



AUSTRALIAN

YOUTH DEVELOPMENT INDEX

A Jurisdictional overview of Youth Development.

2016 REPORT



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Executive Summary

Youth development continues to be a matter of national importance, with 6.3 million people between 10-29 years old now living in Australia.

For the purpose of this report youth are defined as anyone between the ages of 10-29 years old. While there is no universally agreed conceptual definition of Youth Development, this report defines it as **“enhancing the status of young people, empowering them to build on their competencies and capabilities for life. It will enable them to contribute and benefit from a politically stable, economically viable, and legally supportive environment, ensuring their full participation as active citizens in their countries.”**

This inaugural Australian Youth Development Index (YDI) analyses the state of youth development across the country as well as the improvements and deteriorations which have occurred since 2006. The key findings include:

- **Large variations in the performance of states and territories in overall youth development, with the Australian Capital Territory (ACT) having the highest YDI score at 0.851 and the Northern Territory (NT) having the lowest YDI score at 0.254.**
- **There are wide variations in performance between domains within each state and territory. For example, while Tasmania (TAS) scores well on the Political Participation domain, it performs poorly on the Employment and Opportunity and Health and Wellbeing domains.**
- **All states and territories have seen an improvement in their overall YDI scores since 2006, except TAS which has seen a seven per cent deterioration. The NT experienced the biggest improvement with a 30 per cent increase in its score.**
- **Political Participation has seen the largest improvements nation-wide since 2006.**
- **Health and Wellbeing has seen the most significant deterioration in score over ten years. All states and territories bar the NT saw a decline on this domain score.**

- **Many important youth issues are still not measured or do not have data published on them, so are not able to be included in the YDI.**

This report goes beyond the findings of the YDI to further investigate youth development issues including urban and regional differences and Indigenous gaps in youth development across the country. For these thematic sections, literary studies and external data sets have been used to enable finer analysis. The key findings include:

- **Indicators which can be disaggregated to the rural/urban level reveal a large developmental gap for youth living in rural areas of Australia. For example, in all states and territories, the percentage of youth not engaged in education, employment or training is significantly higher for rural youth than for urban youth. The largest difference is found in the NT.**
- **Indicators which can be disaggregated based on Aboriginal and Torres Strait Islander (Indigenous) status show there is a large developmental gap for youth that have Indigenous heritage. For example, suicide rates are much higher for Indigenous youth than non-Indigenous youth at a national level.**

Background

Following on from the successful launch of the Global YDI by the Commonwealth Secretariat, and recognising the importance of sub-national analysis of youth development, a toolkit for national and regional YDI production was designed by the Commonwealth Secretariat and IEP. This Australian YDI is the first pilot of this toolkit, which provides a ‘how to’ guide for index creation, index use and communicating a YDI.

The Australian YDI aims to capture the multidimensional properties that indicate progress in youth development at the sub-national level. The Index offers state and territory comparisons of the factors that affect young people, aged 10 to 29, across five key domains: Education, Health and Wellbeing, Employment and Opportunity, Civic Participation and Political Participation.

The index is formulated to help the government, decision-makers and stakeholders identify and learn from areas of success, pinpoint priority areas for investment and track progress over time. The Commonwealth Plan of Action for Youth Empowerment (PAYE), which the original global YDI was created to drive, states that a rights based approach to youth development involves the following elements:

- **(An) Express linkage to human rights;**
- **Accountability to all stakeholders;**
- **Empowerment;**
- **Participation;**
- **Non-discrimination and attention to vulnerable groups.**

Evidence based policy is more commonly being used to develop national and regional policies. This kind of policy relies on high-quality evidence and amplifies the need for useable, merit able information which is timely and relevant. Monitoring and evaluating policies and the evidence which is used to design and implement them is an excellent mechanism for highlighting success, improving outcomes and redesign. As well as this, being able to track policies and data over time is also critical. Therefore, instruments like the YDI are extremely valuable in policy design, implementation and redesign because they do both.

Australian YDI at a Glance

What is the YDI?

The Australian Youth Development Index (YDI) is a composite index of 16 key indicators that collectively measure youth development across Australia's eight states and territories. The YDI has five domains;

Education, Health and Wellbeing, Employment and Opportunity, Political Participation and Civic Participation. This Index provides researchers, policymakers, young people and civil society with a resource that illustrates levels of youth development in Australia and its sub-national regions, while also offering an analysis of the key trends and movements within the various domains.

What is the definition of Youth Development?

The YDI defines youth development as "enhancing the status of young people, empowering them to build on their competencies and capabilities for life. It will enable them to contribute and benefit from a politically stable, economically viable and legally supportive environment, ensuring their full participation as active citizens in their countries." The Australian YDI uses the definition of youth as people aged 10 to 29 years, noting that some indicators relate to only part of this cohort.

Defining youth is one of the more complex issues faced when trying to measure or plan youth development. The Commonwealth defines youth as between 15 and 29 years in the Global YDI. However, different governments, intergovernmental organisations and national level organizations have varying definitions. Table 1 shows a list of some of the different youth definitions from various United Nations and regional organisations.

Adding to the definitional ambiguity of what constitutes youth is the fact that certain sub-categories considered important to youth development also relate to smaller and different age cohorts. For example, teen pregnancy can be measured from 13 to 19 years old while adolescent pregnancy can be defined from ten years old or younger.

The production of the YDI did encounter some harmonisation problems between these definitions and as a consequence some indicators unavoidably cover slightly different age cohorts.

TABLE 1: VARIOUS DEFINITIONS OF YOUTH

Entity/Instrument/Organisation	Age Definition of Youth	Reference
United Nations Educational, Scientific and Cultural Organisation / International Labour Office (UNESCO/ILO)	15-24yrs	UN Instruments, Statistics
United Nations Population Fund	Adolescent and youth 10-24yrs	State of the World Population 2014
World Health Organisation	10-29yrs	Youth Violence
World Bank	15-34yrs	Social protection and labour
Australian Bureau of Statistics	15 – 29yrs	Age categorized data (mainly 5 year cohorts)
Mission Australia	10 – 24yrs	Statistics on Youth

TABLE 2: YDI INDICATORS

Domain	Indicator	Description	Source
Education	Highest Level of Education	Highest level of education year 10 or below, proportion of 29 year olds	ABS
Education	NAPLAN Literacy Test Absence	Proportion of students absent	NAPLAN
Education	NAPLAN Literacy Achievement	Proportion of students reached minimum standard	NAPLAN
Education	NAPLAN Numeracy Test Absence	Proportion of students absent	NAPLAN
Education	NAPLAN Numeracy Achievement	Proportion of students reached minimum standard	NAPLAN
Health and Wellbeing	Assault	Persons Aged 15-29 years who experienced assault in the last 12 months	ABS
Health and Wellbeing	Chlamydial Infection	Rate of infections 15-29 year olds	National Notifiable Diseases Surveillance System
Health and Wellbeing	Recent Illicit Drugs	Illicit drug use in the last 12 months (12-29 year olds)	AIHW
Health and Wellbeing	Suicide Rate	Suicide rates per 100,000 persons aged 15 to 29 (based on national youth rates and state totals)	ABS
Employment and Opportunity	NEET	Youth not in education, employment or training (NEET), 15 to 29 rates	ABS
Employment and Opportunity	Youth Unemployment Ratio	Ratio of youth (15-29) unemployment to total unemployment	ABS
Employment and Opportunity	Adolescent Birth Rate	Women under 20 who gave birth rates per 1,000 women	AIHW
Civic Participation	Cultural Event	Proportion of youth who were involved in: "Arts/cultural activities"	Mission Australia
Civic Participation	Volunteering	Proportion of you who had undertaken voluntary work for an organisation in last 12 months	ABS
Political Participation	Political Organisation	Proportion of youth on Student Representative Councils	Mission Australia
Political Participation	Eligible Australians Enrolled	Eligible Australians Enrolled	AEC

What does the YDI add to existing measures?

Youth development is a multidimensional concept that is best understood via an aggregation of multiple indicators. Many governments, NGOs and youth service providers publish data on specific aspects of youth development but cannot give the holistic picture of youth development that is possible with an index. By compiling the available stock of data into one comprehensive and harmonised measure, the YDI enables users to gain a better understanding of youth development in a single 'snapshot'. The research that has informed the index also informs users of where there are key gaps in data and where data collection efforts need to be better focused. To date there has been no systematic attempt to develop a comprehensive measure of the wellbeing of youth in Australia in the way the YDI is offering.

What does the YDI measure?

The YDI measures five distinct domains or key aspects of Youth Development: Education, Health and Wellbeing, Employment, Political Participation and Civic Participation. Each domain is made up of between two and five indicators, totalling 16 for the index. The domains are comprised of the following indicators in Table 2.

How should one interpret the YDI?

The YDI score is a number between 0 and 1. For a jurisdiction to receive a perfect score of 1, it would represent the highest possible level of Youth Development relative to the other jurisdictions, with zero reflecting, relatively speaking, little to absolutely no youth development. This scoring system is the same as the Human Development Index (HDI) put together by the United Nations. In some cases states/territories may be separated by very small differences in their score which may give the impression of greater differences than there in fact are. In Australia where national Youth Development is high, the differences regionally can help to highlight where national programs are lagging and which jurisdictional policies could be considered best practice.

Why the chosen indicators?

The five domains and 16 indicators which make up the YDI were selected by the Australian Youth Development Index Technical Advisory Committee. The Committee is composed of leading academics, practitioners and experts in Youth Development who have made their deliberations with extensive reference to the scoping research done by the Plan of Action for Youth Empowerment (PAYE), the World Programme of Action for Youth (WPAY) which is a process run by the United Nations Division of Economic and Social Affairs (UNDESA), and the resulting indicators used in the Global YDI. An Australian context was provided by domain experts to gauge locally appropriate measures.

Why may some important measures not be included?

The YDI attempts to be as comprehensive as possible, taking into account the key aspects of young people's lives. However, in order to provide a jurisdictional comparison it is not always possible to make like-for-like comparisons because of data limitations. Over time it is hoped Governments, NGOs, Civil Society and researchers can work more collaboratively to improve the information that is publically available and work towards better and more comprehensive measures of Youth Development.

What are the main limitations?

One of the primary limitations is measuring the progress or development for the youth cohort, particularly at sub-national levels. This tends to be a problem in the civic and political participation domain and even more difficult for finer level geography or specific cohorts. This is because the population sizes become small and very little data are published at such levels.

It should be noted that none of the indicators use in this YDI have observation points for all years in the report. Imputations have been used to estimate State and Territory scores for years with missing values. More information on the imputation method used can be found in the methodology section of the report.

Introduction

Youth development is a broad concept that acknowledges three essentials of the human development paradigm: the ability to lead a long and healthy life, to acquire knowledge and to have access to resources needed for a decent standard of living. It also includes two other critical domains which broaden the concept of development and are important facilitators for young people to realise their capabilities: access to civic and political participation. Thus the YDI is conceptually underpinned by the same human development approach contained in the United Nations HDI, albeit focused on the progress in the youth cohort.

Also similar to the HDI, the YDI captures mostly long-term human development outcomes. Although it cannot account for all disparities and inequities in youth development, it establishes a valuable monitoring framework on youth development and empowerment. Gaps in data create some limitations in analysis, so more in-depth research with improved data are needed to allow researchers, practitioners and policymakers to more critically understand how youth development is broken down in terms of gender, regions, race and ethnicity.

While this first iteration of the Australian YDI looks at state and territory, or jurisdictional data, some of the data are available at a more geographically granular level, enabling finer level analysis. As more youth specific data becomes available a refined index would provide more details and localised information. The Australian jurisdictions analysed in this report are:

- **Australian Capital Territory (ACT)**
- **New South Wales (NSW)**
- **Northern Territory (NT)**
- **Queensland (QLD)**
- **South Australia (SA)**
- **Tasmania (TAS)**
- **Victoria (VIC)**
- **Western Australia (WA)**

What is Youth Development?

For the purposes of this report youth development is “enhancing the status of young people, empowering them to build on their competencies and capabilities for life. It will enable them to contribute and benefit from a politically stable, economically viable, and legally supportive environment, ensuring their full participation as active citizens in their countries.”

The essential components of youth development are conceptualised in Figure 1.

FIGURE 1: THE FIVE DOMAINS OF YOUTH DEVELOPMENT INDEX

The YDI is a global measure of the progress of young people across five domains: Civic Participation, Education, Employment and Opportunity, Health and Wellbeing and Political Participation.



Domain 1: Education

The Education Domain seeks to measure access that youth have to education, attendance rates and the quality of education within each state or territory. The United Nations has highlighted Education as a human right within the Universal Declaration of Human Rights and the Convention on the rights of the Child and the Sustainable Developments Goals.

This acknowledgment demonstrates support for the idea that every young male and female should have access to quality education, setting them up for better health, employment and participation outcomes. In addition to this, as of 2010 there is a National Youth Participation Requirement whereby all young people have to participate in schooling until they complete Year ten. They are also required to participate in full time education, training or employment, or a combination of these activities, until the age of 17. The combination of Australian YDI indicators in the Education domain were selected to show how access to and participation in education varies over time and where sub-national variations exist.

Despite Australia ranking relatively highly in global assessments of educational access, participation and quality, significant inequalities exist within the country. Currently some of the biggest discrepancies exist between Aboriginal and Torres Strait Islander youth and non-Indigenous youth. A recent OECD report has also found that Australia has one of the highest levels of education inequalities in the OECD, with students from low socio-economic backgrounds achieving much lower results than children from high socio-economic backgrounds.¹



Domain 2: Health and Wellbeing

The World Health Organisation Constitution states “...the highest attainable standard of health as possible is a fundamental right of every human being”.² Health and wellbeing also play major roles in the Sustainable Development Goals with a focus on access to appropriate care. The Health and Wellbeing Domain, therefore, seeks to measure access to and quality of health care available in each state and territory, as well as the emotional and mental wellbeing of youth.

For youth aged between 15 and 29 years in Australia the biggest health risk factors are alcohol, illicit drugs, sexually transmissible diseases, obesity and mental illness. While not all of these issues are measured in the YDI future iterations could broaden the scope as data becomes more readily available. Inequalities exist in health practices and access to health between Indigenous and non-Indigenous youth, as well as between youth in rural and urban areas. Health risks often not only affect a young person’s current state of health but also their health in years to come. An overwhelming portion of premature deaths and diseases suffered by adults are associated with conditions and behaviours that began in their youth. The promotion of healthier practices among youth will not only help to guard them against premature death and diseases, but ensure they will be healthier in adult life and the burden of health related costs will be reduced for governments and individuals.



Domain 3: Employment & Opportunity

Employment is also widely agreed to be a human right with the Universal Declaration of Human Rights stating “Everyone has the right to work, to free choice of employment...”. The Employment and Opportunity Domains seeks to measure whether or not youth are in employment, whether it is easier or harder than other cohorts for them to receive opportunities, and, if they are not employed, whether they are engaged in education or training which could lead to employment.

Youth have specific vulnerabilities in the labour market due to age. Young people often do not have prior job experience or any professional networks and contacts, and some youth may possess skills and talents that are only in limited demand. Between 2014 and 2015, youth unemployment in Australia averaged 13.5 per cent, more than twice the adult unemployment rate.⁴

Additionally, in the present volatile economic context, if youth are able to find employment it is often short-term contracts that offer minimal or no benefits, little job security and lack of opportunity to upskill. Research has found that in Australia youth underemployment reached a four decade peak in 2014, with a rate of 15 per cent.⁵ That is, even if youth are able to find part-time or casual work and want to work more, they are not able to.

As a measure of opportunity lost, the Adolescent Fertility Rate indicator has been included in this domain, as it is widely acknowledged that the impact of bearing a child at a young age impacts education and employability because of the limited opportunities available to young mothers. This economic impact is in addition to the impact pregnancies have on the health and wellbeing of both young mothers and their children.



Domain 4: Political Participation

Participation in the political sphere of a community shows the extent to which citizens, including young people, are empowered and engaged in the political process. As such the Political Participation Domain seeks to measure both the environment provided to encourage youth voices in politics as well as actual political engagement of youth.

Citizens who feel empowered are more likely to have an active political life. Governments that have an active and informed citizenry are less likely to be corrupt and more likely to guarantee basic rights and public goods.

In Australia, voting is compulsory for all citizens 18 years and over. This does not mean, however, that all citizens 18 years and over actually vote, or are even registered to vote. Moreover, a recent Australian Electoral study found that many young people vote only because it is compulsory and not because they feel that it is a civic duty.⁶ Especially in the context of compulsory voting, non-electoral political participation is also an important gauge of youth engagement in the political process.



Domain 5: Civic Participation

As young people transition from school completion through to the attainment of employment for support and into adulthood, they can become contributing members of society through active citizenship. This aspect of development, namely civic engagement, is now seen as a key marker of human development and full incorporation into society. Civic engagement should be seen as complementary to political participation. The Civic Participation Domain seeks to measure the extent to which youth interact positively with their communities.

Civic Participation can be hard to measure and is also less likely than the other domains to have many ready-to-use, reliable indicators. Youth engagement programmes available across different areas also vary in size, intensity and goals. Examples of such programmes are those focused on getting youth job ready, building skills, providing volunteering opportunities, connecting them with community, and encouraging participation in team or group events.

While participating in the community can take many forms, including through sport, religious groups, music, drama and the arts, data for such participation is not available for jurisdictional comparison. Only very high-level attributes of this domain are included in the Australian YDI but finer detail is recommended for future analysis.

Section 1

Results

The results section focuses on the state of play for youth in Australia and the accomplishments jurisdictions have made towards improving youth development. The production of good statistics is crucial to developing sound evidence based policies, so it is important to note in this section that the quality and quantity of data directly affects the results obtained. This report has used the best possible data available, however it is recommended that continued improvement in data collection is implemented to most holistically and accurately represent the trends and notions of Australia's youth at national and sub-national levels. Accurate data can improve policy formulation, result in proper allocation of funds and resources and accurately reveal how policies are impacting citizens, which is why it is critical to all research projects and evidence-based policy making.

Highlights

- The ACT is performing the best of the States and Territories.
- The NT is falling behind the other States and Territories.
- While Australia has comparatively high youth development globally, there are gaps regionally, between urban and rural groups and for Indigenous youth.
- Many important youth issues are still not measured so have not been able to be included in the YDI.
- Even where national agencies measure important youth indicators the data are not always made public at fine enough levels to use in targeted policy development or evaluation.

Australia in a global context (2016 YDI results)

The indicators used in the Global YDI differ from those in the Australian YDI, although they cover the same domains. This means that they are not directly comparable so the global scores in this section relate only to the Global YDI. Australia ranks 3rd out of 185 countries for the 2016 Global YDI with a score of 0.84, much higher than the regional average of 0.66 and a global average of 0.62. Australia's ranking remains unchanged since 2015.

On each of the five domains of the Global YDI; Civic Participation, Education, Employment and Opportunity, Political Participation and Health and Wellbeing, Australia scores above the regional and global average scores, as seen in Figure 3.

FIGURE 2: AUSTRALIA'S YDI IN A GLOBAL CONTEXT 2016

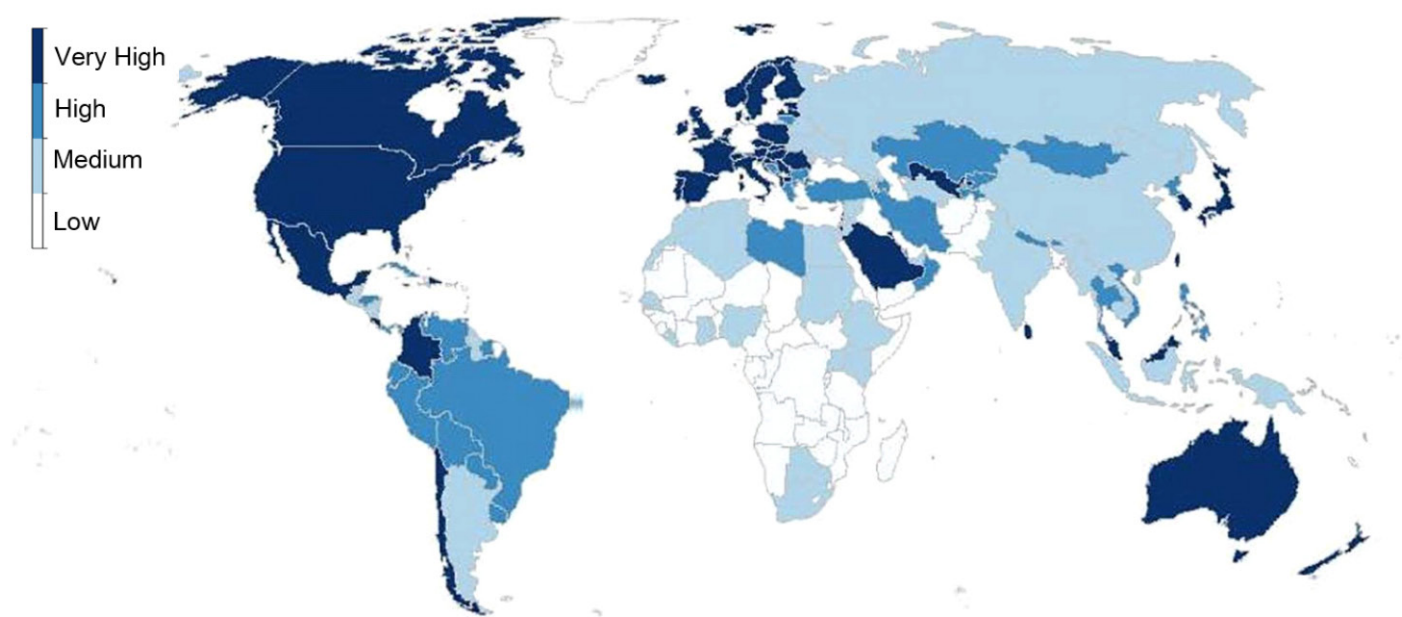


FIGURE 3: AUSTRALIA'S YDI DOMAIN SCORES IN A GLOBAL CONTEXT 2016

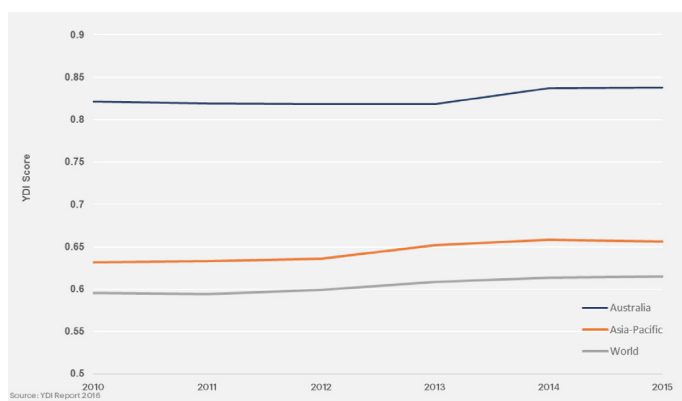
Australia performed above both the regional and world averages for all domains of the 2016 Global YDI



Since 2010, Australia has seen a modest two per cent improvement in its Global YDI score, in line with the global trend of generally improved youth development and wellbeing, as seen in Figure 4.

FIGURE 4: TRENDS IN AUSTRALIA'S YDI SCORE SINCE 2010

Australia has seen a modest improvement in its YDI since 2010, in line with global trends.



The biggest improvements in Australia have come in the Civic and Political Participation domains, increasing by 10 and 7.5 per cent respectively, which mirrors the global trend. Australia has, however, also seen a one per cent deterioration on its Health and Wellbeing domain score, while the global average score in this domain increased by three per cent. The deterioration in the Health and Wellbeing domain is driven by increasing mental health issues and drug abuse issues in Australia's youth population. These trends are seen in Figure 5.

A sub-national look at Australia

At a sub-national level, Youth Development performance varies greatly. Scores in this section are from the Australian YDI and should not be compared to the above results from the Global YDI.

In 2015, the state with the highest level of youth development performance was the ACT with a score of 0.851, whereas the NT scored the lowest of 0.294. Table 3 shows the states and territories by rank.

TABLE 3: AUSTRALIAN SUB-NATIONAL YDI SCORES 2015

Rank 2015	State or Territory	YDI score 2015
1	ACT	0.851
2	NSW	0.723
3	VIC	0.715
4	WA	0.636
5	QLD	0.565
6	SA	0.550
7	TAS	0.437
8	NT	0.294

FIGURE 5: CHANGES IN DOMAIN SCORES 2010 – 2015

Australia has improved in all domains of YDI except Health and Wellbeing, where it goes against the global trend.

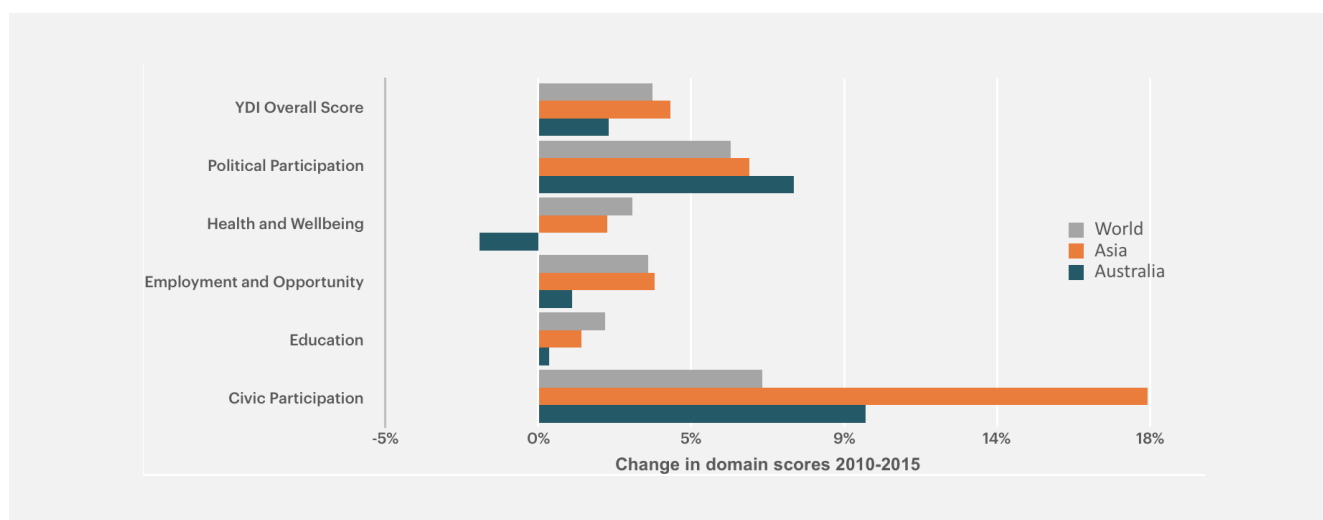
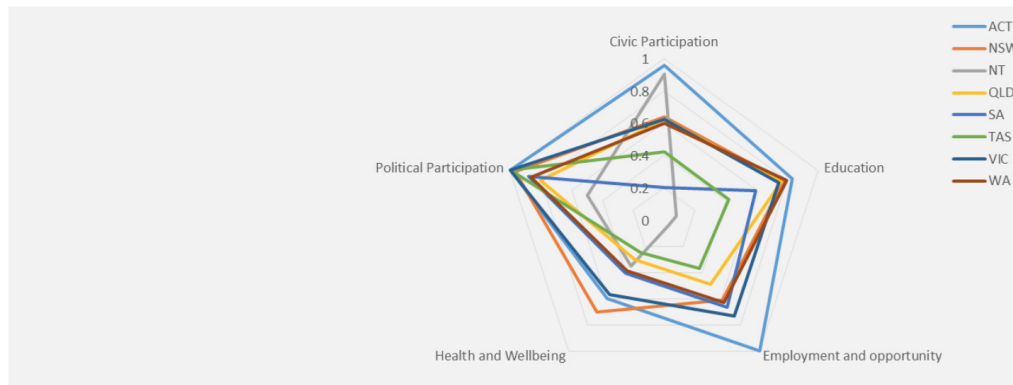


FIGURE 6: AUSTRALIAN SUB-NATIONAL YDI BY DOMAIN 2015

There is significant between and within state and territory variation in performance on different domains of the YDI.



Indicator	ACT	NSW	VIC	WA	QLD	SA	TAS	NT	What Does it Mean for Youth? (2015 Estimates)
Highest Level of Education	12%	17%	10%	14%	14%	2%	33%	20%	TAS has the highest proportion of 29 years olds with their highest level of education year 10 or below
NAPLAN Literacy Test Absence*	6%	5%	7%	6%	5%	7%	7%	13%	NT has close to double the proportion of Year 9 students absent for the NAPLAN literacy test than any other jurisdiction
NAPLAN Literacy Achievement	94%	93%	93%	93%	91%	90%	91%	69%	ACT has the highest proportion of Year 9 students reached minimum standard in literacy
NAPLAN Numeracy Test Absence*	6%	6%	7%	6%	6%	8%	8%	14%	More students are absent for NAPLAN numeracy tests than literacy tests.
NAPLAN Numeracy Achievement	95%	95%	95%	95%	94%	93%	94%	74%	Proportion of Year 9 students reached minimum standard in numeracy is higher than for literacy
NEET	2%	4%	3%	3%	5%	4%	5%	6%	Proportion of youth (15-29) not in education, employment or training (NEET) is highest in the NT
Youth Unemployment Ratio	1.7	1.5	1.6	1.6	1.6	1.6	1.6	1.5	Ratio of youth (15-29) unemployment rate to total unemployment rate is worst for youth in the ACT
Adolescent Birth Rate	22	31	23	40	51	39	61	97	Rates for women under 20 who gave birth were far higher in NT and TAS.
Assault	7%	6%	5%	9%	8%	10%	11%	9%	VIC has the lowest proportion persons aged 15-29 years who experienced assault in the last 12 months
Chlamydial Infection	849	847	865	915	911	857	867	1307	NSW has the lowest rate of infections 15-29 year olds per 100,000
Recent Illicit Drugs	22%	22%	21%	20%	20%	21%	23%	25%	At least a fifth of youth in every jurisdiction had illicit use of at least 1 of 17 drugs in the previous 12 months
Suicide Rate	9.7	10.3	9.7	11.6	12.4	11.6	13.4	11.2	Suicide rates per 100,000 persons aged 15-29 are highest in TAS followed by QLD
Cultural Event	69%	53%	54%	56%	56%	46%	45%	51%	ACT had the highest proportion of youth (10-24) who were involved in: "Arts/cultural activities"
Volunteering	35%	28%	27%	26%	27%	23%	30%	37%	NT had the highest proportion of youth (10-29) who had undertaken voluntary work for an organisation in last 12 months
Political Organisation	15%	8%	8%	10%	7%	7%	9%	24%	Both Territories have much higher proportion of youth (10-24) on Student Representative Councils than the states
Eligible Australians Enrolled	98%	94%	95%	91%	92%	95%	95%	79%	NT has the lowest proportion of Eligible Australians enrolled

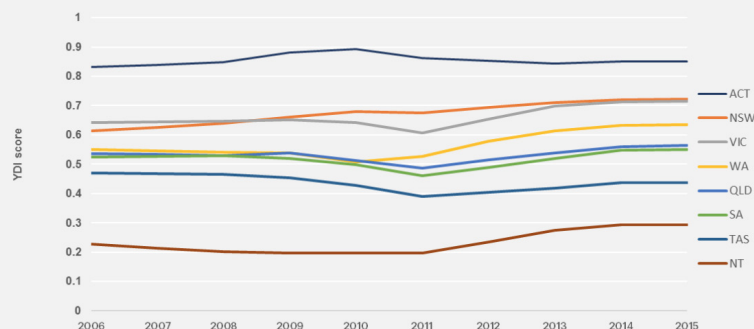
*These rates do not include non-enrolled youth

Broken down by domain there are considerable variations between states and territories scores, as well as within individual states or territories, as seen in Figure 6. For example, while the NT scores very well on the Civic Participation domain, it performs exceedingly poorly on the Education and Employment domains.

The ACT has consistently remained the best YDI performer since 2006, while the NT has consistently been the worst. The good news however, is that the NT has also seen the biggest improvement in performance over the period, with a 30 per cent increase in its overall YDI score. TAS is the only state or territory which has seen an overall deterioration in its overall YDI score since 2006. The trends across states and territories can be seen in Figure 7.

FIGURE 7: TRENDS IN JURISDICTION YDI 2006 TO 2015

The ACT has consistently remained the best overall performer on youth development since 2006, while the NT has consistently scored lowest.



The domain that has seen the most variation in performance across states and territories since 2006 is Employment and Opportunity. NT and QLD both deteriorated with an 80 per cent and two per cent decline respectively, whereas the remaining states and territories all saw improvements ranging from the modest 5 per cent in the ACT to a more extreme 17 per cent in VIC.

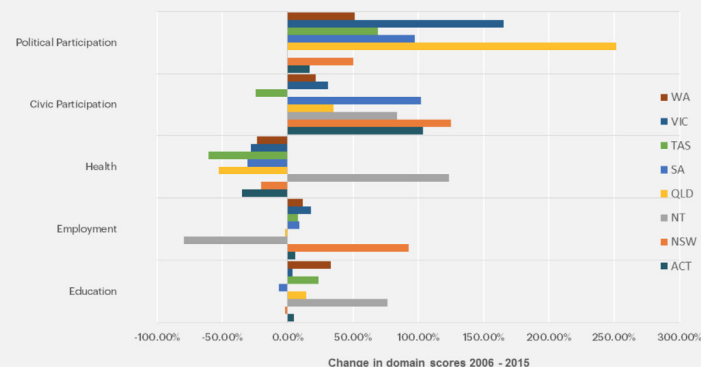
Political Participation has seen the largest improvement between 2006 and 2015. QLD's score improved by 250 per cent and VIC's by 165 per cent. The smallest improvement was by 17 per cent in the ACT and this was off an already high performing score in 2006.

Health and Wellbeing is the domain that has seen the greatest deterioration nationally since 2006, and in fact is the only domain with deteriorating scores in the Global YDI. All states and territories except the NT experienced significant declines in their scores, ranging from a 20 per cent decline in NSW to a 61 per cent decline in TAS.

The drivers of TAS's overall decline in YDI have been the Employment and Opportunity, Health and Wellbeing and Civic Participation domains. Figure 8 shows the sub-national changes in domain scores between 2006 and 2015.

FIGURE 8: JURISDICTION DOMAIN CHANGE, 2006 TO 2015

Civic and Political Participation saw the largest improvements across the board, while Health and Wellbeing has declined in every state except the NT.



Only Domain Deteriorating - Health and Wellbeing

Health and wellbeing is the only youth development domain in which Australia has seen a deterioration between 2010 and 2015 in the Global YDI. Using the Australian YDI can provide more in-depth and localised analysis on why this is the case.

National youth assault figures demonstrate a pattern strikingly similar to the one painted by the youth suicide rates. While all regions have lowered the amount of assaults suffered by 15-29 year olds, NSW, VIC and the ACT remain firmly at the top of this metric and are the only regions whose scores are better than the national average. Moreover, the NT has once again shown incredible improvement in managing this issue, almost halving their rate of youth assault in ten years. QLD, WA, SA and TAS all have rates above the national average, with TAS in particular falling behind the rest of the regions by a wide margin.

To measure the prevalence of Sexually Transmissible Infections (STI) in Australian youths, data measuring the rate of Chlamydial Infection per 100,000 people was used. In general, STI rates have seen an extremely large increase all throughout Australia, with the national average jumping by 60 per cent between 2006 and 2015, from 549 to 878 cases per 100,000 people. This increase has been uniform across all regions, however the NT is in a significantly worse position than all other regions.

The bulk of this national deterioration occurred in the period from 2006 to 2011, with marginal decreases continuing after 2011. As improvements in awareness and utilisation of health services improves, reporting rates increase. The more you screen, the more you detect. This improvement in data quality provides rates that appear to be a deterioration over time, but should be noted as a positive, as only with getting a clearer picture can individuals, state and territory governments and health practitioners deal with these issues adequately. This report has not analysed the potential differences in real increases to STI cases to stem from improved access and utilisation of health services.

Australian Capital Territory

Since 2005, the ACT has seen its total youth population increase to 111,742 (as of June 2015). However, youth as a percentage of the overall population has declined from 28.2 per cent to 25.7 per cent between 2005 and 2015, with the majority of this decrease coming after 2013.

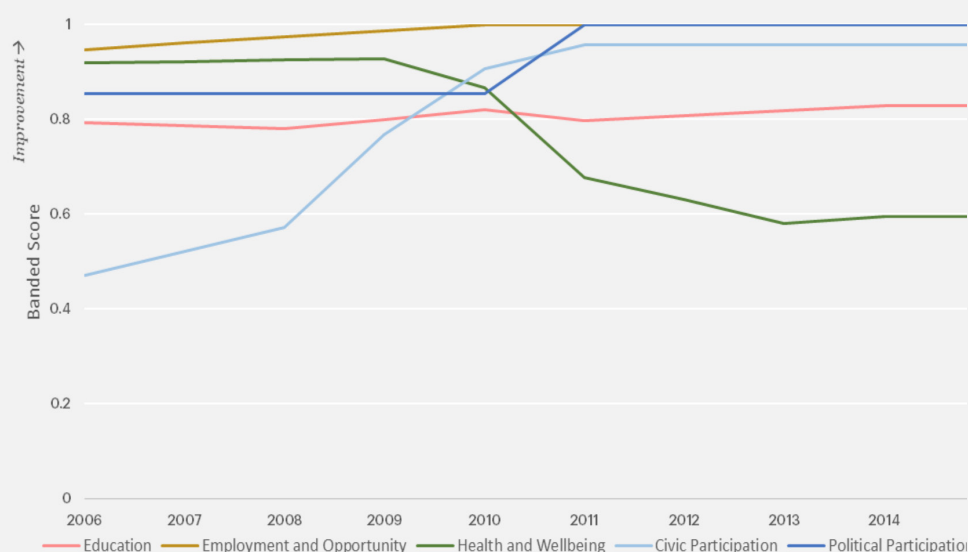
The ACT has consistently been the top performer on the Australian YDI since 2006. In 2015, it had the highest scores of all states and territories on all domains except Health and Wellbeing, where it came second to NSW.

The Health & Wellbeing domain has consistently let the ACT down, with the territory making modest improvements in all other domain areas since 2006, keeping its score above the other states and territories. The 35 per cent deterioration in Health & Wellbeing was driven by an increase in chlamydial infections.

Despite this, Civic Participation improved the most over the period because of increased numbers of youth attending cultural events, 48 to 69 per cent, and volunteering time, 29 to 35 per cent. Overall, the ACT's high scores, that are showing a positive trend in four out of the five domains, demonstrates its high levels of youth development and positive movements for youth.

Figure 9: ACT trends in YDI domains

While the ACT performed consistently well in Education, Employment and Opportunity and Political Participation it has seen significant improvement in Civic Participation but deterioration in Health and Wellbeing.



New South Wales

In the last 10 years NSW has experienced an increase of its youth population by approximately 300,000, with an estimated total youth population of 1,948,393 in 2015. Despite the rise in actual numbers of young people, as a proportion of total population in NSW, youth has decreased from 24.4 per cent in 2005 to 23.7 per cent in 2015.

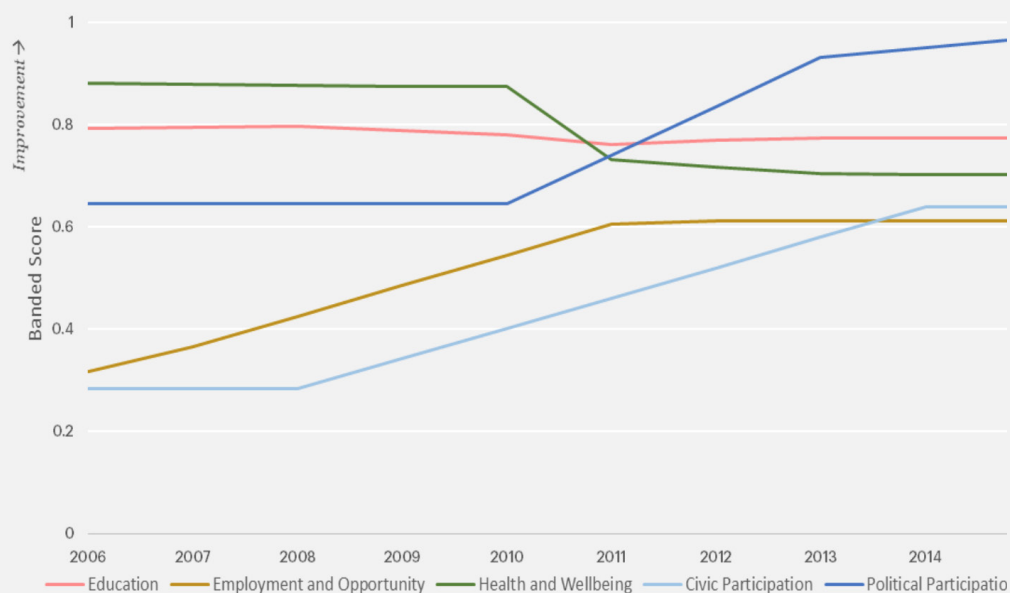
NSW ranks second overall in the 2015 Australian YDI, outperforming the top ranked ACT on the Employment and Opportunity and Health and Wellbeing domains. Since 2006, NSW has improved on Employment and Opportunity, Civic Participation, and Political Participation, but deteriorated in Education and Health and Wellbeing.

The improvement in Employment and Opportunity is driven by a 37 per cent decrease in the numbers of youth not in employment, education, and training since 2006, as well as an 18 per cent decrease in the adolescent birth rate. The large increase in the Political Participation domain score, which improved by 50 per cent since 2006, is driven by a 31 per cent increase in the proportion of youth sitting on Student Representative Councils.

The slight decrease in the Education domain (two per cent since 2006), can be attributed to the decline in the percentage of year 9 students meeting minimum national standards for literacy, which fell from 94.4 per cent in 2006 to 92.6 per cent in 2015.

FIGURE 10: NSW TRENDS IN YDI DOMAINS

While NSW showed improvement in Employment and Opportunity, Civic Participation and Political Participation.



Victoria

In the last 10 years VIC has experienced an increase of its youth population by approximately 330,000, to settle at 1,545,179. Similar to the other states, despite the rise in actual numbers of young people, as a proportion of total population in VIC, youth has decreased from 24.7 per cent in 2005 to 24.3 per cent in 2015.

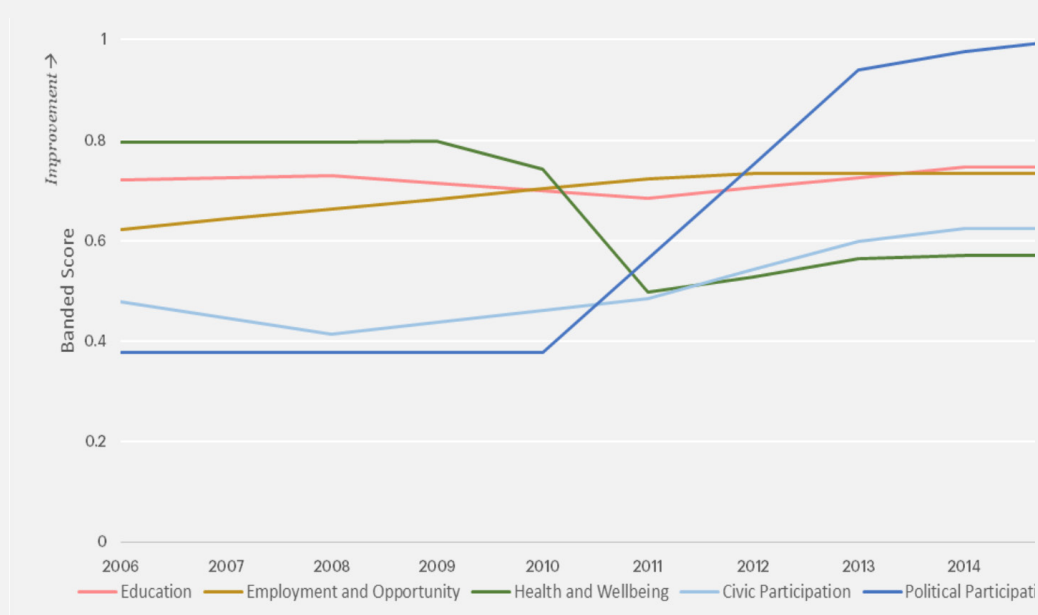
VIC ranks a very close 3rd behind NSW on the 2015 Australian YDI, outperforming its neighbour on the Employment and Opportunity domain, but having lower scores in the other domains.

Since 2006, VIC has seen the most dramatic increase in the Political Participation domain, as well as moderate increases in the Civic Participation and Employment and Opportunity. The key driver of the 165 per cent increase on the Political Participation domain score is the proportion of youth sitting on Student Representative Councils, which increased by 93 per cent.

Health and Wellbeing is the only domain in which VIC has seen a decline, with a 28 per cent decrease in score since 2006. Similarly to the ACT and NSW, this decline is due to increases in chlamydial infections.

FIGURE 11: VIC TRENDS IN YDI DOMAINS

VIC's largest improvement was in the Political Participation domain. Health and Wellbeing is the only domain to have seen a deterioration.



Western Australia

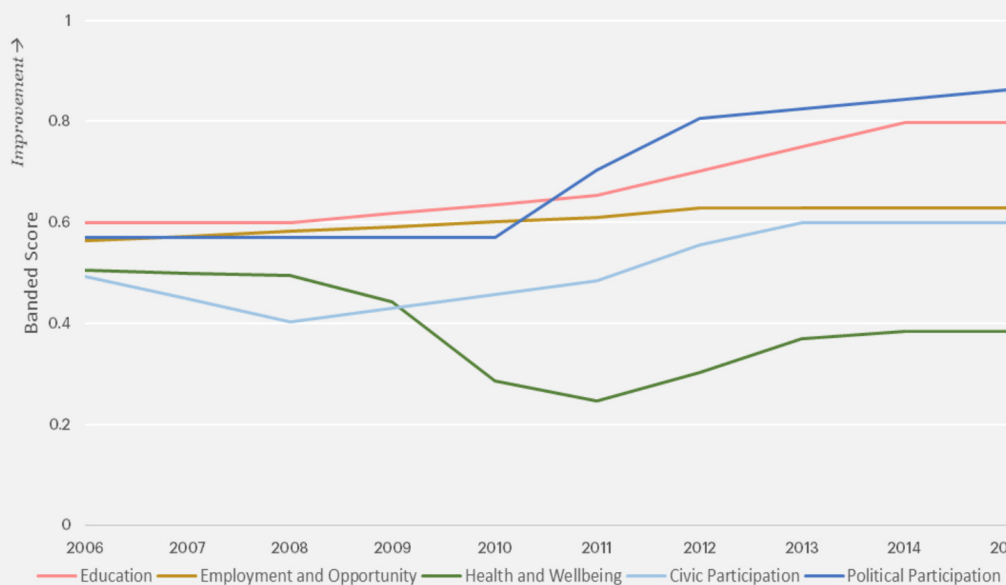
WA has seen an increase of about 170,000 to its total youth population in the last 10 years settling at 708,320, or 28 per cent of the total population, in 2015. WA experienced constant growth in its youth population until 2013, when youth represented 25.8 per cent of the total population, before experiencing a sudden decline in the following two years.

WA has experienced a 16 per cent increase in its overall YDI score since 2006, maintaining its ranking as 4th in Australia in 2015. Improvements in the Political Participation and Education domains have led to the overall improved performance. In the Education domain, WA comes second only to the NT in terms of percentage improvement (33 per cent in WA versus 76 per cent in NT). WA's improvement in the Education domain is attributable to large declines in the proportion of year 9 students who are absent from NAPLAN literacy and numeracy tests.

The only domain in which WA has seen a deterioration is Health and Wellbeing, where an increase in the rate of Chlamydial infections has contributed to a 24 per cent decrease in overall domain score.

Figure 12: WA trends in YDI domains

WA performed particularly well in Education and Political Participation making significant improvements in both.



Queensland

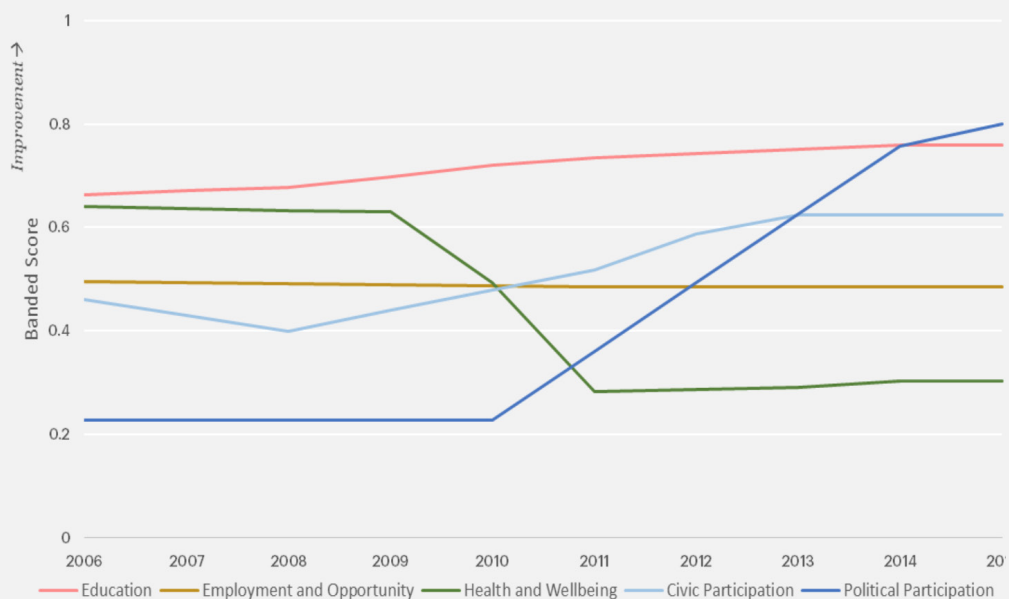
Since 2005 QLD has seen an increase in total youth population of about 300,000 to stand at a total of 1,277,449 or 28 per cent of the total in 2015. Following the Australian trend, QLD has seen the share of youth as a proportion of the total population decrease marginally from 25 per cent to 24.5 per cent. Interestingly, as can be seen from the trend line, this decrease has been more pronounced since 2010, when youth population peaked at 25.4 per cent.

QLD has seen a mild improvement of five per cent in its overall YDI score since 2006, ranking 5th in 2015. It has led all the states and territories, however, in terms of its improvement in the Political Participation domain. A seven per cent increase in the proportion of eligible Australians enrolled to vote in QLD, as well as a 50 per cent increase in the proportion of youth sitting on Student Representative Councils, have both contributed to the dramatic improvement in Political Participation score. Some care must be taken in interpreting this improvement though, as one of the indicators driving it is non-youth specific.

QLD's Health and Wellbeing domain deteriorated, with a 53 per cent decrease in score since 2006. This decrease was driven in large part by a 56 per cent increase in the rate of chlamydial infection.

Figure 13: QLD trends in YDI domains

QLD has experienced a dramatic improvement in its Political Participation domain score, but also a large deterioration in its Health and Wellbeing domain score.



South Australia

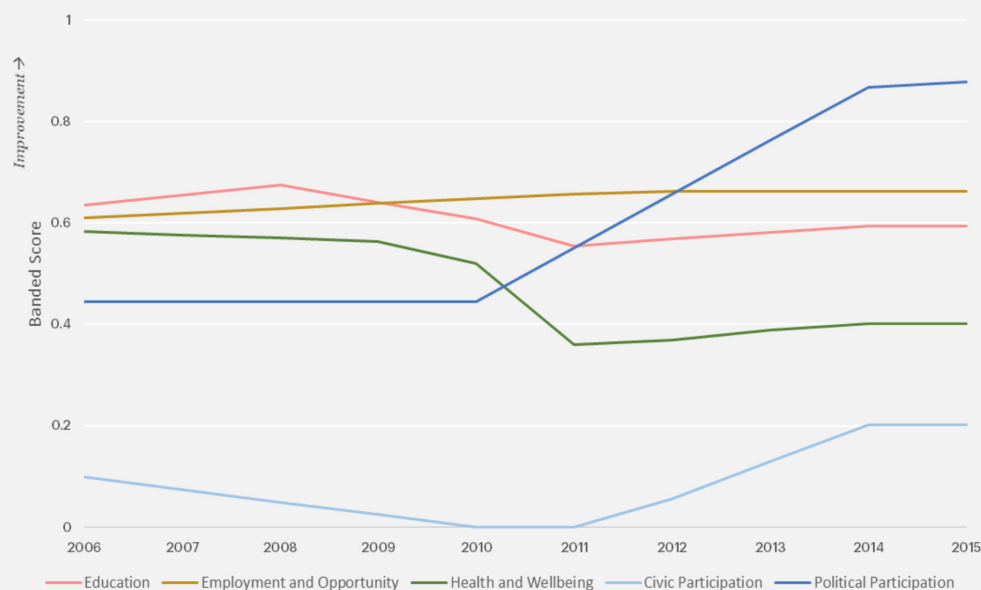
SA's youth population has grown by approximately 70,000 to settle at 431,605, or 26 per cent, in the last decade. The vast majority of this increase took place between 2005 and 2010, where youth population as a proportion of the total population peaked at 24.1 per cent. Since 2010, SA has only experienced an increase of 570 to its overall youth population, to stand at a low 23.1 per cent of the total population, the second lowest proportion in Australia.

Similarly to QLD, SA has seen a mild five per cent improvement in its overall YDI score since 2006, with large improvements in its Civic and Political Participation domain scores, 102 and 91 per cent respectively, and a mild nine per cent improvement in its Employment and Opportunity domain score. Although the Civic Participation score is still much lower than the other domains in the state, the proportion of youth who were involved in an arts or cultural event has increased, resulting in a dramatically improved score since in the domain since 2011. Civic Participation still lags behind other jurisdictions and was at the lowest levels in the country between 2010 and 2011. Youth numbers on Student Representative Councils have increased over the period, leading to improvements in the Political Participation domain.

Out of all the states and territories, SA has seen the largest decline in its Education domain score since 2006, with a seven per cent decrease. This deterioration is driven by an increase in proportion of year 9 students who were absent for NAPLAN literacy and numeracy tests.

Figure 14: SA trends in YDI domains

SA has improved in its Political Participation and Civic Participation domains, but deteriorated in its Education domain.



Tasmania

Since 2005 TAS has seen a modest increase in total youth population of about 12,000 to settle at 127,030, or 25 per cent, in 2015. Though TAS has experienced significant fluctuations in its overall youth population, which increased constantly until 2010, the proportion of youth as a percentage of the total population has been on the decline since 2005, decreasing from 23.1 per cent to 21.9 per cent in 2015. These figures are the lowest across Australia.

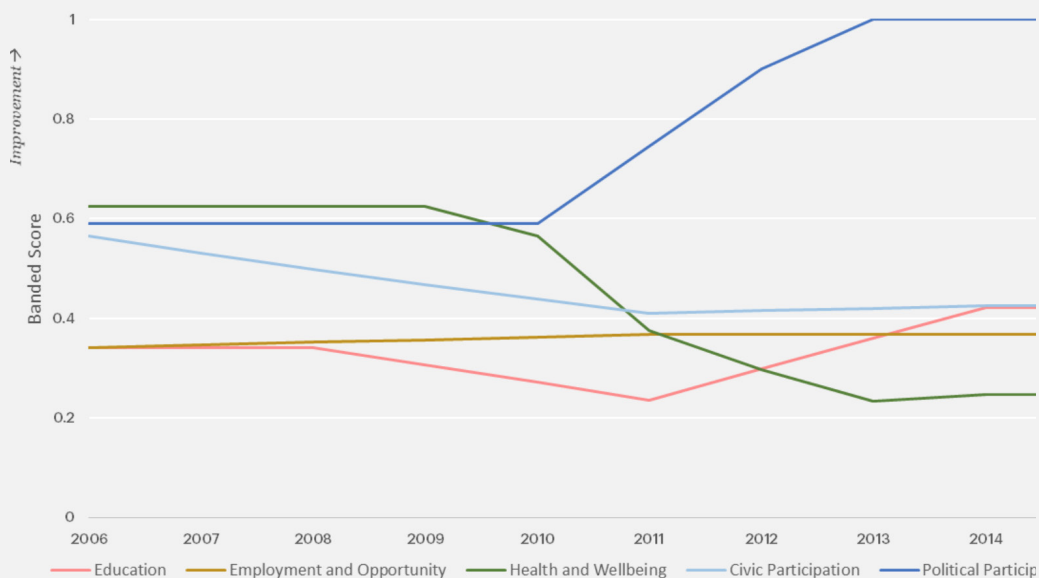
TAS ranks second to last in the 2015 YDI and is the only state or territory whose overall YDI score has deteriorated since 2006. The seven per cent deterioration in overall YDI score has been driven by large decreases in the Health and Wellbeing and Civic Participation domains. In fact, TAS has experienced the largest deterioration on the Health and Wellbeing domain of all states and territories and is the only region to have experienced a deterioration in the Civic Participation domain over ten years.

The 62 per cent increase in the rate of chlamydial infection was the main driver of deterioration in the Health and Wellbeing Domain. A 12 per cent decline in the proportion of youth who had undertaken voluntary work for an organisation in last 12 months caused the decline in the Civic Participation score.

The biggest gain for TAS was the Political Participation domain score, which increased by 69 per cent since 2006. This is primarily due to a 79 per cent increase in the proportion of youth sitting on Student Representative Councils.

Figure 15: TAS trends in YDI domains

TAS has seen an overall decline in YDI score since 2006, the only state or territory to have experienced such a deterioration. Gains were however made in the Political Participation domain.



Northern Territory

In the last decade, the NT has seen an increase of about 15,000 in its youth population to stand at 76,876, or 32 per cent, in 2015. However, since 2010 this figure has gradually decreased, with the total youth population also beginning to fall from 2013. The NT has the highest proportion of youth in Australia and a much higher percentage of the population that identify as Aboriginal or Torres Strait Islander.

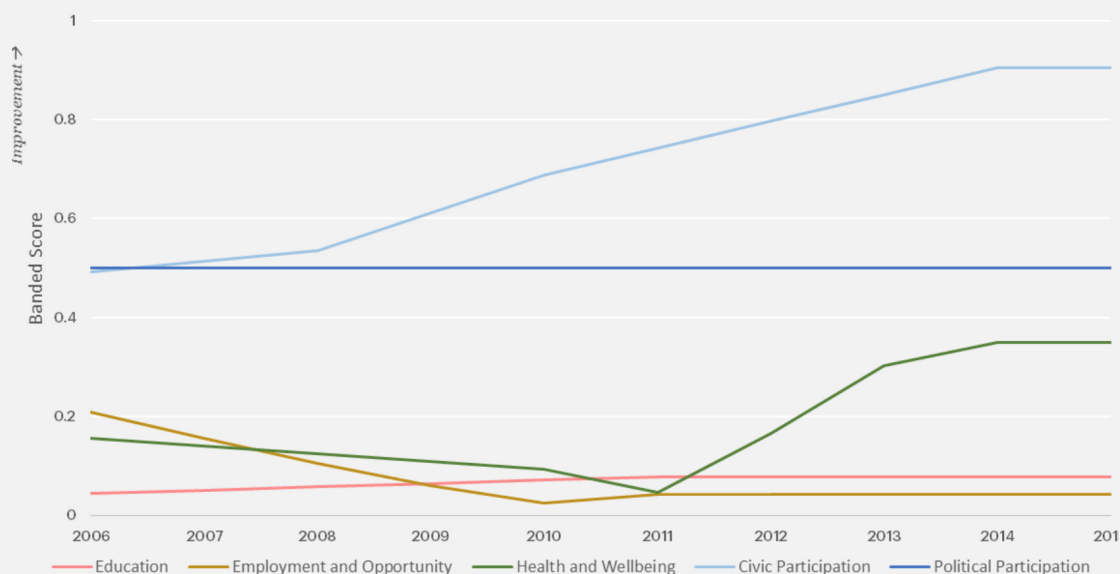
The NT ranks lowest in the YDI across the observation period overall, but did rank second in Civic Participation, and made significant improvements in Health and Wellbeing. The only domain to show deterioration was Employment and Opportunity, where the proportion of NEET youth doubled between 2006 and 2015 to six per cent. Despite having relatively high Political Participation rates, the Australian Electoral Commission enrolment figures for March 2016 suggest that less than half of the youth in the NT who are eligible to enrol have done so.⁷

NT has by far the lowest literacy and numeracy rates in the country and, worryingly, these statistics have seen little to no improvement in the recent decade. However there have been significant improvements in NAPLAN attendance rates. The proportion of children absent during NAPLAN Literacy tests dropped from 20 per cent in 2008 to 13 per cent in 2015, and the tests for Numeracy showed similar improvements in attendance.

The NT is the only state or territory to have made gains in the Health and Wellbeing domain, driven by a 47 per cent decrease in the assault rate.

Figure 16: NT trends in YDI domains

The NT is the only state or territory to have improved its Health and Wellbeing score. It has also seen a mild decline in its Employment and Opportunity domain.



Youth Development and Closing the Gap

A Rural/Urban Divide

The research results show stark divisions in education and employment opportunities between youth living in rural and urban areas.³ The NT has the most unequal opportunities for youth in rural areas, but the inequality exists across the board.

Figure 17 shows the differences between rural and urban areas in the percentage of youth not in education, employment or training (NEET), broken down by state and territory.⁸ The data are from the 2011 Census which is the most recent available data.

FIGURE 17: RURAL/URBAN DIVIDE IN EDUCATION, EMPLOYMENT AND TRAINING OPPORTUNITIES 2011

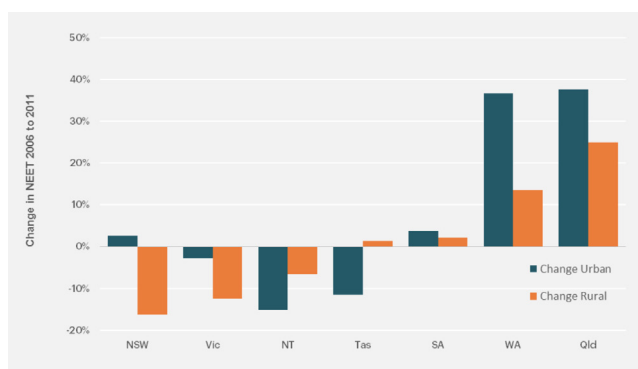
The NT suffers from the most unequal opportunities for youth in rural areas, but the inequality exists across the board



While the situation in the NT is of concern, it is one of only two jurisdictions where youth NEET has actually decreased for both rural and urban youth since 2006, as seen in Figure 18. QLD and WA have seen increases in rural and urban youth NEET, while NSW is the only state or territory where the situation for rural youth improved, although it deteriorated for urban youth.

FIGURE 18: CHANGES IN YOUTH NEET 2006 TO 2011

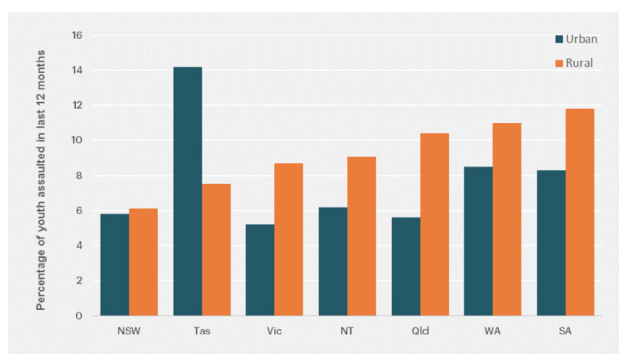
The NT is the only state or territory where the situation for youth in both urban and rural areas has improved since 2006 in terms of education, employment and training.



From a Health and Wellbeing perspective, there is also a disparity between urban and rural youth. There is national data availability for Assaults, so this was used as part of the assessment of youth Health and Wellbeing. Assaults measure the percentage of youth in a state who have experienced assault in the last 12 months. All states and territories except TAS have higher assault rates for rural youth than for urban youth. Figure 19 shows data from 2014 on assaults.

FIGURE 19: RURAL/URBAN DIVIDE IN EXPERIENCES OF ASSAULT 2014

All states and territories bar TAS have higher assault rates for rural youth than for urban youth



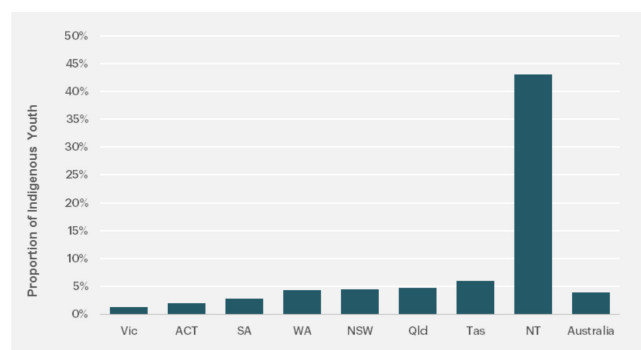
Aboriginal and Torres Strait Islanders

It is clear that Aboriginal and Torres Strait Islander youth are lagging in many development indicators across the nation. Unfortunately, because not all indicators are disaggregated based on Indigenous status either at national or state and territory levels, it is not possible to compare the whole YDI across this status, however some variables are indicative of the larger pattern.

The concentration of Aboriginal and Torres Strait Islander youth varies greatly by state, with the NT having by far the largest proportion – 43 per cent of youth are of Aboriginal or Torres Strait Islander descent, shown in figure 20.

FIGURE 20: PROPORTION OF INDIGENOUS YOUTH BY STATE

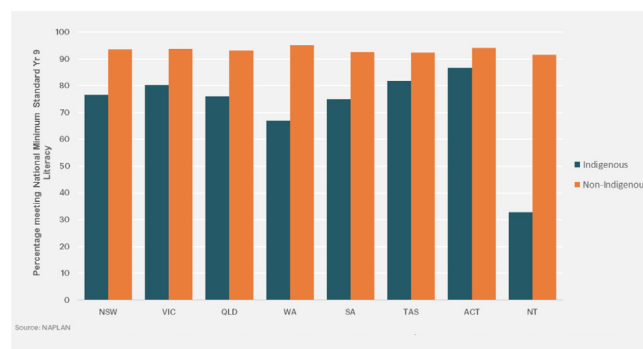
In the NT 43 per cent of youth are of Aboriginal or Torres Strait Islander descent. This is the highest proportion while VIC has only 1.2 per cent of youth being of Aboriginal or Torres Strait Islander descent.



Aboriginal and Torres Strait Islander youth trail non-Indigenous youth on measures of literacy, with 2015 data showing large discrepancies in the percentage of year 9 students meeting minimum national standards for literacy across all states as seen in Figure 21. The nexus is largest in the NT and smallest in the ACT.

FIGURE 21: YEAR 9 STUDENTS MEETING MINIMUM LITERACY REQUIREMENTS 2015

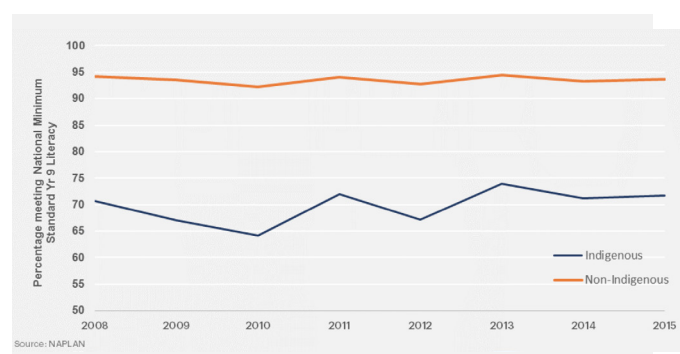
The nexus in literacy between Indigenous and non-Indigenous year 9 students is largest in the NT and smallest in the ACT.



At a national level, the discrepancy has gone through change over time, but it cannot be said with certainty that we are any closer to closing this gap than we were in 2008, as seen in Figure 22. The average gap since 2008 between Indigenous and non-Indigenous Australian year 9 students meeting minimum literacy requirements is 24 per cent.

FIGURE 22: AUSTRALIA WIDE YEAR 9 LITERACY 2008 TO 2015

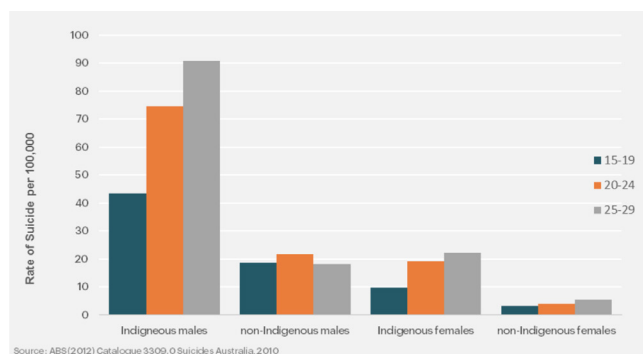
At a national level, the discrepancy has gone through change over time, but it cannot be said with certainty that we are now any closer to closing this gap than we were in 2008



One of the indicators of the Health and Wellbeing domain of the YDI is the suicide rate of youth aged 15 to 29. Disturbingly, an enormous gap is seen between Aboriginal and Torres Strait Islander youth and non-Indigenous youth, particularly in the case of Indigenous males. Figure 23 shows the national statistics for youth suicide from 2010 (the last available data), broken down by age group and Indigenous status. For 25 to 29 year old Indigenous males, the suicide rate is 90 per 100,000 which is higher than any national rate reported for any country in global reports.⁹

FIGURE 23: SUICIDE RATES BY INDIGENOUS STATUS 2010

There is an enormous gap in suicide rates based on Indigenous status, most severe for males.



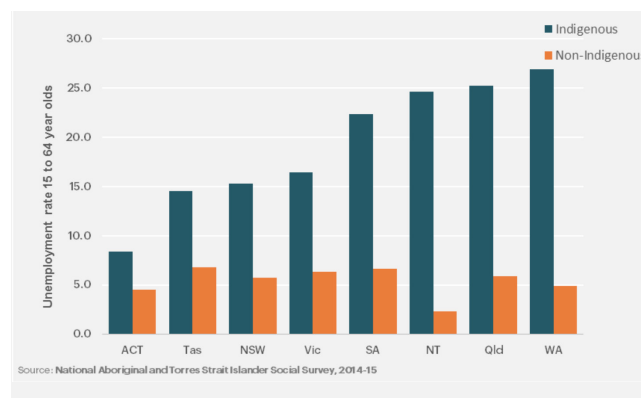
According to 2008 data, the rate of victimisation of Indigenous youth is also higher than for non-Indigenous youth nationally, with 31.4 per cent of 18 to 24 year old Indigenous youth having reported being a victim of physical or threatened physical violence in the last 12 months, compared with 24 per cent for non-Indigenous 18 to 24 year olds.¹⁰

According to 2014 ABS data, the total fertility rate for women aged 15 to 19 was 57.3 per 1000 Aboriginal and Torres Strait Islander women compared with 12.9 per 1000 non-Indigenous women.¹¹ For 20 to 24 year olds, the rate was 124.5 per 1000 Aboriginal and Torres Strait Islander women and 47.5 per 1000 non-Indigenous women. Because of data availability issues, these rates are not comparable at a sub-national level.

In terms of employment, again data availability means only aggregate age data can be used to compare Indigenous and non-Indigenous Australians. According to the ABS, in 2014 the total unemployment rate for Indigenous 15 to 64 year olds was 20.8 per cent nationally, compared with 5.8 per cent for non-Indigenous 15 to 64 year olds. Figure 24 shows the breakdown of unemployment rate in 2014-15 by state. Aboriginal and Torres Strait Islander Australians fare worse on unemployment in every state, with the highest disparities arising in the NT and WA, and the smallest gap in the ACT.

FIGURE 24: UNEMPLOYMENT RATE BY STATE AND INDIGENOUS STATUS 2014-2015

Aboriginal and Torres Strait Islander Australians fare worse on unemployment in every state, with the highest disparities arising in the NT and WA, and the smallest gap in the ACT.



Section 2

Data Availability

Data availability is paramount when analysing youth development. The methodology developed has been designed to align with other prominent global indicators, and substantial effort has been made to populate the index with the best existing country information. Statistical imputation methods have been developed to overcome the paucity of consistent and comprehensive data across the very diverse jurisdictions. Small States tend to be problematic: it can be difficult to calculate estimates for them as most collections have small sample sizes with large errors. Refining data collection and dissemination processes could improve this situation, leading to more accurate YDIs.

Data Gaps in Emerging Youth Development Barriers

Provided by Youth Action

Mental Health

Internationally there has been a move away from focusing solely on risk factors for young people towards protective elements of positive youth development. Many of the indicators used in the current iteration of the Australian YDI are risk-centred. Indicators such as the rates of self-harm and suicide amongst young people focus on the avoidance or absence of negative/risky situations. It is preferable to measure protective factors which, if strengthened, will prevent risk factors from impacting on young people.

One major protective factor which is notable in its absence from the current YDI indicator set is positive mental health, or mental wellness. Mental health for a young person involves the development of good emotional and social wellbeing and the capacity to cope with change and challenges. In the many transitional stages and events of adolescence, this quality is particularly sensitive, but critical for ensuring the ongoing health and wellbeing of a young person.

The inclusion of mental health would have a valuable place in the current indicator set as:

1) the development of mental health is integral in the prevention of depression, anxiety and low self-esteem, which play major roles in self-harming behaviours and suicide;

2) poor mental health is highly linked to several other indicators, such as school disengagement, young people not being engaged in education, employment and training, and homelessness.

Poor mental health is also linked to a range of other poor developmental outcomes, such as substance use, justice and juvenile justice populations etc. Disadvantaged populations likely to place lower on the YDI are also more likely to have lower overall mental health, and exhibit other potentially harmful risk factors.

Civic Engagement

Young people should have both the right and ability to shape the world in which they live. Civic engagement is a proxy measure of youth participation more widely, and should be a fundamental component of the Australian YDI.

The participation of young people has three elements:

- **Involvement with peers and the community;**
- **Being able to have a say on matters; and,**
- **Access to technology for social connections.**

In practice, participating means children and youth are supported in expressing their views, these views are taken into account and they are involved in decision-making processes that affect them.

Youth participation is an aspect of youth development that is worth highlighting and measuring, as it:

1) **Shows the status and priority afforded to young people**

Youth participation includes the extent to which young people are viewed as resources, offered the opportunity to contribute, have their views and ideas sought out, and are able to positively impact others.

Measuring the extent of youth participation broadly is a barometer for representing the status of young people in our society. A representation of rates of youth participation would enable analysis of the opportunities that young people are being afforded to be valued members of their communities, and structurally, how young people are being marginalised by social forces.

2) **Builds Resilience and Wellbeing**

Participation in a range of structures is also a key contributor to young people's development and wellbeing, with research highlighting that the positive outcomes of participation are healthy building blocks for young people's development. Participation is linked to enhancing young people's feelings of control, boding and meaning, and offers young people opportunities to connect both "in" and "with" community.

Outcomes of participation such as positive peer groups, contribution, relationships with non-parent adults, and an increased sense of control can also serve as protective factors against substance use, school disengagement, early pregnancy and contact with the justice system.

The inclusion of meaningful youth participation indicators in the YDI would therefore highlight protective factors enhancing the lives of young Australians.

The YDI civic participation indicators "time spent volunteering" and "attended a cultural event" do not adequately representing the spectrum of young people's participation in community and civic life. While formal volunteering/community contribution is a component of young people's participation, it is often a small component. There are similar problems with measuring attendance at cultural events as a proxy for community participation as young people's experience is far more nuanced and broader than attendance at a recognised cultural event.

Ideal indicators of young people's community participation/contribution would account for:

➤ **the representation and participation mechanisms most often accessed by young people, particularly:**

- those offered by schools and universities, such as Student Representative Councils, committees, and volunteering programs;
- local leadership opportunities often provided by Local Government;
- online participation and leadership opportunities.

➤ **the full spectrum of the ways that young people form community connections and participate in community life, such as:**

- formal and informal sports;
- cultural pursuits;
- employment;
- recreational groups such as scouts, girl guides and choirs;
- online group membership and participation.

➤ **elements of young people's participation in civic life, such as:**

- rates of voting;
- engagement with politics and policy, especially online; and,
- the extent to which young people feel that

there are opportunities for them to have a say and affect decisions.

➤ **the extent to which the various systems that most affect young people (e.g. transport, schools, health, youth services, Centrelink) are actively seeking their views and enabling young people's participation.**

A shift towards ingraining young people in the decision making process would indicate a much wider cultural shift of engaging and enabling young people. Many youth participation initiatives focus on the monitoring and evaluation of success rather than the involvement of young people from their inception to co-create effective and relevant approaches.

The development of measures embracing the above will assist in the further development of the YDI in the Australian context, and see a great deal more research rigour focused on the ways in which young people participate and contribute to our society.

Section 3

Research Questions

that have emerged from the Australian
Youth Development Index

(Professor Robyn Broadbrent)

An exercise like the Australian YDI can be both informative and revealing. Firstly for the insights that we gain, in this case, about young people in Australia but also raising questions about what further investigation we may need to undertake. This is certainly the case for the Australian YDI. This section on further research is in relation to exactly that; what does this data tell us and how can we confirm those messages or what further enquiry may assist us in understanding what impact policy or cultural trends are having and how we can best use available resources to support or negate the issue in its current context.

YDI Trends

Rural Urban Divide

Further research is required on the impact of the rural urban divide and what is needed to mitigate the compounding issues. This will include acknowledging the digital divide between rural and urban communities, health and wellbeing issues and employment and education choices.

NT Falling behind

The NT is notable in each of the domains for different reasons. It is clear there have been some improvements which will be referred to in the appropriate sections, however it is just as clear that there is a real economic and social divide in the life choices, employment opportunities and some health wellbeing outcomes for young people in the NT. This is compounded by the isolation encountered by young people living in remote and rural communities. There is a response in place in the form of the Closing the Gap policy endorsed by the Federal Government in 2008. Further research needs to understand what is working well and where the divide is at its greatest to provide advice on appropriate program responses.

Education

Attendance rates is an area where understanding successful policy and program implementation can assist in targeting resources to programs that are meeting their outcomes. The NT has had considerable success and further research is needed to understand which sets of interventions have contributed to promising outcomes.

Employment and Opportunity

We are facing serious challenges in relation to engaging young people in employment opportunities. Every state has lost considerable ground in the past decade, with significant increases in the numbers of young people impacted upon by not being able to engage productively in the world of work. This does need urgent attention to understand the future opportunities, what vocational training is needed, and how to improve access to and affordability of education.

It is areas such as this domain that also evidence the vastly different opportunities between young people across Australia, with the ACT well above the NT for employment participation. Given the changing world of work, new research needs to investigate how to engage young people in new areas of employment and to consider the growing trend overseas of social enterprises as an opportunity for some young adults to enter the workforce.

Health and Wellbeing

Fertility Rates

This data is clearly a reason for research to simply understand what is being done in this area in the various states, because the policy and program intervention has made a difference. It is one of the areas that the NT can claim some success. So even though the adolescent fertility rates in the NT still remain very high, (at what is considered unacceptable levels), there has been notable improvement, with a decrease in young women under 20 becoming pregnant. Each state tells the same story in that the adolescent fertility rate has been decreasing, however continued efforts are required to ensure contraceptive information and access is increased to continue that decline.

Suicide Rates

The fact that a wealthy country such as Australia has such high numbers of youth suicides is alarming. However, where there are increases on an already high threshold, further research and intervention is a matter of urgency.

The national mental health response by the organisation Orygen that operates the Headspace centres around Australia will already have relevant research. We must ask the questions about location and use of support services in both these states, as both have a number of remote communities where access to mental health support may be very limited. However, future research needs to be broader in its remit to fully understand the rates of mental health, the cohorts of young people most at risk, and the range of successful interventions.

Assault

Young people are both victims and, at times, perpetrators of violence, with often very serious outcomes for both. VIC, for example, has taken a law and order approach passing what is referred to as a 'one punch' law in Parliament. The perpetrator in this case faces mandatory incarceration. This change of law has gone alongside a sustained media campaign in VIC. The media, often quick to name and shame young perpetrators in particular, have recently taken a different approach. This has included a lens on the young perpetrator, who often has never come in contact with the law. Their life is in serious disarray due to one event while they were under the influence of alcohol.

What is important to note in this snapshot is that VIC has also lowered their assault rates and once again we need

to undertake further research to see if the “changing behaviour” campaign that has been sustained over two years has been a successful intervention. Similarly, the NT has almost halved their rates of youth assaults. What do they attribute this to? What do young people think has made a difference? With issues such as this, that have such serious repercussions, further research could provide more information as to how good policy and programs will make a difference.

STIs

The rise of sexually transmissible infections in an era of unprecedented health and sexuality information is bewildering. This level of risk taking behaviour amongst young people is clearly ill-informed and for young women in particular will have serious consequences if their sexual health goes unchecked. What is needed is research that can establish the framework for an innovative peer led program that is also accompanied by publicity to inform and perhaps even shock young people into understanding the consequences of their behaviour. It is to be noted that for a campaign to be successful it would need the orchestration of young adults who would ensure that the delivery of any campaign to digital natives is suitable and relevant.

Civics and Citizenship

It is disappointing that there is so little to highlight in this domain as the available data is so poor. This clearly needs addressing, as enabling connections in all communities is vital for young adults to make successful transitions through life. The recent global youth research on youth participation, *A Case for Space*, noted that definitions and understandings of youth participation should go beyond formal youth organisations and traditional civic activities, such as voting, volunteering and being consulted, to embrace genuine spaces for political action, power-sharing and the realisation of meaningful changes in the lives of young people. The project also noted the very poor synergies between formal youth work organisations and youth led organisations. What is emerging is a picture of how young people participate in the community they are connected to, and how policy makers and program funders must make much stronger attempts at understanding both the formal and the informal connections that young people participate in to strengthen essential civic participation (*A Case for Space*, 2015, Youth Policy Labs).

Methodology

The Australian YDI is designed to measure youth development in the eight states and territories based on the following five domains:

- Domain 1: Education
- Domain 2: Health and Wellbeing
- Domain 3: Employment and Opportunity
- Domain 4: Political Participation
- Domain 5: Civic Participation

These domains were decided and agreed through consultation with the Australian Youth Development Technical Advisory Committee and the IEP. To be able to gauge youth development within each state and territory within these domains, 16 indicators have been sourced that measure an aspect of one of the five domains as shown from Table 1 to 5. Wherever possible, the data used is consistent across states and territories and is available in major existing databases.

TABLE 5: DOMAIN 1 – EDUCATION

<i>Code</i>	<i>Indicator name</i>	<i>Description</i>	<i>Source</i>	<i>Latest Year</i>
D1.1	Highest level of Education	Proportion of 29 years olds with their highest level of education year 10 or below	ABS	2011
D1.2	NAPLAN Literacy Test Absence	Proportion of Year 9 students absent	NAPLAN	2014
D1.3	NAPLAN Literacy Achievement	Proportion of Year 9 students reached minimum standard in literacy	NAPLAN	2014
D1.4	NAPLAN Numeracy Test Absence	Proportion of Year 9 students absent	NAPLAN	2014
D1.5	NAPLAN Numeracy Achievement	Proportion of Year 9 students reached minimum standard in numeracy	NAPLAN	2014

TABLE 6: DOMAIN 2 – HEALTH AND WELLBEING

<i>Code</i>	<i>Indicator name</i>	<i>Description</i>	<i>Source</i>	<i>Latest Year</i>
D2.1	Assault	Proportion persons aged 15-29 years who experienced assault in the last 12 months	ABS	2014
D2.2	Chlamydial Infection	Rate of infections 15-29 year olds per 100,000	National Notifiable Diseases Surveillance System	2014
D2.3	Recent Illicit Drugs	Proportion of youth (12-29) who have had illicit use of at least 1 of 17 drugs in the previous 12 months	AIHW	2013
D2.4	Suicide Rate	Suicide rates per 100,000 persons aged 15-29 (based on national youth rates and state totals)	ABS	2013

TABLE 7: DOMAIN 3 – EMPLOYMENT

<i>Code</i>	<i>Indicator name</i>	<i>Description</i>	<i>Source</i>	<i>Latest Year</i>
D3.1	NEET	Proportion of youth (15-29) not in education, employment or training (NEET)	ABS	2011
D3.2	Youth Unemployment Ratio	Ratio of youth (15-29) unemployment rate to total unemployment rate	ABS	2011
D3.3	Adolescent Birth Rate	Women under 20 who gave birth rates per 1,000	AIHW	2012

TABLE 8: DOMAIN 4 – POLITICAL PARTICIPATION

<i>Code</i>	<i>Indicator name</i>	<i>Description</i>	<i>Source</i>	<i>Latest Year</i>
D4.1	Political Organisation	Proportion of youth (10-24) on Student Representative Councils	Mission Australia	2014
D4.2	Eligible Australians Enrolled	Proportion of Eligible Australians enrolled	AEC	2015

TABLE 9: DOMAIN 5 – CIVIC PARTICIPATION

<i>Code</i>	<i>Indicator name</i>	<i>Description</i>	<i>Source</i>	<i>Latest Year</i>
D5.1	Cultural Event	Proportion of youth (10-24) who were involved in: "Arts/cultural activities"	Mission Australia	2014
D5.2	Volunteering	Proportion of youth (10-29) who had undertaken voluntary work for an organisation in last 12 months	ABS	2011

Overview of Data Limitations

There were many data limitations encountered in the development of the Australian YDI. Below is a summary of issues to be aware of:

- There are regular harmonisation problems between definitions of youth, with some data sources using the 15-29 age bracket while others use 10-24, 12-29 or 10-29.
- Thematically, the Political Participation and Civic Participation domains are most problematic. One of the two indicators in the Political Participation domain is not youth specific (eligible voters enrolled), because data was not easily available at this level of disaggregation across different time periods. The AEC now publish age disaggregated statistics in CSV files and these should be used in future iterations. Figures from the 2016 Election enrolment suggest that the youth pattern follows that of total enrolment across the states but that it is approximately 30 per cent less.
- Jurisdictional averages will hide regional variations, distinctly more problematic in states or territories with high rates of urbanisation. This is exacerbated by the fact that only some data can be disaggregated by rural/urban divisions.
- Similarly, most data cannot be disaggregated by Aboriginal and Torres Strait Islander heritage, leading to a large gap in evidence based knowledge of the disparities that are known to exist between Indigenous and non-Indigenous youth.

Equation 1: Banding Equation

$$\text{Banded}_i = \frac{\text{Country Indicator Value in Year } y_i - \text{minimum cut off}_i}{\text{maximum cut off}_i - \text{minimum cut off}_i}$$

Equation 2: Reverse Banding Equation

$$\text{Reverse Banded}_i = 1 - \frac{\text{Country Indicator Value in Year } y_i - \text{minimum cut off}_i}{\text{maximum cut off}_i - \text{minimum cut off}_i}$$

Data Availability Issues and Imputations

The issue of low availability for current or historical data has been a factor in a number of the methodological decisions made, from what indicators to include to how to calculate the final scores. There are many empirical and statistical techniques that can be employed to deal with these missing data issues when creating a composite index.¹² Every indicator in the Australian YDI has two data points, and the other years are interpolated and extrapolated based on the trend between them.

In calculating domain and final scores, each indicator is weighted in terms of its relative importance to the other indicators. There are a number of methods available¹³ to decision makers, including data envelopment analysis, benefit of the doubt approach, and unobserved components. Two simple approaches have been chosen for the YDI. The first has been to use expert assessments in combination with an Analytical Hierarchy Process (AHP) from the technical advisory panel to determine the relative importance of each indicator.

The Banding Process

In order to allow aggregation of non-commensurate indicators, a process of normalisation, or banding, was conducted. Under this process, each indicator is scaled between a score of 0 and 1 relative to a global data set. To do this, appropriate minimum and maximum values for the data set are decided such that anything below the minimum is assigned 0, anything above the maximum is assigned 1, and everything else is scaled evenly between 0 and 1. Depending on the nature of the data, the banding process can take different forms.

For example, in the "Volunteering" indicator, a higher score reflects a more desirable situation. In this case the banding process requires the largest data point in the volunteering indicator to be assigned a value of 1. Conversely the lowest data point in the indicator is assigned 0, while all other data are scaled relative to these two points. This process is referred to as forward banding. On the other hand, in the indicator "Suicide rate", a lower score reflects a more desirable situation. In this case, the data are reverse banded, meaning that the lowest value is assigned 1 in the banding process, while the highest is assigned 0.

Therefore, in year y , a forward banded score is calculated for indicator i by Equation 1. A reverse banded score is calculated by Equation 2.

An integral part of this process is to set appropriate minimum and maximum cut off values for the banded scores. There are empirical and normative methods available for doing this. While some data may be distributed normally and therefore lend itself well to standard and well defined mathematical techniques, such as defining outliers as those greater than three standard deviations from the mean, other data sets do not follow well behaved trends. The final choice of which technique is used must depend on a number of considerations: the nature of the data, the underlying distribution, the purpose of the index, what information is being conveyed, etc. Upon investigation of the datasets used in the YDI, very few of the distributions can be classified as normal. The presence of outliers affects not only the average, but the variance, skewing both the minimum and maximum cut-off points.

To account for this, IEP in some instances set artificial minimums and maximums to ensure results are not too heavily influenced by outliers. In the cases where outliers are present, the lower bound set for the banding process are set as the lowest data point that is within 1.5 times the interquartile range below the first quartile (where the interquartile range is defined as the distance between the first and third quartiles). Similarly the upper bound set for the banding process are set as the largest data point that is within 1.5 times the interquartile range above the third quartile.

Weighting Indicators and Domains

In calculating domain and final scores, each indicator is weighted in terms of its relative importance to the other indicators. There are a number of weighting methods which are commonly used in index creation. Two simple approaches were trialled for the YDI. The first has been to use expert assessments in combination with an Analytical Hierarchy Process (AHP) from the technical advisory panel to determine the relative importance of each indicator. This was conducted at the individual level with six experts and weights were averaged across participants.

Analysing the results produced by this process yielded unsatisfactory global rankings. This was attributed to the conceptual issue arising when aggregating individual preferences: such a process in theory can produce results that do not satisfy any of the preferences of the participating individuals. Due to this an alternative approach was pursued. The Australian YDI therefore based it's weightings on the global domain weights with equal weights within the domains as shown in Table 10.

TABLE 10: WEIGHTS USED IN THE AUSTRALIAN YDI

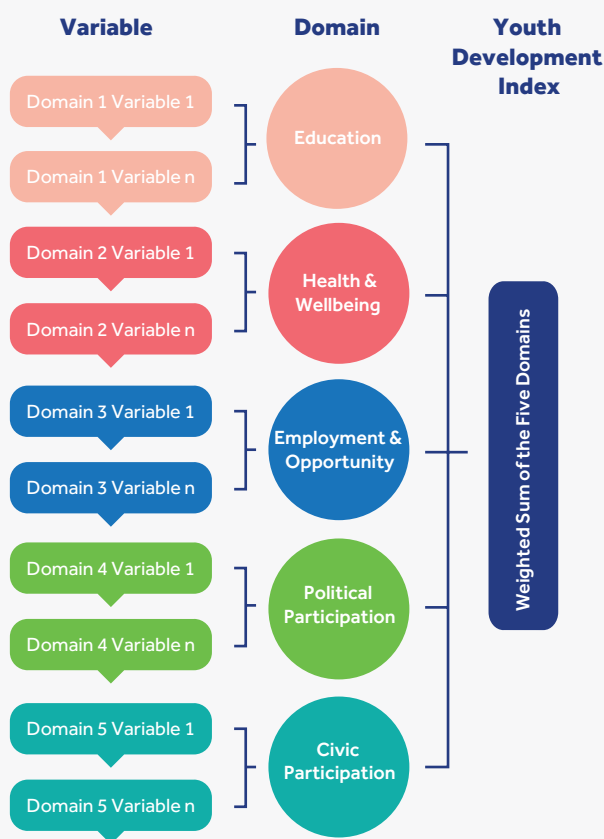
Pillar Weight	Pillar	Indicator	Indicator Weight
25%	Education	Highest Level of Education	5%
		NAPLAN Literacy Test Absence	5%
		NAPLAN Literacy Achievement	5%
		NAPLAN Numeracy Test Absence	5%
		NAPLAN Numeracy Achievement	5%
25%	Employment and Opportunity	NEET	8%
		Youth Unemployment Ratio	8%
		Adolescent Birth Rate	8%
25%	Health and Wellbeing	Assault	6%
		Chlamydial Infection	6%
		Recent Illicit Drugs	6%
		Suicide Rate	6%
12.5%	Civic Participation	Cultural Event	6%
		Volunteering	6%
12.5%	Political Participation	Political Organisation	6%
		Eligible Australians Enrolled	6%

YDI Aggregation and Calculation

Once data has been banded and weights assigned, the final stage is to multiply each banded indicator with its corresponding weight and sum each state or territories performance to arrive at an overall score. Figure 25 illustrates this process.

FIGURE 25: CALCULATING A FINAL SCORE FROM RAW INDICATORS

Final scores are calculated by combining scores for individual domains into the overall Youth Development Index.



APPENDIX A – AUSTRALIAN YOUTH DEVELOPMENT TECHNICAL ADVISORY COMMITTEE

NAME	ORGANISATION
Prof. Robert Tanton	National Centre for Social and Economic Modelling (NATSEM), University of Canberra
Katie Acheson	Chief Executive Officer, Youth Action
Margaret Dinan & Guinevere Hunt	Assistant Director, Family and Community Statistics, Australian Bureau of Statistics
Conan Liu	Head, Maternal Health, Children, Youth and Families Unit, Australian Institute of Health and Welfare
Gemma Wood	Research Fellow, Institute for Economics and Peace

Notes

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