

EDUCATION, PRODUCTIVITY AND ECONOMIC PERFORMANCE: TASMANIA, THEN, NOW AND TOMORROW

The 29th John West Memorial Lecture

Hosted by the Launceston Historical Society

by

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Sir Raymond Ferrall Lecture Theatre,
University of Tasmania, Newnham Campus

16th March 2017

I want to thank the members of the Committee of the Launceston Historical Society for inviting me to give this, the 29th John West Memorial Lecture. When I look over the list of distinguished historians, scientists, writers and public figures who have stood in this place before me, it is an honour to be numbered among them, and I can but hope that I will do justice to them, as well as to the memory of John West.

John West was, as you all know, a major figure in the life of Launceston, and of Van Diemen's Land (as Tasmania was then known), between 1839 and 1854: and from then until 1873 in the life of Sydney.

He came to Van Diemen's Land under the auspices of the Colonial Missionary Society, in December 1838. The Society's intention, apparently, was that he should spread the Congregationalist message among people living outside the colony's major population centres. However, he rejected the idea of being "relegated to the bush", a fate he regarded as "incompatible with his family claims" (he and his wife Narcissa had five children). And although there was already a Congregational Church in Launceston, he decided to set up another one, meeting initially in an infants' school building in Frederick Street, but from August 1842 at a then newly-constructed chapel on St John's Square¹.

Among West's flock were James Aikenhead and Jonathon Waddell, the founders of the *Launceston Examiner*, whose first edition was published on 12th March 1842. Sir Raymond Ferrall, after whom this Lecture Theatre was named, recounts that "there is no doubt whatever that when the paper was launched ... the Rev. John West ... was in the editorial chair"².

West was therefore in all likelihood the author of *The Examiner's* first editorial, which asserted that the press was "the shield of the people ... a tribunal before whom the best of rulers and the worst of despots tremble"³. These words carry an especial resonance today, when the person now occupying the office of what we once called 'the leader of the free world' regards an independent and critical media not as the "shield" but rather as "the enemy of the people", an expression previously used by despots and tyrants such as Robespierre, Lenin, Goebbels and Stalin⁴.

West is perhaps best remembered nowadays for his advocacy of ending the transportation of convicts to Van Diemen's Land, through his columns in *The Examiner*, in his *History of Tasmania*, published in 1852, and in speeches delivered in Tasmania and on the mainland. For this, he earned the enmity of the then Governor, Sir William Denison, who described him as "a dirty dog with whom no gentleman would associate"⁵.

I have no doubt that John West would have worn this epithet as a badge of honour, much as I did 35 years ago, after being called an "amateur prick" by the then Premier of this State for my opposition to one of his signature policies⁶.

¹ This account is based on Shaw (1971), p. xii.

² Ferrall (1980), p. 182.

³ Shaw, p. xiii.

⁴ See, eg, Higgins (2017).

⁵ Robson (1983), p. 498.

⁶ Crawford (1982). The sensibilities of the day precluded Crawford from quoting the then Premier in full.

John West had the last laugh when transportation came to an end in August 1853.

The *Hobart Town Advertiser* attributed Governor Denison's departure, shortly thereafter, in part to West, in a poem published on 11th October 1854, which read, in part:

"The simple, unbought elegance of West
Disturbed the gloomy tyrant's guilty rest"⁷.

For what it's worth, history hasn't been too flattering to the achievements of Robin Gray, either⁸.

Of course John West wrote and spoke extensively about other issues besides the transportation of convicts. Consistent with the founding tenets of Congregationalism, he was an avid opponent of state aid to religion, and of denominational schools⁹.

He was one of the earliest proponents of federation, writing a series of articles on the subject in the *Sydney Morning Herald*, under the pseudonym John Adams, in 1854. In that year, he was invited by John Fairfax, a fellow Congregationalist whom he had met in 1851 whilst speaking in Sydney on behalf of the Anti-Transportation League, to become the editor of the *Sydney Morning Herald*, of which Fairfax had become the sole proprietor, having bought out his co-founder Charles Kemp in 1853.

West accepted Fairfax's invitation, and remained as editor of the *Sydney Morning Herald* until his sudden death on 11th December 1873.

John West's funeral service was conducted on 21st December 1873 by the Minister at the Pitt Street Congregational Church in Sydney, the Reverend William Slatyer – who, as it happens, was one of my great-great-grandfathers¹⁰. For that reason, I hope no-one will think I am taking any undue liberties in quoting some of his remarks on that occasion. Speaking of West, my great-great-grandfather said:

"He realized, as but few do, his sacred and sublime vocation, to serve his own generation. 'No man', it is most fittingly said of him, 'ever undertook the duty entrusted to him with a profounder sense of the responsibility which that trust involved, and with a more entire devotion to its fulfilment'. His sense of the power of the Press amounted to a passion; and this power, he maintained, should be wielded wholly for the public good.

... [He had] the happy knack of putting his case – the vein of quiet humour which often ran through what he said – the dignity and modesty, but withal, confidence, with which he advanced his opinions ... the *apropos* anecdote with which he frequently illustrated or wound up his statement – and above all his telling denunciations of vice, social, public or political – his wise, cautious and weighty counsels in seasons of great public excitement"¹¹.

⁷ Robson (1983), p. 525.

⁸ See, for example, Carter (1991), pp. 768-9; Herron (1995); Tanner (1995), pp. 58-64; Nixon (1997), p. 42; and Beresford (2015), pp. 30-35, 70-95 and 201-2.

⁹ Shaw (1971), p. xiii-iv; Robson (1983), p. 497; Ratcliff (2004), pp. 2-3.

¹⁰ His eldest son, William Roy Slatyer, for reasons unknown to his descendants, changed his surname to 'Eslake', some time in the late 1860s or early 1870s.

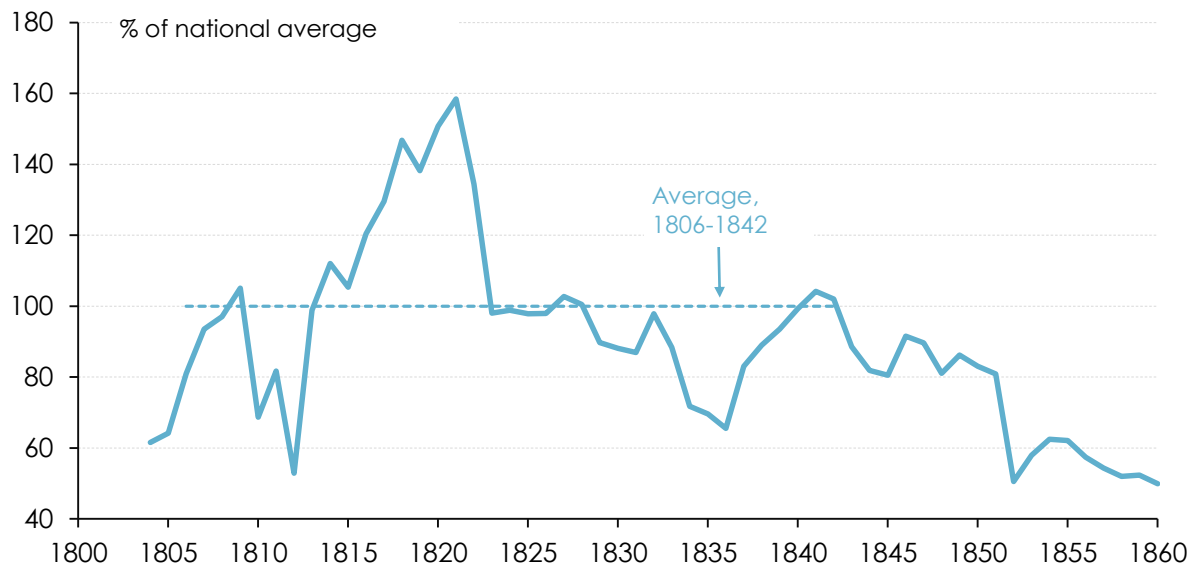
¹¹ Slatyer (1873), pp. 7-8.

John West also took an interest in Tasmania's economic performance. He wrote in some detail in his *History of Tasmania* about grain prices, import duties and other taxes (including a proposed tax on dogs), the price of land, interest rates, the activities of banks, speculative 'bubbles' in wheat and land prices, and the likely impact of the gold discoveries of the early 1850s.

He had some firm views on the proper conduct of what we would today call 'economic policy', although that phrase was not invented until well after his time. He was opposed to the imposition of regulatory ceilings on interest rates, arguing that "the value of money [should] be determined by the ordinary relations of supply and demand"¹². He supported free trade, bemoaning the fact that "inter-colonial trade was loaded with burdens of great severity, and in many instances it was cheaper to send raw material to London and import English, than to exchange colonial manufactures"¹³. He was opposed to special treatment for farmers, arguing in effect that they should focus on improving their productivity rather than asking for subsidies¹⁴.

For most of the period covered by West's *History*, Tasmania's economic performance was broadly on par with that of the rest of Australia. Between 1806 and 1842, Tasmania's per capita gross product was, on average, exactly equal to that of Australia as a whole (bearing in mind that for most of this period there wasn't much more to 'Australia as a whole' than New South Wales and Van Diemen's Land). Tasmania's economy, being much smaller than NSW's, was unsurprisingly much more volatile. But the years when Tasmania's economic performance was significantly poorer than NSW's were offset by others, particularly between 1816 and 1822, when it was substantially better.

Chart 1: Tasmania's per capita gross product as a pc of Australia's, 1804-1860



Sources: Author's calculations based on Butlin and Sinclair (1984) and ABS (2014).

¹² West (1852), p. 181.

¹³ West (1852), p. 194.

¹⁴ Shaw (1971), p. xiii.

As far as one can determine, however, from estimates compiled by economic historians and from more contemporary data, 1842 was the last year in which Tasmania's per capita gross product exceeded the national average.

An inquiry commissioned by the Commonwealth Government into the 'financial position of Tasmania as affected by Federation' in 1926 reported that:

"Tasmania ... not only has been unable to share in the remarkable prosperity which has been so marked a feature in regard to Australia generally during the period covered by Federation but to an increasing extent each year she lags behind her more fortunate sister States"¹⁵.

This report went on to note a "want of faith" on the part of "some leaders of public opinion as to the future progress and development of the State" which "constitutes a danger of engendering a spirit of helplessness and dependence which is about the worst thing that could happen to any country".

Fifty-one years later, in 1977, another Commonwealth-commissioned inquiry into the Tasmanian economy concluded that "Tasmania has not, in an economic sense, performed as well as Australia as a whole" and that "Tasmanians do not seem, in a material sense, to be as well off as Australians in general"¹⁶.

Twenty years further on, in 1997, the report of yet another Commonwealth-sponsored inquiry into the Tasmanian economy noted, in a chapter entitled 'Tasmania's Dismal Economic Performance', that "the long-term growth in the output of Tasmania's economy ... has been substantially lower than the national average, and in all other States", that the Tasmanian economy had "the poorest job creation record of any State", and that "Tasmanians have lower incomes than other Australians, and the gap appears to be widening over time"¹⁷.

And that brings me to the substance of this evening's lecture, which is an exploration of the reasons for Tasmania's poor economic performance relative to the rest of Australia in more recent times, what might be done to ameliorate it, and what might conceivably happen if we don't.

In doing so I am going to rely heavily on the estimates of gross domestic and gross state product published by the Australian Bureau of Statistics¹⁸. I therefore need to acknowledge that these estimates are inadequate and incomplete measures of well-being, not least because of the things which they don't include, such as the value of unpaid work done in homes and in the broader community, or the depletion of finite natural resources¹⁹. Nor do they make any allowance for the costs of traffic congestion, the problems caused by deteriorating housing affordability, or high crime rates, the relative absence of which are among the things which most Tasmanians regard as being among the benefits of living in this State.

¹⁵ Lockyer (1926), p. 12.

¹⁶ Callaghan (1977), pp. 36 and 95.

¹⁷ Nixon (1997), pp. 39, 37 and 41.

¹⁸ As published in ABS (2016a) and ABS (2016b), and earlier issues.

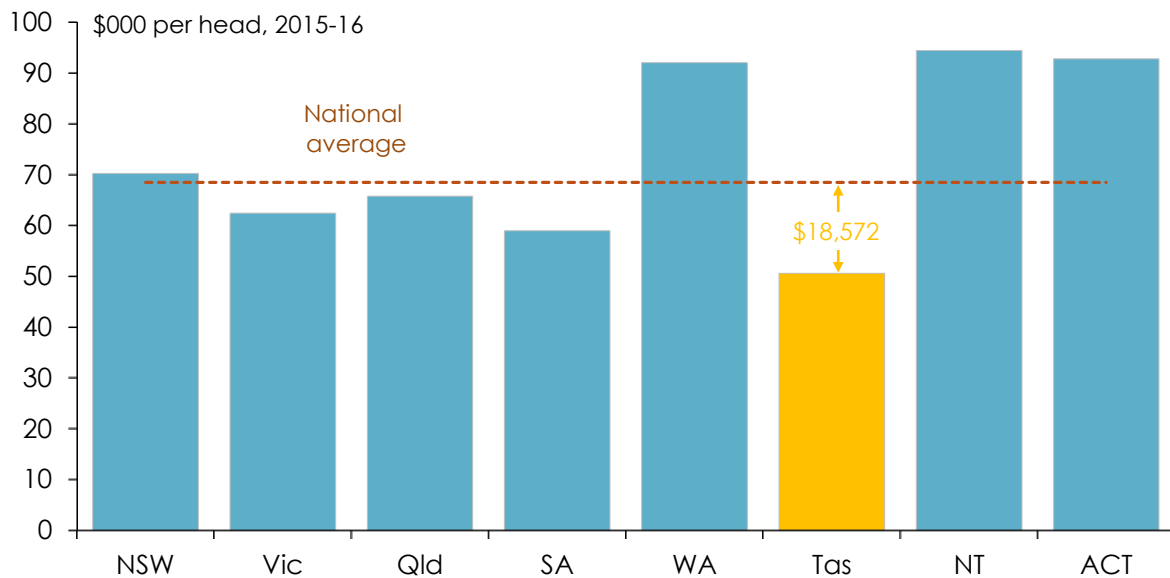
¹⁹ See, for example, Stiglitz et al (2009) and Coyle (2017).

I'm also conscious of the Tasmanian Treasury's ongoing concerns about the reliability and volatility of the ABS' estimates of gross state product for Tasmania²⁰.

Nonetheless, these estimates provide the only readily available, timely, and internally consistent means of making broad comparisons of the economic performance of Australia's States and Territories. Moreover, as I will show shortly, the conclusions prompted by the comparisons I am going to make using estimates of gross state product are broadly in line with those suggested by other economic and social indicators.

In 2015-16, the most recent period for which data are available, Tasmania's economy produced goods and services ('gross state product') worth \$26.2 billion²¹. Divided by Tasmania's population, which averaged 517,400 in 2015-16, that represents gross product of \$52,782 per person. As shown in Chart 2, this was less than that of any other State or Territory, and was \$18,572 or 26.9% below the average for all States and Territories.

Chart 2: Gross state product per person, States and Territories, 2015-16



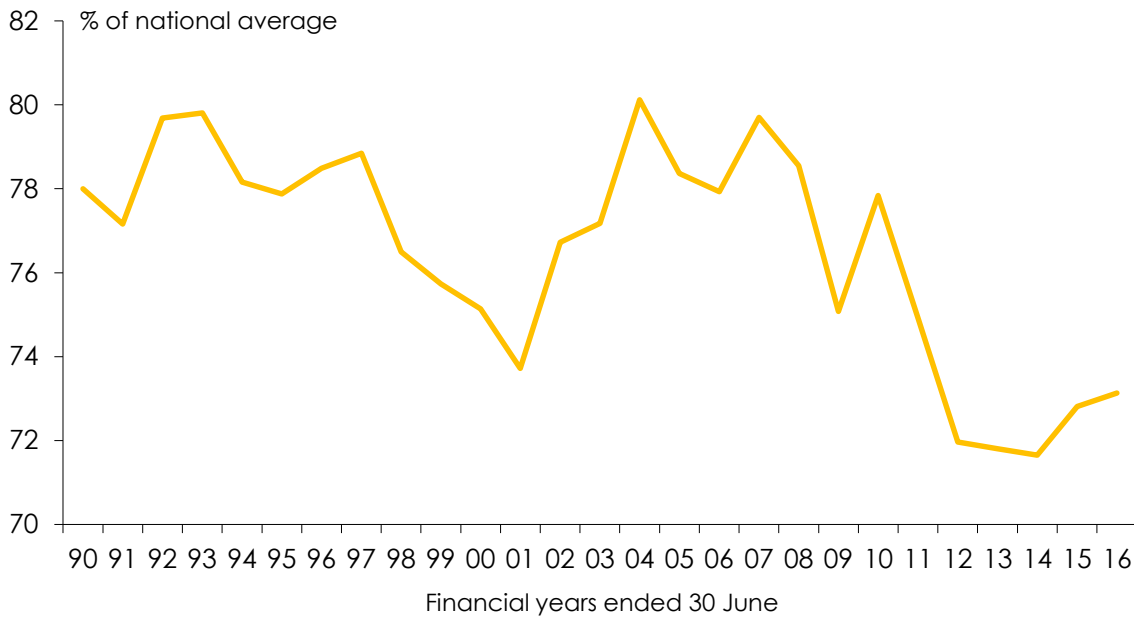
Source: ABS (2016b).

Chart 3 (on page 7) shows that there has been some improvement in Tasmania's gross product per head relative to the rest of Australia since 2012-13 and 2013-14, when it was more than 28% below the national average. Apart from those two years, however, Tasmania's 2015-16 gross product per person was lower relative to the national average than at any time since 1989-90, which is as far back as the current series of ABS estimates of State and Territory gross product goes.

We can perhaps take some comfort from the fact that the difference isn't as large as it apparently was in the middle of the 19th century, according to the estimates presented earlier in Chart 1. But I think that is rather cold comfort.

²⁰ For example, Tasmanian Government (2016), p. 25.

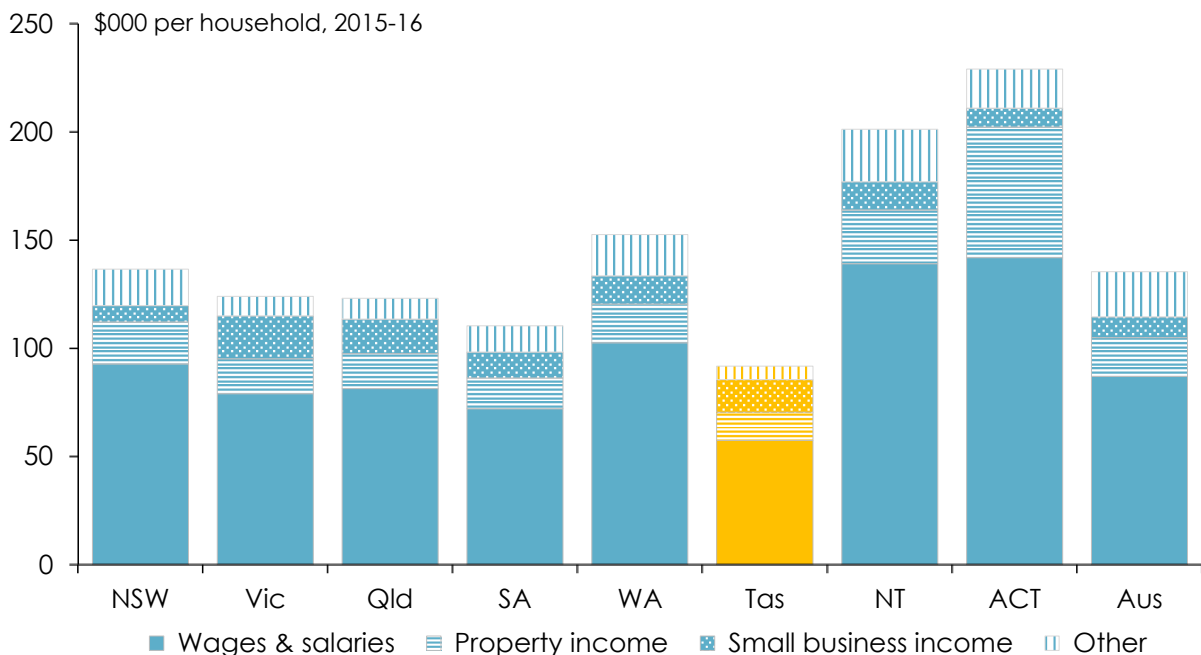
²¹ ABS (2016b), Table 1.

Chart 3: Tasmanian gross product per capita as a pc of national average

Source: ABS (2016b).

While, as I acknowledged a moment ago, measures of gross product are imperfect and incomplete measures of community or individual well-being, other more direct measures nonetheless convey much the same impression.

For example, the average gross income of Tasmanian households – that is, before taking into account the effect of income tax and social security payments – in 2015-16 was \$91,720 per household. Once again, this was lower than in any other State or Territory. And it was almost \$44,000, or 32.2%, below the average for all States and Territories (see Chart 4).

Chart 4: Gross household income per household, States and Territories, 2015-16

Source: Author's calculations based on ABS (2016b) and ABS (2015a).

Two-thirds of this difference was due to Tasmanian households earning almost \$30,000 (or 34%) less, on average, in wages and salaries than the average for all Australian households. That, in turn, reflects both the lower proportion of Tasmania's population who have jobs, and the lower average wages or salaries which Tasmanians with jobs earn, compared with their mainland counterparts. But Tasmanian households also derive less income from other sources, on average, than households in other States, as shown in Chart 4.

Because Tasmanian households are poorer, on average, than other Australians, they pay less in personal income tax and receive more by way of pensions, benefits and other social security payments than households in any other State (Chart 5).

Chart 5: Personal income tax payments vs pensions, benefits and other social security payments per household, States and Territories, 2015-16



Source: Author's calculations based on ABS (2016b) and ABS (2015a).

Tasmania and South Australia are the only States whose households pay less in personal income tax, in aggregate, than they receive by way of social security payments – and Tasmanians do so by a considerably greater margin, on average, than South Australians. In 2015-16, this amounted to a net transfer of almost \$3bn to Tasmanian households from the Commonwealth Government – more than the Tasmanian Government received from its share of GST revenues.

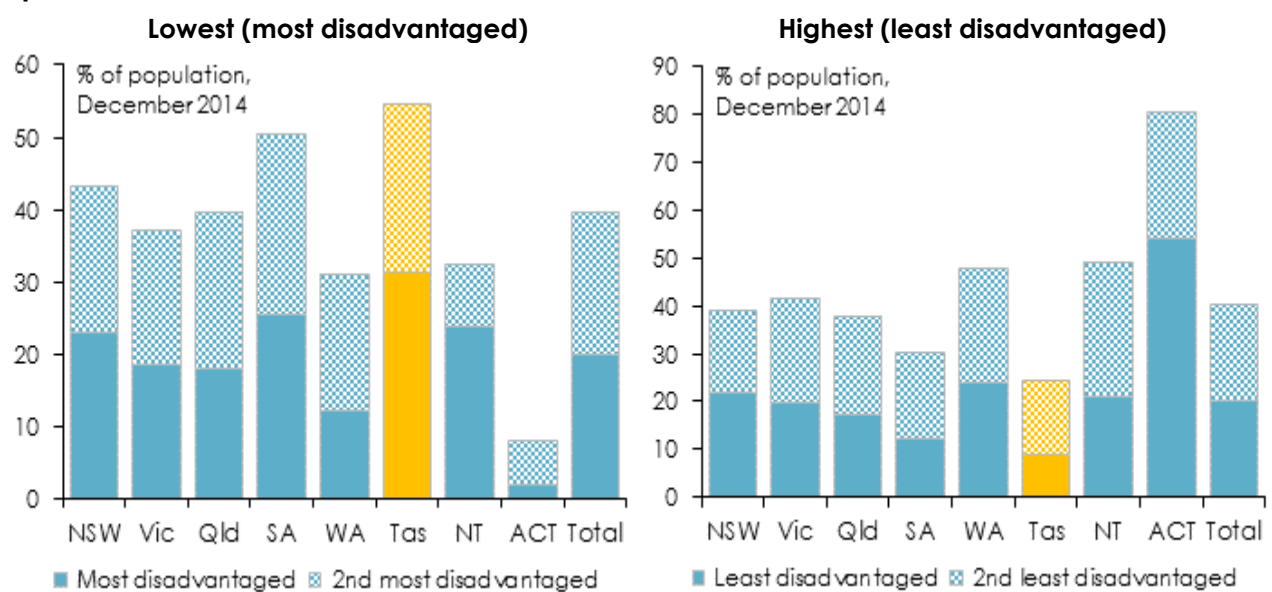
After accounting for personal income tax and social security payments, average household *disposable* income per household in Tasmania in 2015-16 was just over \$97,500. This was still lower than in any other State or Territory. But compared with the \$44,000 or 32% difference in *gross* income per household as between Tasmanian households and the national average, the difference in *disposable* income per household was 'only' \$24,900, or 20%.

This difference is a tangible result of Tasmania's below-par economic performance, as reflected in its below-average per capita gross product.

And it is reflected in a variety of other indicators which are not derived from estimates of gross product or its components.

For example, 31.3% of Tasmania's population are in the most disadvantaged socio-economic status quintile (one-fifth) of Australia's population, a higher proportion than for any other State or Territory; and 23.3% are in the second most disadvantaged quintile, a higher proportion than for any other jurisdiction except for South Australia (Chart 6). Conversely, only 8.8% of Tasmanians are in the least disadvantaged quintile of Australia's population, and only 15.4% are in the second least disadvantaged quintile – in each case a lower proportion than in any other State or Territory.

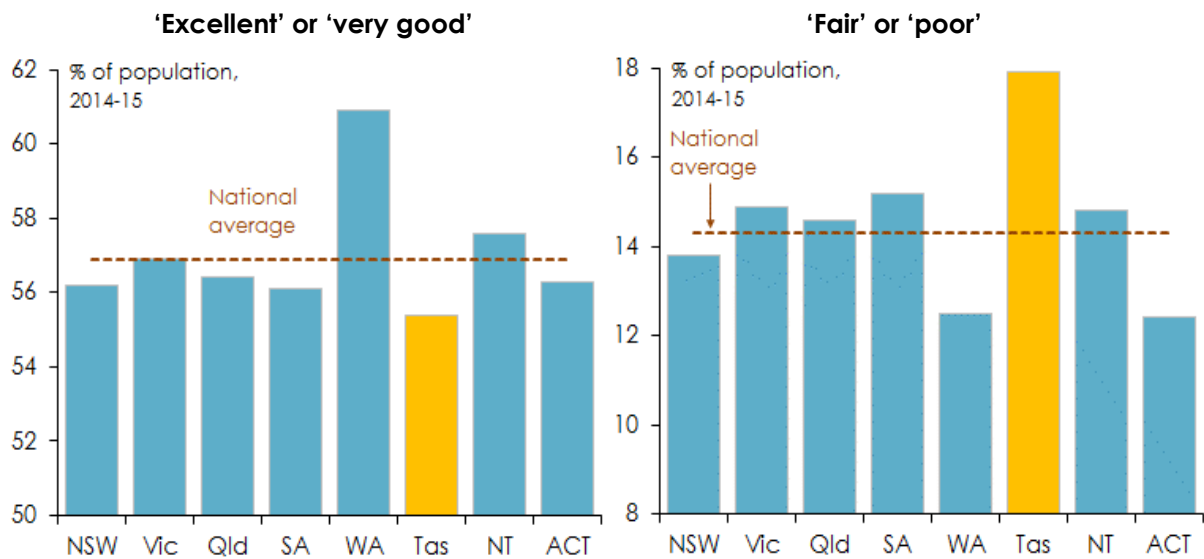
Chart 6: Proportions of population in low and high socio-economic status (SES) quintiles, States and Territories, December 2014



Source: Commonwealth Grants Commission (2016), Table S1-3.

Or, to take another dimension of well-being, the percentage of Tasmanians describing themselves as enjoying 'excellent' or 'very good' health is lower than for any other State or Territory: while conversely the percentage of Tasmanians who describe their health as being 'fair' or 'poor' is considerably higher than for any other State or Territory (Chart 7).

And I should emphasize that these figures are 'standardized' for differences in the average age of each State and Territory's population – so Tasmania's poor showing in Chart 7 can't be attributed to the fact that we have an above-average proportion of senior citizens. On the other hand, these figures don't take account of differences in the Indigenous status of each State and Territory's population – so the contrast between the results for Tasmania and the Northern Territory is especially striking.

Chart 7: Self-assessed health status of State and Territory populations, 2014-15

Source: ABS (2015b), Table 2.3.

I could present more data and charts, but I think what I have shown already should be sufficient to confirm that on multiple dimensions, not just as indicated by gross product per head, Tasmanians are on average less well-off than people living in other States and Territories.

What I want to do now is to explore *why* this is so. And to do this, I want to use the analytical framework that has been widely used by economists to make long-run economic growth projections, for example in the *Intergenerational Reports* produced by the Commonwealth Treasury over the past fifteen years²².

This framework can be adapted to show that gross state product per person can be disaggregated into three separate components as follows:

$$\frac{\text{gross state product}}{\text{population}} = \frac{\text{employment}}{\text{population}} \times \frac{\text{hours worked}}{\text{employment}} \times \frac{\text{gross state product}}{\text{hours worked}}$$

or, alternatively:

$$\text{GSP per capita} = \text{employment rate} \times \text{average hours worked} \times \text{productivity.}$$

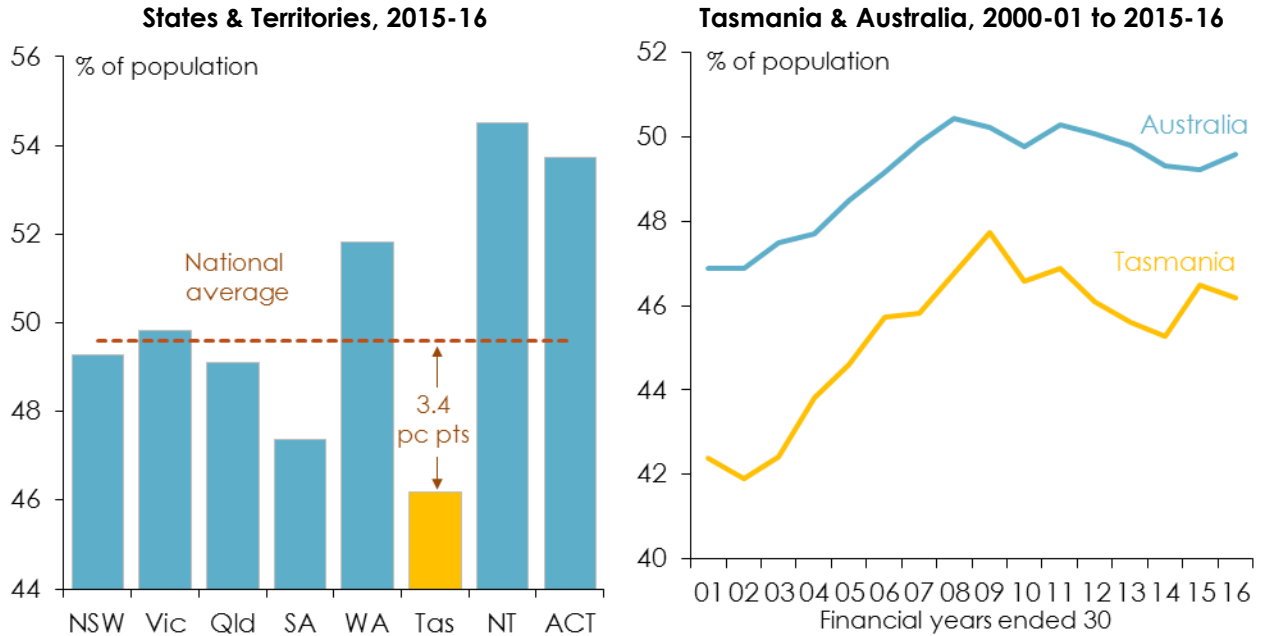
Note that there is no economic theory, and that there are no assumptions, underlying this expression: it is simply an algebraic expression.

And it holds true by definition, as can be seen by 'cancelling out' the employment and hours worked terms on the right hand side of the equals sign, leaving the statement that gross state product divided by population equals gross state product divided by population. Inserting the employment and hours worked terms serves simply to assist in understanding where differences in, or growth in, gross state product per capita come from.

²² See, for example, Australian Treasury (2015), pp. 3, 16, 21-22, 23-25 and 29-30.

First, the proportion of Tasmania's population who are employed is lower than that of any other State or Territory, and in 2015-16 was 3.4 pc points below the national average (Chart 8).

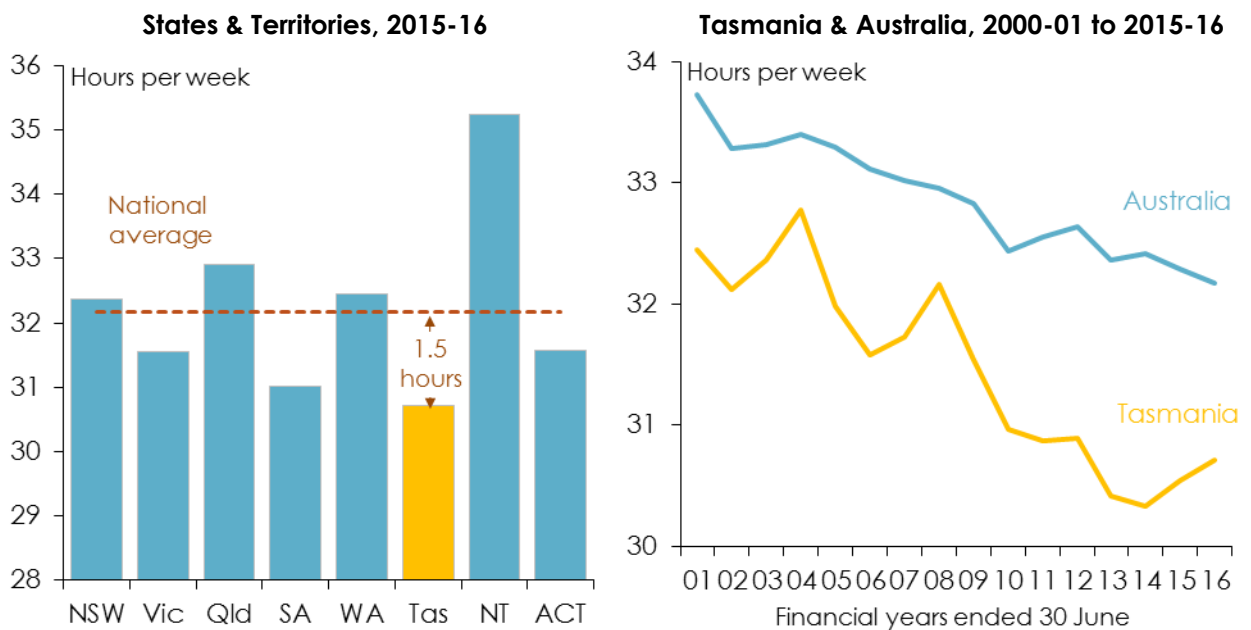
Chart 8: Employment as a pc of population



Sources: ABS (2016b), and ABS (2016d).

Second, those Tasmanians who do have jobs work fewer hours than people with jobs in any other State or Territory. In 2015-16, employed Tasmanians worked an average of 1.5 fewer hours per week than the national average – a difference which, over the course of a year, amounts to almost 2½ weeks less of work (Chart 9). It's as if Tasmania had 12 more public holidays each year than the rest of Australia.

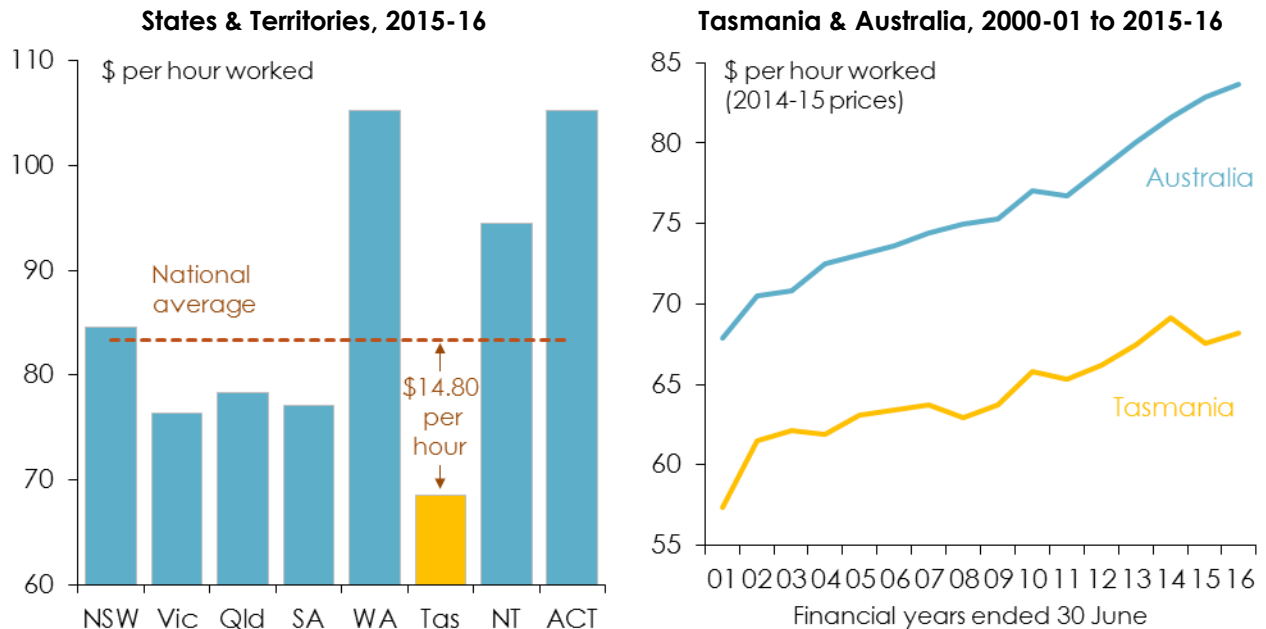
Chart 9: Average hours worked



Sources: ABS (2016b), and ABS (2016d).

Third, for each hour that they do work, those Tasmanians who do have jobs produce less by way of dollar value of goods and services than workers in any other State or Territory. In 2015-16, labour productivity in Tasmania was \$14.80 per hour, or 18.5%, below the national average (Chart 10).

Chart 10: Output of goods and services per hour worked (labour productivity)



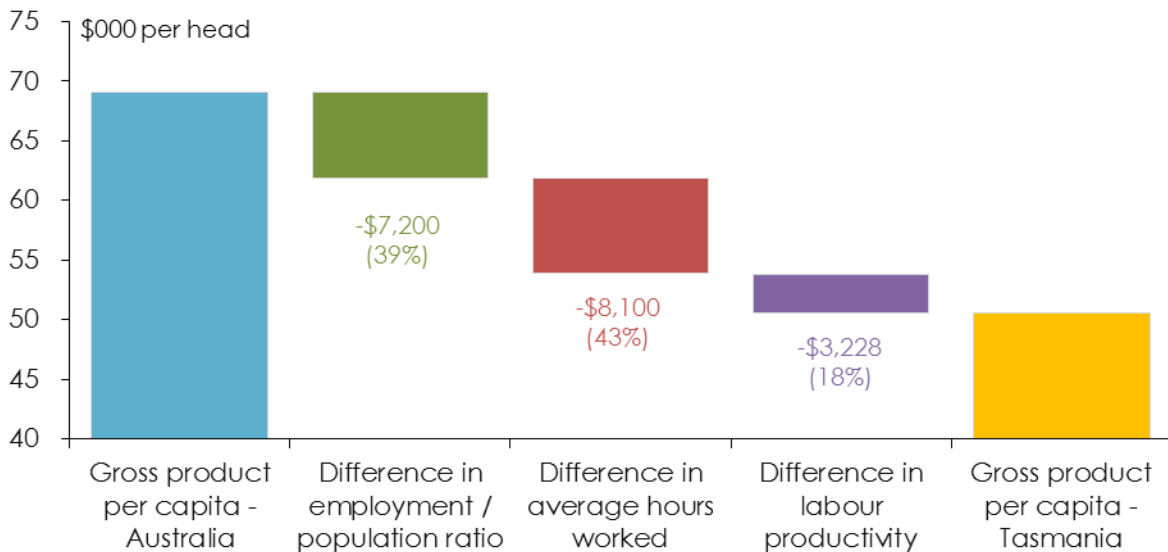
Sources: ABS (2016b), and ABS (2016d).

Bringing these three factors together, the difference of \$18,572 or 26.9% between Tasmania's per capita gross product in 2015-16 and the national average can be broken down as follows:

- about \$7,200 (or 39%) was due to the *employment participation gap* – that is, to the fact that the proportion of Tasmania's population with a job was 3.4 pc points below the national average in 2015-16;
- about \$8,100 (or 43%) was due to the *hours worked gap* – that is, to the fact that Tasmanians in employment worked about 1.5 fewer hours per week (or nearly 12 days per year) than the national average in 2015-16; and
- about \$3,300 (or 18%) was due to the *labour productivity gap* – that is, to the fact that employed Tasmanians produce, on average, nearly \$15 (or 18%) less for each hour that they work than the average for the Australian workforce as a whole.

These three factors account for *all* of the difference in economic performance, as indicated by the difference in per capita gross product, between Tasmania and Australia as a whole (Chart 11). There is *no other* explanation for the difference.

Chart 11: Sources of the difference in per capita gross product between Tasmania and Australia, 2015-16



Sources: ABS (2016b), and ABS (2016d).

There are two further important points I want to make about this disaggregation of the sources of Tasmania's economic under-performance, before going on to talk about some of the things that could be done to address it.

The first is that about two-thirds of the difference between Tasmania's 'employment participation rate' and the national average is the direct result of the fact that the proportion of Tasmania's population aged 65 and over is, at 18.9% in 2015-16, 3.7 pc points higher than the national average.

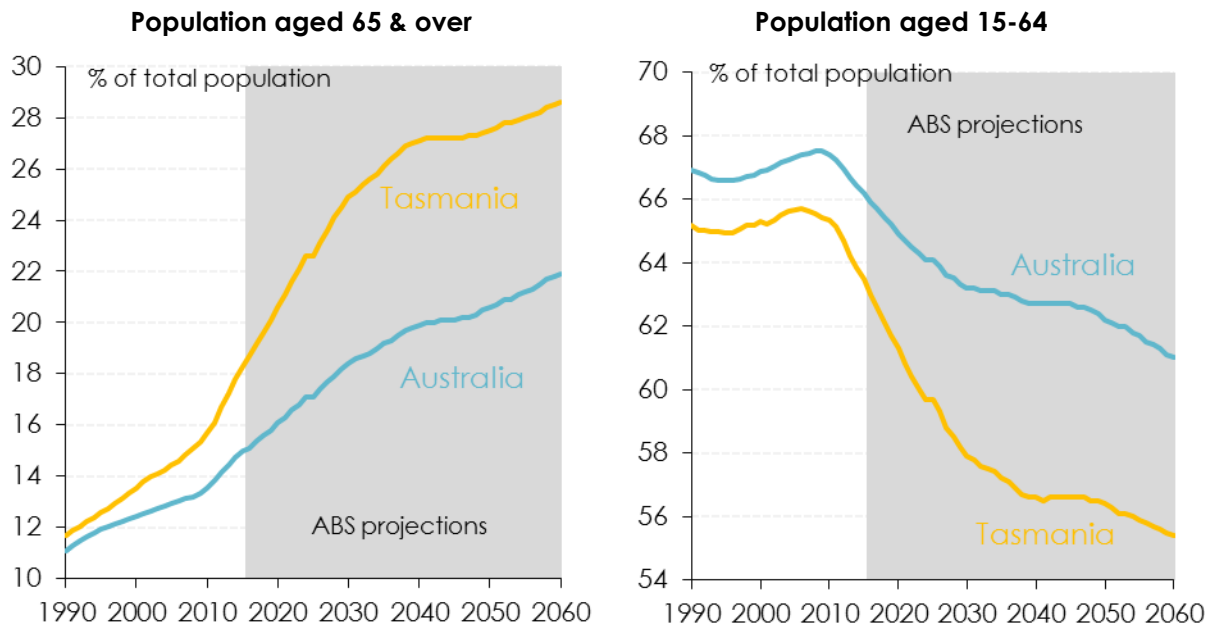
Even if the 'employment rates' of Tasmanians of every age group were the same as the corresponding national averages, this difference in the age structure of Tasmania's population would imply that Tasmania's overall employment participation rate would be 2.0 pc points below the national average.

This is a 'problem' which first began to emerge in the late 1970s. Before then, the proportion of Tasmania's population aged 65 and over was below the national average, and indeed lower than every State except Western Australia. It wasn't until 2011 that Tasmania moved past South Australia to have the highest proportion of its population aged 65 and over of all the States and Territories.

And this problem is going to get much worse over the next 25 years, during which Tasmania's population is projected to age much more rapidly than that of the rest of Australia. ABS population projections suggest that the difference between the proportion of Tasmania's population aged 65 and over and the equivalent figure for Australia as a whole will nearly double, from the aforementioned 3.7 pc points in 2015-16 to 7.2 pc points by 2038-39; while, conversely, the difference between the proportion of Tasmania's population aged 15-64 and the equivalent national figure will more than double, from 2.7 pc points to 6.1 pc points²³.

²³ ABS (2013).

Chart 12: Age structure of Tasmania's population compared with Australia's, 1990-2060



Source: ABS (2013).

All else being equal, these projected trends in the age structure of Tasmania's population mean that the 'gap' between Tasmania's per capita gross product and the national average will widen from \$18,600 or 27% in 2015-16 to almost \$37,000 (in today's dollars) or 39% by 2040-41²⁴ – unless actions are taken to lift the proportion of Tasmania's population who have jobs, to increase the number of hours worked by working Tasmanians, and/or to boost the productivity of Tasmanian workers.

Nonetheless, because the remaining one-third of the difference between Tasmania's 'employment participation rate' and the national average is due to factors *other than* Tasmania's different age structure, it ought to be possible to increase the proportion of Tasmanians in employment by around 1½ pc points from its present level.

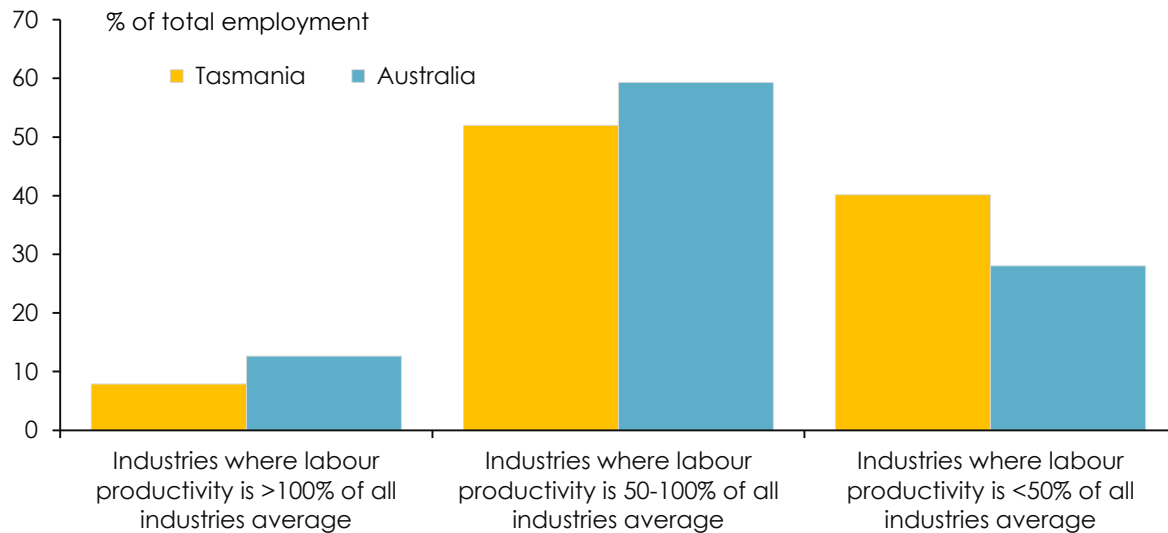
However, before I come to address that, I want to make a second point about the sources of Tasmania's economic under-performance, this time related to the difference in labour productivity.

One of the reasons for Tasmania's below-average level of labour productivity is that most of the industries which have intrinsically very high levels of labour productivity – because they are capital intensive, or because they rely heavily on very skilled labour – are under-represented in Tasmania's economy. Thus for example the mining industry, in which labour productivity nationally is more than double the average for all industries, represents just 1.2% of Tasmania's economy, compared with 7.4% of the national economy. Likewise the finance and insurance services sector, in which labour productivity nationally is 83% higher than the average for all industries, represents 6.1% of Tasmania's economy, as against 9.4% of the national economy.

²⁴ See Eslake (2016), p. 46.

In all, only 8% of Tasmanian workers are employed in industries where, across Australia as a whole, labour productivity is above the average for all industries, compared with 12½% of all Australian workers. By contrast, 40% of the Tasmanian workforce is employed in industries where labour productivity nationally is less than half average for all industries, compared with 28% of the national workforce (Chart 13).

Chart 13: Employment by industries ranked by national-average labour productivity, Tasmania and Australia, 2015-16



Note: Industries where Australia-wide labour productivity is above the national all-industries average are mining; financial & insurance services; electricity, gas, water and waste disposal services; rental, hiring & real estate services; and information, media & telecommunications services. Industries where Australia-wide labour productivity is between 50 and 100% of the all-industries average are wholesale trade; public administration & safety; administration & support services; construction; transport, postal and warehousing; manufacturing; professional, scientific & technical services; agriculture, forestry & fishing; and education & training. Industries where Australia-wide labour productivity is less than half the all-industries average are health care & social assistance; art & recreation services; retail trade; accommodation & food services; and other services.

Sources: Author's calculations based on ABS (2016 a), ABS (2016b) and ABS (2016d).

There's not a lot that can be done about this.

Mining has been an important contributor to the Tasmanian economy in the past: but a large proportion of Tasmania's known mineral wealth has now been extracted, and in the absence of any major new mineral discoveries it is difficult to envisage mining representing a significantly larger proportion of Tasmania's economy in the future than it does today.

Similarly, given that financial services businesses tend to be concentrated in large metropolitan areas, not only in Australia but around the world, it is hard to see how Tasmania can attain a greater presence in this sector.

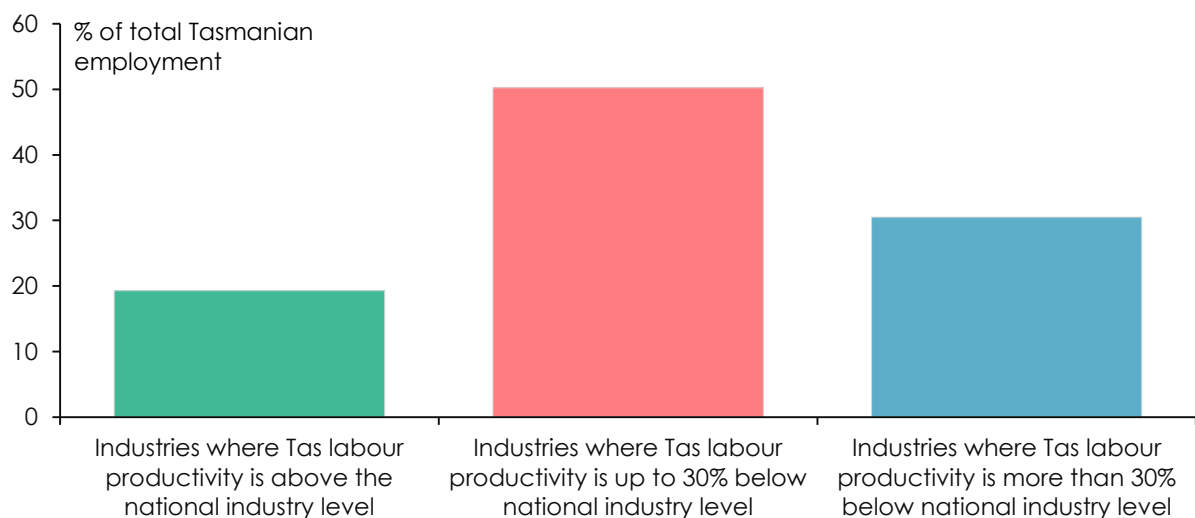
However, there is another way of looking at the reasons for Tasmania's below-average level of labour productivity which suggests that there *are* things we could do to improve our overall labour productivity performance compared with that of the rest of Australia.

Although overall labour productivity in Tasmania is, as I've mentioned before, 18% below the national average, there are some industries in which labour productivity in Tasmania is well above the corresponding national averages for those industries. For example, labour productivity in the Tasmanian electricity, gas and water sector is almost three times the national average for that sector, largely because our hydro-electricity system is much less labour-intensive than the predominantly coal-fired electricity generating systems on the mainland. Labour productivity in Tasmanian agriculture is more than 50% above the national average for the agricultural sector: it is something that we are relatively good at, in Tasmania. There are five other sectors in which labour productivity is higher in Tasmania than it is nationally.

Unfortunately, only 19% of Tasmanian workers are employed in these sectors (Chart 14). By contrast, 50% of the Tasmanian workforce is employed in sectors where labour productivity is between 5 and 30% below the corresponding national averages for those sectors; and 31% of the Tasmanian workforce is employed in sectors where labour productivity is more than 30% below the corresponding national sector average. These include two sectors which account for a much larger share of employment in Tasmania than they do nationally – namely, retail trade and accommodation and food services.

We ought to be able to do something about improving productivity in these sectors.

Chart 14: Employment in Tasmania by industries ranked by labour productivity compared with corresponding national industry averages, 2015-16



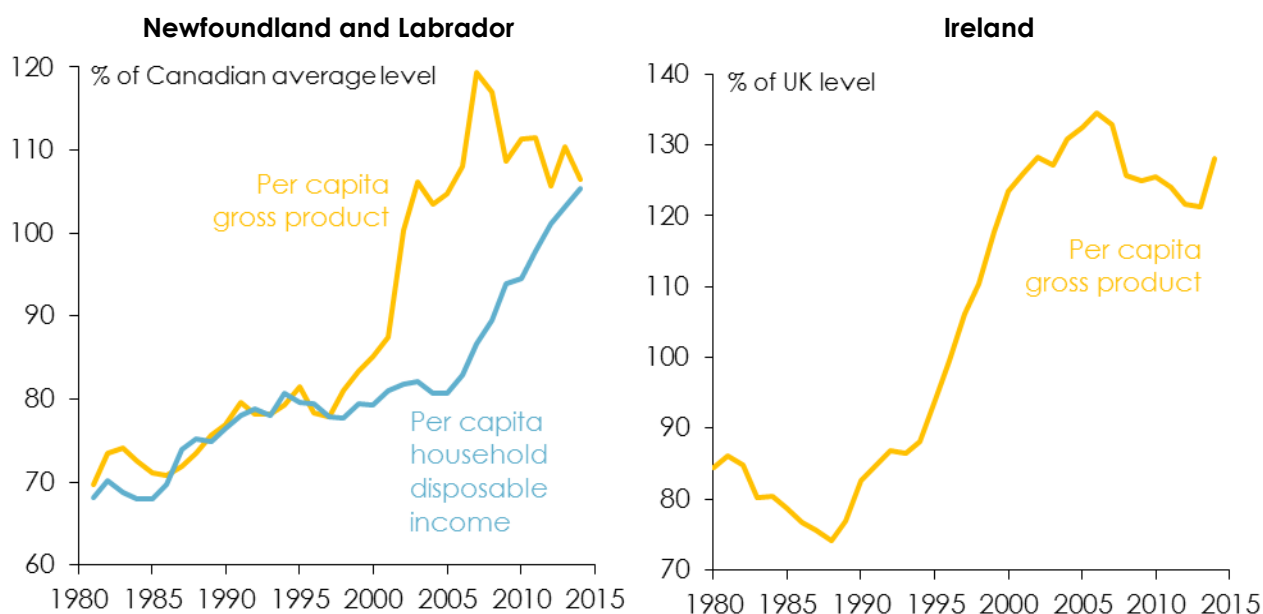
Note: Industries where Tasmanian labour productivity is above corresponding national industry average are electricity, gas, water and waste disposal services; financial & insurance services; information, media & telecommunications services; agriculture, forestry & fishing; transport, postal and warehousing; rental, hiring & real estate services; and wholesale trade. Industries where Tasmanian labour productivity is between 70 and 100% of the corresponding national industry average are administration & support services; manufacturing; education and training; public administration and safety; mining; construction; and health care and social assistance. Industries where Tasmanian labour productivity is less than 70% of the corresponding national industry average are professional, scientific and technical services; retail trade;; retail trade; accommodation & food services; art & recreation services; and other services.

Sources: Author's calculations based on ABS (2016 a), ABS (2016b) and ABS (2016d).

Tasmania's experience in these respects is by no means unique. Indeed, many other island communities around the world share with Tasmania the problems associated with declining or ageing populations, relatively low incomes, a narrow economic base, and dependence on transfers and subsidies from their respective national governments²⁵.

In his 1977 Report, Sir Bede Callaghan warned that Tasmania was "heading towards another Newfoundland or Ireland situation"²⁶. In view of what has happened in Newfoundland and Ireland since then, one can only wish that Callaghan's predictions had come to pass. Newfoundland's per capita GDP and household disposable income have risen from 30% below the Canadian average in the early 1980s to 5-10% above it in recent years; while Ireland's per capita GDP has risen from around 20% below the UK level in the 1980s to more than 20% above the UK level over the past decade, notwithstanding the devastating impact which the financial crisis had on the Irish economy (Chart 15).

Chart 15: Economic performance of Newfoundland & Labrador and Ireland compared with their respective 'mainlands'



Sources: Statistics Canada; International Monetary Fund.

The dramatic improvement in Newfoundland's economic position relative to the rest of Canada has been significantly aided by the discovery and exploitation of large reserves of natural gas, something which doesn't seem a likely prospect for Tasmania. And part of Ireland's success story is the result of immigration, taxation and foreign investment policy decisions which, as a sovereign nation, Ireland was able to take but which Tasmania, as part of a federation, cannot.

However, another key contributor to the improvement in both Newfoundland's and Ireland's relative fortunes has been the long-term commitment to increasing educational participation and attainment.

²⁵ See Eslake (2016), pp. 47-49.

²⁶ Callaghan (1977), p. 103.

The first Professor of Economics at the University of Tasmania, Sir Douglas Copland – who later went on to become the first Vice-Chancellor of the Australian National University – said that “not merely financially, but in the moral and social field, education is the most profitable investment a community can make”²⁷.

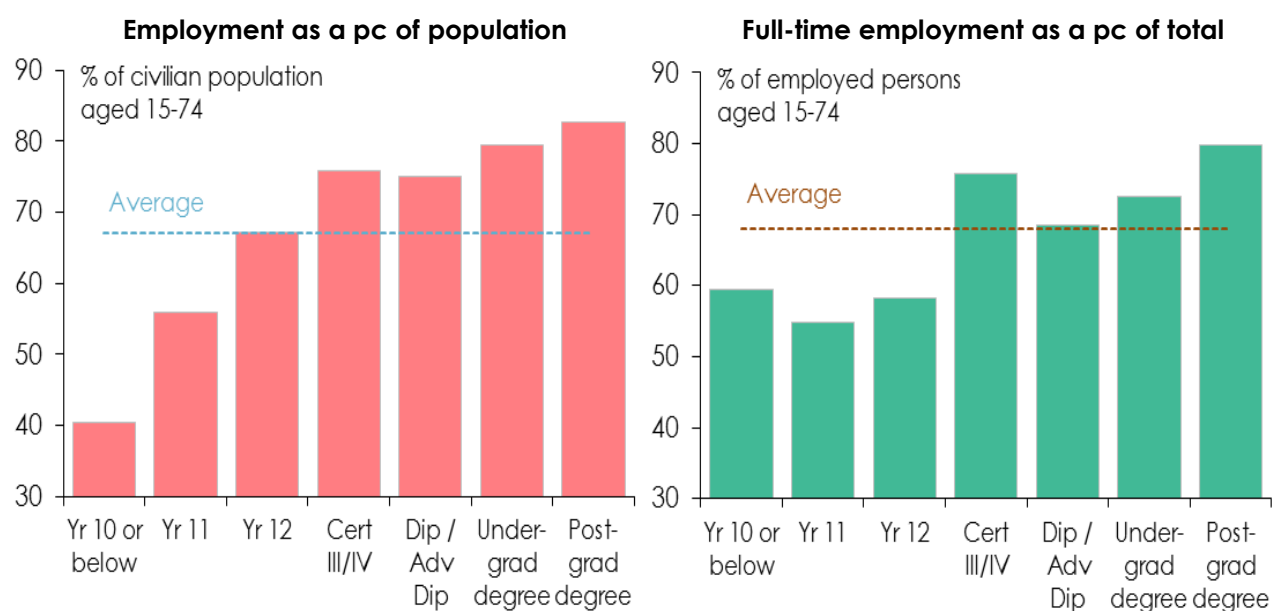
There is now an enormous accumulated body of evidence demonstrating a strong correlation between educational attainment and economic outcomes – both for economies as a whole, and for individuals.

This research suggests, for example, that each additional year of schooling among the adult population boosts long-run economic growth by between $\frac{1}{4}$ and $\frac{3}{4}$ of one percentage point per annum – or by between 6 and 19% in the long run, after controlling for other factors that also influence long-run economic growth²⁸.

International research also demonstrates “a strong and direct relationship between the cognitive skills of national populations, measured by international tests of mathematics and science achievement, and countries’ long-run economic growth” and “moreover [there is] strong reason to believe that the relationship is causal”²⁹.

In Australia, ABS data unambiguously show that the higher the level of education a person has attained, the *more* likely he or she is to be employed; and that people who are employed are much more likely to be employed full-time if they have some kind of post-secondary qualification than if they don’t (Chart 16).

Chart 16: Labour market experience by level of educational attainment, May 2016



Source: ABS (2016c), Table 10.

There is also clear evidence, from both Australian and cross-country studies, of a “strong and significant association between learning and productivity”³⁰.

²⁷ Harper (2013), p. 446.

²⁸ See, eg, Barro (2013).

²⁹ Hanushek and Wössman (2015), p. 22.

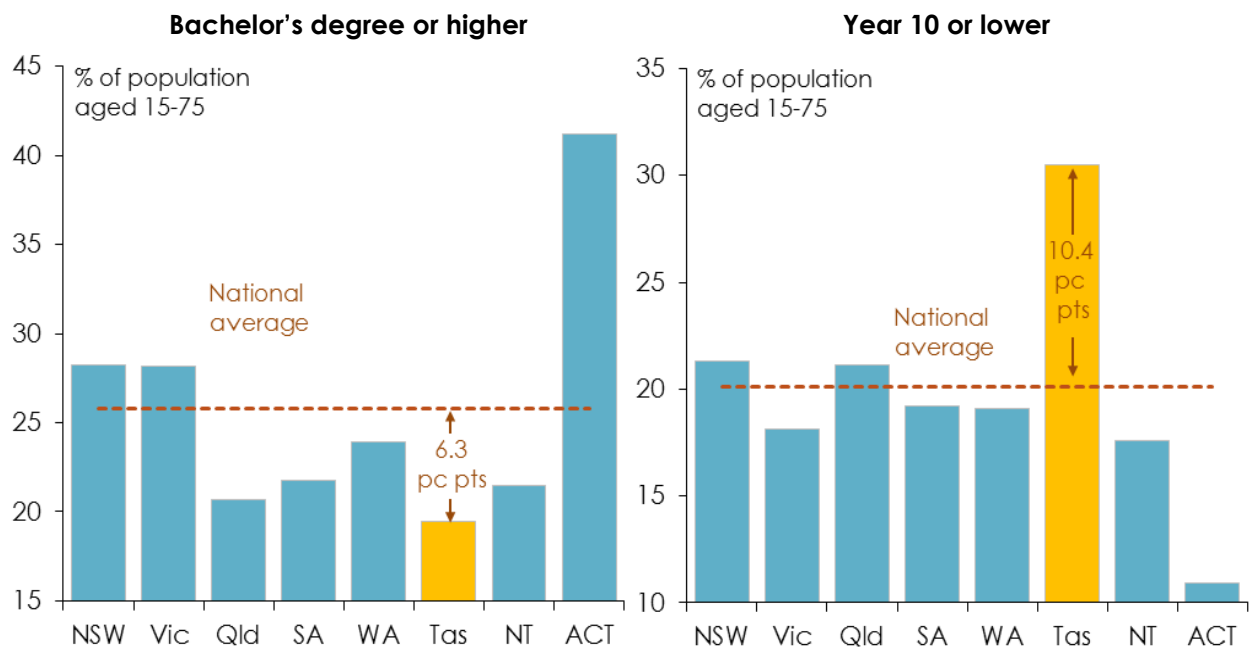
³⁰ Australian Workforce & Productivity Agency (2013), pp.4 and 42; Australian Treasury (2009), pp. 61-2.

These clear and unambiguous linkages between education and employment participation, hours worked and productivity explain why people who complete Year 12 earn about 42% more, on average, over the course of their working lifetimes than people who leave school at Year 10; and why people who complete a bachelor's degree typically earn 45-50% more over their working lifetimes than people whose highest educational qualification is Year 12³¹.

And all of this is directly and powerfully related to Tasmania's situation.

A smaller proportion of Tasmania's population has a bachelor's degree or higher than that of any other State or Territory: and a *much* larger proportion of Tasmania's population than that of any other State or Territory has no educational qualification beyond Year 10 of high school (Chart 17).

Chart 17: Educational attainment, States and Territories, May 2016



Source: ABS (2016c), Table 16.

And this is surely a major reason – if not *the* major reason – for Tasmania's persistently below-average proportion of its population who have jobs, for the below-average proportion of its workforce who work full-time, and for the below-average productivity of the Tasmanian workforce. Hence it is also a *major* reason – if not *the* major reason – for Tasmania's below-average economic performance, and for the persistent shortfall in Tasmanians' material living standards compared with those of other Australians.

This is hardly a recent or new development. Forty years ago, the Callaghan Report noted that "Tasmania's work force is less qualified (in the usual sense of that term) than the Australian labour force as a whole"³². Peter Nixon noted exactly the same thing twenty years ago³³.

³¹ Leigh (2008).

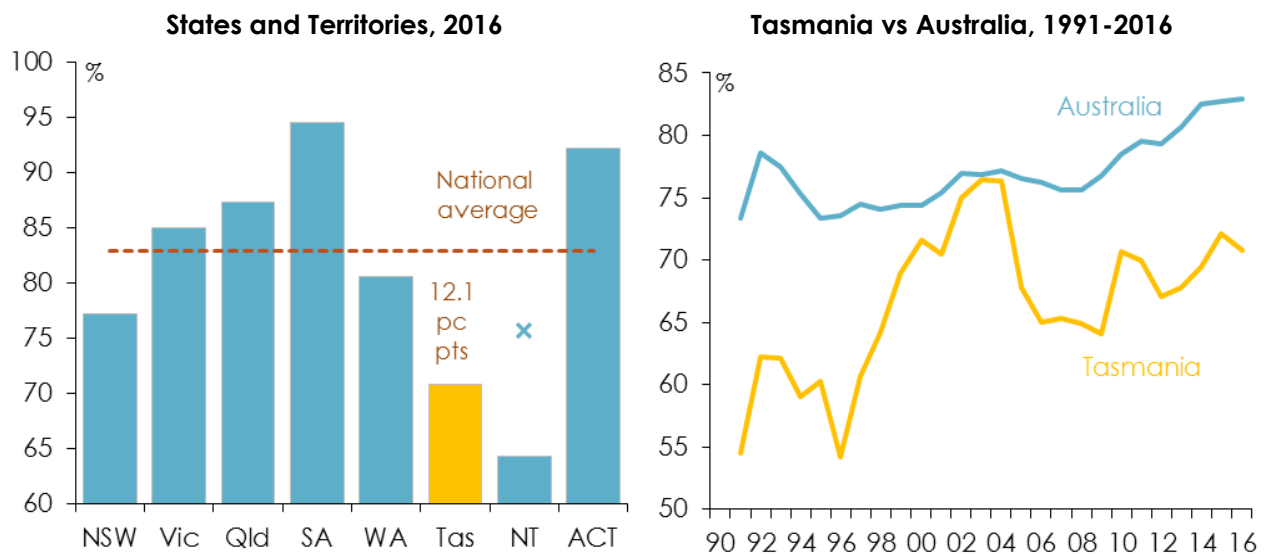
³² Callaghan (1977), p. 65.

³³ Nixon (1997), pp. 106-7.

The Callaghan and Nixon Reports both drew specific attention to Tasmania's below-average rates of participation in the upper years of secondary school. "Tasmania lags well behind Australia as a whole in participation in senior secondary schooling", Sir Bede Callaghan wrote in 1977; "Tasmania's retention rates have been consistently below the Australian average for over 15 years", Peter Nixon said in 1997³⁴.

Yet although Tasmania's retention rates have risen over the last 25 years, except for the years 2002 through 2004 they have remained well below those for the rest of Australia; and well below those of any other State (and below those of the Northern Territory if the Territory's Indigenous population is excluded) (Chart 18).

Chart 18: School retention rates from Year 10 to Year 12, States and Territories



Note: 'x' in the left-hand chart denotes the retention rate for non-Indigenous students in the Northern Territory. Source: ABS (2017), Table 64a.

All sorts of reasons are routinely given for these persistently poor outcomes – including Tasmania's relatively high proportion of students from rural and regional areas, Tasmania's relatively high proportion of students living in low socio-economic status (SES) households, purported differences in Tasmanian students' capacity to undertake senior secondary school studies from their mainland counterparts, and differences in the 'value' which Tasmanian families attach to education compared with families in other parts of Australia.

However, none of these assertions withstands close scrutiny.

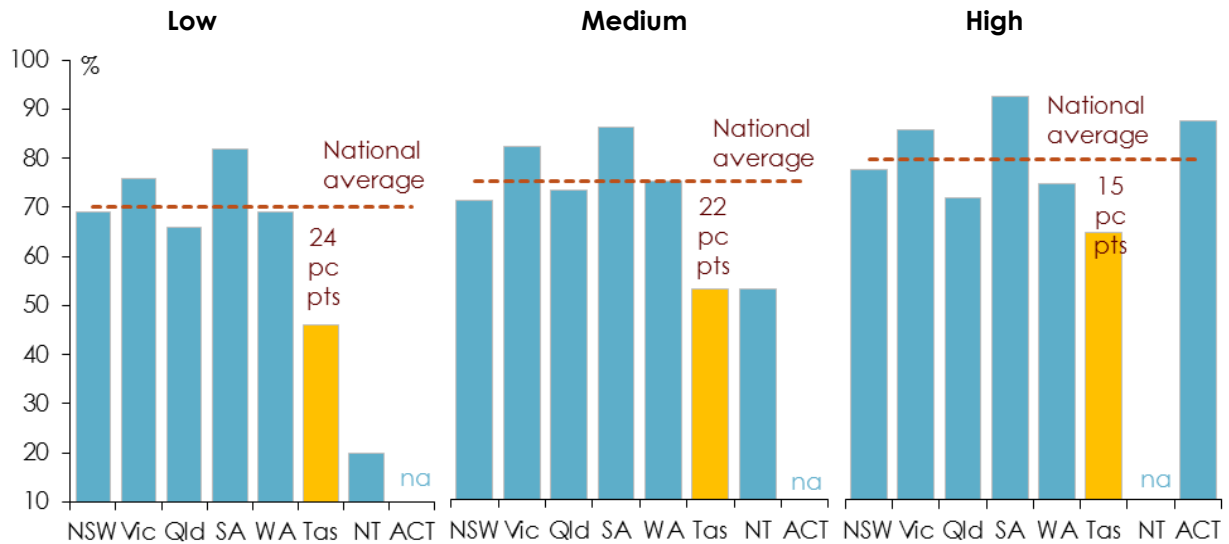
For example, while it's true that a higher-than-average proportion of Tasmanian students live in rural and regional areas, the 2015 Year 12 completion rate of students living in Hobart was 20 pc points below that of students living in metropolitan areas on the mainland. Indeed, a student from Hobart was less likely to have completed Year 12 in 2015 than a student from a provincial, remote or very remote region in any other State³⁵.

³⁴ Callaghan (1977), p. 66; Nixon (1997), p. 107.

³⁵ Productivity Commission (2017), Table 4A.109.

Similarly, while it's true that Tasmania has an above-average level of students who come from low SES households, it is also true that Tasmanian students in every SES category have lower Year completion rates than their counterparts in every other State (Chart 19).

Chart 19: Year 12 completion rates by SES status, States and Territories, 2015



Note: Low socioeconomic status is the average of the three lowest deciles, medium socioeconomic status is the average of the four middle deciles and high socioeconomic status is the average of the three highest deciles. 'na' means population too small for statistical purposes.

Source: Productivity Commission (2017), Table 4A.108.

Indeed, the striking message of Chart 19 is that a student from a high SES household in Tasmania is *less likely* to have completed Year 12 than a student from a low SES household in any other State.

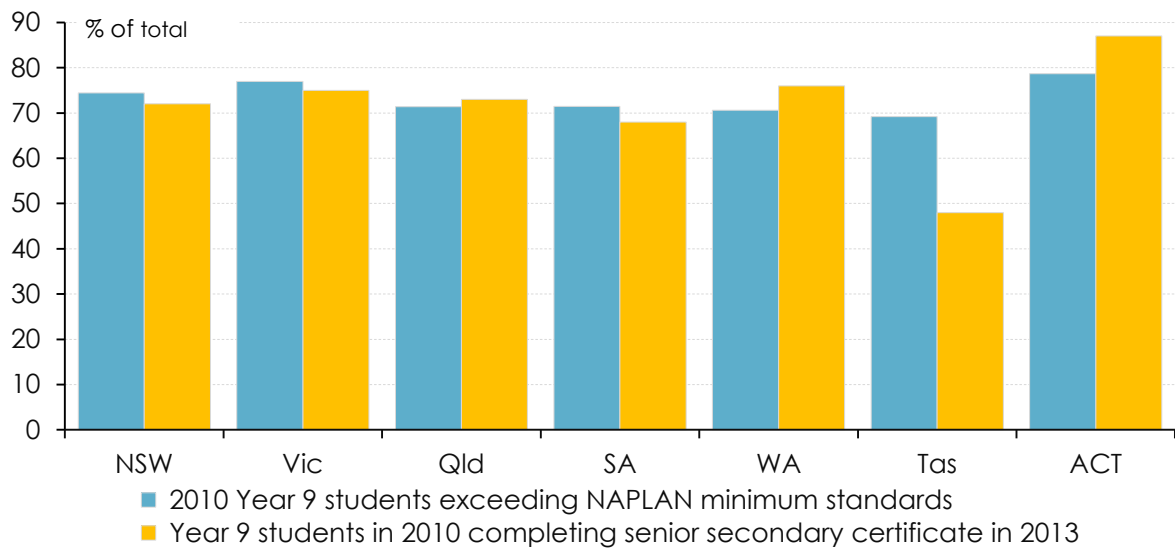
Nor is it true that Tasmanian students are for some reason inherently less capable of undertaking Year 11 and Year 12 than students in other parts of Australia.

Michael Rowan and Eleanor Ramsay of the University of Tasmania last year published a detailed comparison³⁶ of Year 9 NAPLAN results and senior secondary school certificate (TCE and its equivalents) attainment rates for Year 12 (as a percentage of Year 10 students from two years earlier) between a group of 22 Tasmanian schools and 202 mainland schools having similar readings on the Index of Community Socio-Economic Advantage (ICSEA) used by the Australian Curriculum and Reporting Authority (ACARA) to identify schools which can fairly be expected to have the same performance on NAPLAN tests.

They found that, whereas students at the Tasmanian schools achieved average Year 9 NAPLAN results which were not significantly different from those achieved by students at similar schools in other States, the proportion of the Tasmanian students who attained their TCE three years later was substantially below the corresponding proportion of students from similar schools in other States (Chart 20).

³⁶ Rowan and Ramsay (2015).

Chart 20: Year 9 NAPLAN results and Year 12 senior secondary certificate completion rates at comparable schools



Source: Rowan and Ramsay (2015).

I'll return to the issue of what happens between Year 10 and Year 12 in Tasmania in a moment.

But before doing that, I want to address the commonly-held perception that Tasmanians don't attach as much value to education as other Australians. That may well have been the case in the past³⁷. But I believe it is becoming less so. I was struck, for example, by this statement from Neighbourhood Houses Tasmania in their pre-budget submission to the State Government last year:

"When we asked the 35 Neighbourhood Houses, their volunteers and staff, what the number one issue of concern and the number one opportunity to change outcomes in their community the resounding, even overwhelming response was education ... Above all, we need schools to support our young people all the way through high school to the end of year 12"³⁸.

What is unique about the Tasmanian education system is of course the delivery of Years 11 and 12 to government school students, and in southern Tasmania to students in the Catholic system, through separate colleges. In every other State, the overwhelming majority of high schools go through to Year 12³⁹.

This 'structural break' in the Tasmanian education system at Year 10 means that students in Years 7 through 10 do not come into regular contact with Year 11 and 12 students who can serve as 'role models' for them, inspiring them to see Year 12 as the appropriate 'exit point' from schooling, rather than Year 10.

³⁷ See, for example, West (2013), p. 57.

³⁸ Neighbourhood Houses Tasmania (2016), p. 16.

³⁹ The ACT has separate colleges for Years 11 and 12. However the ACT is so different from Tasmania, socio-economically and in other ways, that it might as well be Mars for all the relevance it has to this State. Moreover, the ACT has a system of mandatory rotation of teachers between its colleges and high schools, with the intention of preventing the development of 'silo mentalities'; Tasmania does not.

It means that students who do go on to Years 11 and 12 at a college lose contact with subject teachers and other staff who have come to know their strengths and weaknesses over the first four years of high school, and have to 'start again' with college staff who will only have two years to achieve the same insights – and who are themselves 'starting from scratch' with their new intake each year.

There is also some evidence that Tasmania's college system is a much more expensive way of educating Year 11 and 12 students than the integrated systems of other States. Michael Rowan and Eleanor Ramsay calculated the average cost per Year 12 graduate at the eight Tasmanian colleges as \$58,525 in 2011-12, compared with an average of \$39,116 at thirteen South Australian high schools whose students came from a similar range of socio-economic backgrounds to the Tasmanian colleges⁴⁰. Indeed, Rowan and Ramsay calculate that the average cost per graduating student at Tasmanian colleges is \$10-14,000 more than what the University of Tasmania charges international students for the first two years of an Arts or Science degree⁴¹.

If the Tasmanian colleges were doing a superior job of getting Tasmanian students through to successful completion of Year 12, then this relatively high cost structure might well be considered money well spent.

But that doesn't seem to be the case at all. Indeed, one might also ask, if Tasmania's system really is doing such a stellar job of educating Tasmanian students in the senior secondary years, why is it that *no other State* has seen fit to copy it?

In my view, there is nothing more important or valuable that the current State Government is doing than extending Year 11 and 12 courses to high schools in rural and regional areas of Tasmania. I heartily commend them for that. However, the fact remains that this will be of little benefit to the nearly three-quarters of students who live in Tasmania's four major metropolitan centres.

The University's Northern Transformation Project will also help to reduce the long-standing gaps in educational attainment between regional Tasmania and Hobart, and between Tasmania as a whole and other States – as well as creating a large number of new jobs and revitalizing the cities of Launceston and Burnie⁴². However, it won't be able to fulfil that promise if there isn't a significant increase in the proportion of Tasmanians qualifying to enter University by attaining their TCE.

Incidentally, I am not suggesting that every Tasmanian should aspire to obtain a University degree or diploma (although it would be good if more of them did than at present). We should also want more Tasmanians to pursue various forms of vocational education and training. And we should aim to make it possible for more Tasmanians to return to attend either university or VET at later stages of their lives, rather than necessarily continuing on from the end of secondary school.

But either way, we should be seeking to eliminate the gap in Year 12 completion rates between Tasmania and the rest of Australia – as quickly as possible.

⁴⁰ Rowan and Ramsay (2014) pp. 13-14; and Rowan and Ramsay (2016), Attachment 5.

⁴¹ Rowan and Ramsay (2014) p. 16.

⁴² See University of Tasmania (2016).

This is one thing that we can do, ourselves, that is (I believe) more likely than anything else to pay dividends in terms of increasing the proportion of Tasmanians who have jobs, increasing the proportion of those Tasmanians who do have jobs who have full-time jobs, and increasing the productivity of Tasmanians with jobs, irrespective of whether they are employed full-time or part-time.

Put differently, it is the one thing that will make at least some contribution to addressing *all* of the reasons why Tasmanians have lower material standards of living than people in other parts of Australia.

To be clear, I am not suggesting that it is the *only* thing that can or should be done to that end.

Among other things, we could and should be investing in more and better economic and social infrastructure – and taking better care of the infrastructure which we already have.

We could and should reform the system of State taxation, in order to make Tasmania a more attractive location for employment and investment – for example, by broadening the base and lowering the rate of payroll tax, or by replacing stamp duties on land transfers with a more broadly-based land tax.

And we need to understand that we cannot reverse the decline in our relative standard of living by ‘going back’ to some mythical economic structure of the past.

When the ‘world economy’, insofar as it mattered to Tasmania, consisted solely of ‘advanced’ economies with relatively high cost structures (that is, mainland Australia, Europe, North America, and subsequently Japan), it was possible for Tasmania to create and maintain an economy based on the production of essentially undifferentiated commodities competing largely on the basis of price, using cheap electricity and relatively unskilled but cheap labour. That was the Tasmanian economy which Albert Ogilvie, Robert Cosgrove and Eric Reece built – and for a while, it worked, although Robin Gray’s attempts to prolong it past its use-by date simply left Tasmania with bitter divisions and a mountain of debt.

But in the world economy as it has been evolving since the 1980s, as it is today, and as it is likely to be for the foreseeable future, that kind of Tasmanian economy is not economically sustainable. It will not deliver secure employment at decent wages for anything more than a small minority of Tasmanians.

The only way that Tasmania can sustain an economy which will allow its population to maintain living standards broadly commensurate with those enjoyed by other Australians is by producing a range of goods, services and experiences which can be sold at *premium* prices (as opposed to the lowest possible price) – so that we can thereby overcome with the cost disadvantages inevitably associated with our small scale, and our greater distance from major markets.

We won’t be able to build that kind of economy without a more educated population and workforce.

I should perhaps emphasize that I am *not* suggesting that we should be aiming to eliminate entirely the difference between Tasmania's economic performance (as measured by per capita gross product) and that of the rest of Australia – or even that it would be possible to do so.

The differences in our age structure, and in the structure of our economy, are too great, and too difficult to change quickly, for that to be a feasible goal. And even if it were feasible, there would likely be costs, unaccounted for by comparisons of per capita gross product, in getting there that I am fairly sure we would regret – such as Sydney- or Melbourne-like levels of traffic congestion, or property prices.

Rather, my point is that we *can* do better than we have been doing. We could, for example, legitimately and feasibly aspire to reduce the 'gap' between our economic performance and that of the rest of Australia to that which currently exists between South Australia and the rest of the country – a gap of about \$10,200 per head, or 15%, compared with Tasmania's present \$18,600 per head, or 27%.

We could do that if we lifted our per capita gross product by 16½%.

And we could do *that* if, for example, we got an additional 1 pc point of our population into work (which would still leave the proportion of our population in employment nearly 2½ pc points below the national average), *and* if those of us who had jobs worked an extra 1 hour per week (which would still mean the average Tasmanian worker worked 5 fewer days over the course of a year than the national average), *and* if we improved our labour productivity by 10% (which would still leave it nearly 10% below the national average).

However, we won't be able to achieve *any* of those things if we can't achieve higher levels of educational participation and attainment. Indeed, if we *don't* achieve significantly higher levels of educational participation and attainment than we have at present, the rapid ageing of our population will inevitably mean that Tasmanian living standards will continue to decline, relative to those of the rest of Australia.

In the final paragraph of his *History of Tasmania*, John West wrote that "the happiness and prosperity of the people is by Divine Providence within their power"⁴³. He went on to warn of dire consequences if 'the people' were to fall short of his high expectations in any number of ways, including "neglect[ing] the education of the rising generation".

I don't think it is within our power (or within that of 'Divine Providence') to turn Tasmania into a smaller version of Sydney or Melbourne. And I don't think that's what the people of Tasmania want.

But I do think a majority of Tasmania's people want a higher standard of living than they have at the moment: and they want to believe that their descendants can also aspire to higher standards of living, without having to spend all of their lives somewhere else in order to attain that goal. As West might have said, it is within our power to achieve that.

⁴³ West (1852), p. 533.

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