

Tasmania's structural challenges: pre COVID-19 and post COVID-19

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Overview : Pre-COVID 19

- ❖ Industry structure
- ❖ Population change
- ❖ Tasmania's workforce
 - ❖ Changing nature of work
 - ❖ Workforce polarisation
- ❖ Educational outcomes
 - ❖ Literacy
 - ❖ Educational attainment structure (EAS)
 - ❖ Career aspirations



Demography is Destiny – or is it?

Destiny is Demography



Structural Challenge No. 1: Industry structure

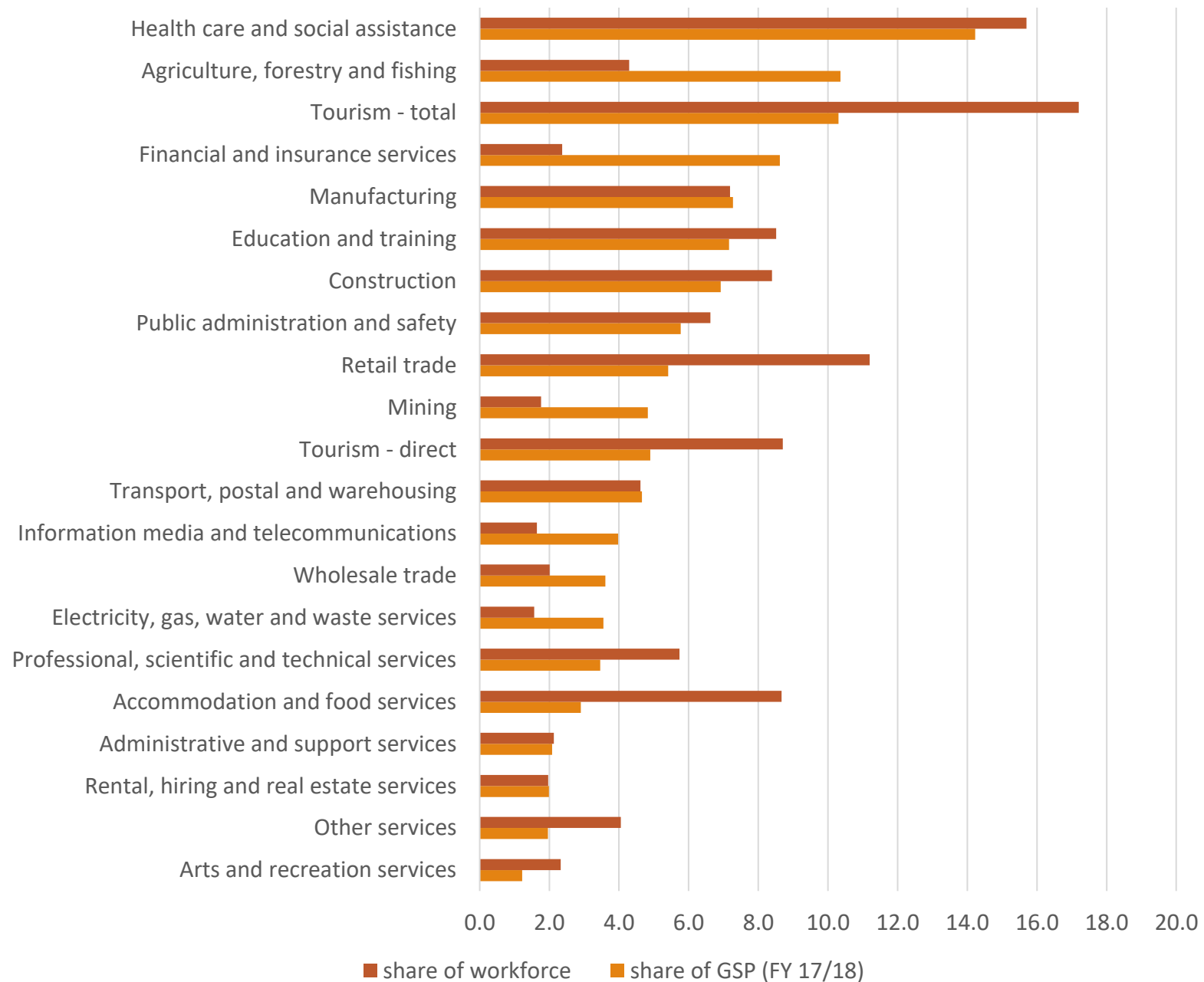
Focus tends to be on economic growth rates (GSP) rather than on the composition of the industry structure contributing to the economy

- Lack of diversity – highly vulnerable
- 5 industries contribute half of GSP (50.8%)
- 4 industries contribute half of the workforce (52.8%)
 - Excluding tourism, top 5 industries contribute 52.5%
- 5 industries make up almost half (49.8%) of hours worked
- Gendered industries and occupations

GSP	Workforce	Hours worked
Health care and social assistance	Tourism – total *	Health care and social assistance
Agriculture, forestry and fishing	Health care and social assistance	Education and training
Tourism – total * (direct contribution – 4.9%, ranked 10 th)	Retail trade	Construction
Finance and insurance services	Accommodation and food services (same as direct tourism contribution (8.7%))	Agriculture, forestry and fishing
Manufacturing	Education and training	Manufacturing
Education and training	Construction	

*Tourism is not an industry in its own right as industries are defined according to the goods and services the produce while tourism is defined according to consumption patterns equivalent to the sum of a proportion of (mainly) accommodation and food services, retail, rental hiring and real estate, education and training and transport and logistics as well as arts and recreation services). This table is therefore slightly misleading as it includes duplication.

Contribution to the economy



Source: ABS, Characteristics of Employment; ABS, State Accounts; Tourism Research Australia, State Satellite Account

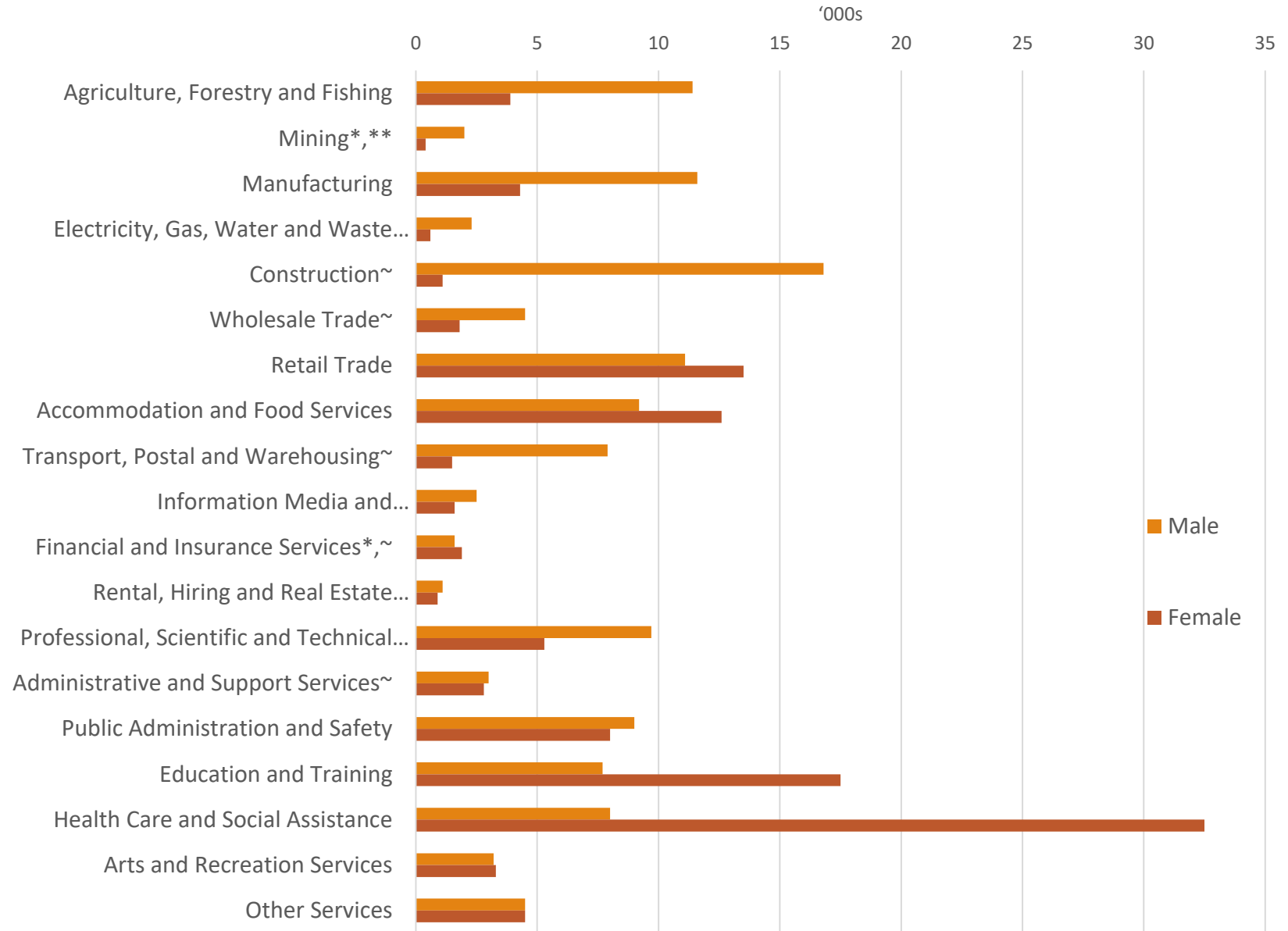
Employment by Industry Sector, men and women, Tasmania, 2019

key issues:

1) Gendered industries and occupations

2) Precarious employment

- casual, part time, gig
- Under-employment
- No entitlements for paid sick, carer or recreational leave



Source: ABS, Characteristics of Employment, 2019

* Estimate has a relative standard error of 25% to 50% for men and should be used with caution

** Estimate has a relative standard error greater than 50% for women and is considered too unreliable for general use

~ Estimate has a relative standard error of 25% to 50% for women and should be used with caution

Structural Challenge No. 1: summary

- There is no strategic industry policy underpinning the state's economic policy
- Lack of proactive, strategic industry policy over decades has led to a restructuring of the industry composition away from traded/market sectors to services industries.
- Elements of industrial policy exist in circumstances such as
 - market failure
 - individual industries
 - vested interests
 - Sub-elements – e.g. trade, energy, irrigation etc
- Tasmania's economic policy is dependent on increasing consumption for economic growth and revenue
- The threat to this economic policy framework is low population growth, low wage growth, un/under-employment, low labour force participation, low skill/low pay jobs and thus lower levels of disposable income

Government response – population growth strategy, tourism (more disposable income)

Structural Challenge No. 2: Population

Society and policy is very much fixated on the size and growth rate of the population but it is population change the composition of the population (age and sex) over time which matters.

Reality check 1: population ageing

Even with population growth, Tasmania's population is still ageing and is experiencing hyper-ageing.

The population will continue to age as interstate migration age profiles contribute to the rate of ageing.

Even if migration is sufficient to keep the population growing, the number and proportion of the population who are older will continue to increase.

Reality check 2: population decline

Almost half of the LGAs are already in population decline and are projected to decline further, only four will be experiencing natural increase in 25 years – any future growth will need to be sourced from migration.

Population change: the process

Population change is a function of:

- 1) the population age structure
- 2) migration

The balance between births and deaths is an indicator of future demographic development

- Size and age structure of a region is largely a function of migratory movements
- The age profile of migrants can aggravate demographic imbalances

Population change is driven by individual decisions

- 1) whether to have a child (and how many to have)
- 2) whether to relocate

underpinned by economic opportunity and lifestyle choice



Types of population change: growth trajectory

Natural increase – more births than deaths

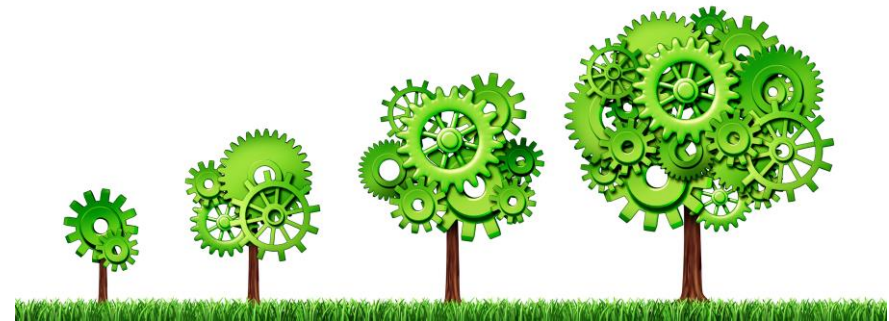
- ❖ Better able to predict demand for infrastructure, services and amenities
- ❖ Enables greater longer term planning and fiscal sustainability

Migration-led growth

- Many contributors – internal, overseas (students, skilled, family, NZs)
- Unpredictable, higher risk, uncertain, more volatile
- Increased demand on infrastructure, services and amenities
- Difficult to plan for
- Harder to project future population size and structure

Sustainable growth

- Balance between natural increase and migration (40/60)
- A rate of growth which is maintainable over the long term, better able to be planned for and serviced appropriately without negative impact; fiscal, environmental, social and so forth



Types of population change – decline trajectory

Decline – ‘old’ depopulation - Natural increase is less than net migration loss

- ❖ possible to reverse depending on age structure and with right policy intervention
- ❖ policy needs to adapt to changing needs of population

Decline – ‘new’ depopulation - Natural decline is greater than migration gains

- unlikely to ever achieve longer term growth
- policy approach needs to cater to shrinking population and changing needs

Absolute decline - Natural decline and net migration loss

- unlikely to ever reverse or achieve population growth
- policy approach needs to cater to shrinking population and revenue base and changing needs

Cusp of Decline

Very low rates of population growth, hyper-ageing, natural decline, variable migration

- Policy needs to be place-based with local lens

Population ageing

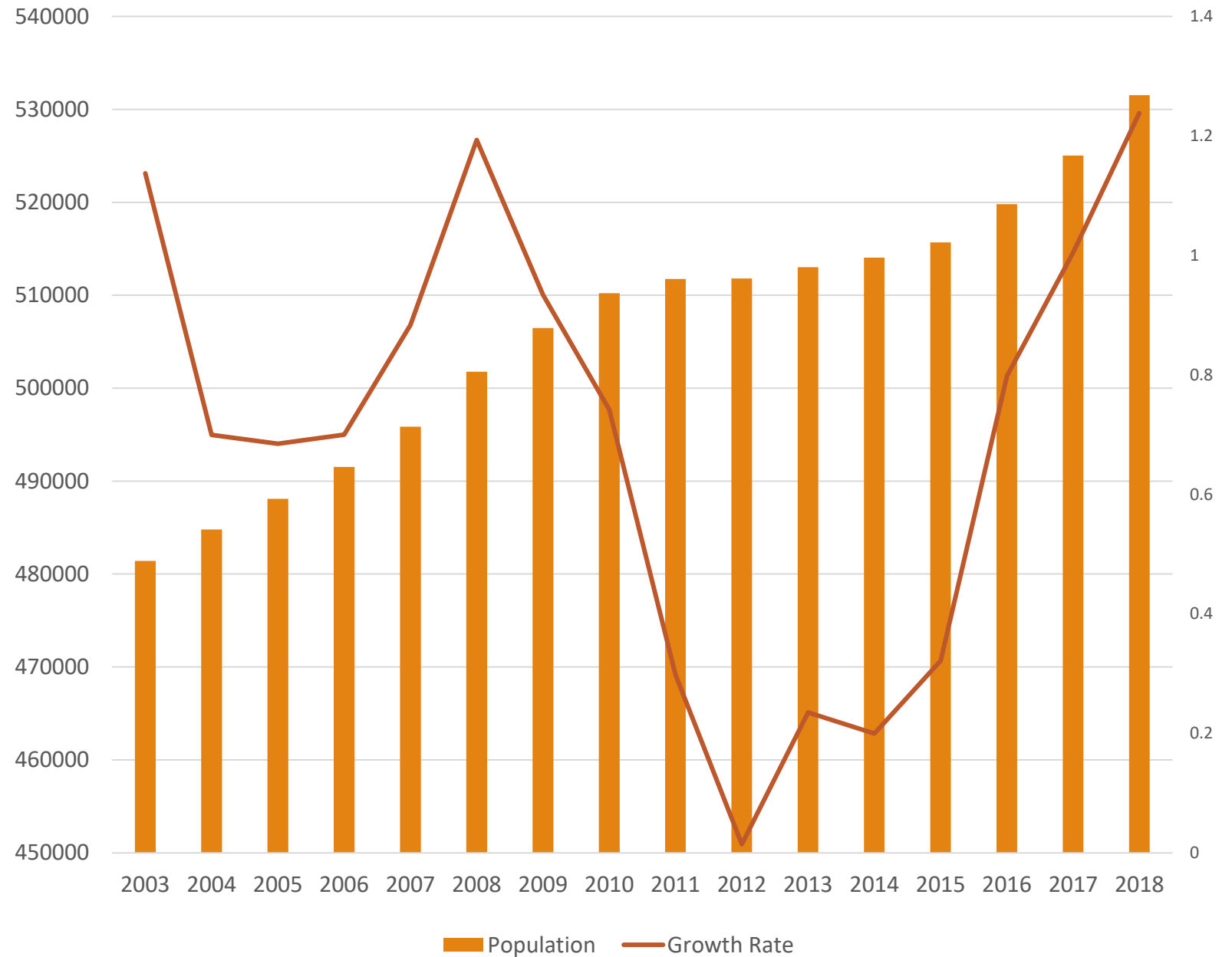
- Population ageing is a global phenomenon caused by lower fertility rates and longer life expectancy
- At a regional level, population ageing is also caused by migration – the age profile of those leaving a region and those arriving in a region
- Population ageing heralds the end of population growth and the start of depopulation.
- A region can be growing and ageing at the same time
- The tipping point is when ‘hyper-ageing’ is reached
- Depopulation occurs first at a regional level before becoming a state and then national issue.
 - New and old depopulation
- Eventually, population decline will be unavoidable



Tasmania's Population: size and growth rate

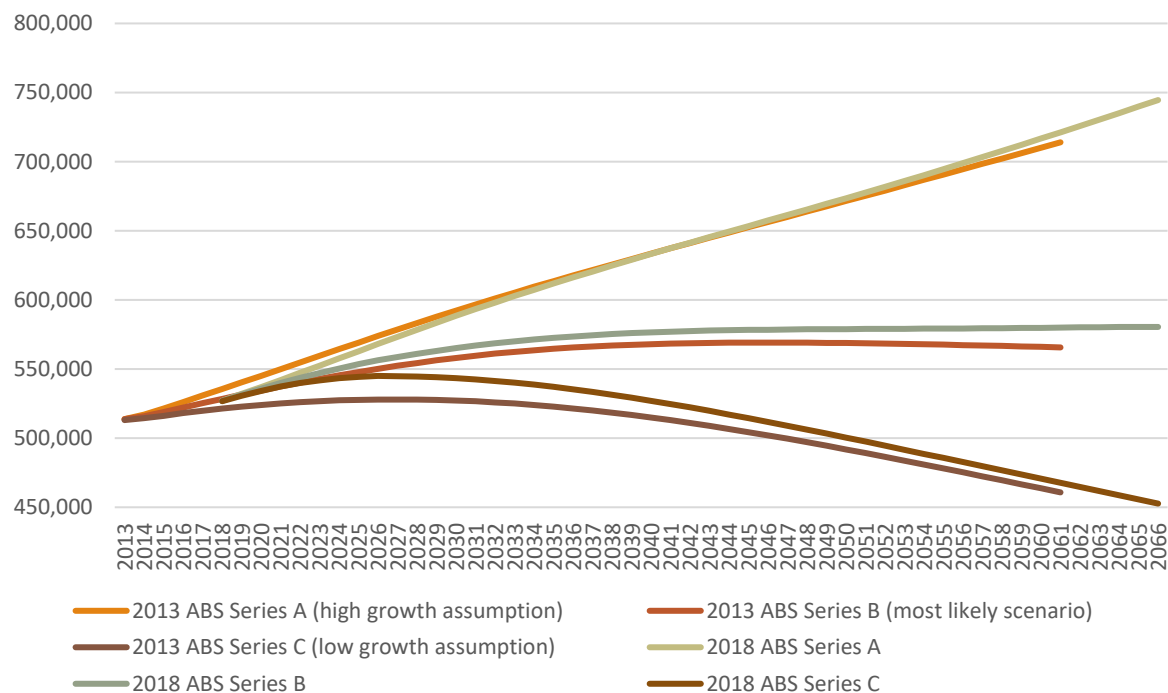
- In Tasmania, population growth was at its strongest rate this century

- Growth rate is not linear
- Can not assume that trend rates will continue

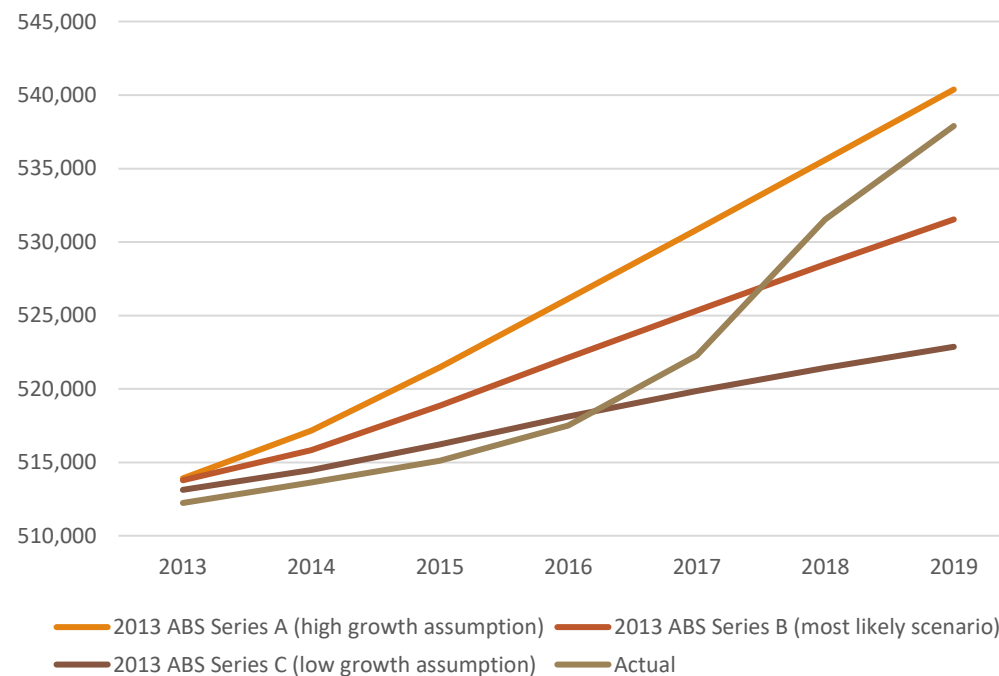


Population projections – Tasmania

ABS PROJECTIONS, 2013 AND 2018



ACTUAL TRAJECTORY



Sub-state population change (LGA)

At the state level, aggregated data can smooth or mask the realities of population change at a local area level

Prolonged economic restructuring has manifested in uneven patterns of regional development and thus economic opportunities within the State

This impacts a region's population - particularly its size and age structure – leading to large-scale, differential population change within Tasmania.

Uneven population change results in differing implications at the local level and leaves councils - as planning authorities - in disparate positions

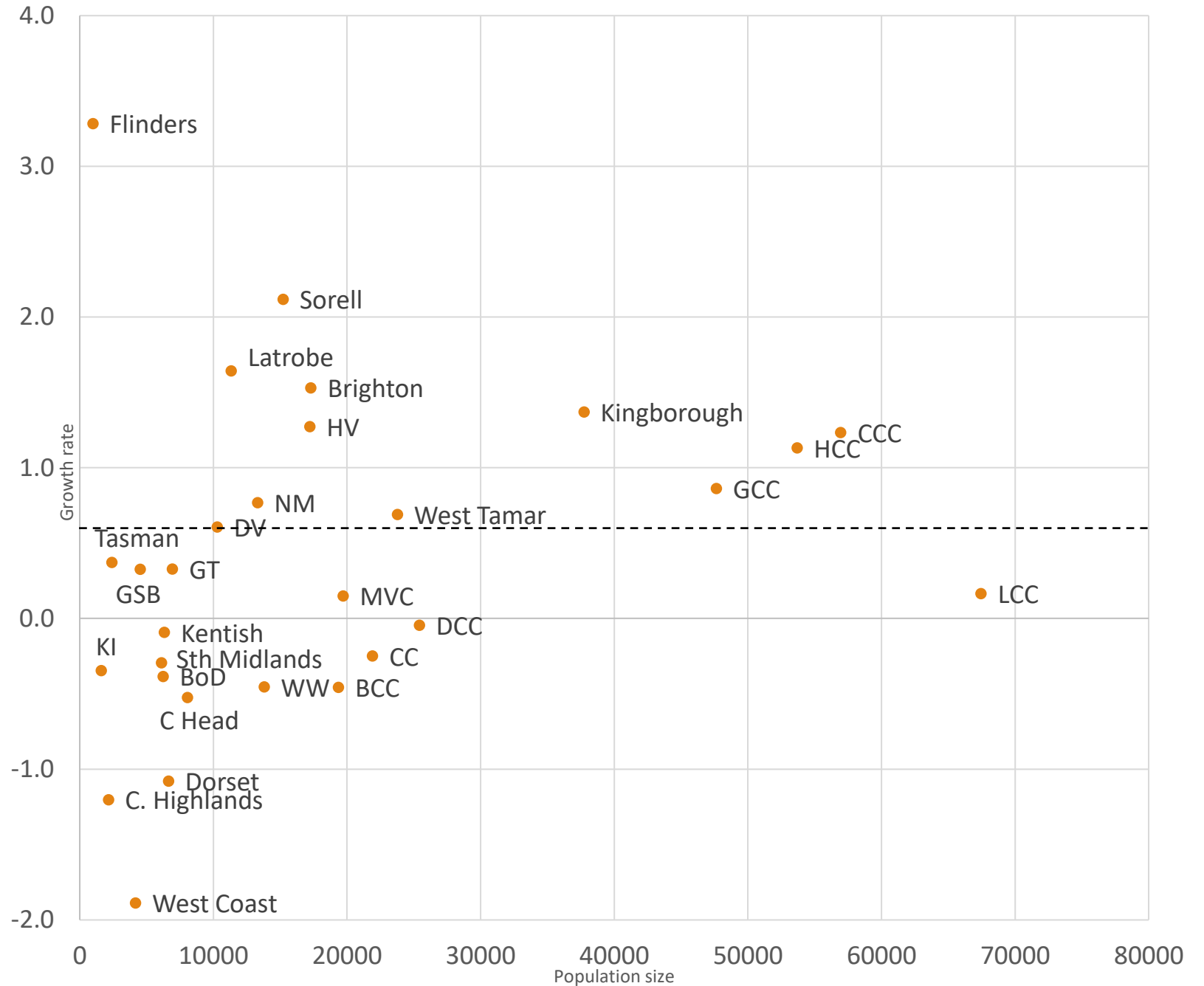
Regions need to strategically plan for – short, medium and long term

Response does not need, nor should be, contained within defined spatial or administrative boundaries



Local Government Areas: Population growth rates

- Average annual population growth rates between 2013 and 2018
- Tasmania's five year annual average growth rate is 0.6%





Summary

- As a state, Tasmania's population is growing and ageing
- The experience of population change differs by municipal area
- Uneven population change creates challenges within and between areas – domino effect
- There are geographical/spatial clusters of similar population change experiences
- The implications of difference within the state are not isolated to an area or cluster of areas – they are experienced both across and within the state
- Different experiences of population change require different policy responses at the community level
- A region's present day status reflects its past and future economic and demographic situation
- Without policy intervention the demographic and economic future of many local government areas in Tasmania is restricted to and by their ageing populations

Structural Challenge No. 3: The workforce Changing nature of work and workforce polarisation

Fixation on the number
employed, the unemployment
rate and labour force
participation rate rather than
also understanding the
composition of the workforce
and change over time





Changing nature of work

- ❖ Globalisation, increasing competitiveness and productivity and resultant offshoring
 - ❖ Routine-biased technological change (RBTC) – replacement of jobs
 - ❖ Skill-biased technological change (SBTC) – complements jobs
- ❖ Rise of the services sector
 - ❖ Increased labour force participation by women
 - ❖ Changes to the social organisation of care
 - ❖ Changing demographics
 - ❖ Consumption patterns – higher disposable income and outsourcing of home services
- ❖ Historical industry structure of a region
 - ❖ Exposure to traditional industries
 - ❖ Diversification process
- ❖ Education
 - ❖ Level of attainment and structure, professionalisation, polarisation, over- and under-education, skill utilisation, mismatch
- ❖ Economic policy and strategic industry policy (lack thereof for the latter)

Workforce Polarisation

❖ An increasingly pervasive feature of advanced nations

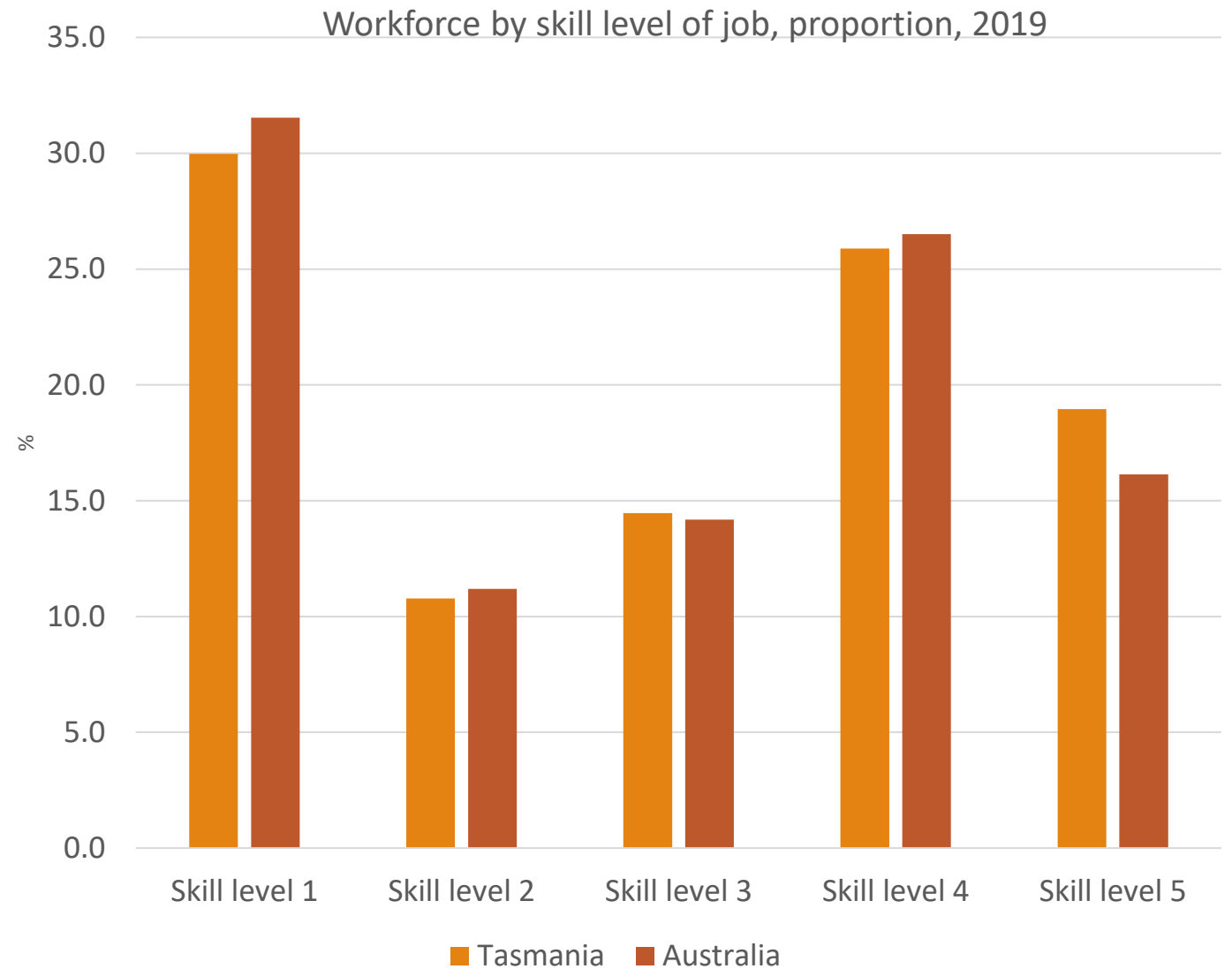
❖ Disproportionate employment growth (or change) in the top and bottom of the occupational skill distribution

❖ Defined as a pattern of change within the labour market whereby the share of employment in high skill jobs and low skill jobs increases relative to the share of employment in middle (intermediate) skill jobs over time.

❖ The emergence of polarisation in the labour market is in contrast to the trend of linear upskilling, or professionalisation, of the populations of advanced economies historically

❖ Substantial differences in the experience of polarisation by, and within, jurisdictions suggests there is no single factor to explain the diversity

❖ Exacerbated since the GFC



Source: ABS, Education and Work, 2019

Implications of workforce polarisation

❖ Threatens productivity, social mobility and inclusive growth

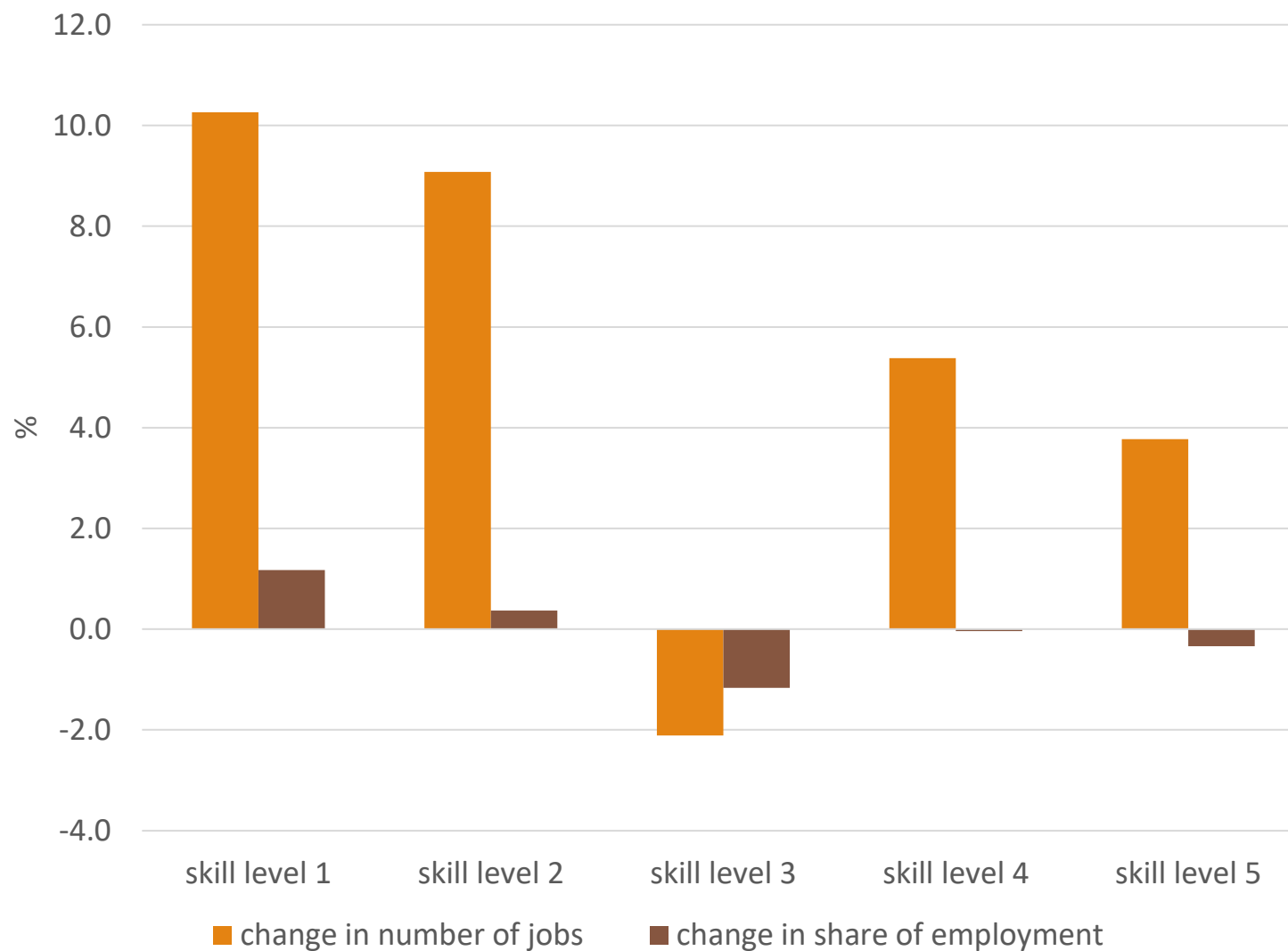
Associated with:

- ❖ Increases in non-standard forms of work
- ❖ Differences in hours of work between skill levels
- ❖ Low wage growth
- ❖ Widening inequality
- ❖ Increasing levels of over-qualification, education and skill mismatch
- ❖ Increasing under-employment
- ❖ Reduced opportunities for young people , graduates and new workforce entrants to enter the labour force
- ❖ Limited opportunities for upward career progression from lower-skilled jobs



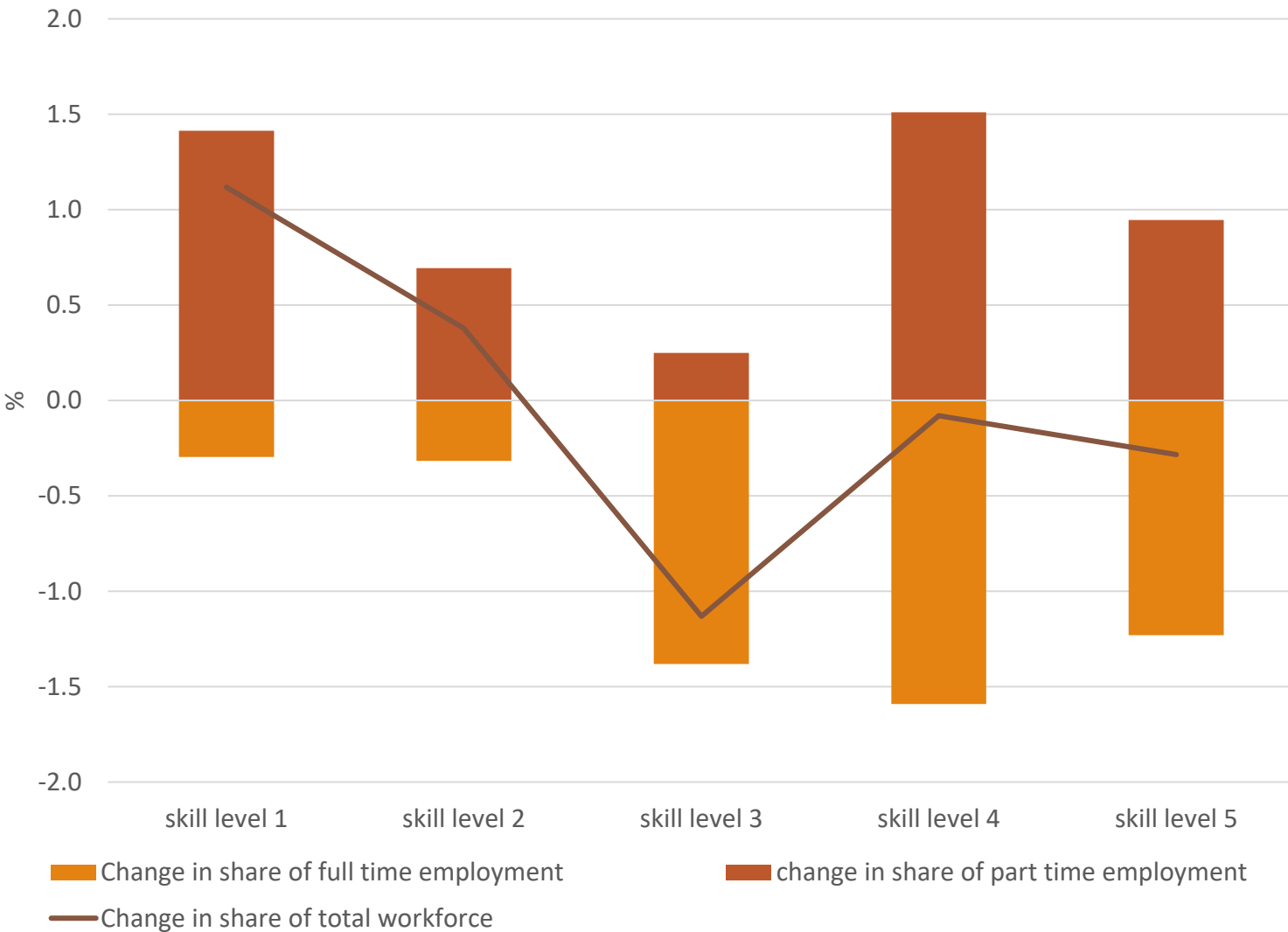
Change in the workforce by skill level, number and share, Tasmania, 2006 to 2016

- Skill Level 1 is commensurate with a Bachelor degree or higher qualification
- Skill Level 2 is commensurate with an Advanced Diploma or Diploma
- Skill Level 3 is commensurate with a Certificate IV or III (including at least 2 years on-the-job training)
- Skill Level 4 is commensurate with a Certificate II or III
- Skill Level 5 is commensurate with a Certificate I or secondary education



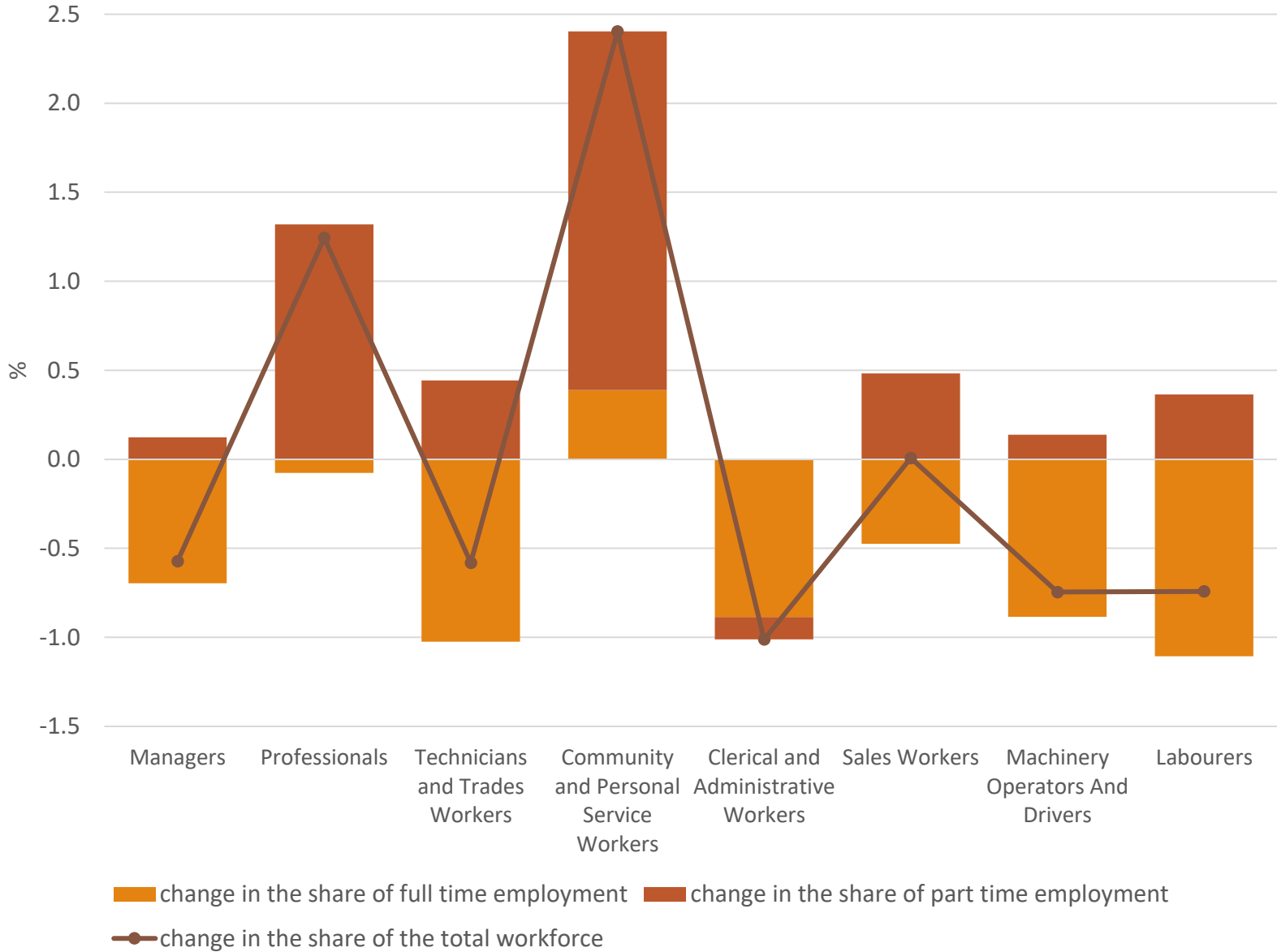
Source: ABS Census of Population and Housing, 2006 and 2016

Tasmania: Change in share of employment by labour force status 2006 to 2016



Source: ABS Census of Population and Housing, 2006 and 2016

Change in share of employment by labour force status, 2006 to 2016



Source: ABS Census of Population and Housing, 2016

Structural Challenge No. 4: Educational outcomes

Focus on level of educational attainment rather than foundations of education (literacy) and educational attainment composition



Tasmania's functional illiteracy rate is 46.4%.

- In 2011/12, nearly one in two Tasmanians aged 15 to 64 years of age did not possess the literacy skills or reading, writing and comprehension, considered necessary to function in life and work.
- Australia's functional illiteracy rate was 41.7%.
- In 2019, one in five Tasmanian grade 7 students started the year at or below the National Minimum Standard (NMS) for reading.
 - the proportion of grade 7 students who were at or above the NMS has been declining since 2014
 - For those grade 7 students whose parents' highest level of completed schooling was year 11 or below, two in five students (40%) are at or below the NMS for reading.
 - This poor level of reading skill was identified in both the Year 3 and Year 5 NAPLAN assessments for this grade 7 cohort. Most students who were at or below the NMS in grade 3 and grade 5, still were by the time they started high school.
 - Those who are not reading proficiently by this age are highly likely to struggle with the demands of the wider curriculum and are more likely to not complete school.
- For the working age population, in 2016, over half (57%) had not completed year 12. Of those who have completed year 12, three quarters (75.2%) were employed, as were 68.1% of those who completed year 10. Only 38% of those who completed year 9 or below were employed.

Educational Attainment Structure (EAS)

- Conceptualised by the International Labour Organisation (ILO)
- Provides a framework for linking education and skills to economic development and industry structure
- Defined as the share of the labour force by highest level of educational attainment
- Further defined by shape along a bell curve
- Explains the knowledge base of different labour forces
 - explains differences in industry structures and economic performance
 - holds for both developing and developed countries.
- Argues that capabilities to innovate and develop new products are influenced by the particular mix of educational, vocational and technical competencies, which increase with the diversity and complexity of the knowledge sets embodied in the labour force.

Two key types:

- ‘Strong middle’ EAS are those with relatively higher shares of vocational and technical education and training.
 - provides the widest range of options for developing and diversifying industry structures associated with a technological revolution.
 - Associated with a strong manufacturing sector
 - Enables innovation – to invent and design new products and services rather than just copy
- ‘Missing-middle’ EAS are polarised and present with relatively lower shares of vocational and technical education but higher shares of schooling and tertiary education.
 - provide limited options for advancing technological revolutions as the labour force lacks the broad supply of complementary occupations required in addition to tertiary qualified managers and professionals.
 - The relatively higher tertiary education share provides options to develop advanced services such as research and development, finance, tourism, ICT enabled services, and administrative services

Educational Attainment Structure

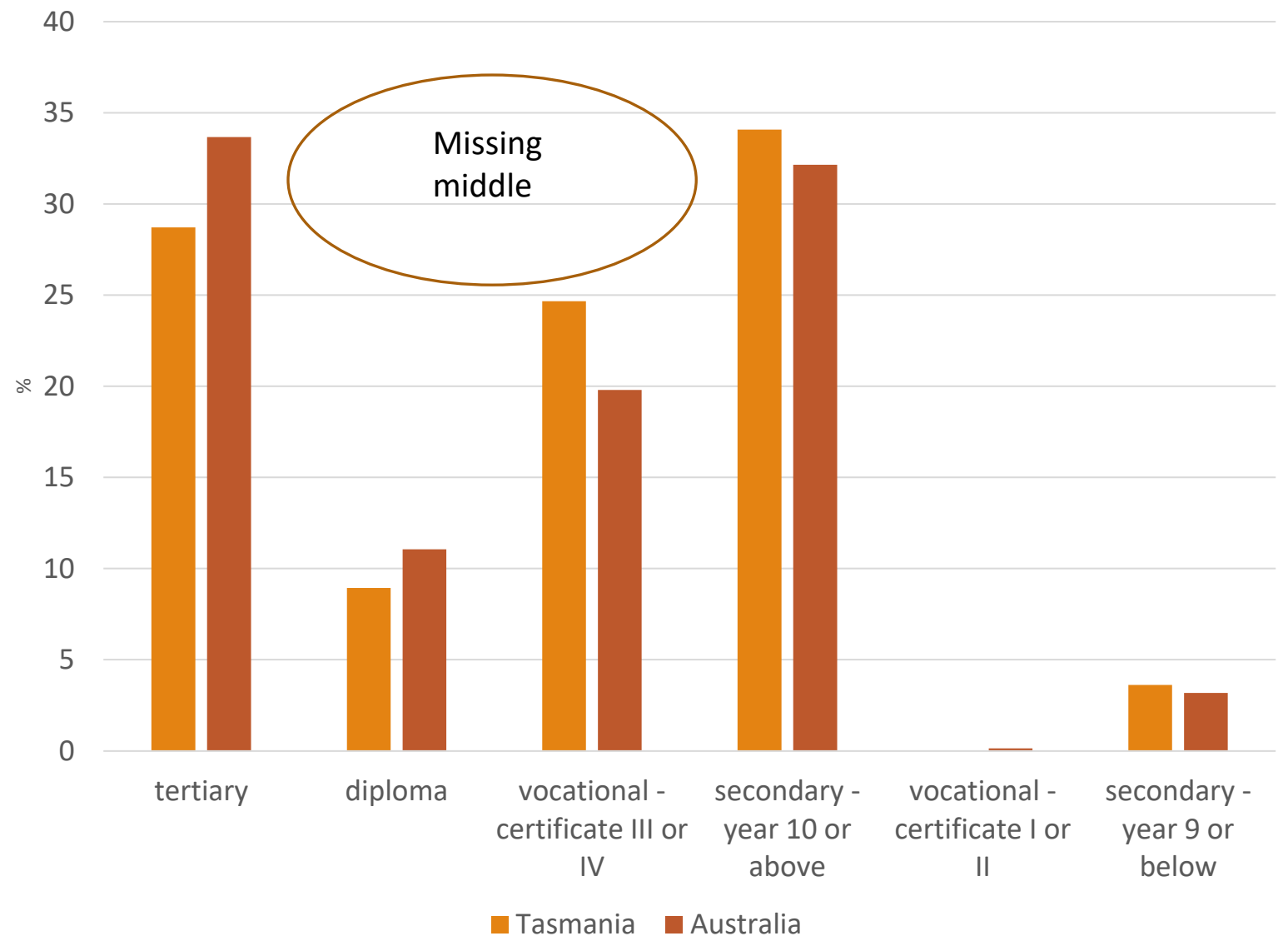
Tasmania's and Australia's EAS constrains its ability to innovate and diversify its industry base beyond a services-based economy.

The relatively higher tertiary education share provides options to develop advanced services such as research and development, finance, tourism, ICT enabled services, and administrative services

Good at imitation, adoption, process/incremental innovation but not invention or product innovation

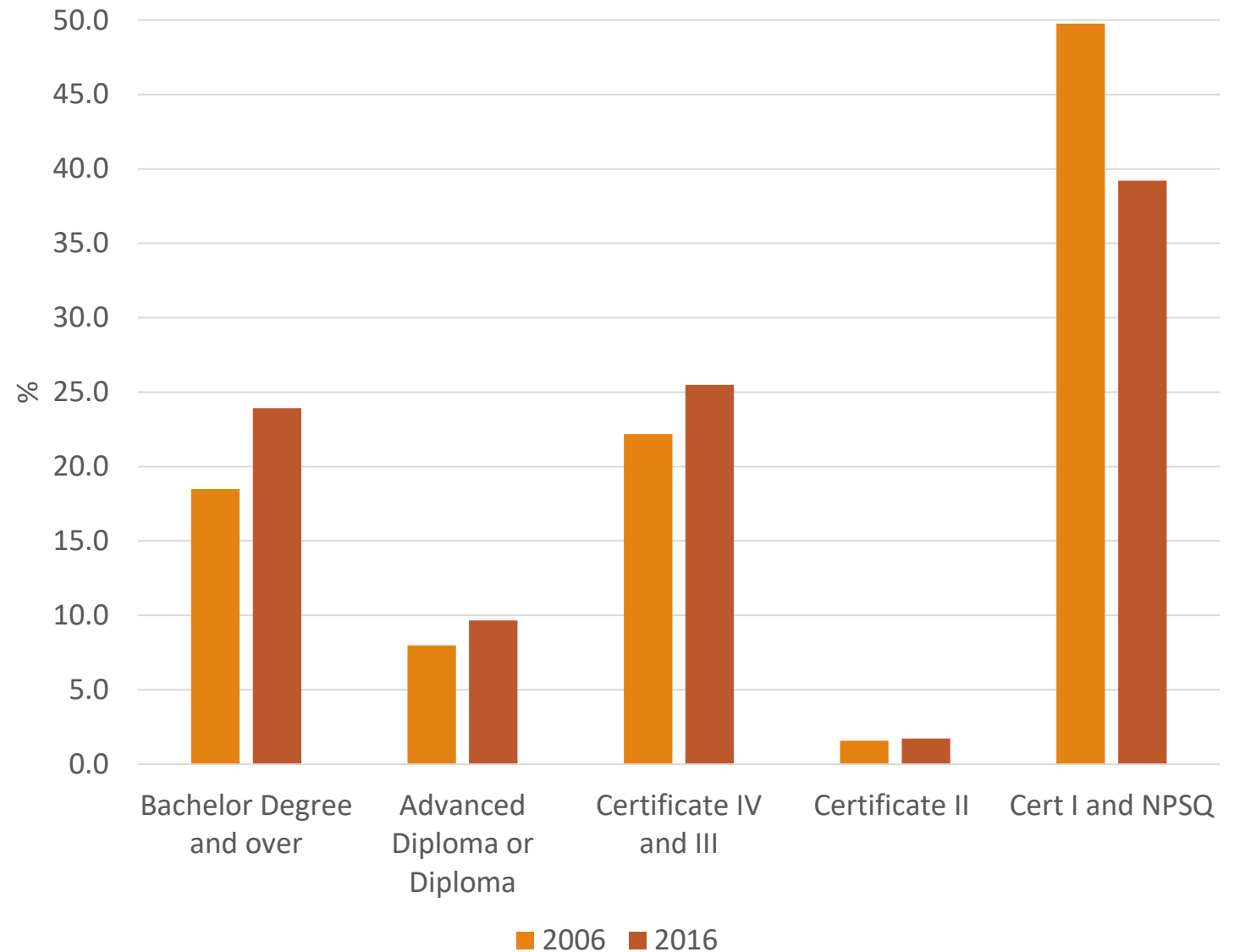
Critically, missing middle EAS are associated with higher level of social inequality

Educational Attainment Structure, Labour Force, 2019



Source: ABS, Education and Work, 2019

Highest level of educational attainment of the workforce, Tasmania, 2006 and 2016



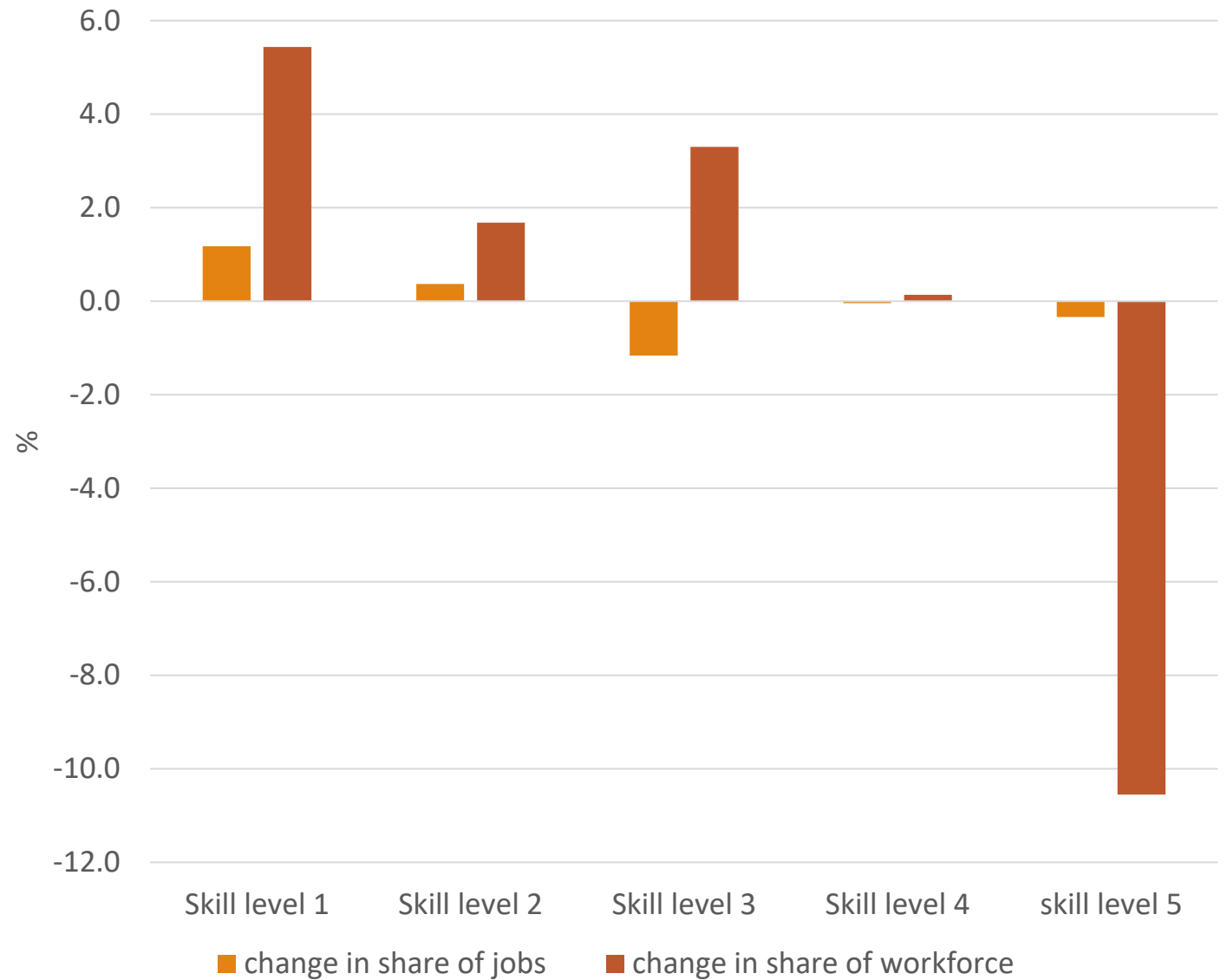
Source: ABS Census of Population and Housing, 2016

Change in the share of jobs and workers, by skill level, Tasmania, 2006 to 2016

Level of education required for the job

v

Level of education attained by worker



Source: ABS Census of Population and Housing, 2016

Tasmania: Workforce by occupation skill level and educational attainment, 2016

Dark orange diagonal = appropriate
education match

To the left of the dark orange = over-
qualification

To the right of the dark orange = under-
qualification

NB does not account for on-the-job
training and experience or skill mismatch

- Implications for productivity

	Bachelor Degree and over	Advanced Diploma or Diploma	Certificate IV and III	Certificate II	Cert I and NPSQ
Skill level 1	63.0	11.4	11.2	0.4	14.0
Skill level 2	21.6	20.1	23.8	1.5	33.1
Skill level 3	5.1	6.6	59.2	1.4	27.7
Skill level 4	9.1	9.7	28.5	2.3	50.4
Skill level 5	4.9	3.9	16.0	3.2	72.0

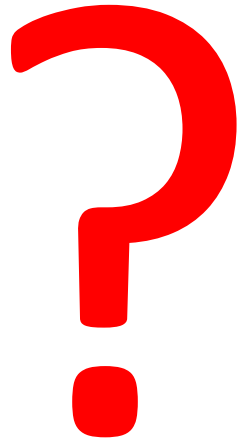
Source: ABS Census of Population and Housing, 2016

Young Tasmanians' career aspirations: mismatch between education and labour market

Young Tasmanians

- are deeply anxious about their future; the competition for jobs, insecure work, rising cost of living, lack of good jobs and having to leave the state for work
 - want meaningful work that they are passionate about
 - are more fearful than other young Australians about their ability to secure meaningful work
 - do not feel prepared for the future of work
 - have a low perception of vocational education and training and view it as a secondary option to tertiary education.
- This anxiety is being exacerbated by a misalignment between educational and occupational aspirations, underpinned by a lack of understanding of the labour market including the availability of the type of current and future jobs.
 - There is a clear lack of understanding of the types of jobs that will be available in the future and what their skill requirements may be.
 - There is a lack of confidence in achieving their educational and work aspirations.

The future for Tasmania post-COVID-19



Dependent on:

- economic policy
- strategic industry policy
- social policy
- industrial relations
- education and training policy

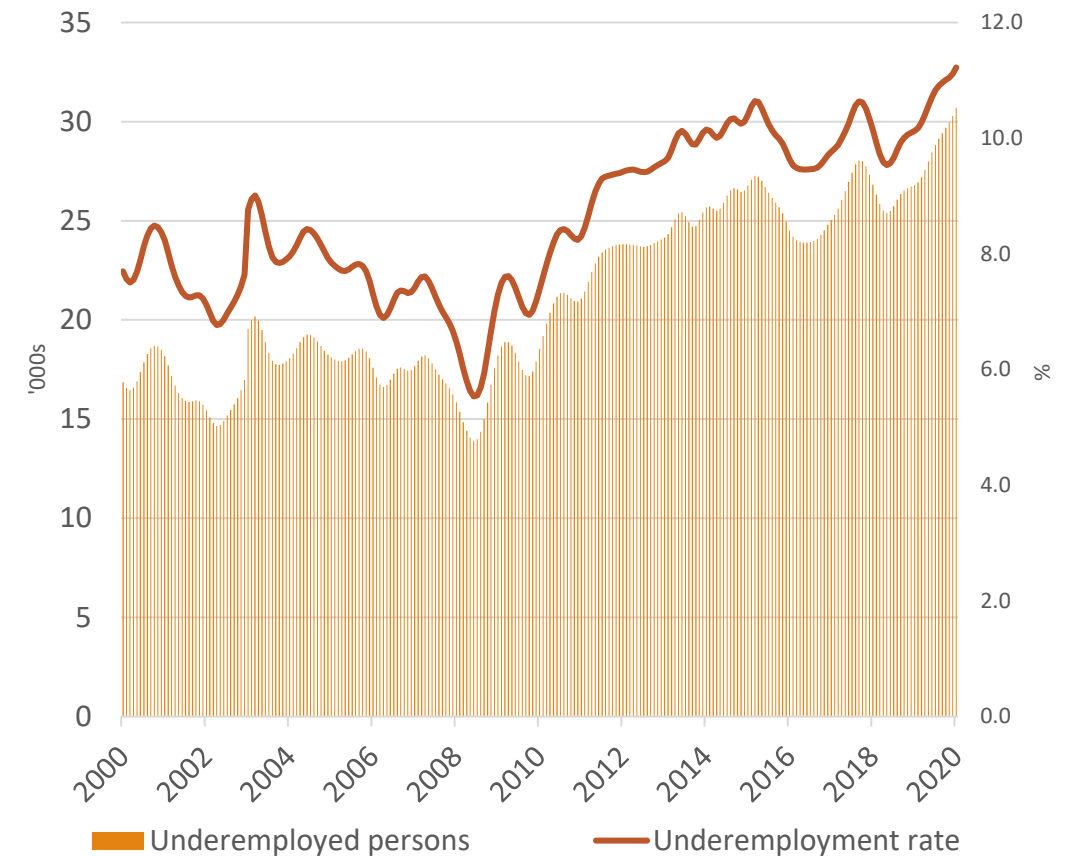
Comparison with the GFC 'recovery'

Pre-GFC

- There were more Tasmanians employed than ever before (242,100),
- the unemployment rate was 4.1%
- the labour force participation rate was 62.7%, the highest rate on record.

Post-GFC

- It took nine years to March 2017 to return to the same levels of employment. However, the unemployment rate and the labour force participation rate did not reach the same historically high levels as in September 2008.
- By February 2020, more Tasmanians were in employment than ever before (258,700). The unemployment rate (5.5%) was the lowest since July 2011, the labour force participation rate (61.7%) was the highest it has been since January 2009, and the number of unemployed was the lowest it had been since October 2011.
- Since the GFC, under-employment increased from 5.0% to 11.2% (doubling from 14,350 people in 2009 to 30,700 in 2020)
- youth unemployment reached the highest levels on record
- We saw a shift to part-time employment, an absolute loss in the number of full-time jobs, coupled with the rise of insecure work, the gig economy and the phenomenon of the disappearing working man, inequality widened, wages were suppressed, and yet the cost of living continued to increase.



Source: ABS, Labour Force, 6202.0

Vision

What sort of economy do we want?

What sort of society do we want?

What sort of jobs do we want?

What sort of lifestyle do we want?



Further reading

Reports:

Denny, L., *The Next Generation – The Tasmanian Seafood Industry Workforce* Tasmanian Seafood Industry Council, 2020

Denny, L and Pisanu, N, *Strategic policy responses to population decline: A synthesis of regional approaches and outcomes with policy recommendations for consideration from a Tasmanian context*, Tasmanian Department of State Growth, Tasmania, Australia (2020)

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Denny, L, “Insight Six: Positive signs, but how can we make it last? Tasmania’s changing population dynamics”, *Institute Insights*, Institute for the Study of Social Change, Hobart, Tasmania, 6 (2018)

Academic papers:

Osbaldiston, N and Denny, L and Picken, F in Tasmania: exploring interstate migration into the 'Apple Isle"', *Australasian Journal of Regional Studies*, **26** (1) pp. 55-76.

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Thank you

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