the initial impact of the wine sector in a form compatible with the IO table required the development of a specific aggregate employment, revenue and expenditure profile for the grape growing sector, wine making sector and wine tourism sector, based on available industry information. For each of the grape growing sector and wine making sectors a specific intermediate IO sector was developed where:

- The estimated gross annual revenue was allocated to the output row.
- The estimated wage bill of employees (including imputed wages for the self-employed) was allocated to the household wages row.
- Non-wage local expenditure was initially allocated across the relevant 115 intermediate sectors in the economy - for the wine making sector the expenditure on grapes was equal to the sale value of the grape sector.
- Purchaser prices for expenditure in each sector in the economies were adjusted to basic values and margins and taxes and allocated to appropriate sectors using relationships in the National IO table.
- Allocation was then made between intermediate sectors and imports based on the percentage of imports in each sector of the National IO table.
- The difference between total revenue and total costs was allocated to the other value-added row.
- Direct employment was allocated to the employment row.

These sectors were inserted into the IO table to facilitate impact assessment.

As identified above, there is no intermediate sector in the IO table for tourism. Tourism relates to final demand expenditure on a range of goods and services across the 115 intermediate sectors of the national economy. An expenditure profile for this final demand expenditure was developed based on the estimated total expenditure of domestic and international tourists, and the main categories of tourism expenditure. Purchaser prices for tourism expenditure in the economies were adjusted to basic values and margins and taxes and allocated to appropriate sectors using relationships in the National Input-Output Tables.

With new intermediate sectors for grape growing and wine making inserted into the IO table and a final demand expenditure for wine tourism developed, the computer program EconImp[7] (developed by Gillespie Economics) was used to estimate the average annual direct and

[7] The EconImp program uses the Leontif Inverse Matrix to estimate indirect effects.

indirect output, value-added, income and employment[8] impacts for each of the wine sector components.

Indirect impacts are disaggregated into:

- Production-induced effects - economic activity from the purchase of goods and services that are used as an input into production or the wine tourism experience; and
- Consumption-induced effects - economic activity from the spending of employees of the wine sector.

In both cases, in addition to first-round purchases, there will be a series of indirect purchases as waves of second, third and subsequent-round effects make their way throughout the economy.

Ratio multipliers are reported in Section 5 for each of the components of the wine sector. These provide summary measures used for predicting the total impact on all industries in an economy from changes in the demand for the output of any one industry. They express indirect impacts or flow-ons in terms of the initial own sector effects e.g. employment flow-ons in relation to direct employment effects, output flow-ons in relation to direct output, etc. Refer to Attachment 1 for a discussion of multipliers and the assumptions underpinning IO analysis.

Consideration is also given to aggregation of the impacts of each component being careful to avoid double counting. IO analysis examines backward linkages only. Consequently, because expenditure by tourists would include some expenditure on wine at the cellar door and expenditure by wine makers would include expenditure on grapes there would be double counting if the economic activity from each of the components of the wine sector were simply added together. Adjustment is required to expenditure profiles to remove double counting if the components of the wine sector are to be aggregated.

Because IO only examines backward linkages, this analysis does not capture margins on wine sales through wholesale and retail outlets. Values for wine sales and grape sales are at the farmgate or winery door.

4. Revenue, Expenditure, and Employment Profile of Wine Sector

Section 4 develops revenue, expenditure, and employment profiles for each of the components of the wine sector to enable the subsequent estimation of their direct and indirect impacts on the national economy.

4.1 Wine Grape Growing

Wine grape growing total revenue in 2023/24 was $994,000,000 (Wine Australia – National Vintage Report 2025) with a wine grape growing area of 146,244 ha when last surveyed in 2019 (Wine Australia, National Vineyard Scan 2019) creating an average gross revenue of $6,797/ha.

[8] It is important to understand that the focus of IO analysis is on the economic stimulus provided by wine sector and not on the economic costs and benefits of the wine sector. Consideration of the economic costs and benefits of wine sector would require the undertaking of a benefit cost analysis.

The gross revenue estimate of $6,797/ha was aligned with the expenditure profile prepared in both 2015 and 2019 (AgEconPlus and Gillespie Economics 2019) and updated using more recent wine grape revenue and expenditure estimates, including:

- Grape Growing Cost Calculator – cost of winegrape production in the Riverina, Riverland, and Murray Darling-Swan Hill (Wine Australia 2024).
- Economic and Financial Benchmarking of Riverland Grape Production Costs for 2021 including both cool/temperate and warm inland benchmarks (Wheeler et al. 2022).
- Department of Natural Resources and Environment, Tasmania (2022) – Gross Margin Analysis for Wine Grape Investment in Cool/Temperate Areas, January 2022.

Revenue and cost of production data was weighted by production area (warm inland accounts for 72% of the national harvest) and adjusted to 2024 dollar values to provide an average gross margin for the industry. Total wine grape growing industry revenue and expenditure was aggregated from the average gross margin using the gross value of production estimate of $994,000,000. Results are shown in the table below.

Table 9: Wine grape growing revenue and expenditure profile 2024

	Average Gross Margin ($/ha)	**Wine Grape Growing Industry Total Revenue and Expenditure ($'M)**
Revenue (A)	**6,906**	**994,000**
Expenditure		
Farm labour	900	131,620
Contract labour	850	124,307
Fruit transport	377	55,134
Levies	130	19,012
Chemicals	700	102,371
Nutrition/fertiliser	320	46,798
Vineyard floor /canopy management	160	23,399
Sundry materials/supplies	120	17,549
Machinery expenses	280	40,948
Machinery fuel	380	55,573
Machinery hire	210	30,711
Water and drainage costs	1,550	226,678
Repairs and maintenance - vineyard	105	15,356
Total expenditure (B)	**6,082**	**889,456**
Net Revenue (A) less (B)	**715**	**104,544**
Employment		**5,408***

* ABS 4 digit census data for grape growing 2021 of 6,009 less 10% associated with table grape and dried grape growing (IBIS World 2018).

Wine grape growing industry employment was estimated using the following data:

- 6,009 employed in all types of grape growing (ABS 2021, Census Employment by Industry 4 digit level) less 10% associated with table and dried grape production i.e. 5,408 jobs.
- Total wages that exclude contract labour – recorded in the input-output model as 'services to agriculture'. Employment associated with contract labour recorded as a 'multiplier'.
- Total wages that include 'farm labour' and part of 'net revenue' in the above table to reflect imputed wages from farm owners.

4.2 Wine Making

Wine making total revenue was reported as $5.7 billion from sales of 1.076 billion litres in 2023/24 creating an average wine maker sales price of $5.28/litre (Wine Australia, Australian Wine Production, Sales and Inventory 2023/24).

The gross revenue estimate of $5.28/litre was aligned with the expenditure profile prepared in both 2015 and 2019 (AgEconPlus and Gillespie Economics 2019) and updated using more recent wine making revenue and expenditure estimates, including:

- Activity Based Costing Tool and Benchmarking Database (McIntyre, June 2019).
- Wine Production in Australia – Market Research Report 2015-2030 Financial Benchmarks (IBIS World, April 2025).

Revenue and cost of production data was adjusted to 2024 dollar values and an average gross margin for the industry was prepared. Total wine grape growing industry revenue and expenditure was aggregated from the average gross margin using the gross value of production estimate of $5.7 billion. Results are shown in the table below.

Table 10: Wine making revenue and expenditure profile 2024

	Average Revenue and Expenditure ($/litre)	**Wine Making Industry Total Revenue and Expenditure ($'million)**
Revenue (sale price packaged)	5.28	5,702
Cost of packaging#	1.60	1,728
Revenue after packaging (A)	**3.68**	**3,974**
Expenditure		
Winery labour	0.91	983
Grapes	0.65	702
Wine loss / waste treatment	0.13	140
Depreciation	0.25	270
Electricity / gas	0.15	162
Repairs and maintenance	0.15	162
Water	0.10	108
Total cost (excluding packaging) (B)	**2.34**	**2,527**
Net revenue (A) less (B)	**1.34**	**1,447**
Employment		**15,411***

note large share of production is shipped overseas unpackaged therefore cost estimate is average across packaged and unpackaged production.

* ABS 4 digit census data for wine and other alcoholic beverage manufacturing 2021 of 16,660 less 7.5% associated with cider and other alcoholic beverage manufacture (IBIS World, April 2019).

Wine making industry employment was estimated using the following data:

- 16,669 employed in the wine and other alcoholic beverage manufacturing sector (ABS 2021, Census Employment by Industry 4 digit level) less 7.5% associated with cider and other alcoholic beverage making i.e. 15,411 jobs.
- Total wages that include 'winery labour' and an allowance for the self-employed.

4.3 Wine Tourism

Wine Tourism revenue and expenditure data was sourced from Tourism Research Australia's National and International Visitor Surveys. Separate estimates are provided for domestic day and overnight expenditure as well as for international visitation. Data is summarised in the table below.

Table 11: Wine tourism expenditure ($'million spent in Australia, year ending December 2024)

	Domestic Wine Tourism – Day Trips	Domestic Wine Tourism – Overnight Trips	International Wine Tourism	Total
Expenditure Item				
Airfares	0.0	473.0	80.3	553.2
Tours	6.0	235.1	329.5	570.6
Transportation	145.4	739.1	389.8	1,274.3
Food, drink and accommodation#	484.9	3,945.4	2,407.6	6,837.9
Shopping	121.3	452.4	574.4	1,148.1
Entertainment	20.7	199.5	91.7	311.9
Education	0.0	7.5	723.5	731
Other	0.1	32.5	142.2	174.8
Total	**778.3**	**6,084.5**	**4,739.0**	**11,602**
Visits ('000)	**2,742**	**3,955**	**823.0**	**7,520**
Visitor nights ('000)	**-**	**18,261**	**40,614**	**58,875**

note it is assumed that 3% of total wine sales is at the cellar door to wine tourists.

No ABS employment data is available for wine tourism because there is no specific tourism industry sector in the Australian and New Zealand Standard Industrial Classification. Consequently, the analysis has been reliant on employment data generated by the wine tourism expenditure profile using the relevant input-output software.

5. Direct and Indirect Impacts of the Wine Sector on the Australian Economy

5.1 Grape Growing Sector

Economic Activity

The total and disaggregated impact of grape growing on the Australian economy (in 2024 dollars) is shown in the table below.

Table 12: Direct and indirect impact of the grape growing sector

	Direct Effect	Production Induced	Consumption Induced	Total Flow-on	TOTAL EFFECT
OUTPUT ($M)	994	1,236	931	2,167	3,161
Type 11A Ratio	1.00	1.22	0.92	2.15	3.15
VALUE-ADDED ($M)	259	542	507	1,049	1,308
Type 11A Ratio	1.00	2.09	1.95	4.04	5.04
INCOME ($M)	135	298	263	561	696
Type 11A Ratio	1.00	2.20	1.95	4.15	5.15
EMPLOYMENT (No.)	5,408	3,165	3,382	6,547	11,955
Type 11A Ratio	1.00	0.59	0.63	1.21	2.21

The Australian grape growing sector is estimated to make up to the following total annual contribution to the national economy:

- $3,161M in annual direct and indirect regional output or business turnover.
- $1,308M in annual direct and indirect regional value added.
- $696M in annual direct and indirect household income.
- 11,955 direct and indirect jobs.

Multipliers

Ratio multipliers provide a summary measure of the direct and indirect economic activity relative to the direct economic activity for a particular indicator. The Type 11A ratio multipliers for the grape growing sector range from 2.21 for employment up to 5.15 for income.

The low ratio multiplier for employment reflects the relatively labour-intensive nature of the grape growing sector compared to the sectors that experience flow-on employment. The high-income ratio multiplier reflects the higher wages of those experiencing flow-on employment relative to the low wage in the grape growing sector. The high value-added multiplier reflects low wages and low profits in grape growing relative to the sectors that experience flow-on effects.

Main Sectors Affected

Flow-on impacts from the grape growing sector impact a number of different sectors of the national economy. The sectors most impacted by output, value-added and income flow-ons are the:

- Water Supply, Sewerage and Drainage Services.
- Ownership of Dwellings.
- Agriculture, Forestry and Fishing Support Services.
- Road Transport.

- Wholesale Trade.
- Basic Chemical Manufacturing.
- Finance.
- Retail Trade.
- Professional, Scientific and Technical Services.

Examination of the estimated direct and flow-on employment impacts gives an indication of the aggregated sectors with employment linkages to the grape growing sector (Figure 6).

Figure 6. Sectoral distribution of grape growing employment impacts on national economy

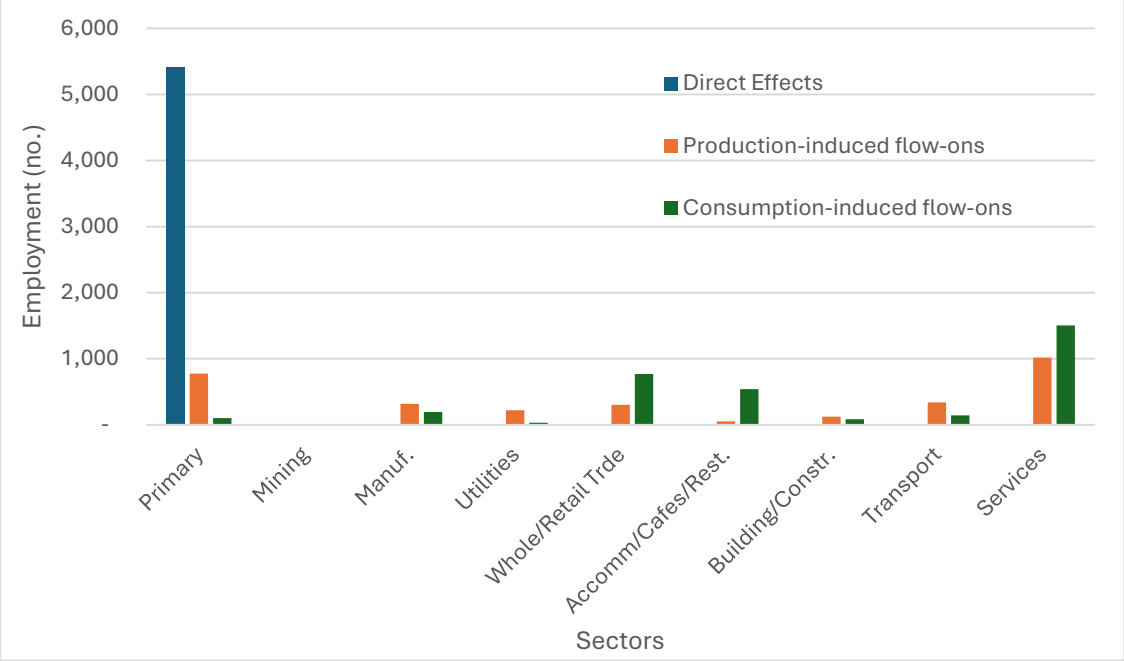


Figure 6 indicates that direct, production-induced and consumption-induced employment linkages of the grape growing sector on the national economy are likely to have different distributions across sectors. Production-induced flow-on employment occurs mainly in services sectors, transport sectors, utilities sectors, wholesale/retail trade sectors, manufacturing sectors, and primary industry sectors while consumption induced flow-on employment are mainly in services sectors, wholesale/retail trade sectors and accommodation/cafes/restaurants sectors.

5.2 Wine Making Sector

Economic Activity

The total and disaggregated annual impacts of the wine making sector on the Australian economy (in 2024 dollars) are shown in the table below.

Table 13: Direct and indirect impact of the wine making sector

	Direct Effect	Production Induced	Consumption Induced	Total Flow-on	TOTAL EFFECT
OUTPUT ($M)	5,702	6,142	5,933	12,075	17,777
Type 11A Ratio	1.00	1.08	1.04	2.12	3.12
VALUE-ADDED ($M)	2,704	2,511	3,230	5,741	8,445
Type 11A Ratio	1.00	0.93	1.19	2.12	3.12
INCOME ($M)	1,318	1,443	1,677	3,120	4,438
Type 11A Ratio	1.00	1.10	1.27	2.37	3.37
EMPLOYMENT (No.)	15,411	17,777	21,552	39,330	54,741
Type 11A Ratio	1.00	1.15	1.40	2.55	3.55

The Australian wine making sector is estimated to make up to the following total annual contribution to the national economy:

- $17,777M in annual direct and indirect regional output or business turnover.
- $8,445M in annual direct and indirect regional value added.
- $4,438M in annual direct and indirect household income.
- 54,741 direct and indirect jobs.

Multipliers

Ratio multipliers provide a summary measure of the direct and indirect economic activity relative to the direct economic activity for a particular indicator. The Type 11A ratio multipliers for the wine manufacturing sector range from 3.12 for output and value added, to 3.55 for employment.

Main Sectors Affected

Flow-on impacts from the wine manufacturing sector impact a number of different sectors of the national economy. The sectors most impacted by output, value-added and income flow-ons are:

- Grape growing.
- Glass and Glass Product Manufacturing.
- Ownership of Dwellings.
- Wholesale Trade.
- Retail Trade.
- Finance.
- Professional, Scientific and Technical Services.
- Electricity Transmission, Distribution, On Selling and Electricity Market Operation.
- Road Transport.
- Water Supply, Sewerage and Drainage Services.
- Employment, travel agency and other administration services.
- Health Care Services.
- Public Order and Safety.

Examination of the estimated direct and flow-on employment impacts gives an indication of the aggregated sectors with employment linkages to the wine making sector (Figure 7).

Figure 7. Sectoral distribution of wine making employment impacts on national economy

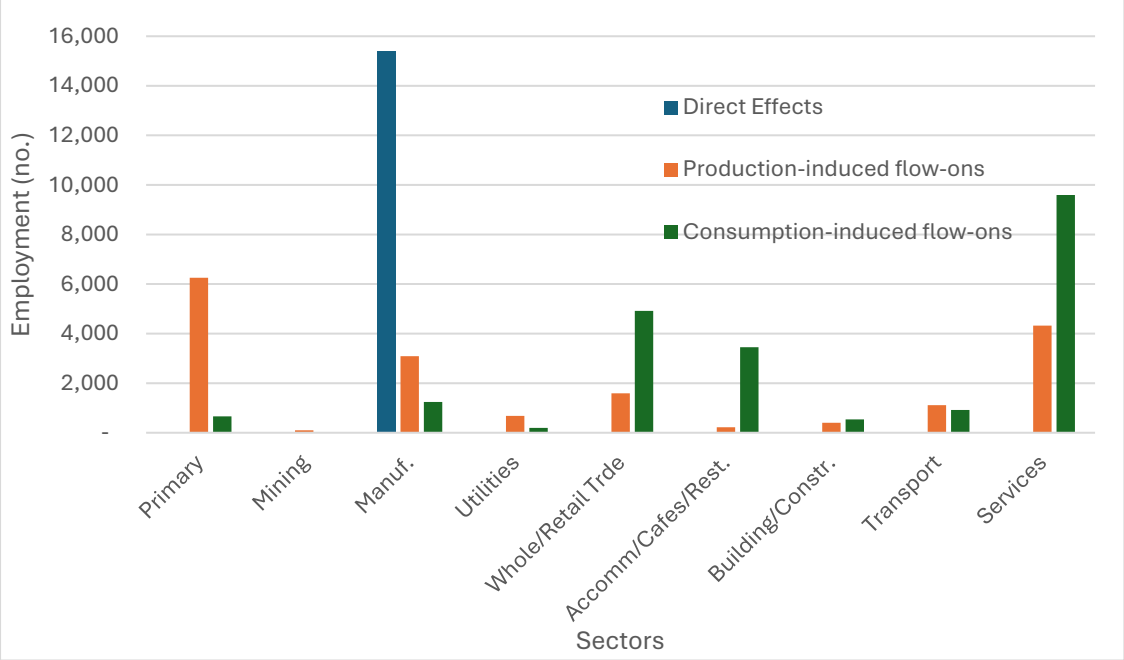


Figure 7 indicates that direct, production-induced and consumption-induced employment linkages of the wine making sector on the national economy are likely to have different distributions across sectors. Production-induced flow-on employment occurs mainly in the primary industries sector, services sectors and manufacturing sectors while consumption induced flow-on employment are mainly in services sectors, wholesale/retail trade sectors and accommodation/cafes/restaurants sectors.

5.3 Wine Tourism

Economic Activity

The total and disaggregated annual impacts of the wine tourism sector on the Australian economy (in dollars) are shown in the table below.

Table 14: Direct and indirect impact of the wine tourism sector

	Direct Effect	Production Induced	Consumption Induced	Total Flow-on	TOTAL EFFECT
OUTPUT ($M)	10,704	9,119	14,234	23,353	34,057
Type 11A Ratio	1.00	0.85	1.33	2.18	3.18
VALUE-ADDED ($M)	5,267	4,149	7,750	11,899	17,166
Type 11A Ratio	1.00	0.79	1.47	2.26	3.26
INCOME ($M)	3,894	2,729	4,024	6,753	10,648
Type 11A Ratio	1.00	0.70	1.03	1.73	2.73
EMPLOYMENT (No.)	69,146	29,298	51,711	81,009	150,155
Type 11A Ratio	1.00	0.42	0.75	1.17	2.17

The Australian wine tourism sector is estimated to make up to the following total annual contribution to the national economy:

- $34,057M in annual direct and indirect regional output or business turnover.
- $17,166M in annual direct and indirect regional value added.
- $10,648M in annual direct and indirect household income.
- 150,155 direct and indirect jobs.

Multipliers

The Type 11A ratio multipliers for the wine tourism sector range from 2.17 for employment to 3.26 for value-added.

Main Sectors Affected

Impacts from the wine tourism sector impact on different sectors of the national economy. The sectors most impacted in terms of output, value-added and income are:

- Accommodation.
- Food and Beverage Services.
- Road Transport.
- Ownership of Dwellings.
- Retail Trade.
- Finance.
- Wholesale Trade.
- Professional, Scientific and Technical Services.
- Non-Residential Property Operators and Real Estate Services.
- Arts, Sports, Adult and Other Education Services (including Community Education).
- Employment, travel agency and other administrative services
- Health Care Services.

Examination of the estimated direct and flow-on employment impacts gives an indication of the aggregated sectors with employment linkages to the wine tourism sector (Figure 8).

Figure 8. Sectoral distribution of wine tourism employment impacts on national economy

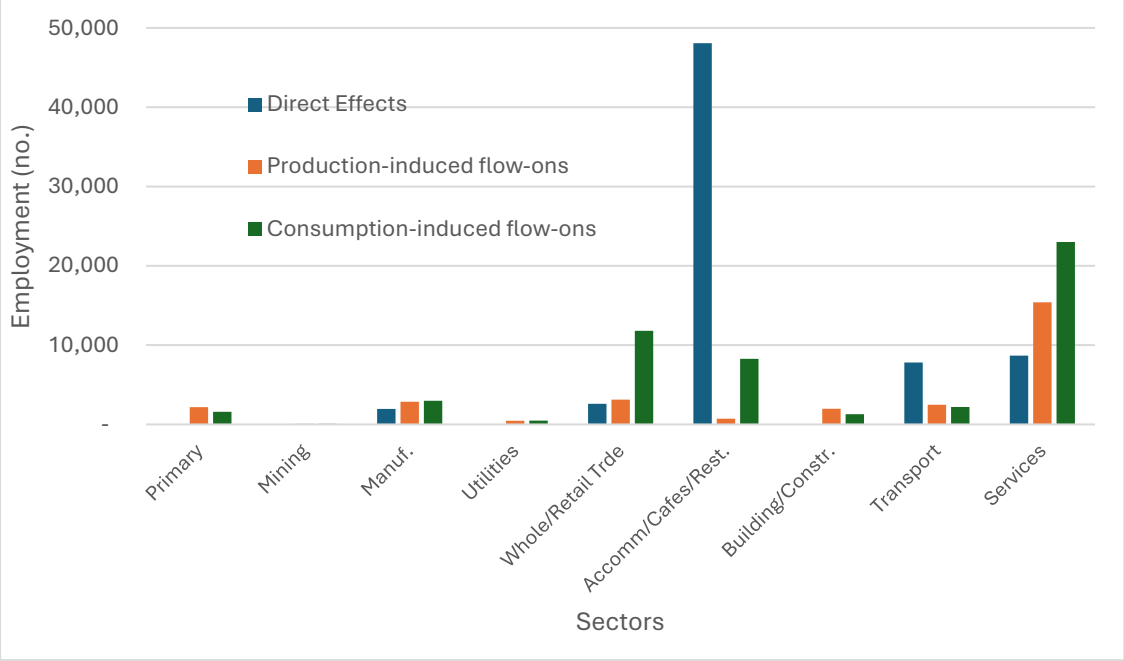


Figure 8 indicates that direct, production-induced and consumption-induced employment linkages of the wine tourism sector on the national economy are likely to have different distributions across sectors. Direct employment mainly occurs in the accommodation / café / restaurant sectors, services sectors and transport sectors. Production-induced flow-on employment occurs mainly in the services sectors while consumption induced flow-on employment is mainly in services sectors, wholesale / retail trade sectors and accommodation/cafes/restaurants sectors.

5.4 Total Wine Sector

Economic Activity

It is not possible to simply add the economic activity from grape growing, wine manufacturing and wine tourism to give the total economic activity from the wine sectors. This is because IO analysis captures backward linkages and so the economic activity impacts from the wine manufacturing sector already captures the backward linkages to the grape growing sector. Similarly, the economic activity impacts from the wine tourism sector captures backward linkages to the wine making sector.

To estimate the economic activity for the total wine sector, comprising grape growing, wine making and wine tourism, additional IO analysis was undertaken for the wine tourism sector net of expenditure at the cellar door of wineries. This was added to the economic activity impacts of the wine making sector (which already captures backward linkages to the grape growing sector). So direct effects include wine making plus final demand expenditure on wine tourism related goods and services (net of cellar door sales to wine tourists). All other effects are reported in production and consumptions induced flow-on effects.

Using this approach the total and disaggregated annual impacts of the total wine sector on the Australian economy (in 2024 dollars) are shown in the table below.

Table 15: Direct and indirect impact of the total wine sector

	Direct Effect	Production Induced	Consumption Induced	Total Flow-on	TOTAL EFFECT
OUTPUT ($M)	16,225	15,087	20,003	35,090	51,315
Type 11A Ratio	1.00	0.93	1.23	2.16	3.16
VALUE-ADDED ($M)	7,894	6,590	10,890	17,480	25,374
Type 11A Ratio	1.00	0.83	1.38	2.21	3.21
INCOME ($M)	5,176	4,132	5,655	9,787	14,963
Type 11A Ratio	1.00	0.80	1.09	1.89	2.89
EMPLOYMENT (No.)	84,151	46,574	72,667	119,241	203,392
Type 11A Ratio	1.00	0.55	0.86	1.42	2.42

The Australian wine sector is estimated to make the following total annual contribution to the National economy:

- $51,315M in annual direct and indirect regional output or business turnover.
- $25,374M in annual direct and indirect regional value added.
- $14,963M in annual direct and indirect household income.
- 203,392 direct and indirect jobs.

Multipliers

The Type 11A ratio multipliers for the wine sector range from 2.42 for employment to 3.21 for value-added.

Main Sectors Affected

Impacts from the wine sector occur in different sectors of the National economy. The sectors most impacted in terms of output, value-added and income are:

- Wine Manufacturing.
- Accommodation.
- Ownership of Dwellings.
- Food and Beverage Services.
- Road Transport.
- Retail Trade.
- Wholesale Trade.
- Finance.
- Professional, Scientific and Technical Services.
- Non-Residential Property Operators and Real Estate Services.
- Grape Growing.
- Employment, Travel Agency and Other Administrative Services.
- Arts, Sports, Adult and Other Education Services (including Community Education).
- Health Care Services.

Examination of the estimated direct and flow-on employment impacts gives an indication of the aggregated sectors with employment linkages to the wine sector (Figure 9).

Figure 9. Sectoral distribution of wine sector employment impacts on national economy

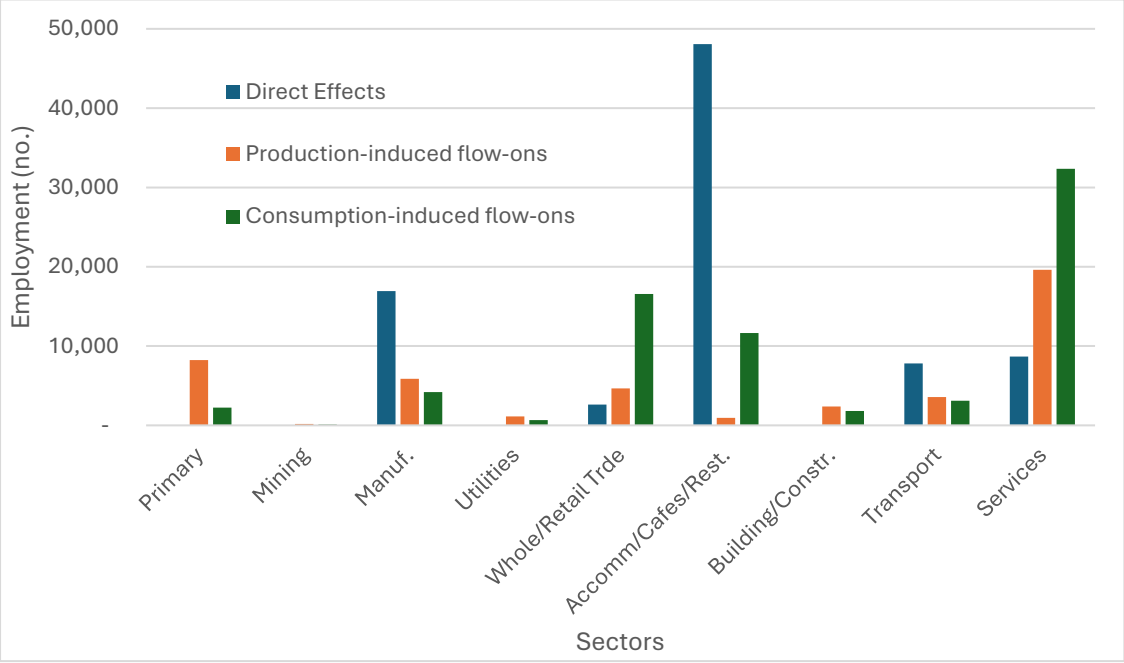


Figure 9 indicates that direct, production-induced and consumption-induced employment linkages of the wine sector on the national economy are likely to have different distributions across sectors. Direct employment mainly occurs in the accommodation/cafes/restaurants sectors, manufacturing sectors, services sectors, and transport sectors. Production-induced flow-on employment occurs mainly in the services sectors, primary industries sectors and

manufacturing sectors while consumption induced flow-on employment is mainly in services sectors, wholesale/retail trade sectors and accommodation/cafes/restaurants sectors.

5.5 Contribution to Tax Receipts

Wine grape growing, wine making and wine tourism businesses operate in an environment of multiple and complex taxation regulations particularly wine makers dealing with multiple export jurisdictions. Examples of taxes that a wine maker is subject to and must actively manage are:

- Wine Equalisation Tax (WET)
- Goods and Services Tax (GST)
- Stamp duty
- Income tax
- Capital gains tax
- Fringe Benefits Tax (FBT)
- Payroll tax
- Customs and import duties
- Overseas taxes and duties for exporters
- Employee superannuation.

Unlike Computable General Equilibrium modelling, Input-Output analysis does not generate taxation indicators. Input-Output analysis accounts for tax paid on inputs purchased by grape growers, wine makers and the wine tourism sector and this tax paid is captured in estimates of value-added.

6. Conclusions and Comparison to the 2019 Study

The research has quantified the direct and flow-on effects of the Australian wine sector. The key results from the analysis are as follows.

The Australian wine sector defined as wine grape growing, wine making and wine related tourism:

- Supports 203,392 direct and indirect full and part-time jobs, most of which are located in regional Australia, including 5,408 directly in grape growing, 15,411 directly in wine making and 69,202 directly associated with wine tourism.
- Generates income from both direct and flow-on employment in the wine sector of $15.0 billion.
- Contributes $51.3 billion to the value of gross output for Australia.
- Adds $25.4 billion in value-added to the Australian economy.

The average effects of a contraction or expansion within the wine sector suggests:

- The wider economy would gain an extra 1.42 jobs for every job gained in the wine sector.
- The economy would gain an extra $2.16 million for every additional $1 million of gross output generated by the wine sector.
- The economy would gain an extra $2.21 million in contribution to value-added for every additional $1 million of value-added generated by the wine sector.

AgEconPlus and Gillespie Economics also completed an economic contribution study of the Australian Wine Sector in 2019, key indicators for wine grape growing, wine making, and wine tourism from both studies are shown in Table 16.

Table 16: Comparison of sector indicators 2019 and 2025

Indicator	2019	2025
Grape Growing		
Production area (ha)	146,244	146,244
Crush (tonnes)	1,790,000	1,409,600
Crush value ($)	1,110,000,000	994,000,000
Employment (direct and indirect jobs)	13,523	11,955
Gross output (direct and indirect value)	3,907,000,000	3,161,000,000
Wine Making		
Wine makers (no.)	2,468	2,156
Wine production (litres)	1,290,000,000	1,042,000,000
Wine sales ($)	6,300,000,000	5,700,000,000
Employment (direct and indirect jobs)	51,280	54,741
Gross output (direct and indirect value)	18,579,000,000	17,777,000,000
Wine Tourism		
Domestic day trip visitors (no.)	3,500,000	2,700,000
Domestic overnight visitors (no.)	3,800,000	4,000,000
Domestic visitor nights (no.)	17,000,000	18,000,000
International visitors	1,000,000	800,000
Employment (direct and indirect jobs)	114,049	150,155
Gross output (direct and indirect value)	27,525,000,000	34,057,000,000
Sector Total		
Gross output (direct and indirect value)	45,500,000,000	51,300,000,000

NB: allowance must be made for double counting before results from the three sectors can be aggregated to the total sector estimate (as shown in Table 15).

Caution is needed when comparing single year ‘snapshots’ from different time periods. ‘Snapshots’ do not account for changes in data, refinements in modelling methods or the impact of inflation. However, the table does show that losses in the economic contribution of grape growing, and wine making have been offset by growth in the wine tourism sector. Overall, the sector’s contribution to GDP (gross output) is up 12.7% over six years or approximately 2.1% per annum. Growth has been less that the national rate of inflation.

The Australian wine sector will continue to adjust and build on the economic contributions described in this report.

References

Australian Bureau of Statistics (ABS) (2021) Census of Population and Housing – 4 digit employment by state/territory

AgEconPlus (2019) Economic Contribution of the Australian Wine Sector 2019.

Department of Natural Resources and Environment Tasmania (2022) Wine Grape Investment Gross Margin 2020/21. Accessed at https://nre.tas.gov.au/Documents/Vineyard%20investment%20-%20Jan22.xlsx

IBIS World (November 2018) Industry Report A0131 Grape Expectations: Strong Export Demand Provides Opportunities for Growers to Expand

IBIS World (April 2019) Industry Report C1214 Wine to go: Increasing demand for Australian wine overseas has boosted revenue

IBIS World (April 2025) Wine Production in Australia – Market Research Report 2015-2030.

McIntyre, J (2019) Activity Based Costing Tool and Benchmarking Database. Final report prepared for Wine Australia. Accessed at https://www.wineaustralia.com/getmedia/40ddf0da-615a-4853-9534-a6bd60172cea/2XE-1501-Final-Report.pdf

Schmidtke, L (2023) Profitability Project (Socio-economic focus). Report for Wine Australia. Accessed at https://www.wineaustralia.com/getmedia/274bdf70-343a-4b55-b1b5-3cb49a69fb16/20230601-CSU-2201_FINAL_REPORT.pdf

Wheeler, S, Seidl, C, Tingey-Holyoak, J, Zuo, A, Xu, Y, and Kandulu, J (2022) The Economics and Financial Benchmarking of Riverland Grape Production and Potential Benefits of Vitivisor Technology. Prepared for Wine Australia and Riverland Wine. Accessed at https://www.wineaustralia.com/getmedia/1bfda471-0ff9-4721-a560-8ae3f087187d/Vitivisor_economicsReport_FINAL.pdf

Wine Australia (January 2020) National Vineyard Scan 2019. Accessed at https://www.wineaustralia.com/market-insights/national-vineyard-scan

Wine Australia (2025) National Vintage Report 2025. Accessed at https://www.wineaustralia.com/market-insights/national-vintage-report

Wine Australia (December 2024) Australian Wine Production, Sales and Inventory 2023/24. Accessed at https://www.wineaustralia.com/market-insights/australian-wine-production-sales-and-inventory

Wine Australia (December 2024) Australian Wine Sector at a Glance, December 2024. Accessed at https://www.wineaustralia.com/market-insights/australian-wine-sector-at-a-glance

Wine Australia Grape Production Cost Calculator (2024) Accessed at Grape Production Cost Calculator | Wine Australia

Wine Australia (March 2025) Australian Wine Sector State of Play.

Attachment 1 Assumptions and Interpretations, Input-Output Analysis and Multipliers

1. "The *basic assumptions* in IO analysis include the following:

   - there is a fixed input structure in each industry, described by fixed technological coefficients (evidence from comparisons between IO tables for the same country over time have indicated that material input requirements tend to be stable and change but slowly; however, requirements for primary factors of production, that is labour and capital, are probably less constant);
   - all products of an industry are identical or are made in fixed proportions to each other;
   - each industry exhibits constant returns to scale in production;
   - unlimited labour and capital are available at fixed prices; that is, any change in the demand for productive factors will not induce any change in their cost (in reality, constraints such as limited skilled labour or investment funds lead to competition for resources among industries, which in turn raises the prices of these scarce factors of production and of industry output generally in the face of strong demand); and
   - there are no other constraints, such as the balance of payments or the actions of government, on the response of each industry to a stimulus.

2. The multipliers therefore describe *average effects, not marginal effects*, and thus do not take account of economies of scale, unused capacity or technological change. Generally, average effects are expected to be higher than the marginal effects.

3. The IO tables underlying multiplier analysis only take account of one form of *interdependence,* namely the sales and purchase links between industries. Other interdependence such as collective competition for factors of production, changes in commodity prices which induce producers and consumers to alter the mix of their purchases and other constraints which operate on the economy as a whole are not generally taken into account.

4. The combination of the assumptions used and the excluded interdependence means that IO multipliers are higher than would realistically be the case. In other words, they tend to *overstate* the potential impact of final demand stimulus. The overstatement is potentially more serious when large changes in demand and production are considered.

5. The multipliers also do not account for some important pre-existing conditions. This is especially true of Type II multipliers, in which employment generated and income earned induce further increases in demand. The implicit assumption is that those taken into employment were previously unemployed and were previously consuming nothing. In reality, however, not all 'new' employment would be drawn from the ranks of the unemployed; and to the extent that it was, those previously unemployed would presumably

have consumed out of income support measures and personal savings. Employment, output and income responses are therefore overstated by the multipliers for these additional reasons.

6. The most *appropriate interpretation* of multipliers is that they provide a relative measure (to be compared with other industries) of the interdependence between one industry and the rest of the economy which arises solely from purchases and sales of industry output based on estimates of transactions occurring over a (recent) historical period. Progressive departure from these conditions would progressively reduce the precision of multipliers as predictive device" (ABS 1995, p.24).

Multipliers indicate the total impact of changes in demand for the output of any one industry on all industries in an economy (ABS, 1995). Conventional output, employment, value-added and income multipliers show the output, employment, value-added and income responses to an initial output stimulus (Jensen and West, 1986).

Components of the conventional output multiplier are as follows:

Initial effect - which is the initial output stimulus, usually a $1 change in output from a particular industry (Powell and Chalmers, 1995; ABS, 1995).

First round effects - the amount of output from all intermediate sectors of the economy required to produce the initial $1 change in output from the particular industry (Powell and Chalmers, 1995; ABS, 1995).

Industrial support effects - the subsequent or induced extra output from intermediate sectors arising from the first round effects (Powell and Chalmers, 1995; ABS, 1995).

Production induced effects - the sum of the first round effects and industrial support effects (i.e. the total amount of output from all industries in the economy required to produce the initial $1 change in output) (Powell and Chalmers, 1995; ABS, 1995).

Consumption induced effects - the spending by households of the extra income they derive from the production of the extra $1 of output and production induced effects. This spending in turn generates further production by industries (Powell and Chalmers, 1995; ABS, 1995).

The *simple multiplier* is the initial effect plus the production induced effects.

The *total multiplier* is the sum of the initial effect plus the production-induced effect and consumption-induced effect.

Conventional employment, value-added and income multipliers have similar components to the output multiplier, however, through conversion using the respective coefficients show the employment, value-added and income responses to an initial output stimulus (Jensen and West, 1986).

For employment, value-added and income, it is also possible to derive relationships between the initial or own sector effect and flow-on effects. For example, the flow-on

income effects from an initial income effect or the flow-on employment effects from an initial employment effect, etc. These own sector relationships are referred to as ratio multipliers, although they are not technically multipliers because there is no direct line of causation between the elements of the multiplier. For instance, it is not the initial change in income that leads to income flow-on effects, both are the result of an output stimulus (Jensen and West, 1986).

A description of the different ratio multipliers is given below.

$$\text{Type 1A Ratio Multiplier} = \frac{\text{Initial + First Round Effects}}{\text{Initial Effects}}$$

$$\text{Type 1B Ratio Multiplier} = \frac{\text{Initial + Production Induced Effects}}{\text{Initial Effects}}$$

$$\text{Type 11A Ratio Multiplier} = \frac{\text{Initial + Production Induced + Consumption Induced Effects}}{\text{Initial Effects}}$$

$$\text{Type 11B Ratio Multiplier} = \frac{\text{Flow-on Effects}}{\text{Initial Effects}}$$

Source: Centre for Farm Planning and Land Management (1989).

REFERENCES

Australian Bureau of Statistics (1995) *Information Paper Australian National Accounts Introduction to Input-Output Multipliers*. Cat. No. 5246.0.

Centre for Farm Planning and Land Management (1989) *Consultants report to State plantations impact study.* CFPLM, University of Melbourne.

Jensen, R. and West, G. (1986) *Input-output for Practitioners: Theory and Applications*. Prepared for Department of Local Government and Administrative Services, Local Government and Regional Development Division, Australian Government Publishing Service.

Powell, R. and Chalmers, L. (1995) *The Regional Economic Impact of Gibraltar Range and Dorrigo National Park*. A Report for the NSW National Parks and Wildlife Service.