# GRATTAN
## Institute

## Thinking big: maintaining full employment and boosting productivity

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Jobs & Skills Summit
1 September 2022

**Full employment as our economic lodestar**

Productivity growth – it's almost everything

The changing Australian economy

Prioritising prosperity

# Unemployment has a long-term effect on an individual's income
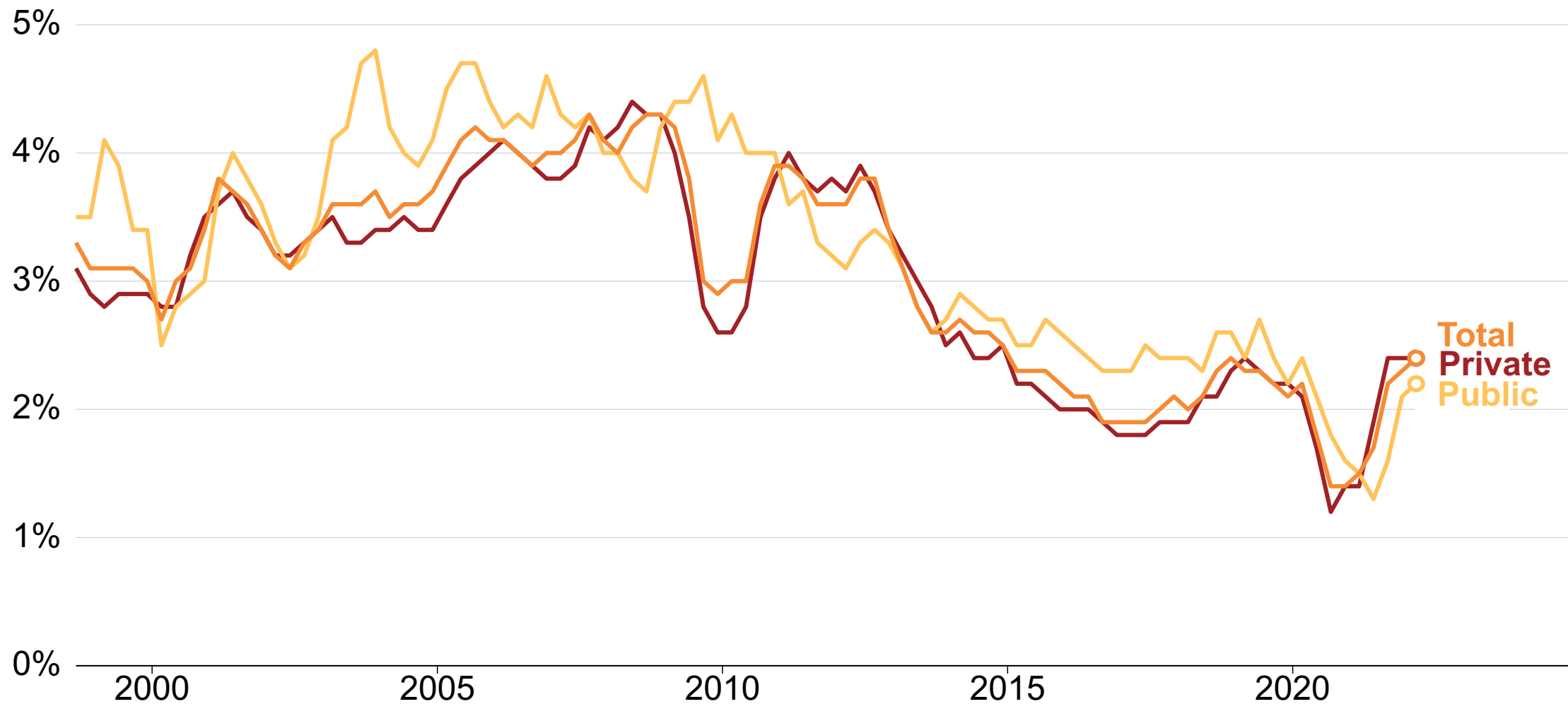
Reduction in labour income due to three months of unemployment
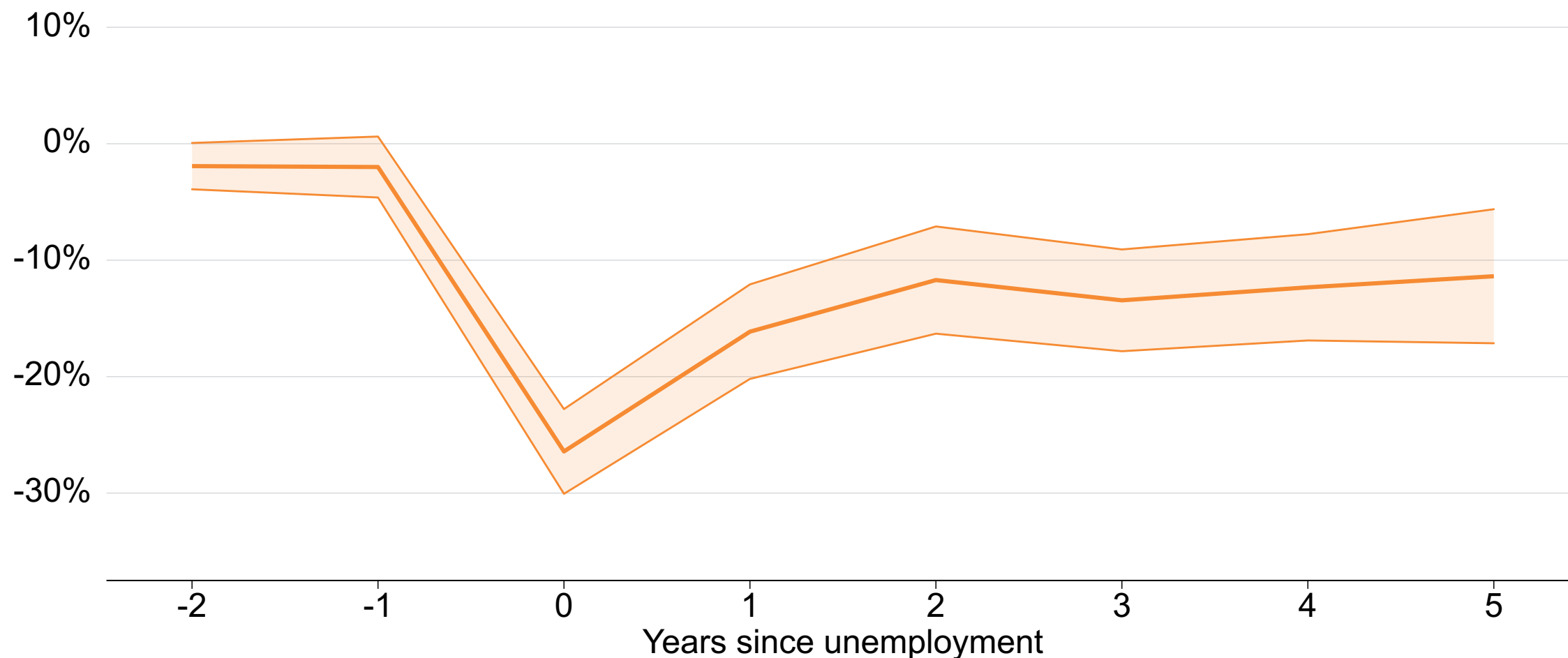


Notes: Estimates are shown as percentage changes relative to average labour income in the year before unemployment. They are derived from a regression of labour income on periods of unemployment and NILF, controlling for factors that affect income over the life cycle. Shaded regions are two-standard-error bands. For details, see https://grattan.edu.au/report/no-one-left-behind-why-australia-should-lock-in-full-employment/.
Source: Grattan analysis of HILDA Release 20.0.

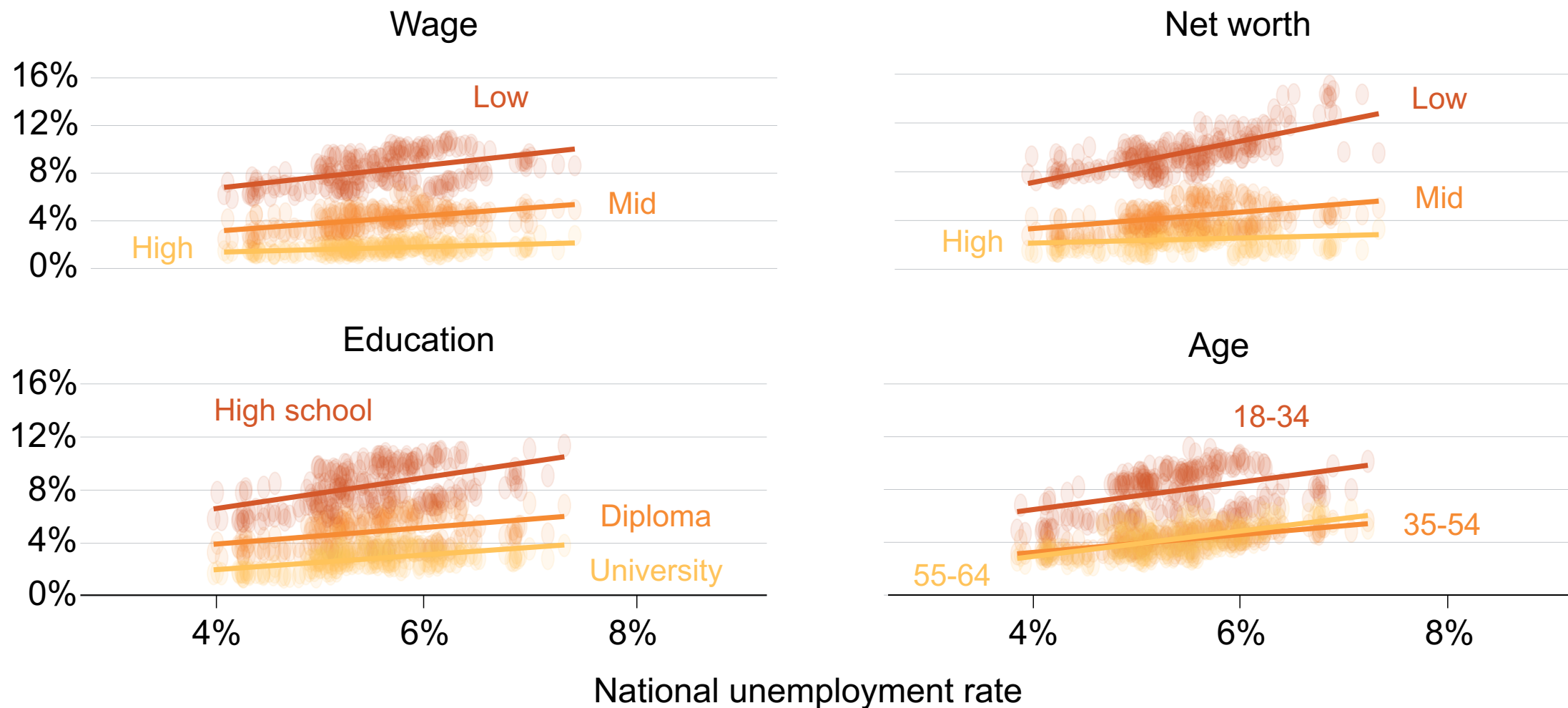# Australians had weak wages growth in the decade prior to COVID

Annual growth in the Wage Price Index

# Disadvantaged groups benefit most when unemployment falls

Group-specific unemployment rate against national rate, monthly

## Wage

## Net worth

## Education

## Age

National unemployment rate

*Notes: Each dot represents monthly unemployment rate over July 2000 until June 2020. Group-specific unemployment rates are derived from HILDA employment calendars, weighted by the cross-sectional responding person weights, and seasonally adjusted using X-13ARIMA-SEATS.*
*Sources: Grattan analysis of HILDA Release 20.0 and ABS 6202.0.*

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# Growth in per person GDP over the century has been extraordinary

Real GDP per capita, 2021 dollars
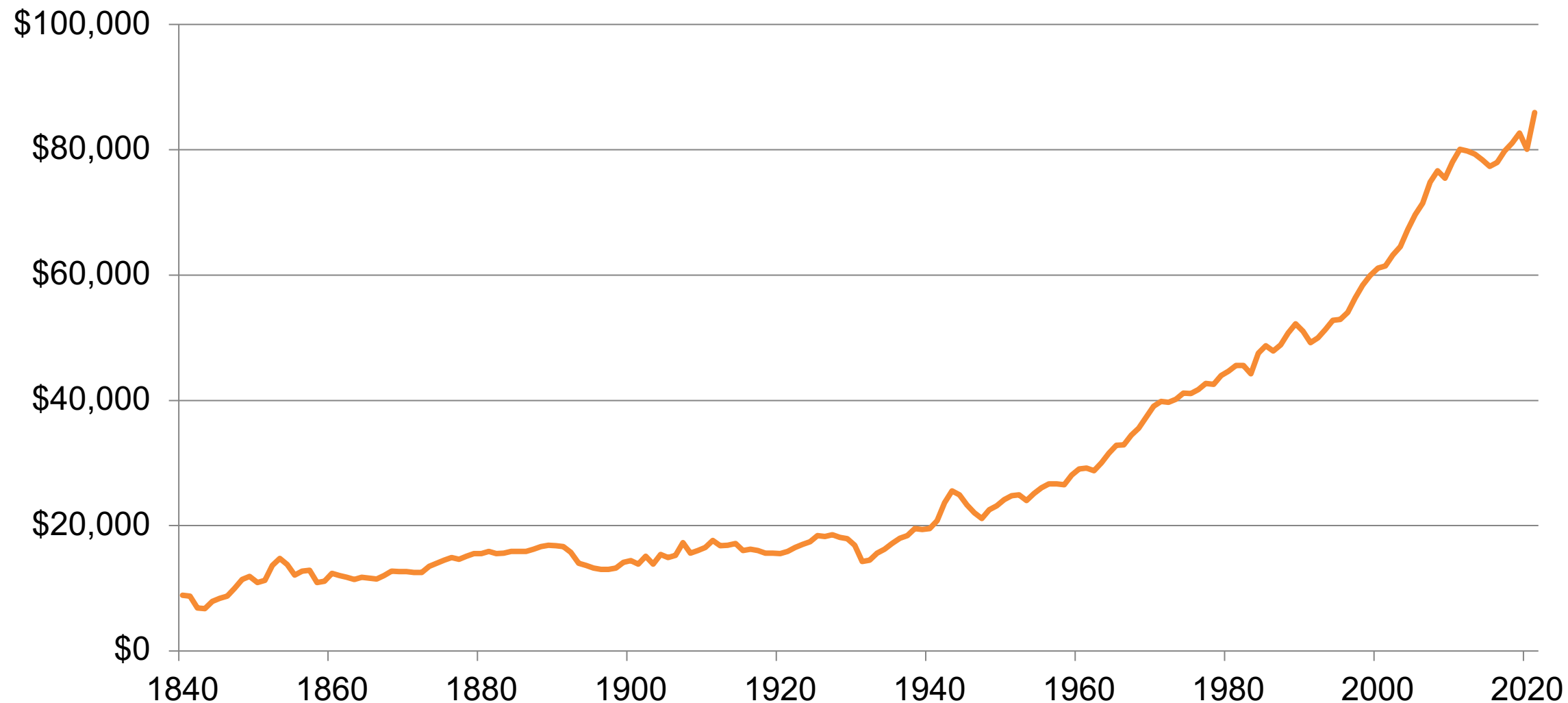
# Australia's labour productivity growth in the past decade has been the slowest in 60 years

Average annualised rate of labour productivity growth, 1960 to 2020



60-year average (1.7%)

1960-1970 · 1970-1980 · 1980-1990 · 1990-2000 · 2000-2010 · 2010-2020

*Source: Productivity Commission, 5 Year Productivity Inquiry: Australia's data and digital dividend (2022, Figure 2.2).*

# Productivity has been flatlining across industrialised economies

Total factor productivity, indexed to 1960=1
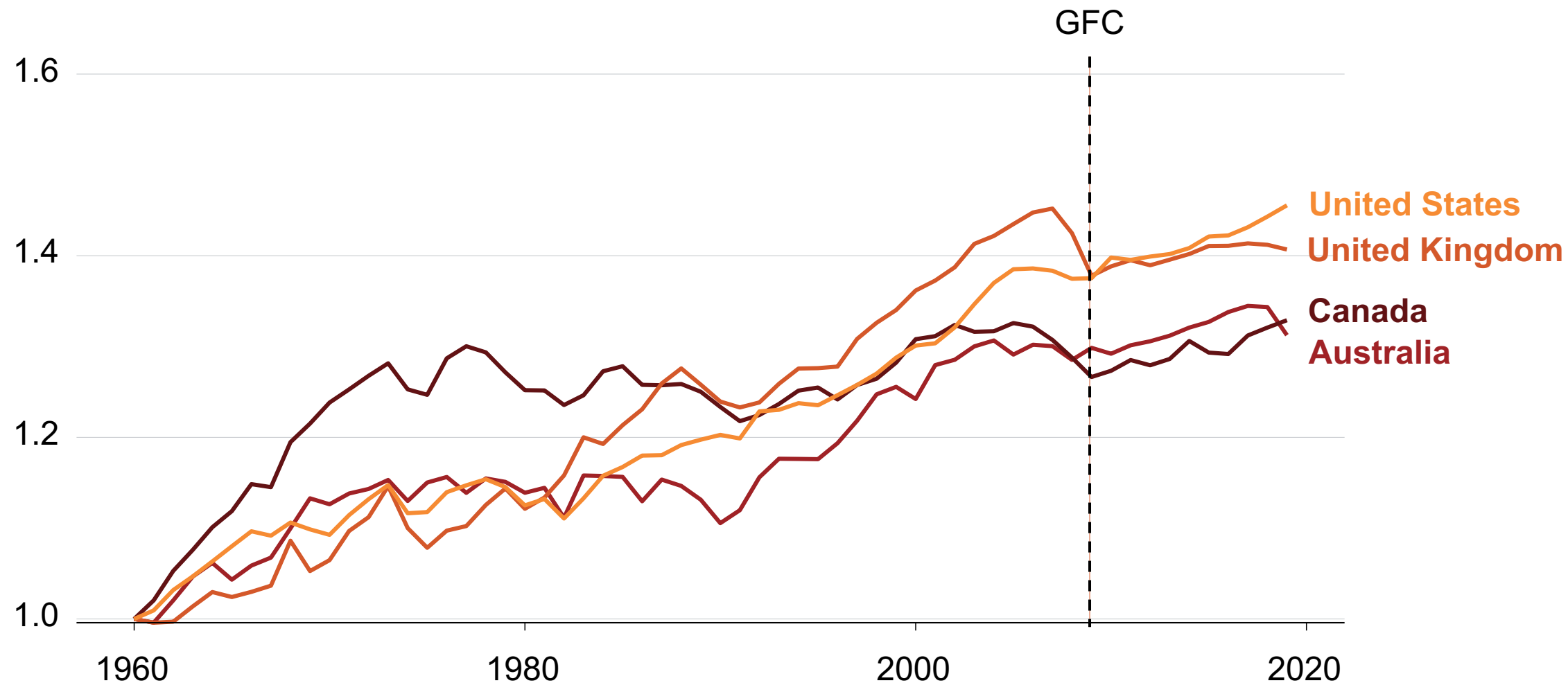


GFC

1.6

1.4

**United States**
**United Kingdom**

**Canada**
**Australia**

1.2

1.0

1960        1980        2000        2020

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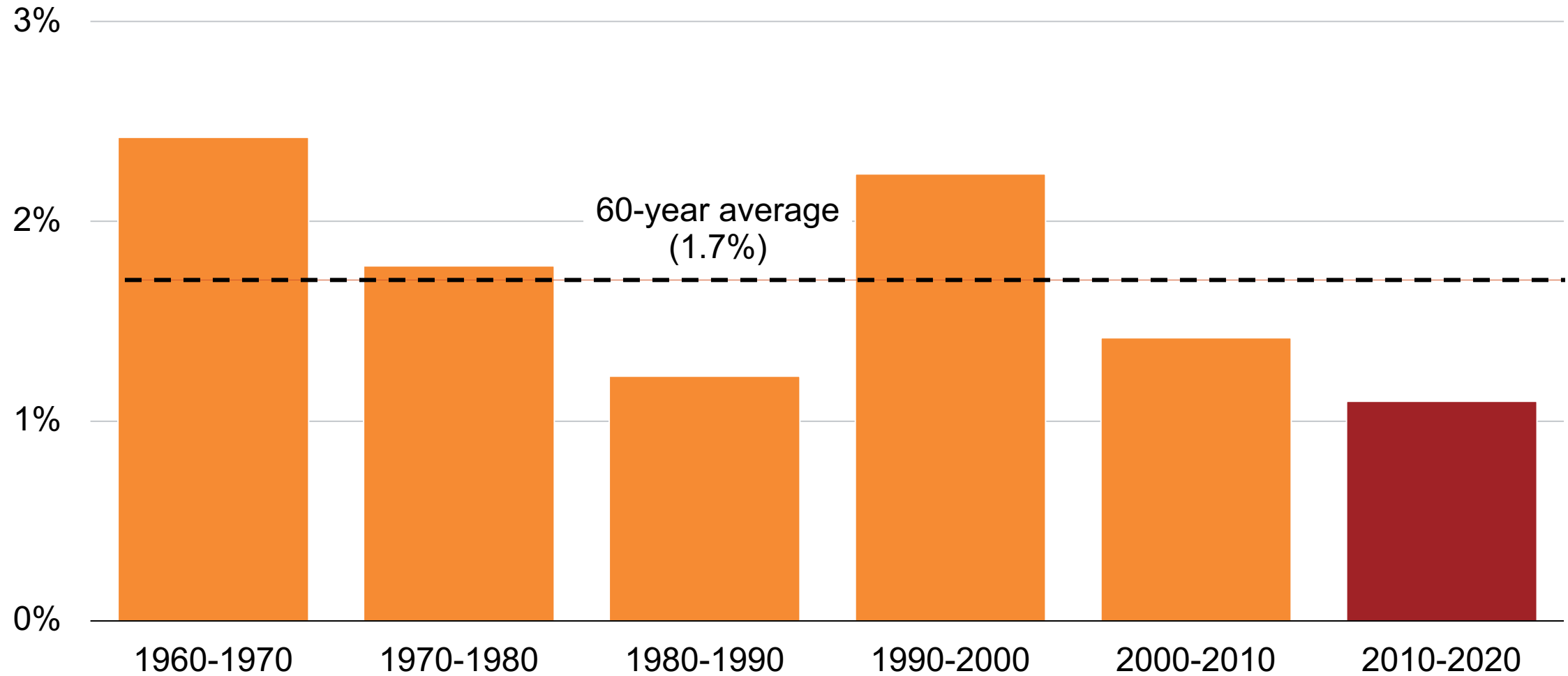
**The changing Australian economy**
The march of the services sector
An industrial revolution with a deadline
The future is digital

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# Australian jobs are increasingly in the services sectors

Industry share of workforce
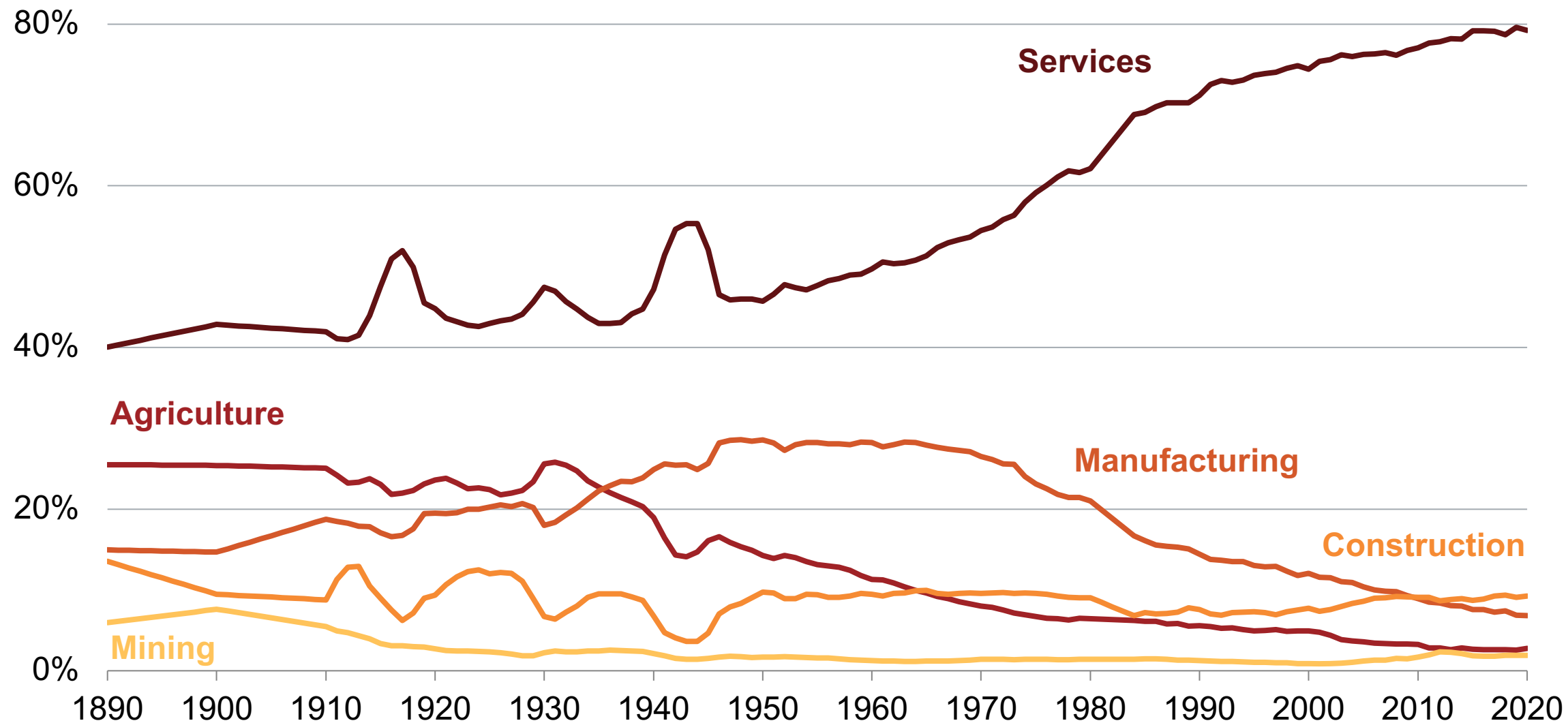
*Note: 1981-1983 are interpolated using 1980 and 1984 data.*
*Sources: 1. 1890-1980 Australian Historical Statistics: Labour Statistics, by G.Withers, T.Endes, L.Perry. 2. 1984-2020: Labour Force, Australia, Detailed, Table 4.*

# Most jobs growth in health and care, professional services, and education

Projected change in jobs from November 2021 to November 2026
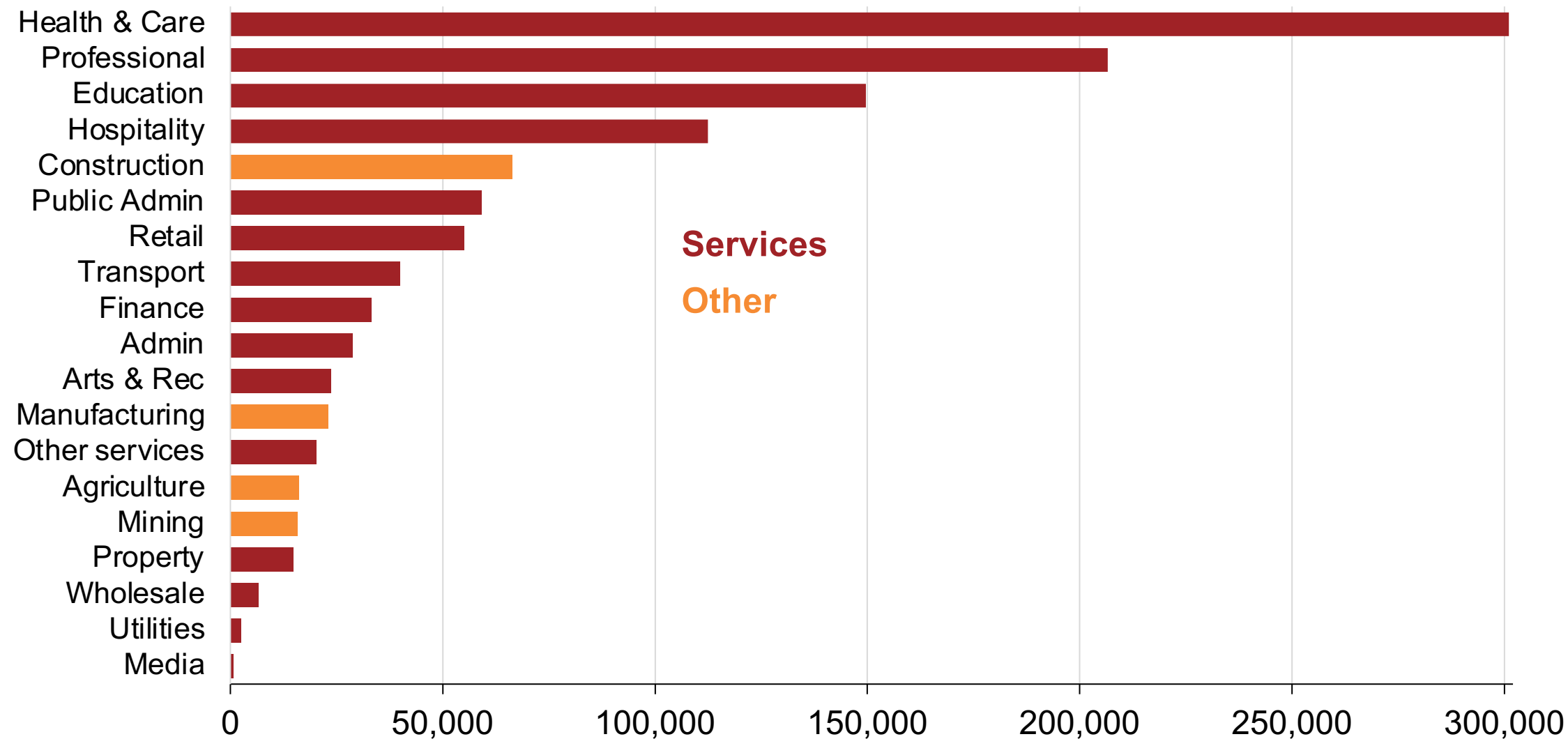


**Services**

**Other**

Health & Care
Professional
Education
Hospitality
Construction
Public Admin
Retail
Transport
Finance
Admin
Arts & Rec
Manufacturing
Other services
Agriculture
Mining
Property
Wholesale
Utilities
Media

0    50,000    100,000    150,000    200,000    250,000    300,000

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*Source: Reproduced from National Skills Commission (2022) Employment Outlook.*

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**We are not yet bending the curve on most sources of emissions**

Emissions (millions of tonnes of $CO_2$-equivalent)

*Only **electricity** emissions are projected to fall between 2020 and 2030*

Industry

Transport

Agriculture

Stationary energy (not industrial)

Waste

Land use, land use change, forestry
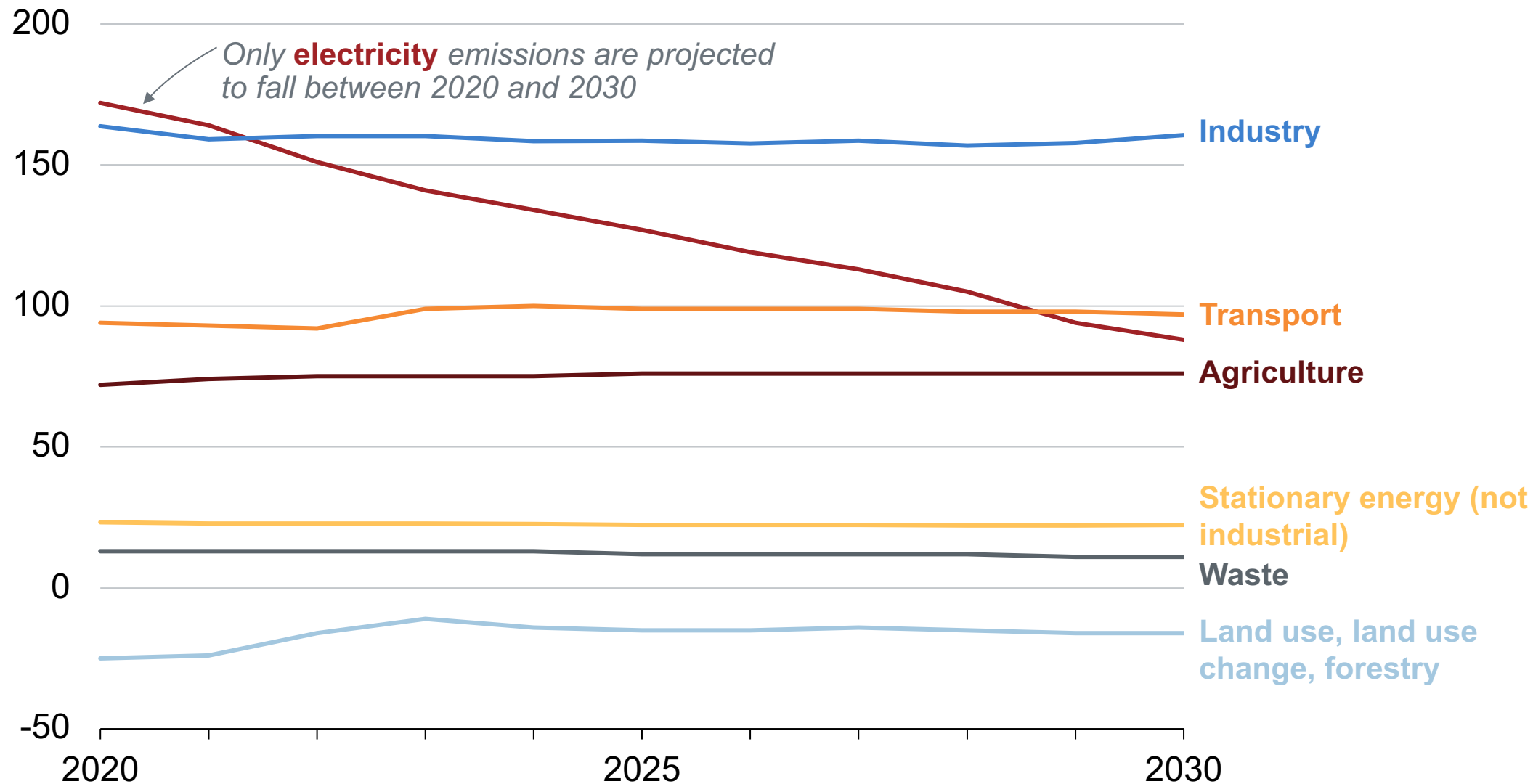
*Note: Industrial emissions comprise all Scope 1 emissions from industrial processes, all stationary energy emissions except those from the commercial and residential sectors, and all fugitive emissions except those from gas pipelines and networks. Source: Grattan analysis of DISER (2021d).*

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# Demand for critical energy minerals could fuel the next mining boom

| | % change in volume (2020-40) | % change in market value (2020-40) | Australian reserves as % global |
|---|---|---|---|
| Lithium | 4189% | 8692% | 27% |
| Nickel | 1938% | 3124% | 22% |
| Cobalt | 2133% | 3582% | 21% |
| Copper | 265% | 481% | 11% |
| Graphite | 2472% | 4919% | 2% |
| Manganese ore | 813% | 1282% | 10% |
| Rare earths | 732% | 1005% | 4% |
| Silicon | 232% | 454% | |

*Note: Australia's share of global silicon reserves is unknown.*
*Source: Grattan analysis of IEA (2021c) (volume), IEA (2021b) (value), Geoscience Australia (2020) (share of global reserves).*

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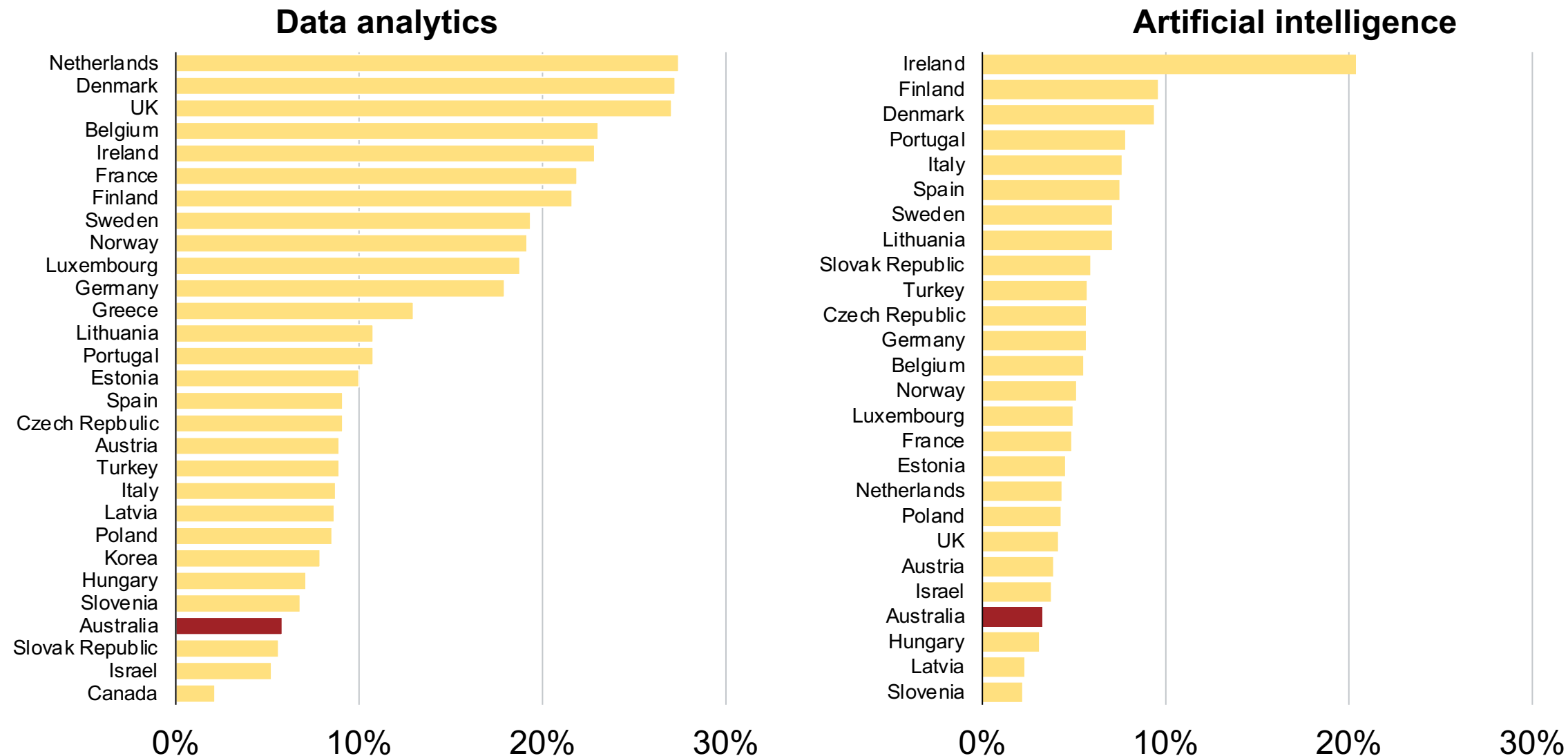**The changing Australian economy**

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# Australian businesses are trailing in use of data-driven technologies

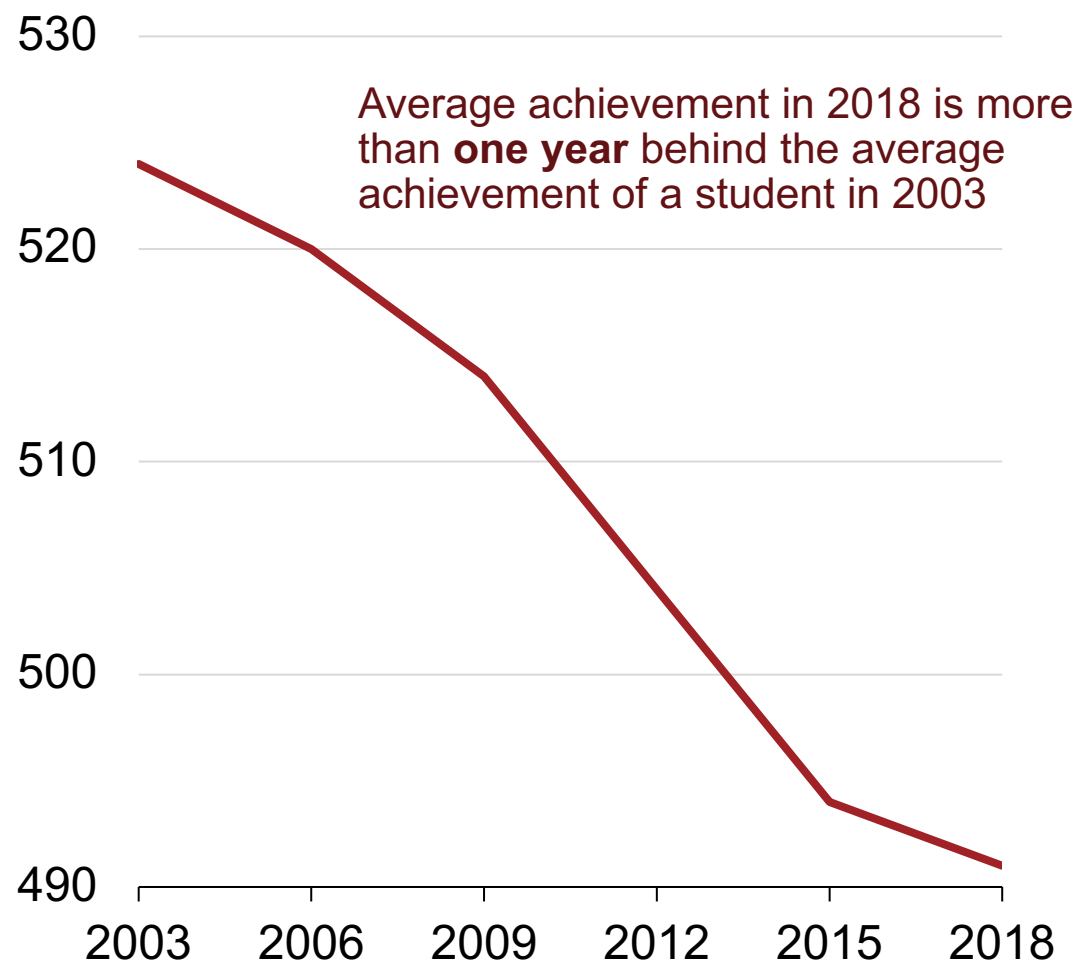Share of businesses who use data analytics (2019) and artificial intelligence (2020)



## Data analytics

| Country | |
|---|---|
| Netherlands | |
| Denmark | |
| UK | |
| Belgium | |
| Ireland | |
| France | |
| Finland | |
| Sweden | |
| Norway | |
| Luxembourg | |
| Germany | |
| Greece | |
| Lithuania | |
| Portugal | |
| Estonia | |
| Spain | |
| Czech Repbulic | |
| Austria | |
| Turkey | |
| Italy | |
| Latvia | |
| Poland | |
| Korea | |
| Hungary | |
| Slovenia | |
| Australia | |
| Slovak Republic | |
| Israel | |
| Canada | |

## Artificial intelligence

| Country | |
|---|---|
| Ireland | |
| Finland | |
| Denmark | |
| Portugal | |
| Italy | |
| Spain | |
| Sweden | |
| Lithuania | |
| Slovak Republic | |
| Turkey | |
| Czech Republic | |
| Germany | |
| Belgium | |
| Norway | |
| Luxembourg | |
| France | |
| Estonia | |
| Netherlands | |
| Poland | |
| UK | |
| Austria | |
| Israel | |
| Australia | |
| Hungary | |
| Latvia | |
| Slovenia | |

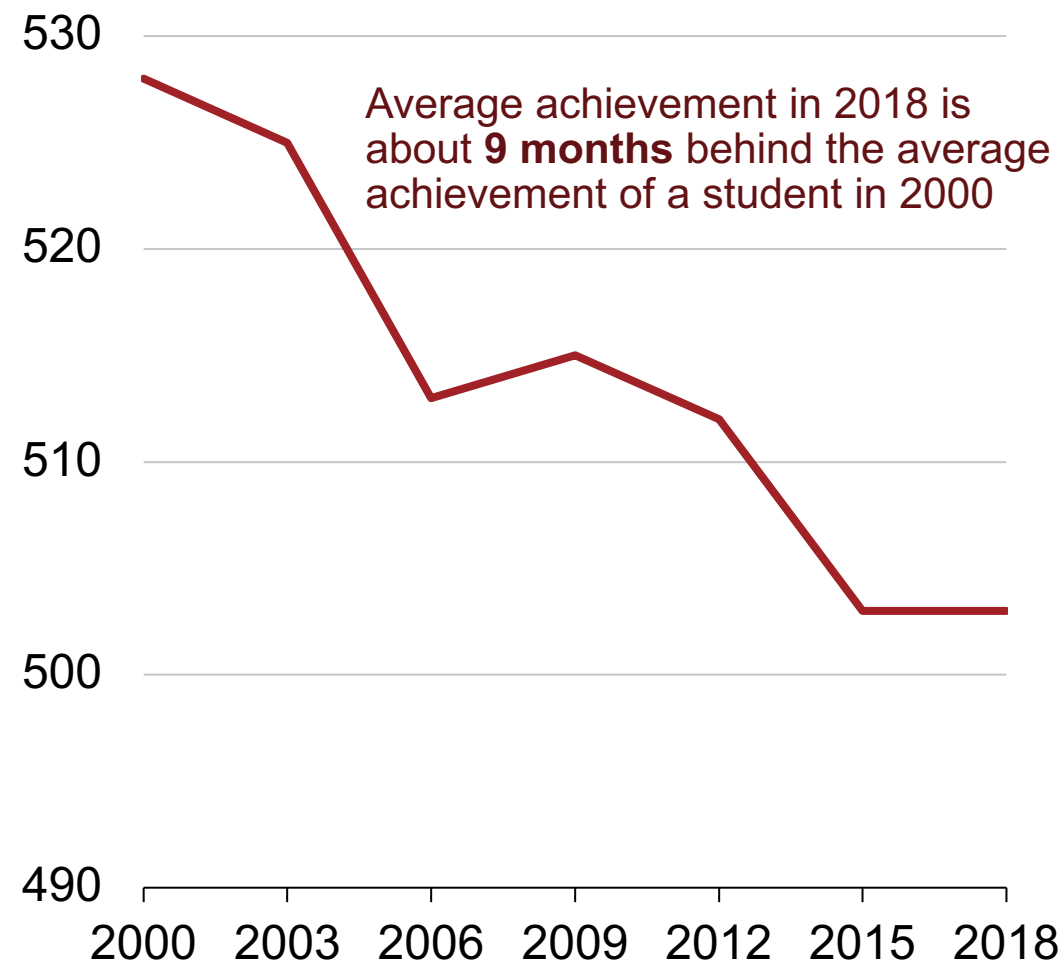*Source: Productivity Commission, 5 Year Productivity Inquiry: Australia's data and digital dividend (2022, Figure 1.12).*

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Investing in human capital
Making better use of our talent pool
Restoring economic dynamism

# Australian students' performance is declining

Mathematics: Australia's mean score in PISA (2003 – 2018)

Average achievement in 2018 is more than **one year** behind the average achievement of a student in 2003



530
520
510
500
490

2003  2006  2009  2012  2015  2018

Reading literacy: Australia's mean score in PISA (2000-2018)

Average achievement in 2018 is about **9 months** behind the average achievement of a student in 2000



530
520
510
500
490

2000  2003  2006  2009  2012  2015  2018

*Source: OECD PISA Database (2003-2018), ACER PISA 2018: Australian students' performance.*

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# The gender split in unpaid and paid work is particularly prominent in Australia

The gender gap in unpaid and paid work, in hours per day
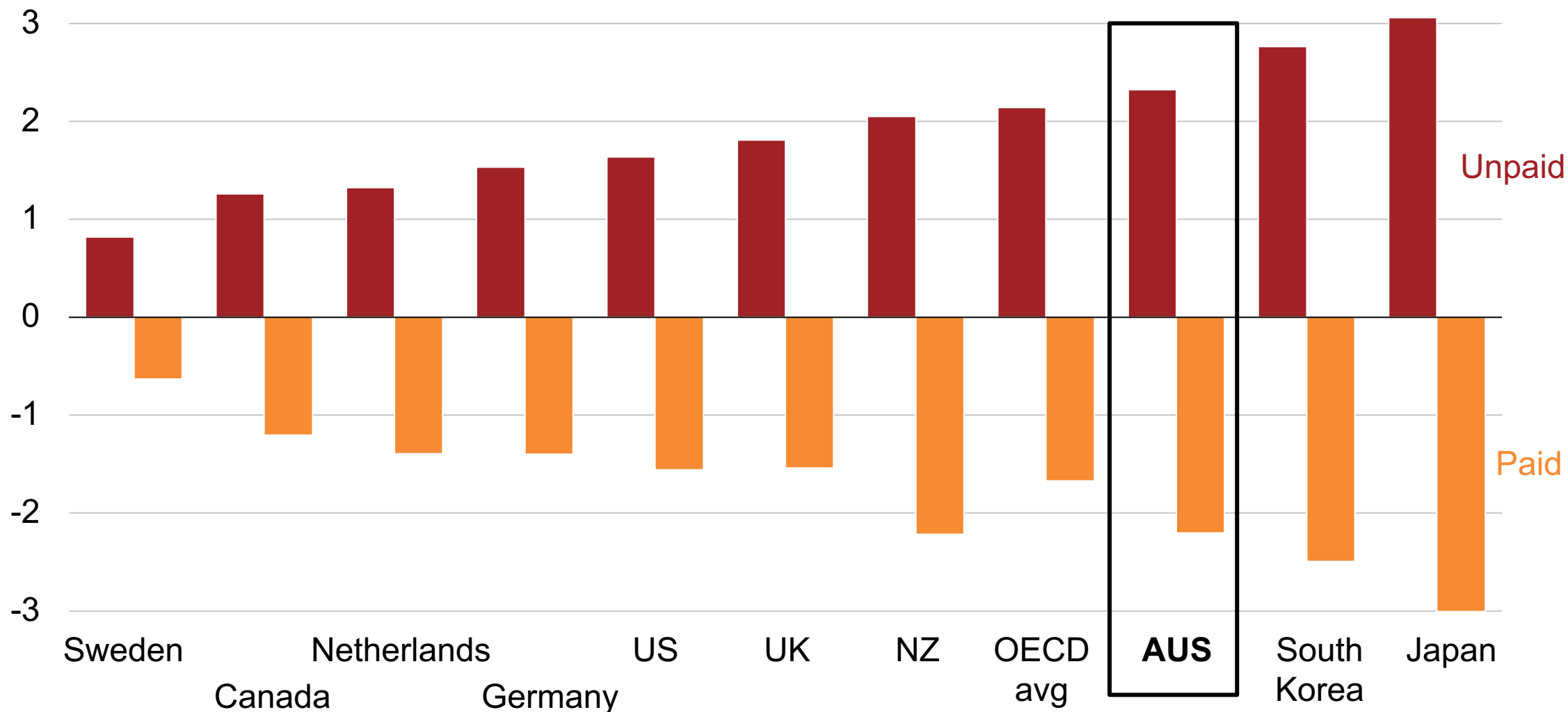


Notes: The gender gap is calculated as the average hours reported by women minus the average hours reported by men. This data was collected across various years (2002-2014).
Source: OECD.Stat https://stats.oecd.org/Index.aspx?DataSetCode=GENDER_EMP#.

# Australia invests very little in parental leave, with limited schemes for both mothers and fathers

Public expenditure on maternity and parental leaves per live birth
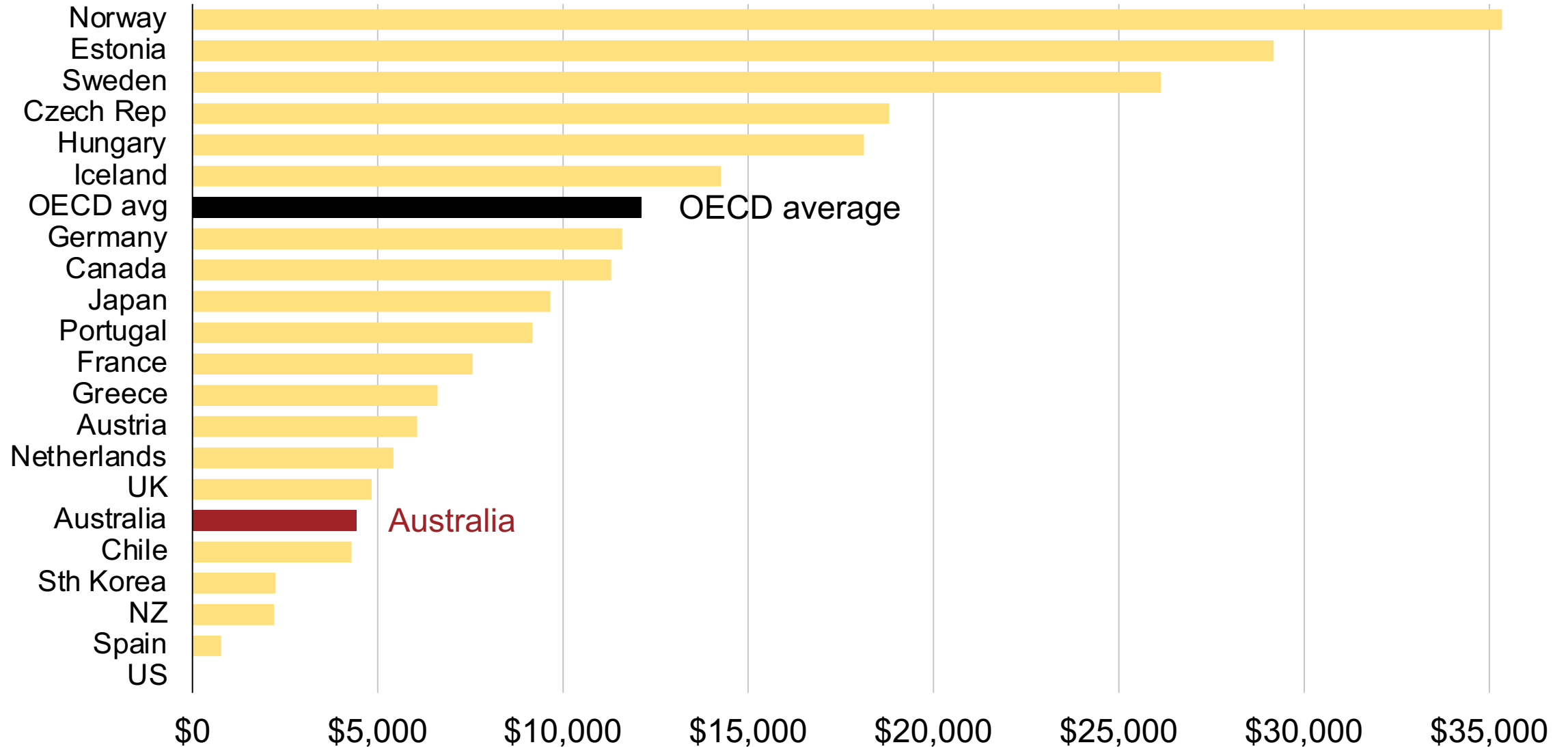
*Note: In USD 2010 PPP, 2015.*
*Source: http://www.oecd.org/els/family/database.htm.*

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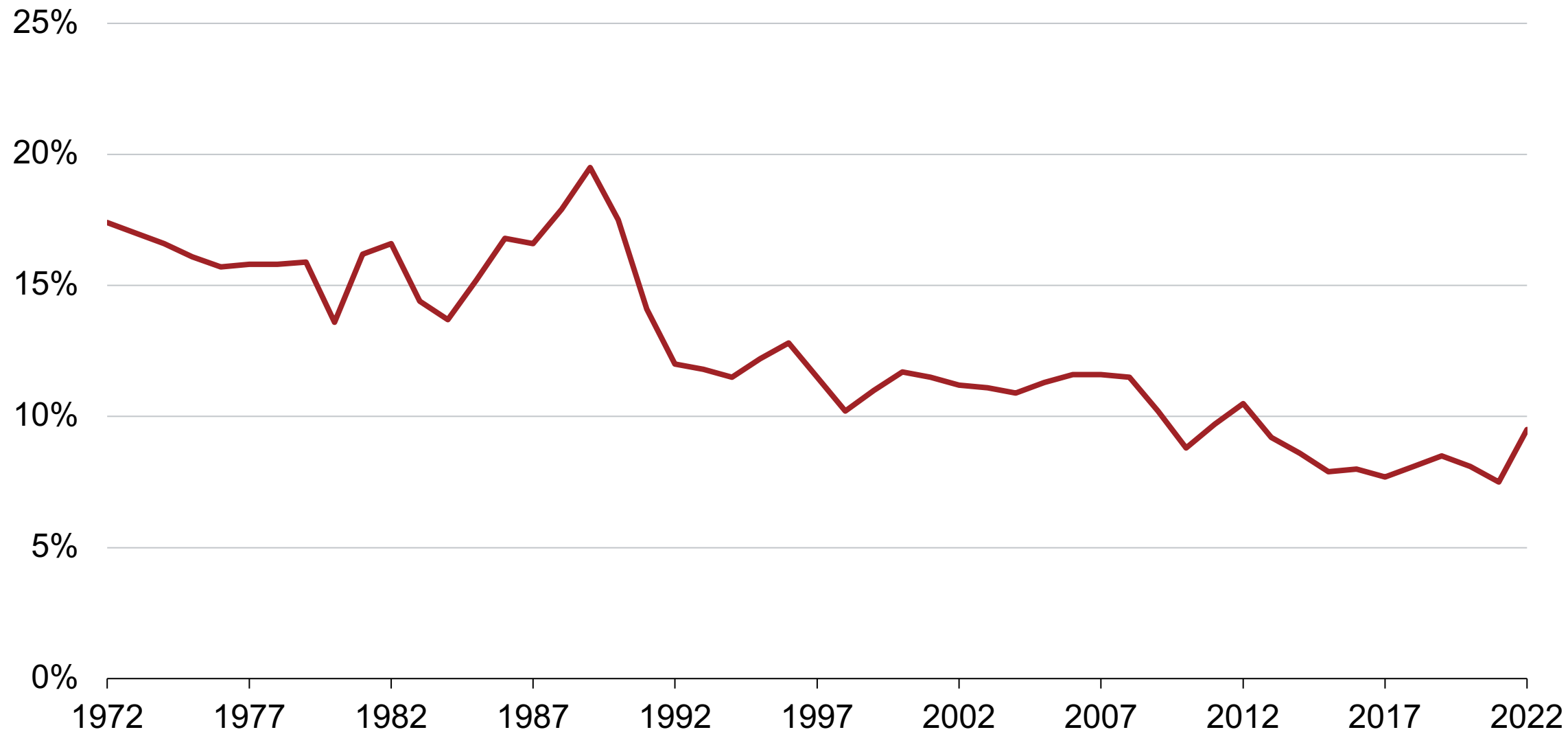
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# Job switching rates declined in the years before COVID

Proportion of employed Australians who changed jobs during the year

*Source: Andrews et al (2022) The summit needs to get us switching jobs. It'd make most of us better off, The Conversation.*

# More than one third of the most profitable firms are still the most profitable 10 years later

Return on equity quintile, initial vs after a decade
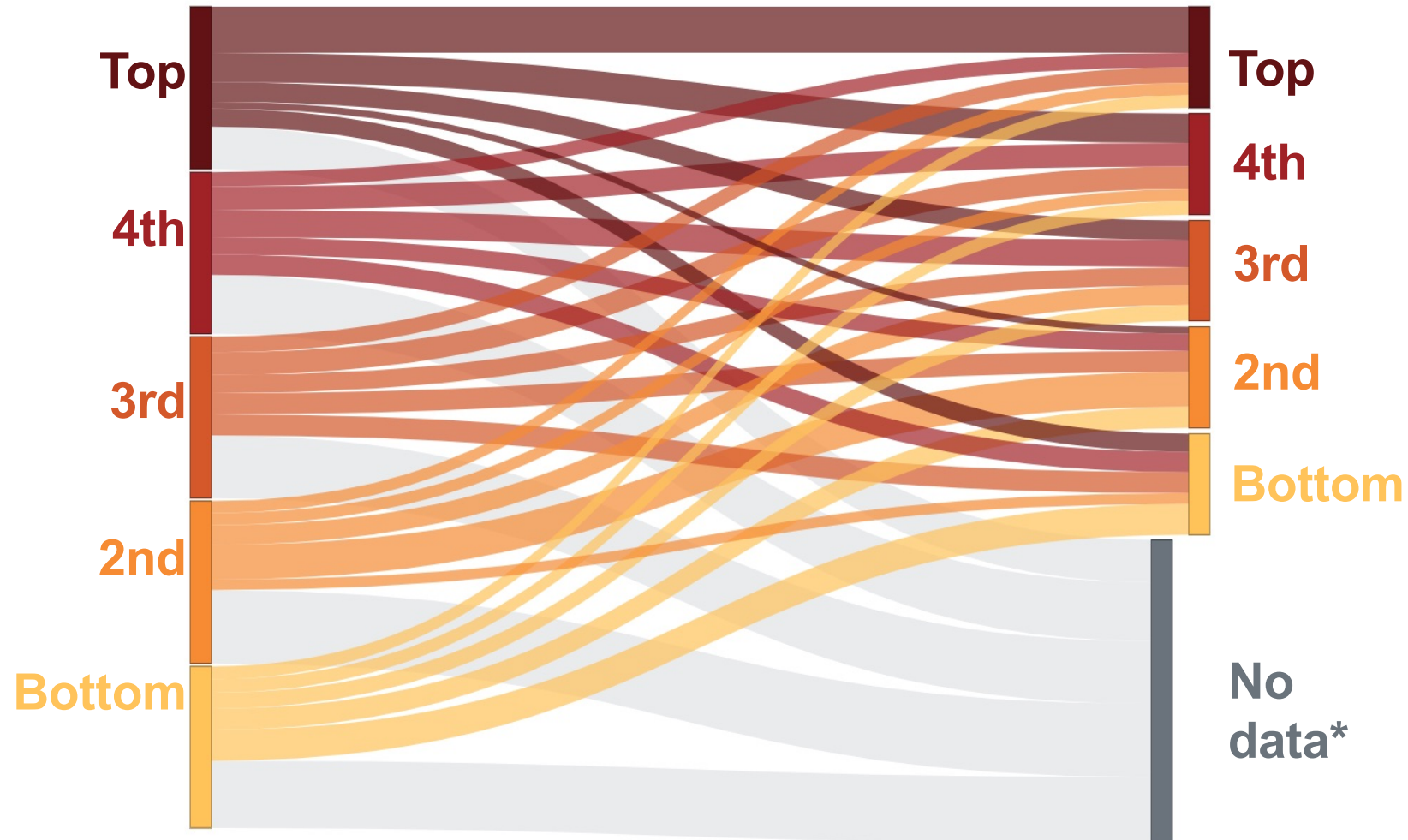


*Note: Returns are three-year averages, taken for 10-year durations between 2000 and 2015 for listed Australian firms (excluding mining).*
*Source: Grattan analysis of Morningstar DatAnalysis Premium (2017).*

# Some industries are large donors relative to their economic contribution

Share of donations by industry, 2015-16 and 2016-17
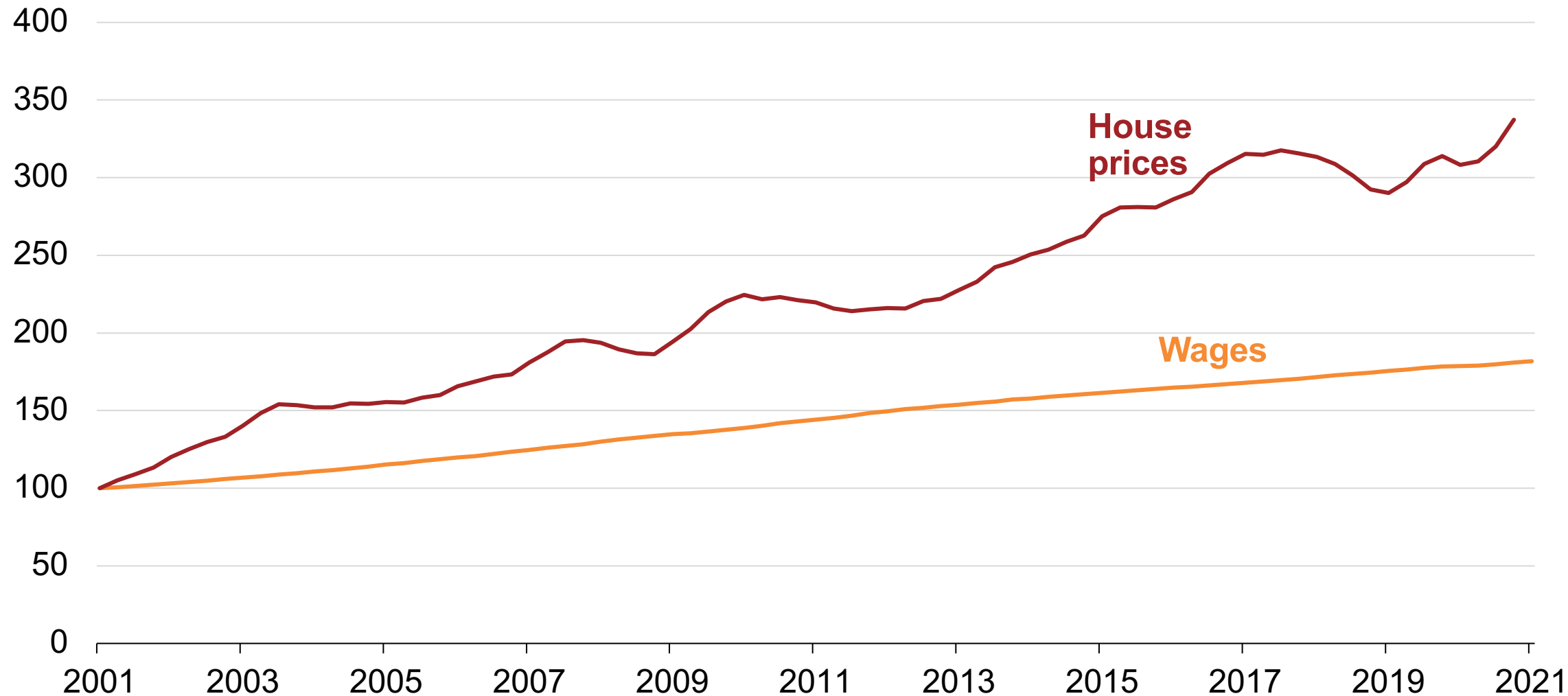


Industry share of gross value added
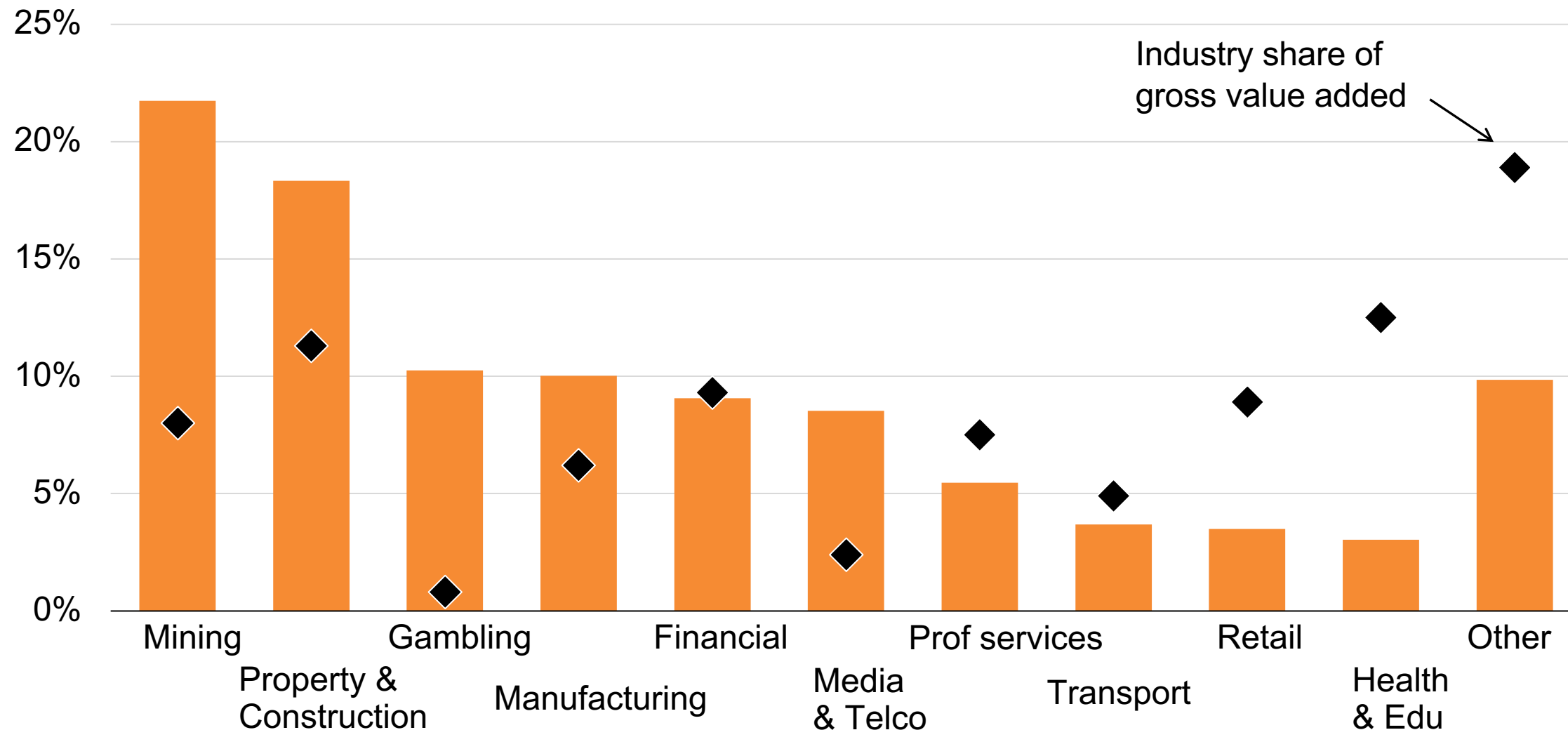
*Notes: Individuals who donated more than $60,000 have been categorised by industry if publicly available information showed they have financial interests in a given industry. The gambling industry's share of gross value added shown is all of 'Arts and Recreation', although gambling is only a subset of this.*
*Sources: Grattan analysis of party declarations to the AEC 2015-16 and 2016-17 and IBISWorld database.*

# House prices have outpaced incomes for two decades

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Nominal, index 2001 = 100



*Notes: Nominal house price growth from the Bank for International Settlements; Wages from the Wage Price Index (excluding bonuses; private and public).*
*Source: BIS (2021, H1), ABS (2021f, Table 1, 7) and ABS (2021d, Table 1)*

# Unemployment benefits have fallen relative to wages over three decades

Unemployment benefit as a percentage of median wages



21%
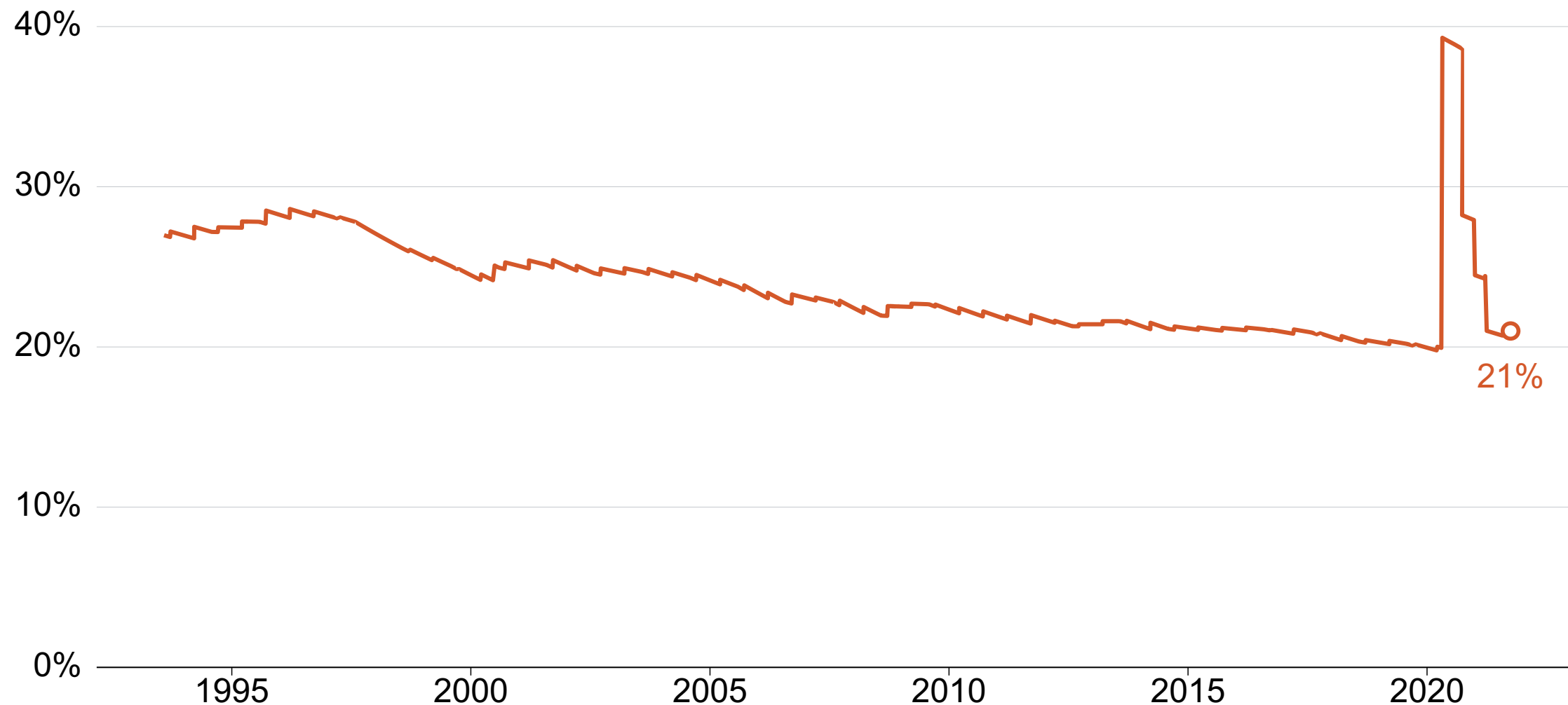
*Notes: Includes Energy and Coronavirus supplements. Excludes Rent Assistance.*
*Sources: ABS 6333.0, DSS Guide to Social Security, and Grattan analysis.*

# Thank you

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