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Manufacturing in Victoria

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Research Note

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Executive summary

Victoria's manufacturing sector faces many challenges in the wake of the COVID-19 epidemic. While more Victorians still work in manufacturing compared to other states, there had already been a big decline by 2021. The number of people with jobs stagnated in the 1970s and many factories closed after 2000. Technology changes, lower tariffs on imported goods, and other factors caused the decline. Within manufacturing, more people now work in food processing rather than in the clothing or car industries and most workplaces remain in Melbourne and Geelong.

The state and federal governments are now promoting more 'advanced' and 'sovereign' manufacturing. These focus on making more higher-technology goods and reducing some of the need for imported parts. This paper provides maps and other data that show the location and changes in manufacturing sector businesses and employment across the state.

Introduction

Like other sectors of the Australian and Victorian economies, manufacturing continues to face considerable challenges. The COVID-19 pandemic and its aftermath have caused substantial disruption to economic activity and employment. The subsequent period of higher inflation and associated increases in interest rates by the Reserve Bank continue to constrain the pace of economic recovery and employment growth.¹ Various newer challenges have also emerged, such as mounting trade disputes among major international trading partners and a government focus on ‘sovereign manufacturing’.²

Manufacturing faces the additional challenge of undergoing a long relative decline and restructuring process. Before 2000, the sector’s proportional contribution to Victoria’s economy was historically higher than other Australian states. However, after the turn of the millennium, the decline of the sector’s contribution to employment and gross state product (GSP) accelerated.³ Far-reaching alterations in the location and types of Victorian manufacturing activity have occurred with the closure of many operations, especially in the automotive and clothing subsectors.

Different Victorian state governments have released policy documents over the years, each with varying impacts. The Victorian Government released its most recent manufacturing policy statement in 2022.⁴

COVID-19 and its aftermath have posed new challenges for the sector. This paper outlines how manufacturing is defined and then assesses the evidence in the context of developments over recent decades. The explainer section sets out some definitions. The paper outlines the sector’s evolution and relative decline after 2000 and the emerging policy debates. Then, it presents a snapshot of its character corresponding with the COVID-19 pandemic in 2020 and 2021. It maps the location and changes in employment in the sector across the state. Finally, the paper discusses recent policy changes and partially assesses the sector since 2022.

Explainer | What is manufacturing?

Any discussion of manufacturing requires a clear definition of the sector and how institutions like the Australian Bureau of Statistics (ABS) measure economic activity. Please see below for an explanation of key economic terms used throughout this paper.

Sectors and divisions

The ABS defines manufacturing as one of 19 ‘Divisions’ of the economy. These divisions represent distinct sectors that contribute to overall economic output. Manufacturing, or ‘Division C’, comprises economic:

¹ Australian Industry Group (2023) *Industry Contraction Accelerates in December/January*, media release, 8 February.

² Australian Government, Department of Industry, Science and Resources (2021) *Sovereign Manufacturing Capability Plan: Tranche 1*, Canberra, DISR.

³ For an overview of the concept of Gross State Product, see Australian Bureau of Statistics (2008d) *Overview of Gross State Product*, Canberra, ABS.

⁴ Department of Jobs, Precincts and Regions (2022) *Made in Victoria 2030: Manufacturing Statement—Driving jobs and growth*, Melbourne, DJPR.

... units mainly engaged in the physical or chemical transformation of materials, substances or components into new products (except agriculture and construction). The materials, substances or components transformed by units in this division are raw materials that are products of agriculture, forestry, fishing and mining, or products of other manufacturing units.⁵

Therefore, manufacturing entails taking primary goods and transforming them into other kinds of physical products. The ABS's classifications are broadly similar to international categories used under 'Systems of National Accounts' that developed over the 20th century. Gross domestic product (GDP), or (for sub-national entities) GSP, is measurable by sector. In the case of manufacturing, it is the value of output minus inputs from raw materials sectors.

Sub-divisions and classes

The manufacturing division comprises various subcategories that can be distinguished by codes up to four digits long, according to the Australia and New Zealand Standard Industrial Classification (ANZSIC).⁶ A unit under 'Division C Manufacturing' can be coded as belonging to a two-digit 'subdivision', a three-digit 'group' or a four-digit 'class'. For example, a meat-producing firm can be categorised in numerous ways, from 'Division C Manufacturing' to 'Subdivision 11 Food Product Manufacturing' to 'Group 111 Meat and Meat Product Manufacturing' down to 'Class 1111 Meat Processing'.⁷ The amount of output produced and the number of people employed by units are measured according to these categories.

Counts of businesses

A further way of measuring the level of activity within a sector is counting the number of businesses active in the sector. The *Counts of Australian Businesses, including Entries and Exits* (CABEE) dataset indicates business activity down to the four-digit ANZSIC 'title' level.⁸ While nominally a count of entry and exit of firms from economic sectors, it relies upon counts of ABNs. These may or may not align with actual business entities. ABNs can also be arbitrary, as some firms may have multiple (and changing) activities.⁹

Economic units

A 'unit' generally refers to a firm, public entity or sole producer. In economics, a firm is a business that produces goods and services for a market, with a goal of profit maximisation. The ABS categorises firms and other entities according to its 'economic units model'.¹⁰ The most basic economic units conduct only one kind of activity and report their revenue and expenses under a single Australian Tax Office (ATO) Australian Business Number (ABN).

Locations

The location of economic activity and employment is also a vexing question. Firms often do not report locations to statistical or other government agencies. While individual firms

⁵ Australian Bureau of Statistics (2008b) *Division C Manufacturing*, Canberra, ABS.

⁶ Australian Bureau of Statistics (2008a) *Australian and New Zealand Standard Industrial Classification (ANZSIC)*, Canberra, ABS.

⁷ Australian Bureau of Statistics (2006) *Numbering system and titles*, Canberra, ABS.

⁸ Australian Bureau of Statistics (various years) *Counts of Australian Businesses, including Entries and Exits*, Canberra, ABS.

⁹ Australian Bureau of Statistics (2024a) *Counts of Australian Businesses, including Entries and Exits: 'How data is collected'*, Canberra, ABS.

¹⁰ Australian Bureau of Statistics (2015) *Appendix 1: ABS ECONOMIC UNITS MODEL (ABSEUM)*, Canberra, ABS.

provide some information on their more specialised activities and locations through the ATO or ABS business registers, they are not considered very reliable or comprehensive.¹¹ Instead, census data remains one of the most consistent sources for employment and work location at the sector and subsector levels. These counts are aggregated to the ‘statistical area two’ (SA2) levels, giving reasonable location and industry-type estimates. SA2s are one location level defined by the ABS’s *Australian Statistical Geography Standard (ASGS)*.¹²

Comparative advantage

A country is said to have a comparative advantage if the costs of producing a good are lower than in another country due to its resources. For instance, a country with a large land abundance should specialise in agriculture, while a country with a large labour force should specialise in manufacturing. If countries specialise in production, free trade is said to improve production and consumption efficiency and increase the supply of goods.¹³

1 | Background and context

Victoria’s manufacturing sector first emerged in the 1860s and has undergone four stages of change before the 2000s.

Four stages of development

First, its origins followed the gold rush, with increased demand for processing primary and minerals sector goods. Victoria benefited from its status as Australia’s primary source of gold. The gold rush attracted many immigrants, dramatically increasing the population, meaning labour was in good supply.¹⁴ Smaller workshops proliferated, such as shoemakers or toolmakers.¹⁵ The Victorian economy experienced an economic ‘boom’ in the 1880s, followed by a ‘bust’ in the 1890s.¹⁶

Second, after surviving the recessionary conditions of the 1890s, the sector underwent considerable expansion. Aided by tariff protections, first in Victoria and then across Australia, the more fragmented ‘workshops’ of the colonial and pre-war eras gave way to larger-scale manufacturing.¹⁷ Clothing, textile and footwear production expanded. Investment, employment and output all expanded as well. In addition, the disruption to international trade and requirements for defence production meant machine tool-based manufacturing expanded considerably during the two world wars.¹⁸ The value of manufacturing output overtook agriculture in the 1920s.¹⁹

Third, the pressures of wartime production gave way to increased demand for consumer goods after 1945. Inward immigration flows provided increased labour. Overseas investment

¹¹ One of the best sources (not publicly available) is the WorkSafe agency and its reports. See Department of State Development, Business and Innovation (2023) *Industry Atlas of Victoria 2013*. It uses WorkSafe data in addition to ABS sources.

¹² Australian Bureau of Statistics (2021) *Australian Statistical Geography Standard (ASGS) Edition 3*, Canberra.

¹³ For the definition of ‘comparative advantage’ see Oxford Reference (undated) *Comparative Advantage*.

¹⁴ Australian Bureau of Statistics (1962) *1301.2 - Victorian Yearbook, 1961*, pp. 531–38.

¹⁵ J. Leckey (2004) *Low, degraded broods? Industry and entrepreneurialism in Melbourne’s Little Lonsdale Street, 1860–1950*, Melbourne: Australian Scholarly Publishing, p. 33.

¹⁶ G. Davison (2014) *The Rise and Fall Of Marvellous Melbourne*, Melbourne: University of Melbourne Press, pp. 372–388.

¹⁷ ABS (1962) op. cit., pp. 532–534.

¹⁸ *ibid.*

¹⁹ T. Dingle (1984) *Settling*, McMahons Point: Fairfax, Syme and Weldon, p. 204.

resulted in a proliferation of vehicle and consumer goods assembly plants.²⁰ Foreign investment brought greater technical capacity and access to world-class consumer goods. By the 1960s, manufacturing accounted for approximately 44.2 per cent of total civilian employment.²¹ Of course, domestic demand drove the sector. The sector exported some goods but was still too fragmented to compete internationally.²²

However, a fourth period of change in the 1970s saw a steady decline in the manufacturing sector's proportional contribution to Victoria's employment and output. Both market- and policy-driven economic restructuring, trade liberalisation, technological change and the growth of the services and other non-industrial sectors were the leading causes.²³ Considerable debate surrounds whether a more internationally competitive manufacturing sector could have developed in Victoria and Australia.²⁴

Higher levels of activity and employment in Victoria

As manufacturing had historically contributed a more significant proportion of investment, employment and economic output in Victoria than in other states, the sector remained a recurrent focus of policy debate and discussion. State government policy documents published in the 1970s and 1980s outline the sector's importance for Victoria's economy as a whole. For instance, the Melbourne and Metropolitan Board of Works' Technical Advisory Committee extensively studied the manufacturing sector in 1979. It argued that Melbourne was 'still a relatively successful national manufacturing centre' with an employment mix 'weighted towards the labour intensive and mechanical/light engineering industry sectors'.²⁵

The study also revealed the main locations of the manufacturing activity. Map 1 outlines its survey of 'metropolitan industrial areas' (inclusive of but not limited to manufacturing) in 1979. The industry development pattern within Melbourne had already emerged in two major zones. One was an arc stretching from the outer northern metropolitan area to the western suburbs. The other was a considerable cluster in the city's outer southern and eastern suburbs.

However, changes in the manufacturing sector were on the horizon due to many pressures. In the 1990s, the then Department of Manufacturing and Industry Development (DMID) contributed considerably to the policy debate on urban centres and regional development.²⁶ Its 1991 report, *The Victorian Spatial Economy*, noted the challenges Victoria's manufacturing sector faced and the services sector's rapid growth. The 400,000 workers in the manufacturing sector still constituted 19 per cent of the state's total workforce in 1988–89, but the department projected that manufacturing would only employ 390,000 people by 2030, or 11 per cent of the labour force.²⁷

²⁰ Dingle (1984) op cit., p. 205.

²¹ ABS (1962) op. cit., p. 538.

²² I.W. McLean (2012) *Why Australia Prospered: The Shifting Sources of Economic Growth* (The Princeton Economic History of the Western World), Princeton: Princeton University Press, pp. 196–199.

²³ *ibid.*

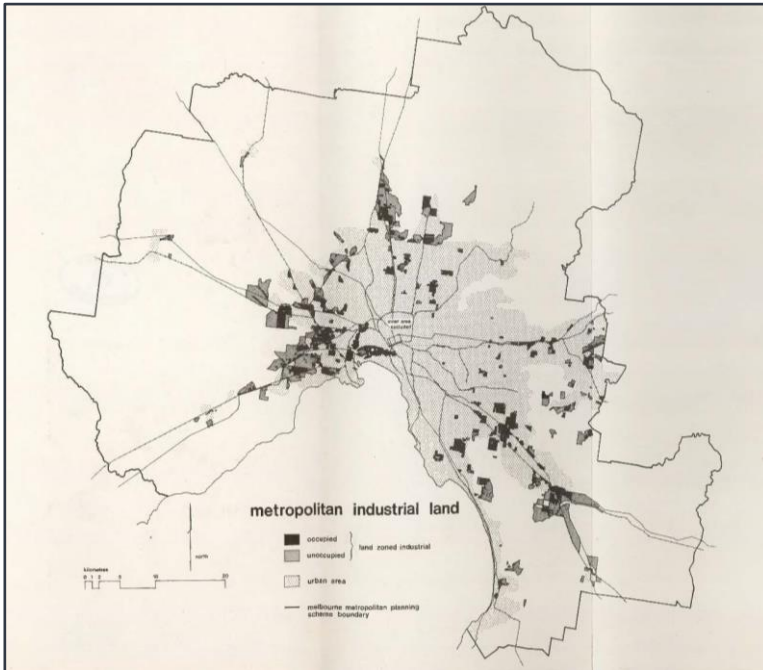
²⁴ *ibid.*

²⁵ Melbourne and Metropolitan Board of Works. Technical Advisory Committee (1979) *The Development of manufacturing industry in Melbourne: a report*, Melbourne, pp. ix, 3.

²⁶ Department of Manufacturing and Industry Development (1991) *The Victorian Spatial Economy: Urban Centres and Regional Development Program for Victoria*, Working Paper 10, Melbourne, 1991.

²⁷ DMID (1991) op. cit., p. 12.

Map 1: Metropolitan industrial land, Melbourne 1979²⁸



The DMID report also outlined the prominent locations of manufacturing activity in the state as of 1991. As Table 1 suggests, most of the manufacturing sector remained centralised in Melbourne and (to some extent) Geelong. Food processing, minerals processing and textiles were the only subsectors with a more dispersed presence across the state.

Table 1: Main locations of manufacturing activity by type in 1991²⁹

Sector	Locations
Food processing	Across state
Aluminium	Geelong and Portland
Minerals processing	Horsham and Benambra
Telecommunications	Inner and outer Melbourne
Computer hardware and software	Inner and outer Melbourne
Forest products	Regional Victoria
Chemicals, plastics and rubber	Inner and outer Melbourne
Automotive	Melbourne and Geelong
Aerospace	Melbourne and Avalon
Biotechnology	Inner Melbourne
Textiles, clothing and footwear	Inner Melbourne, Benalla, Wangaratta, Warrnambool and Bendigo
Scientific and medical	Inner Melbourne

In many ways, the 1980s and 1990s were a watershed era of economic reform in Australia and Victoria.³⁰ After already experiencing a relative decline in its share of output and employment, Victoria’s manufacturing sector experienced more profound changes after 2000.

²⁸ MMBWTAC (1979) op. cit., p. 186.

²⁹ DMID (1991) op. cit., pp. 13–21.

³⁰ P. Kelly (2008) *The End of Certainty: Power, politics & business in Australia*, Sydney, Allen & Unwin.

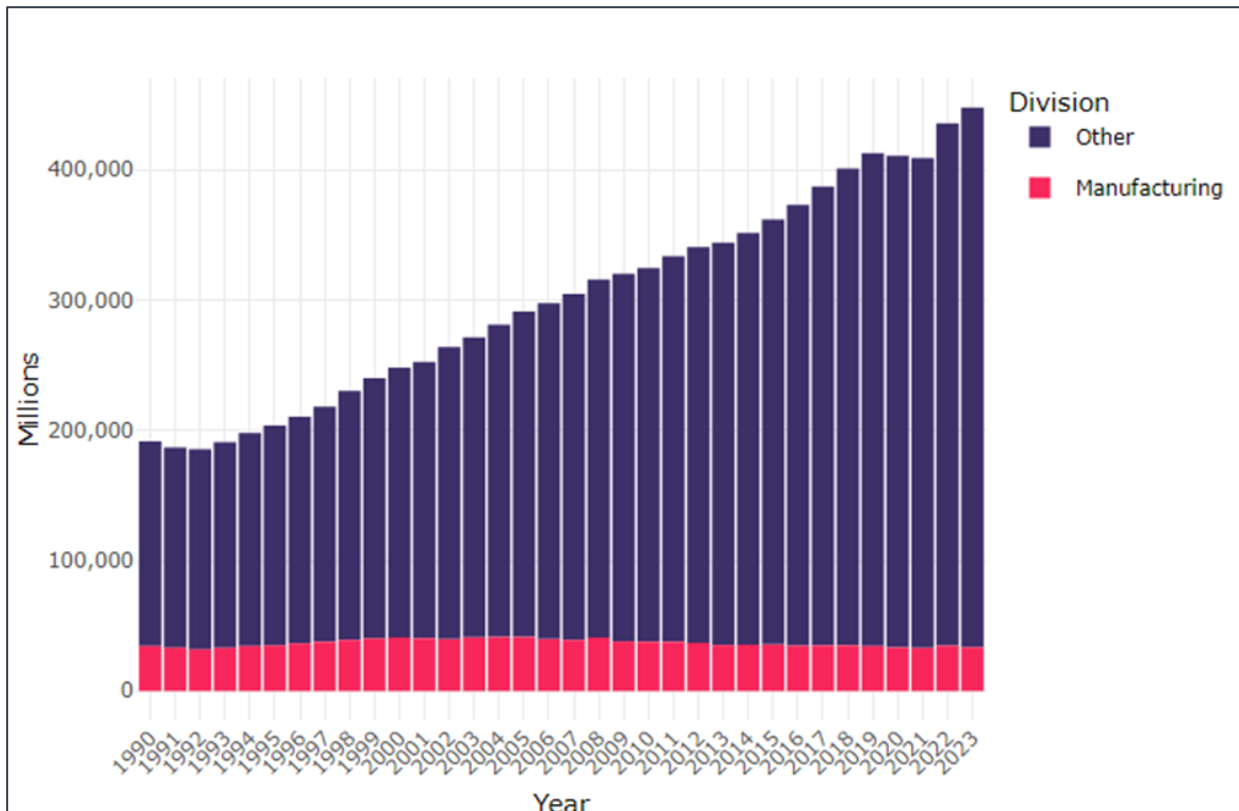
The timing of the 1991 DMID report coincided with the onset of a deep recession and a considerable contraction in the Victorian economy between 1990 and 1992. Victoria’s GSP contracted by 4 per cent between 1991 and 1992, with an average increase of 0.9 per cent across all states’ and territories’ GSPs.³¹ The recession marked the beginning of a new chapter in Victoria’s manufacturing history.

Initial recovery from recession

The manufacturing sector initially performed relatively strongly in the decade following the 1990–92 recession. Figures 1–3 outline changes in the manufacturing share of GSP, trends in sector growth and changes in the composition and character of employment in Victoria.

Figure 1 indicates that Victoria’s manufacturing output was \$34.5 billion in 1990, the equivalent of 18 per cent of GSP.³² The 1990–92 recession heralded falls in both the value of the sector and overall output for 1991 and 1992, but the economy as a whole and manufacturing specifically rebounded, with the latter continuing to constitute around or just below 17 per cent of GSP until 2000.

Figure 1: Manufacturing sector’s share of gross state product, Victoria, 1990–2023 (chain-volume dollars)³³



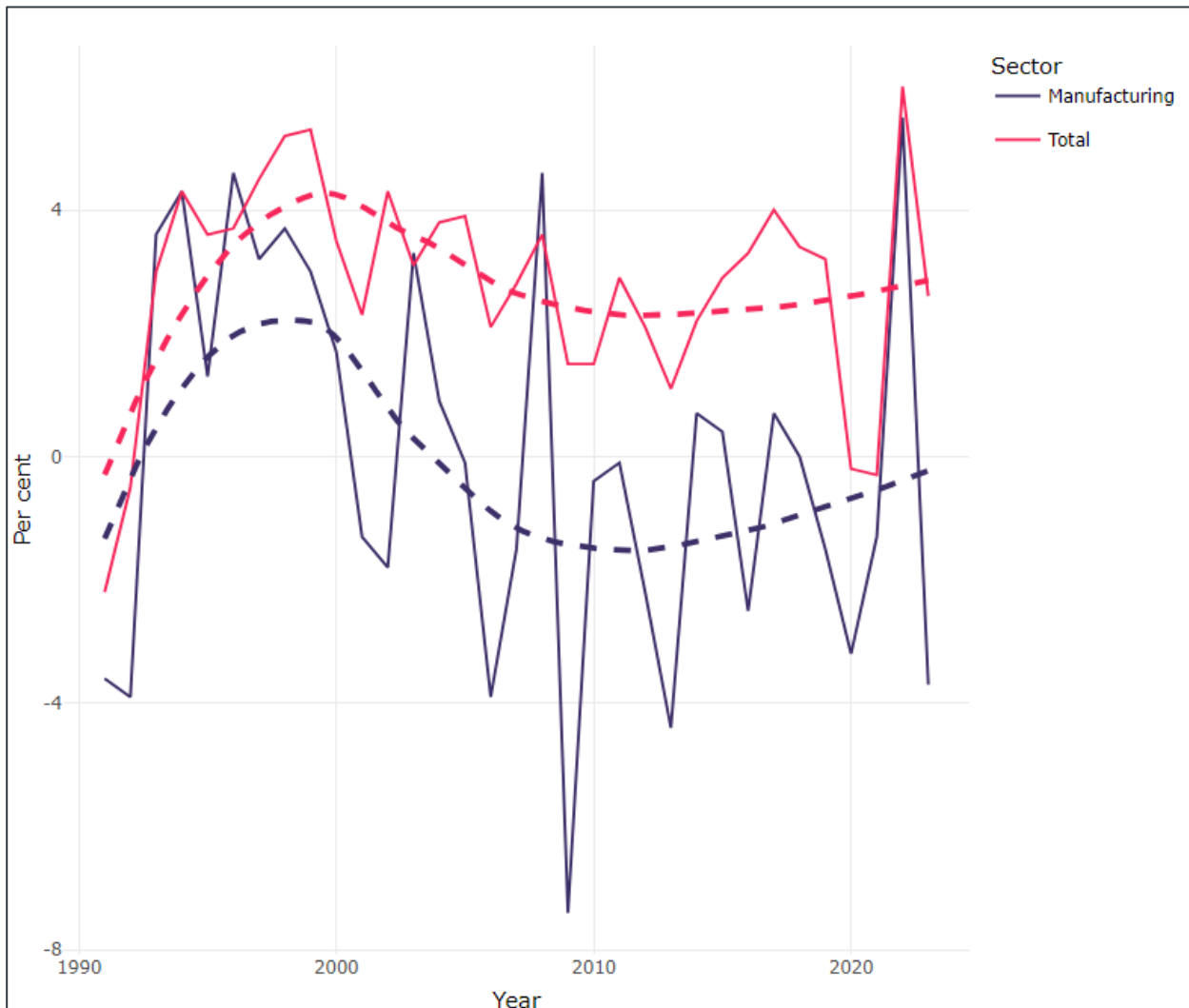
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³¹ Australian Bureau of Statistics (2023b) *Australian National Accounts: State Accounts*, Canberra.

³² *ibid*; these are the ‘chain volume’ (adjusted for inflation) measures by sector.

³³ ABS (2023b).

Figure 2: Manufacturing sector and total GSP percentage annual change Victoria, 1990–2023³⁴

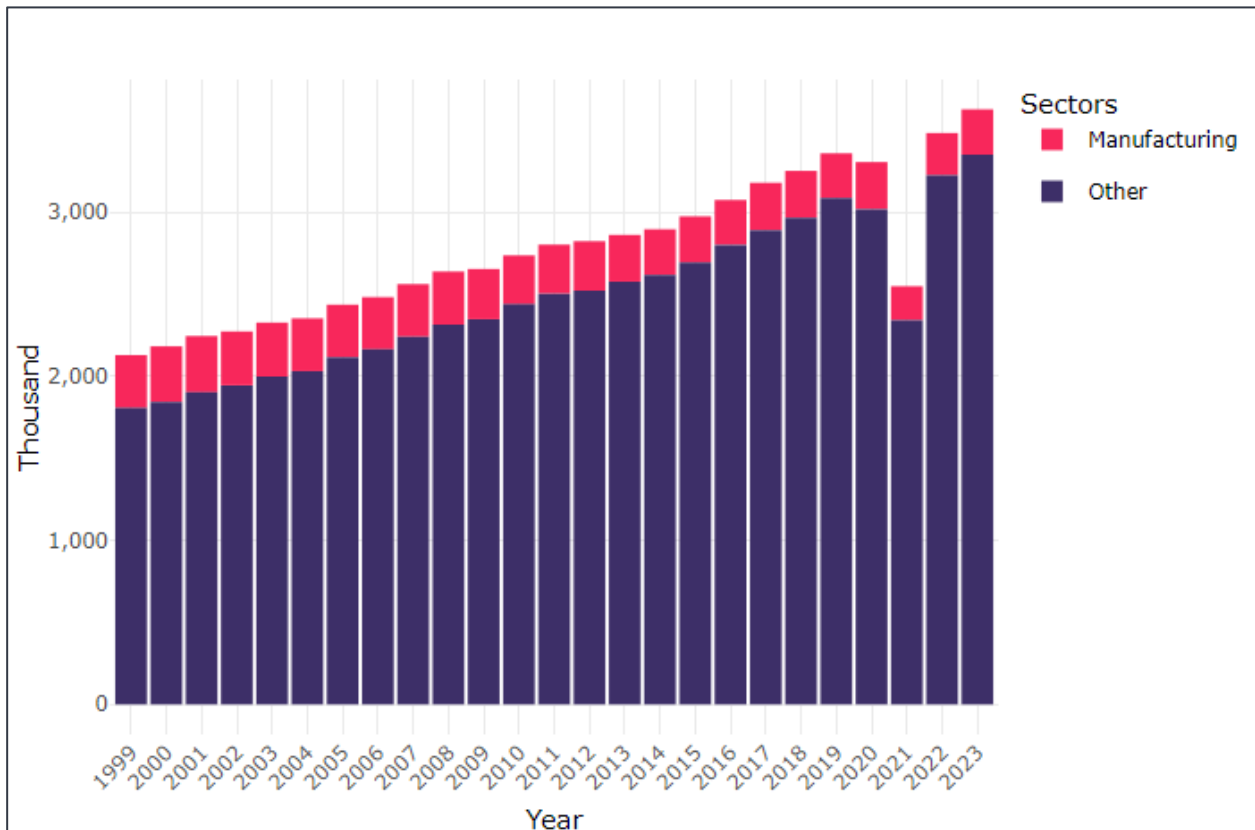


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Figure 2 compares annual changes in the value of Victoria's GSP for all sectors, including manufacturing, between 1991 and 2023. As with Figure 1, it indicates that both manufacturing and overall GSP contracted substantially between 1990 and 1992, and both recovered in the period until 2000. The growth rate for manufacturing was quite similar to GSP as a whole up until 2000. The dotted trend lines show manufacturing recovering at a rate only slightly below all sectors. A divergence, however, was already apparent in 1998 and 1999. Manufacturing still comprised 15 per cent of Victoria's employment (Figure 3) in 2000, a significant proportion.

³⁴ *ibid.* Trend lines generated by LOESS (locally weighted regression).

Figure 3: Manufacturing sector and total employment, Victoria, 1999–2023³⁵



[Click to access](#)

Hence, when the Parliament of Victoria’s Economic Development and Infrastructure Committee (EDIC) undertook a 2001 investigation into the impact of structural changes in the Victorian economy, the committee did not explore manufacturing decline in detail. While the report noted the ‘well-documented shift towards the services sector and a distinct move away from agriculture and manufacturing’, it also stressed that the approximately 355,900 people employed in manufacturing in 2001 still represented 15.3 per cent of the state’s total labour force.³⁶

Accelerated decline after 2000

Figure 1 also demonstrates that manufacturing’s share of Victoria’s GSP declined more rapidly after 2000. It fell from 17 to 11.7 per cent of GSP between 2000 and 2010 and fell further to 8.13 per cent by 2020. While overall growth rates for GSP declined after 2000, the rate for manufacturing was more pronounced (Figure 2). Manufacturing GSP fluctuated considerably from year to year in actual terms, but by 2003, the trend (the dotted line in Figure 2) had become negative and has since remained so.

Likewise, the proportion of Victoria’s labour force employed in manufacturing shrank more quickly after 2000. While manufacturing’s share of employment contracted by an average of 1 per cent per year between 2000 and 2023, other sectors grew. ‘Health care and social assistance’, for example, expanded at an average annual rate of more than 8 per cent. Figure 3

³⁵ ABS (2023d) op. cit.

³⁶ Economic Development and Infrastructure Committee Parliament of Victoria (2001) *Inquiry into the Impact of Structural Changes in the Victorian Economy*, Melbourne, p. 176.

suggests that the estimated number of people employed in the manufacturing sector declined to 270,800 by 2020—accounting for only 8.3 per cent of total employment for Victoria.³⁷

In contrast to its 2001 report, the EDIC advanced a sombre assessment in its 2010 report from its inquiry into manufacturing in Victoria. The committee noted:

Despite the significant contribution of the Australian manufacturing sector to the Australian economy, increasing pressures from international competition and the recent global financial crisis has created a challenging environment for the local sector to operate within. In order to remain internationally competitive, a number of Australian manufacturers are increasingly relying on offshore activities, which has led to a decline in the prominence of labour-intensive industry groups in Australia. Australian manufacturers are also refining the focus of their operations and shifting into new and more specialised areas of manufacturing.³⁸

There appeared little prospect that supporting more labour-intensive local producers would arrest the decline of the sector's proportional contribution to output and employment. Correspondingly, most of the committee report's 45 recommendations aimed to help 'refine' the sector's focus.³⁹ It called for better formulated and targeted government assistance and emphasised making local content a criterion for government services tender processes.

Factory closures

Subsequently, large-scale factory closures in Australia and Victoria heavily impacted policy and public debates over the first decade of the 21st century. Prominent Australian textiles and clothing manufacturing firms and brands either shut down or accelerated their movement of production offshore. In 2009, Pacific Brands, whose brands included Holeproof, Dunlop and Hard Yakka, relocated much of its manufacturing outside of Australia, taking around 500 jobs from its Victorian bases in Coolaroo and Nunawading.

Other iconic brands and producers like Fletcher Jones met a similar fate. Emerging in the 1950s, its integrated manufacturing and retail facilities employed 3,000 people at its peak. The Jones family meticulously built its manufacturing base in Warrnambool before being sold to the Pelaco group in 1990. It eventually went into receivership in 2011.⁴⁰

More prominent still was the demise of much of the automotive industry's manufacturing operations in Victoria, which constituted the key players of Ford, Holden and Toyota. Nissan had previously been part of the mix but had closed its Victorian manufacturing base in 1992.⁴¹ As early as 2007, Ford had plans to close but reneged on those in 2008 when the federal Labor government announced a \$6.2 billion 'rescue plan' for the automotive manufacturing industry.⁴² However, such support did not extend past 2013 with the incoming Coalition government. In December 2013, Prime Minister Tony Abbott signalled a change from his government's predecessor, saying, 'There's not going to be any extra money over and above the generous support the taxpayers have been giving the motor industry for a long time'.⁴³

Such statements emerged in the context of claims that manufacturing was 'being choked by the high dollar, rising costs and strong competition from cheaper foreign rivals'.⁴⁴ In 2013, Victorian Treasurer Michael O'Brien supported transitioning workers into construction projects

³⁷ Australian Bureau of Statistics (2023d) *Labour Force, Australia, Detailed*. Canberra.

³⁸ Economic Development and Infrastructure Committee Parliament of Victoria (2010) *Inquiry into Manufacturing in Victoria*, Melbourne.

³⁹ EDIC (2010) op. cit., pp. 4–7.

⁴⁰ M. Bleby (2011) *Fletcher Jones runs out of time*, *Australian Financial Review*, 9 December.

⁴¹ L. Florance & C. Best (2016) 'Ford Australia ceases production: Timeline of the company's decades-long history in the country', *ABC News*, 7 October.

⁴² D. Rood & S. Colquhoun (2008) 'Ford U-turn saves factory', *Sydney Morning Herald*, 21 November.

⁴³ J. Dowling (2015) 'Who killed the car industry?', *The Sydney Morning Herald*, 13 November.

⁴⁴ J. Gordon (2013) 'Victorian industry in strife', *The Age*, 23 December.

to utilise the manufacturing sector's transferrable skills.⁴⁵ The Productivity Commission found in August 2014 that, while the car manufacturing industry closures would cost up to 39,000 jobs,⁴⁶ 'the policy rationales for industry-specific assistance to automotive manufacturing firms are weak and the economy-wide costs of such assistance outweigh the benefits'.⁴⁷

By the time of the 2014 Victorian election, there was said to be a 'declining' manufacturing sector and a 'car industry ... about to fold'.⁴⁸ Alcoa discontinued operations at its Point Henry smelter in February 2014 after operating for over 50 years.⁴⁹ In addition to the direct consequences to jobs, the City of Geelong's mayor, Darryn Lyons, argued that the ramifications would be felt wider: 'This is also a supply chain situation. It's not only the 600 or 700 jobs that are going to be going here at the end of the year'.⁵⁰ Meanwhile, wind-tower manufacturer Keppel Prince also closed its Portland manufacturing base.⁵¹

The end of car manufacturing came quickly. Ford shut down its Geelong and Broadmeadows operations in 2016.⁵² Holden followed a few weeks later, also closing its Port Melbourne engine manufacturing plant in 2016, with the Victorian Government having bought the site to make way for a design and engineering hub.⁵³ Toyota's Victorian plants closed on 3 October 2017. The Victorian Labor Government, which had succeeded the previous Coalition government in 2014, called the closure 'the end of an era', while blaming the federal Government for manufacturing going offshore and bringing about 'devastating' job outcomes.⁵⁴

Subsequent commentary portrayed the car manufacturers' fates as entwined with a mutually dependent supply chain of over 200 local companies who 'needed the output of the three remaining car manufacturers to be viable': 'Once one car factory closed—Ford—the shutdowns of Holden and Toyota assembly lines were inevitable'.⁵⁵

Policy responses: sector support and/or firm competitiveness

In light of these closures, the primary policy debate initially centred on the degree to which government assistance should focus on sector-wide support instead of simply ensuring individual firms' international competitiveness. Support could be limited to providing infrastructure and a workforce with the right skills. The 2011 Victorian Competition and Efficiency Commission report *Victorian Manufacturing: Meeting the Challenges* argued that

⁴⁵ *ibid.*

⁴⁶ M. Skulley (2014) 'End of Australian car manufacturing could cost up to 39,000 jobs', *The Guardian*, 7 March.

⁴⁷ Productivity Commission (2014) *Australia's Automotive Manufacturing Industry*, Canberra, 31 March, p. 2.

⁴⁸ M. Davey, G. Alcorn & O. Milman (2014) 'Victorian election 2014: what each party is promising – in full', *The Guardian*, 26 November.

⁴⁹ ABC (2014) 'Aluminium producer Alcoa confirms decision to close Point Henry smelter, rolling mills', *ABC News*, 18 February; B. Robins, D. Gough, R. Willingham & B. Donnelly (2014) 'Alcoa announces closure of Point Henry aluminium smelter', *Sydney Morning Herald*, 18 February.

⁵⁰ Australian Broadcasting Commission (2014) 'Aluminium producer Alcoa confirms decision to close Point Henry smelter, rolling mills', *op. cit.*

⁵¹ G. Parkinson (2014) 'Keppel Prince closes wind manufacturing after Abbott targets RET', *Renew Economy*, 23 October.

⁵² L. Florance & C. Best (2016) 'Ford Australia ceases production: Timeline of the company's decades-long history in the country', *ABC News*, 7 October.

⁵³ Premier of Victoria (2016) *Statement on Holden*, media release, 29 November.

⁵⁴ Premier of Victoria (2017) *Statement on the closure of Toyota*, media release, 3 October.

⁵⁵ J. Dowling (2020) 'Vale Holden: End of the road after 72 years', *Drive*, 31 December.

‘policy should focus on the challenges facing individual businesses and move away from targeting specific industries.’⁵⁶

Having been elected in 2014, the Andrews Labor government eventually signalled that its approach would target ‘Victoria’s future industries’. In 2016, it stipulated that these would be:

- Medical technology and pharmaceuticals
- New energy technologies
- Transport, defence and construction technologies
- Food and fibre
- International education
- Professional services.

The extent to which manufacturing figured in this approach came down to how the sector aligned with these priority areas. The capacity to expand manufacturing was strongly associated with those areas in which Victoria held comparative advantages. These included the state’s highly educated workforce, considerable research and development potential and linkages to agriculture.

The government’s Food and Fibre Sector Strategy in 2016 was one major document promoting the ‘future industries’ framework.⁵⁷ Its focus was not strictly on manufacturing, but emphasised the policy overlap by indicating that ‘food and fibre’ includes ‘farming, fishing, forestry, food and beverage and textile, clothing and footwear manufacturing’.⁵⁸ The report argued:

Victoria is already Australia’s food and fibre capital and the major gateway to international markets. We account for a quarter of national primary production, 30 per cent of processed food output, 27 per cent of sector exports, and around one third of the freight task. We can aspire now to be the Asia-Pacific’s food and fibre capital—drawing more ideas, people and capital to our state to support growth.⁵⁹

Manufacturing’s role was to transform these primary products through downstream processing. The sector’s significant contribution would come from value-adding through an expansion of food processing and clothing and textiles manufacturing for domestic and export markets.

The strategy also complemented policies like the Towards Future Industries: Victoria’s Automotive Transition Plan. The plan aimed to re-skill retrenched workers from declining and more labour-intensive sectors—such as car manufacturing—and allow them to find ‘high-quality and sustainable employment’.⁶⁰ The implicit message was that job growth in manufacturing entailed moving from declining sectors to new higher-skilled roles that complemented the state’s comparative advantage.

⁵⁶ Victorian Competition and Efficiency Commission (2011) *Victorian Manufacturing: Meeting the Challenges. Inquiry into a More Competitive Victorian Manufacturing Industry*, Melbourne, p. 1.

⁵⁷ *ibid.*

⁵⁸ *ibid.*

⁵⁹ DED (2016) *op. cit.*, p. 5.

⁶⁰ DED (2016) *op. cit.*, p. 11.

2 | Manufacturing by 2021: a snapshot

These changes to the composition and volume of output, together with employment and policy changes, meant that the sector had changed considerably by the time of the COVID-19 pandemic, which prompted the Victorian Government to implement several subsequent lockdowns and other infection-control measures across 2020 and 2021.

Manufacturing output fell

As a result, there were some disruptions to the sector. Figure 1 shows that in 2018, before the COVID-19 crisis, the sector's output was \$35.4 billion, or 9 per cent of Victoria's GSP.

Manufacturing production's total value then declined to \$32.9 billion, or 8 per cent of GSP, in 2021.⁶¹ Whereas the overall economy expanded (very slightly) at an average annual rate of 0.9 per cent, manufacturing contracted by 2 per cent yearly. The average annual employment for the sector bottomed out at just 206,900 halfway through 2021 (Figure 3).

Changed proportion of employment

By 2021, significant longer-term change was evident in the sector. A comparison of Tables 2 and 3 and Figure 4 indicates changes within the manufacturing sector. While many categories used to classify the industry have changed between 1991 and 2021, the 16 two-digit ANZSIC level subdivision categories for 2021 can be modified to match the 13 categories for 1991. After doing so, three main changes are evident in this time frame.

Table 2: Manufacturing category of employment in Victoria, 1991⁶²

Subsector	Count	Per cent
Manufacturing undefined	7,245	3.1
Food, beverages, tobacco	25,743	11.0
Textiles	9,004	3.8
Clothing and footwear	22,346	9.5
Wood, wood products, furniture	13,936	5.9
Paper, paper products, printing, publishing	27,360	11.7
Chemical, petroleum, coal products	13,922	5.9
Non-metallic mineral products	7,312	3.1
Basic metal products	6,367	2.7
Fabricated metal products	20,024	8.5
Transport equipment	29,962	12.8
Other machinery and equipment	32,098	13.7
Miscellaneous manufacturing	19,410	8.3

⁶¹ ABS (2023b) op. cit.

⁶² Australian Bureau of Statistics (1993) *2101.0 - Census Characteristics of Victoria, 1991 Census of Population and Housing*, "Table 17. Industry by Sex", 1993, p. 28.

Table 3: Manufacturing subsector of employment in Victoria, 2021⁶³

ANZSIC Subsector	Count	Per cent
Basic chemical and chemical product	9,532	5.8
Beverage and tobacco product	4,756	2.9
Fabricated metal product	8,437	5.2
Food product	55,964	34.2
Furniture and other	6,914	4.2
Machinery and equipment	13,730	8.4
Manufacturing, nfd	13,183	8.1
Non-metallic mineral product	4,358	2.7
Petroleum and coal product	184	0.1
Polymer product and rubber product	6,030	3.7
Primary metal and metal product	6,749	4.1
Printing (including the reproduction of recorded media)	5,397	3.3
Pulp, paper and converted paper product	2,937	1.8
Textile, leather, clothing and footwear	4,005	2.5
Transport equipment	17,234	10.5
Wood product	4,056	2.5

First, the proportional employment growth in one particular ‘future industry’ is apparent. The proportional share of manufacturing jobs within the 1991 subcategory ‘Food, beverages and tobacco’ (approximately equivalent to the sum of the 2021 subcategories ‘Food product manufacturing’ and ‘Beverage and tobacco product manufacturing’) increased from 11 to 37.15 per cent, with the subsector’s proportional employment growth dwarfing all others by 2021.

Second, given the closure of the major automobile manufacturers, the ‘Transport equipment’ subsector’s contribution fell, but only slightly, from 12.8 to 10.5 per cent. Several subcategories within the subsector suffered only minor falls or little change in their proportional share of employment.

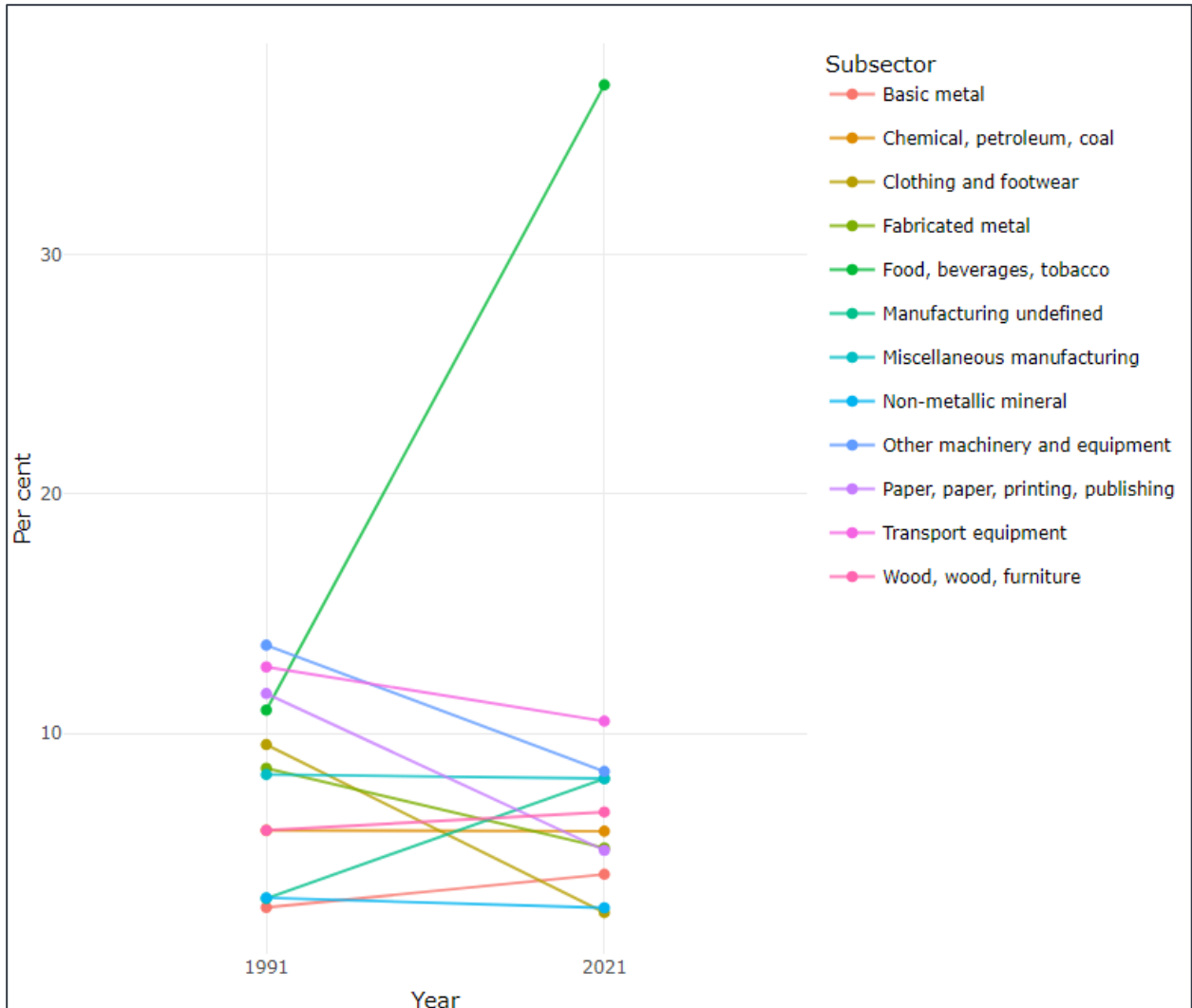
Third and finally, the most significant contractions in employment share were in subsectors such as ‘Clothing, footwear and textiles’. This subsector comprised 13.3 per cent of jobs in 1991; by 2021, however, the closest equivalent subsector, ‘Textile, leather, clothing and footwear’, contributed just 2.5 per cent of manufacturing employment. Therefore, the ‘fibre’ component of the Food and Fibre strategy lagged considerably compared to the ‘food’ component.

Other subsectors with significant decreases included ‘Paper, paper products, printing, and publishing’ (the equivalent of 2021’s ‘Pulp, paper and converted paper products’ and ‘Printing’), falling from 11.7 to 5.1 per cent of manufacturing employment. These changes reflect the comparative decline in demand for timber harvesting products.⁶⁴ The proportion employed in ‘Fabricated metals’ also declined, from 8.5 to 5.2 per cent.

⁶³ ABS (2024d).

⁶⁴ A. Tonkin and E. Florence (2023) *Victoria’s timber industry in a time of transition*, Research paper, Victoria. Parliamentary Library and Information Service.

Figure 4: Estimated changes in subsector distribution of manufacturing employment, Victoria 1991–2021⁶⁵



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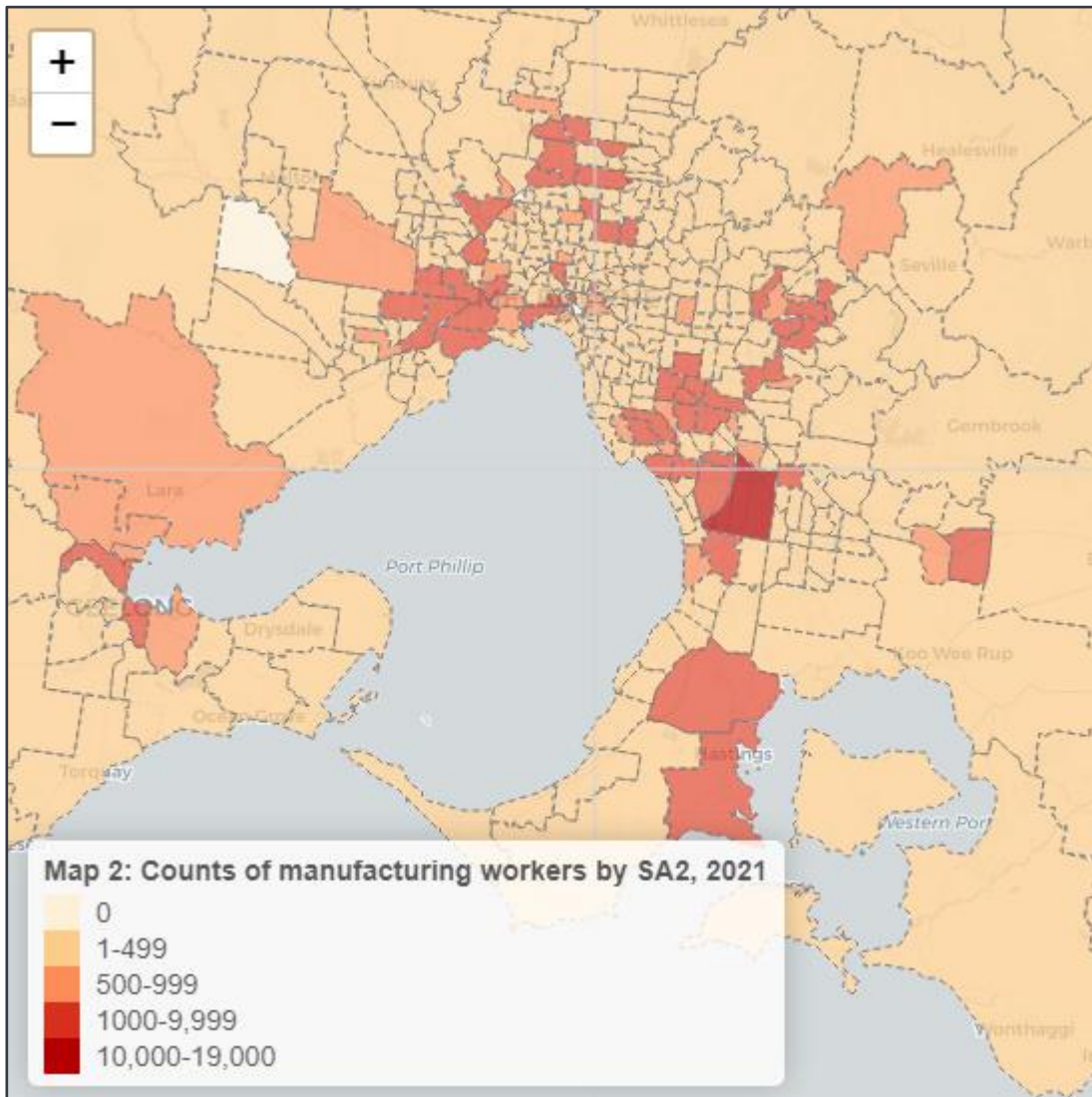
Location still concentrated but not exclusively in Geelong and Melbourne

The composition and location of Victoria’s manufacturing employment have also changed over time. Maps 2 to 6 detail the main location trends, using the ANZSIC subsector of employment ‘place of work’ data as reported at the SA2 level from the 2021 Census.⁶⁶ As Map 1 and Table 1 suggest, the main contours of industrial location were already present by 1990. In Melbourne, manufacturing was concentrated in two arcs, one spanning Melbourne’s western and northern suburbs and another in the city’s south-east. Map 2, Panel A demonstrates locations across Melbourne and Geelong in 2021.

⁶⁵ ABS (1993) op. cit.

⁶⁶ Australian Bureau of Statistics (2024d) *Table Builder*, Canberra.

Map 2, Panel A: Counts of manufacturing workers by SA2, Melbourne and Geelong, 2021⁶⁷



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The most prominent difference, though, is the extent of concentration of overall manufacturing employment in the Dandenong South area, which contained over 18,520 manufacturing sector workers (8.5 per cent of the Victorian total) in 2021. Other notable large concentrations of manufacturing workers are in Campbellfield-Coolaroo, Thomastown, Braeside and Bayswater.

However, manufacturing is not exclusively located in Melbourne and Geelong, with areas of employment extending across the state. The census data for 2021 suggest that 42,245 people (19.4 per cent) work in manufacturing outside these main urban areas. There are also additional estimates based previous census data available.⁶⁸ The ABS's detailed labour market survey indicated that 18.5 per cent of the state's 270,843 manufacturing workers are employed in non-urban statistical area 4 regions.⁶⁹ Map 2, Panel B displays manufacturing employment by SA2 for Victoria as a whole. There are notable concentrations in many regional centres,

⁶⁷ ABS (2024d) op. cit.

⁶⁸ [Labour Market by Districts and Regions](#).

⁶⁹ Australian Bureau of Statistics (2008c) [Labour Force, Australia, Detailed](#), Canberra.

such as Ballarat, Warrnambool, Colac, Shepparton, Castlemaine, Wodonga, Morwell, Portland and Bendigo.

Map 2, Panel B: Counts of manufacturing workers by SA2, Victoria, 2021⁷⁰



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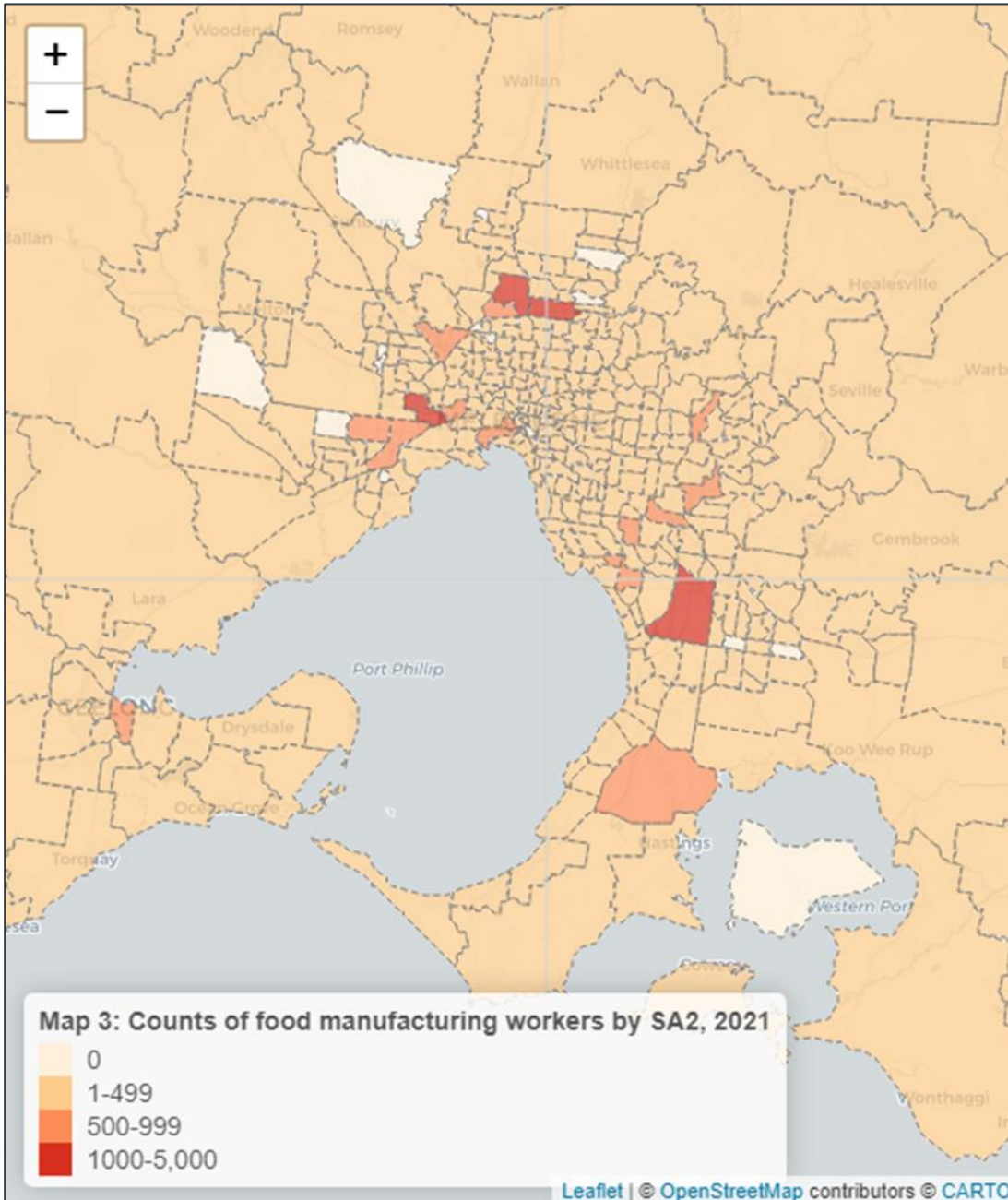
Differences between subsectors

However, there are considerable differences in the types of manufacturing activities undertaken in these regional areas compared to Melbourne and Geelong. ‘Food production’ comprises almost half (45 per cent) of regional manufacturing employment in regional areas, compared to 22.3 per cent in Melbourne and Geelong.⁷¹ Map 3, Panels A and B show the greater dispersal of food manufacturing jobs across the state’s regional areas, with at least some food manufacturing activities occurring in most SA2s and heavier concentrations of workers in the regional centres listed above.

⁷⁰ *ibid.*

⁷¹ ABS (2024d) *op. cit.*

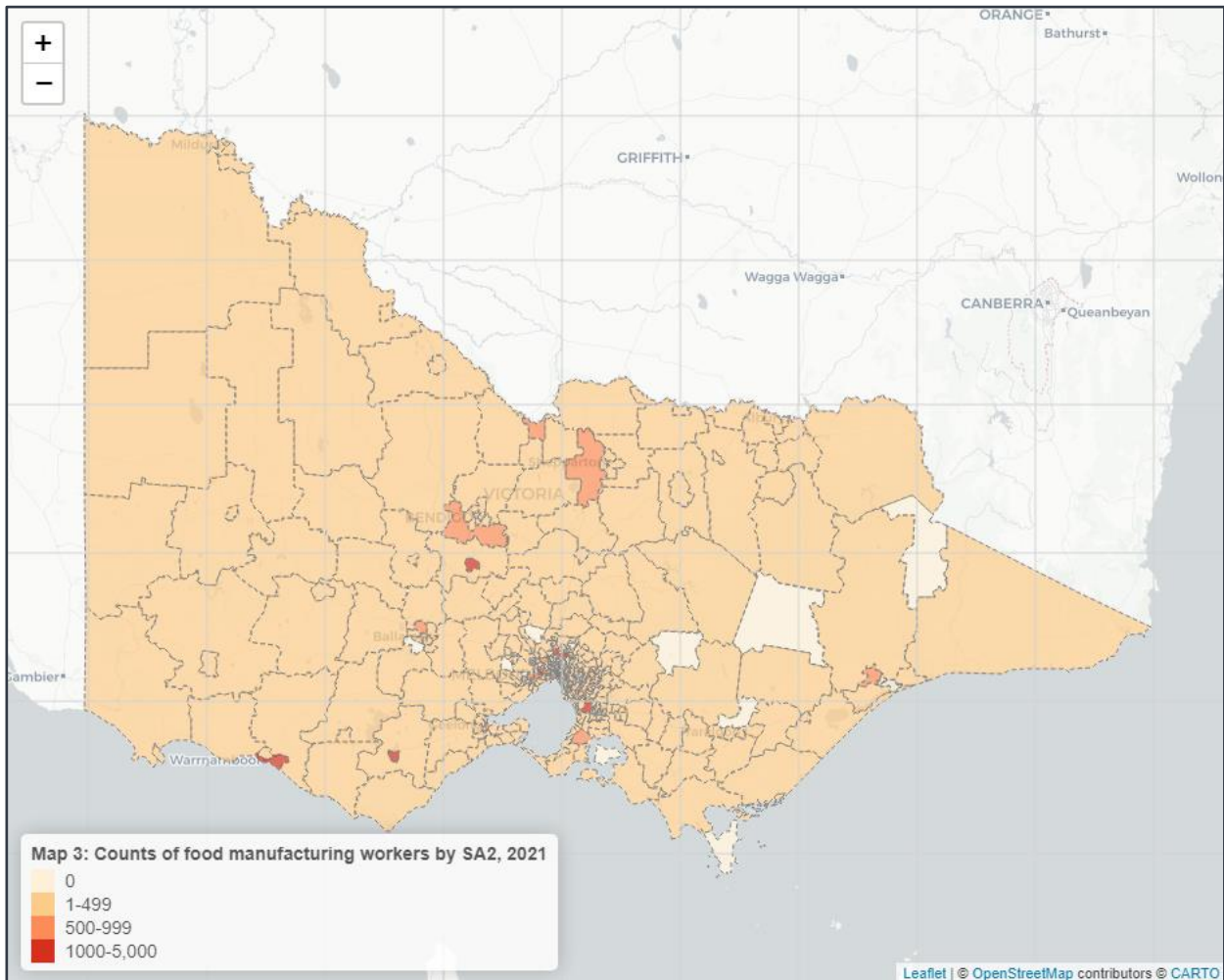
Map 3, Panel A: Counts of food manufacturing workers by SA2, Melbourne and Geelong, 2021⁷²



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⁷² *ibid.*

Map 3, Panel B: Counts of food manufacturing workers by SA2, Victoria, 2021⁷³

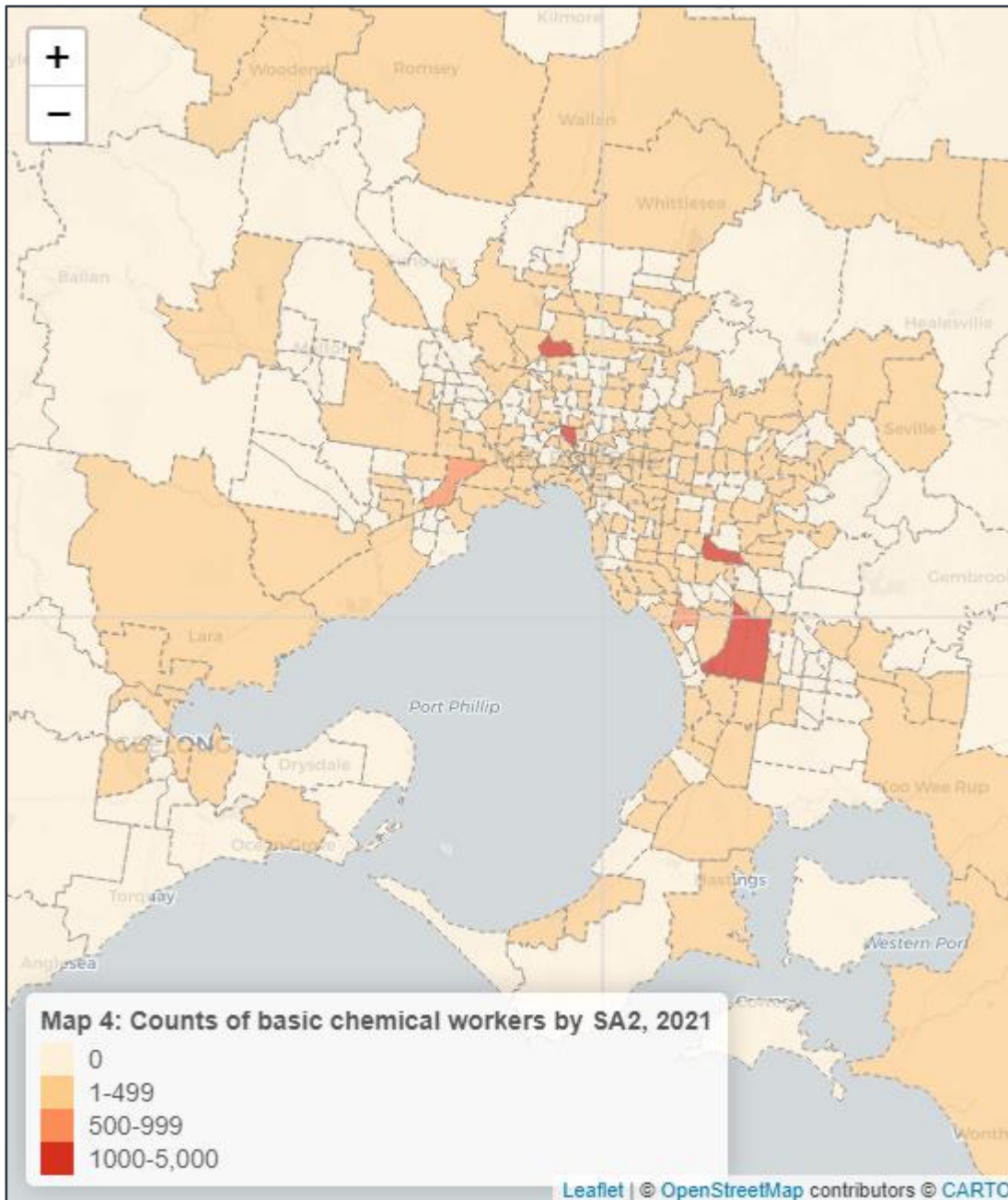


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Map 4, Panels A and B, in contrast, show the prominent locations of the ‘Basic chemical and chemical production’ subsection. The section comprises just 1.9 per cent of manufacturing employment in regional areas compared to 7.26 per cent in Melbourne and Geelong. While various activities occur across the state, the largest concentration remains in Melbourne. The most prominent locations include Dandenong South, Mulgrave, Parkville and Thomastown.

⁷³ *ibid.*

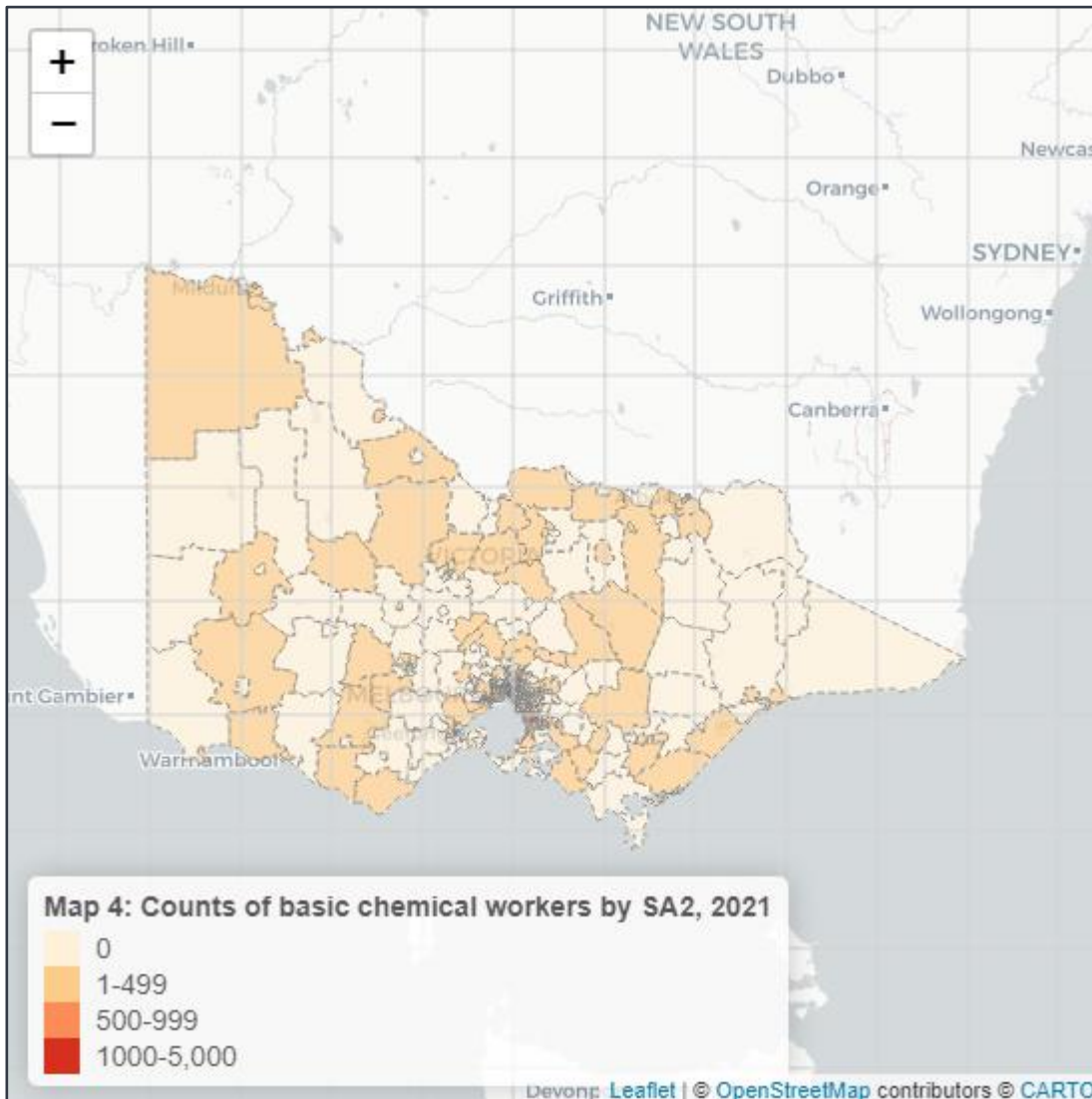
Map 4, Panel A: Counts of basic chemical manufacturing workers by SA2s in Melbourne and Geelong, 2021⁷⁴



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⁷⁴ *ibid.*

Map 4, Panel B: Counts of basic chemical manufacturing workers by SA2s in Victoria, 2021⁷⁵



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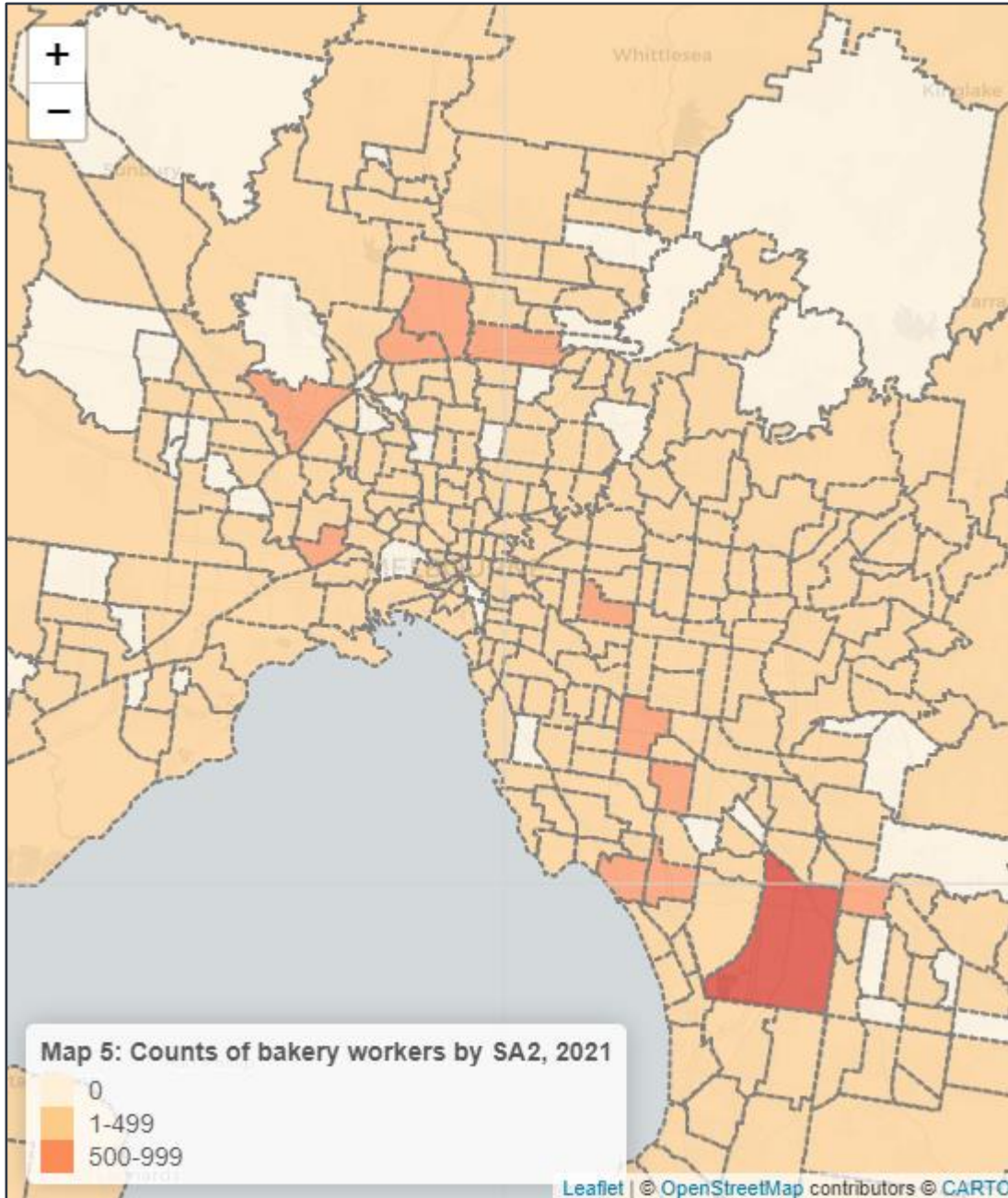
While the subsector data suggests that manufacturing concentrates in areas that complement the state’s advantages in primary production, the census employment data present a slightly different picture at a more granular level. The three-digit ANZSIC categories, or ‘classes’, provide some contrasts. For instance, the largest employment class is ‘Bakery product manufacturing’, with 15,858 people or 7.4 per cent of all manufacturing workers. ‘Motor vehicle and motor vehicle part manufacturing’ employed 15,503 people.

One class often associated with advanced manufacturing, ‘Pharmaceutical and medicinal production’, employed 7,001 people (or 3.2 per cent of manufacturing workers) in 2021. It was the tenth-largest class. Structural metal production was number 11, with 6,074 workers. In other cases, adding categories such as ‘Computer and electronic equipment’, with 2,549, and ‘Specialised machinery and equipment manufacturing’, with 2,306, means these classes comprise over 2 per cent of manufacturing jobs.

⁷⁵ *ibid.*

Again, there are significant differences in the location of different activities within the manufacturing sector at the three-digit level. 'Bakery production' is dispersed across the state (Map 5, Panels A and B).

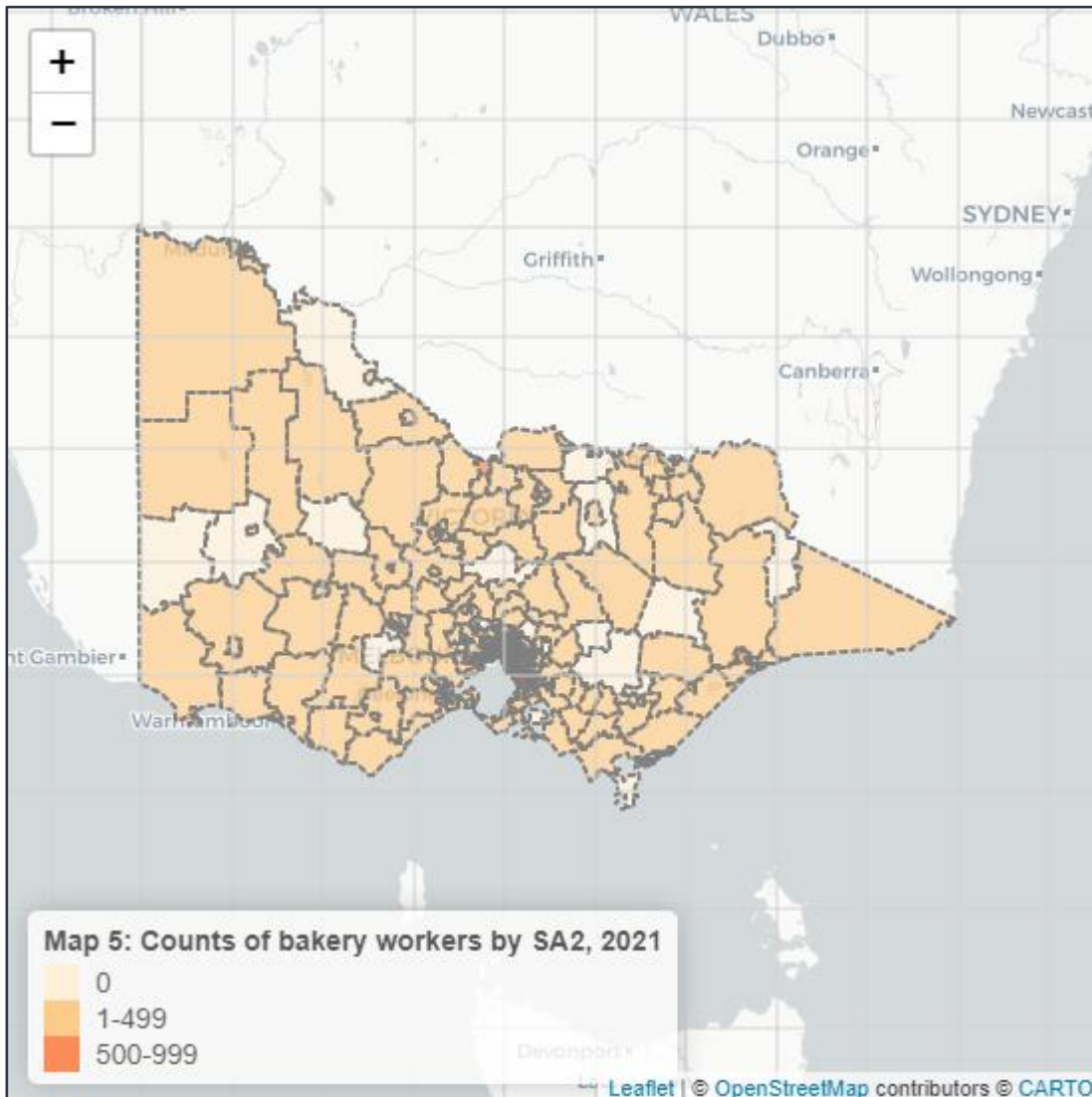
Map 5, Panel A: Counts of bakery product manufacturing workers by SA2s in Melbourne and Geelong, 2021⁷⁶



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⁷⁶ *ibid.*

Map 5, Panel B: Counts of bakery product manufacturing workers by SA2s in Victoria, 2021⁷⁷

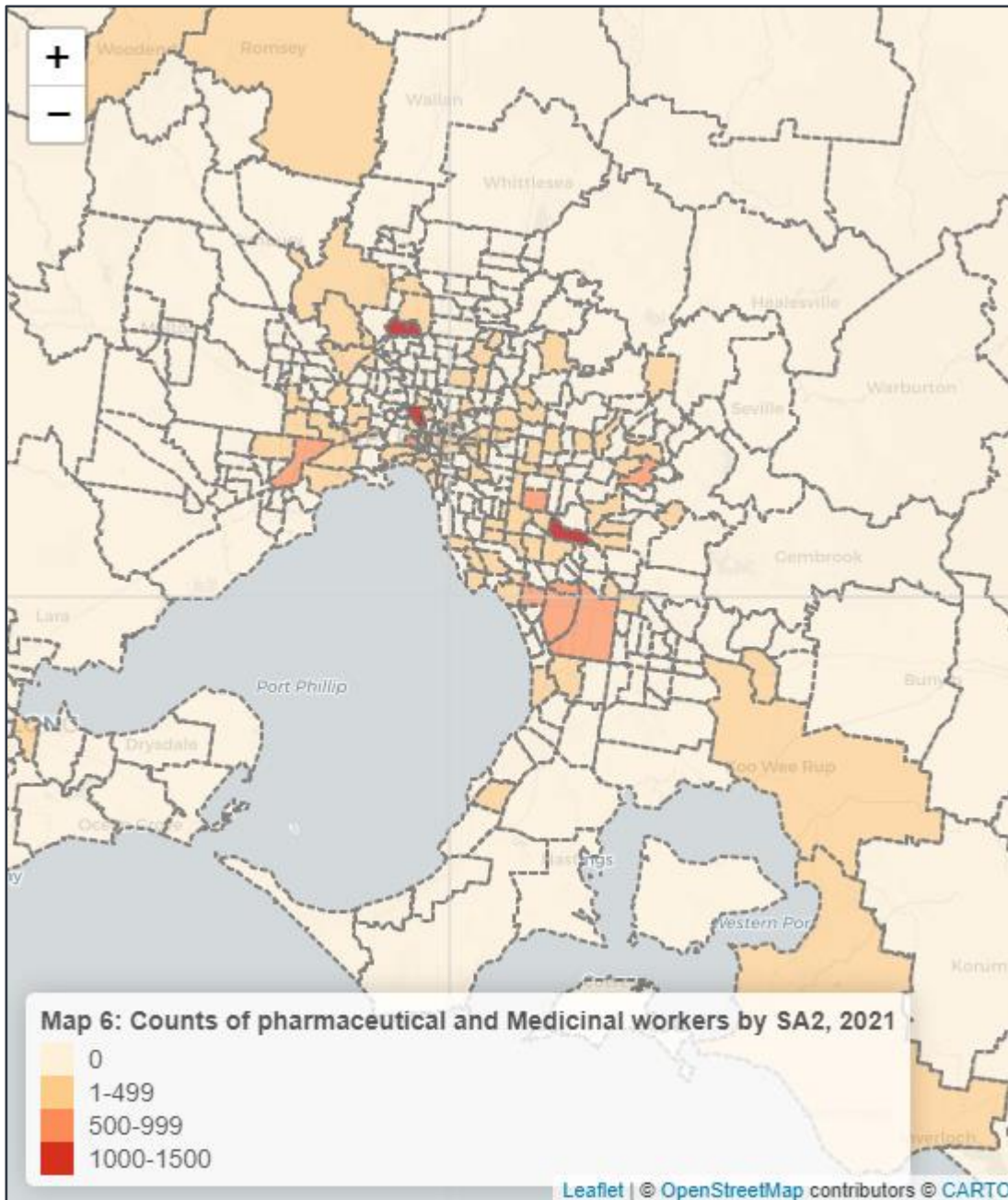


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By contrast, advanced manufacturing, such as ‘Pharmaceutical and medicinal products’ (a class of ‘Basic chemical and chemical production’), is concentrated mainly in Melbourne, including Mulgrave, Parkville and Broadmeadows (and to a lesser extent, Laverton) (Map 6, Panels A and B).

⁷⁷ *ibid.*

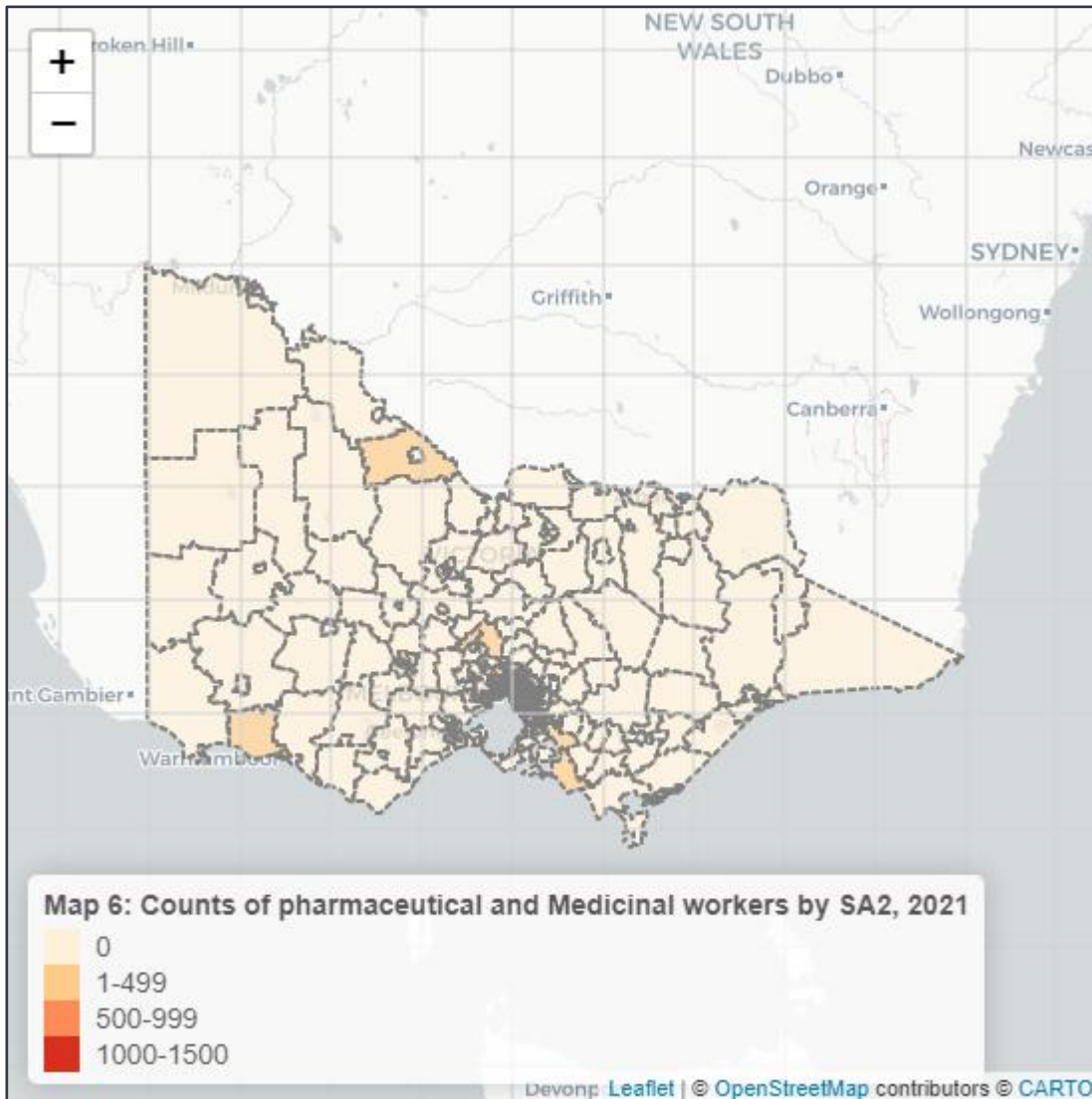
Map 6, Panel A: Counts of pharmaceutical and medicinal product workers by SA2s in Melbourne and Geelong, 2021⁷⁸



[Click to access](#)

⁷⁸ *ibid.*

Map 6, Panel B: Counts of pharmaceutical and medicinal product workers by SA2s in Victoria, 2021⁷⁹



Click to access

⁷⁹ *ibid.*

3 | After COVID-19

Various other issues have confronted the sector since COVID-19. The Victorian Government issued its Made in Victoria 2030: Manufacturing Statement—Driving jobs and growth in 2022.⁸⁰

Policy changes: sovereign and advanced manufacturing

In addition to the issues associated with recovering from the COVID-19 pandemic, the government's manufacturing statement outlines other key policy focuses in the manufacturing sector. It primarily emphasises two interlinked concepts: 'sovereign manufacturing' and 'advanced manufacturing.' The statement argues:

The urgent need to decarbonise the global economy is also prompting a major transformation in how manufacturing businesses operate.

In addition, external shocks such as the COVID-19 pandemic and geopolitical tensions have highlighted the need for stronger sovereign manufacturing and more resilient supply chains.

Global change in manufacturing and the reorientation of supply chains present significant opportunities for Victoria.⁸¹

In addition to recognising the need for decarbonisation and climate change adaptation, it explicitly promotes a turn to 'sovereign manufacturing'. While the statement did not define 'sovereign manufacturing', the Federal Government had already begun promoting the concept in 2020. Sovereign manufacturing does not entail a wholesale retreat from international trade.⁸² However, it seeks to alleviate some of the dangers implicit in an over-reliance on overseas manufactured goods by 'building more resilient supply chains.' It aims to do this primarily by finding alternative inputs through 'augmenting existing domestic manufacturing capabilities.'⁸³ The other central theme of the Victorian statement is the emphasis on enhancing 'sovereign advanced manufacturing'. It implies a shift from 'conventional, process-intensive production' towards higher technology and skill-based manufacturing.⁸⁴

The COVID-19 pandemic exposed health-related economic vulnerabilities when the need to manufacture medicinal products suddenly emerged. The lack of a base manufacturing sector severely impeded the ability to manufacture personal protective equipment (PPE) and other products when sources of imports became scarce in Victoria and nationally. Other sectors would also be affected. Ongoing supply problems are associated with disruptions to global supply chains, particularly for increasingly import-reliant economies like Australia.⁸⁵

International trade disruptions

There was also a geostrategic element related to the deepening of international geopolitical and economic disputes, particularly between large international trading partners such as the United States (and, to a lesser extent, the European Union) and China.⁸⁶ After decades of expanding international trade with China, the United States began recalibrating its policies

⁸⁰ DJPR (2022) op. cit.

⁸¹ DJPR (2022) op. cit., p. 4.

⁸² DISR (2021) op. cit., pp. 1, 8.

⁸³ *ibid.*

⁸⁴ DJPR (2022) op. cit., pp. 4, 7.

⁸⁵ Parliament of Australia, Joint Standing Committee on Foreign Affairs, Defence and Trade (2020) *Effects of COVID-19 on Australia*, Canberra.

⁸⁶ *ibid.*

during Donald Trump's administration by introducing tariffs and other restrictions on Chinese goods.⁸⁷

US President Joe Biden subsequently implemented a range of policies—such as the American Rescue Plan, the American Jobs Plan, the American Families Plan and, more recently, the CHIPS and Science Act—to boost manufacturing capacity, especially in research and development.⁸⁸ In light of a perceived over-reliance on imports, a greater emphasis has emerged in the US on maintaining at least some manufacturing capacity through grants and subsidies.

Industry policy changed in the US and other places, with a slightly revived role for governments promoting research and development. Tax incentives and other fiscal measures target more promising areas of development in advanced technology industries. The International Monetary Fund, however, has cautioned that 'inward-looking industrial policies lead to a costly race in subsidies and trade restrictions.'⁸⁹

Victoria's strategic advantages: skills and research

The Victorian Government's manufacturing statement responds to the new environment by outlining the Government's priorities. These flow from and emphasise what it argues are Victoria's 'strategic advantages': research and development; a highly skilled workforce; and infrastructure. It points to the presence of the 'Australian Synchrotron, the Australian Nanofabrication Facility, Data 61, STELaRLab and the Oceania Cyber Security Centre'.⁹⁰ A considerable concentration of research facilities are linked to manufacturing and other industries within the state.

The Victorian Government claims that 'scale and standardisation have become much less important than the smart use of digital technologies', which are transforming and providing opportunities for diverse sectors such as 'steel fabrication, textiles, clothing and footwear, low and zero emissions technologies, life sciences, and medical PPE'.⁹¹ The statement's priority areas include zero and low emissions technologies; health technologies; food manufacturing; defence, aerospace and space; and digital and advanced technologies. Various funding mechanisms exist, including access to the \$2 billion Breakthrough Victoria investment fund and the \$120 million Victorian Industry Fund, as well as grant programs such as the Business Competitiveness Program (2022) (\$35 million),⁹² the Medtech Manufacturing Capability Program (2022) (\$7 million) and the Made in Victoria—Manufacturing Growth Program (2023) (\$3.2 million).⁹³

The manufacturing statement cites the example of mRNA Victoria to illustrate its purported strategy and approach. mRNA Victoria is a 'research hub' that was allocated an initial \$9.1 million from the Victorian Government and other agencies. It subsequently enabled the manufacturing of Australia's 'first commercial manufactured mRNA COVID and respiratory vaccines through an agreement between the Commonwealth, Victoria, (the biotechnology-firm) Moderna and Monash University for Moderna to establish a commercial scale vaccine manufacturing facility'.⁹⁴

⁸⁷ R. Partington & D. Rushe (2018) *Trump hits China with \$200bn of new tariffs as trade war escalates*, *The Guardian*, September 18.

⁸⁸ Congressional Research Service (2023) Frequently Asked Questions: CHIPS Act of 2022 [Provisions and Implementation](#), Washington.

⁸⁹ International Monetary Fund (2024) Fiscal Monitor Chapter 2: Expanding Frontiers: Fiscal Policies for Innovation and Technology Diffusion, Washington, p. 16.

⁹⁰ DJPR (2022) op. cit., p. 5.

⁹¹ DJPR (2022) op. cit., p. 7.

⁹² Business Victoria (2022) [Manufacturing grant recipients announced](#).

⁹³ Business Victoria (2022) [Medtech Manufacturing Capability Program recipients announced](#).

⁹⁴ DJPR (2022) op. cit., p. 8.

Unlike the ‘Future Industries’ framework of 2014, which did not explicitly focus on manufacturing, the Made in Victoria document has seen manufacturing shift to become a primary policy focus. For instance, in Made in Victoria, categories such as ‘food manufacturing’ overlap with priorities in the Food and fibre sector strategy.⁹⁵ However, the focus on advanced manufacturing seeks to provide a framework for cooperative public investment, research and development and cooperation with and between private firms nationally and within the state.

National policy changes

More recently, the Federal Government announced a new set of plans and policies around manufacturing. Foreshadowing a ‘Future Made in Australia Act’, to be introduced later in 2024, Prime Minister Anthony Albanese announced plans to replicate some of the measures implemented by the Biden administration in the United States (see above). Albanese argued that the forthcoming legislation was ‘not about the old protectionism’ and was proposing policy measures similar to those in the United States, Japan, Korea, Canada and Europe.⁹⁶

Prime Minister Albanese contends that Australia must respond to initiatives by competitor economies with a similar policy focus on cultivating strategic industries. The legislation appears to be a product of an unusual consultation process with the manufacturing sector.⁹⁷ Some debate has emerged over its potential to revive ‘interventionist’ policies, propping up inefficient industries.⁹⁸

Projects taking place

The Victorian Government has announced projects in line with the Made in Victoria 2030 framework. Pharmaceutical and medical projects dominated these announcements across 2022 and 2023, although they have diminished in frequency. As mentioned above, mRNA vaccine production was a primary focus, and it is said to create around 1,000 jobs in Melbourne and across the state.⁹⁹

Other significant initiatives include forming ‘innovation hubs’ and ‘low-carbon’ manufacturing.¹⁰⁰ Further initiatives link with efforts to relocate and re-skill workers from declining industry sectors, such as timber processing, with some support from the Victorian Timber Innovation Fund going to Australian Sustainable Hardwoods’ transition to alternative fibre sources.¹⁰¹ There are some targeted grants and funds for strategic firms but no significant push towards a more interventionist policy and protectionism. Whether federal initiatives may further boost these measures remains to be seen.

Some partial assessments

Whatever these policy impacts may be, some partial evidence exists of how the sector has performed since 2021. While subsector-level data is limited, there is evidence of expanding sales revenue and employment in the sectors associated with those priority areas of manufacturing emphasised in the statement.

⁹⁵ DED (2016) op. cit.

⁹⁶ A. Albanese (2024) *Television Interview - Sky News Transcript*, April 11.

⁹⁷ A. Smethurst & A. Livingston (2024) ‘Katy Perry performed at lavish mansion party, but the PM just wanted to talk jobs,’ *The Age*, 25 February.

⁹⁸ Editorial (2024) ‘[The flat-earth economics of a future made in Australia](#),’ *The Australian*, 19 April. For a contrary view see S. Carney (2024) [Albanese’s latest plan is triggering elite economists. Don’t listen to them](#), *The Age*, April 25.

⁹⁹ Premier of Victoria (2021) *Victoria To Become Home Of mRNA Vaccine Manufacturing*, Premier of Victoria (2023c) *New Milestone For Moderna Vaccine Facility*.

¹⁰⁰ Premier of Victoria (2023b) *Innovation Hub Expands Geelong’s Manufacturing Credentials*.

¹⁰¹ Premier of Victoria (2023a) *Boost to Process More Plantation Timber*.

The following developments occurred between mid-2019 and mid-2022:

- The overall number of workers in the manufacturing sector expanded slightly, from 242,917 to 247,267 (1.79 per cent). ‘Polymer product and rubber product manufacturing’ saw the most significant expansion in employment (13.5 per cent). In contrast, the workforce for ‘Basic chemical and chemical product manufacturing’ increased by 8.54 per cent (encompassing the ‘Pharmaceutical and medicinal production’ class emphasised in the statement and other associated announcements).
- Nominal manufacturing sales increased by 12.6 per cent, with the most robust growth being in the ‘Primary metal and metal product manufacturing’ subsector. The ‘Basic chemical and chemical product manufacturing’ subsector also expanded by 18.4 per cent.
- In the most prominent and strongest subsector, ‘Food product manufacturing’, sales rose by 7.79 per cent, but employment fell by 4.95 per cent.¹⁰²

The ABS’s Business Indicator data only extends to mid-2022. Less evidence is currently available to assess the 2022–23 financial year.

Figure 2 demonstrates that both the overall economy and the manufacturing sector recovered in the 2021–22 year before contracting in 2022–23. In 2021–22, Victorian GSP grew by 6 per cent, with manufacturing output growing by 5.5 per cent. Yet in 2022–23, while GSP for all sectors expanded by 2.6 per cent, manufacturing contracted by 3.7 per cent. Manufacturing employment in Victoria fell from 271,000 to 256,000, while the sector’s share of GSP contracted in every state and territory. Nationally, sales growth has also been low or negative, while inventories (unsold goods) have risen.¹⁰³

Cost pressures from inflation and interest rate rises

These setbacks may partially be attributable to non-wage costs associated with widespread reports of supply constraints, increases in input and energy prices, and the flow-on effect of interest rate increases associated with monetary tightening. The Australian Industry Group states that ‘energy-intensive manufacturers and business service providers are reporting the steepest declines in activity to date’.¹⁰⁴ Compared to other sectors, the higher reliance of the manufacturing sector on energy inputs means current price rises have had a substantial impact on the sector, nationally and in Victoria.

Other available indicators present a similar picture for the period ending mid-2023. Figure 5 outlines manufacturing’s actual monthly capital expenditure (expenditure on property, plant and machinery) for the period after 2010, showing a decline after 2010 before increasing again after 2015.¹⁰⁵ A downward spike reflects the period affected by COVID-19 (the data is ‘not available’ rather than zero due to the data anomalies of the COVID-19 time frame) before expenditure spikes sharply upwards to mid-2023. While a fall occurred in September, the overall trend suggests increasing investment in the sector, although it does not outline how expenditure distribution varies between subsectors or classes.

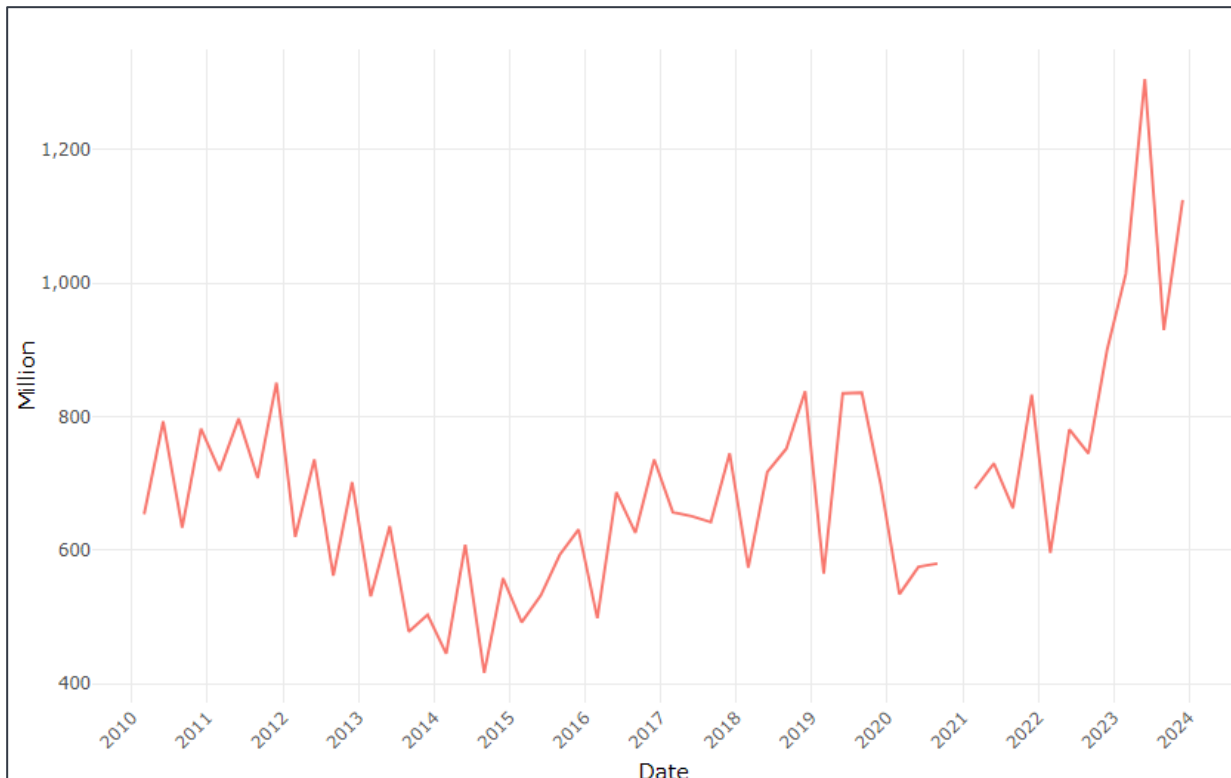
¹⁰² Australian Bureau of Statistics (2023a) [Australian Industry](#), Canberra.

¹⁰³ ABS (2023b) op. cit.; Australian Bureau of Statistics (2024b) [Monthly Business Turnover Indicator](#), Canberra.

¹⁰⁴ AIG (2023) op. cit.

¹⁰⁵ Australian Bureau of Statistics (2024c) [Private New Capital Expenditure and Expected Expenditure, Australia](#), Canberra.

Figure 5: Quarterly Victorian manufacturing sector capital expenditure, 2010-2023 (current dollars)¹⁰⁶



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New entrants to markets

CABEE data, based on the number of active businesses, suggests three main trends emerged in the manufacturing sector between mid-2020 and mid-2023.¹⁰⁷ First, the overall number of active entities in the Victorian manufacturing sector increased from 22,250 to 23,590 between mid-2020 and 2023, an increase of 4.75 per cent. Second, there is considerable variation in the extent of change at the subsector level, ranging from a 26 per cent increase for ‘Beverage and tobacco products’ to a 10 per cent contraction in ‘Textile, leather, clothing and footwear’. Third, evidence suggests a change in activity levels across subsector and title levels in some areas associated with advanced manufacturing.

The most significant proportional increases from mid-2020 to mid-2023 were in ‘Industrial gas manufacturing’ (from 7 active entities up to 20) and ‘Spirit manufacturing’ (23 to 46). Significant increases also occurred in ‘Wood manufacturing’ firms’ overall numbers (1,127 to 1,315). ‘Printing’ and ‘Clothing manufacturing’ fell from 1,310 to 1,170 and 787 to 646, respectively.

There were also increases associated with advanced manufacturing such as: veterinary pharmaceutical and medicinal products; human pharmaceutical and medicinal products; machine tool and parts manufacturing; mining and construction machinery manufacturing; and other electrical equipment manufacturing.

¹⁰⁶ ABS (2024c) op. cit.

¹⁰⁷ Australian Bureau of Statistics (2024a) op. cit., Canberra.

Conclusion

The challenges confronting Victoria's manufacturing industry before and after COVID-19 reflect a combination of longer-term historical changes and the current difficulties of the international trade climate.

Historically, manufacturing constituted a higher proportion of Victoria's economic activity compared to other states and territories in Australia. The initial structure based on workshops gave way to larger-scale production. The sector's contribution to civilian employment peaked in the 1960s. By the late 1970s, manufacturing was concentrated heavily in Melbourne's north, south and western suburbs. By 1990, food processing was the only sector with a state-wide distribution.

The sector then underwent a long process of proportional decline. GSP and employment expanded at a higher rate for sectors such as the services sector and other non-manufacturing and agricultural sectors. The process of proportional decline accelerated after 2000, with the closure of larger automobile production and many clothing and textile firms.

While contracting overall, employment and investment within the manufacturing sector became heavily concentrated in the 'Food product manufacturing' and 'Beverage and tobacco product manufacturing' sectors by 2021. These two subsectors increased their sector employment share from 11 per cent to over 37 per cent of workers. Moreover, the Victorian Government contributed to this growth by prioritising 'food and fibre' as one of its 'future industries' in strategy documents.

Other trends also emerged, especially the growth of medical goods production and other areas of advanced manufacturing. Meanwhile, manufacturing employment became further concentrated in Melbourne and Geelong, with areas south of Dandenong featuring a very high proportion of the sector's jobs.

Modest policy changes also occurred after COVID-19, with a renewed focus on sovereign manufacturing. While not signalling a return to protected local industries, such strategies instead aim to reduce reliance on international supply chains by expanding the capacity of local producers. More recent federal government policies also emphasise these themes.

More time is needed for data to accrue to assess the Victorian manufacturing sector's performance since COVID-19. The shift towards advanced manufacturing saw some successes—such as the mRNA manufacturing facility at Clayton. There was a considerable expansion of capital expenditure in 2022 and 2023. However, ongoing inflationary pressures and the Reserve Bank of Australia's tightening of monetary policy dampened the sector's performance.

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