



Unlocking Tasmania's Youth Potential: A Focus on Engagement, Skills, and Economic Growth

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Mandala is an economics and policy advisory firm with offices in Melbourne, Canberra and Sydney.

Mandala specialises in combining cutting-edge data and advanced analytical techniques to generate new insights and fresh perspectives on the challenges facing governments, business and for-purpose organisations.

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Jobs Tasmania works with and across governments, community and business to increase employment outcomes, workforce participation and re-engagement with work, education or training for all Tasmanians.

Jobs Tasmania supports the Regional Jobs Hub Network across the state that connects people with jobs where they live.

The Premier has tasked Jobs Tasmania to lead the development of a *Youth Jobs Strategy* for Tasmania, in partnership with the Department of Education, Children and Young People, to address systemic failings that are producing poor employment, training and further education outcomes for young Tasmanians.

Jobs Tasmania engaged Mandala for to produce materials from research and analysis into youth education, employment, and investment in economic terms to support Jobs Tasmania's consultation process.



Executive summary

- I **More than ever, young Tasmanians are reaching higher levels of educational attainment, especially through VET pathways**

- II **However, many face a complex and changing labour market, socioeconomic and demographic challenges**

- III **Estimating the fiscal and social costs of disengagement, through the profiles of early school leavers and those not fully engaged, can help assess the impact of disengagement in Tasmanian youth**

- IV **Looking to the future, young Tasmanians will increasingly require support from the VET sector to train in high-demand industries**

- V **Appendix**



More than ever, young Tasmanians are reaching higher levels of educational attainment, especially through VET pathways

Although high school completions still lag other jurisdictions, young Tasmanians are more likely to complete Year 12¹ now compared to a decade ago

The Tasmanian trend since 2018 has been strongly positive, noting statistical anomalies.

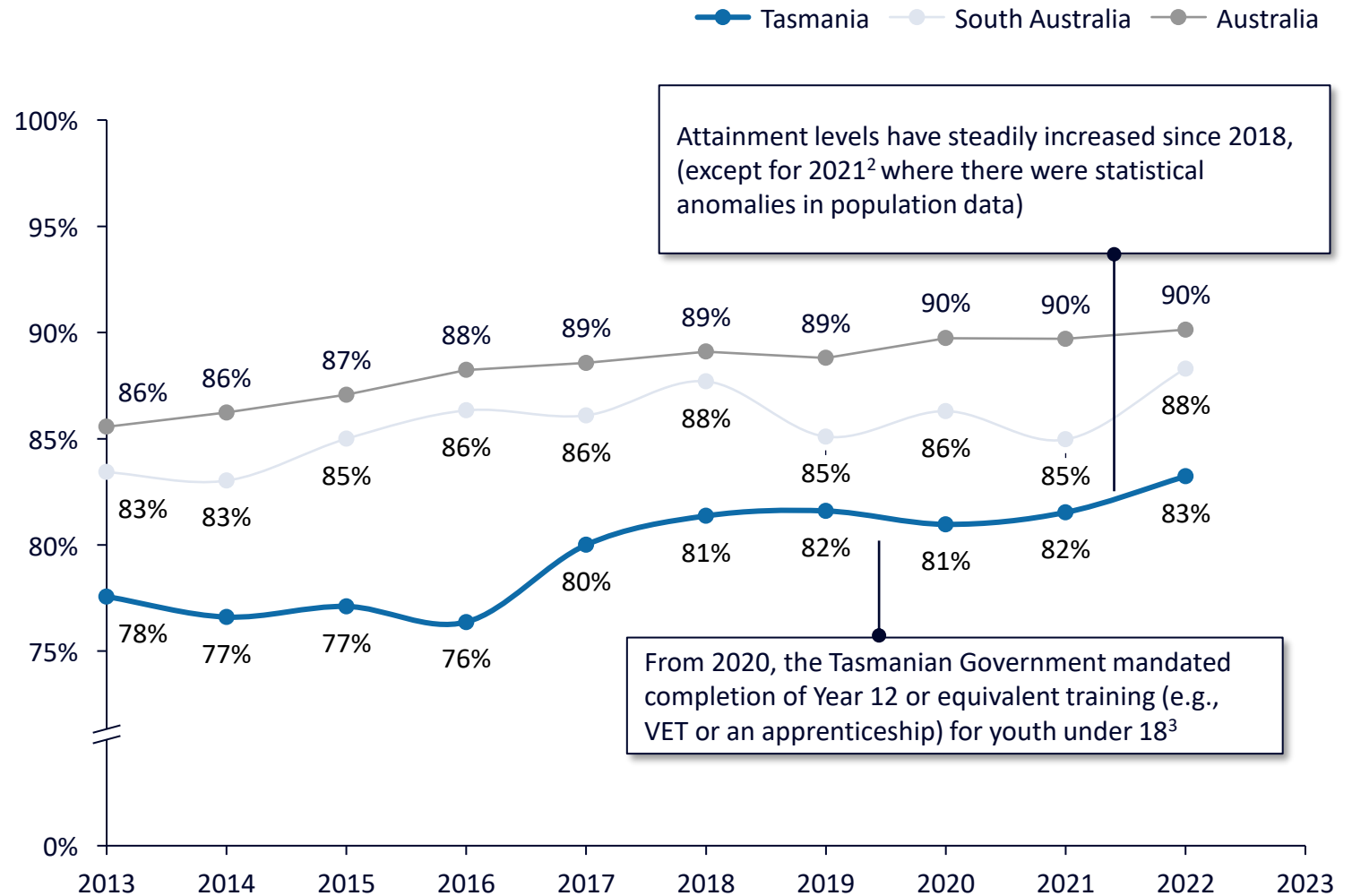
Educational attainment is linked to skills development, which is associated with higher rates of employment, productivity and lifetime earnings.¹ In particular, those who complete Year 12 or equivalent are more likely to continue with further education or training and have a more successful transition into the workforce.²

Since 2013, the proportion of 20–24-year-olds with at least a Year 12 or equivalent education has increased by 4% nationally, and 5% in Tasmania – with the gap between national and Tasmania narrowing by 1%. This is a similar performance compared to South Australia, who over that time also increased the proportion of young people with a Year 12 or equivalent qualification by 5%.

With skilled jobs increasing at a faster rate than ever, improving high school completion or equivalent should continue to be a core priority for policy and service design.

Notes: 1 Includes AQF certificate II or above. 2 Australian Government – Department of Education (2020) *Benefits of educational attainment*. 3 Australian Government – Australian Institute for Health and Welfare (2021) *Secondary education: school retention and completion*.

Proportion of the 20–24-year-old population having attained at least Year 12 or equivalent¹



Source: ACARA (2022) *Key Performance Measures for Schooling in Australia*.

Notes: 1. For smoothing purposes, data is measured in rolling three-year averages. Includes AQF Certificate II or above. 2 See Tasmanian Treasury (June 2023) *National, State and Territory Population*. 3 Tasmanian Government, Department of Education, Children and Young People, *Starting/Leaving Ages*.

Young people enrolled in VET in Tasmania are increasingly engaged in apprenticeships and traineeships with 11% growth since 2017

More young Tasmanians are taking up apprenticeships and traineeships. Total enrolments in these types of qualifications show an increase from 7.2k to 8.0k enrolments (+11% change) between 2017 and 2021.

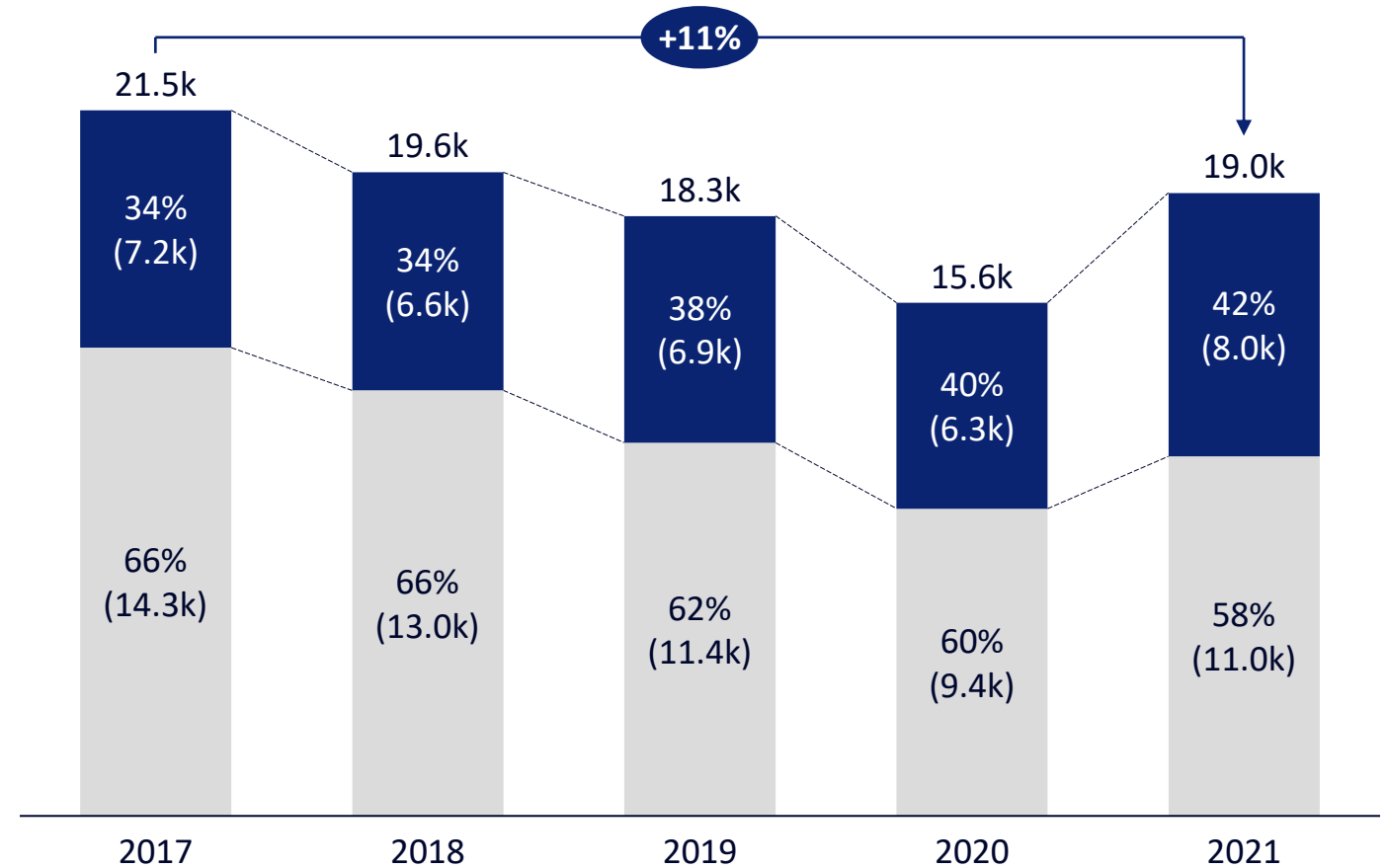
Apprenticeships are a growing proportion of VET enrolments. The proportion of total enrolments has increased, from 34% of enrolments in 2017 to 42% in 2021 (+8pp change).

Increasing enrolments in apprenticeships are likely a result of the COVID-19 subsidy programs established in Tasmania for the VET sector.

VET enrolments for Tasmanian youth, by student apprentice / trainee status

Proportion and number of total enrolments (2017 – 2021)

■ Apprentice or trainee
■ Other enrolments



Source: NCVET (2017-2021) Total VET students and courses 2021: program enrolments. Age cohort 15-24.

The top 3 industries for youth VET enrolments in Tasmania are in the top 5 projected growth industries for employment

Enrolments in Construction, Healthcare and Social Assistance, and Accommodation and Food Services-related courses represent 45% of all Tasmanian youth VET enrolments.

These industries are projected to be in the top 5 growth industries for absolute employment in Tasmania over the five years to 2025, demonstrating good alignment between education and skills demand.

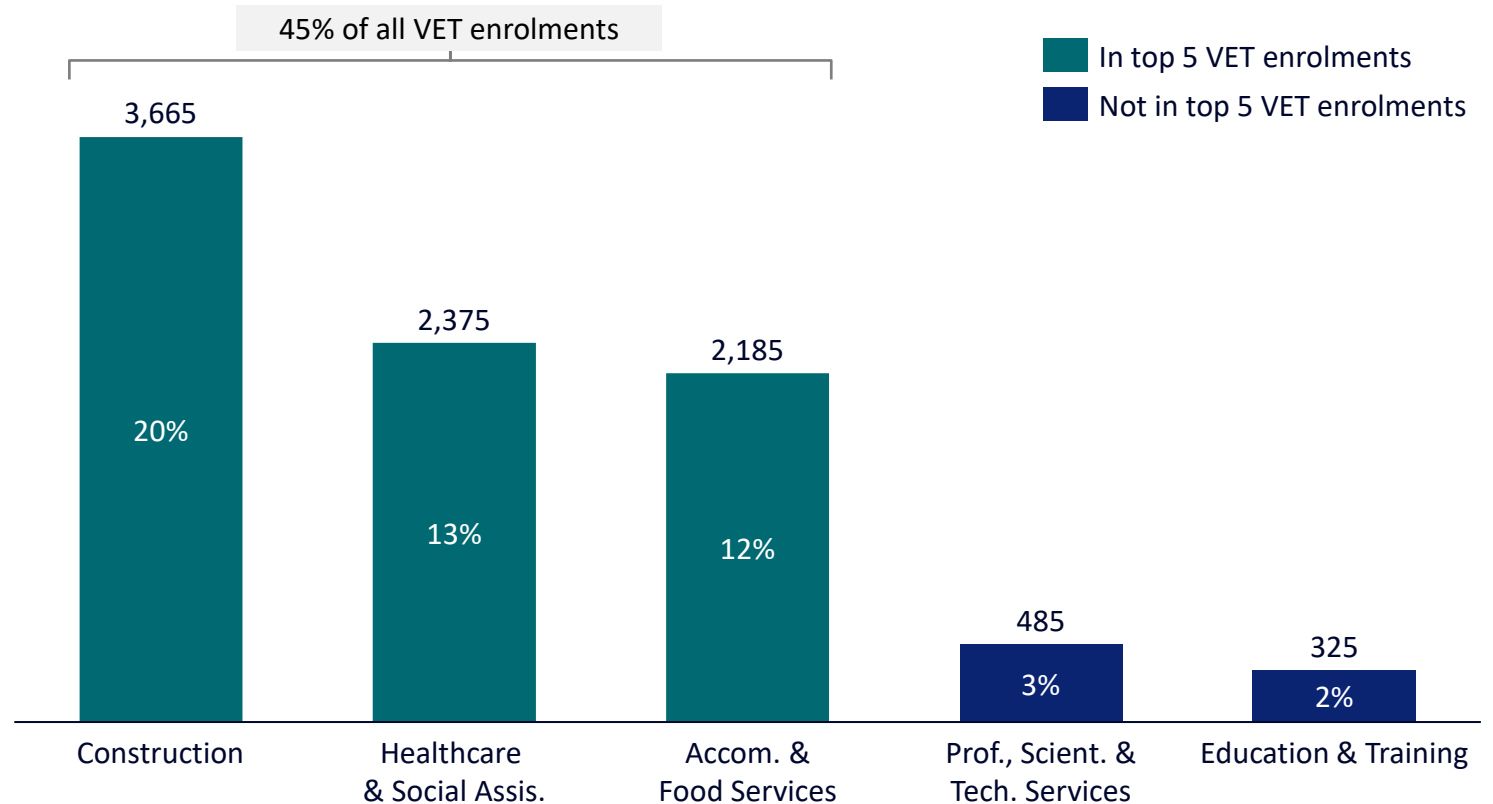
The other growth industries in the top 5, Professional, Scientific & Technical Services, and Education & Training, are industries that are more commonly serviced by tertiary education rather than vocational education and training.

Continued engagement between VET system planners, industry, students and families and local communities is needed to ensure that this alignment remains in coming years.

This is an increase in enrolments by 47% for Construction courses and 12% for Healthcare and Social Assistance since 2017. For Accommodation and Food Services however enrolments have declined by 15% across the same time period.

VET enrolments for Tasmanian youth in top five projected high growth industries

2021 total (per cent of all enrolments)



Notes: 1. Growth industries refer to industries with the highest projected employment growth over the period 2020-2025, from Jobs and Skills Australia. Administrative and Support Services and Other Services rank 11th and 10th respectively.

Source: NCVET (2017-2021) Total VET students and courses 2021: program enrolments. Age cohort 15-24. Jobs and Skills Australia (2020), 2020 Employment Projections, five years to November 2025. Note projections at the state level for the five-year period from 2023 not available, meaning some of this growth will have already occurred.

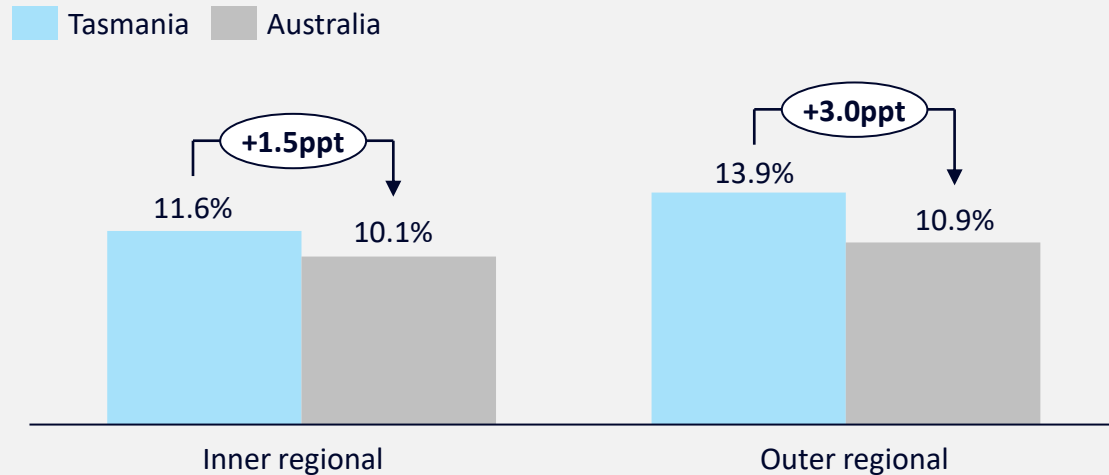


|| However, many face a complex and changing labour market, socioeconomic and demographic challenges

Tasmanian youth are overrepresented in the disengaged population

Rates of disengagement from work and study in Tasmania, compared to Australia

% young people (15-24) not engaged in work or study on a full nor partial basis, by type of region



Young Tasmanians in inner regional areas (which include cities such as Hobart, Launceston and Devenport) and outer regional areas see higher disengagement in work and study compared to their Australian counterparts.¹ This cohort can be referred to as 'NEET'; not engaged in education or training.

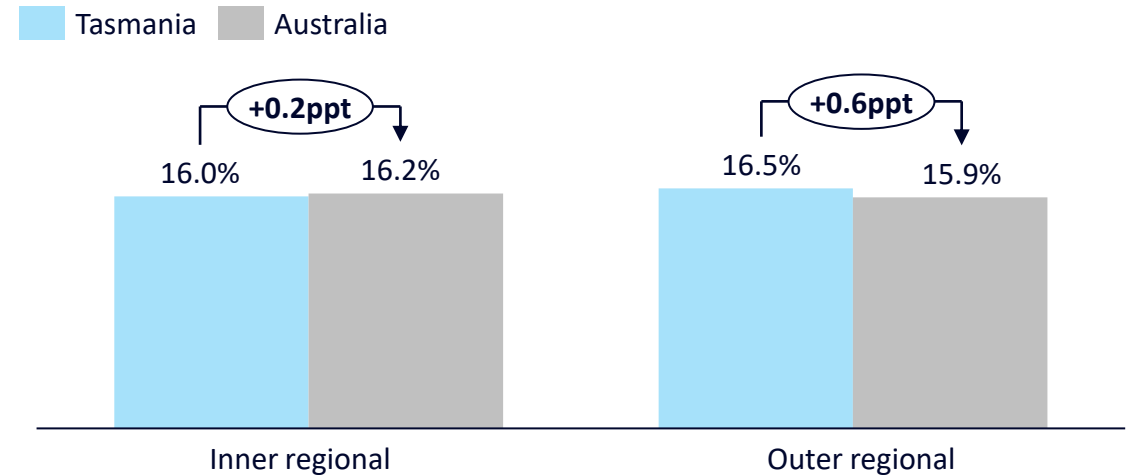
Notes: 1 The exception to this is remote and very remote young Tasmanians between 15 and 24 years old, who are more engaged than their Australian counterparts with rates of disengagement of 14.5% and 27.8% respectively. However, these comprise a very small number of people; 101 from a cohort of 708 in Tasmania, and 12,939 from a cohort of 46,431 in Australia.

Sources: ABS (2021) Census.

However, Tasmanians and Australians have similar rates of partial engagement

Rates of partial engagement from work and study in Tasmania, compared to Australia

% young people (15-24) partially engaged in work or study, by type of region



Young Tasmanians in inner regional areas have similar rates of partial engagement,¹ compared to their Australian counterparts.² In outer regional areas, however, rates of partial engagement are slightly higher than their Australian counterparts.

Notes: 1 This includes people doing part-time study or work, or those engaged in those activities but unable to be determined as engaged on a full or part-time basis. 2 Similar to the NEET cohort, the remote and very remote cohort see a much higher rate of partial engagement in Tasmania of 21.3% compared to Australia's 13.5%, but this comprises a small cohort of 151 of 708 and 6,248 of 46,431 respectively.

Sources: ABS (2021) Census.

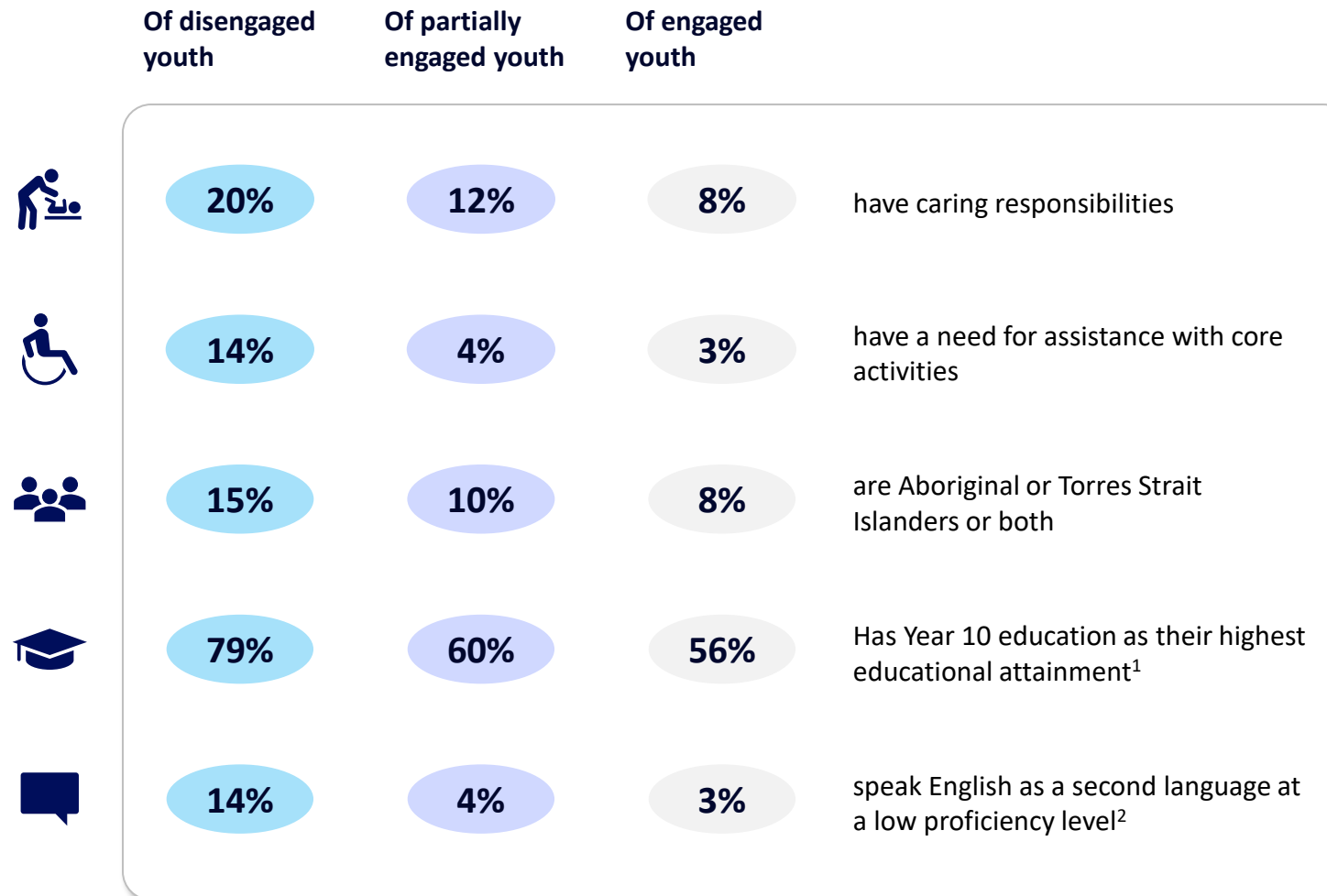
Tasmanian youth who are disengaged or partially engaged likely face complex social challenges

Compared to engaged Tasmanian youth, Tasmanian NEETs and partially engaged youth tend to:

- have higher levels of **caring responsibilities**,
- require more **assistance with core activities**,
- are more likely to be of **Indigenous background**,
- have **lower levels of education**; and,
- have more **difficulty with the English language**.

Policies and interventions to increase engagement will need to consider the “whole of person” context of Tasmania’s NEET cohort, including intersections with family, cultural and regional contexts.

Representation of various groups within the disengaged, partially engaged, and engaged cohort in Tasmanians aged 15-24

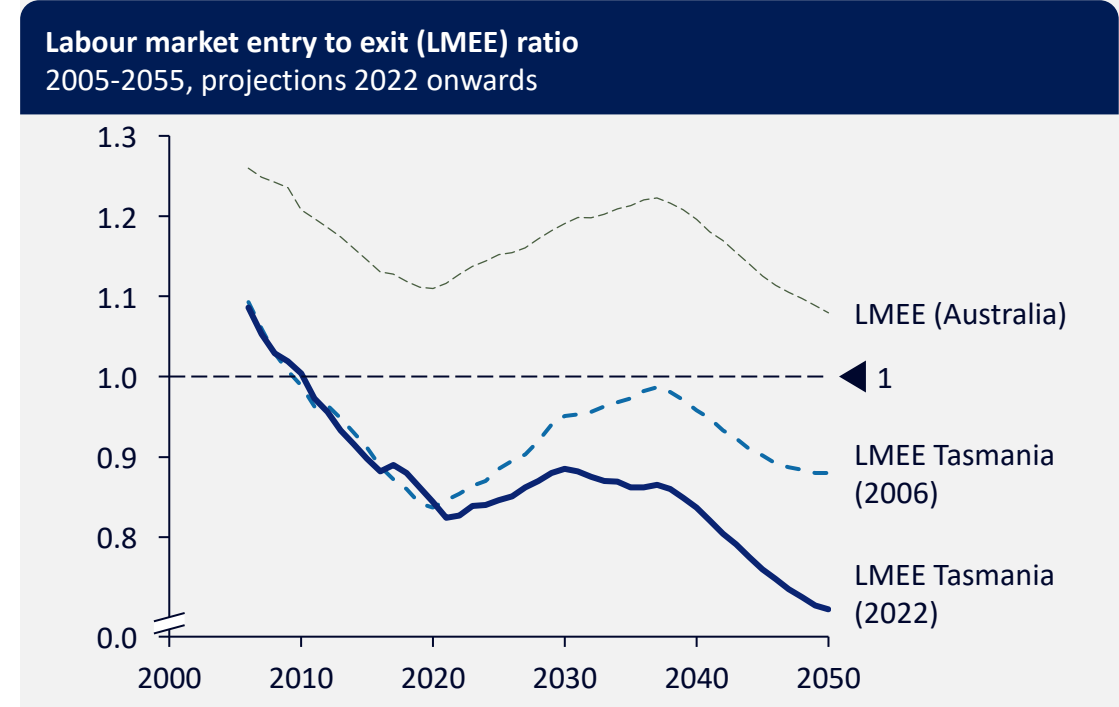
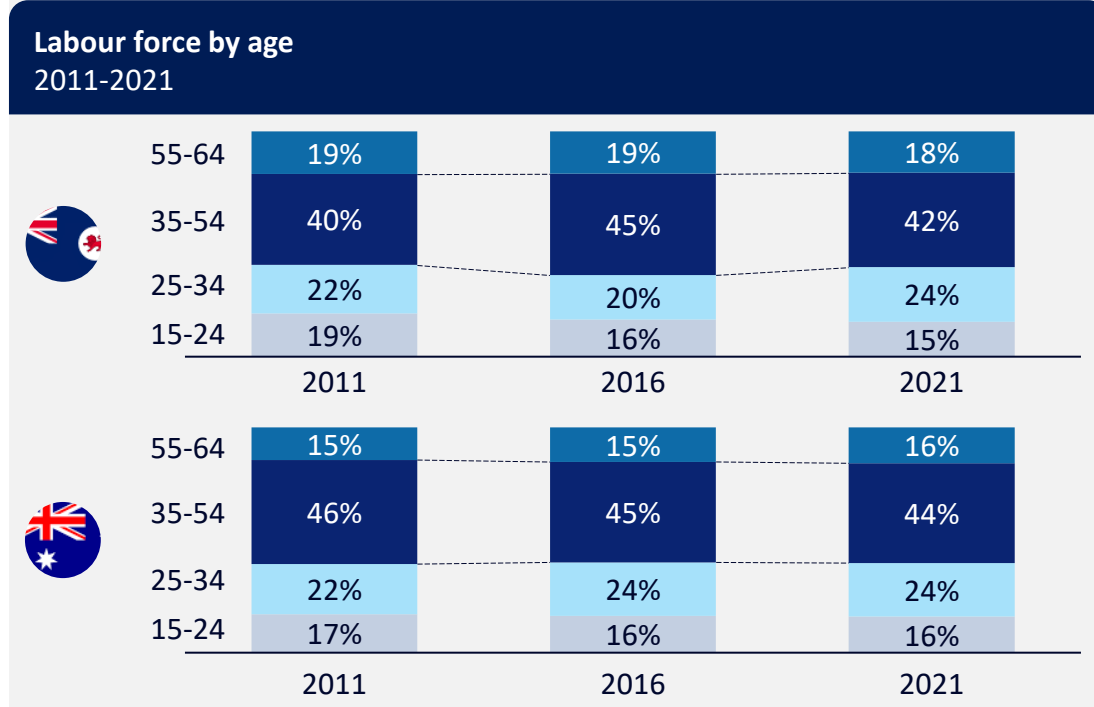


Notes: 1 Only includes ages 20-24 years old. 2 Of those who speak another language, % who speaks English not well or not at all.
Sources: ABS (2021) *Census*.

Tasmania has a relatively older workforce, and this trend will likely increase in coming decades

Tasmania has consistently had an older workforce in the last decade compared to the rest of Australia, with at least 2% more of the workforce comprising those within the 55-64 age group. This age group is likely to exit the workforce to retire, and Tasmania having a larger share of this group means a shrinking workforce unless offset by a larger number of young people joining the workforce, which has not been the case.

Labour market entry to exit (LMEE) projections, a ratio of the number of potential workforce entrants aged 15 to 24 against the 55 to 64 age group – show Tasmania has consistently seen and will continue to expect a shrinking workforce. Latest modelling in 2022 increased estimates of this deficit compared to the previous version in 2006. Policy actions such as migration or youth engagement can help support Tasmania’s labour force through this workforce shrinkage.



Source: ABS (2021) Census, ABS (2018) Population projections, Australia, ABS (2016) Census, ABS (2011) Census, Denny (2023) Explainer: why Tasmania has a workforce supply issue, not a workforce demand issue.



III Estimating the fiscal and social costs of disengagement can help assess the impact of disengagement in Tasmanian youth

We can estimate fiscal, economic costs and social costs of disengagement of youth in Tasmania for two profiles: early school leavers and disengaged young adults

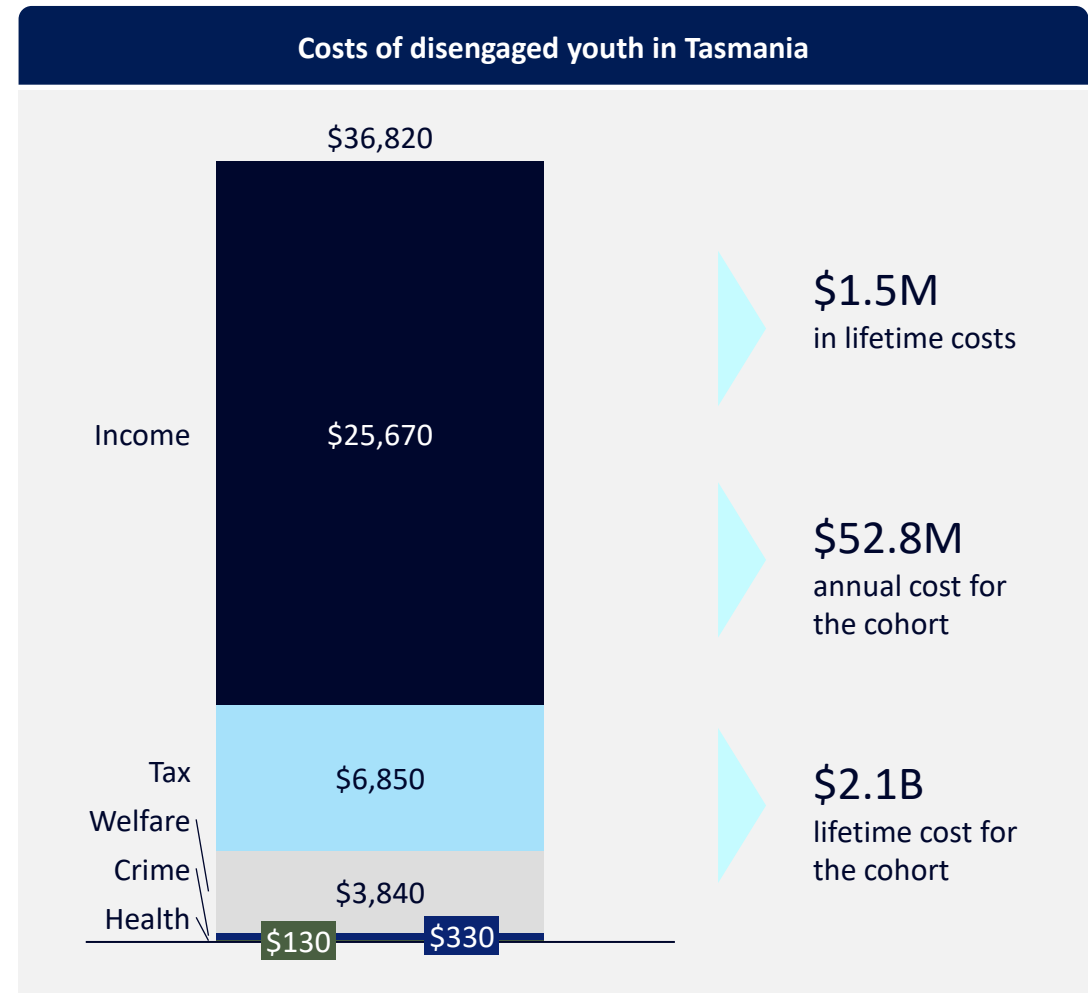
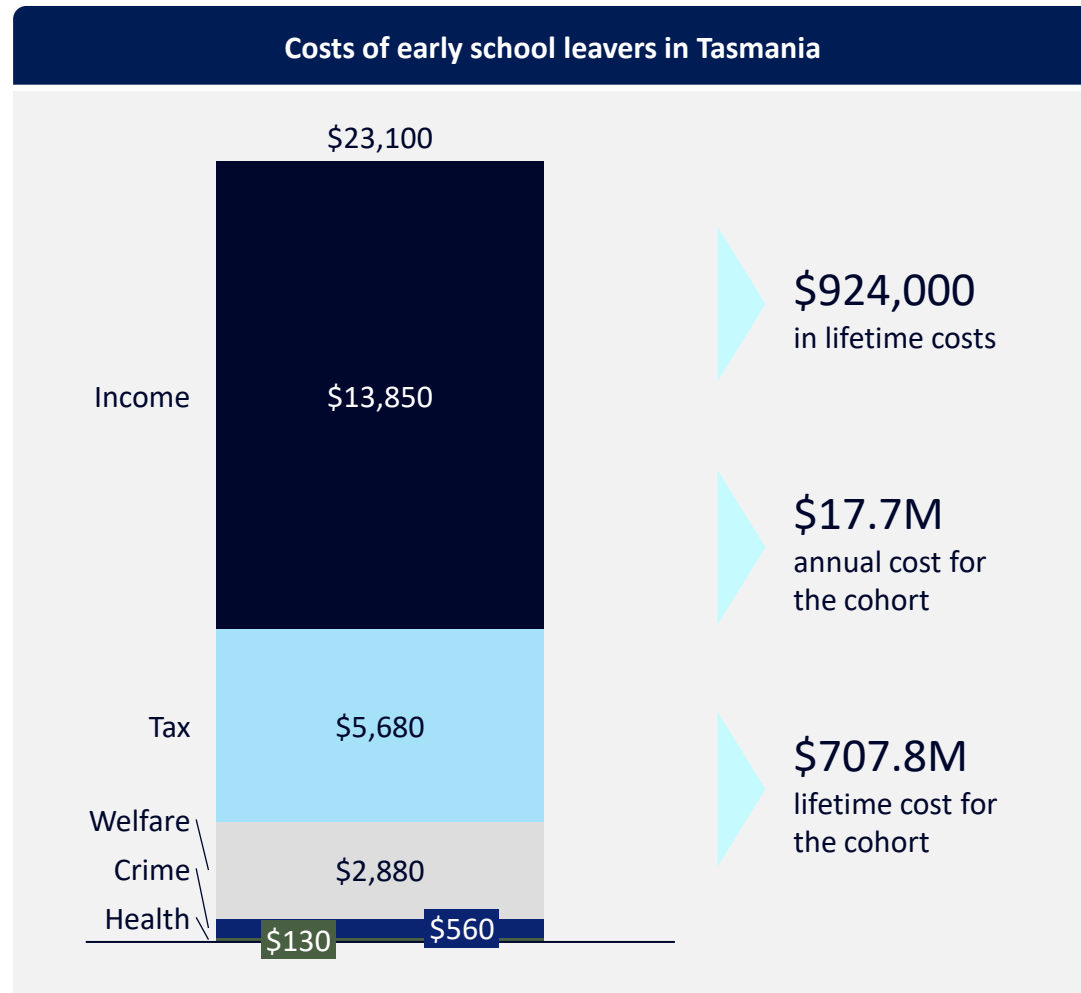
Categories to assess cost of disengagement in Tasmania

Definitions	Method and data		
Type of cost	Cost per person	Lifetime and annual costs	Cost related to Tasmania
<p>Fiscal and economic (i.e., costs to government and public funds) Includes tax payments, reliance on government health programs, criminal justice costs, reliance on welfare</p>	<ul style="list-style-type: none"> • Tax revenue from personal income of engaged v disengaged cohort in Tasmania (ABS) • Reliance and costs to welfare of engaged v disengaged cohort (ABS, Services Australia, HILDA) • Costs to the justice system, engaged v disengaged cohort in Tasmania (HILDA, SCRGSP¹) • Costs to the health system, engaged v disengaged cohort in Tasmania (HILDA, SCRGSP¹) 	<p>Lifetime costs will calculate and include age-based fluctuations</p> <p>Annual costs will be calculated by dividing lifetime costs by average Tasmanian working lifetime</p>	<p>Number of early school leavers People who fail to complete Year 12 or equivalent by age 19, and do not return to complete</p>
<p>Social (i.e., personal costs and costs to the community) Includes individual losses, social costs of poorer health, losses from increased crime, excess burden on taxation, reduced productivity spill overs</p>	<ul style="list-style-type: none"> • Personal income of engaged v disengaged in Tasmania (ABS) • Non quantified: social costs of poorer health, losses from increased crime, excess burden on taxation, and reduced productivity spill overs 	<p>Annual costs will be calculated by dividing lifetime costs by average Tasmanian working lifetime</p>	<p>Number of people experiencing disengagement People not in full time work or study at age 24, and remain disengaged</p>

Notes: 1 Or from equivalent or similar data sources.

Source: Mitchell Institute (2017), *Counting the costs of lost opportunity in Australian education*

Engaging early school leavers and disengaged youth could save \$23,100 and \$36,820 annually in costs for the community and individuals



Notes: Differences in income between early school leavers and disengaged cohort come from disparities in projected employment outcomes. Early school leavers are projected to earn less throughout their lifetime, but a smaller portion of disengaged youth tend to find jobs, and when they do it tends to be low-wage and temporary – leading to a greater loss of income. For differences in costs for crime; early school leaving has a close relationship with crime; offending and imprisonment, at a greater magnitude than the disengaged cohort, some of whom will have completed schooling.
 Source: Mitchell Institute (2017), *Counting the costs of lost opportunity in Australian education*, Mandala analysis.

Young engagement programs, such as Fit For Work (‘FFW’) cost only \$6,800 annually – a fraction of the losses from disengagement

Bruce, 20

Bruce was referred to FFW to upskill his work readiness skills, investigate employment options, having found it difficult to find work and been homeless for two years

The FFW Program assisted Bruce to:

- develop a case management plan for Bruce, who is diagnosed with autism and Asperger’s Syndrome, towards achieving his goals
- develop a resume, cover letter, interview skills, and access funded driving lessons
- be referred to accommodation support services.

With FFW’s assistance, Bruce obtained NDIS supports, secured a place in social housing, joined a local volunteering program to obtain work experience and enrolled in a TAFE course for hospitality.



Hannah, 20

Hannah was connected to FFW through Wise Employment, experiencing severe social anxiety and depression, and was finding her employment at Kmart stressful and triggering

The FFW Program assisted Hannah to:

- access GP appointments and receive medical assistance for anxiety and depression
- make role adjustments at her workplace to provide Hannah with a less stressful experience, whilst developing a resume, cover letter and completing applications to seek other work
- discuss her work aspirations, including being a dance teacher.

Hannah now runs dance workshops from time to time, has enrolled in a Dance Teaching and Management qualification and plans to run her own dance school soon. In the meantime, she continues to work at Kmart for additional income as she transitions between careers.





- IV Looking to the future, young Tasmanians will increasingly require support from the VET sector to train in high-demand industries

There is currently a mismatch between the level of skills sought by employers and those held by the population in Tasmania

While 57% of advertised roles in Tasmania state a requirement for a Bachelors degree, only 18% of Tasmanians hold such a qualification.

However, the trends in skills required for advertised jobs in Tasmania appear to mirror that observed nationwide.

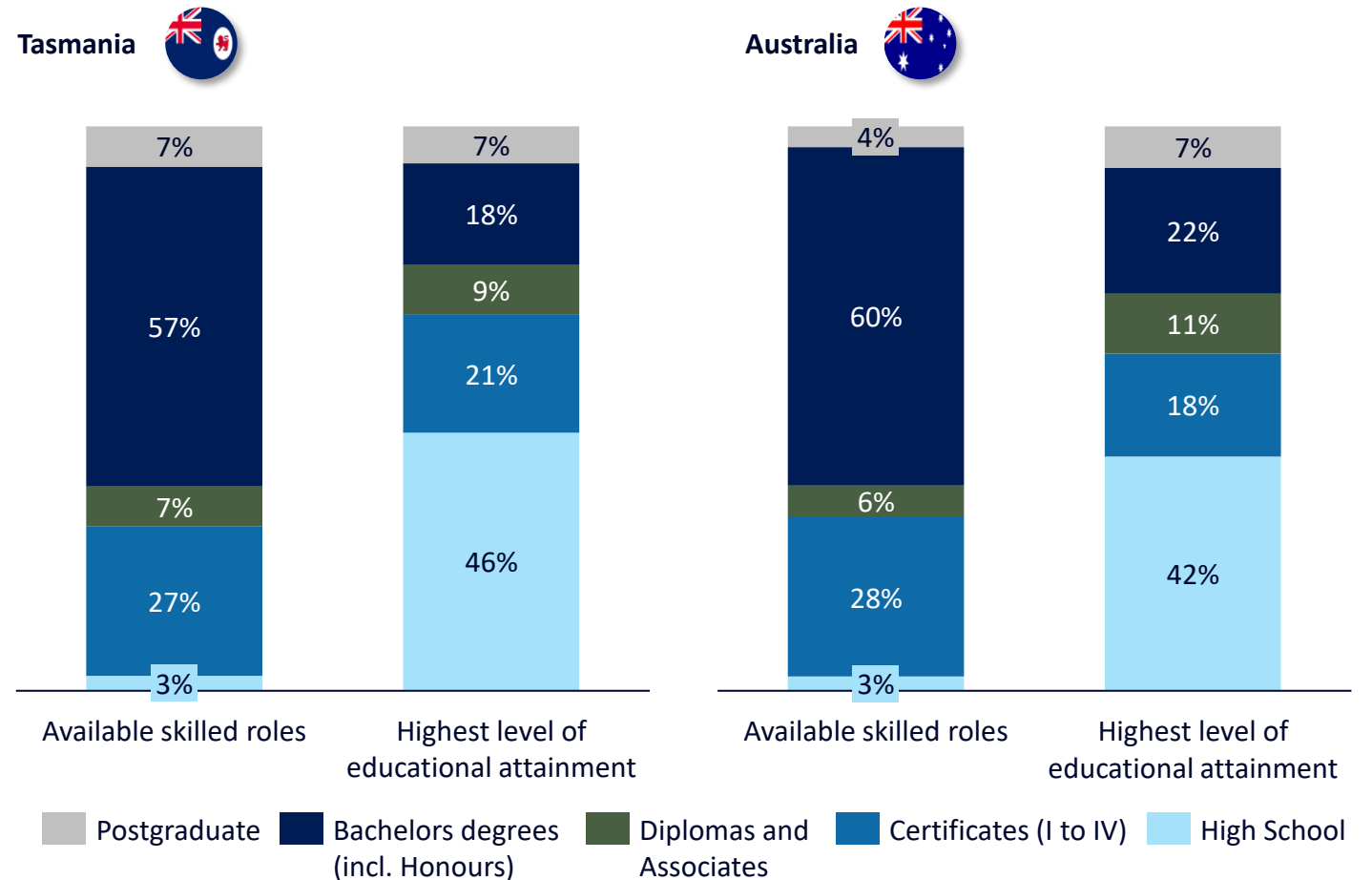
The majority of Tasmanians (67%) hold a certificate or below level of educational attainment, compared to only 30% of advertised roles requiring such a skill level.

This is similar to the trends nationally, where the majority of skilled jobs available require at least a bachelor degree (60%), greater than the proportion of the population holding such a degree (22%).

Tasmania shows a slightly higher percentage of the population with highest attainment being High School than the mainland (46% vs 42%).

Job demand and current education by skill level (year to June 2023)

Per cent of total roles advertised and per cent of population



Jobs requiring Certificate-level skills comprise more of the jobs available in 2022 than in 2016

In Tasmania the proportion of available jobs requiring Certificate-level skills has increased by 7ppt, from 20% of advertised roles in 2016 to 27% of advertised roles in 2022.

In contrast, the proportion of roles requiring Bachelors or Diploma level skills have declined by 6ppt and 1ppt respectively.

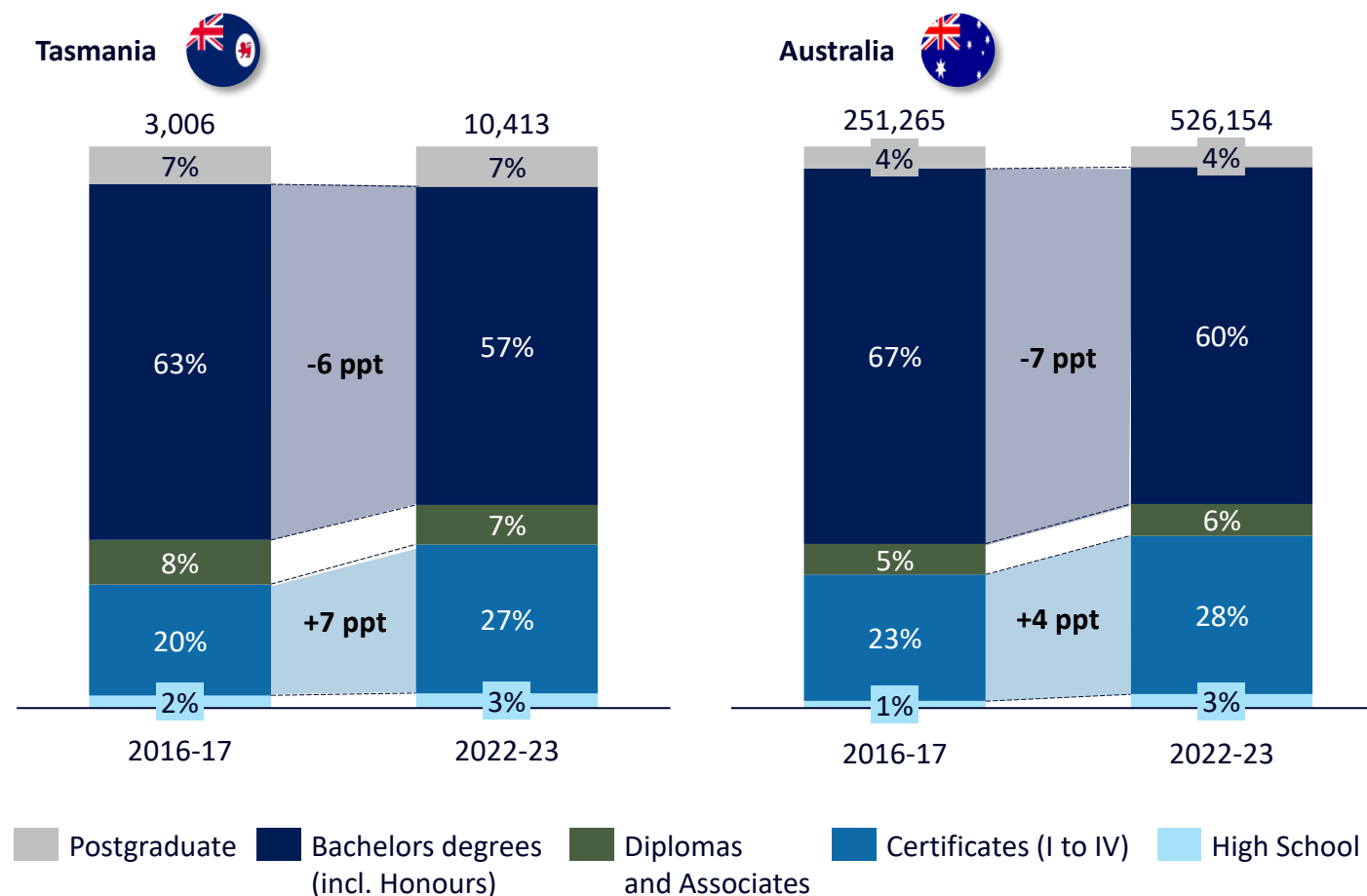
This is a similar trend to that observed Australia-wide, however the growth in roles requiring certificate-level skills has increased more in Tasmania (+7ppt) than Australia-wide (+4ppt).

These figures do not separate Certificate skills requirements into individual levels (I to IV), which Jobs Tasmania understands will mask the significant level of difference between skills.

With increasing advertisements in the certificate-level skilled jobs, Tasmania will need to ensure the supply of VET education is in the appropriate areas and at the appropriate level to meet employment market demand. School leavers should be encouraged to make informed choices about post-school study options informed by market demand.

Job demand by skill level (2016 and 2023)

Per cent of total roles advertised



Since 2019-20 there has been a 113% increase in the number of online advertised skilled roles in Tasmania

Since COVID (2019-20), the volume of online job advertisements in Tasmania has risen sharply, particularly for Certificate-level roles, from a total of 4.9k in 2019-20 to 10.4k in 2022-23. This represents an increase of 113%.

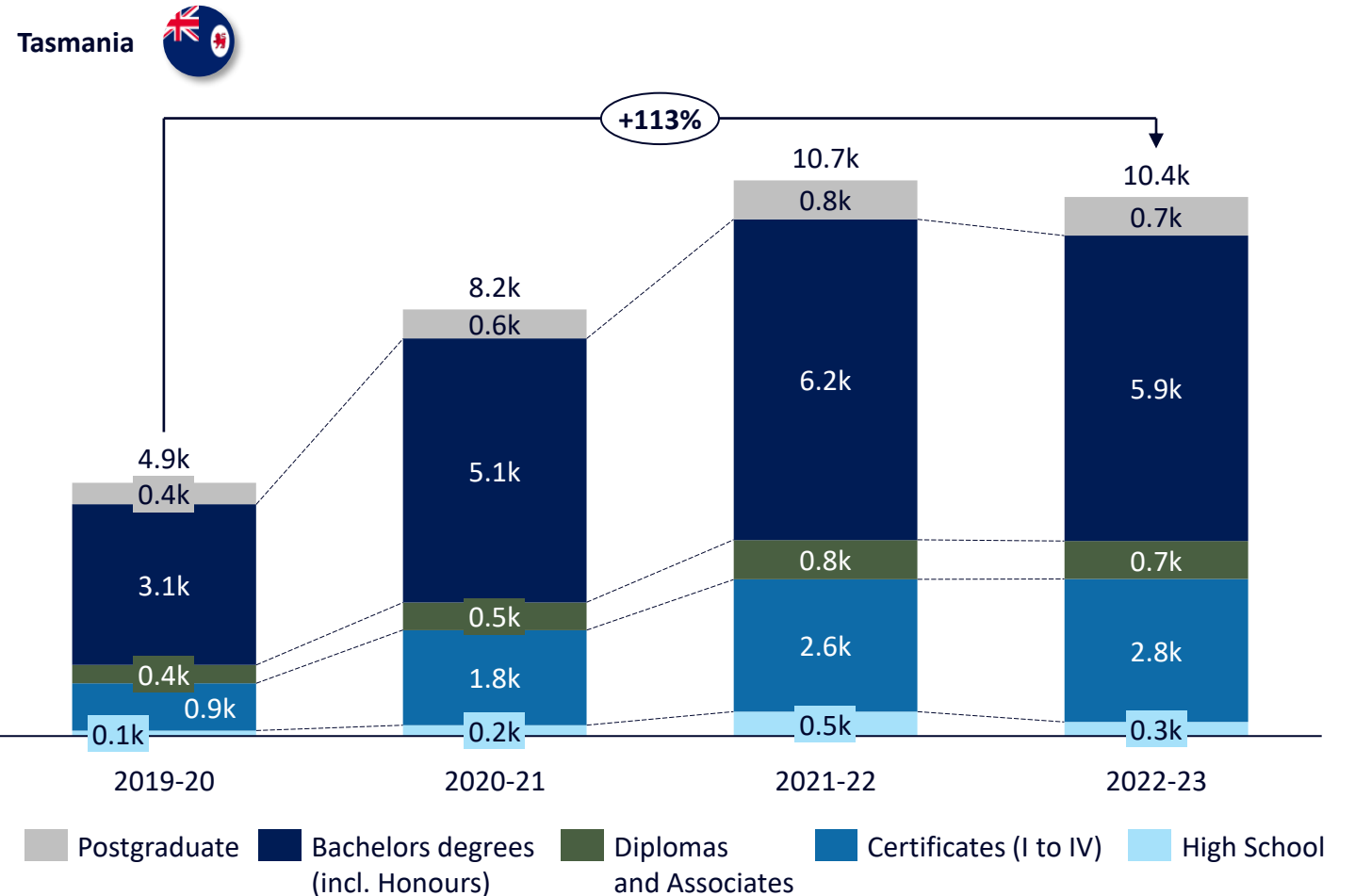
Jobs Tasmania's research shows these roles have been traditionally been advertised or filled through offline methods, such as word-of-mouth recruitment through networks.

In particular, the number of Certificate-level roles advertised online has increased sharply, from only 900 in 2019-20 to 2.8k in 2022-23.

This suggests that labour markets have been broadening and access to roles has changed in nature. Regional Hubs and approaches to youth education and employment will need to address all aspects to identify appropriate roles and opportunities for young Tasmanians.

Job demand by skill level (2019-2023)

Per cent of total roles advertised

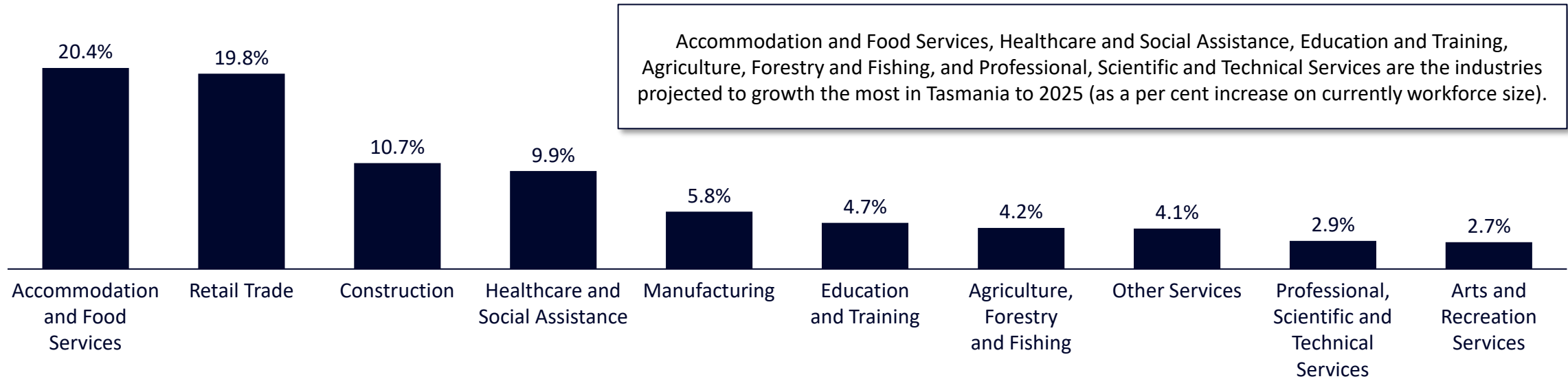


Source: Lightcast (2019-2023)

Young Tasmanians can be supported to enter projected high-growth industries, such as healthcare, education, professional services, and arts and recreation services

Youth employment by Tasmanian industry, top 10 industries¹

Per cent of all youth employees, 2021



Projected employment growth industry, Tasmania

Per cent increase in employment, to 2025



Note: 1. Top 10 employing industries in 2021 shown and bottom 7 industries not shown. Note per cent values will not sum 100% due to bottom industries not shown. Youth refers to individuals aged 15-24 years. Note projections at the state level for the five-year period from 2023 not available, meaning some of this growth will have already occurred.

Source: ABS (2021) Census; Jobs and Skills Australia (2020), 2020 Employment Projections, five years to November 2025.



Appendix

Our method calculates the cost per individual, then at cohort level for Tasmania












Item	Change	Ratio	Difference	Source	Adjusted to 2023 by
Income	↓	0.84	Lower median incomes	ABS Personal Income in Australia (2022)	WPI
Tax	↓	0.74	Lower income tax revenue	ATO Taxation Statistics (2023)	WPI
Welfare	→	1	Hold constant between states	Services Australia (2023)	CPI
Crime	↓	0.93	Lower costs for crime and law enforcement	Productivity Commission (2023)	CPI
Health	↑	1.05	Higher costs of public health	Productivity Commission (2023)	Health inflation (AIHW)

Cohort	Total	Long term cohort	Source
Number of early school leavers in Tasmania	1,660	766 (0.46%)	ABS Census (2021), Tasmania Treasury (2023)
Number of disengaged in Tasmania	2,925	1,435 (0.49%)	

Sources: ABS *Personal Income in Australia* (2022); ATO *Taxation Statistics* (2022); Productivity Commission (2023) *Report on Government Services E Health*, Table 12A.54, Average cost per service event, 2020-21 dollars; Productivity Commission (2018 and 2023), *Report on Government Services C Justice*, Table CA.2 Real recurrent expenditure per person on justice services; AIHW (2021) *Health expenditure Australia 2019-20*

Early school leavers in Tasmania have annual costs per person of \$23k, primarily driven by a \$13.8k loss to personal income compared to school completers










Costs of early school leavers in Tasmania

Type of disengagement	Type of cost		 Cost per person Annual (lifetime)	 Cost for population Annual (lifetime)
Early school leaving People who fail to complete Year 12 or equivalent by age 19	Total		\$23,100 <i>(\$924,000)</i>	\$17.7 million <i>(\$707.8 million)</i>
	Fiscal and economic	 Tax	\$4,930 <i>(\$197,300)</i>	\$3.8 million <i>(\$151.2 million)</i>
		 Welfare	\$2,880 <i>(\$115,200)</i>	\$2.2 million <i>(\$88.3 million)</i>
		 Crime	\$110 <i>(\$4,460)</i>	\$85,500 <i>(\$3.4 million)</i>
		 Health	\$130 <i>(\$5,050)</i>	\$92,500 <i>(\$3.7 million)</i>
	Social	 Gross income	\$13,850 <i>(\$554,070)</i>	\$10.6 million <i>(\$424.7 million)</i>
		 Crime	\$450 <i>(\$17,860)</i>	\$342,000 <i>(\$13.7 million)</i>
		 Marginal excess tax burden	\$750 <i>(\$29,930)</i>	\$572,500 <i>(\$22.9 million)</i>

Source: Mitchell Institute (2017), *Counting the costs of lost opportunity in Australian education*

Disengaged youth in Tasmania have annual costs per person of \$36.8k, primarily driven by a \$25.7k loss to personal income compared to those fully engaged

Costs of disengaged youth in Tasmania

Type of disengagement	Type of cost	 Cost per person Annual (lifetime)	 Cost for population Annual (lifetime)	
Disengaged youth People not in full time work or study at age 24	Total	\$36,820 <i>(\$1.5 million)</i>	\$52.8 million <i>(\$2.1 billion)</i>	
	Fiscal and economic	 Tax	\$5,870 <i>(\$234,720)</i>	\$8.4 million <i>(\$336.8 million)</i>
		 Welfare	\$3,840 <i>(\$153,600)</i>	\$5.5 million <i>(\$220.4 million)</i>
		 Crime	\$110 <i>(\$4,460)</i>	\$160,150 <i>(\$6.4 million)</i>
		 Health	\$130 <i>(\$5,050)</i>	\$181,340 <i>(\$7.3 million)</i>
	Social	 Gross income	\$25,670 <i>(\$1.0 million)</i>	\$36.8 million <i>(\$1.5 billion)</i>
		 Crime	\$220 <i>(\$8,930)</i>	\$320,300 <i>(\$12.8 million)</i>
		 Marginal excess tax burden	\$980 <i>(\$39,150)</i>	\$1.4 million <i>(\$56.2 million)</i>

Source: Mitchell Institute (2017), *Counting the costs of lost opportunity in Australian education*

References

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- ABS (2018) *Population projections, Australia*
- ABS (2016) *Census*
- ABS (2011) *Census*
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