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Social Impact Investing Network South Australia
The Scanlon Foundation
THE CENTRE FOR SOCIAL IMPACT

The Centre for Social Impact (CSI) is a national research and education centre dedicated to catalysing social change for a better world. CSI is built on the foundation of three of Australia’s leading universities: UNSW Sydney, The University of Western Australia, and Swinburne University of Technology. Our research develops and brings together knowledge to understand current social challenges and opportunities; our postgraduate and undergraduate education develops social impact leaders; and we aim to catalyse change by drawing on these foundations and translating knowledge, creating leaders, developing usable resources, and reaching across traditional divides to facilitate collaborations.

SOCIAL PROGRESS IMPERATIVE

The Social Progress Imperative’s mission is to improve the lives of people around the world, particularly the least well off, by advancing global social progress by: providing a robust, holistic and innovative measurement tool—the Social Progress Index; fostering research and knowledge-sharing on social progress; and equipping leaders and change- makers in business, government and civil society with new tools to guide policies and programs. From the EU to India to Brazil and beyond, the Social Progress Imperative has catalysed the formation of local action networks that bring together government, businesses, academia, and civil society organizations committed to using the Social Progress Index as a tool to transform societies and improve people’s lives.

For further information, please contact Frank Murillo, fmurillo@socialprogress.org

THE AUSTRALIAN SOCIAL PROGRESS INDEX

SPI produces the Social Progress Index that is a holistic and robust measurement framework for national, social & environmental performance that can be used by leaders in government, business and civil society at the country level as a tool to benchmark success, improve policy, and catalyse action.

For more information, please contact Megan Weier, m.weier@unsw.edu.au

AMPLIFY SOCIAL IMPACT

Amplify is a suite of online reports and tools designed to support organisations improve their evidence-based decision making, program evaluation, and ultimately their social impact.
It combines ten years of CSI experience in social issue research and outcomes measurement with numerous data sets and reporting frameworks, to provide a ‘one stop shop’ in evidence and evaluation.
Amplify has been funded with generous support from the UNSW Strategy 2025, as well as PricewaterhouseCoopers, QBE, and other donors.
# Table of Contents

**Table of Contents**

**INTRODUCTION** ........................................................................................................................................................................ 6  
**SOCIAL PROGRESS INDEX PRINCIPLES** ........................................................................................................................................ 7  
**SOCIAL PROGRESS INDEX: STATES AND TERRITORIES OF AUSTRALIA** ..................................................................................... 11 
**INDEX CALCULATION** .................................................................................................................................................................... 11  
  - CONSULTATION AND STAKEHOLDER INPUT ......................................................................................................................... 11  
  - INDICATOR SELECTION AND DATA COLLECTION .................................................................................................................. 12  
  - DEALING WITH MISSING VALUES ........................................................................................................................................... 14  
  - DATA TRANSFORMATION ........................................................................................................................................................ 15  
  - AGGREGATION .................................................................................................................................................................................. 16  
  - EVALUATING THE FIT ....................................................................................................................................................................... 17  
**RELATIVE PERFORMANCE OF STATES AND TERRITORIES** .......................................................................................................... 21  
**CONCLUSION** ...................................................................................................................................................................................... 22  
**REFERENCES** ..................................................................................................................................................................................... 23  
**APPENDIX A: INDICATOR DEFINITIONS AND SOURCES** .................................................................................................................. 24  
**APPENDIX B: ANNUAL DATA AVAILABILITY** ................................................................................................................................. 29  
**APPENDIX C: EXCLUDED INDICATORS** .................................................................................................................................................. 31  
  - Nutrition and Basic Medical Care ................................................................................................................................................. 31  
  - WATER AND SANITATION .............................................................................................................................................................. 33  
  - Shelter .............................................................................................................................................................................................. 34  
  - Personal Safety .................................................................................................................................................................................. 37  
  - Access to Basic Knowledge ......................................................................................................................................................... 39  
  - Access to Information and Communications ............................................................................................................................ 43  
  - Environmental Quality ............................................................................................................................................................... 47  
  - Personal Rights ................................................................................................................................................................................ 50  
  - Personal Freedom and Choice ....................................................................................................................................................... 50  
  - Inclusiveness ..................................................................................................................................................................................... 51  
  - Access to Advanced Education ................................................................................................................................................... 53  
**APPENDIX D: INVERTED INDICATORS** .............................................................................................................................................. 55  
**APPENDIX E: WEIGHTS** ................................................................................................................................................................. 56
APPENDIX F: BEST CASE AND WORST CASE SCENARIOS ................................................................. 58
APPENDIX G: PEER GROUPS ............................................................................................................ 60
INTRODUCTION

The purpose of the Australian Social Progress Index was to develop an Index that captures the performance of States and Territories of Australia on Basic Human Needs, Foundations of Wellbeing, and Opportunity. Developing this Index can identify where there are particular needs and opportunities for policy and structural changes to help decision makers, investors, civil society actors as well as the general public understand and focus their efforts where they are needed the most.

A multi-stage iterative process was followed to reach the most accurate framework of the Social Progress Index for Australia.

The first stage involved an interaction with the Social Progress Imperative to gain understanding of Social Progress Index concept, principles and methodology.

The second stage involved identifying a possible set of indicators and data sources that meet the Social Progress Index criteria.

The third step involved engagement with key experts and stakeholders to solicit feedback and validation.

This report describes the methodology used to calculate the Social Progress Index for the Australian States and Territories for the years 2015-2018. The first section talks about the conceptual architecture of the Social Progress Index and the principles that guide the index creation process. The second section provides a step-by-step overview of the process of constructing the Social Progress Index for Australia: data collection, missing values, data transformation, assessment of the fit, and aggregation. Furthermore, the report outlines the challenges and solutions to calculating the Australian Social Progress Index and describes the method for conducting relative analysis of performance for the States and Territories of Australia.
SOCIAL PROGRESS INDEX PRINCIPLES

The Social Progress Index is a composite index which represents the first comprehensive framework for measuring social progress that is independent of traditional economic indicators, but complementary to them. The Index focuses on what matters to societies and people by giving them the tools to better understand and seize opportunities and building blocks to enhance and sustain the quality of their lives, as well as create the conditions to reach their full potential.

Developed in collaboration with a team of scholars led by Professor Michael E. Porter of Harvard Business School, the Index is being used by national and city leaders across Latin America, and the European Commission’s Directorate General for Regional and Urban Policy for agenda setting, policymaking, prioritizing resource mobilization and measuring impact.

The Index presents a granular, actionable picture of what matters most to people regardless of their wealth. It creates a common understanding of how well a community performs on the things that matter to all societies, rich or poor. As a complement to traditional measures of economic performance, such as income, the Social Progress Index provides better understanding of the bi-directional relationship between economic gain and social progress. Its unique framework offers a systematic, empirical foundation for governments, businesses, civil society and communities to prioritise social and environmental issues, and benchmark performance against other countries, regions, cities and communities to inform and drive public policies, investments, and business and community decisions.

Guided by a group of academic and policy experts, the Social Progress Index follows a conceptual framework that defines social progress as well as its key elements. In this context, social progress is defined as the “capacity of a society to meet the basic human needs of its citizens, establish the building blocks that allow citizens and communities to enhance and sustain the quality of their lives, and create the conditions for all individuals to reach their full potential.”

The Social Progress Index is built around a framework that comprises three architectural elements: dimensions, components, and indicators.

Dimensions represent the broad conceptual categories that define social progress:

- **Basic Human Needs** considers citizens’ ability to survive with adequate nourishment and basic medical care, clean water, sanitation, adequate shelter, and personal safety. These needs are still not met in many disparate countries and are often incomplete in more prosperous countries.

- **Foundations of Wellbeing** captures whether a society offers building blocks for citizens to improve their lives, such as gaining a basic education, obtaining information, and access communications, benefiting from a modern healthcare system and live in a healthy environment.

- **Opportunity** captures whether citizens have the freedom and opportunity to make their own choices. Personal rights, personal freedom and choice, tolerance and inclusion, and access to advanced education all contribute to the level of opportunity within a given society.

- Within each dimension are components: four distinct but related concepts that together make up each dimension (Figure 1).
Each component is composed of indicators that measure as many valid aspects of the concept as possible.

Together, this interrelated set of factors represents the primary elements that combine to produce a given level of Social Progress Index. The methodology allows measurement of each component and each dimension, and yields an overall score and ranking.

The three dimensions and twelve components of the Social Progress Index Framework provide the backbone of the Social Progress Index. The twelve-component structure provides the guidelines, while the questions below (Figure 2) provide a first guide for interpreting each component and help to identify locally relevant data to define it.

**Figure 1: Social Progress Index framework**
Source: (Social Progress Imperative, 2020)

<table>
<thead>
<tr>
<th>Basic Human Needs</th>
<th>Foundations of Wellbeing</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition and Basic Medical Care</td>
<td>Access to Basic Knowledge</td>
<td>Personal Rights</td>
</tr>
<tr>
<td>Water and Sanitation</td>
<td>Access to Information and Communications</td>
<td>Personal Freedom and Choice</td>
</tr>
<tr>
<td>Shelter</td>
<td>Health and Wellness</td>
<td>Inclusiveness</td>
</tr>
<tr>
<td>Personal safety</td>
<td>Environmental Quality</td>
<td>Access to Advanced Education</td>
</tr>
</tbody>
</table>

**Figure 2: Social Progress Index Guiding Questions**

- **Basic Human Needs**
  - Nutrition & Basic Medical Care
    - Do people have enough food to eat and are they receiving basic medical care?
  - Water & Sanitation
    - Can people drink water and keep themselves clean without getting sick?
  - Shelter
    - Do people have adequate housing with basic utilities?
  - Personal Safety
    - Do people feel safe?

- **Foundations of Wellbeing**
  - Access to Basic Knowledge
    - Do people have access to an educational foundation?
  - Access to Information & Communications
    - Can people freely access ideas and information from anywhere in the world?
  - Health & Wellness
    - Do people live long and healthy lives?
  - Environmental Quality
    - Is this society using its resources so they will be available to future generations?

- **Opportunity**
  - Personal Rights
    - Are people’s rights as individuals protected?
  - Personal Freedom & Choice
    - Are people free to make their own life choices?
  - Inclusiveness
    - Is no one excluded from the opportunity to be a contributing member of society?
The Index is explicitly focused on non-economic aspects of performance. Unlike most other measurement efforts, the index treats social progress as distinct though associated with traditional economic measures such as income per capita. In contrast, other indices such as the Human Development Index (UNDP, 2016) or the OECD Better Life Index (OECD, 2015) combine economic and social indicators. The SPI objective is to utilize a clear yet rigorous methodology that isolates the non-economic dimensions of social performance.

The Index applies a set of unique design principles that allow an exclusive analysis of social progress and help the Index stand out from other indices:

**Social and environmental indicators only:** While economic development is generally beneficial for social progress, it is not sufficient to fully capture the wellbeing of societies, and certain kinds of economic development can reduce social progress. The relationship is complex: social progress can drive as well as be driven by economic progress. Consequently, social progress needs to be measured directly, without combining economic performance. Measuring social progress exclusively and directly, rather than utilizing economic proxies or combining economic and social variables is therefore the key principle of any Social Progress Index.

**Outcomes, not inputs:** There are two broad categories of conceptually coherent methodologies for index construction: input indices and outcome indices. Both can help countries benchmark their progress, but in very different ways. Input indices measure a country’s policy choices or investments believed or known to lead to an important outcome. In competitiveness, for example, an input index might measure investments in human capital or basic research. Outcome indices directly measure the outcomes of investments. The Social Progress Index has been designed as an outcome index. The Index measures the lived experience of real people, regardless of effort spent or the capacity to impart change. Given that there are multiple distinct aspects of social progress each measurable in different ways, the Social Progress Index has been designed to aggregate and synthesize multiple outcome measures in a conceptually consistent and transparent way that will also be salient to benchmarking progress for decision-makers.

**Holistic and relevant to all communities:** A multidimensional measure of social progress that encompasses the many inter-related aspects of thriving societies everywhere. The Social Progress Index aims to be a practical tool for decision makers in any given country regardless of its level of development. At the national level, the Social Progress Index fulfils this value proposition by deepening our understanding on the relationship between social progress and economic growth and by designing a very relevant tool to highlight strength and weakness at the component and indicator levels, using GDP comparator groups. Nevertheless, what matters at the national level to compare countries among themselves may not be what matters for the policy debate in a given country. For example, tuberculosis is not an issue in the Amazon region, but Malaria is. These examples illustrate how building subnational indices by preserving the 12-components structure of the Social Progress Index and by customizing the indicators to be monitored and targeted, can increase the capacity of the Social Progress Framework to boost relevant and timely policy-debates in every country at every stage of development.

**Actionable:** The Index aims to be a practical tool with sufficient specificity to help leaders and practitioners in government, business, and civil society to benchmark performance and implement policies and programs that will drive faster social progress. At the national level, the Social Progress Index fulfils this value proposition by focusing on the granularity of the model. Every component supposes an essential area for human wellbeing. And every indicator implies a potential “entry-point” and an “explicit target” for public policy. Building subnational indices with local networks will strengthen the actionability of the social progress framework, if the process of disaggregating and customizing the index is also supported by strong political buy-in around socially legitimate targets. A practical tool that will help leaders and decision-makers in government, business and civil society to implement policies and programs that will drive faster social
progress.

The successes of the Global Social Progress Index has resulted in an increased demand for subnational indices to address the need for greater actionability; the need to make the index relevant for all countries at all levels of development and at any level of geography; and a need to build common languages and to align interventions. As a result local stakeholders around the world have developed innovative initiatives to build relevant and consistent social progress indices at the macro (national), meso (regional, municipal) and micro (community, organizational) levels, to influence the policy decision-making process and move the needle of social progress around the world.
SOCIAL PROGRESS INDEX: STATES AND TERRITORIES OF AUSTRALIA
The Australian Social Progress Index follows the Social Progress Index rationale as well as its key principles and methodology. As such, it adopts the same dimension and component level framework as the global Social Progress Index, although the indicators and their data sources differ from the global Index due to the following reasons:

- There are certain indicators that are valid globally but are not directly applicable at subnational level (such as rural defecation, and property rights for women)
- It was important to take into consideration Australia’s unique challenges to include indicators that are specifically relevant and reflect the real issues across Australia’s States and Territories.

These indicators and challenges were identified through multiple rounds of consultation with data and topic experts in academia, industry, and the not-for-profit sector.

GEOGRAPHIC COVERAGE AND TIME SPAN
The Index is calculated for the eight Australian States and Territories. Most data sources provided data that were broken down at the State or Territory level as the maximum granularity. The Australian Bureau of Statistics (ABS) publishes statistics that are at the community (SA4) level; however, this was the case for the minority of indicators considered and included.

The Index is calculated for four recent years – 2015–2018, based on the availability of data for the various indicators. A detailed table with annual data availability for each indicator is presented in Appendix B.

INDEX CALCULATION
Calculating the Australia Social Progress Index involved the following multistage process:
1. Consultation and Stakeholder Input
2. Indicator Selection and Data Collection.
3. Dealing with missing values.
4. Data Transformation.
5. Aggregation and scaling.
6. Evaluating the fit.

CONSULTATION AND STAKEHOLDER INPUT
Multiple rounds of one-on-one and group consultations were conducted between October 2018 and September 2019.

November 2018-March 2019
The purpose of the first round of consultations were to introduce the SPI, and seek input on a ‘wishlist’ of potential indicators that could be included in the Index, as well as collating potential data sources. A total of thirteen consultation meetings were held:
- Local government – 1
- Peak body – 1
- Industry – 2
- University/academics – 7
Following suggestion and feedback, all potential indicators and data sources sourced or recommended were pursued. A total of 395 potential indicators were investigated. A common reason for exclusion of indicators were due to a lack of appropriate and rigorous data sources that met indication selection criteria. Some indicators were not being measured at all, others were being measured sporadically or were not appropriately representative of the Australian population.

**June 2019-August 2019**
A list of 53 preliminary indicators, their definition, and data source were presented at an event at the Progress 2019 Conference in Melbourne. Approximately 40 conference delegates attended the event and were provided the opportunity to ask questions about the Index and the indicators, and provide feedback on the proposed Australian framework. The audience included executive staff of peak Australian not-for-profit sector organisations, media, social purpose advocacy groups, and campaigners for environmental issues. No new additional indicators were suggested – all queries about missing indicators were captured by the list of considered and excluded indicators. Three follow up consultation meetings were held following the presentation with attendees from the event.

**September-October 2019**
Following the calculation of the beta-Index, additional consultations were carried out with stakeholders to receive feedback on the final indicators, the scores that the SPI calculations produced, and the overall messaging and narrative of the Australian SPI scores. These consultations were done with the wider research team at the Centre for Social Impact, as well as with two academics, the staff of a government funded data collection agency, and one chief of research and data at a peak body organization representing the social purpose sector.

**INDICATOR SELECTION AND DATA COLLECTION**
The Indicators for the Australian SPI were selected following SPI general design principles: non-economic focus, outcome indicators, relevant to all units of observation and actionable. Furthermore, credibility of sources, expert feedback, and data availability were also considered. The process of indicator selection followed the Social Progress Index methodology as outlined in Figure 4.

Detailed information on individual indicators included in the Index is presented in Appendix A. A list of indicators that were taken into consideration but are not included in the final index is presented in Appendix C.
All the data used in the Index was compiled from national data sources, unless otherwise indicated. In a number of cases, however, the data for certain States or Territories was missing for particular indicators, and these had to be completed by imputation methods.

An exploratory factor analysis was used to test the underlying factors among the set of selected indicators in each component. In this process, the indicators that were statistically incompatible, or formed a second, less dominant factor, were removed.

Forty-seven indicators that had usable data were excluded from the final Index framework because of poor model fit (correlations either too high or too low, or negatively correlated) (N = 43), or the suggested indicators did not fit conceptually with the other indicators included in the component to answer the universal question (N = 4).
The final framework is presented in Figure 4.

![Figure 4: Australian Social Progress Framework](Image)

Source: Authors

**DEALING WITH MISSING VALUES**

Overall, the following 4 approaches were considered for missing values imputation (see Table 1):

1. using historical data forward
2. using most recent data backward
3. using comparable State/Territory data (geographic and population size)

Imputing values by regression analysis was tested, however the results were not believed to be more accurate than the above methods, therefore this method was not used in any missing values imputations.
DATA TRANSFORMATION

Several key data transformations took place in the process of calculating Australia’s Social Progress Index.

First transformation concerned data for three indicators that were sourced from HILDA survey. As the sample size at the state level is relatively small, Bayesian estimations were applied to the survey results of the following indicators to increase the probability of accurate distribution:

- Overcrowding
- Volunteering
- Satisfaction with connection to community

Secondly, there were specific cases where data values for certain indicators were over a rational boundary. In some other cases, data values exceed all other values (aka outliers) which excessively skewed the distribution. These indicators are confined at a boundary, a list is presented in Table 2.
On account of having outliers that ultimately did not support a normal distribution, several indicators were log transformed in order to address this issue. These are:

- Pneumococcal prevalence
- Waterborne diseases - Shingellosis
- Waterborne diseases - Cryptosporidiosis
- Waterborne diseases - Salmonella
- Acts to cause injury
- NAPLAN Numeracy Year 9
- NAPLAN Reading Year 9 – Indigenous
- Diabetes mortality

Fourthly, as all the indicators are measured in different units, it was important to standardize them so that they become comparable. Otherwise, a variable that has less variation relatively but is measured on a larger scale compared to other variables may appear to have much greater variation than it actually does. Standardization helps solving the problem by making indicators unitless as it rescales them with a mean of zero and standard deviation of one.

Finally, we invert all indicators for which a higher value denotes lower social progress, such as rotavirus incidence where higher means worse and lower means better. A list of the inverted indicators is presented in Appendix D.

**AGGREGATION**

For the Australian Social Progress Index the researchers adopted the geometric mean approach to aggregation, which applies the geometric mean to aggregate the four components within each dimension into a dimension score and across dimensions into the overall index score.
The Social Progress Index uses the Principal Component Analysis (PCA) for calculating the weights of indicators within a component.\(^1\) There are no indicators with smaller than ideal weights.

The component values are calculated by summing the weighted scores using the following formula:

\[
\text{Component}_i = \sum (w_i \times \text{indicator})
\]

A complete list of weights is presented in Appendix E.

To calculate \textit{component scores} the Index transforms indicator values onto 0 to 100 scale. This is done by calculating scores using best- and worst-case scenarios which are defined at the indicator level according to desirable or theoretically possible upper and lower bounds. See Appendix F for the worst and best-case scenarios.

This method enhances comparability as well as comprehensiveness across the dataset.

The calculation is done using the following formula:

\[
\frac{X_j - \text{Worst Case}}{\text{Best Case} - \text{Worst Case}}
\]

Where, \(X_j\) represents the raw component values.

Each \textit{dimension} score is then taken to be the geometric average\(^2\) of its four components.

\[
\text{Dimension}_d \text{ score} = \sqrt[4]{\prod_{c=1}^{4} \text{Component}_c \text{ score}}
\]

The overall \textit{Index} score is the geometric average of the three dimensions.

\[
\text{Social Progress Index} = \sqrt[3]{\prod_{d=1}^{3} \text{Dimension}_d \text{ score}}
\]

**EVALUATING THE FIT**

The indicator selection process entails including the indicators that describe the concept of the component in the best possible way and are conceptually linked to each other. The rigor of the Social Progress Index methodology is strengthened by assessing multiple aspects of fit between those. First, exploratory factor analysis is used to test the underlying factors among the set of selected indicators in each component. In this process, the indicators that are statistically incompatible are removed. This step was initially done when defining the framework for the Australian SPI.

Furthermore, the Social Progress Index methodology involves evaluating the fit between the individual indicators by calculating Cronbach’s alpha for each component. Alpha was developed by Lee Cronbach in 1951 to provide a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1 (Tavakol & Dennick, 2011). Internal consistency describes the extent to which all the items in a test measure the same concept.

---

\(^1\) Principal Component Analysis is a multivariate technique which was developed in early 20th century for the purpose of aggregating information. Calculations were done in STATA, using “factor, pcf” command.

\(^2\) Geometric mean represents the central tendency of a group of numbers – the \(n^{th}\) root of the product of \(n\) numbers. Unlike arithmetic means, geometric mean compensates outlier performances, \textit{to a point}, but also penalizes inconsistent performance in any of the components within a dimension. This helps to emphasize nuance across States and Territories.
or construct and hence it is connected to the inter-relatedness of the items within the test. Internal consistency can be employed for research or examination purposes to ensure validity. An applied practitioner’s rule of thumb is that the alpha value should be above 0.7 for any logical grouping of variables (Cortina, 1993). The alpha values are presented in Table 3.

Table 3: Alpha values

<table>
<thead>
<tr>
<th>Component</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Human Needs</td>
<td></td>
</tr>
<tr>
<td>Nutrition and Basic Medical Care</td>
<td>0.94</td>
</tr>
<tr>
<td>Water and Sanitation</td>
<td>0.89</td>
</tr>
<tr>
<td>Shelter</td>
<td>0.73</td>
</tr>
<tr>
<td>Personal Safety</td>
<td>0.92</td>
</tr>
<tr>
<td>Foundations of Wellbeing</td>
<td></td>
</tr>
<tr>
<td>Access to Basic Knowledge</td>
<td>0.94</td>
</tr>
<tr>
<td>Access to Information and</td>
<td></td>
</tr>
<tr>
<td>Communications</td>
<td>0.89</td>
</tr>
<tr>
<td>Health and Wellness</td>
<td>0.95</td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>0.84</td>
</tr>
<tr>
<td>Opportunity</td>
<td></td>
</tr>
<tr>
<td>Personal Rights</td>
<td>0.93</td>
</tr>
<tr>
<td>Personal Freedom and Choice</td>
<td>0.85</td>
</tr>
<tr>
<td>Inclusiveness</td>
<td>0.92</td>
</tr>
<tr>
<td>Access to Advanced Education</td>
<td>0.92</td>
</tr>
</tbody>
</table>

Source: Authors

After calculating each component, the goodness of fit is evaluated using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy3. The KMO index ranges from 0 to 1, as a rule of thumb, KMO scores should be above 0.5 (Williams, Onsman, & Brown 2010). The results of this analysis are shown in Table 4. The KMO values are well above the set standards for each of the component reflecting appropriate selection of indicators.

---

3The statistics is a measure of the proportion of variance among variables that might be common variance.
The last test undertaken to validate the conceptual fit of indicators selected for the three dimensions was exploratory principal component analysis (PCA). The results for PCA applied on the three dimensions of Basic Human Needs, Foundations of Wellbeing and Opportunity are shown in Figures 5-7 respectively. Eigenvalues higher than 1 imply there is a significant underlying concept. As all three scree plots indicate within each dimension there is only one strong concept as measured by the four components within each dimension.

<table>
<thead>
<tr>
<th>Component</th>
<th>Mean KMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition and Basic Medical Care</td>
<td>0.89</td>
</tr>
<tr>
<td>Water and Sanitation</td>
<td>0.65</td>
</tr>
<tr>
<td>Shelter</td>
<td>0.68</td>
</tr>
<tr>
<td>Personal Safety</td>
<td>0.81</td>
</tr>
<tr>
<td>Access to Basic Knowledge</td>
<td>0.85</td>
</tr>
<tr>
<td>Access to Information and</td>
<td></td>
</tr>
<tr>
<td>Communications</td>
<td>0.71</td>
</tr>
<tr>
<td>Health and Wellness</td>
<td>0.85</td>
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<tr>
<td>Environmental Quality</td>
<td>0.73</td>
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<tr>
<td>Personal Rights</td>
<td>0.77</td>
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<tr>
<td>Personal Freedom and Choice</td>
<td>0.61</td>
</tr>
<tr>
<td>Inclusiveness</td>
<td>0.78</td>
</tr>
<tr>
<td>Access to Advanced Education</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Source: Authors

Figure 5: Scree plot Foundations of Wellbeing

Figure 6: Scree plot Basic Human Needs

Figure 7: Scree plot Opportunity
RELATIVE PERFORMANCE OF STATES AND TERRITORIES

The absolute scores do not distinguish States and Territories on the basis of economic development. In some cases, it is more illuminating to compare a state’s performance with its economic peers. For instance, a state may score low on certain aspects of social progress, but its performance could exceed the scores of states with similar per capita income levels. Conversely, a high-income state may have a high absolute score on a component, but still fall short of what is typical for comparably wealthy states. The authors have identified two suitable economic metrics that best reflect Australia’s context and constructed two sets of scorecards – one using median household wealth and second using Gross State Product (GSP) per capita.

For this reason, the Social Progress Index developed a methodology to assess state’s strengths and weaknesses on a relative rather than absolute basis.

Scorecards are used to depict the relative results. The scorecards portray a State or Territory’s detailed absolute and relative analysis. The scorecards are colour-coded to highlight relative strengths and weaknesses. Red indicates performance below the peer group median; yellow indicates performance consistent with the peer group; and blue highlights areas of relative strength.

To determine the relative strength and weakness of each state, the first step is to identify a peer group. The authors define state’s economic peers as 4 states closest in median household wealth/state gross product (Appendix G). We then calculate median social progress scores for the peer group (overall, and by dimension, component, and indicator). A State or Territory’s performance is then compared to its peer group’s median social progress scores to identify its relative strengths and weaknesses. A strength is performance significantly greater than the median score, while a weakness is performance significantly lower than the median score. Neutral performance is neither strong nor weak, but within the same range as economic peers. Significance is determined by a score that is greater than or less than the average absolute deviation from the median of the comparator group.
CONCLUSION

The Social Progress Index for the States and Territories of Australia is the first endeavor of its kind. Lead by the Center for Social Impact at UNSW, in collaboration with the Social Progress Imperative, the process involved input from key stakeholders and actors across Australia to ensure the Index captures the most relevant metrics for Australia’s society, and highlights gaps in data collection. The research team devoted significant time to the index construction, to produce a robust and rigorous outcome which can be used to inform policies, investments, and other decisions in order to advance social progress across Australia. However, this is just the beginning, the index will be updated on regular basis, and it is our sincere hope that with time, there will be more and better measures. Please do not hesitate to get in touch with us if you know of any indicators that would be suitable, or if you would like to use the index in any way. We will be looking forward to hearing from you.
REFERENCES


https://www.socialprogress.org/


## APPENDIX A: INDICATOR DEFINITIONS AND SOURCES

<table>
<thead>
<tr>
<th>Dimension/component</th>
<th>Indicator Name</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Human Needs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition and Basic</td>
<td>Infant mortality</td>
<td>The number of deaths of children under one year of age in a specified period per 1,000 live births in the same period.</td>
<td>ABS Deaths and Infant Mortality Rates</td>
</tr>
<tr>
<td>Medical Care</td>
<td>Pneumococcal prevalence</td>
<td>Notification rate of Pneumococcal, per 100,000</td>
<td>Department of Health National Notifiable Diseases Surveillance System</td>
</tr>
<tr>
<td></td>
<td>Rotavirus prevalence</td>
<td>Notification rate of rotavirus, per 100,000</td>
<td>Department of Health National Notifiable Diseases Surveillance System</td>
</tr>
<tr>
<td></td>
<td>Premature mortality (&lt;75)</td>
<td>Potential years of life lost, per 100,000 of the population aged 1-64</td>
<td>ABS Deaths Register and Rates</td>
</tr>
<tr>
<td></td>
<td>Indigenous mortality rates</td>
<td>Rate ratio between Indigenous and non-Indigenous standardised death rates, per 100,000 people</td>
<td>ABS Deaths Register and Rates</td>
</tr>
<tr>
<td><strong>Water and Sanitation</strong></td>
<td>Waterborne diseases - Shingellosis</td>
<td>Notification rates per 100,000 of shingellosis</td>
<td>Department of Health National Notifiable Diseases Surveillance System</td>
</tr>
<tr>
<td></td>
<td>Waterborne diseases - Cryptosporidiosis</td>
<td>Notification rates per 100,000 of cryptosporidiosis</td>
<td>Department of Health National Notifiable Diseases Surveillance System</td>
</tr>
<tr>
<td></td>
<td>Waterborne diseases - Salmonella</td>
<td>Notification rates per 100,000 of salmonella</td>
<td>Department of Health National Notifiable Diseases Surveillance System</td>
</tr>
<tr>
<td></td>
<td>Water interruption</td>
<td>Average frequency of unplanned interruptions - water (no per 1000 properties) (averaged over providers)</td>
<td>Bureau of Meteorology Urban National Performance Report</td>
</tr>
<tr>
<td><strong>Shelter</strong></td>
<td>Estimated homelessness rate</td>
<td>Estimated rate of homelessness per 10,000 of the population</td>
<td>ABS Census</td>
</tr>
<tr>
<td></td>
<td>Overcrowding</td>
<td>Proportion of households where more than 2 people share a bedroom</td>
<td>HILDA</td>
</tr>
<tr>
<td></td>
<td>Social housing overcrowding</td>
<td>Proportion of public housing dwellings that are overcrowded (requiring one or more bedrooms)</td>
<td>AIHW National Housing Assistance Data Repository</td>
</tr>
<tr>
<td><strong>Personal Safety</strong></td>
<td>Perceived safety at home at night</td>
<td>Perceptions of safety at home at night Index score</td>
<td>Federal Productivity Commission Report on Government Services</td>
</tr>
</tbody>
</table>
### METHODOLOGY REPORT

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical assaults</td>
<td>Rate of persons who experienced physical assault in last 12 months (per 10,000)</td>
<td>ABS Crime Victimisation Survey</td>
<td></td>
</tr>
<tr>
<td>Acts to cause injury</td>
<td>Offender rate of recorded acts intended to cause injury</td>
<td>ABS Recorded Crime</td>
<td></td>
</tr>
<tr>
<td>Youth crime rates</td>
<td>Offender rate of all recorded crime committed by youth</td>
<td>ABS Recorded Crime</td>
<td></td>
</tr>
<tr>
<td>Youth justice supervision</td>
<td>Rate of 10-17 year olds under community and detention supervision on an average day (per 10,000)</td>
<td>AIHW Youth Justice in Australia</td>
<td></td>
</tr>
</tbody>
</table>

### Foundations of Wellbeing

<table>
<thead>
<tr>
<th>Access to Basic Knowledge</th>
<th>NAPLAN Numeracy Year 9</th>
<th>Proportion of population achieving below the national minimum standard for writing</th>
<th>NAPLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NAPLAN Reading Year 9 - Indigenous</td>
<td>Difference in Proportion of population achieving below the national minimum standard for reading - Indigenous cf non-Indigenous</td>
<td>NAPLAN</td>
</tr>
<tr>
<td>High school student retention rates</td>
<td>Apparent retention rates for students, Year 7/8 - Year 11</td>
<td>ACARA National report on Schooling in Australia</td>
<td></td>
</tr>
<tr>
<td>Access to early childhood education</td>
<td>Proportion of children aged 4-5 enrolled in preschool program (%)</td>
<td>ABS Children enrolled in preschool program</td>
<td></td>
</tr>
<tr>
<td>Gap in Indigenous student attendance rate</td>
<td>Gap in student attendance rate years 1-10 - Indigenous to non-Indigenous %</td>
<td>ACARA National report on school attendance</td>
<td></td>
</tr>
</tbody>
</table>

### Access to Information and Communications

<table>
<thead>
<tr>
<th>Digital access</th>
<th>Digital access score in Digital inclusion index</th>
<th>Digital Inclusion Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital affordability</td>
<td>Digital affordability score in Digital inclusion index</td>
<td>Digital Inclusion Index</td>
</tr>
<tr>
<td>Digital ability</td>
<td>Digital ability score in Digital inclusion index</td>
<td>Digital Inclusion Index</td>
</tr>
<tr>
<td>Registered library users</td>
<td>Total number of registered or active members as a percentage of the population (need to calculate as %)</td>
<td>NSLA Annual Australian Public Library Statistics</td>
</tr>
</tbody>
</table>

### Health and Wellness

<p>| Community mental health treatment | Patient rate per 1,000 population receiving community mental health care | AIHW Mental Health Services                                                                   |
| Suicide                          | Standardised death rate due to self-harm (suicide)  | ABS Causes of Death                                                                            |
| Respiratory mortality            | Age-standardised death rate due to respiratory disease | ABS Causes of Death                                                                            |</p>
<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes mortality</td>
<td>Age-standardised death rate due to diabetes</td>
<td></td>
<td>ABS Causes of Death</td>
</tr>
<tr>
<td>Cancer mortality</td>
<td>Age-standardised death rate due to cancer-neoplasms</td>
<td></td>
<td>ABS Causes of Death</td>
</tr>
<tr>
<td>Cardiovascular mortality</td>
<td>Age-standardised death rate due to diseases of the circulatory system</td>
<td></td>
<td>ABS Causes of Death</td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>Sulfur dioxide concentrations</td>
<td>Median daily maximum 1 hour average concentrations of sulfur dioxide, averaged across monitoring stations</td>
<td>State Environment agencies</td>
</tr>
<tr>
<td></td>
<td>PM10 concentrations</td>
<td>Median 24 hour concentrations of PM10, averaged across monitoring stations</td>
<td>State Environment agencies</td>
</tr>
<tr>
<td></td>
<td>PM2.5 concentrations</td>
<td>Median 24 hour concentrations of PM2.5 measured using continuous BAM method, averaged across monitoring stations</td>
<td>State Environment agencies</td>
</tr>
<tr>
<td></td>
<td>Water stress</td>
<td>Average exposure to water risk indicators</td>
<td>World Resources Institute Aqueduct 3.0 Country Rankings</td>
</tr>
<tr>
<td>Opportunity</td>
<td>Voter registration</td>
<td>Proportion of eligible adults enrolled to vote (%)</td>
<td>Australian Electoral Commission enrolment statistics</td>
</tr>
<tr>
<td>Personal Rights</td>
<td>Police integrity</td>
<td>Police integrity - total proportion in agreement with 'police treat people fairly and equally' (%)</td>
<td>Federal Productivity Commission Report on Government Services</td>
</tr>
<tr>
<td></td>
<td>Male sexual assault and related offences</td>
<td>Offender rate of recorded sexual assault and related offences by males</td>
<td>ABS Recorded Crime</td>
</tr>
<tr>
<td></td>
<td>Teen pregnancy</td>
<td>Rate of 15-19 year old women who gave birth (per 1,000)</td>
<td>ABS Births and Deaths Statistics</td>
</tr>
<tr>
<td>Personal Freedom and Choice</td>
<td>Child abuse substantiations - Indigenous disparity</td>
<td>Rate ratio of Indigenous to non-Indigenous children aged 0-17 who were the subjects of substantiations of notifications received</td>
<td>AIHW Child Protection Australia</td>
</tr>
<tr>
<td></td>
<td>Out of home care - Indigenous disparity</td>
<td>Rate ratio of Indigenous to non-Indigenous children in out of home care (per 1,000)</td>
<td>AIHW Child Protection Australia</td>
</tr>
<tr>
<td></td>
<td>Public transport safety</td>
<td>Perceptions of safety on public transport at night Index score</td>
<td>Federal Productivity Commission Report on Government Services</td>
</tr>
<tr>
<td>Inclusiveness</td>
<td>Gender pay gap</td>
<td>Female total cash earnings, expressed as a percentage of men’s total cash earnings.</td>
<td>ABS Average Weekly Earnings</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Gender pay gap</td>
<td>Gender employment underutilisation</td>
<td>The difference between women’s and men’s underutilisation rate, expressed as a ratio of female to male underutilisation</td>
<td>ABS Labour Force Survey</td>
</tr>
<tr>
<td>Volunteering</td>
<td>Proportion of people who reporting volunteering for more than half an hour a week</td>
<td>HILDA</td>
<td></td>
</tr>
<tr>
<td>Satisfaction with connection to community</td>
<td>Proportion of people who are satisfied with feeling part of the community</td>
<td>HILDA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Access to Advanced Education</th>
<th>Post high school enrolment</th>
<th>Proportion of the population aged 15-64 who are attending higher education, TAFE or other institution/organisation (not secondary) (%)</th>
<th>Survey of Education and Work, ABS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational attainment per population</td>
<td>Proportion of population 20-64 with post-school qualification</td>
<td>Survey of Education and Work, ABS</td>
<td></td>
</tr>
<tr>
<td>NEET</td>
<td>Proportion of 15-24 year olds who are not fully or partially engaged in employment or study</td>
<td>Survey of Education and Work, ABS</td>
<td></td>
</tr>
<tr>
<td>Gender parity in higher education achievement</td>
<td>Proportion of women with a bachelor degree or above as a ratio to men with a bachelor degree or above aged 20-64</td>
<td>Survey of Education and Work, ABS</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX B: ANNUAL DATA AVAILABILITY

<table>
<thead>
<tr>
<th>Data source</th>
<th>Availability and most recent update</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS Average Weekly Earnings</td>
<td>Updated every six months in February and August; latest data update for November 2019 released February 2020</td>
</tr>
<tr>
<td>ABS Births and Deaths Statistics</td>
<td>Updated annually; latest update with 2018 data released January 2020</td>
</tr>
<tr>
<td>ABS Causes of Death</td>
<td>Updated annually; latest update with 2018 data released September 2019</td>
</tr>
<tr>
<td>ABS Census</td>
<td>Updated every 5 years; 2016 data released March 2018</td>
</tr>
<tr>
<td>ABS Children enrolled in preschool program</td>
<td>Updated annually; 2019 data released February 2020</td>
</tr>
<tr>
<td>ABS Crime Victimisation Survey</td>
<td>Updated annually; 2018-19 data released February 2020</td>
</tr>
<tr>
<td>ABS Labour Force Survey</td>
<td>Updated monthly; January 2020 data released February 2020</td>
</tr>
<tr>
<td>ABS Recorded Crime</td>
<td>Updated annually; 2018-19 data released February 2020</td>
</tr>
<tr>
<td>ABS Survey of Education and Work</td>
<td>Updated annually; 2019 data released November 2019</td>
</tr>
<tr>
<td>ACARA National report on school attendance</td>
<td>Latest update available with 2018 data</td>
</tr>
<tr>
<td>ACARA National report on Schooling in Australia</td>
<td>Latest update available with 2018 data</td>
</tr>
<tr>
<td>AIHW Child Protection Australia</td>
<td>Updated annually; 2017-2018 data released March 2019</td>
</tr>
<tr>
<td>AIHW Mental Health Services</td>
<td>Updated continuously throughout year; community mental health data last updated for 2017-18</td>
</tr>
<tr>
<td>AIHW National Housing Assistance Data Repository</td>
<td>Updated annually; 2019 data released July 2019</td>
</tr>
<tr>
<td>AIHW Youth Justice in Australia</td>
<td>Updated annually; 2017-18 data released May 2019</td>
</tr>
<tr>
<td>Australian Electoral Commission enrolment statistics</td>
<td>Updated annually; 2019 data released July 2019</td>
</tr>
<tr>
<td>Bureau of Meteorology Urban National Performance Report</td>
<td>Updated annually; 2017-19 report released 2019</td>
</tr>
<tr>
<td>Department of Health National Notifiable Diseases Surveillance System</td>
<td>Updated daily</td>
</tr>
<tr>
<td>Digital Inclusion Index</td>
<td>Updated annually; 2019 data released August 2019</td>
</tr>
<tr>
<td>Source</td>
<td>Update Frequency</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>HILDA</td>
<td>Updated annually; 2018 wave released December 2019</td>
</tr>
<tr>
<td>NAPLAN</td>
<td>Updated annually; 2019 preliminary results online only February 2020</td>
</tr>
<tr>
<td>NSLA Annual Australian Public Library Statistics</td>
<td>Updated annually with two-year lag; 2016-17 results released April 2019</td>
</tr>
<tr>
<td>State Environment agencies</td>
<td>Sourced from individual State and Territory Environment agencies; update frequency and timing varies</td>
</tr>
<tr>
<td>World Resources Institute Aqueduct 3.0 Country Rankings</td>
<td>First data released August 2019</td>
</tr>
</tbody>
</table>
APPENDIX C: EXCLUDED INDICATORS

Nutrition and Basic Medical Care

MALNUTRITION/HUNGER
DESCRIPTION
Proportion of the population with intakes less than the estimated average requirement for key nutrients (%)
SOURCE, YEAR RANGE AVAILABLE
AIHW – 2011-2012
REASON FOR EXCLUSION
Data more than 5 years old

ANAEMIA
DESCRIPTION
Anaemia biomarker estimates, normal and at risk of anaemia
SOURCE, YEAR RANGE AVAILABLE
ABS – 2011-2012
REASON FOR EXCLUSION
Data more than 5 years old

AUSTRALIAN DIETARY GUIDELINES
DESCRIPTION
Proportion of people with usual daily intake less than recommended number of serves
SOURCE, YEAR RANGE AVAILABLE
ABS – 2011-2012
REASON FOR EXCLUSION
Data more than 5 years old

INFECTIOUS DISEASES
DESCRIPTION
Notification rates per 100,000 population (bloodborne, gastrointestinal, bacterial, quarantinable, STI, vaccine preventable, vectorborne, zoonoses)
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Indicator refined to specific diseases – choice made to look at vaccine-preventable diseases

DIPHTHERIA
DESCRIPTION
Notification rate of diphtheria per 100,000 people
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Not enough variability across time points

POLIO
DESCRIPTION
Notification rate of Polio, per 100,000
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
No notifications across all years and States/Territories

TETANUS
DESCRIPTION
Notification rate of Tetanus, per 100,000
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Not enough variability across time points

CHICKENPOX
DESCRIPTION
Notification rate of chickenpox (varicella), per 100,000 people
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Poor model fit

INFLUENZA
DESCRIPTION
Notification rate of influenza (laboratory confirmed) per 100,000 people
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Poor model fit

HEPATITIS B
DESCRIPTION
Notification rate of Hepatitis B (newly acquired) per 100,000 people
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Poor model fit

HIB (HAEMOPHILUS INFLUENZAE TYPE B)
DESCRIPTION
Notification rate of HIB (Haemophilus influenzae type B) per 100,000 people
SOURCE, YEAR RANGE AVAILABLE
METHODOLOGY REPORT


**MEASLES**

**DESCRIPTION**
Notification rate of measles, per 100,000 people

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Poor model fit

---

**MENINGOCOCCAL**

**DESCRIPTION**
Notification rate of meningococcal disease (invasive), per 100,000 people

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
NT outliers, otherwise little variability

---

**MUMPS**

**DESCRIPTION**
Notification rate of mumps, per 100,000 people

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
NT outliers, otherwise little variability

---

**RUBELLA**

**DESCRIPTION**
Notification rate of rubella, per 100,000 people

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Poor model fit

---

**WHOOPING COUGH (PERTUSSIS)**

**DESCRIPTION**
Notification rate of whooping cough (pertussis), per 100,000 people

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Poor model fit

---

**UNMET MEDICAL NEEDS**

**DESCRIPTION**
Proportion of people who needed to go to hospital but didn't at least once in last 12 months

**SOURCE, YEAR RANGE AVAILABLE**
ABS Patient Experiences in Australia Survey – 2011-12, 2016-17

**REASON FOR EXCLUSION**
Data collected and excluded - not enough time series

---

**UNMET MEDICAL NEEDS - REMOTENESS**

**DESCRIPTION**
Proportion of people who needed to go to hospital but didn't at least once in last 12 months, urban cf remote/very remote

**SOURCE, YEAR RANGE AVAILABLE**
ABS Patient Experiences in Australia Survey – 2011-12, 2016-17

**REASON FOR EXCLUSION**
Data collected and excluded - not enough time series

---

**MATERNAL MORTALITY**

**DESCRIPTION**
Maternal mortality ratio by State or territory per 100,000 women who gave birth

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Maternal Deaths in Australia – 2012-2014

**REASON FOR EXCLUSION**
Data collected and excluded - not enough time series

---

**MATERNAL MORTALITY**

**DESCRIPTION**
Standardised death rate for females who died due to pregnancy, childbirth and the peurperium

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Data not reported due to small numbers

---

**LOW BIRTH WEIGHT**

**DESCRIPTION**
Live infants born with a birthweight of less than 2,500 grams (rate)

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Children's Headline Indicators – 2006-2015

**REASON FOR EXCLUSION**
Data collected and excluded - not enough time series

---

**LOW BIRTH WEIGHT - REMOTENESS**

**DESCRIPTION**
Live infants born with a birthweight of less than 2,500 grams (rate)

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Children's Headline Indicators – 2006-2015
**REASON FOR EXCLUSION**
Data collected and excluded - not enough time series

**LOW BIRTH WEIGHT - INDIGENOUS**
**DESCRIPTION**
Live infants born with a birthweight of less than 2,500 grams (rate)
**SOURCE, YEAR RANGE AVAILABLE**
AIHW Children’s Headline Indicators – 2006-2015
**REASON FOR EXCLUSION**
Data collected and excluded - not enough time series

**STILLBIRTH RATE**
**DESCRIPTION**
Perinatal mortality (stillbirths, neonatal and perinatal deaths) rate per 1000 births
**SOURCE, YEAR RANGE AVAILABLE**
AIHW Australia’s Mothers and Babies – 2013-2016
**REASON FOR EXCLUSION**
Data collected and excluded - not enough time series

**SATISFACTION WITH MEDICAL CARE**
**DESCRIPTION**
Proportion of people who waited longer than felt acceptable to get an appointment with a GP in last 12 months (%)
**SOURCE, YEAR RANGE AVAILABLE**
ABS Patient Experiences in Australia Survey – 2011-12, 2016-17
**REASON FOR EXCLUSION**
Data collected and excluded - not enough time series

**SATISFACTION WITH MEDICAL CARE - REMOTENESS**
**DESCRIPTION**
Proportion of people who waited longer than felt acceptable to get an appointment with a GP in last 12 months, broken into remoteness areas (%)
**SOURCE, YEAR RANGE AVAILABLE**
ABS Patient Experiences in Australia Survey – 2011-12, 2016-17
**REASON FOR EXCLUSION**
Data collected and excluded - not enough time series

**VACCINATIONS IN CHILDREN**
**DESCRIPTION**
Proportion of children fully immunised at 1 year of age
**SOURCE, YEAR RANGE AVAILABLE**
Australian Department of Health – 2013-2017
**REASON FOR EXCLUSION**
Input, not outcome

**VACCINATIONS IN CHILDREN - INDIGENOUS**
**DESCRIPTION**
Proportion of Indigenous children fully immunised at 1 year of age
**SOURCE, YEAR RANGE AVAILABLE**
Australian Department of Health – 2013-2017
**REASON FOR EXCLUSION**
Input, not outcome

**WATER AND SANITATION**
**ACCESS TO PIPED WATER**
**DESCRIPTION**
Proportion of total state households who have access to mains/town water (%)
**SOURCE, YEAR RANGE AVAILABLE**
**REASON FOR EXCLUSION**
Data more than 5 years old

**WATERBORNE DISEASES**
**DESCRIPTION**
Notification rates per 100,000 of certain water and food-borne diseases (listeria, salmonella, cryptosporidium)
**SOURCE, YEAR RANGE AVAILABLE**
**REASON FOR EXCLUSION**
Have sourced data for individual diseases to include

**WATERBORNE DISEASES – CAMPYLOBACTERIOSIS**
**DESCRIPTION**
Notification rate per 100,000 of Campylobacteriosis
**SOURCE, YEAR RANGE AVAILABLE**
**REASON FOR EXCLUSION**
Poor model fit

**WATERBORNE DISEASES – LISTERIA**
**DESCRIPTION**
Notification rate per 100,000 of Listeria
**SOURCE, YEAR RANGE AVAILABLE**
**REASON FOR EXCLUSION**
Poor model fit

**SEWAGE TREATMENT**
**DESCRIPTION**
Average number of sewer main breaks and chokes per 100 kilometres of sewer main
Satisfaction with water quality

**DESCRIPTION**
Satisfaction with quality of water for drinking, proportion (%)

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Data more than 5 years old

Water stability

**DESCRIPTION**
Average number of water main breaks per 100km of water main

**SOURCE, YEAR RANGE AVAILABLE**
Bureau of Infrastructure, Transport and Regional Economics – 2008-2016

**REASON FOR EXCLUSION**
Not reported in 2018 report

Water recycling services

**DESCRIPTION**
Percentage of effluent recycled (%) (averaged over providers)

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Input rather than outcome

Water service violations

**DESCRIPTION**
Percentage of population where microbiological compliance was achieved (%) (averaged over providers)

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Input rather than outcome

Sewer overflows

**DESCRIPTION**
Sewer overflows reported to the environmental regulator (number per 100km of sewer main) (averaged over providers)

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Input rather than outcome

Shelter

**HOMELESSNESS**
**DESCRIPTION**
Rate of homelessness (per 10,000 of the population)

**SOURCE, YEAR RANGE AVAILABLE**
ABS Census – 2011, 2016

**REASON FOR EXCLUSION**
Not enough time series

Homelessness - Indigenous

**DESCRIPTION**
Rate of Indigenous people who are reported as homeless (per 10,000 of the population)

**SOURCE, YEAR RANGE AVAILABLE**
ABS Census – 2011, 2016

**REASON FOR EXCLUSION**
Not enough time series

Homelessness - Disability

**DESCRIPTION**
Rate of people who need assistance with core activities who are classified as homeless (per 10,000 of the population)

**SOURCE, YEAR RANGE AVAILABLE**
ABS Census – 2011, 2016

**REASON FOR EXCLUSION**
Not enough time series

Homelessness – Young people

**DESCRIPTION**
Rate of homelessness in people aged 12-24 years (per 10,000 of population)

**SOURCE, YEAR RANGE AVAILABLE**
ABS Census – 2011, 2016

**REASON FOR EXCLUSION**
Not enough time series

Homelessness – Aging population

**DESCRIPTION**
Rate of homelessness in people aged 55+ years (per 10,000 of population)

**SOURCE, YEAR RANGE AVAILABLE**
ABS Census – 2011, 2016

**REASON FOR EXCLUSION**
Not enough time series

Homelessness service use - Indigenous

**DESCRIPTION**
Rate ratio of Indigenous to non-Indigenous clients accessing homelessness services
**Housing Affordability**

**DESCRIPTION**
Housing costs as a proportion of gross household income (%)

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Specialist Homelessness Services – 2011-2017

**REASON FOR EXCLUSION**
Poor correlations

**Housing Affordability – Income Quartile Disparities**

**DESCRIPTION**
Disparity in housing costs as a proportion of gross household income (%) between highest and lowest income quartiles

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Not enough data points

**Low Income Housing Stress**

**DESCRIPTION**
Proportion of low-income rental households spending more than 30% of their gross income on housing costs

**SOURCE, YEAR RANGE AVAILABLE**
HILDA – 2001-2017

**REASON FOR EXCLUSION**
Not enough data points

**Low Income Housing Stress**

**DESCRIPTION**
Proportion of low-income rental households spending more than 30% of their gross income on housing costs

**SOURCE, YEAR RANGE AVAILABLE**
ABS Survey of Income and Housing – 2007-2016

**REASON FOR EXCLUSION**
Not enough data points

**Low Income Housing Stress**

**DESCRIPTION**
Total disposable household income divided by annual rent or mortgage payments

**SOURCE, YEAR RANGE AVAILABLE**
HILDA – 2001-2017

**REASON FOR EXCLUSION**
Economic indicator

**Overcrowding - Remoteness**

**DESCRIPTION**
Rate of dwellings that require 2 or more extra bedrooms to meet the Canadian National Occupancy Standard (HOSD) (%) - remote/very remote areas

**SOURCE, YEAR RANGE AVAILABLE**
ABS Census - 2016

**REASON FOR EXCLUSION**
Cells too small to conduct analysis

**Overcrowding**

**DESCRIPTION**
Proportion of dwellings that require 2 or more extra bedrooms to meet the Canadian National Occupancy Standard (HOSD) (%)

**SOURCE, YEAR RANGE AVAILABLE**
ABS Census – 2016

**REASON FOR EXCLUSION**
2016 data only available

**Overcrowding - Indigenous**

**DESCRIPTION**
Proportion ratio of dwellings that require 2 or more extra bedrooms to meet the Canadian National Occupancy Standard (HOSD) (%) - Households with Aboriginal and/or Torres Strait Islander person(s) vs. other households

**SOURCE, YEAR RANGE AVAILABLE**
ABS Census – 2016

**REASON FOR EXCLUSION**
2016 data only available

**Electricity/Blackouts**

**DESCRIPTION**
Total number of people affected by blackouts, duration, number of outages, average number of people affected per outage, average duration of outage, cause of outage.

**SOURCE, YEAR RANGE AVAILABLE**
Eaton – 2005-2017

**REASON FOR EXCLUSION**
Not a reputable data source

**Electricity Interruptions**

**DESCRIPTION**
Average number of times a customer’s supply is interrupted per year - System Average Interruption Frequency Index

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Input not outcome
ACCESS TO GARBAGE COLLECTION
DESCRIPTION
Waste collection and disposal in area (garbage, recycling, hard rubbish, garden waste, other) (%)
SOURCE, YEAR RANGE AVAILABLE
ABS Environmental Views and Behaviour – 2011-12
REASON FOR EXCLUSION
Data more than 5 years old

ACCESS TO SOCIAL HOUSING - INDIGENOUS
DESCRIPTION
Disparity in proportions of households owned by state or territory housing authority divided by total households (%) - Indigenous vs non-Indigenous
SOURCE, YEAR RANGE AVAILABLE
ABS Census – 2011, 2016
REASON FOR EXCLUSION
Not enough time series

ACCESS TO SOCIAL HOUSING – REMOTENESS
DESCRIPTION
Disparity in proportions of households owned by state or territory housing authority divided by total households (%) - urban vs remote/very remote
SOURCE, YEAR RANGE AVAILABLE
ABS Census – 2011, 2016
REASON FOR EXCLUSION
Cells too small to conduct analysis

ACCESS TO SOCIAL HOUSING – COUNTRY OF BIRTH
DESCRIPTION
Disparity in proportions of households owned by state or territory housing authority divided by total households (%) - born in Australia vs overseas
SOURCE, YEAR RANGE AVAILABLE
ABS Census – 2011, 2016
REASON FOR EXCLUSION
Not enough time series

PEOPLE WITH DISABILITY ACCESS TO HOUSING
DESCRIPTION
Proportion of people accessing social housing with a disability (%)
SOURCE, YEAR RANGE AVAILABLE
AIHW – 2014-2018
REASON FOR EXCLUSION
Not enough data points

YOUTH ACCESS TO HOUSING
DESCRIPTION
Proportion of people accessing social housing aged 15-24 (%)
SOURCE, YEAR RANGE AVAILABLE
AIHW – 2014-2018
REASON FOR EXCLUSION
Not enough data points

EVICTIONS – CONCERNS INCLUDED
DESCRIPTION
Proportion of people who said main reason for last move - notice given by landlord (%)
SOURCE, YEAR RANGE AVAILABLE
ABS General Social Survey – 2014
REASON FOR EXCLUSION
Data more than 5 years old

PUBLIC HOUSING COMPLAINTS
DESCRIPTION
Overall satisfaction with services provided by housing organisation (% satisfied or very satisfied)
SOURCE, YEAR RANGE AVAILABLE
AIHW National Social Housing Survey – 2014-2018
REASON FOR EXCLUSION
None listed

SATISFACTION WITH HOME
DESCRIPTION
Proportion of people reporting that they are satisfied with the home in which they live, scale 1-10
SOURCE, YEAR RANGE AVAILABLE
HILDA – 2011-2016
REASON FOR EXCLUSION
Poor correlation

SATISFACTION WITH SOCIAL HOUSING SERVICES
DESCRIPTION
% satisfied or very satisfied with overall services
SOURCE, YEAR RANGE AVAILABLE
AIHW National Social Housing Survey – 2014, 2016, 2018
REASON FOR EXCLUSION
Not enough data points

HOMELESSNESS SERVICE USE - INDIGENOUS
DESCRIPTION
Rate ratio of Indigenous to non-Indigenous clients accessing homelessness services
SOURCE, YEAR RANGE AVAILABLE
AIHW Specialist Homelessness Services – 2011-2017
REASON FOR EXCLUSION
Poor correlations with other homelessness data
HOMELESSNESS SERVICE USE - GENDER
DESCRIPTION
Rate ratio of male to female clients accessing homelessness services
SOURCE, YEAR RANGE AVAILABLE
AIHW Specialist Homelessness Services – 2011-2017
REASON FOR EXCLUSION
Poor correlations with other homelessness data

AIRCONDITIONING
DESCRIPTION
Air conditioner ownership (%)
SOURCE, YEAR RANGE AVAILABLE
Energy Efficient Strategies and ABS – 1978-2010
REASON FOR EXCLUSION
Data more than 5 years old

HEATING
DESCRIPTION
Percentage of people unable to heat home (%)
SOURCE, YEAR RANGE AVAILABLE
HILDA – 2001-2016
REASON FOR EXCLUSION
POOR DATA AND NOT APPROPRIATE FOR SAMPLE

Personal Safety
PERCEIVED SAFETY
DESCRIPTION
Proportion of people reporting that they are satisfied with how safe they feel, scale 1-10
SOURCE, YEAR RANGE AVAILABLE
HILDA – 2001-2016
REASON FOR EXCLUSION
HILDA indicator and will use other source for perceived safety

PERCEIVED SAFETY – WALKING ALONE AT NIGHT
DESCRIPTION
Perceptions of safety walking alone in neighbourhood at night Index score
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Using other indicators for perceived safety

PERCEIVED SAFETY – PUBLIC TRANSPORT DURING DAY
DESCRIPTION
Perceptions of safety on public transport during the day Index score
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Using other indicators for perceived safety

VICTIMIZATION – PROPERTY CRIME
DESCRIPTION
Proportion of people who report being victim of property crime in the last 12 months (%)
SOURCE, YEAR RANGE AVAILABLE
HILDA – 2001-2016
REASON FOR EXCLUSION
Property crime captured in another indicator

VICTIMIZATION – PHYSICAL VIOLENCE
DESCRIPTION
Proportion of people who report being victim of physical violence in the last 12 months (%)
SOURCE, YEAR RANGE AVAILABLE
HILDA – 2001-2016
REASON FOR EXCLUSION
Victimization/violence captured in another indicator

VICTIMIZATION – THREATENED ASSAULT
DESCRIPTION
Rate of persons who experienced a threatened assault in last 12 months (per 10,000)
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Victimization/violence captured in another indicator

VICTIMIZATION – PROPERTY CRIME
DESCRIPTION
Rate of households who experience attempted break ins, robbery, motor vehicle theft, or other malicious property damage in the last 12 months (per 10,000)
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Victimization/violence captured in another indicator

VICTIMIZATION – THREATENED ASSAULT
DESCRIPTION
Rate of persons who experienced a threatened assault in last 12 months (per 10,000)
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Victimization/violence captured in another indicator
DOMESTIC AND FAMILY VIOLENCE – REMOTENESS, SEIFA, CULTURAL DIVERSITY, DISABILITY, SEX
DESCRIPTION
Proportion of the population who have experienced violence by partner in the last 12 months (%) disparity urban vs remote/very remote, first and tenth decile of SEIFA, those born in Australia/main English-speaking countries and other countries, has disability vs doesn’t have disability, women vs men
SOURCE, YEAR RANGE AVAILABLE
ABS Personal Safety Survey - 2016
REASON FOR EXCLUSION
Not enough data points

SEXUAL HARRASSMENT – REMOTENESS, SEIFA, CULTURAL DIVERSITY, DISABILITY, SEX
DESCRIPTION
Proportion of the population who experienced sexual harassment in the last 12 months (%) disparity in women vs men, urban vs remote/very remote, first and tenth decile of SEIFA, those born in Australia/main English-speaking countries and other countries, has disability vs doesn’t have disability
SOURCE, YEAR RANGE AVAILABLE
ABS Personal Safety Survey – 2016
REASON FOR EXCLUSION
Not enough data points

VICTIMIZATION – VIOLENCE – SEX, REMOTENESS, SEIFA, DISABILITY, COUNTRY OF BIRTH
DESCRIPTION
Proportion of the population who experienced violence in the last 12 months (%) disparity in women vs men, urban vs remote/very remote, first and tenth decile of SEIFA, those born in Australia/main English-speaking countries and other countries, has disability vs doesn’t have disability
SOURCE, YEAR RANGE AVAILABLE
ABS Personal Safety Survey – 2016
REASON FOR EXCLUSION
Not enough data points

ROAD/TRAFFIC ACCIDENTS
DESCRIPTION
Number of fatal road crashes (all passengers) calculated as a proportion of the population
SOURCE, YEAR RANGE AVAILABLE
Department of Infrastructure and Regional Development - Road Trauma Annual Summaries – 2001-2017
REASON FOR EXCLUSION
Numbers too small to calculate rate

DEATHS FROM TRAFFIC ACCIDENTS
DESCRIPTION
Standardised death rate from transport accidents
SOURCE, YEAR RANGE AVAILABLE
ABS Causes of Death – 2008-2017
REASON FOR EXCLUSION
Not constrained to traffic accidents but includes all transport

DEATHS IN CUSTODY
DESCRIPTION
Rate of deaths in custody per 100 prisoners on an average day
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Unable to attribute deaths to lack of social progress; not enough time points

DEATHS IN CUSTODY - INDIGENOUS
DESCRIPTION
Ratio of deaths in police custody and custody related operations - (non-Indigenous compared with Indigenous)
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Numbers too small to calculate rates

WORK-RELATED FATALITIES
DESCRIPTION
Fatality rate of accidents at work
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Not enough time points

DROWNING
DESCRIPTION
Standardised death rate for accidental drowning or submersion
SOURCE, YEAR RANGE AVAILABLE
ABS Causes of Death – 2008-2017
REASON FOR EXCLUSION
Not enough variability

BULLYING – WORKPLACE, CYBER – SEIFA, SEX
DESCRIPTION
Proportion of people who have experience bullying and/or harassment in the last 12 months (%) disparity
between first and tenth decile of SEIFA, men and women

**SOURCE, YEAR RANGE AVAILABLE**
ABS General Social Survey – 2014

**REASON FOR EXCLUSION**
Not enough data points

**YOUNG PEOPLE UNDER SUPERVISION - INDIGENOUS DESCRIPTION**
Rate of 10-17 year olds under community and detention supervision on an average day (per 10,000) - Indigenous compared to non-Indigenous

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Youth Justice in Australia – 2014-2017

**REASON FOR EXCLUSION**
Poor model fit

**ABUSE SUBSTANTIATIONS DESCRIPTION**
Rate of children aged 0-17 years old who were the subjects of substantiations of notifications received (per 1,000)

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Child Protection Australia – 2014-2018

**REASON FOR EXCLUSION**
Abuse substantiations captured in Personal Freedom and Choice in comparison with Indigenous rate

**ABUSE SUBSTANTIATIONS - REMOTENESS DESCRIPTION**
Rate of children aged 0-17 who were the subjects of substantiations of notifications received (per 1,000) - urban and remote/very remote

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Child Protection Australia – 2014-2018

**REASON FOR EXCLUSION**
Rate comparison not possible

**RATE OF OUT OF HOME CARE/SEPARATION FROM PARENTS DESCRIPTION**
Rate of children in out of home care (per 1,000)

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Child Protection Australia – 2014-2018

**REASON FOR EXCLUSION**
Out of home care captured in Personal Freedom and Choice in comparison with Indigenous rate

**Access to Basic Knowledge**

**NAPLAN READING SCORE - YEAR 3**
Proportion of population achieving above the national minimum standard for reading

**SOURCE, YEAR RANGE AVAILABLE**
NAPLAN – 2015-2018

**REASON FOR EXCLUSION**
Correlations very high between years 3, 5, 7, 9. Isabella and Petra decided on year 9 (28/05/2019) as literature shows the biggest gap in achievement in year 9, and is more determinant in further study/career.

**NAPLAN READING SCORE - YEAR 5**
Proportion of population achieving above the national minimum standard for reading

**SOURCE, YEAR RANGE AVAILABLE**
NAPLAN – 2015-2018

**REASON FOR EXCLUSION**
Correlations very high between years 3, 5, 7, 9. Isabella and Petra decided on year 9 (28/05/2019) as literature shows the biggest gap in achievement in year 9, and is more determinant in further study/career

**NAPLAN READING SCORE - YEAR 7**
Proportion of population achieving above the national minimum standard for reading

**SOURCE, YEAR RANGE AVAILABLE**
NAPLAN – 2015-2018

**REASON FOR EXCLUSION**
Correlations very high between years 3, 5, 7, 9. Isabella and Petra decided on year 9 (28/05/2019) as literature shows the biggest gap in achievement in year 9, and is more determinant in further study/career

**NAPLAN READING SCORE - YEAR 9**
Proportion of population achieving above the national minimum standard for reading

**SOURCE, YEAR RANGE AVAILABLE**
NAPLAN – 2015-2018

**REASON FOR EXCLUSION**
High correlation, covered by Indigenous reading gap

**NAPLAN NUMERACY SCORE - YEAR 3**
Proportion of population achieving above the national minimum standard for numeracy

**SOURCE, YEAR RANGE AVAILABLE**
NAPLAN – 2015-2018

**REASON FOR EXCLUSION**
Correlations very high between years 3, 5, 7, 9. Isabella and Petra decided on year 9 (28/05/2019) as literature shows the biggest gap in achievement in year 9, and is more determinant in further study/career
NAPLAN NUMERACY SCORE - YEAR 5
DESCRIPTION
Proportion of population achieving above the national minimum standard for numeracy
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2018
REASON FOR EXCLUSION
Correlations very high between years 3, 5, 7, 9. Isabella and Petra decided on year 9 (28/05/2019) as literature shows the biggest gap in achievement in year 9, and is more determinant in further study/career

NAPLAN NUMERACY SCORE - YEAR 7
DESCRIPTION
Proportion of population achieving above the national minimum standard for numeracy
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2018
REASON FOR EXCLUSION
Correlations very high between years 3, 5, 7, 9. Isabella and Petra decided on year 9 (28/05/2019) as literature shows the biggest gap in achievement in year 9, and is more determinant in further study/career

NAPLAN READING SCORE - YEAR 3 - INDIGENOUS
DESCRIPTION
Difference in proportion achieving above the national minimum standard in Reading - Indigenous - non-Indigenous
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Correlations very high between years 3, 5, 7, 9. Isabella and Petra decided on year 9 (28/05/2019) as literature shows the biggest gap in achievement in year 9, and is more determinant in further study/career

NAPLAN READING SCORE - YEAR 5 - INDIGENOUS
DESCRIPTION
Difference in proportion achieving above the national minimum standard in Reading - Indigenous - non-Indigenous
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Correlations very high between years 3, 5, 7, 9. Isabella and Petra decided on year 9 (28/05/2019) as literature shows the biggest gap in achievement in year 9, and is more determinant in further study/career

NAPLAN READING IMPROVEMENT - YEAR 3 TO 5
DESCRIPTION
Average gain in Reading scores between year 3 and year 5
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
FORMULA
Will use proportion above national minimum standard instead, as gain showed negative correlations

NAPLAN READING IMPROVEMENT – YEAR 5 TO 7
DESCRIPTION
Average gain in reading scores between year 5 and year 7
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Will use proportion above national minimum standard instead, as gain showed negative correlations

NAPLAN READING IMPROVEMENT - YEAR 7 TO 9
DESCRIPTION
Average gain in reading scores between year 7 and year 9
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
FORMULA
Will use proportion above national minimum standard instead, as gain showed negative correlations

NAPLAN NUMERACY IMPROVEMENT - YEAR 3 TO 5
DESCRIPTION
Average gain in numeracy scores between year 3 and year 5
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Will use proportion above national minimum standard instead, as gain showed negative correlations

NAPLAN READING IMPROVEMENT - YEAR 9
DESCRIPTION
Average gain in numeracy scores between year 9 and year 9
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Will use proportion above national minimum standard instead, as gain showed negative correlations
NAPLAN NUMERACY IMPROVEMENT – YEAR 5 TO 7
DESCRIPTION
Average gain in numeracy scores between year 5 and year 7
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Will use proportion above national minimum standard instead, as gain showed negative correlations

NAPLAN NUMERACY IMPROVEMENT – YEAR 7 TO 9
DESCRIPTION
Average gain in numeracy scores between year 7 and year 9
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
FORMULA
Will use proportion above national minimum standard instead, as gain showed negative correlations

NAPLAN READING IMPROVEMENT - YEAR 3 TO 5 - INDIGENOUS
DESCRIPTION
Difference in average gain in Reading scores between year 3 and year 5 - Indigenous - non-Indigenous
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Including only Indigenous literacy indicators

NAPLAN READING IMPROVEMENT - YEAR 5 TO 7 - INDIGENOUS
DESCRIPTION
Difference in average gain in Reading scores between year 5 and year 7 - Indigenous - non-Indigenous
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Including only Indigenous literacy indicators

NAPLAN READING IMPROVEMENT - YEAR 7 TO 9 - INDIGENOUS
DESCRIPTION
Difference in average gain in Reading scores between year 7 and year 9 - Indigenous - non-Indigenous
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Including only Indigenous literacy indicators

NAPLAN READING IMPROVEMENT - YEAR 3 TO 5 - LBOTE
DESCRIPTION
Difference in average gain in reading scores between year 3 and year 5 – LBOTE – non-LBOTE
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Not enough variability

NAPLAN READING IMPROVEMENT - YEAR 5 TO 7 - LBOTE
DESCRIPTION
Difference in average gain in reading scores between year 5 and year 7 – LBOTE – non-LBOTE
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Not enough variability

NAPLAN READING IMPROVEMENT - YEAR 7 TO 9 - LBOTE
DESCRIPTION
Difference in average gain in reading scores between year 7 and year 9 – LBOTE – non-LBOTE
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Not enough variability
DESCRIPTION
Difference in average gain in reading scores between year 7 and year 9 – LBOTE – non-LBOTE
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Not enough variability

NAPLAN NUMERACY IMPROVEMENT - YEAR 3 TO 5 - LBOTE
DESCRIPTION
Difference in average gain in numeracy scores between year 3 and year 5 – LBOTE – non-LBOTE
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Not enough variability

NAPLAN NUMERACY IMPROVEMENT - YEAR 5 TO 7 - LBOTE
DESCRIPTION
Difference in average gain in numeracy scores between year 5 and year 7 – LBOTE – non-LBOTE
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Not enough variability

NAPLAN NUMERACY IMPROVEMENT - YEAR 7 TO 9 - LBOTE
DESCRIPTION
Difference in average gain in numeracy scores between year 7 and year 9 – LBOTE – non-LBOTE
SOURCE, YEAR RANGE AVAILABLE
NAPLAN – 2015-2017
REASON FOR EXCLUSION
Not enough variability

EDUCATIONAL ATTAINMENT (YEAR 10)
DESCRIPTION
Proportion of the population aged 25+ who completed year 10 (%)
SOURCE, YEAR RANGE AVAILABLE
ABS Survey of Education and Work – 2015-2018
REASON FOR EXCLUSION
Will use retention rates instead – greater changes across years rather than for 25+

EDUCATIONAL ATTAINMENT (YEAR 10) – REMOTENESS
DESCRIPTION
Disparity in urban vs remote Proportion of children aged 4-5 enrolled in preschool program (%)
SOURCE, YEAR RANGE AVAILABLE
ABS Children enrolled in preschool program – 2013-2017
REASON FOR EXCLUSION
Not enough variability

EDUCATIONAL ATTAINMENT (YEAR 10) – DISABILITY
DESCRIPTION
Proportion of the population aged 20+ who completed year 10 (%) – has need for assistance compared with does not have need for assistance
SOURCE, YEAR RANGE AVAILABLE
ABS Census – 2016
REASON FOR EXCLUSION
Use participation as an indicator for inclusion

EDUCATIONAL ATTAINMENT (YEAR 10) – REMOTENESS, INDIGENOUS, DISABILITY
DESCRIPTION
Proportion of the population aged 20+ who completed year 12 (%)
SOURCE, YEAR RANGE AVAILABLE
ABS Census – 2016
REASON FOR EXCLUSION
Use Year 10 as indicator

ACCESS TO EARLY CHILDHOOD EDUCATION - REMOTENESS
DESCRIPTION
Disparity in urban vs remote Proportion of children aged 4-5 enrolled in preschool program (%)
SOURCE, YEAR RANGE AVAILABLE
ABS Children enrolled in preschool program – 2013-2017
REASON FOR EXCLUSION
Not enough variability

ACCESS TO EARLY CHILDHOOD EDUCATION - INDIGENOUS
DESCRIPTION
Disparity in Indigenous vs non-Indigenous Proportion of children aged 4-5 enrolled in preschool program (%)
SOURCE, YEAR RANGE AVAILABLE
ABS Children enrolled in preschool program – 2013-2017
**REASON FOR EXCLUSION**
Very high correlations

**GAP IN STUDENT ATTENDANCE RATE – REMOTENESS**
Disparity in metro and remote student attendance rate years 1-10
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
**REASON FOR EXCLUSION**
Proportions but not raw numbers reported

**DIFFICULTIES ACCESSING EDUCATION**
Proportion of people participating in education (%)
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
ABS Census – 2016
**REASON FOR EXCLUSION**
Not enough data points

**DIFFICULTIES ACCESSING EDUCATION DUE TO DISABILITY – REMOTENESS, COUNTRY OF BIRTH**
Proportion of people with a disability having an education restriction (%), urban vs remote/very remote areas, born in Australia compared with born overseas
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
ABS Income and Housing – 2015-16
**REASON FOR EXCLUSION**
Not enough data points

**PARENTAL ENGAGEMENT IN TEACHING**
Proportion of parents reporting no involvement in informal learning activities last week (aged 3-8)
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
**REASON FOR EXCLUSION**
Not enough data points

**ADULT LITERACY**
Literacy skill level of adults aged 15-74
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
ABS International Assessment of Adult Competencies – 2011-12
**REASON FOR EXCLUSION**
Data more than 5 years old

**ENROLMENT RATES**
Proportion of 5 to 15 year olds participating in education (%)
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
ABS Census – 2016
**REASON FOR EXCLUSION**
Only one data point due to Census

**ABSENTEEISM**
Student attendance rate years 1-10 (%)
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
**REASON FOR EXCLUSION**
Extremely high correlation with NAPLAN reading

**Access to Information and Communications**

**INTERNET ACCESS**
Proportion of households with internet access at home (%)
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
ABS Household Use of Information Technology – 2008-2016
**REASON FOR EXCLUSION**
Not enough data points and survey will cease in 2019

**INTERNET ACCESS**
Proportion of households who have access to the internet in the home (%)
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
HILDA
**REASON FOR EXCLUSION**
Access is covered in the Digital Inclusion Index subcomponent which will be included

**MOBILE PHONES (PROXY FOR CONNECTIVITY)**
Proportion of households with internet access at home (%)
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
Deloitte Mobile Consumer Survey – 2017
**REASON FOR EXCLUSION**
Data only available at national level

**NBN**
Proportion of premises not yet ready to connect to NBN (%)
**DESCRIPTION**
SOURCE, YEAR RANGE AVAILABLE
NBN – 2018

**REASON FOR EXCLUSION**
Not reported in any helpful way

**SATISFACTION WITH ACCESS TO SERVICE PROVIDERS**
**DESCRIPTION**
Proportion of people who have not had difficulty accessing service providers in the last 12 months (%)

**SOURCE, YEAR RANGE AVAILABLE**
ABS General Social Survey – 2014

**REASON FOR EXCLUSION**
Not enough data points

**SATISFACTION WITH ACCESS TO SERVICE PROVIDERS - REMOTENESS**
**DESCRIPTION**
Proportion of people who have not had difficulty accessing service providers in the last 12 months (%)
urban vs remote/very remote

**SOURCE, YEAR RANGE AVAILABLE**
ABS General Social Survey - 2014

**REASON FOR EXCLUSION**
Not enough data points

**RATIO OF INTERNET COST TO INCOME FOR LOW-INCOME HOUSEHOLDS**
**DESCRIPTION**
Ratio of household annual expenditure on telephone rent, calls and internet charges to gross annual household income for low income households

**SOURCE, YEAR RANGE AVAILABLE**
HILDA – 2001-2016

**REASON FOR EXCLUSION**
Use digital inclusion affordability sub-index instead

**SOCIAL MEDIA USE**
**DESCRIPTION**
Proportion of people who use some form of social media

**SOURCE, YEAR RANGE AVAILABLE**
Sensis Social Media Report – 2016-2018

**REASON FOR EXCLUSION**
Small sample size

**Health and Wellness**

**LIFE EXPECTANCY - MEN**
**DESCRIPTION**
Years of life expectancy at birth (age 0)

**SOURCE, YEAR RANGE AVAILABLE**
ABS – 2009-2016

Reason for exclusion
Doesn’t contribute meaningfully – already have potential years of life lost and mortality rates which are better indicators

**LIFE EXPECTANCY - WOMEN**
**DESCRIPTION**
Years of life expectancy at birth (age 0)

**SOURCE, YEAR RANGE AVAILABLE**
ABS – 2009-2016

**REASON FOR EXCLUSION**
Doesn’t contribute meaningfully – already have potential years of life lost and mortality rates which are better indicators

**CHRONIC OR NON-COMMUNICABLE DISEASE-REMTENESS, COUNTRY OF BIRTH**
**DESCRIPTION**
Proportion of the population ever experienced an ICD10 condition long-term, either diagnosed or undiagnosed - urban vs remote/very remote, born in Australia vs born overseas

**SOURCE, YEAR RANGE AVAILABLE**
ABS National Health Survey – 2015

**REASON FOR EXCLUSION**
Not enough data points

**YEARS OF LIFE LOST – BURDEN OF DISEASE**
**DESCRIPTION**
Crude years of life lost rate - total

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Burden of Disease – 2011, 2015

**REASON FOR EXCLUSION**
Not enough data points

**DALY – DISABILITY ADJUSTED LIFE YEARS – UNDER 15 YEARS**
**DESCRIPTION**
Crude Years of life lost rate - children (under 15 years)

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Burden of Disease – 2011

**REASON FOR EXCLUSION**
Not enough data points

**DALY – DISABILITY ADJUSTED LIFE YEARS – UNDER 15+ YEARS**
**DESCRIPTION**
Crude Years of life lost rate - children (15+ years)

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Burden of Disease – 2011

**REASON FOR EXCLUSION**
Not enough data points

**SELF-RATED HEALTH**
**DESCRIPTION**
Proportion of population that reported health as ‘fair’ or
'poor' (1-5 scale)

**SOURCE, YEAR RANGE AVAILABLE**
ABS National Health Survey – 2015

**REASON FOR EXCLUSION**
Not enough data points

**SELF-RATED HEALTH - REMOTENESS**

**DESCRIPTION**
Proportion of population that reported health as 'fair' or 'poor' (1-5 scale) – urban vs remote/very remote

**SOURCE, YEAR RANGE AVAILABLE**
ABS National Health Survey – 2015

**REASON FOR EXCLUSION**
Not enough data points

**SELF-RATED HEALTH**

**DESCRIPTION**
Proportion who rated their health as 'very good or excellent' (%)

**SOURCE, YEAR RANGE AVAILABLE**
HILDA – 2001-2017

**REASON FOR EXCLUSION**
Poor model fit

**MENTAL HEALTH TREATMENT - INDIGENOUS**

**DESCRIPTION**
Rate ratio of community mental health care service contacts per 1,000 population - Indigenous compared with non-Indigenous

**SOURCE, YEAR RANGE AVAILABLE**
AIHW Mental Health Services – 2014-2017

**REASON FOR EXCLUSION**
Mental health service contacts, rather than patients

**MENTAL HEALTH**

**DESCRIPTION**
Proportion of people with SF-36 mental health component scores below 52 indicating disability

**SOURCE, YEAR RANGE AVAILABLE**
HILDA – 2001-2017

**REASON FOR EXCLUSION**
HILDA – concerns about representativeness

**PSYCHOLOGICAL DISTRESS**

**DESCRIPTION**
Kessler 10 Distress scale score (pdkt10s) OR risk categories (pdkt10rc)

**SOURCE, YEAR RANGE AVAILABLE**
HILDA – 2001-2017

**REASON FOR EXCLUSION**
Only measured every two years

**OBESITY – EXCESS WEIGHT IN ADULTS**

**DESCRIPTION**
Proportion of adults (18+) who are classified as overweight or obese (BMI < 30) (%)

**SOURCE, YEAR RANGE AVAILABLE**
HILDA – 2001-2016

**REASON FOR EXCLUSION**
Not enough data points

**OBESITY – CHILDHOOD OBESITY**

**DESCRIPTION**
Proportion of children (0-18 years) who classified as obese (BMI < 30) (%)

**SOURCE, YEAR RANGE AVAILABLE**
HILDA – 2001-2016

**REASON FOR EXCLUSION**
Sample too small - ~234 under aged 15

**SUICIDE - INDIGENOUS**

**DESCRIPTION**
Age-standardised death rate due to intentional self-harm - Indigenous compared with non-Indigenous

**SOURCE, YEAR RANGE AVAILABLE**

**REASON FOR EXCLUSION**
Not enough data points (combined 2013-2017)

**DEATH FROM DRUG OVERDOSE**

**DESCRIPTION**
Standardised death rate due to accidental poisoning by and exposure to noxious substances

**SOURCE, YEAR RANGE AVAILABLE**
ABS Causes of Death – 2008-2017

**REASON FOR EXCLUSION**
Doesn't accurately report drug overdose due to inclusion of accidental poisoning from other substances

**EATING DISORDERS**

**DESCRIPTION**
Rate of hospitalisations for eating disorders

**SOURCE, YEAR RANGE AVAILABLE**
AIHW National Hospital Morbidity Database – 2017

**REASON FOR EXCLUSION**
Data only available at a national level

**DENTAL HEALTH – CAVITIES IN CHILDREN**

**DESCRIPTION**
Average number of untreated decayed or filled tooth surfaces in primary dentition (children aged 5-10 years)

**SOURCE, YEAR RANGE AVAILABLE**
National Child Oral Health Survey – 2012-2014
REASON FOR EXCLUSION
Only reported 2012-2014

DENTAL HEALTH – UNMET NEED
DESCRIPTION
Wait time for general dental care - from listing date to first visit (days - 50ths and 90th percentiles)
SOURCE, YEAR RANGE AVAILABLE
AIHW – 2013-2017
REASON FOR EXCLUSION
Not well measured

SELF-RATED SATISFACTION WITH HEALTH
DESCRIPTION
Proportion of people reporting that they are satisfied with their health (%)
SOURCE, YEAR RANGE AVAILABLE
HILDA – 2001-2017
FORMULA
Report rate as published by HILDA
REASON FOR EXCLUSION
Using SF-36 item to measure health satisfaction instead

SUBSTANCE USER DISORDER TREATMENT
DESCRIPTION
Change in proportion of clients seeking treatment for alcohol, amphetamines, cannabis and heroin (%)
SOURCE, YEAR RANGE AVAILABLE
AIHW – 2013-2017
REASON FOR EXCLUSION
Data only reports comparisons between drug types – not meaningful for SPI

OPTICAL HEALTH – GLAUCOMA, CATARACTS
DESCRIPTION
Proportion of people with glaucoma (%), and cataracts (%)
SOURCE, YEAR RANGE AVAILABLE
ABS National Health Survey – 2015
REASON FOR EXCLUSION
Not enough data points

INDIGENOUS HEARING HEALTH
DESCRIPTION
Total Indigenous people with hearing problems as a proportion of total Indigenous sample/population
SOURCE, YEAR RANGE AVAILABLE
ABS National Aboriginal and Torres Strait Islander Social Survey – 2014-15
REASON FOR EXCLUSION
Not useful as an STD indicator – not as impactful

CHLAMYDIA DIAGNOSIS
DESCRIPTION
Notification rate of chlamydia, per 100,000
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Not enough data points

SYPHILIS DIAGNOSIS
DESCRIPTION
Notification rate of syphilis < 2 years, per 100,000
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Not enough data points
Poor model fit

**HIV DIAGNOSIS**
**DESCRIPTION**
New HIV diagnoses, rate per 100,000 population
**SOURCE, YEAR RANGE AVAILABLE**
Kirby Institute – 2007-2019
**REASON FOR EXCLUSION**
Negative/low correlations

**HEPATITIS C DIAGNOSIS**
**DESCRIPTION**
Notification rate of Hepatitis C (newly acquired), per 100,000
**SOURCE, YEAR RANGE AVAILABLE**
**REASON FOR EXCLUSION**
Primarily an illness that is contracted overseas

**TUBERCULOSIS**
**DESCRIPTION**
Notification rate of tuberculosis, per 100,000
**SOURCE, YEAR RANGE AVAILABLE**
**REASON FOR EXCLUSION**
Primarily an illness that is contracted overseas

**Environmental Quality**

**AIR QUALITY**
**DESCRIPTION**
Broad term – used air quality monitoring publications instead

**OZONE CONCENTRATIONS**
**DESCRIPTION**
Median daily maximum 1 hour average concentrations of ozone, averaged across monitoring stations
**SOURCE, YEAR RANGE AVAILABLE**
Individual State and Territory Environmental Agencies

**WATER SCARCITY**
**DESCRIPTION**
Percentage full of water storage in publicly-owned lakes, reservoirs and weirs.
**SOURCE, YEAR RANGE AVAILABLE**
Bureau of Meteorology – 2017, 2018
**REASON FOR EXCLUSION**
Data not reported consistently

**ENERGY FROM RENEWABLES (PRODUCTION/CONSUMPTION)**
**DESCRIPTION**
Energy generation by fuel type, non-renewable and renewable (GWh)
**SOURCE, YEAR RANGE AVAILABLE**
**REASON FOR EXCLUSION**
Input rather than outcome

**TERRESTRIAL PROTECTED AREAS**
**DESCRIPTION**
Terrestrial protected areas by area (ha) and % of land
**SOURCE, YEAR RANGE AVAILABLE**
**REASON FOR EXCLUSION**
SA – [https://www.epa.sa.gov.au/data_and_publications/air_quality_monitoring/reports_and_summaries](https://www.epa.sa.gov.au/data_and_publications/air_quality_monitoring/reports_and_summaries) – doesn’t report at State level (reports for each individual monitoring station); reports quarterly rather than annually
Not enough data points

MARINE PROTECTED AREAS
DESCRIPTION
Marine protected areas by area (ha) and % of waters
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Not enough data points

ENVIRONMENTAL BEHAVIOUR
DESCRIPTION
Frequency of personal recycling, composting, reusing bags (%) (aggregate)
SOURCE, YEAR RANGE AVAILABLE
ABS Environmental Views and Behaviour – 2011-12
REASON FOR EXCLUSION
Data more than 5 years old; No longer being collected

SATISFACTION WITH WASTE COLLECTION
DESCRIPTION
Proportion satisfied with waste collection services in area
SOURCE, YEAR RANGE AVAILABLE
ABS Environmental Views and Behaviour – 2011-12
REASON FOR EXCLUSION
Data more than 5 years old; No longer being collected

BIODIVERSITY – DETERIORATION OF SPECIES, OVERPOPULATION
DESCRIPTION
Proportion of rare, endangered or vulnerable species, as a % of total native species)
SOURCE, YEAR RANGE AVAILABLE
CSIRO – 2011-2012
REASON FOR EXCLUSION
Data more than 5 years old

ASSET ACCOUNT FOR FORESTS
DESCRIPTION
Asset account for forests (’000 hectares)
SOURCE, YEAR RANGE AVAILABLE
ABS Environmental-Economic Accounting for Agriculture – 2015-16
REASON FOR EXCLUSION
Not enough data points

AIR-POLLUTION CAUSED DEATHS
DESCRIPTION
Standardised death rate due to environmental-pollution-related condition
SOURCE, YEAR RANGE AVAILABLE

ABS Causes of Death – 2008-2017
REASON FOR EXCLUSION
No rates reported

CLIMATE-RELATED DEATHS
DESCRIPTION
Exposure to natural forces - standardised death rate
SOURCE, YEAR RANGE AVAILABLE
ABS Causes of Death – 2008-2017
REASON FOR EXCLUSION
No rates reported

GREEN SPACE COVERAGE IN CITIES/URBAN AREAS
DESCRIPTION
Proportion of people living in urban areas within 400m of greenspace (%)
SOURCE, YEAR RANGE AVAILABLE
ABS National Health Survey – 2015
REASON FOR EXCLUSION
Not enough data points

WASTE GENERATION
DESCRIPTION
Percent change in generation of core waste
SOURCE, YEAR RANGE AVAILABLE
Department of Environment and Energy – 2017
REASON FOR EXCLUSION
Not enough data points

RESOURCE RECOVERY
DESCRIPTION
Percent of waste that is recovered through energy recovery and recycling, divided by total waste generation
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Not enough data points

MESOTHELIOMA RELATED DEATHS
DESCRIPTION
Age-standardised incidence rate of mesothelioma
SOURCE, YEAR RANGE AVAILABLE
AIHW Australian Mesothelioma Registry – 2011-2016
REASON FOR EXCLUSION
Poor correlations

RENEWABLE ENERGY
DESCRIPTION
Proportion of total energy mix that is renewable or hydro
SOURCE, YEAR RANGE AVAILABLE
Department of the Environment and Heritage – 2015-
2017

**REASON FOR EXCLUSION**
Poor correlations

**NATIVE FOREST COVERAGE**
**DESCRIPTION**
Native forest area as a proportion of total land area (%)
**SOURCE, YEAR RANGE AVAILABLE**
Department of Agriculture and Water Resources– 2013, 2018

**REASON FOR EXCLUSION**
Not enough data points

**FOREST COVERAGE**
**DESCRIPTION**
Forest area as a proportion of total land area (%)
**SOURCE, YEAR RANGE AVAILABLE**
Department of Agriculture and Water Resources– 2013, 2018

**REASON FOR EXCLUSION**
Not enough data points

**FOREST AREA**
**DESCRIPTION**
Forest area differences between State of Forest Report (% change)
**SOURCE, YEAR RANGE AVAILABLE**
Department of Agriculture and Water Resources– 2013, 2018

**REASON FOR EXCLUSION**
Not enough data points

**FOREST CONSERVATION**
**DESCRIPTION**
Proportion of native forest ecosystems protected for biodiversity conservation (%)
**SOURCE, YEAR RANGE AVAILABLE**
Department of Agriculture and Water Resources– 2013, 2018

**REASON FOR EXCLUSION**
Not enough data points

**FOREST SOIL AND WATER PROTECTION**
**DESCRIPTION**
Proportion of public forest managed primarily for protection functions of soil and water values (%)
**SOURCE, YEAR RANGE AVAILABLE**
Department of Agriculture and Water Resources– 2011, 2016

**REASON FOR EXCLUSION**
Not enough data points

**ENVIRONMENTAL CRIME**
**DESCRIPTION**
Offender rate for property damage and environmental pollution
**SOURCE, YEAR RANGE AVAILABLE**
ABS Recorded Crime – 2014-2018

**REASON FOR EXCLUSION**
**POOR MODEL FIT**

**TREE COVER LOSS**
**DESCRIPTION**
Percentage decrease in tree cover compared to 2000 tree cover extent (>30% tree canopy)
**SOURCE, YEAR RANGE AVAILABLE**
Global Forest Watch, 2010-2018

**REASON FOR EXCLUSION**
Poor model fit

**CARBON MONOXIDE CONCENTRATIONS**
**DESCRIPTION**
Median daily maximum rolling 8 hour average concentrations of carbon monoxide, averaged across monitoring stations
**SOURCE, YEAR RANGE AVAILABLE**
Individual State and Territory Environmental Agencies
- SA – [https://www.epa.sa.gov.au/data_and_publications/air_quality_monitoring/reports_and_summaries](https://www.epa.sa.gov.au/data_and_publications/air_quality_monitoring/reports_and_summaries) - doesn’t report at State level (reports for each individual monitoring station); reports quarterly rather than annually

**REASON FOR EXCLUSION**
Poor model fit
**Nitrogen Dioxide Concentrations**

**Description**
Median daily maximum 1 hour average concentrations of nitrogen dioxide, averaged across monitoring stations

**Source, Year Range Available**
Individual State and Territory Environmental Agencies
- SA – [https://www.epa.sa.gov.au/data_and_publications/air_quality_monitoring/reports_and_summaries](https://www.epa.sa.gov.au/data_and_publications/air_quality_monitoring/reports_and_summaries) - doesn’t report at State level (reports for each individual monitoring station); reports quarterly rather than annually

**Reason for Exclusion**
Poor model fit

**Mean Temperature Anomaly**

**Description**
Annual mean temperature anomaly based on 30-year climatology (1961-1990)

**Source, Year Range Available**
Bureau of Meteorology 1910-2018

**Reason for Exclusion**
Poor model fit

**Personal Rights**

**Representation in Parliament – Gender**

**Description**
Proportion of women members in parliament (%)

**Source, Year Range Available**
Australian Parliamentary Library - 2018

**Reason for Exclusion**
Not enough time points available - APL updates briefing annually, previous reports not available

**Native Titles**

**Description**
Proportion of land covered by Registered Native Title Claimants (%)

**Source, Year Range Available**
National Native Title Tribunal National-Registered Claims - 2018

**Reason for Exclusion**
Correlations don’t fit within component. TAS and NT have 0% so not relevant for those states

**Sexual Assaults on Women**

**Description**
Rate of women aged 18+ who had experienced sexual assault

**Source, Year Range Available**
ABS Crime Victimisation Survey

**Reason for Exclusion**
Poor correlations, data unreliable at gender/state territory level

**Crime Rates – Sexual Assault and Related Offences**

**Description**
Offender rate of recorded sexual assault and related offences

**Source, Year Range Available**
ABS Recorded Crime – 2008-2018

**Reason for Exclusion**
After feedback, changed to male offender rate to reflect gendered nature of sexual assault and violence

**Personal Freedom and Choice**

**Teen Pregnancy**

**Description**
Birth rate per 1,000 women aged younger than 20 years who gave birth

**Source, Year Range Available**
AIHW – 2015

**Reason for Exclusion**
Not enough data points

**Teen Pregnancy**

**Description**
Proportion of women aged 15-19 who have had at least one child (%)

**Source, Year Range Available**
ABS Census – 2016

**Reason for Exclusion**
Not enough data points
EARLY MARRIAGE
DESCRIPTION
Proportion of people aged 15-18 who are married (%)
SOURCE, YEAR RANGE AVAILABLE
ABS Census - 2016
REASON FOR EXCLUSION
Will use other ABS source which reports annually

EARLY MARRIAGE
DESCRIPTION
Age-specific marriage rate for women aged 16-19 per 1000
SOURCE, YEAR RANGE AVAILABLE
ABS – 2015-2017
REASON FOR EXCLUSION
Correlation doesn’t fit within component and rates are low – not seen as an issue in Australian context (teen pregnancy more representative).

CONVICTION FOR DRUG POSSESSION
DESCRIPTION
Offender rate for recorded drug possession (principle offence) per 100,000
SOURCE, YEAR RANGE AVAILABLE
ABS Recorded Crime – 2008-2017
REASON FOR EXCLUSION
Correlation doesn’t fit within component. Conceptually problematic, may be hard to communicate why higher rates are not representative of social progress.

NDIS ROLLOUT
DESCRIPTION
Proportion of all NDIS plans approved to date compared to bilateral estimates (December Quarterly Report)
SOURCE, YEAR RANGE AVAILABLE
NDIS Quarterly Reports
REASON FOR EXCLUSION
Correlations don’t fit within component – some outliers (NT has very high 6:1 ratio) therefore not relevant.

SATISFACTION WITH LIFE/WORK BALANCE
DESCRIPTION
Satisfaction with the amount of free time you have, 1-5 scale
SOURCE, YEAR RANGE AVAILABLE
HILDA – 2001-2016
REASON FOR EXCLUSION
Will use HILDA work flexibility indicator instead - more representative of component

WORK FLEXIBILITY
DESCRIPTION
Proportion of people reporting they are satisfied with

the flexibility to balance work and non-work commitments
SOURCE, YEAR RANGE AVAILABLE
HILDA – 2001-2016
REASON FOR EXCLUSION
Poor model fit

ACCEPTANCE/ATTITUDES TO MIGRATION AND REFUGEES
DESCRIPTION
Proportion of people who believe immigration is a burden on social welfare system, there is too much immigration, and that immigrants take away jobs (%)
SOURCE, YEAR RANGE AVAILABLE
Lowy Institute – 2016
REASON FOR EXCLUSION
Data only at a national level

SATISFACTION WITH FAMILY RELATIONSHIPS – PARENTS, STEP-PARENTS, PARTNER, CHILDREN, STEP-CHILDREN
DESCRIPTION
Proportion of people who are satisfied or very satisfied with relationship with parents, step-parents, partner, children, step-children
SOURCE, YEAR RANGE AVAILABLE
HILDA – 2017
REASON FOR EXCLUSION
Conceptually does not fit with model – more of an input, than an indicator of social progress

ATTITUDES TO PEOPLE IN MINORITY
DESCRIPTION
Proportion who agree that "Homosexual couples should have the same rights as heterosexual couples do" (Scale 1-7) (%)
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Not enough data points

DISCRIMINATION
DESCRIPTION
Proportion of people felt their employer had discriminated against them because of their ethnicity (%)  
**SOURCE, YEAR RANGE AVAILABLE**  
HILDA – 2001-2017  
**REASON FOR EXCLUSION**  
Not enough data points

**DISABILITY PARTICIPATION IN THE WORKFORCE**  
Description: Proportion of Australian Public Service employees with a disability (%)  
**SOURCE, YEAR RANGE AVAILABLE**  
Australian Public Service Employment Database – 2000-2018  
**REASON FOR EXCLUSION**  
Not enough data points

**VOLUNTEERING**  
Description: Proportion who did unpaid voluntary work in last 12 months through an organisation (%)  
**SOURCE, YEAR RANGE AVAILABLE**  
ABS General Social Survey  
**REASON FOR EXCLUSION**  
Not enough data points

**SENSE OF SOCIAL CONNECTION**  
Description: Mean composite score for sense of social connection (1-7 scale)  
**SOURCE, YEAR RANGE AVAILABLE**  
HILDA – 2001-2017  
**REASON FOR EXCLUSION**  
Social connection is already covered

**FEMALE REPRESENTATION IN LEADERSHIP**  
Description: Total female directors in ASX Listed Companies, by states in which shares are registered  
**SOURCE, YEAR RANGE AVAILABLE**  
Women on Boards report – 2015-2018  
**REASON FOR EXCLUSION**  
Not enough data points

**ENROLMENT RATES - INDIGENOUS**  
Description: Proportion of 5 to 15 year olds participating in education (%) Indigenous compared to non-Indigenous  
**SOURCE, YEAR RANGE AVAILABLE**  
ABS Survey of Education and Work  
**REASON FOR EXCLUSION**  
Annual ABS Survey of Education and Work doesn’t report by Indigenous status

**ENROLMENT RATES - DISABILITY**  
Description: Proportion of 5 to 15 year olds participating in education (%) people with a disability compared to people without a disability  
**SOURCE, YEAR RANGE AVAILABLE**  
ABS Survey of Education and Work  
**REASON FOR EXCLUSION**  
Annual ABS Survey of Education and Work doesn’t report by disability status

**ENGAGEMENT OF NON-ENGLISH SPEAKERS IN SOCIETY**  
Description: Proportion of Australian Public Service employees from a non-English speaking background (%)  
**SOURCE, YEAR RANGE AVAILABLE**  
Australian Public Service Employment Database – 2000-2018  
**REASON FOR EXCLUSION**  
Doesn’t fit well with model

**ENGAGEMENT OF INDIGENOUS PEOPLE IN SOCIETY/WORKFORCE**  
Description: Proportion of Australian Public Service employees who identify as Indigenous (%)  
**SOURCE, YEAR RANGE AVAILABLE**  
Australian Public Service Employment Database – 2000-2018
METHODOLOGY REPORT

The Australian Social Progress Index

REASON FOR EXCLUSION
Poor quality indicator

FEMALE REPRESENTATION IN LEADERSHIP
DESCRIPTION
Female CEOs of non-public sector employers as a ratio to male CEOs
SOURCE, YEAR RANGE AVAILABLE
Workplace Gender Equality Agency – 2013-2018
REASON FOR EXCLUSION
DATA SOURCE PROBLEMATIC

FEMALE REPRESENTATION IN LEADERSHIP
DESCRIPTION
Female CEOs of non-public sector employers as a ratio to male CEOs
SOURCE, YEAR RANGE AVAILABLE
Workplace Gender Equality Agency – 2013-2018
REASON FOR EXCLUSION
DATA SOURCE PROBLEMATIC

ENROLMENT RATES - SEX
DESCRIPTION
Proportion of 5 to 15 year olds participating in education (%) males compared to females
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Doesn’t fit conceptually

ENROLMENT RATES - SEX
DESCRIPTION
Proportion of 5 to 15 year olds participating in education (%) males compared to females
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Doesn’t fit conceptually

Access to Advanced Education
SATISFACTION WITH SUPPORT TO COMPLETE HIGHER EDUCATION
DESCRIPTION
Proportion of students giving positive ratings for 'Entire educational experience' (%)
SOURCE, YEAR RANGE AVAILABLE
Quality Indicators for Learning and Teaching – 2012-2017
REASON FOR EXCLUSION
2017 data for individual universities available only

LIFELONG LEARNING
DESCRIPTION
Proportion of adults who participated in formal or non-formal learning in the last 12 months
SOURCE, YEAR RANGE AVAILABLE
ABS Work-Related Training and Adult Learning – 2013, 2016-17
REASON FOR EXCLUSION
Not enough data points

NEET (NOT IN EDUCATION, EMPLOYMENT OR TRAINING)
DESCRIPTION
Proportion of the population aged 15-24 who are not engaged in employment, education or training (%)
SOURCE, YEAR RANGE AVAILABLE
ABS Census - 2016
REASON FOR EXCLUSION
More recent data available survey of education and work

EDUCATIONAL ATTAINMENT PER POPULATION
DESCRIPTION
Proportion of the population aged 25+ with post-school qualifications
SOURCE, YEAR RANGE AVAILABLE
ABS Census - 2016
REASON FOR EXCLUSION
More recent data available survey of education and work

INDIGENOUS DISPARITY IN HIGHER EDUCATION
DESCRIPTION
Proportion of Indigenous Australians with a post-secondary degree as a ratio to non-Indigenous Australians with a post-secondary degree
SOURCE, YEAR RANGE AVAILABLE
ABS Census - 2016
REASON FOR EXCLUSION
More recent data available survey of education and work

PEOPLE WITH DISABILITY DISPARITY IN HIGHER EDUCATION
DESCRIPTION
Proportion of people with a disability with a post-secondary degree as a ratio to people without a disability with a post-secondary degree
SOURCE, YEAR RANGE AVAILABLE
ABS Census - 2016
REASON FOR EXCLUSION
More recent data available survey of education and work

GENDER DISPARITY IN HIGHER EDUCATION
DESCRIPTION
Proportion of women with a post-secondary degree as a ratio to men with a post-secondary degree
SOURCE, YEAR RANGE AVAILABLE
ABS Census - 2016
REASON FOR EXCLUSION
More recent data available survey of education and work

HIGHER EDUCATION ACHIEVEMENT - COB
DESCRIPTION
Proportion of people born overseas with a bachelor’s degree or above as a ratio to people born in Australia with a bachelor degree or above aged 15+
SOURCE, YEAR RANGE AVAILABLE
REASON FOR EXCLUSION
Poor conceptual fit
APPENDIX D: INVERTED INDICATORS

<table>
<thead>
<tr>
<th>Inverted indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant mortality</td>
</tr>
<tr>
<td>Pneumococcal prevalence</td>
</tr>
<tr>
<td>Rotavirus prevalence</td>
</tr>
<tr>
<td>Premature mortality (&lt;75)</td>
</tr>
<tr>
<td>Indigenous mortality rates</td>
</tr>
<tr>
<td>Waterborne diseases - Shingellosis</td>
</tr>
<tr>
<td>Waterborne diseases - Cryptosporidiosis</td>
</tr>
<tr>
<td>Waterborne diseases - Salmonella</td>
</tr>
<tr>
<td>Water interruption</td>
</tr>
<tr>
<td>Overcrowding</td>
</tr>
<tr>
<td>Victimization - physical assault</td>
</tr>
<tr>
<td>Crime rates – acts to cause injury</td>
</tr>
<tr>
<td>Crime rates – youth</td>
</tr>
<tr>
<td>Young people under supervision</td>
</tr>
<tr>
<td>NAPLAN - Numeracy Year 9</td>
</tr>
<tr>
<td>NAPLAN Reading Indigenous - Year 9</td>
</tr>
<tr>
<td>Gap in student attendance rate - Indigenous compared to non-Indigenous students</td>
</tr>
<tr>
<td>Community mental health treatment</td>
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<tr>
<td>Suicide</td>
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<tr>
<td>Respiratory mortality</td>
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<tr>
<td>Diabetes mortality</td>
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<td>Cancer mortality</td>
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<tr>
<td>Cardiovascular mortality</td>
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<tr>
<td>Sulfur dioxide concentrations</td>
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<tr>
<td>PM10 concentrations</td>
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<tr>
<td>PM2.5 concentrations</td>
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<tr>
<td>Water stress</td>
</tr>
<tr>
<td>Crime rates – sexual assault and related offences</td>
</tr>
<tr>
<td>Teen pregnancy</td>
</tr>
<tr>
<td>Abuse substantiations - Indigenous disparity</td>
</tr>
<tr>
<td>Out of home care/separation from parents - Indigenous</td>
</tr>
<tr>
<td>Public transport safety</td>
</tr>
<tr>
<td>Gender pay gap</td>
</tr>
<tr>
<td>Gender employment under utilisation</td>
</tr>
<tr>
<td>NEET</td>
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</tbody>
</table>
## APPENDIX E: WEIGHTS

<table>
<thead>
<tr>
<th>Dimension/component</th>
<th>Indicator Name</th>
<th>Weight</th>
<th>Scaled Weight</th>
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</thead>
<tbody>
<tr>
<td><strong>Basic Human Needs</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Nutrition and Basic Medical Care</td>
<td>Infant mortality</td>
<td>0.232</td>
<td>0.207</td>
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<tr>
<td></td>
<td>Pneumococcal prevalence</td>
<td>0.225</td>
<td>0.201</td>
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<tr>
<td></td>
<td>Rotavirus prevalence</td>
<td>0.203</td>
<td>0.182</td>
</tr>
<tr>
<td></td>
<td>Premature mortality (&lt;75)</td>
<td>0.238</td>
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### APPENDIX F: BEST CASE AND WORST CASE SCENARIOS

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## APPENDIX G: PEER GROUPS

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### Net Wealth

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