Examining the Macroeconomic Costs of Occupational Entry Regulations (OER)

NSW Productivity Commission

Reserve Bank of Australia

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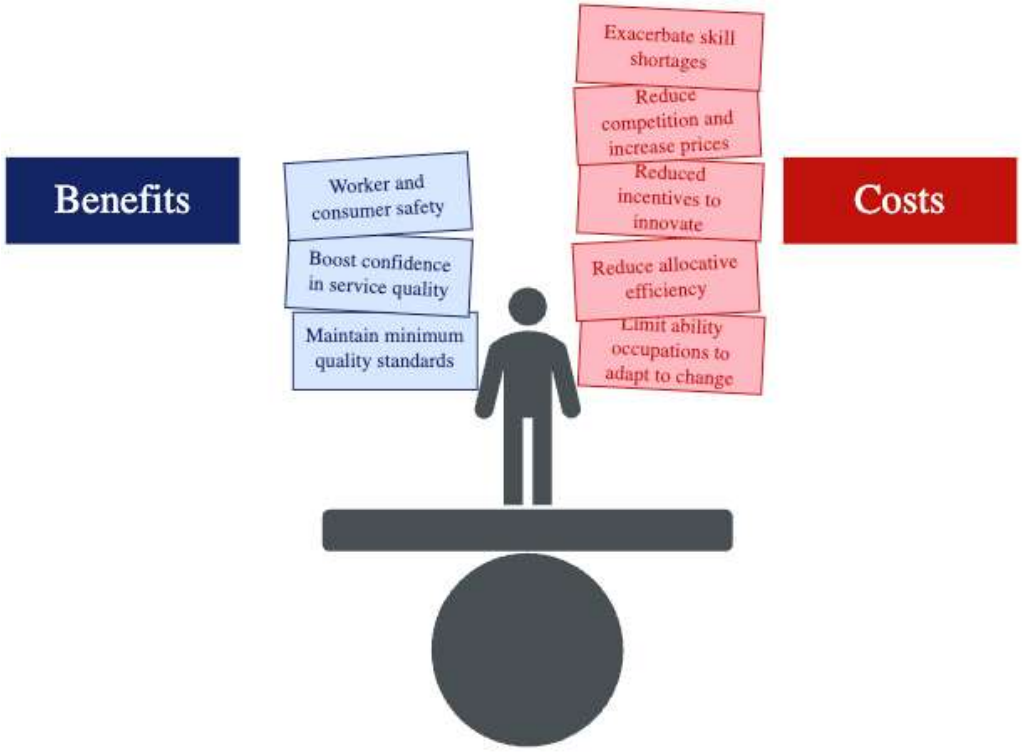
NSW Treasury

OER are widely used and involve trade offs



What this research does?

1. Measures the stringency of OER regulations for a wide range of occupations in NSW, VIC and QLD.
2. Compares stringency of select occupations in the three largest Australian states and other countries.
3. Quantify the impact of OER on rates of firm entry and exit, and the rate at which labour flows from less to more productive firms.
4. Examine the relationship between the stringency of OER and the intensity of skills shortages.

What this research does not do?

- Not a critique of OER
  - We’re not arguing that OER are bad or overly stringent.
- What we do
  - We quantify some of the economic costs linked to OER
- Why it matters
  - Research offers valuable input into future studies aiming to provide a balanced view of the costs and benefits of different OER settings

Breakdown

1. Measuring OER stringency
2. Comparison of OER stringency
3. Economic impacts of occupational entry regulations
4. Policy implications and future research opportunities

1

Measuring OER

The OECD approach to measuring OER

- We adopt the approach laid out by the OECD in Rueden and Bambalaite (2020)
- This provides a simple, single indicator of the stringency of OER that can be compared with other countries.
- The index is constructed in two steps:

1. Assess the burden imposed by restrictions.
2. Scale burden to reflect how binding the type of OER used.

Step 1: Burden imposed

Regulatory area and weighting	Description	Sub-indicators
Administrative burden (33% weighting)	Barriers to obtaining legal authorisation to practice	• Territorial restrictions[2] • Quota on authorisations granted • Registration requirements of professional associations
Qualification requirements (33% weighting)	Education requirements to enter an occupation	• Qualification pathways • University or vocational course requirements • Mandatory practice and state exams
Mobility restrictions (33% weighting)	Barriers to labour mobility between jurisdictions	• Recognition of interjurisdictional qualifications • Local exam/assessment requirements • Citizenship requirements

Each areas is scored between 0 to 6. Scores are then aggregated for each sub-indicator using equal weights and then across the three areas using an equal weighting.

Step 2: Regulatory stringency

Licence (100%)	Supervisor licence (70%)	Certification (50%)	Unregulated (0%)
Practitioner must obtain legal authorisation to practice. *E.g. only registered medical practitioners can use the protected title "Doctor" and undertake specialised activities under their registration.*	Practitioners can undertake the regulated activity under the supervision of a fully licensed professional. *E.g. a tradesperson can undertake a regulated activity, such as carpentry, without a licence if they do so under the supervision of a licensed professional.*	Practitioners can voluntarily be certified to use a legally protected title, but no one is barred from practicing. *E.g. a regulator only allows certified architects to use the protected title of "Architect" but anyone could theoretically carry out the activities associated with this profession.*	Practitioners can freely practice without any restriction.

Value is discounted based on the type of licence.

List of occupations considered

OECD list of occupations

Personal services	Professional services
Aesthetician	Accountant
Baker	Architect
Butcher	Civil engineer
Taxi driver	Lawyer
Driving instructor	Real estate agent
Electrician	
Hairdresser	
Painter/decorator	
Plumber	
Nurse	

Occupations groups applied

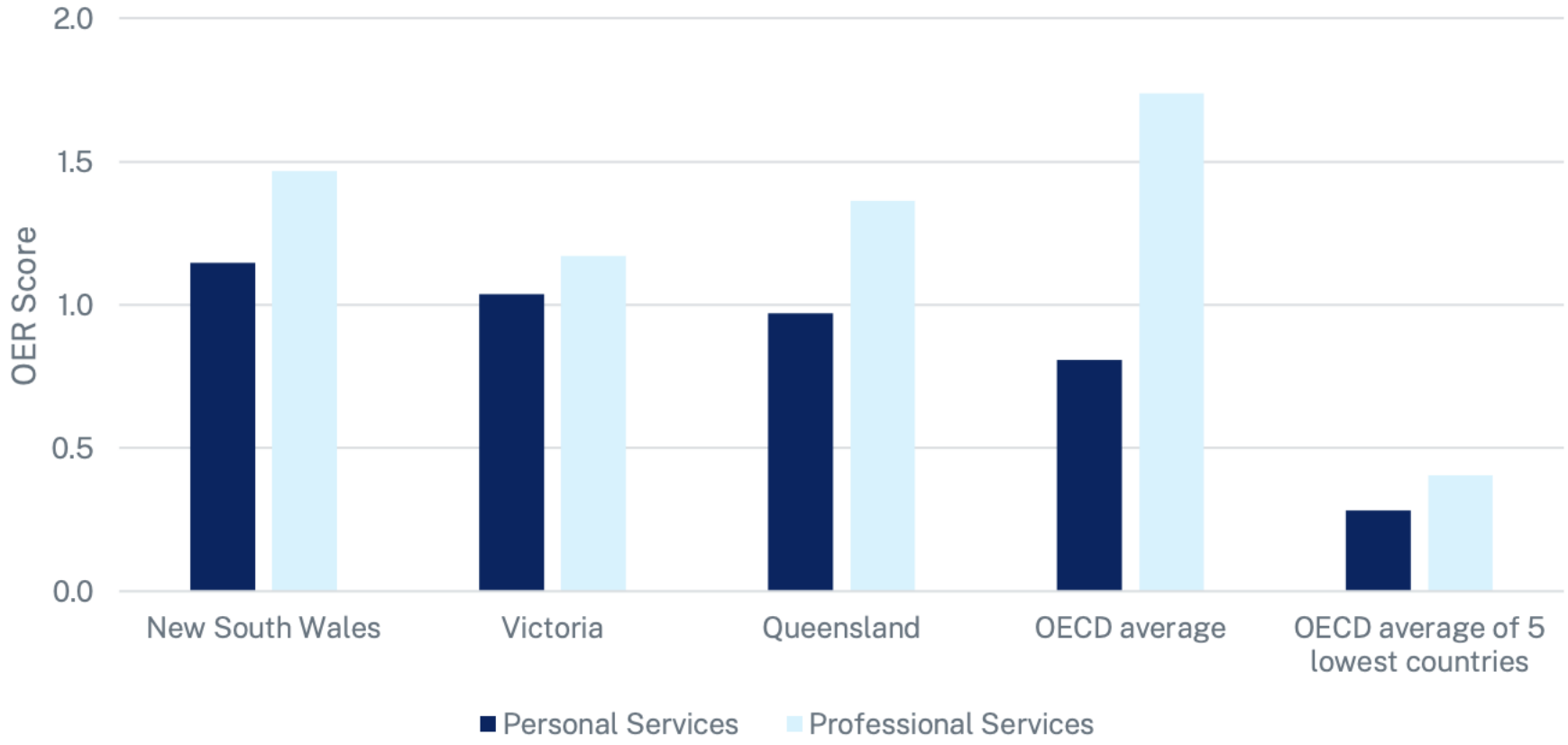
Occupation group	New South Wales	Queensland	Victoria
1. OECD's 15 occupations	Applied	Applied	Applied
2. 15 selected building and construction occupations	Applied	Applied	Applied
3. Top 100 most common occupations in New South Wales	Applied	Not applied	Not applied

2

Comparison of OER stringency

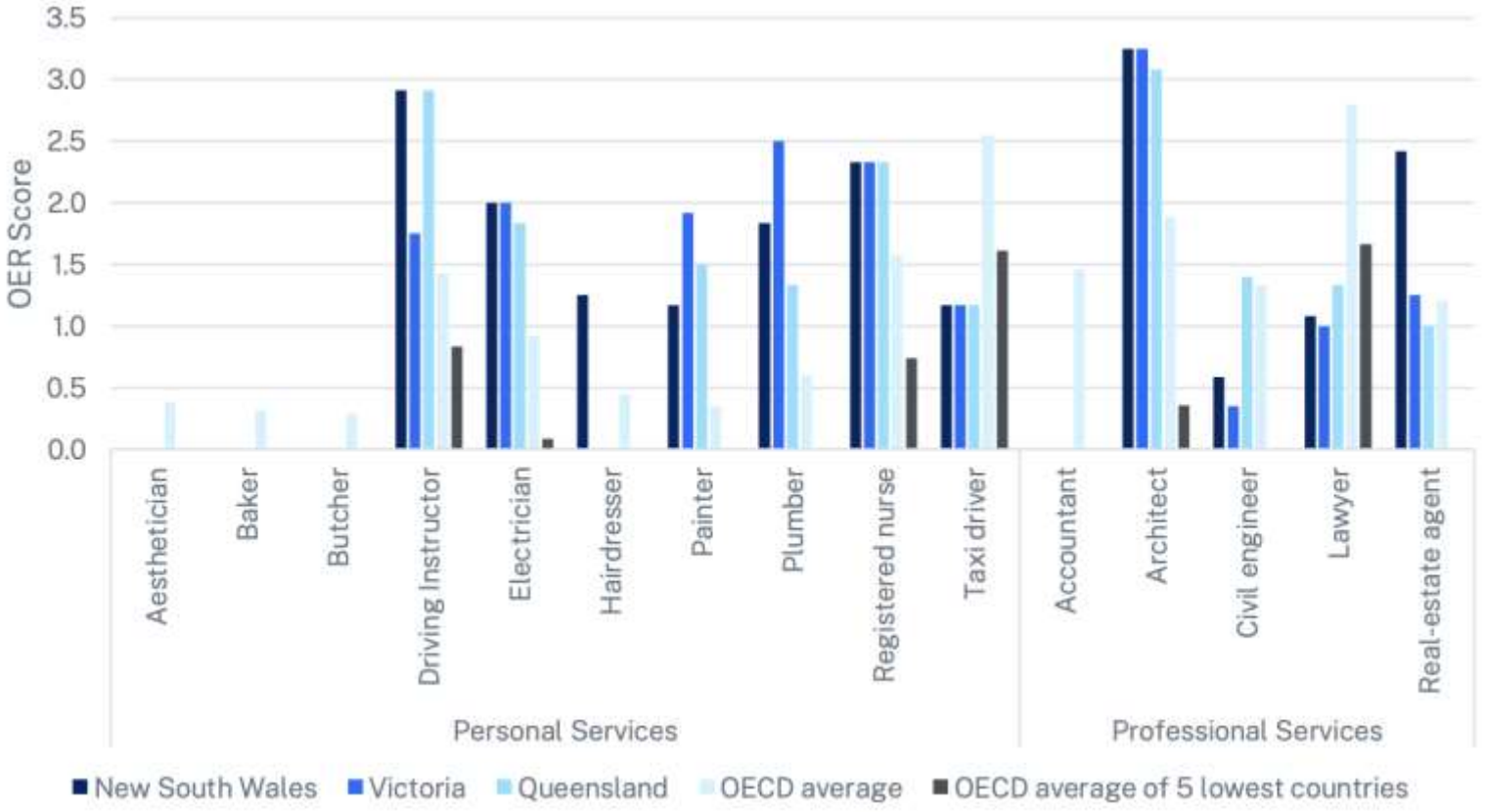
Australia's OER more stringent for Personal Services occupations than other OECD countries

OER stringency across OECD list of occupations



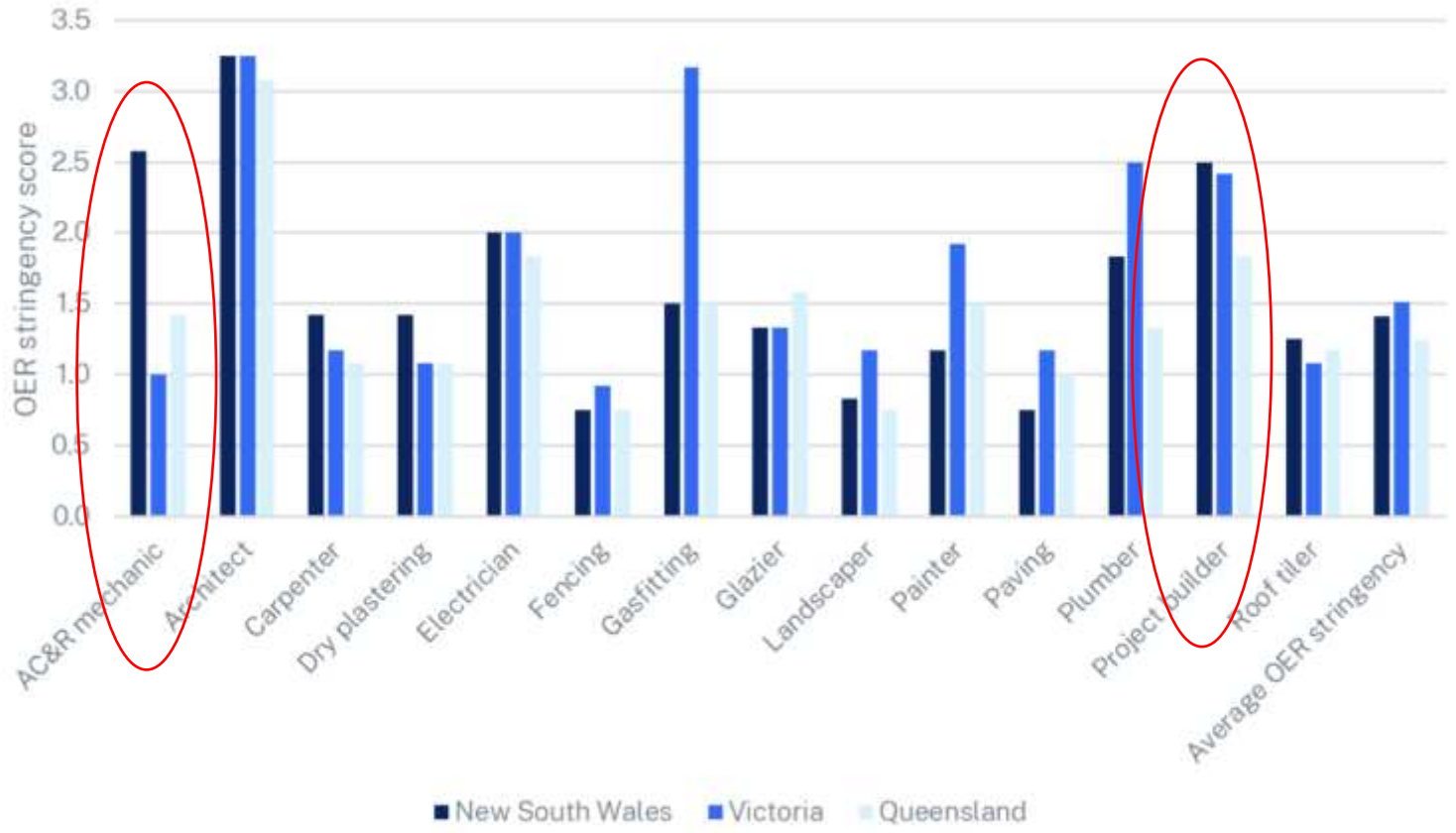
Australian OER more stringent for electricians, painters, plumbers, nurses and architects.

OER stringency across select list of occupations



Construction sector – NSW has stricter requirements for AC&R mechanics and project builders

OER stringency across select construction-related occupations



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Economic impacts of OER

Scope

- Focus on subset of OECD occupations that can be easily mapped into industry classification.
- Sample includes NSW, VIC and QLD.
- Key variables assessed include business entries, exits and flow of labour to more productive businesses. This is sourced from ABS BLADE from 2003 to 2019.

List of occupations included

Occupation	ANZSIC industry code
Baker	1172, 1174
Butcher	4121
Electrician	3232
Hairdresser	9511
Painter	3244
Plumber	3231
Taxi driver	4623
Accountant	6932
Architect	6921
Civil engineer	3101, 3109, 6923
Lawyer	6931
Real estate agent	6711, 6712, 6720

OER reduce business entries and exits

$$Rate_{i,s} = \alpha_i + \beta * OER_{i,s} + \varepsilon_{i,s}$$

- Rate is measure of entry and exit rate for industry *i,* state *s* on average over 2003 to 2019.
- OER stringency
- *a* captures industry fixed effects
- Coefficient of interest is *B*

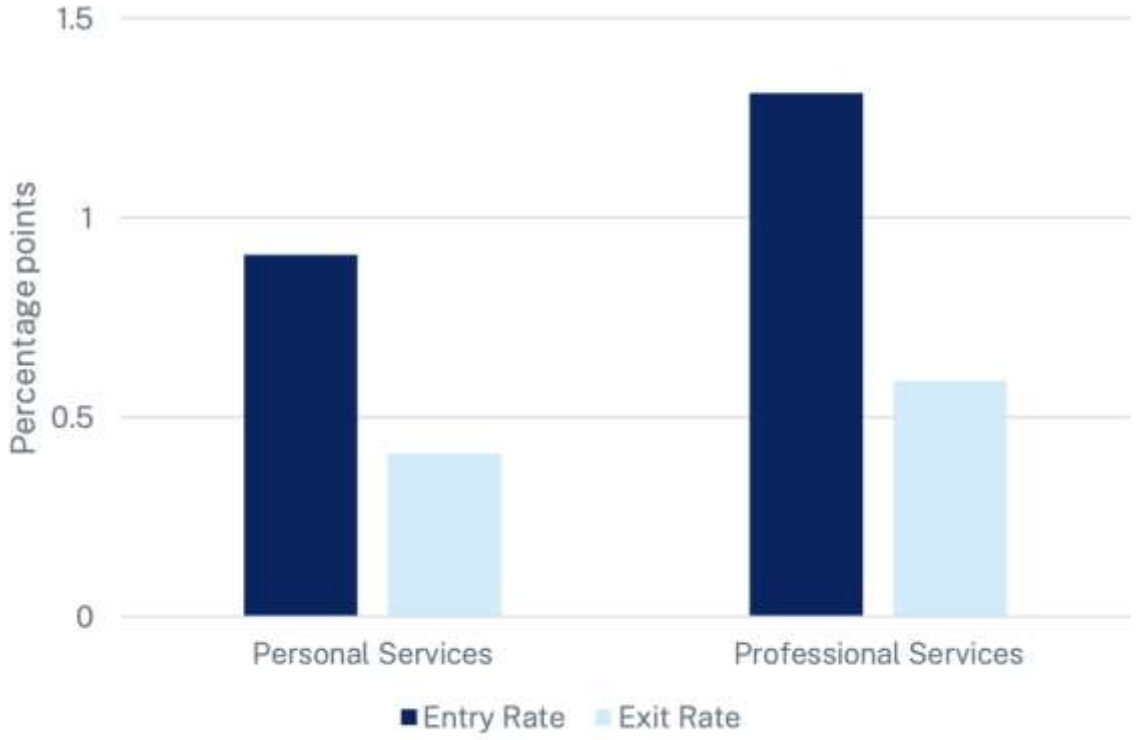
	All firms	Employing firms
Entry rate	-1.11***	-1.13***
(Standard error)	(0.38)	(0.40)
Industry controls		
Observations	42	42
R-squared	0.798	0.862
Exit rate	-0.50*	-0.54*
(Standard error)	(0.25)	(0.29)
Industry controls		
Observations	42	42
R-squared	0.898	0.903

OER impact on business entries and exits are material

If OER reduced to OECD lows

- Entry rates would be one percentage point higher.
- Lowering OER could offset around 1/5 of the decline in entry rates observed for last 20 years.
- Exit rates would be around 0.5 percentage points higher.

Improvement lowering OER in NSW to OECD lowest



OER make it harder for the productive businesses to expand

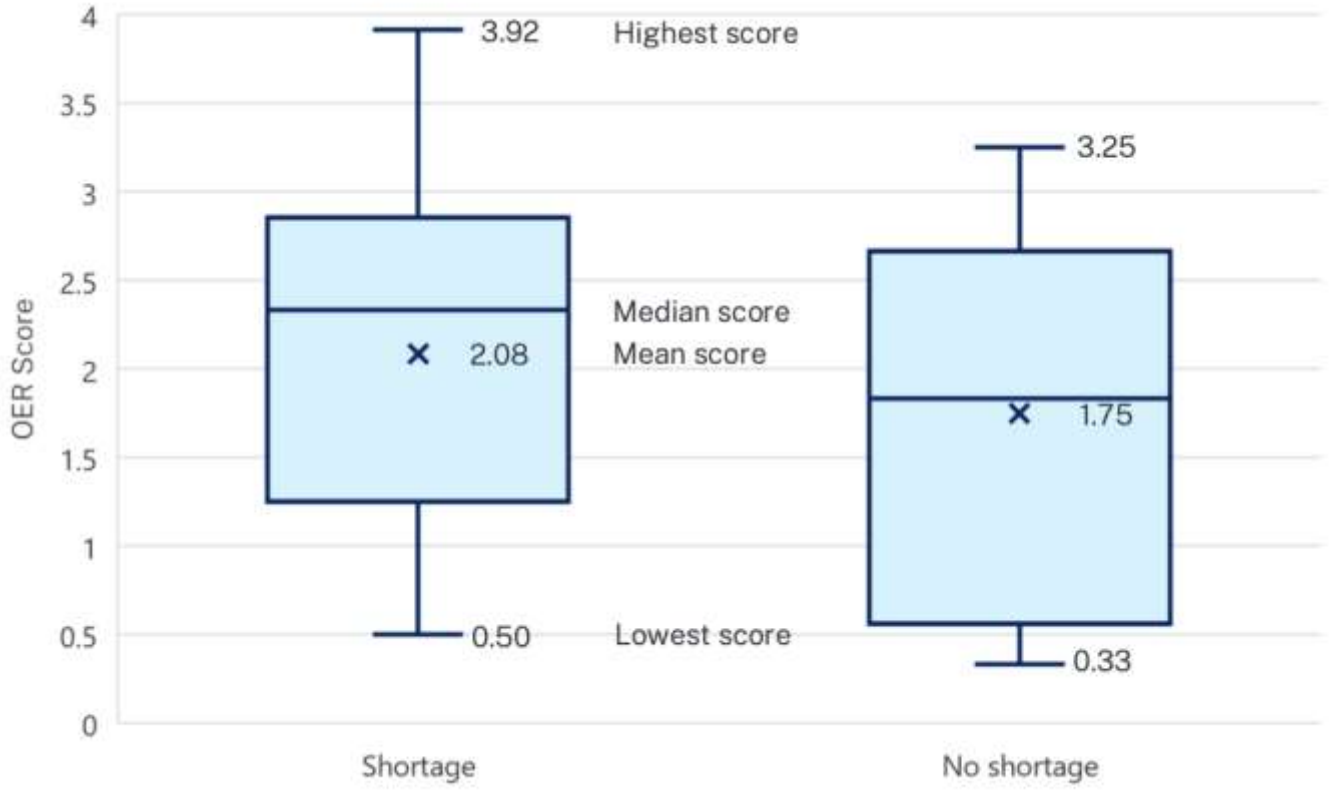
$$\Delta Empl_{f,s,i,t} = \alpha_1 + \alpha_2 * Productivity_{f,s,c,t-1} + \alpha_3 * Productivity_{f,s,c,t-1} * OER_{s,c} + \gamma * X_{f,c,s,t} + \alpha_{s,i,t} + \varepsilon_{f,s,i,t}$$

- *Empl* is the employment growth of firm *f* in industry *i,* in state *s* and at time *t*
- *Productivity* is their labour productivity in previous period
- *X* contains firm level controls including size and sales growth
- State and industry time fixed effects are included to capture effects of economic cycles on employment.
- Coefficient of interest is a_3

	Industry-by-productivity control	Industry-by-productivity control, since 2012
	(1)	(2)
Productivity	4.71***	3.76***
(Standard error)	(1.12)	(1.03)
Productivity*OER	-0.37**	-0.51**
(Standard error)	(0.15)	(0.22)
Controls		
Productivity*Industry	Y	Y
Observations	708,591	406,903
R-squared	0.061	0.058

Stringent OER may be contributing to skill shortages

- OER tend to be more stringent for occupations facing skill shortages than those not facing shortages.
- Based on sample of 40 of the most common occupations in NSW with OER.



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Conclusion

Conclusion and further work

- OER in Australia are **slightly more stringent** than the average OECD country for personal services, but **significantly more stringent** than least regulated OECD countries.
- There are **notable differences across states**, with **NSW generally having more stringent regulations** compared to VIC and QLD.
- **OER imposes macroeconomic costs** including reduced business entry and exits, slower reallocation of labour from less to more productive firms and weaker competition, higher consumer prices.
- There is also **evidence linking more stringent OER with skill shortages** in affected occupations.
- This work offers **important insights for regulators** when assessing changes to OER.
- **Future research** could track how OER have evolved over time, helping us understand their contribution to the **decline in economic dynamism and productivity growth** through the 2010s.

NSW Productivity and Equality Commission

Released an accompanying report that highlights some areas that warrant OER review such as:

- Hairdressers
- Air conditioning and refrigeration mechanics
- Project builders

Also highlight that recognition of interstate and international licences can reduce OER stringency with minimal risk to consumers.