

Presented at the FID Working Week 2023,
26 May - 1 June 2023 in Orlando, Florida, USA

Determining the Future Demand, Supply and Skills Gap for Surveying & Geospatial Professionals: 2022 to 2032



ASSOCIATION OF CONSULTING SURVEYORS NATIONAL

- ➔ Our mission is to promote, represent and support surveyors and businesses across Australia
- ➔ The Association:
 - Provides training and educational opportunities
 - Represents the profession at a national level
 - Raises the profile of the profession
 - Delivers benchmark reports including Hourly Rates, Salary and Skills Shortage reports



THE RESEARCH

➔ Its purpose:

- Understand the current and future demand and supply of surveying and geospatial professionals
- Provides data that can be used across the board

➔ How is this research used?

- Advocacy to create change
- Helps the education sector



CONTRIBUTORS



NSW Country Surveyors Association



Environment,
Land, Water
and Planning



Thank you to
the nationwide
contributors

WHAT DOES IT INCLUDE?

1

Size of the surveying and geospatial professional workforce in 21/22

2

Forecasts for skills demand based on the future outlook of industries serviced

3

Compares the demand forecast for skills against the outlook for the existing workforce

4

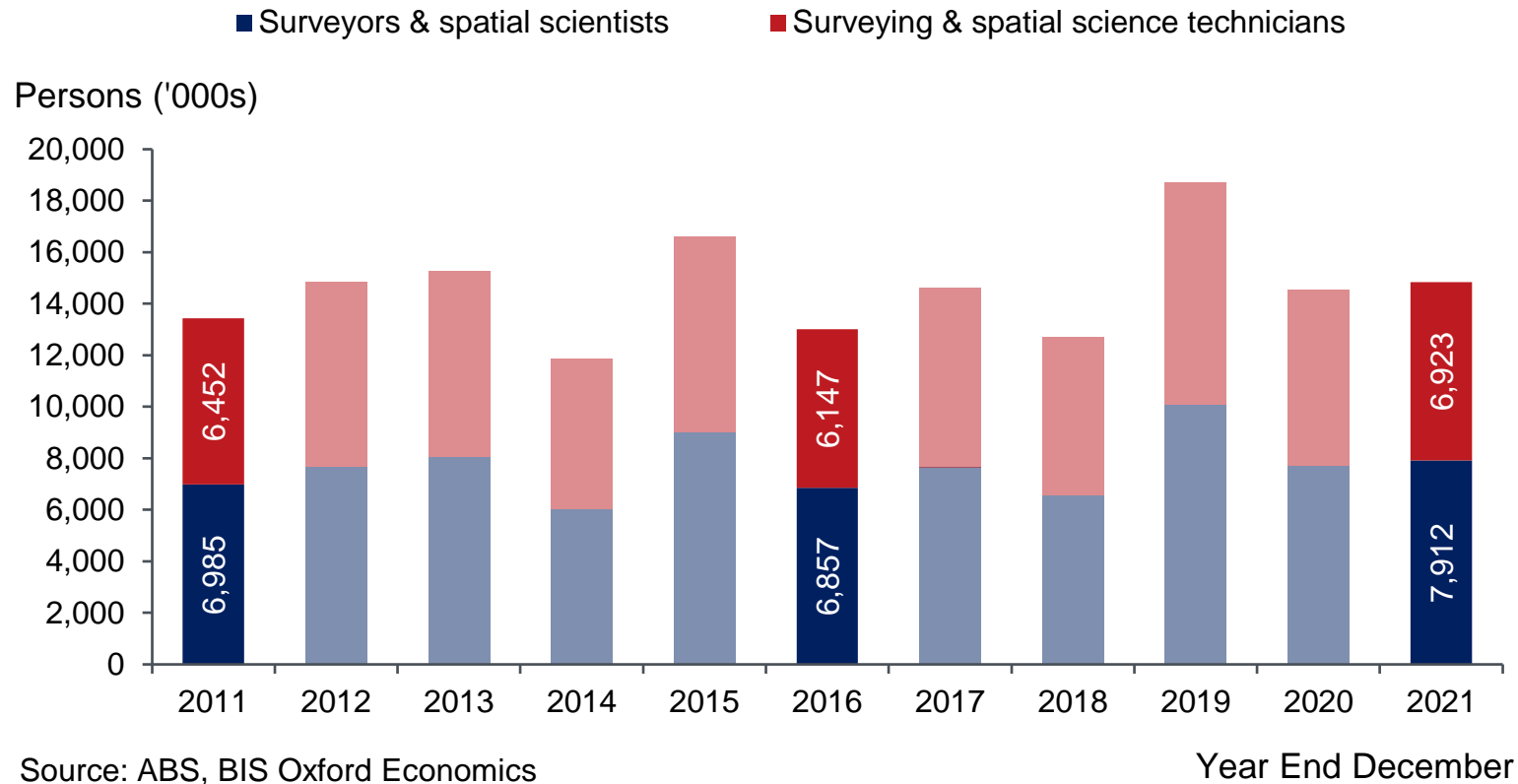
Contrasts workforce gaps against the outlook for new skills supply through uni & vocational graduates

5

Highlights the implications for the profession and beyond

EMPLOYMENT FIGURES

Surveyors and Spatial Scientists + Technicians



Surveyors & Spatial Scientists

2016 Census: 6,857

↑ 1,055 (+15.4)

2021 Census: 7,912

Surveyors & Spatial Science Technicians

2016 Census: 6,147

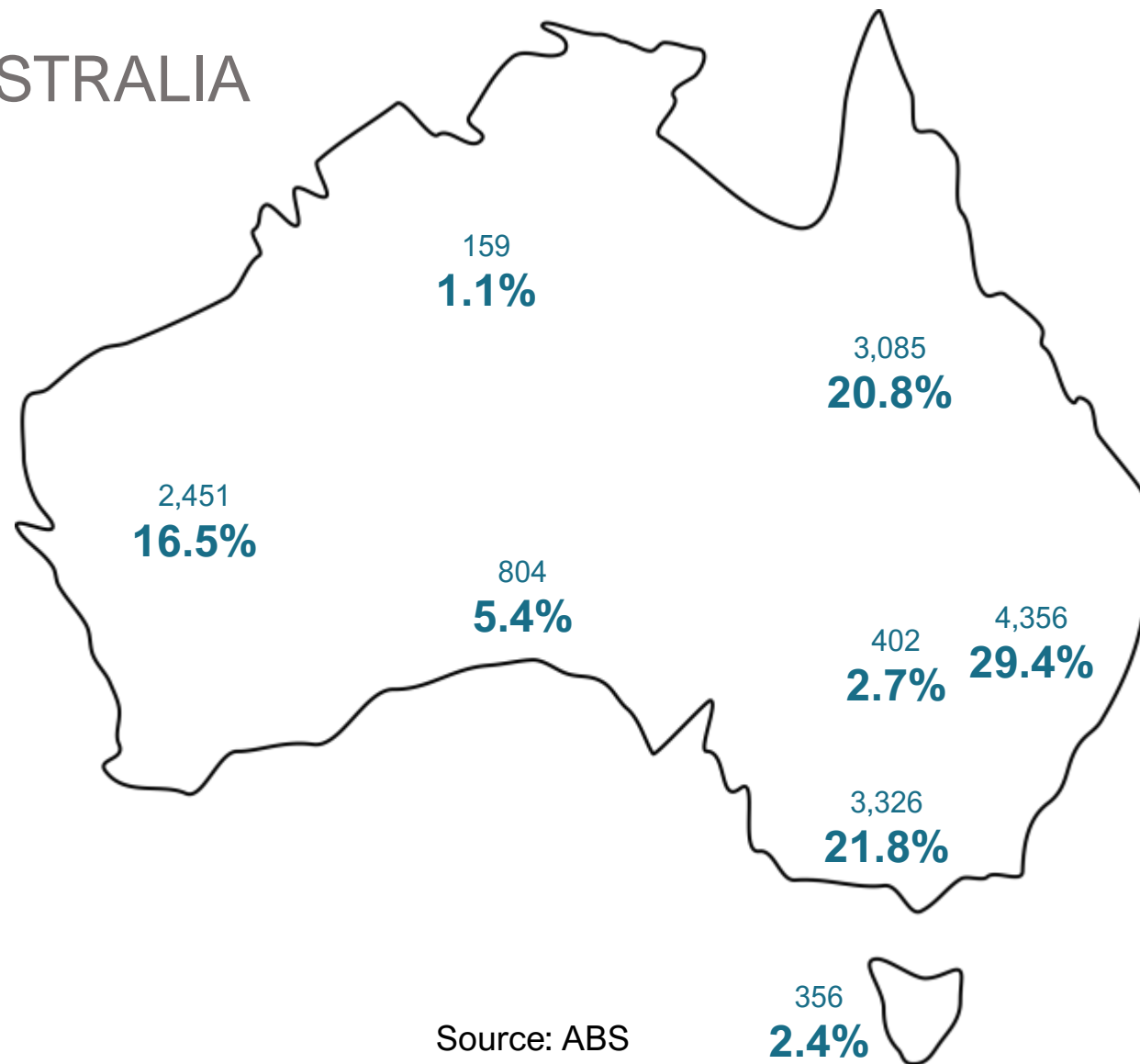
↑ 776 (+12.6)

2021 Census: 6,923

THE SITUATION ACROSS AUSTRALIA

Current total workforce is around 19,000 persons – 15,000 surveying and geospatial professionals and 4,000 allied professionals.

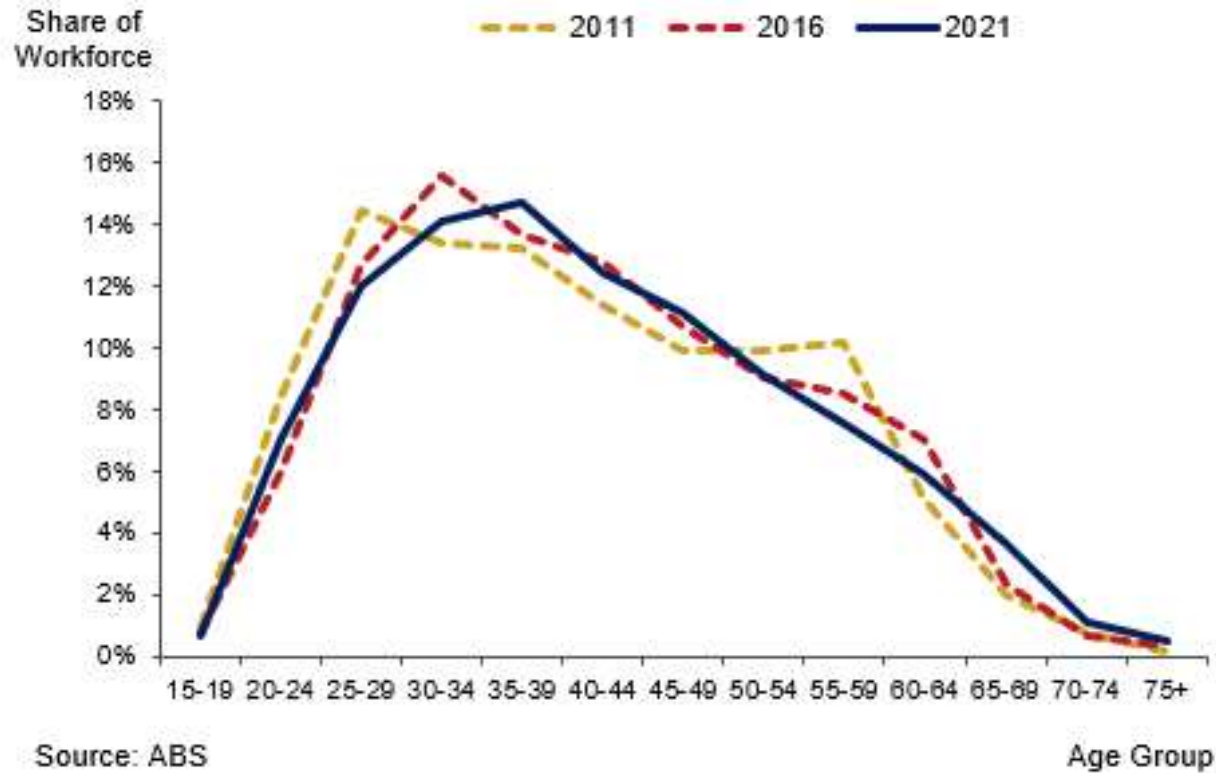
East Coast accounts for 72% of the total skilled surveying and geospatial professionals



Source: ABS

AUSTRALIA'S AGE PROFILE

Surveyors and Spatial Scientists

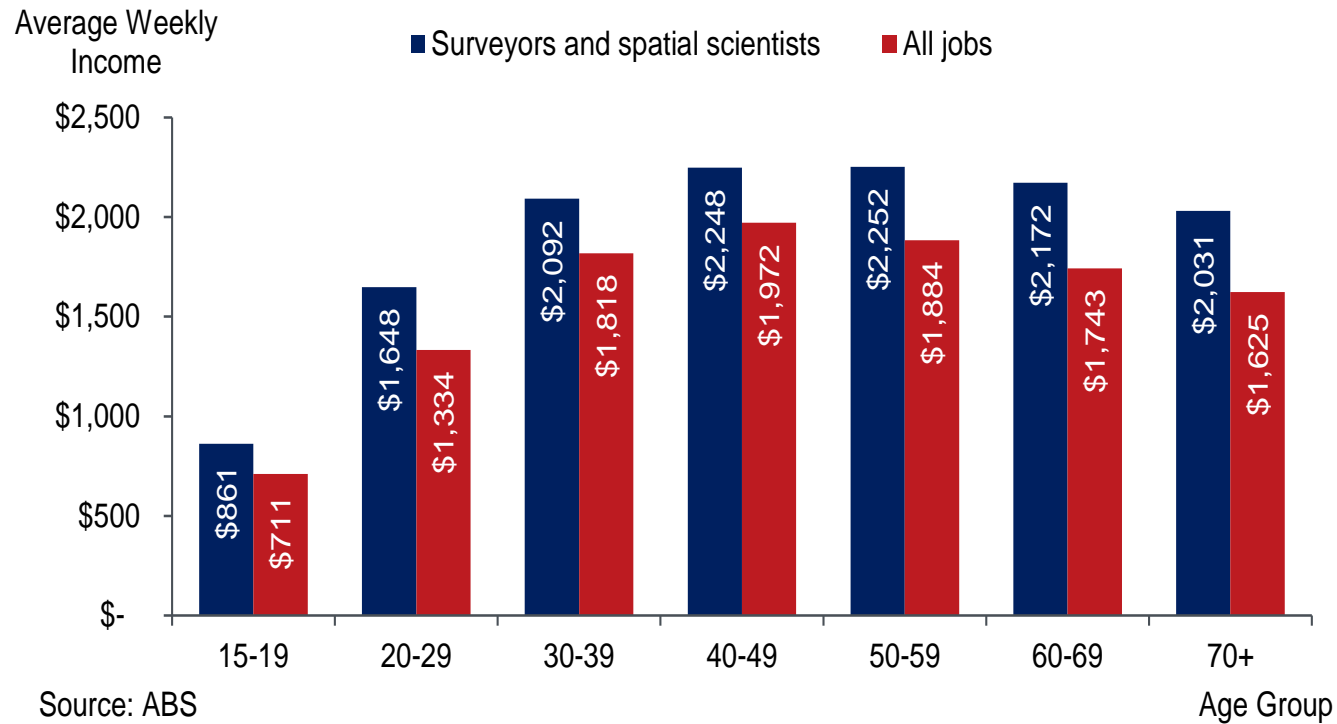


The profession is slowly getting older...



AUSTRALIA'S FULL TIME WEEKLY EARNINGS

Weekly Earnings by Age Group

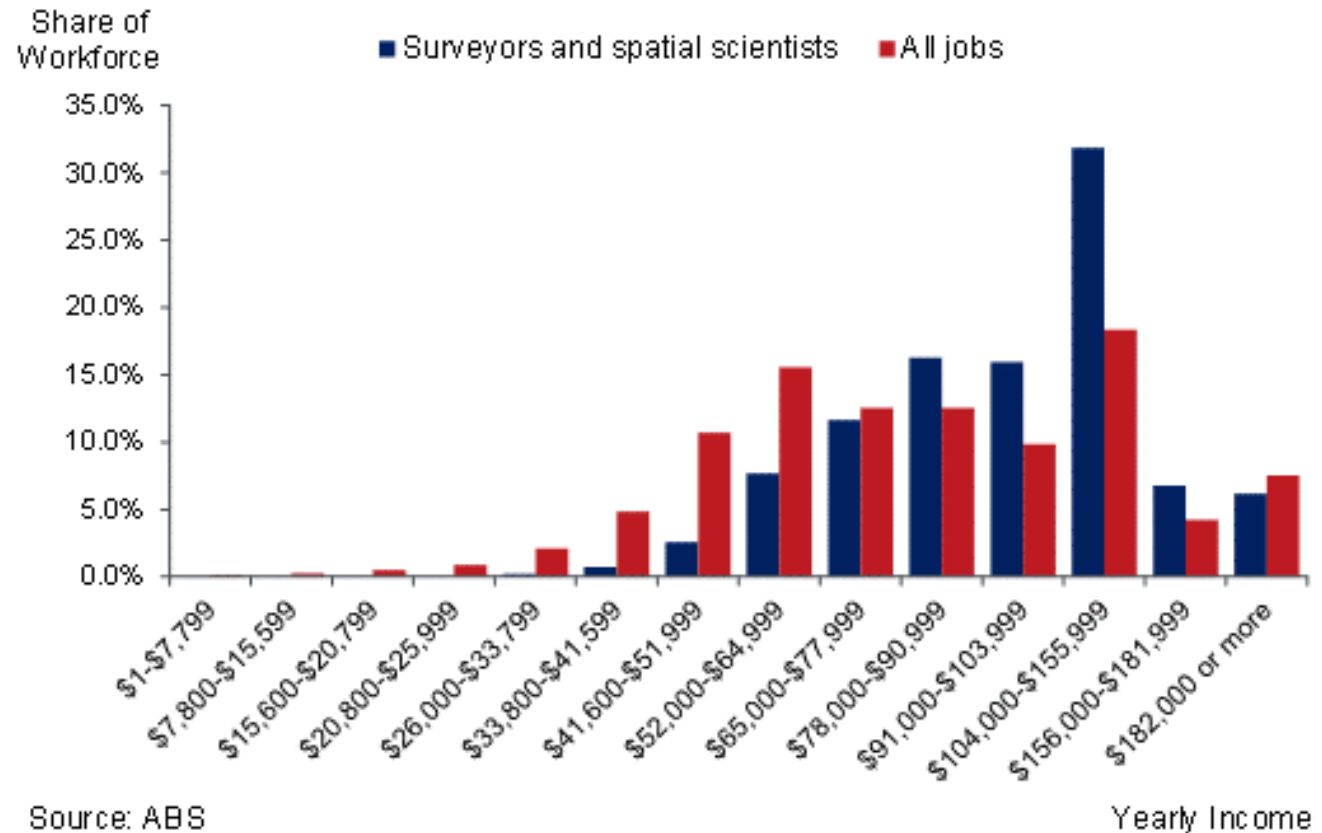


25% higher average earnings of older surveying professionals than their peers in other professions

22% higher average earnings of younger surveying professionals than their peers in other professions

AUSTRALIA'S DISTRIBUTION OF ANNUAL EARNINGS

77% of surveyors earned \$78,000 or more per year, compared to 52% for all jobs.

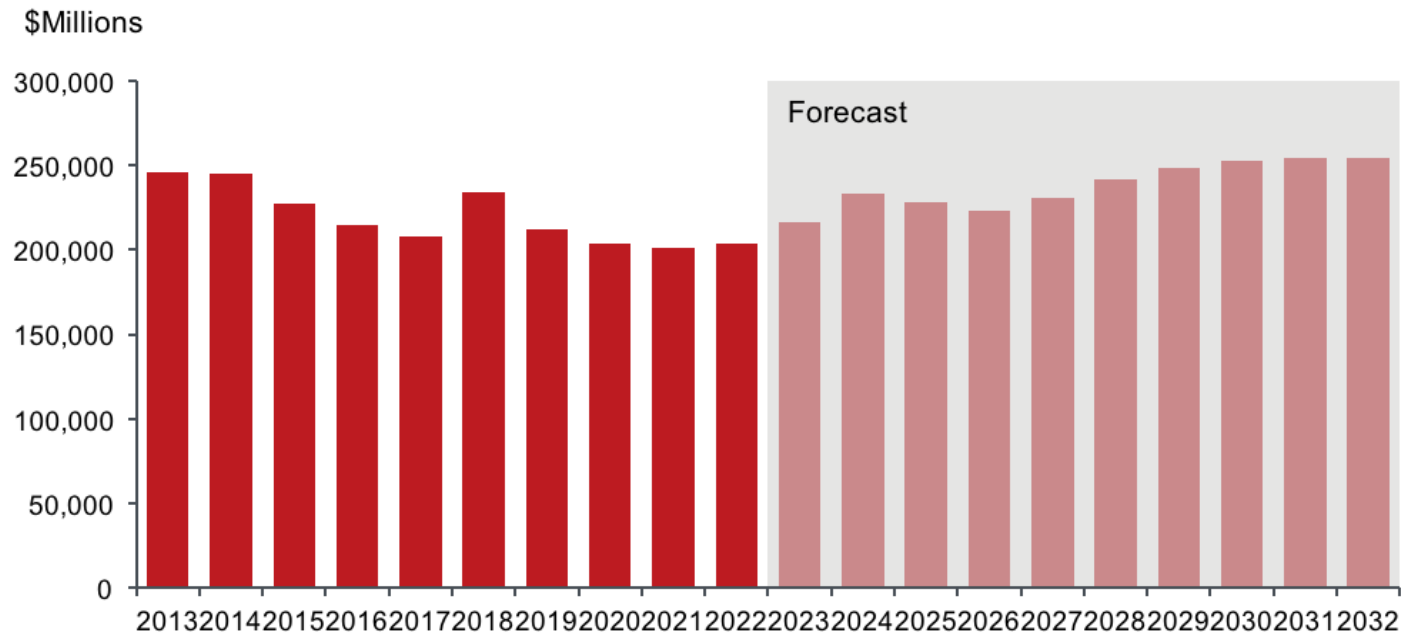


Source: ABS

Yearly Income

THE SITUATION ACROSS AUSTRALIA

Total Construction



Source: BIS Oxford Economics

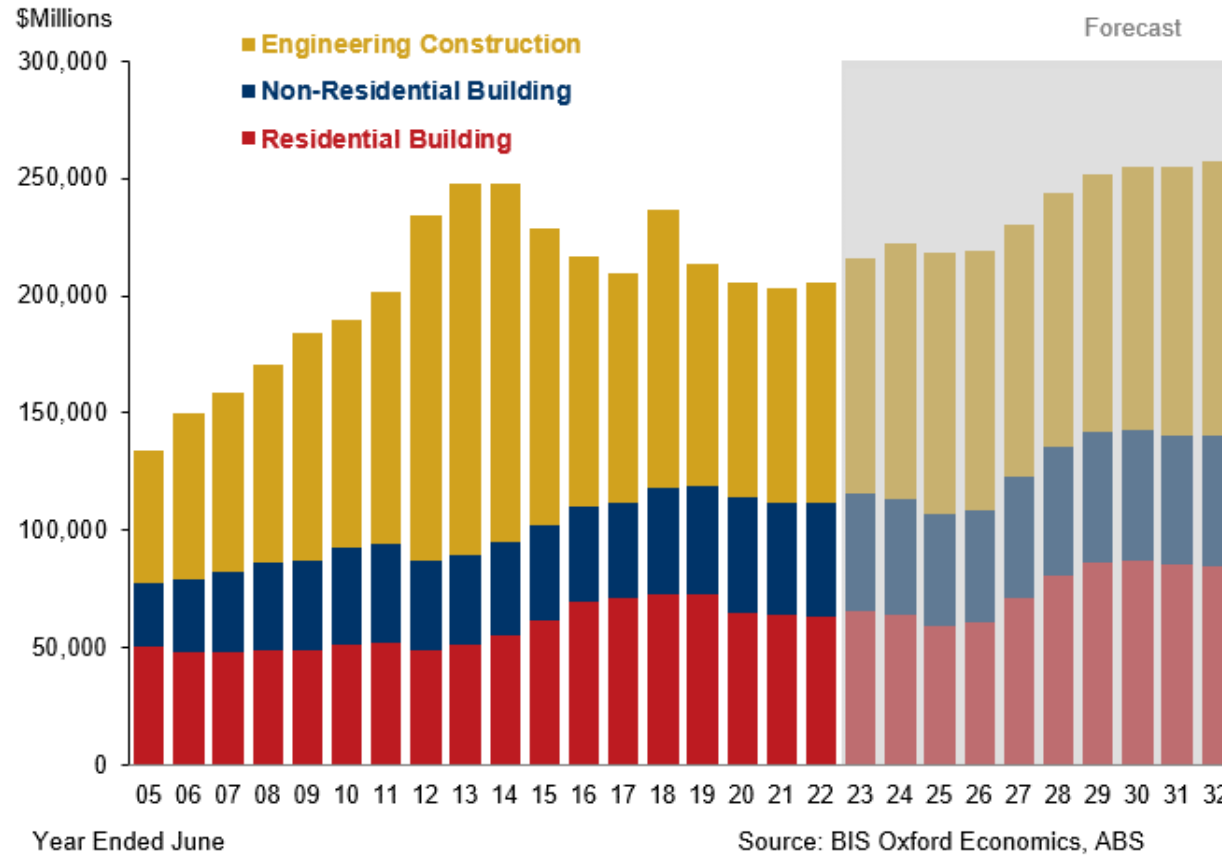
Year End June

Construction is set to increase across Australia over the next 10 years.



THE SITUATION ACROSS AUSTRALIA

Construction Outlook by Sectors

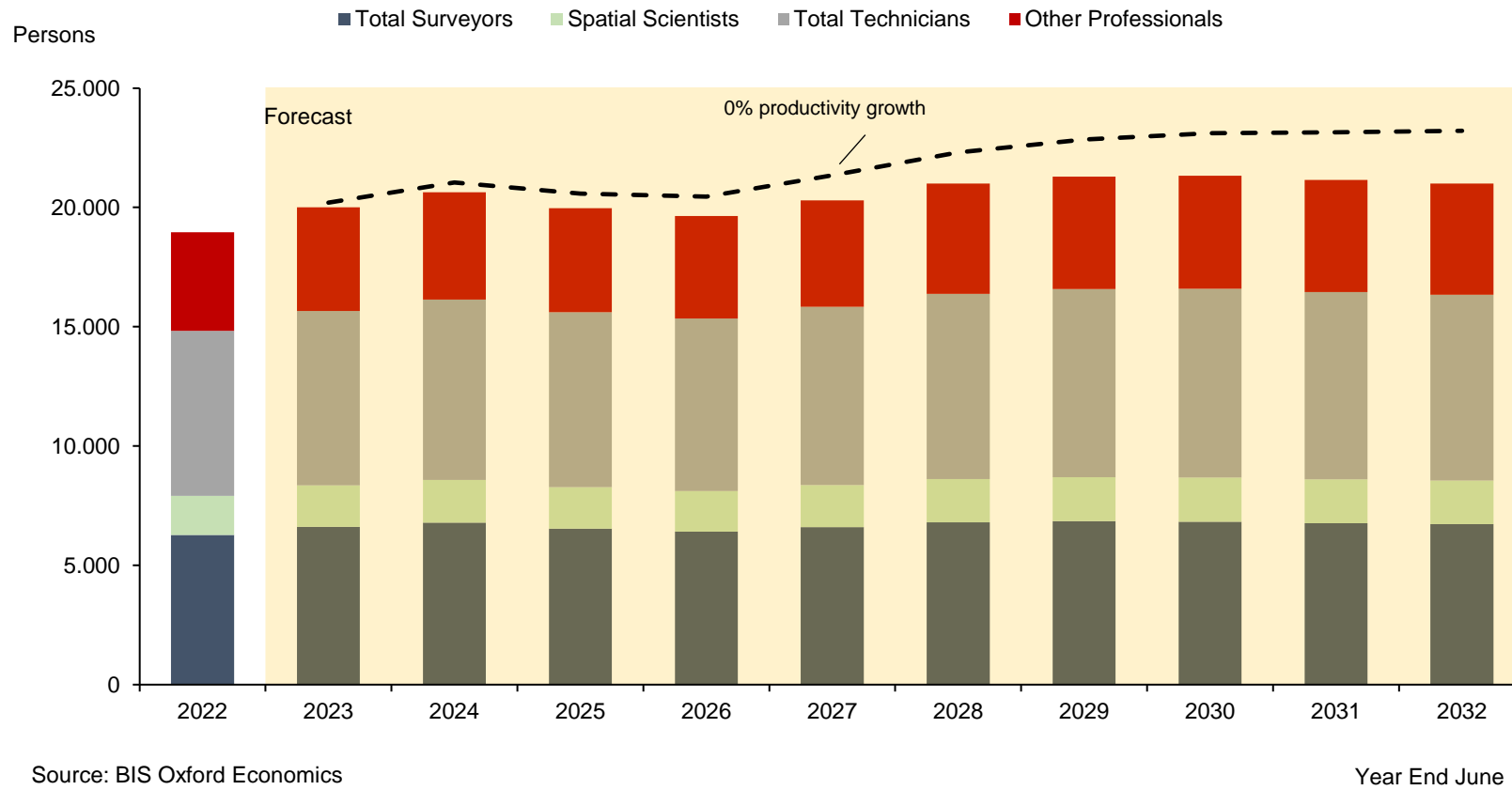


Construction peaked in 2012/13 and is set to rise to the same levels by 2028



THE SITUATION ACROSS AUSTRALIA

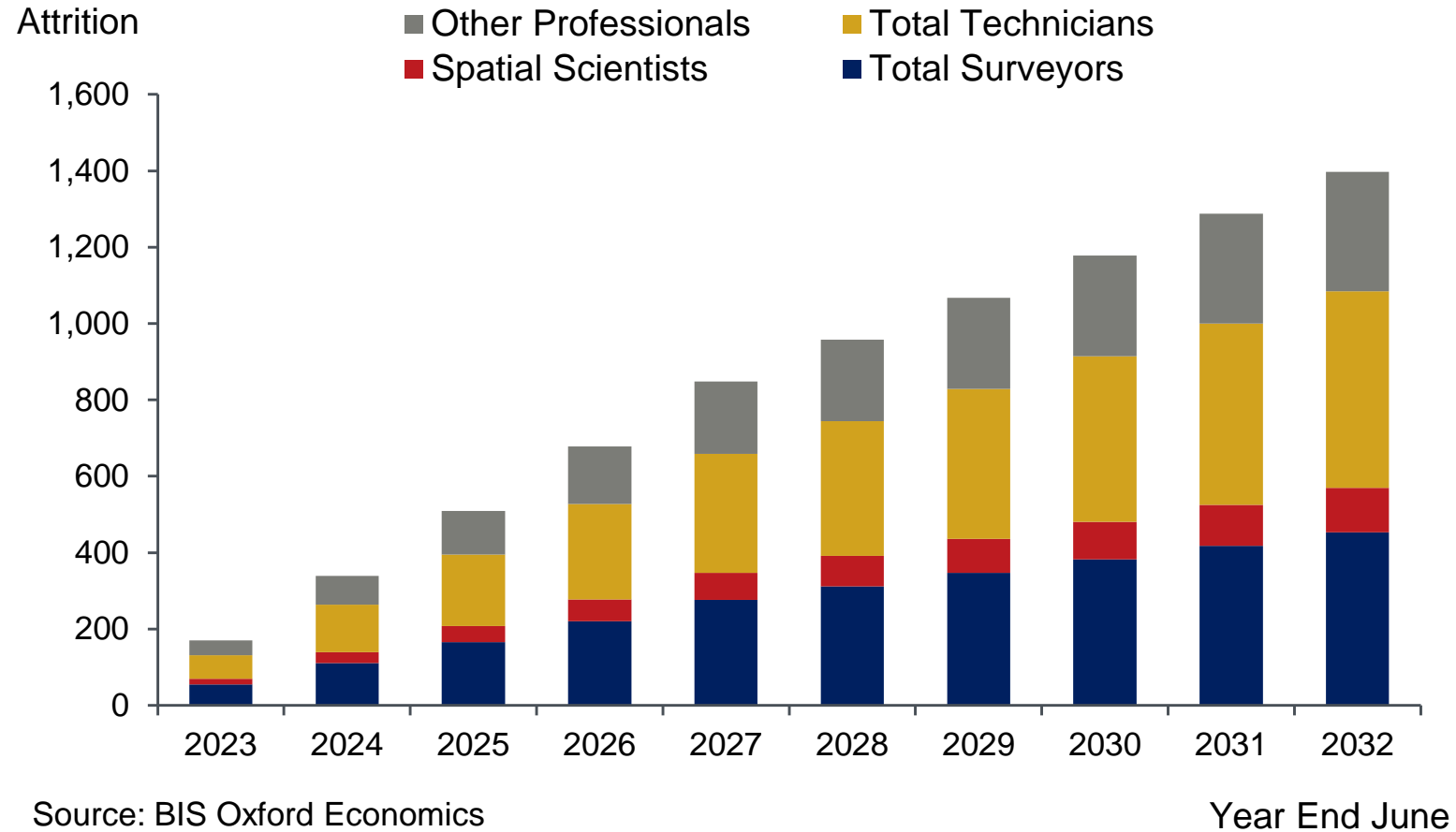
Forecast Of Total Demand For Skilled Labour



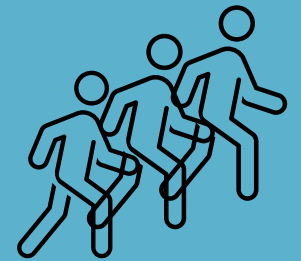
Average 21,000 professionals needed per year:

- 6,700 surveyors
- 1,800 spatial scientists
- 7,800 technicians
- 4,600 allied professionals

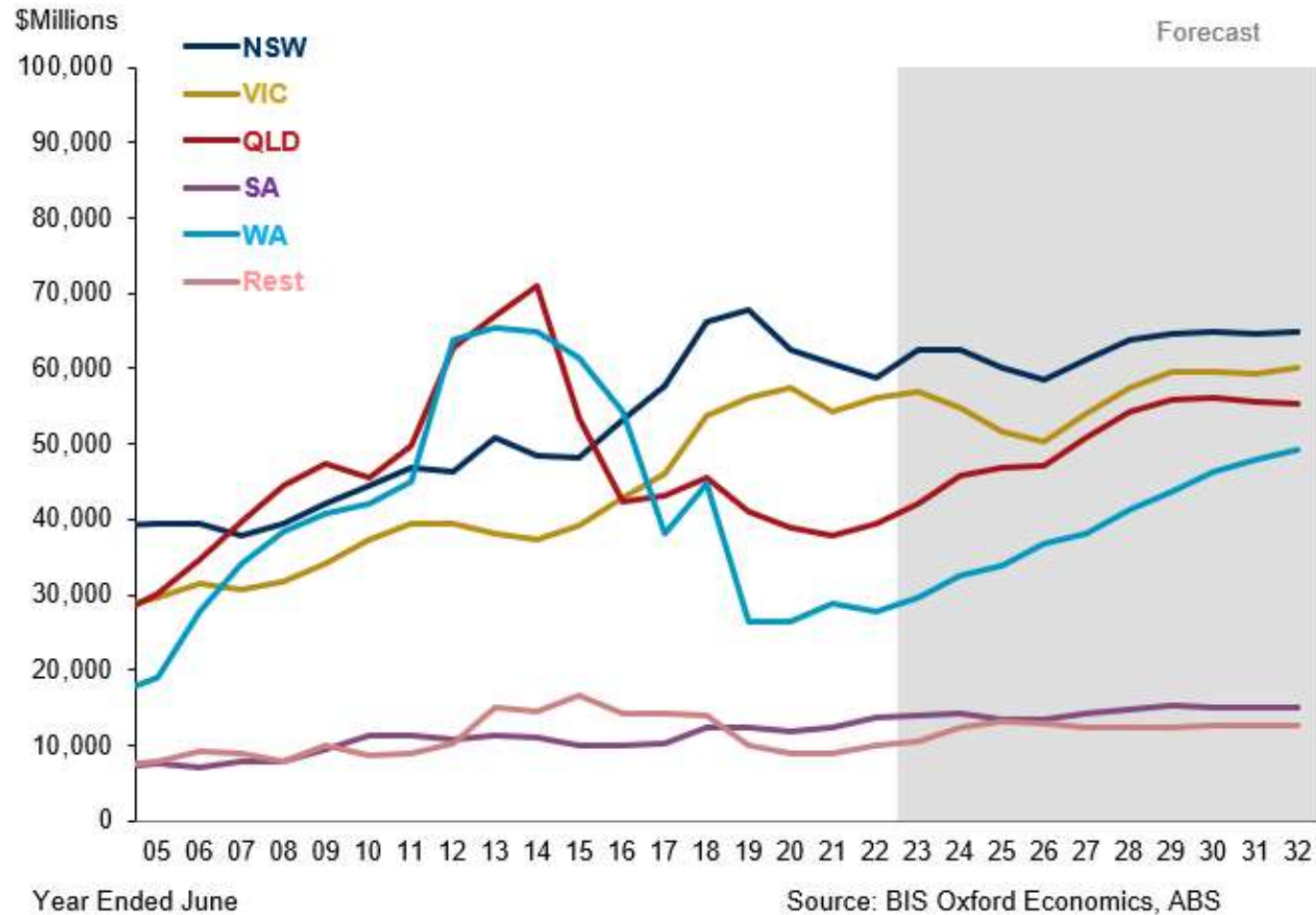
ATTRITION LEVELS AROSS AUSTRALIA



Meanwhile, the existing workforces ages and leaves...



DISPARITY ACROSS STATES AND TERRITORIES



Source: BIS Oxford Economics, ABS

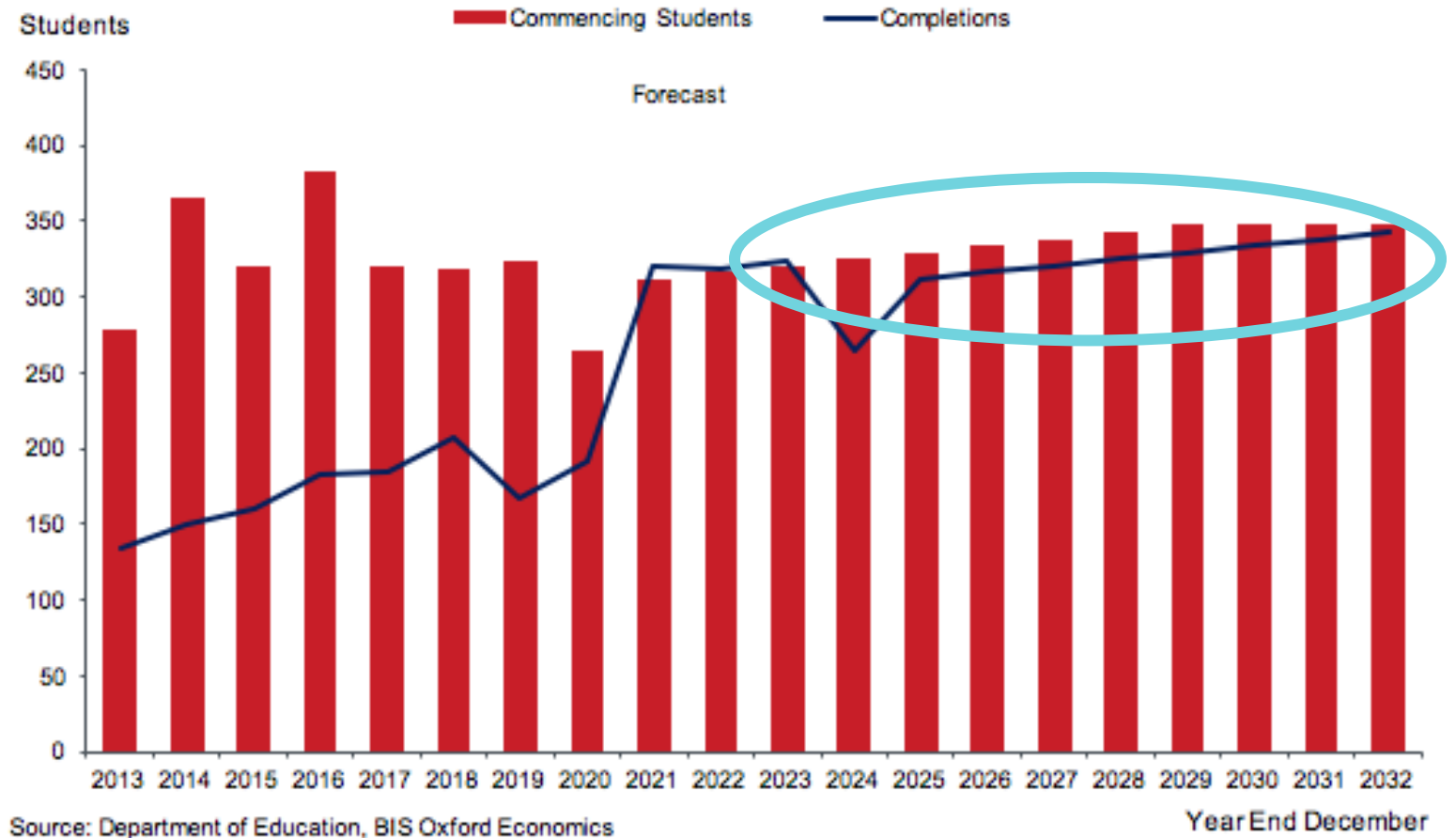
NATIONAL WORKFORCE CAPABILITY POSITION

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Surveyors & spatial scientists	Deficit					Deficit				
	470	752	485	356	645	924	1014	1011	954	925
Surveying & spatial science technicians	Deficit					Deficit				
	403	656	446	359	620	883	1013	1040	977	911

- ➔ Current capability gap is 873 surveyors and spatial scientists and technicians
- ➔ This gap rises to more than 2,000 in 2029

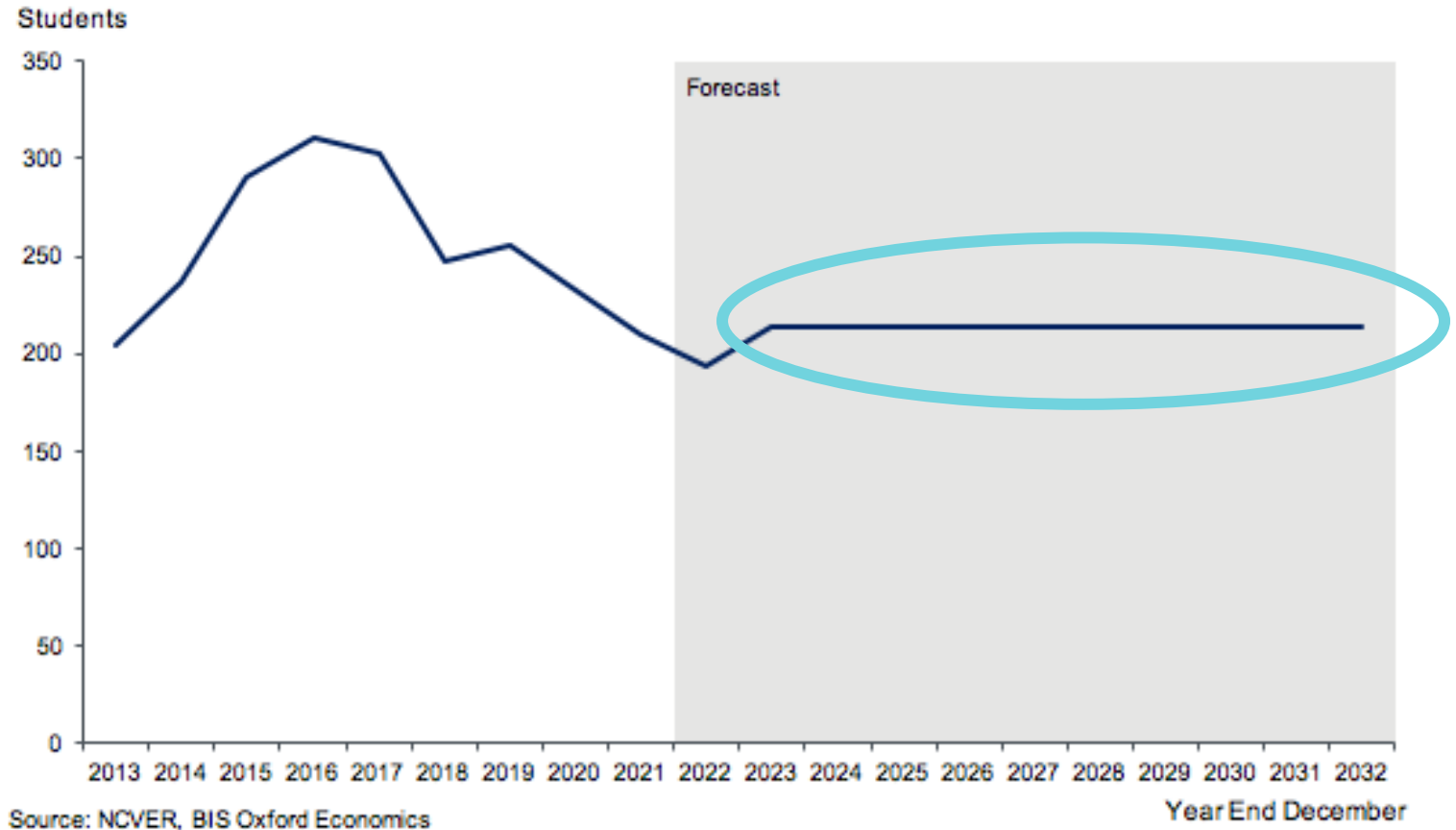
UNIVERSITY COMPLETIONS – FORECAST FOR AUSTRALIA

Report assumes there will be an uplift in enrolments per year by approx. 150 persons.



VOCATIONAL COMPLETIONS – FORECAST FOR AUSTRALIA

Completions average 213 from 2023 onwards, with 63 students entering the workforce each year.



LIMITATIONS OF THE MODELLING

- ➔ **Assumes that current workforce is in a balanced position**, in reality the profession is already experiencing workforce shortages based on industry insights. The deficits presented are in addition to current shortages.
- ➔ **Quantifies persons, not skills and experience.** The career progression of a surveyor is difficult to quantify in the data, as opposed to looking at the state of the profession at a point in time.
- ➔ **Timing of surveying demands can be different to construction demands.** Surveying demand will tend to lead the cycle.
- ➔ **Data quality from the ABS and other sources does not account for profession-specific factors.** Occupational categories (ANZSCO) and fields of education (ASCED) don't align with how profession describes itself.

IMPACT ON THE INDIVIDUAL SURVEYOR

- ➔ Sustained workload pressure for current surveyors
- ➔ Less and less vocationally trained surveyors available to assist with project completion

940 university students are needed each year across Australia over the next decade.

This could represent a **170%** increase on the forecasted levels.

517 vocational students are needed each year across Australia over the next decade.

This could represent a **167%** increase on the forecasted levels.



FOUR RECOMMENDATIONS FROM BIS OXFORD ECONOMICS

1

Increase the number of enrolments in related educational courses

2

Improve the educational progression across a surveyor's career

3

Focus efforts on improving flexibility in internal labour mobility

4

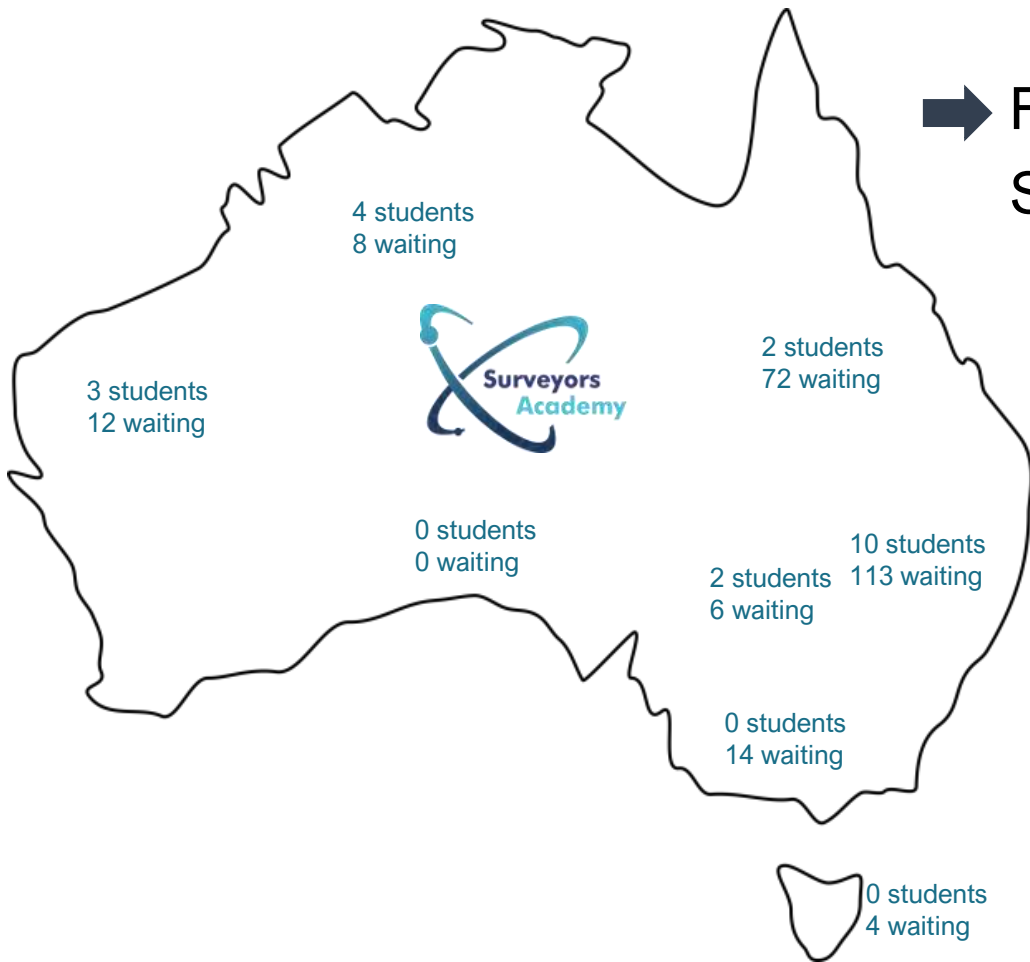
Utilise technologies and systems to improve productivity



BIS OXFORD
ECONOMICS

1 INCREASE THE NUMBER OF SURVEY STUDENTS

➔ Funds to expand the Surveyors Academy



There are currently 230 people on the waiting list for the Surveyors Academy from across Australia



① INCREASE THE NUMBER OF SURVEY STUDENTS

➔ Expand Surveying Careers Program across all States and Territories – cities and regions



www.surveyingcareers.com.au



2 IMPROVE EDUCATIONAL PROGRESSION FOR SURVEYORS

- ➔ Working with Universities on enrolments and course completion
- ➔ NSW is introducing an upskilling program to support employers with ongoing training of staff

The number of registered / licenced surveyors across Australia has dropped by nearly 200 since the 2018 research study.



UNIVERSITY of
TASMANIA

University of
**Southern
Queensland**

Curtin University

THE UNIVERSITY OF
MELBOURNE

UNSW
SYDNEY

University of
South Australia

RMIT
UNIVERSITY

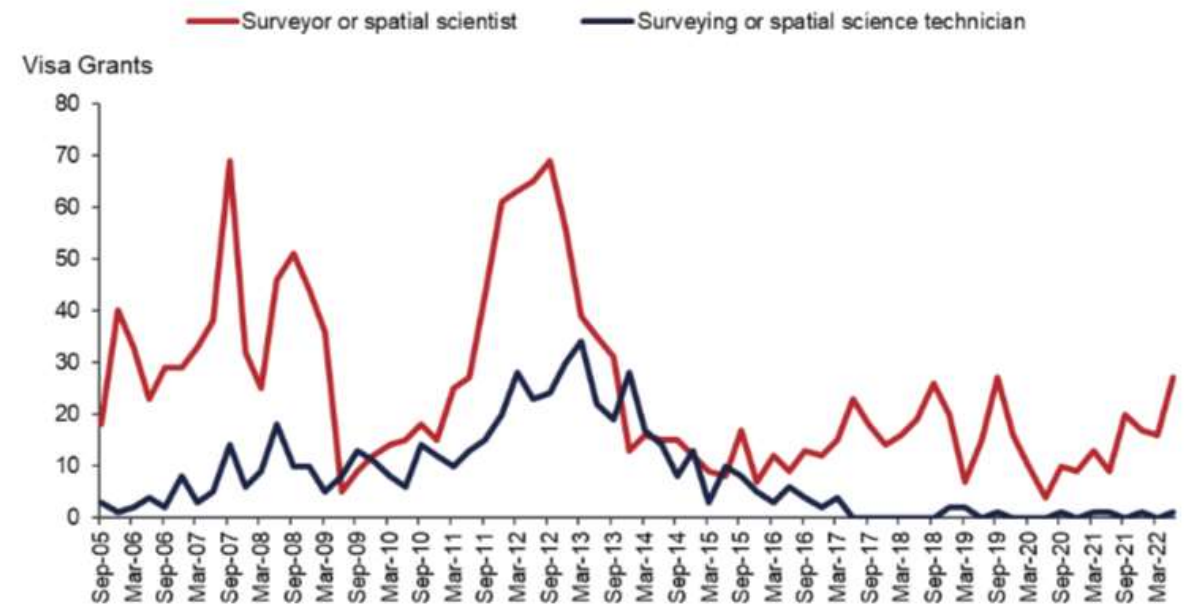
THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

3 IMPROVE FLEXIBILITY IN LABOUR MOBILITY

- ➔ Look to make Automatic Mutual Recognition work for the profession
- ➔ Continue to support migration building stronger relationships internationally



Temporary Visa Grants



Source: Depart of Home Affairs

④ TECHNOLOGY & SYSTEMS TO IMPROVE PRODUCTIVITY

- ➔ Teach business skills to improve efficiencies
- ➔ Improve processes and systems in collaboration with Government



64 graduates of the
Business Academy so far





Surveyors – Vital to Australia's Development

www.consultingsurveyors.com.au

