



Resilient Families, Strong Communities

Mapping service expenditure
and outcomes in the Pilbara
and the Kimberley

Government of Western Australia
October 2017

Regional Services Reform Unit

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Centre for Social Impact UWA

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Notes

The term Indigenous is used throughout this report for consistency with the Overcoming Indigenous Disadvantage report (SCRGSP 2016).

References to Western Australian Government departments are to the names of those departments as they existed prior to machinery of government changes on 1 July 2017.

Contents

Tables	v
Figures.....	vi
Key Terms and Abbreviations.....	vii
Overview.....	ix
Introduction	1
Methodology.....	4
Expenditure data	4
Outcomes data	5
Usefulness of the available data.....	6
Limitations of the available data	7
Limitations of the present analysis.....	8
Expenditure Patterns.....	9
Government direct service provision expenditure on Indigenous people in the Kimberley and the Pilbara by SA2 region and government jurisdiction	9
Government direct service provision expenditure on Indigenous people in the Kimberley and the Pilbara by SA2 region and OID area.....	10
Government direct service provision expenditure on Indigenous people in the Kimberley and the Pilbara by SA3 region and functional area (government department)	12
What does this analysis contribute to the knowledge base?.....	12
What data is not available at regional level and SA2 level that should be collected? How should that be collected?	14
What is the extent, nature and coverage of services in each region?.....	14
Overcoming Indigenous Disadvantage Outcomes	16
Key outcomes indicators for the OID areas	16
What are the current patterns of outcomes by SA2 area and OID area?	20
What are the correlations between OID expenditure distribution and OID indicators?	22
Recommendations.....	23
How might this data be used in the future for subsequent annual analyses?	23
What are the recommendations for more time efficient and effective data collection and analysis of outcome data?	23
What patterns for future investment are recommended based on this data?.....	24
References	25
Appendix 1: Caveats to Data Analysis	27

Commonwealth and State Government expenditures and Indigenous outcomes in the Pilbara and the Kimberley.....27

Commonwealth and State Government direct service expenditure27

Mapping Indigenous outcomes.....27

Data suppression27

Geographical disaggregation28

Caveats when considering expenditure and outcomes together28

Appendix 2: Figures and Tables.....29

Appendix 3: Maps.....38

Appendix 4: List of Indicators40

Tables

Table 1: Value and Proportion of Estimated Indigenous Direct Service Provision Expenditure and Income Support Expenditure Per Capita (\$) attributed to each overcoming Indigenous disadvantage area in the Kimberley and Pilbara by Sub-Region (SA2), 2015-16.....	11
Table 2: State Government Estimated Indigenous Direct Service Provision Expenditure Per Capita (\$) by department in the Kimberley and Pilbara 2015-16	13
Table 3: Sub-Region (SA2) performance ranking in Overcoming Indigenous Disadvantage areas.....	21
Table 4: Key Indicators displayed in Maps	33
Table 5: Spearman’s Rho Correlation Matrix for OID Outcomes and Expenditure in the Kimberley and Pilbara.....	36
Table 6: Spearman’s Rho Correlation Matrix for OID Outcomes and State Government Department Expenditure in the Kimberley and Pilbara	37

Figures

Figure 1: Estimated Indigenous Direct Service Provision Expenditure and Income Support Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), 2015-16....	9
Figure 2: Estimated State Government Governance, Leadership and Culture Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16	29
Figure 3: Estimated State Government Early Child Development Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16	29
Figure 4: Estimated State Government Education and Training Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16	30
Figure 5: Estimated State Government Healthy Lives Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16	30
Figure 6: Estimated State Government Economic Participation Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16	31
Figure 7: Estimated State Government Home Environment Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16	31
Figure 8: Estimated State Government Safe and Supportive Communities Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16	32

Key Terms and Abbreviations

AAR: Age-adjusted rate. This occurs when data is adjusted differently in different age brackets (e.g., the 0-4 age bracket is adjusted differently to the 25-34 age bracket).

AAR CI: Age-adjusted rate confidence interval. The range that true population values of an age-standardised rate would fall within 95% of the time if the analysis were repeated over multiple time periods.

ABS: Australian Bureau of Statistics.

ACARA: Australian Curriculum, Assessment and Reporting Authority.

AEDC: Australian Early Development Census.

Arrest: Introduction of an offender into the criminal justice system via arrest by Western Australia Police.

ASR: Age-standardised rate. This occurs when data across multiple age brackets are standardised in the same way.

ATAR: Australian Tertiary Entrance Rank.

ATSI: Aboriginal and Torres Strait Islander.

Caution: An official warning Western Australia Police can issue to offenders to avoid immediate introduction into the criminal justice system.

CDEP: Community Development Employment Programs.

Census: 2011 Census of Population and Housing.

DCPFS: Department for Child Protection and Family Support.

DTWD: Department of Training and Workforce Development.

DVIR: Domestic Violence Incident Report.

HealthTracks: WA Department of Health Reporting and Mapping database.

ICD-10-AM: International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification.

ILC: Indigenous Land Corporation.

Indicator: Factors within each Overcoming Indigenous Disadvantage area that can cause disadvantage and improve wellbeing for Indigenous people.

JJT: Juvenile Justice Team referral: A referral that Western Australia Police can issue to divert young offenders from the criminal justice system.

LCI: Lower confidence interval. The lower confidence interval is the lowest point in the range that true population values of an age-standardised or age-adjusted rate would fall within 95% of the time if the analysis were repeated over multiple time periods.

LGA: Local Government Area.

Measure: The number, rate or proportion used to quantify the extent of Indigenous performance on indicators.

MLCR: Module Load Completion Rate.

NAPLAN: National Assessment Program – Literacy and Numeracy.

NATSISS: National Aboriginal and Torres Strait Islander Social Survey.

NHMRC: National Health and Medical Research Council.

Number or N: The raw number of observations.

OID: Overcoming Indigenous Disadvantage.

Summons: The issuance of a summons by Western Australia Police for an offender to appear in court at a later date to answer to a crime. This process may avoid the offender receiving a criminal record.

Statistical Area Level 3 (SA3) regions: Kimberley and Pilbara regions as defined by the Australian Statistical Geography Standard.

Statistical Area Level 2 (SA2) sub-regions: The twelve lower level geographical regions within the SA3 regions, as defined by the Australian Statistical Geography Standard.

STI: Sexual Transmitted Infection.

UCI: Upper confidence interval. The upper confidence interval is the highest point in the range that true population values of an age-standardised or age-adjusted rate would fall within 95% of the time if the analysis were repeated over multiple time periods.

VET: Vocational Education and Training.

WACE: Western Australian Certificate of Education.

WAPOL: Western Australia Police.

Overview

Economic, social and cultural conditions in even relatively geographically close areas can differ greatly. National reports on Indigenous disadvantage compare Indigenous outcomes with non-Indigenous outcomes at the national or state level, or by broad geographical classifications, such as major cities versus regional, remote and very remote areas. While this approach provides a good national-level perspective of Indigenous disadvantage, it overlooks how much outcomes and conditions differ from region to region.

The present report, commissioned by the Government of Western Australia Department of Communities Regional Services Reform Unit, examines Indigenous outcomes and government service provision expenditure at a sub-regional level. The objective of this study undertaken by the Centre for Social Impact University of Western Australia (CSI UWA) is to examine whether there are differences in Indigenous government service provision expenditure and in outcomes between sub-regions of a broader geographical area.

To conduct this study, government service provision expenditure on Indigenous people in the Kimberley and the Pilbara in the 2015-16 fiscal year was collected from each government agency by the Regional Services Reform Unit. This was then classified by CSI UWA according to the Overcoming Indigenous Disadvantage (OID) area that it principally intended to affect, the type of service provider delivering the service, and whether it was Indigenous-specific or mainstream expenditure. The information provided was used to apportion the expenditure to the most relevant service delivery geography that could be ascertained.

Outcomes data were collected from various state and federal government agencies and regulatory bodies at the Statistical Area Level 2 (SA2) level of geographic disaggregation and collated into a format useful for comparison and analysis.

We find that:

- Government expenditure tends to be higher in areas with poorer outcomes. Put another way, expenditure is generally higher in regions of higher need.
- Sub-regions in the Kimberley tend to have higher per capita expenditure than those in the Pilbara. We attribute this principally to higher need and increased service provision costs associated with remoteness and dispersed communities.
- The distribution of expenditure by OID area differs in the Kimberley and the Pilbara when compared with the national landscape.

Based on our findings and the processes followed in collecting, collating and analysing the data, we recommend that:

- Sub-regional analysis of government expenditures and outcomes in the Pilbara and the Kimberley (and more generally through Western Australia) continues to occur, with the present results serving as a baseline or reference point for future analyses.
- A Western Australian Indigenous outcomes framework is developed to provide a transparent monitoring and reporting structure and process to judge whether progress is made in overcoming Indigenous disadvantage.
- Individual service providers should collect outcomes data in line with the outcomes framework in order to measure the impact of their programs and services.
- Comprehensive expenditure data is held in a standardised format.

The present analysis is subject to many caveats, including that the:

- Analysis presented is for a single point in time and not longitudinal in nature, making inference regarding the direction of causation problematic.
- Timing of the expenditure and outcomes data are not always directly comparable.
- Outcomes data is not always collected with direct reference to the population that access the services offered (e.g., outcomes may not be directly linked to particular expenditure patterns).
- Confounding and extraneous factors that may affect the relationship between outcomes and expenditure (such as external economic conditions) are not identified and are not controlled for in the analysis.

Nevertheless, the report has made important strides in the analysis of Indigenous outcomes and expenditure, presenting for the first time a comprehensive overview of OID outcome indicators at the sub-regional level and the levels of government expenditure linked to these OID areas.

The report, therefore, provides an important platform for future analyses of whether, in a particular region, we are making positive strides to reducing Indigenous disadvantage and if government expenditure is acting effectively to close the gap.

Introduction

The present report, commissioned by the Government of Western Australia Department of Communities Regional Services Reform Unit, and undertaken by the Centre for Social Impact University of Western Australia (CSI UWA) presents a sub-regional analysis of government direct service provision expenditure on Indigenous peoples together with Indigenous outcomes in the Kimberley and the Pilbara regions of northern Western Australia.

Government direct service provision expenditure on Indigenous peoples refers to State and Commonwealth Government expenditure that, based on information provided by the relevant government funding department, is attributable to a particular service that reached an area in which Indigenous peoples could access the service. Sub-regional analysis utilises Statistical Area 2 (SA2) regions according to the Australian Statistical Geography Standard (ASGS). SA2 regions have an average population of 10,000 people nationally (range: 3,000-25,000 people). Unless otherwise specified, the present analysis of expenditure is on a per capita basis to facilitate comparison across regions.

Indicators for Indigenous outcomes are based on the Productivity Commission OID report (SCRGSP 2016), with sub-regional data collected and collated from a range of sources, including Australian Bureau of Statistics (ABS) publications, national regulatory authorities, and individual government departments.

This report presents findings on State and Commonwealth Government expenditure and Indigenous outcomes within the Pilbara and the Kimberley by SA2 region and OID area. The report does not undertake a broader comparative analysis of outcomes in the Pilbara and the Kimberley against outcomes for other areas in Western Australia or against those for Australia as a whole.

The evidence gathered is used to assess patterns of Indigenous disadvantage and evaluate the extent, nature and coverage of services to Indigenous peoples within the Pilbara and the Kimberley. The report also presents a comparative analysis of government expenditure and outcomes and compares findings to those of similar analyses in the literature. Implications for future government investment and policy are discussed.

The findings and accompanying analysis should be read against the scope of the study and the availability and nature of the data utilised.

- Only government expenditure on Indigenous people related to direct service provision was included in the analysis of expenditure. Expenditure that is not related to direct service delivery is excluded from the study.
- Expenditure data were collected from government funding agencies for the 2015-16 fiscal year while outcomes data were collected from national sources and for the latest years in which data was available.
- Data were not available at the SA2 level of geographic disaggregation for all outcome measures utilised.

As the analysis of outcomes and expenditures presented is for a single point in time (and not assessed over time) and no account is taken of various factors other than government

expenditures that will influence outcomes, direct causal links between expenditures and outcomes cannot be established. In addition, population-level figures do not directly capture the outcomes of service recipients. For all these reasons, attribution of positive (or negative) outcomes to a given program or service is not possible. The present study, however, can be used to provide a baseline set of results for future analyses of trends and this represents the enduring contribution of the study. The extension of the study into future years combined with the direct incorporation of confounding factors will provide a stronger platform for the analysis of links between government expenditure and outcomes.

The data exhibit a relatively high variation in direct service provision government expenditure and outcomes within and between regions in the Kimberley and the Pilbara.

In terms of direct service provision expenditure, we find that SA2s in the Kimberley have generally higher per capita government expenditure than those in the Pilbara. This may be attributed to a number of factors including an increased cost of service delivery associated with increased remoteness and a greater number of dispersed communities together with higher levels of need. It may also be the case that a higher Indigenous population in the Kimberley means that Indigenous-specific services may become more 'viable' across more regions. As a result, a threshold level of demand is passed across more regions in the Kimberley as compared with the Pilbara. There may also be a potential "crowding out" of government expenditure by mining company and native title body expenditure in the Pilbara.

At an Australia-wide level, the largest proportion of State and Commonwealth Government expenditure is allocated to the Safe and Supportive Communities OID area. In the Kimberley and the Pilbara, the Healthy Lives OID area attracts the greatest share of that expenditure.

In terms of outcomes, SA2s in the Pilbara region have somewhat higher OID outcomes than those in the Kimberley. In part, this result is explained by a 'resource sector' effect, with a link between direct and immediate resource sector activity, economic participation outcomes and improved outcomes in a number of OID areas.

With regard to the relationship between direct service provision government expenditure and outcomes, we find that government expenditure is higher in regions with lower OID outcomes. While this relationship is subject to many caveats, which are discussed below in the results, it can, in large part, be taken as reflecting the fact that government expenditure responds to areas of highest need. The variation in patterns of expenditure and outcomes in the Kimberley and the Pilbara regions of Western Australia serve to highlight the differences in needs for services at the sub-regional level.

This report makes a significant contribution to the existing evidence base, emphasising the value of sub-regional analysis for the framing of policy and government spending. The findings can also be utilised to provide a baseline for future analysis of whether we are closing the gap in Indigenous outcomes across the regions in which Indigenous people live.

The report is divided into four sections. Section 1 provides an outline of the methodology used to estimate direct service provision expenditures and outcomes at the sub-regional level in the Pilbara and the Kimberley. Section 2 presents patterns of expenditure by government jurisdiction, OID area and government department. In Section 3, OID outcomes

are presented by SA2 area and the relationship between expenditure levels and outcomes is highlighted.

Finally, we make recommendations for future data collection and investment. Selected maps displaying government expenditures and outcomes at a sub-regional level are presented at Appendix 3 and are online at www.regionalservicesreform.wa.gov.au.

Methodology

The collection, processing and analysis of data comprised two components:

- 1) Commonwealth and State Government Indigenous direct service provision and income support expenditure.
- 2) Indigenous outcomes adapted from the seven OID areas in the Productivity Commission's OID report (SCRGSP 2016): Governance, Leadership and Culture; Early Child Development; Education and Training; Healthy Lives; Economic Participation; Home Environment; and Safe and Supportive Communities.

Expenditure data

The scope of the expenditure analysis was Western Australian Government and Australian Government expenditure on services and program grants for Indigenous people in the Kimberley and the Pilbara that could be attributed to the OID areas. State government agencies involved in the delivery of Indigenous-specific services were requested to provide data for all relevant expenditure using a template developed by the Regional Services Reform Unit to document related expenditures for the 2015-16 fiscal year. Not all data received was provided using the required template and there were some inconsistencies in terms of the geographical boundaries used.

Several processes were undertaken to transform the expenditure data received into a format appropriate for analysis. The geographical reach of each service was estimated based on information supplied on the service delivery area, the location of the service delivery agencies and relevant program descriptions. Though extensive effort was undertaken to capture realistic service reach, ascertaining the exact geographic coverage of services was challenging as the contract databases maintained by each government agency did not hold comprehensive information on this topic.

Services were categorised based on whether it was a 'mainstream' service or an Indigenous-specific service. Service providers were classified into one of four types: Commonwealth, State/Local Government, Non-Government or Aboriginal Corporation. The OID focus area for each service was identified using program description, funding agency and service provider information.

Expenditure for mainstream services was apportioned to the Indigenous population in each SA2 sub-region. For most services, the apportioning was performed using the size of the Indigenous population of the region relative to the overall population of the region. However, service utilisation data was used in cases where the number of Indigenous people using the service was known. Specifically:

- The proportion of Indigenous students was used to apportion school budget expenditure.
- The proportion of Indigenous children in care in 2015 was used to apportion Department for Child Protection and Family Support out-of-home care services expenditures.
- The percentage of Indigenous clients was used to apportion expenditure on Community Legal Services funded by the Department of Commerce.

- WA Country Health Service and Department of Corrections services that provided Indigenous utilisation information were apportioned using utilisation rates. Services funded by these departments that did not have Indigenous utilisation information were apportioned using the Indigenous population within the service delivery area.
- The number of Indigenous prisoners and Indigenous youth with community corrections orders were used to apportion operational expenditure by the Department of Corrections on regional prisons and youth justice services.

The following categories of expenditure were excluded from the data:

- National programs where it was not possible to determine whether the program reached the Kimberley or the Pilbara. This occurred when the program did not involve direct service provision, did not identify expenditures allocated to the Kimberley or the Pilbara, and/or was delivered by a service provider in another state.
- Infrastructure expenditure.
- Expenses related to maintenance and depreciation of assets.
- Scholarship schemes where the Kimberley and the Pilbara take-up information was unavailable.
- Services where no expenditure figure was provided.
- Mainstream expenditure which could not reasonably be deemed to contribute to any of the OID measures (such as Defence spending).
- Expenses outside the region such as head office costs, administration expenditure and salary expenses in government agencies.

As a result of these exclusions, the focus of this analysis is on direct service provision government expenditure rather than total government expenditure.

The report includes an analysis of Indigenous direct service provision government expenditure (Commonwealth and State Government) by the geographic distribution in the Kimberley and the Pilbara, how it is targeted towards each area of Indigenous disadvantage, and the extent to which each functional area of government is involved in direct service provision. Appendix 2 includes detailed government expenditure figures (Figures 2-8). Maps of sub-regional expenditure patterns are included in Appendix 3 (maps 28-36).

Outcomes data

The outcomes component of this project involved the collection and analysis of indicators adapted from the Productivity Commission's OID report in the Kimberley and the Pilbara. These indicators were used to identify the gap between Indigenous and non-Indigenous people across the seven key outcome areas (SCRGSP 2016).

Where possible, these indicators were assessed at the Statistical Area Level 2 (SA2) geographic level. This involved: gathering data from various State and Commonwealth government agencies, relevant regulatory authorities and the Australian Bureau of Statistics; aggregating it to the appropriate geographic level; and analysing the differences in outcome performance across the SA2s. Outcome performance at the SA2 level is also compared to state-level Indigenous and non-Indigenous outcomes.

Data for each outcome measure were provided as either:

- A rate or age-standardised rate (ASR) or age-adjusted rate (AAR) – e.g., ASR per 100,000 person years of hospitalisations.
- A proportion or percentage – e.g., the proportion of babies born with low birthweight in a given year.
- Raw numbers that can be easily converted into a proportion – e.g., the number of people needing assistance with core activities and the number of people not needing assistance with core activities.

Over 150 measures from the Productivity Commission OID report (SCRGSP 2016) were assessed. Of these, 28 key measures of Indigenous outcomes by sub-region have been presented in maps in Appendix 3. The choice of the key 28 measures to prioritise was based on the WA Department of Aboriginal Affairs Warehouse Project Outcomes Framework, which was provided to the research team by the Regional Services Reform Unit to guide the mapping process. Appendix 2 outlines the indicator selection in greater detail.

To provide a snapshot of outcomes by sub-region for each OID area, a composite rank for each OID area was created. Indigenous outcomes for each SA2 were ranked relative to the other SA2s for each OID measure. These rankings for each measure were averaged for all measures within a broad OID area to create a 'score' for each SA2. These scores were ranked and are presented in Table 3 in the OID outcomes component of this report. While the use of a ranking system such as that employed summarises large amounts of data succinctly, it is important to note that it assigns equal weight to each measure and focuses on relative, rather than absolute, difference.

Usefulness of the available data

Sub-regional (SA2-level) data were sourced for the vast majority of measures. Therefore, the present analysis is useful for planning and evaluating government-funded services as it represents, to our knowledge, the first comprehensive, publicly available combined expenditure and outcomes analysis conducted at the sub-regional (SA2) level.

The needs of populations, both in terms of types of services provided and the extent of service provision differ from region to region (Pritchard and McManus 2000). These regional differences occur for a number of reasons, such as differing economic, social and cultural needs (Dockery 2010), proximity to services and employment opportunities (Pritchard and McManus 2000), and differences in social capital, that is, social networks, norms and trust (Putnam 1993). Undertaking analysis at the sub-regional level, helps to identify the particular needs of each region and target services to meet these needs.

Existing analyses of Indigenous expenditure and outcomes have been conducted at high levels of geographic disaggregation. For example, the Prime Minister's Closing the Gap Report considers Indigenous wellbeing measures at the state or national level with geographic remoteness disaggregated into major cities, regional Australia and remote Australia (Commonwealth of Australia 2017). Similarly, the Overcoming Indigenous Disadvantage Report (from which the outcome domains in the present analysis are derived) reports at the national and/or state level, or geographic remoteness disaggregated into major cities, inner regional, outer regional, remote, and very remote Australia (SCRGSP 2016).

The present report extends the existing analysis by providing expenditure and outcomes at the sub-regional level.

To ensure rigorous evaluation of government Indigenous expenditure and Indigenous outcomes, we present expenditure data on a per capita basis. This is because presenting total expenditure figures, as several reports do (Hudson 2016; Government of Western Australia Department of the Premier and Cabinet 2014), does not provide an accurate picture of the level of services provided relative to the size of the Indigenous population.

In addition, the number of services and service providers in a given region is often used to illustrate service duplication and expenditure waste (Government of Western Australia Department of the Premier and Cabinet 2014; Shanks 2009; Hudson 2016). There are significant methodological challenges with this approach, including: having no baseline measure for what is an 'appropriate' number of services and service providers; difficulties distinguishing between services and grants; and problems in analysing the geographic coverage for a service, utilisation of services or outcomes achieved by the services. The present analysis involved assessment of each service expenditure to determine whether it was targeted towards an OID area, its geographic reach (rather than just the location in which it is delivered), and elements of its nature such as the agency it was delivered by and whether it was mainstream or Indigenous-specific.

Accordingly, the expenditure data presented here are directly attributable to addressing Indigenous disadvantage, allocated to a definitive service delivery area, and considered on a per capita basis. Outcomes data are gathered for all OID areas at the SA2 level. This ensures a stronger foundation on which to evaluate expenditure and outcomes.

The absence of sub-regional analysis of expenditure and outcomes in the extant literature means that the existing evidence does not fully support efficient investment and service delivery processes as service delivery may not be aligned to particular region's needs. Further, the lack of consideration of outcomes at the sub-regional level means that the impact of expenditures on outcomes achieved is not known. The present analysis of expenditure and outcomes at the sub-regional level allows us to begin to evaluate whether expenditure is going to areas of need and, over time, achieving better outcomes at the local level.

The analysis below elaborates on the usefulness of this data for future investment policy decisions in the Kimberley and the Pilbara.

Limitations of the available data

There are a number of limitations in the expenditure and outcomes data used in this study.

Most expenditure datasets were provided by individual state government departments. Not all data were supplied at the same level of completeness and not all agencies interpreted terms in precisely the same way. CSI UWA and the Regional Services Reform Unit attempted to clarify inconsistencies in interpretation with agencies and fill gaps where they were evident, but some limitations remain and the expenditure data as a whole are subject to the quality of each agency's data.

In terms of Commonwealth expenditure data, every attempt was made to eliminate double-counting problems where Commonwealth funding was provided to a state agency. Data for

Commonwealth transfer payments had to be estimated as detailed sub-regional patterns of transfer beneficiaries were not available.

While data for most outcome measures were obtained at the SA2 level, there were some measures for which this was not possible. The vast majority of the measures for which SA2-level data were not available were in the Governance, Leadership and Culture OID area, for which the only available data source was the National Aboriginal and Torres Strait Islander Social Survey (NATSISS). Due to relatively small sample sizes, state-level geography was the lowest geographic level for which that data was statistically reliable.

Similarly, data pertaining to children experiencing abuse and family violence (measures within the Safe and Supportive Communities OID area) were provided by Department for Child Protection and Family Support district boundaries, which were not compatible with the SA2 level of geography (see Map 26 in Appendix 3).

In terms of timeliness, many measures for the Economic Participation and Home Environment OID areas came from the 2011 Census of Population and Housing, while Healthy Lives measures are aggregated over five or ten year periods for statistical reliability.

The geographic and time-related inconsistencies listed here present some limitations to the present analysis which are outlined in the next section.

Limitations of the present analysis

A detailed summary of the caveats to the present analysis can be found in Appendix 1.

As the expenditure data pertains only to direct service provision, the full costs of service provision such as capital expenditure and administrative overheads are not captured. This data pertains to the 2015-16 fiscal year and was provided to the Regional Services Reform Unit by the state government agencies responsible for those expenditures.

Outcomes data, on the other hand, was collected from various state departments, federal regulatory agencies, and the Australian Bureau of Statistics. Due to issues around data availability, statistical reliability, and the need for suppression to maintain confidentiality, the outcomes data corresponds with different years and in some cases is aggregated over a number of years. Appendix 4 details the outcomes measures and their respective sources.

In summary, the limitations of the present analysis are:

- Scope: there are gaps in the expenditure and outcomes data.
- Causation: expenditure and outcomes data do not pertain to the same time periods.
- Attribution: outcomes are not collected for specific programs/expenditures and population-level measures will reflect changes in factors not related to the program or expenditure (such as economic conditions).

Expenditure Patterns

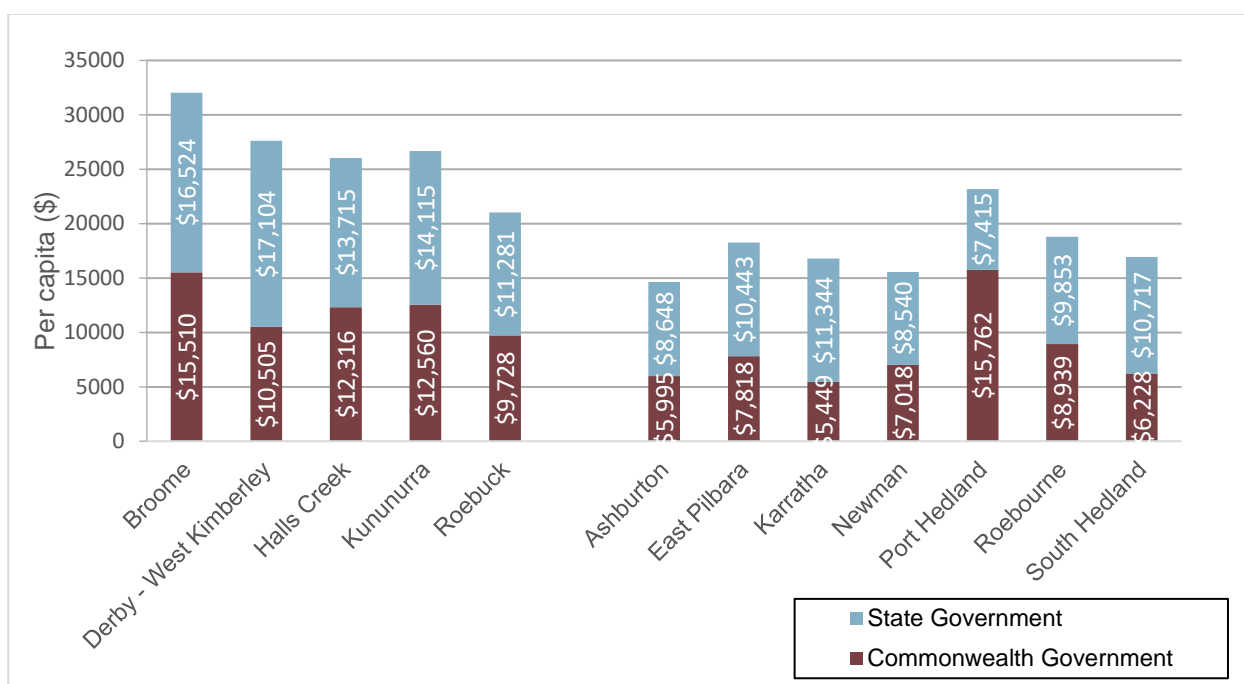
This section details the geographic distribution of Indigenous direct service provision expenditure (Commonwealth and State Government) in the Kimberley and Pilbara, how it is targeted towards each area of Indigenous disadvantage, and the extent to which each functional area of government is involved in direct service provision.

Overall, the total Commonwealth and State Government direct service provision expenditure apportioned per Indigenous person in the Kimberley and the Pilbara regions was \$23,722, for the 2015-16 fiscal year.

Government direct service provision expenditure on Indigenous people in the Kimberley and the Pilbara by SA2 region and government jurisdiction

Figure 1 below details the estimated Indigenous direct service provision expenditure per capita by jurisdiction across the 12 SA2 sub-regions in the Kimberley and the Pilbara. As can be seen below, expenditure was higher per capita across the SA2 sub-regions in the Kimberley than in the Pilbara. There are a number of possible reasons for this outcome. The most likely explanation for higher per capita expenditure in the Kimberley relative to the Pilbara is higher need. We discuss this below when examining OID outcomes in the two regions. A second possible explanation is that the cost of delivering services increases with remoteness, meaning that services in the Kimberley will, generally, cost more than in the Pilbara. A further possible explanation is simply based on population size. The Kimberley has a higher and more concentrated Indigenous population than the Pilbara and therefore provides a stronger platform for the delivery of services. Finally, it is possible that private industry, and particularly mining, spending in the Pilbara, under State Agreements or otherwise, replaces some level of government expenditure.

Figure 1: Estimated Indigenous Direct Service Provision Expenditure and Income Support Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), 2015-16



In the Kimberley, Broome (\$32,034) had the highest expenditure per capita (and overall) and Roebuck (\$21,009) the least. In the Pilbara, Port Hedland (\$23,177) had the highest expenditure per capita and Ashburton (\$14,643) the least. The relatively higher expenditure in Broome and Port Hedland may reflect service delivery models employed (these areas being service delivery hubs due to their high population concentration). Though substantial effort was taken to accurately capture service reach, as outlined above, the apportioning methods were not perfect due to limitations in the information held in agency contract databases. Consequently, the analysis does not capture people travelling into these regional hubs to receive services.

Examining the split of the government expenditure by jurisdiction, it appears that Commonwealth Indigenous direct service provision expenditure is directed more towards regional centres, namely Broome in the Kimberley and Port Hedland in the Pilbara. Overall, our data indicate higher expenditure by the State Government on Indigenous direct service provision expenditure than the Commonwealth Government. The Indigenous Expenditure Report (IER) (SCRGSP 2014) identified an approximately even split of State and Commonwealth total expenditure (i.e., not just direct service provision expenditure) on Indigenous people nationally. The present sub-regional analysis of service expenditure reveals that direct service provision is funded more by the WA State Government than the Commonwealth Government.

Government direct service provision expenditure on Indigenous people in the Kimberley and the Pilbara by SA2 region and OID area

The proportion of Indigenous direct service provision expenditure in each region attributed to each OID area is detailed in Table 1. Across the 12 SA2s, the Healthy Lives, Economic Participation and Education and Training OID areas receive the greatest shares of government expenditure. The Early Child Development and Governance, Leadership and Culture OID areas receive the lowest share of funding.

While there is slight variation across the SA2s, Indigenous direct service provision expenditure follows similar distributions across the OID areas. One exception is Port Hedland, where over half of the expenditure is attributed to the Healthy Lives OID area and substantially less (relative to the other SA2s) is spent on Safe and Supportive Communities and Economic Participation. This may reflect the creation of economic opportunities through mining industry investment in the regions. Expenditure on Home Environment appears to increase as a proportion of total expenditure with remoteness, reflecting the difficulty and expense of providing essential and housing services in remote areas.

On a national level, the greatest proportion of direct Commonwealth and State Government expenditure is spent on the Safe and Supportive Communities OID area, followed by Healthy Lives, Economic Participation, followed by Early Childhood and Education (considered as one domain) (SCRGSP 2014). The expenditure distribution across OID area presented in the IER is not directly comparable with the present analysis as it does not consider every domain and combines some domains.

Table 1: Value and Proportion of Estimated Indigenous Direct Service Provision Expenditure and Income Support Expenditure Per Capita (\$) attributed to each OID area in the Kimberley and Pilbara by Sub-Region (SA2), 2015-16

SA2	Governance, Leadership and Culture		Early Child Development		Education and Training		Healthy Lives		Economic Participation		Home Environment		Safe and Supportive Communities		Total	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
Broome	\$1,820	5.7%	\$1,357	4.2%	\$3,195	10.0%	\$12,506	39.0%	\$9,047	28.2%	\$92	0.3%	\$4,017	12.5%	\$32,034	100%
Derby – West Kimberley	\$1,212	4.4%	\$648	2.4%	\$4,383	15.9%	\$7,563	27.4%	\$6,735	24.4%	\$3,549	12.9%	\$3,520	12.7%	\$27,609	100%
Halls Creek	\$911	3.5%	\$237	0.9%	\$2,718	10.4%	\$7,962	30.6%	\$6,882	26.4%	\$2,606	10.0%	\$4,715	18.1%	\$26,031	100%
Kununurra	\$821	3.1%	\$551	2.1%	\$3,856	14.5%	\$8,241	30.9%	\$6,786	25.4%	\$2,048	7.7%	\$4,373	16.4%	\$26,676	100%
Roebuck	\$218	1.0%	\$40	0.2%	\$3,218	15.3%	\$2,790	13.3%	\$6,614	31.5%	\$3,739	17.8%	\$4,391	20.9%	\$21,009	100%
Ashburton (WA)	\$180	1.2%	\$266	1.8%	\$3,312	22.6%	\$2,001	13.7%	\$4,714	32.2%	\$2,460	16.8%	\$1,709	11.7%	\$14,643	100%
East Pilbara	\$416	2.3%	\$123	0.7%	\$2,026	11.1%	\$3,248	17.8%	\$4,733	25.9%	\$4,869	26.7%	\$2,846	15.6%	\$18,262	100%
Karratha	\$195	1.2%	\$98	0.6%	\$6,498	38.7%	\$3,453	20.6%	\$4,796	28.6%	\$73	0.4%	\$1,680	10.0%	\$16,794	100%
Newman	\$432	2.8%	\$93	0.6%	\$4,592	29.5%	\$3,921	25.2%	\$4,684	30.1%	\$18	0.1%	\$1,818	11.7%	\$15,558	100%
Port Hedland	\$558	2.4%	\$243	1.1%	\$1,833	7.9%	\$13,400	57.8%	\$4,706	20.3%	\$462	2.0%	\$1,976	8.5%	\$23,177	100%
Roebourne	\$1,042	5.5%	\$440	2.3%	\$2,662	14.2%	\$5,759	30.6%	\$4,843	25.8%	\$439	2.3%	\$3,608	19.2%	\$18,792	100%
South Hedland	\$504	3.0%	\$252	1.5%	\$4,094	24.2%	\$4,211	24.8%	\$5,109	30.1%	\$83	0.5%	\$2,692	15.9%	\$16,945	100%

However, it is interesting to note the proportionally lower level of expenditure in the Kimberley and the Pilbara on the Safe and Supportive Communities OID area and, in particular, the low proportion spent on the Early Child Development OID area in SA2s with greater remote populations, such as Roebuck and Halls Creek. Though the IER indicates that only 1.2% of government expenditure attributed to OID areas is allocated to early child development (SCRGSP 2014), the relatively lower proportion of expenditure in more remote areas is a potential OID area for increased government attention given the younger age profile of the Indigenous population. The younger age profile indicates a greater need for Early Child Development initiatives, particularly in light of the critical importance of interventions in early childhood to future outcomes across all OID areas (Heckman 2006; Chittleborough et al. 2016).

Government direct service provision expenditure on Indigenous people in the Kimberley and the Pilbara by SA3 region and functional area (government department)

Table 2 outlines the distribution of per capita State Government Indigenous direct service provision expenditure by government department. This should be interpreted with caution as it does not account for the different levels of cost associated with the services that different agencies typically provide (e.g., a health care service versus a community sports program), nor does it provide information about the nature of the expenditure (e.g., where it was spent, what it was spent on).

Patterns of expenditure across state government departments are different in the Kimberley relative to the Pilbara. The highest per capita level of expenditure from any state government department is by the Department of Health in the Kimberley. However, the next largest spend by a government department is by the Department of Education, which spends more per capita in the Pilbara than in the Kimberley. The Housing Authority spends more in the Kimberley than the Pilbara. Per capita expenditures on health and housing in the Kimberley may reflect the higher cost of providing services to the Kimberley, with its higher percentage of remote residents and communities.

What does this analysis contribute to the knowledge base?

This analysis contributes significantly to the knowledge base. In particular, it emphasises the need for sub-regional analysis of government Indigenous direct service provision expenditure. To our knowledge, this represents the first analysis of this type of expenditure across all of the SA2 regions of the Kimberley and the Pilbara that considers all OID areas.

Table 2: State Government Estimated Indigenous Direct Service Provision Expenditure Per Capita (\$) by department in the Kimberley and Pilbara 2015-16

State Government Department	Per Capita Indigenous Direct Service Provision Expenditure in the Kimberley (\$)	Per Capita Indigenous Direct Service Provision Expenditure in the Pilbara (\$)
Department for Child Protection and Family Support	\$4,377	\$3,907
Department of Aboriginal Affairs	\$497	\$304
Department of Commerce	\$93	\$97
Department of Corrective Services	\$6,339	\$4,995
Department of Education	\$15,408	\$24,394
Department of Health	\$27,048	\$17,749
Department of Local Government and Communities	\$242	\$787
Department of Regional Development	\$364	\$168
Department of Sport and Recreation	\$222	\$205
Department of Training and Workforce Development	\$126	\$263
Department of Transport	\$147	\$306
Disability Services Commission	\$748	\$1,499
Housing Authority	\$11,204	\$7,736
Mental Health Commission	\$2,141	\$1,375
Police Service (Western Australia Police)	\$3,784	\$3,175

The analysis highlights differences in per capita Indigenous direct service provision expenditure between the Kimberley and the Pilbara SA3 regions, with per capita expenditure in the Kimberley generally higher than the Pilbara. This is likely due to a combination of factors, including the higher cost of providing services to more remote areas (SCRGSP 2014), the higher Indigenous population in the Kimberley creating a greater concentrated demand for services and higher levels of service ‘viability’, and the higher level of (mining) industry expenditure on social outcomes in the Pilbara, which suggests that government may substitute out of expenditure in one area if there is greater expenditure by industry.

There are also notable differences in the per capita expenditure between SA2s and across government jurisdictions. While nationally the State Government and the Commonwealth Government contribute equally to direct Indigenous expenditure, sub-regional analysis reveals that, proportionally, Commonwealth expenditure is geographically targeted at regional centres such as Broome in the Kimberley and Port Hedland in the Pilbara. This has implications for expenditure planning in both jurisdictions.

We see that, compared to national figures, proportionally more Indigenous direct service provision expenditure in the Kimberley and the Pilbara is spent on the Healthy Lives, Economic Participation and Education and Training OID areas. This may reflect the different

needs of these regions, the relative balance of Commonwealth and state government responsibilities, or different expenditure decisions made by State jurisdictions.

What data is not available at regional level and SA2 level that should be collected? How should that be collected?

There are several limitations to the present analysis of expenditure that could be addressed with improved data collection processes. First, agencies should, as default, hold information about the service that each expenditure supports, such as its purpose, intended and maximum geographic reach, target population, the OID area it intends to effect and measures in which this effect should be measured.

The Indigenous Expenditure Report based 75 per cent of its expenditure figures on utilisation data, whereas due to the sub-regional analysis and first time nature of this report, programs that were not Indigenous-specific were in most cases apportioned by population. Indigenous utilisation data should be collected from service delivery organisations and recorded by the relevant government funding agencies in order to assess program reach.

However, as many Indigenous programs are delivered by small, non-government organisations (including Indigenous corporations and not for profit organisations), data collection can place a strain on the limited resources of these organisations (Flatau, Adams and Seivwright 2016). One option to mitigate this strain is to include an additional line item in funding contracts for outcomes measurement and reporting so that service delivery organisations can provide program outcomes to government funding agencies, particularly those for their Indigenous clients.

This approach presents many advantages, including the ability to set outcomes that are beneficial to both the funding and service delivery agencies, as well as the ability to report on the efficacy of a given expenditure (Callis, Flatau and Seivwright 2017).

What is the extent, nature and coverage of services in each region?

The present analysis provides insight into the extent, nature and coverage of services in terms of government Indigenous direct service expenditure across SA2s, government jurisdiction, OID areas, and functional areas (government departments).

We find that per capita Indigenous direct service provision expenditure is higher in the Kimberley SA3 region relative to the Pilbara, reflecting higher costs of service provision and higher demand for services.

Within the Pilbara, per capita expenditure is fairly evenly spread across the SA2s, with the exception of Port Hedland which is substantially higher. In the Kimberley, Broome has the highest per capita expenditure. Port Hedland and Broome can be viewed as the SA3-level equivalent of a capital city so it is logical that these SA2s would attract the highest per capita expenditure. The factor that makes the per capita expenditure higher in these two SA2s is the higher proportion of Commonwealth expenditure. This pattern may reflect that the State Government has more direct service delivery responsibilities (which take services to where residents are located), while the Commonwealth Government has historically been a funder rather than a service provider (which has potentially allowed Broome- and Port Hedland-based organisations to be disproportionately successful in securing funding).

In terms of spread across OIDA areas, we find that Healthy Lives, Education and Training, and Economic Participation attract the bulk of per capita Indigenous-specific expenditure. Safe and Supportive Communities also attracts a substantial proportion of the expenditure, but Governance, Leadership and Culture, Early Child Development and Home Environment receive proportionally less.

Overcoming Indigenous Disadvantage Outcomes

Over 150 measures from Productivity Commission OID report (SCRGSP 2016), were adapted to and collected at the sub-regional level, where available, or were otherwise presented at the regional and state level. These measures are categorised under the seven OID areas: Governance, Leadership and Culture; Early Child Development; Education and Training; Healthy Lives; Economic Participation; Home Environment; and Safe and Supportive Communities. Of these, 28 key measures of Indigenous outcomes by sub-region have been presented in maps. These key measures were selected for particular attention as they were included in the WA Progress against Closing the Gap report (Department of Aboriginal Affairs, 2015). Where these key measures were not available, a proxy was used.

A summary of the selected measures, detailing other prominent reports where they are featured is presented in Table 4 in Appendix 2. Maps can be viewed in Appendix 3 and online www.regionalservicesreform.wa.gov.au. The list of 150 measures is in Appendix 4.

Key outcomes indicators for the OID areas

Governance, Leadership and Culture indicators included Valuing Indigenous Australians and their Culture, Participation in Decision Making, Engagement with Services, Language Revitalisation and Maintenance, Indigenous Cultural Studies, Participation in Community Activities and Access to Traditional Lands and Culture. There were limited outcomes for this OID area available at the sub-regional level. The limited availability of local-level data on the Governance, Leadership and Culture OID area, which has been identified as critical to success in other domains, is an issue that should be addressed (Garling, Hunt, Smith and Sanders 2013). For example, service delivery agencies with services aimed at this OID area should be collecting program-level data and government should work with community leaders to collect local-level data pertaining to Governance, Leadership and Culture.

Indigenous Protected Areas in the Kimberley and the Pilbara are a measure for the Access to Traditional Lands and Waters indicator, and presented as Map 1 in Appendix 3.

Discharges against medical advice were used as a measure of Engagement with Services. The rate per 100,000 Indigenous people of discharges against medical advice of Indigenous people in the Roebuck SA2 (1,204) was much lower than the State average for Indigenous people (2,365) and significantly lower than the rate in the Kununurra SA2 (4,648).

Number of Indigenous children in their first year of schooling speaking an Indigenous language is a measure of Language Revitalisation and Maintenance. In the East Pilbara, Roebuck, Halls Creek and Kununurra SA2 regions, over 80 per cent of Indigenous children in their first year of schooling spoke an Indigenous language, well above the mean of 21 per cent for Indigenous children in the whole of the State. Rates were below this mean in the South Hedland (5 per cent), Broome (12 per cent) and Ashburton (16 per cent) SA2 regions.

Early Child Development comprised measures for infant and child health and education. The OID indicators for the Early Child Development OID area include Antenatal Care, Health Behaviours during Pregnancy, Teenage Birth Rate, Birthweight, Hospitalisations, Injury and Preventable Disease, Young Child Mortality and Early Childhood Education.

The perinatal mortality rate was used as a measure for the Young Child Mortality indicator. The rate of perinatal deaths per 1000 births to Indigenous mothers was lowest in the South Hedland (5.9), Ashburton (11.6) and Broome (14.6) SA2 regions which were all below the rate for Western Australian (20.0) births to Indigenous mothers. The Roebourne (63.6) and Port Hedland (55.6) SA2s had the highest rates of perinatal deaths per 1000 births to Indigenous mothers in the Kimberley and Pilbara. A visual display of these rates can be seen in Map 2 in Appendix 3.

Kindergarten attendance rate was used as a measure for the Early Childhood Education indicator. The proportion of Indigenous children attending kindergarten 90 per cent or more of the time was highest in the Newman (54 per cent), Broome (50 per cent) and South Hedland (45 per cent) SA2s; all of these regions performed higher than the rate for Indigenous children in the whole of the State (40 per cent). The proportions of Indigenous children attending kindergarten 90 per cent or more the time in the Roebuck (7 per cent) and East Pilbara (5 per cent) SA2s was much lower than the proportion of Indigenous children in the State (see Map 3 in Appendix 3).

The proportion of babies born with a birthweight of less than 2,500 grams was used as a measure for the Birthweight indicator. The proportion of babies born with low birthweight to Indigenous mothers in the Karratha (7.8 per cent), Newman (8.6 per cent) and Roebuck (9.5 per cent) SA2s were lower than the proportion for the State (13.4 per cent). The rate for the Port Hedland (25.7 per cent) SA2 was much higher than the proportion of babies born with low birthweight to Indigenous mothers across the State. The proportions for the other SA2s are visually presented in Map 4 in Appendix 3.

Education and Training indicators included Attendance Rates, Transition from School to Work, Reading, Writing and Numeracy, Year 12 Attainment, and Post-Secondary Education Participation and Attainment. Maps 5-12 in Appendix 3 detail the Indigenous performance for these measures across the regions.

The proportion of students who achieved the national minimum standard for reading, writing and numeracy in the year 5 NAPLAN tests were used as measures for the indicator Reading, Writing and Numeracy. See maps 5-7 in Appendix 3 for Indigenous outcomes in each SA2. The proportions of Indigenous year 5 students who achieved at or above the minimum standard for numeracy were higher in the Roebourne (88 per cent) and Port Hedland (83 per cent) SA2s than the proportion of Indigenous year 5 students in Western Australia (71 per cent), whereas the proportions in the Halls Creek (32 per cent) and Roebuck (39 per cent) SA2s were much lower (see Map 7 in Appendix 3).

The proportion of Indigenous students in the Kimberley and the Pilbara that graduated high school with Certificate II or higher and/or ATAR of 55 or higher was used as a measure for the indicator Year 12 Attainment. Due to the small cohorts of Indigenous year 12 students in the SA2s, data was not available or suppressed for many of the SA2s. See Map 8 in Appendix 3 for the available data.

The proportion of Indigenous people in the Kimberley and the Pilbara aged 20-24 with at least a Year 12 or Certificate II level of education was also used as a measure for the Year 12 Attainment indicator (see Map 9 in Appendix 3).

Primary and secondary attendance was used as a measure of the Year 1-10 Attendance indicator. See maps 10 and 11 in Appendix 3 for the attendance rates of Indigenous students across the 12 SA2s. The proportion of Indigenous secondary students attending 90 per cent or more was higher in the Broome (29.6 per cent), South Hedland (28.5 per cent) and Ashburton (27.3 per cent) SA2s than the Western Australian rate (25.7 per cent). The proportion of Indigenous secondary students attending 90 per cent or more were lowest in Roebourne (0 per cent), East Pilbara (6.0 per cent), Halls Creek (7.3 per cent) and Roebuck (7.3 per cent) as can be seen in Map 11 in Appendix 3.

Vocational Education and Training (VET) module load completion rate (MLCR) was used as the measure for the Post-Secondary Education – Participation and Attainment indicator. The VET MLCR for Indigenous students in the Port Hedland, Ashburton and South Hedland SA2s were all above 80 per cent, which is higher than the VET MLCR for Indigenous students in the State (77 per cent). The VET MLCR for Indigenous students in the Roebuck (30 per cent) SA2 was much lower than the State rate. Map 12 in Appendix 3 displays the rates for the sub-regions in the Kimberley and the Pilbara.

Healthy Lives includes indicators for Potentially Preventable Hospitalisations, Potentially Avoidable Deaths, Mental Health, Disability and Chronic Disease, Access to Primary Health Care, Tobacco Consumption and Harm, Obesity and Nutrition, Oral Health and Life Expectancy.

Potentially preventable hospitalisations (as determined by the ICD-10-AM) including acute, chronic and vaccine preventable conditions was used as a measure for the indicator Potentially Preventable Hospitalisations. The age standardised rates of potentially preventable hospitalisations per 100,000 Indigenous persons in the Roebuck (6,724), East Pilbara (7,150), Karratha (8,677) and Newman (9,560) SA2s were lower than the rate per 100,000 Indigenous people in Western Australia (10,682). Potentially preventable hospitalisation rates per 100,000 Indigenous people were notably higher than the State rate in the Port Hedland (19,443) and Ashburton (18,504) SA2s. Rates for the other SA2s in the Kimberley and the Pilbara are displayed visually in Map 13 in Appendix 3.

Mental health occasions of service were used as a measure of the indicator Mental Health. It is not ideal to use occasions of service as a measure of mental health outcomes, as wellbeing or occasions of service reflect not only the state of mental health and wellbeing, but also the availability of services and the take-up of these services. The age standardised rates of mental health occasions of service per 100,000 Indigenous people in the East Pilbara (3,414), Halls Creek (35,801) and Derby-West Kimberley (48,419) SA2s were much lower than the rate per 100,000 Indigenous people in the State (83,154). The reduced rates, particularly in the East Pilbara SA2 may reflect the number of mental health services actually available in the regions. Mental health occasions of service rates per 100,000 Indigenous people in the Port Hedland (320,791), Newman (245,269) and Karratha (237,938) were much higher than the Western Australian Indigenous rate. See Map 14 in Appendix 3 for a visual depiction of these outcomes of all SA2s in the Kimberley and the Pilbara.

As many of the indicators used for the Healthy Lives OID area are based upon hospitalisations, higher rates of hospitalisations may reflect availability of services rather than need. The Holman Review (Holman and Joyce, 2014) found that the Pilbara was relatively

underfunded in terms of government health expenditure. Therefore, the relatively high performance of the Pilbara region on health outcomes does not necessarily reflect the health needs of the region and may instead indicate lower availability of services.

Economic Participation included the indicators Employment, Home Ownership, Income Support, and Household and Individual Income.

The employment rate, unemployment rate, proportion of employed persons employed full time and labour force participation rate were used as measures for the Employment indicator. Maps 15-18 in Appendix 3 visually depict measures of the Employment indicator.

Median total personal income was used as a measure for the Household and Individual Income indicator. Median total personal income for Indigenous people in the Port Hedland (\$905), Karratha (\$861) and Ashburton (\$779) SA2s were more than twice the median amount for Indigenous people in Western Australia (\$348). These income levels for Indigenous people were in fact higher than the median total personal income level of non-Indigenous people in Western Australia (\$672). This reflects the impact of mining activity in the Pilbara. In comparison, the median total personal income levels of Indigenous people in the Halls Creek (\$266), Roebuck (\$271) and Derby-West Kimberley (\$278) SA2s in the Kimberley were lower than the median level for Indigenous people in the State. This high degree of within-group income inequality can be seen in Map 19 in Appendix 3.

Indigenous people receiving Newstart Centrelink payments were used as a measure for the Income Support indicator. This data was provided by the Department of Prime Minister and Cabinet at the sub-SA3 level and is visually depicted in Map 20 in Appendix 3.

The proportion of households with Indigenous persons who owned housing outright was used as a measure of the indicator Home Ownership. See Map 21 in Appendix 3 for a visual display across the 12 SA2s.

Home Environment includes the indicators Overcrowding in Housing and Rates of Disease Associated with Poor Environmental Health.

Households that require an extra bedroom based on the Canadian National Occupancy Standard (CNOS) was used as a measure for the Overcrowding in Housing indicator. The Port Hedland (8 per cent) SA2 had the lowest proportion of households with Indigenous persons that need at least one additional bedroom, much lower than the proportion of Indigenous households throughout the State (14 per cent). Proportions were much higher than the Western Australian proportion of Indigenous households in need of an extra bedroom in the East Pilbara (49 per cent), Halls Creek (45 per cent) and Roebuck (39 per cent) SA2 regions. Notably, these regions have much higher proportions of residents living in remote communities. The proportion of households with Indigenous persons that need at least one or more extra rooms for all SA2s are shown in Map 22 in Appendix 3.

Environmental-related hospitalisations were used as a measure for the Rates of Disease Associated with Poor Environmental Health indicator. The age standardised rates of hospitalisations for environmentally-related conditions per 100,000 Indigenous persons in the Roebuck (4,445) and Karratha (4,783) SA2 regions were much lower than the rate per 100,000 Indigenous people in Western Australia (5,550). In the Derby-West Kimberley (10,770), Port Hedland (9,700) and South Hedland (9,570) SA2s, the rates of environmental-related hospitalisations per 100,000 Indigenous people were much higher than that of the

State. As in Healthy Lives indicators, rates may be more reflective of the availability of services than underlying prevalence. See Map 23 in Appendix 3 for the visual presentation of these rates for all SA2s.

Safe and Supportive Communities indicators include Substance Use and Harm, Juvenile Diversions, Repeat Offending, Community Functioning, Substantiated Child Abuse and Neglect, Family and Community Violence and Imprisonment and Juvenile Detention.

Alcohol-related hospitalisations were used as a measure for the Substance Use and Harm indicator. The age standardised rates of alcohol-related hospitalisations per 100,000 Indigenous persons in the Karratha (42) and Roebuck (44) SA2s were lower than the rate per 100,000 Indigenous people in Western Australia (63). Alcohol-related hospitalisation rates per 100,000 Indigenous people in the Port Hedland (202), Kununurra (107) and Newman (100) SA2s were much higher than the State rates (see Map 24 in Appendix 3). These high rates of alcohol abuse in the regions of high economic activity (Port Hedland and Newman) may be in part linked to the high alcohol use by employees in the mining sector, which is consistent with the literature (Carrington, Hogg, and McIntosh 2011; Midford et al. 1997; Storey 2001). Alternatively, it may be linked to the movement of people with significant alcohol and drug issues to major cities where alcohol is available (given the widespread use of alcohol restrictions in remote communities) and hospitals and services are located.

Data regarding the proportion of interactions with police that resulted in actions other than arrest was used as a measure of the Juvenile Diversions indicator. The proportions of Indigenous juvenile interactions with police that were diverted to the juvenile justice team (JJT) or cautioned, rather than resulting in arrest were higher in most SA2 regions than the proportion of juvenile diversions for Indigenous youth in the State (40.4 per cent). The proportion of juvenile diversions for Indigenous youth in the Roebuck (68.5 per cent), Halls Creek (58.2 per cent) and Derby – West Kimberley (53.4 per cent) SA2s were notably higher than the WA average, whereas those for the Port Hedland (27.7 per cent) and South Hedland (31.9 per cent) were much lower. The proportion of juvenile diversions for Indigenous youth in the Roebuck SA2 was slightly higher than the non-Indigenous proportion of juvenile diversions for the State (67.7 per cent). This data is shown in Map 25 in Appendix 3.

The rate of adult arrests was used as a measure for the Community Functioning indicator. These rates for the SA2s are presented in Map 26 in Appendix 3.

Children in the Department for Child Protection and Family Support CEO's care were used as a measure of the indicator Substantiated Child Abuse and Neglect. This data was provided by the district boundaries used by the department. This data is presented in Map 27 in Appendix 3.

The variation in outcomes across the SA2 regions detailed in the above paragraphs and attached maps, demonstrates the need for sub-regional analysis to drive effective policy planning. Moreover, many programs are delivered by local not-for-profit and Indigenous organisations and detailed knowledge of outcomes at the sub-regional level is essential for program selection, design and delivery.

What are the current patterns of outcomes by SA2 area and ODI area?

To examine the patterns of outcomes across the SA2s, a composite rank was created for each ODI area based on the ranks for each indicator in that area. Only measures that were

available at the SA2 level or below SA3 level were included in the composite rank. For the full list, see the 'Rank' column in Appendix 4.

Performance in each measure was ranked first to last, and then the ranks for each measure in its respective OID area were averaged to determine the overall outcomes position of the SA2 within the Kimberley and the Pilbara for each OID area. Each measure was given equal weighting in creating the rank. 'Standard competition ranking' was used: that is where multiple SA2s had the same level of Indigenous performance in a measure, they were given the same rank and the rank of the next best SA2 would be the number of SA2s that performed better plus one. For example, as can be seen in Table 3, the Derby-West Kimberley and the Halls Creek SA2s both have a Governance, Leadership and Culture rank of 6, so the Ashburton SA2 is ranked 8. For measures that could not be disaggregated to the SA2 level, each SA2 within the geographical area the measure covered was given the same rank. In cases where measures were only available at the LGA level, Indigenous performance was attributed to the SA2s that best fit in the LGA region.

Indigenous performance rankings from highest outcomes (1) to lowest outcomes (12) for each OID area are presented in Table 3.

Table 3: Sub-Region (SA2) performance ranking in OID areas

SA2	Governance, Leadership and Culture	Early Child Development	Education and Training	Healthy Lives	Economic Participation	Home Environment	Safe and Supportive Communities
Karratha	5	3	4	1	1	1	6
Newman	9	2	2	5	2	3	8
Ashburton	8	1	5	3	4	5	1
Port Hedland	3	7	1	12	3	2	5
South Hedland	11	4	6	7	6	3	4
Roebuck	1	8	9	1	11	8	2
Roebourne	3	6	7	8	7	7	7
Broome	12	5	3	10	5	6	9
East Pilbara	2	9	11	3	8	11	3
Derby –West Kimberley	6	11	10	6	10	10	10
Kununurra	9	10	8	11	9	9	12
Halls Creek	6	12	12	9	12	11	11

Note: OID area ranks are calculated based on the average rank for each measure in the OID area. Sub-Regions (SA2) are ordered by overall average rank.

Overall, Indigenous outcomes were better for the SA2s in the Pilbara. This is consistent with the rankings in the *Dropping Off The Edge* report (Vinson, Rawsthorne, Beavis and Ericson 2015) which looked at rankings across all LGAs for all Australians. However, Vinson et al. (2015) did not disaggregate by Indigeneity. In both *Dropping Off The Edge* and the current analysis, regions in the Kimberley were the most disadvantaged. In the current analysis the Karratha SA2 was, on average, the highest ranked SA2 in the Kimberley and Pilbara. In both the current analysis and the *Dropping Off The Edge* report, the Halls Creek SA2 (and LGA) was the most disadvantaged region in the Kimberley and Pilbara.

As can be seen in Table 3, SA2s were generally similarly ranked across multiple OID areas, although there remains a degree of within-subregion difference.

The correlations between the OID area rankings are detailed in Table 5 in Appendix 2. Better Early Child Development, Education and Training, Economic Participation and Home Environment outcomes ranks were all positively correlated with each other, reflecting the strong links between these particular outcomes.

What are the correlations between OID expenditure distribution and OID indicators?

Overall, lower levels of per capita Commonwealth and State Government expenditure were associated with higher overall ranking of outcomes ($r_s = -.76$, $p < .01$). Table 6 in Appendix 2 details the correlations between expenditure and outcomes for OID areas.

All statistically significant correlations between expenditure and outcomes within the OID areas were negative, that is at the OID area level better outcomes were associated with lower levels of expenditure. Per capita Home Environment expenditure was higher in SA2s with lower ranks for Early Child Development, Education and Training, Economic Participation and Home Environment outcomes. This suggests a high level of housing support is appropriately allocated to high need regions. Similarly, per capita Safe and Supportive Communities Expenditure was higher in SA2s with lower ranks for Early Child Development, Education and Training, Economic Participation and Home Environment outcomes. This again suggests that regions with higher needs are receiving more community safety initiatives.

In addition to the aforementioned Home Environment and Safe and Supportive Communities expenditure, higher levels of per capita Economic Participation expenditure was also associated with lower Economic Participation outcomes ranks. Per capita Governance, Leadership and Culture and Healthy Lives expenditure was higher in SA2s with lower ranks for Safe and Supportive Communities outcomes. This suggests health supports, community cohesion activities and cultural participation initiatives are being targeted to SA2s with higher community safety needs. Economic Participation, Early Child Development, Governance Leadership and Culture and Healthy Lives expenditure were all higher in SA2s with poorer Healthy Lives outcomes. The correlation matrix for per capita Indigenous specific service provision expenditure for each government department and OID outcomes ranks is presented in Table 7 in Appendix 2.

Recommendations

How might this data be used in the future for subsequent annual analyses?

The *Resilient Families, Strong Communities: Mapping service expenditures and outcomes in the Pilbara and the Kimberley* study was undertaken to establish a baseline of Indigenous-focused government expenditure and Indigenous outcomes in the Kimberley and the Pilbara, as well as providing insight into the current state of play in terms of data availability and quality. As progress cannot be measured without a starting point, baseline analysis is essential as it identifies the indicators against which performance will be measured and establishes a benchmark level for these indicators. To this end, although there are changes recommended to the data collection processes, the current data will serve as an effective comparison point for future analyses of government expenditure and Indigenous outcomes as the indicators were drawn from a nationally adopted framework (the OID report) and SA2-level data was collected for the majority of those indicators.

The findings in this report can provide the basis for further discussion among Indigenous people and State and Commonwealth Government agencies about: whether the OID framework adequately captures outcomes of interest; the potential impact of government programs; existing data collection processes; and how the results of this analysis fit with their understanding of the regions.

Perhaps most importantly, the finding that there is significant variation between SA2 regions emphasises the need for sub-regional analysis of outcomes and expenditures. The Western Australian context is unique due to its geographic spread and conditions which vary greatly between sub-regions; these factors are reflected in patterns of expenditure and outcomes.

What are the recommendations for more time efficient and effective data collection and analysis of outcome data?

There are several steps we recommend for improving the efficiency and quality of the expenditure and outcomes data and its collection.

- **Standardised expenditure template:** Government departments should record their expenditure data in a standardised format that identifies the intended outcome that each piece of expenditure intended to affect. This would be greatly facilitated if a central government agency such as the Department of Treasury or Department of Finance developed and oversaw the use of a template.
- **Outcomes and targets:** Funding agencies and service delivery agencies should determine focal outcomes together at the beginning of the funding period, identify measures and data sources that will measure progress against the identified outcomes, establish targets, and collect baseline data. This will improve data quality by reducing reliance on nationally collected data which is not focused on the Western Australian context, and enabling a more direct attribution of outcomes achieved to a given service.
- **Development of a State Government outcomes framework:** this analysis has highlighted the value of sub-regional analysis, presenting findings quite different to those in the national landscape. Therefore, government agencies should come together to establish a framework that complements national frameworks such as the OID, but is tailored to the Western Australian context and incorporates more local-level data collection.

What patterns for future investment are recommended based on this data?

This analysis indicates that expenditure in the Kimberley and the Pilbara responds to OID areas of high need. State agencies should continue to establish effective mechanisms for identifying and evaluating needs and continue to target expenditure towards these needs.

Effecting planning requires that a needs-based approach is complemented by a performance-based approach: what is the impact of government programs (and funding) on Indigenous outcomes? Are programs working effectively to improve outcomes?

A performance-based approach should be conducted using population-based outcomes evidence aligned to the present reports/OID framework and a program-based outcomes approach. In other words, the joint application of a macro approach (population-based) and micro approach (program-based) is required. Such an approach highlights a need for investment in outcomes measurement and capacity building both in terms of central funding agencies as well as individual organisations.

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Appendix 1: Caveats to Data Analysis

Commonwealth and State Government expenditures and Indigenous outcomes in the Pilbara and the Kimberley

To our knowledge, this is the first systematic, comprehensive approach to mapping Indigenous expenditure and outcomes across different geographical sub-regions in Australia. Analyses until now have been based on national, state, territory or individual locations, or on expenditure and outcomes in specific domains, for example the Holman Review (2014) with respect to health. This mapping makes a significant contribution to the body of knowledge about regional government direct service expenditures and Indigenous outcomes in the Pilbara and the Kimberley.

Commonwealth and State Government direct service expenditure

Direct service provision expenditure refers to expenditure related to the provision of services directly supporting Indigenous people including expenditure on programs that provide for the development of staff providing services. Only direct service provision government expenditure attributable to designated OID outcomes is measured (SCRGSP, 2014).

Lying outside the scope of the estimates presented in this study and the expenditure maps are capital expenditure, depreciation and maintenance of capital assets. Available capital expenditure data were not allocated to specific regions and did not contain estimates of the capital stock. In addition, transfer payments and subsidies to individuals are excluded from the analysis. However, we have included an estimate of income support payments to Indigenous people in the Kimberley and the Pilbara based on estimates of the number of Indigenous recipients of Commonwealth income support payment recipients in these areas. Expenditure on Commonwealth income support payments was derived by assuming full standard rates of payment exclusive of Commonwealth Rent Assistance (CRA) as no estimates of the number of recipients receiving CRA were provided.

As a result of these exclusions and caveats, the expenditure figures depicted in the present maps cannot be compared with other examinations of Indigenous expenditure in Australia such as the Productivity Commission's *Indigenous Expenditure Report* (SCRGSP, 2014) or the WA Department of Indigenous Affairs' *Roebourne Report* (Shanks 2009).

Mapping Indigenous outcomes

Data suppression

To ensure confidentiality and statistical reliability, government departments and other data custodians suppress data where limited data points are available and randomly adjust data.

The Department of Education, which is the source for maps 3, 8, 10, and 11, suppresses data if $N < 6$ and the Department of Health, the source for maps 2, 4, 13, 14, 23 and 24, suppresses data if $N < 6$ and do not provide age-standardised and age-adjusted rates when $N < 20$. The Australian Bureau of statistics undertakes random perturbation to preserve confidentiality, where all figures in a data table are randomly adjusted.

Geographical disaggregation

The Department for Child Protection and Family Support provided data using their district boundaries, which do not map to the Australian Statistical Geography Standard. The data in Map 26 uses DCPFS boundaries and so is presented at a different geographic level to the rest of the data.

Caveats when considering expenditure and outcomes together

Extreme caution should be urged when considering the outcome and expenditure measures and attributing causal links between outcomes and expenditure.

First, there are a large number of factors that affect outcomes, other than the level and form of government expenditure.

Second, government expenditure often responds to areas of greater need. A correlation between high expenditures and poor outcomes may reflect primarily this cause rather than ineffective government expenditure.

Third, direct service provision expenditure data were collected for the 2015-16 fiscal year while the outcomes data was based on a range of latest available information. This means that the outcomes data are from different years. Specifically, Census data used in maps 15, 16, 17, 18, 19, 21 and 22 are from the 2011 Census of Population and Housing; Department of Education data used in maps 3, 8, 10, and 11 are from the 2015 calendar year; and Department of Health data used in maps 2, 4, 13, 23 and 24, are aggregated either over 5 years (2010-2014) or 10 years (2005-2014). Therefore, expenditure data and outcomes data cannot be directly compared due to the different date ranges (e.g., outcomes in 2011 cannot be attributed to expenditure in 2015-16).

Fourth, attributing outcomes to specific expenditure or a specific time frame requires detailed contextual analysis that is not reflected in the current analysis. For example, an investment in early childhood education in 2015 may yield outcomes many years in the future.

Fifth, investments in one OID area will affect outcomes in other OID areas at different time intervals. Continuing with the above example, an investment in early childhood education will have downstream effects in economic participation, health, education, and justice outcomes.

Appendix 2: Figures and Tables

Figure 2: Estimated State Government Governance, Leadership and Culture Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16

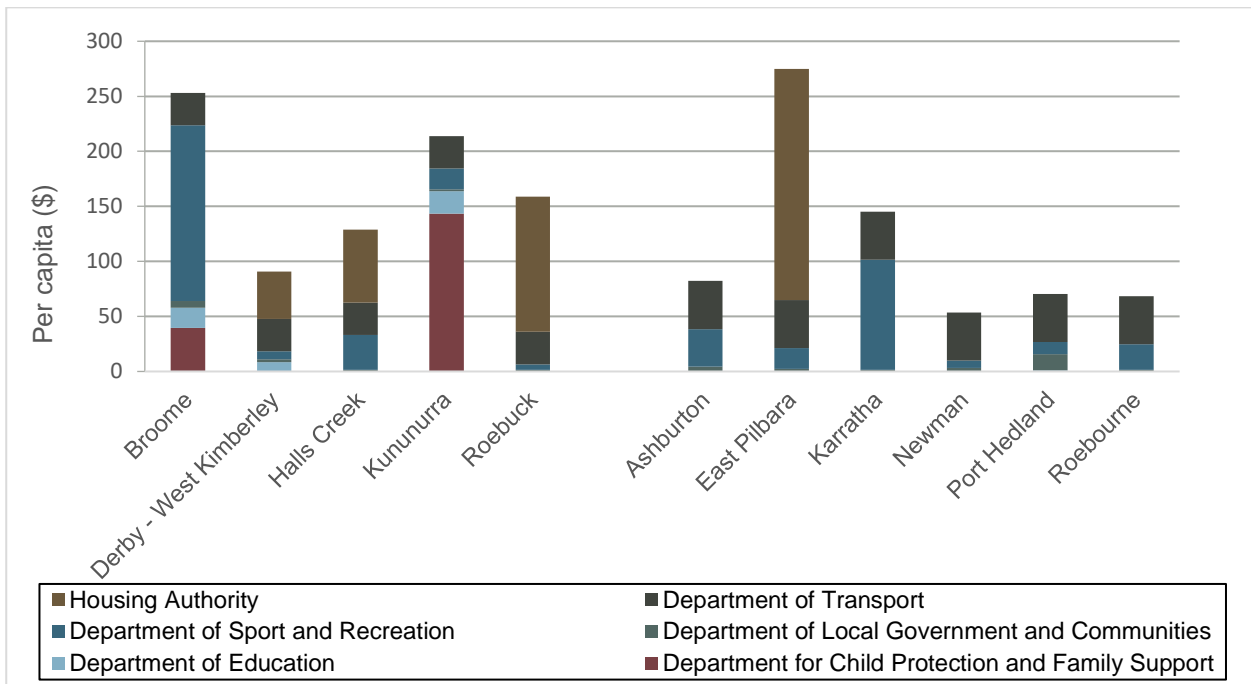


Figure 3: Estimated State Government Early Child Development Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16

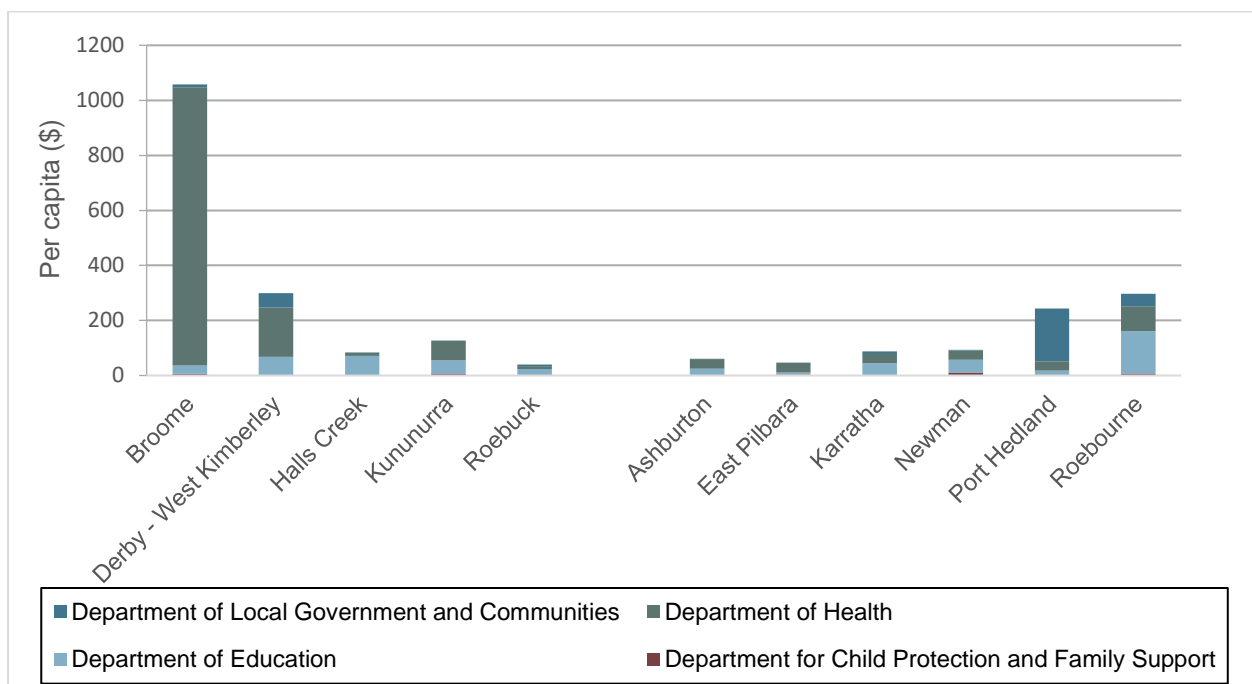


Figure 4: Estimated State Government Education and Training Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16

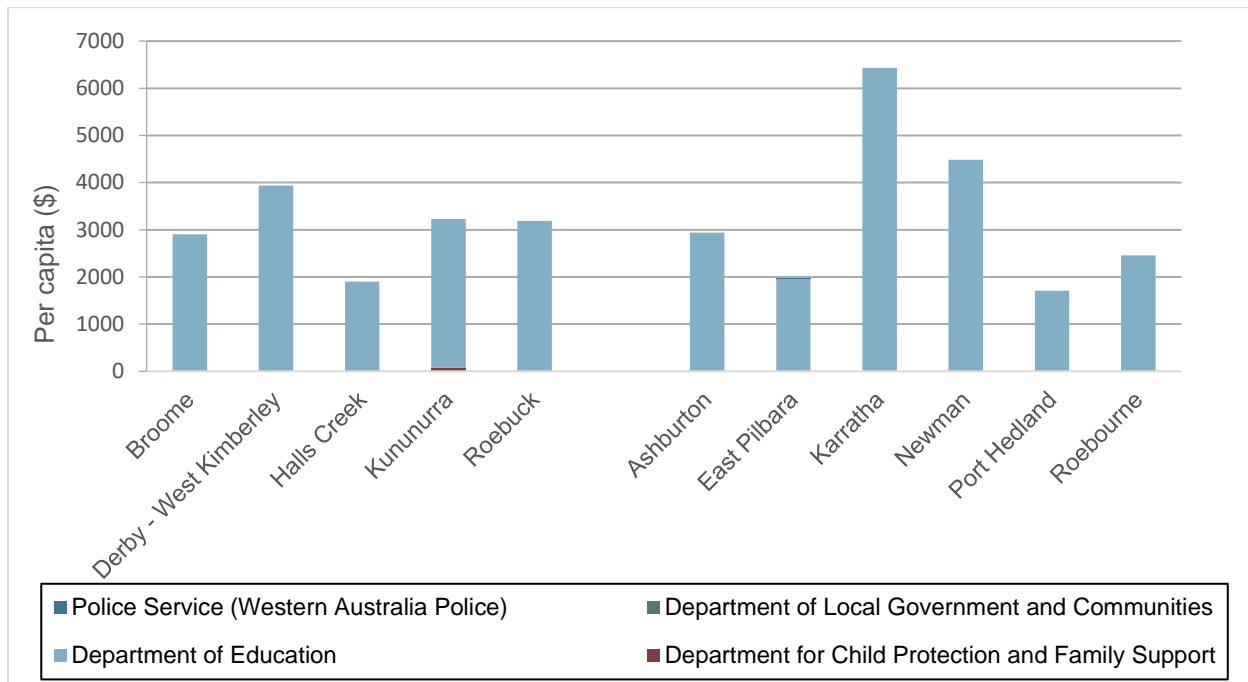


Figure 5: Estimated State Government Healthy Lives Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16

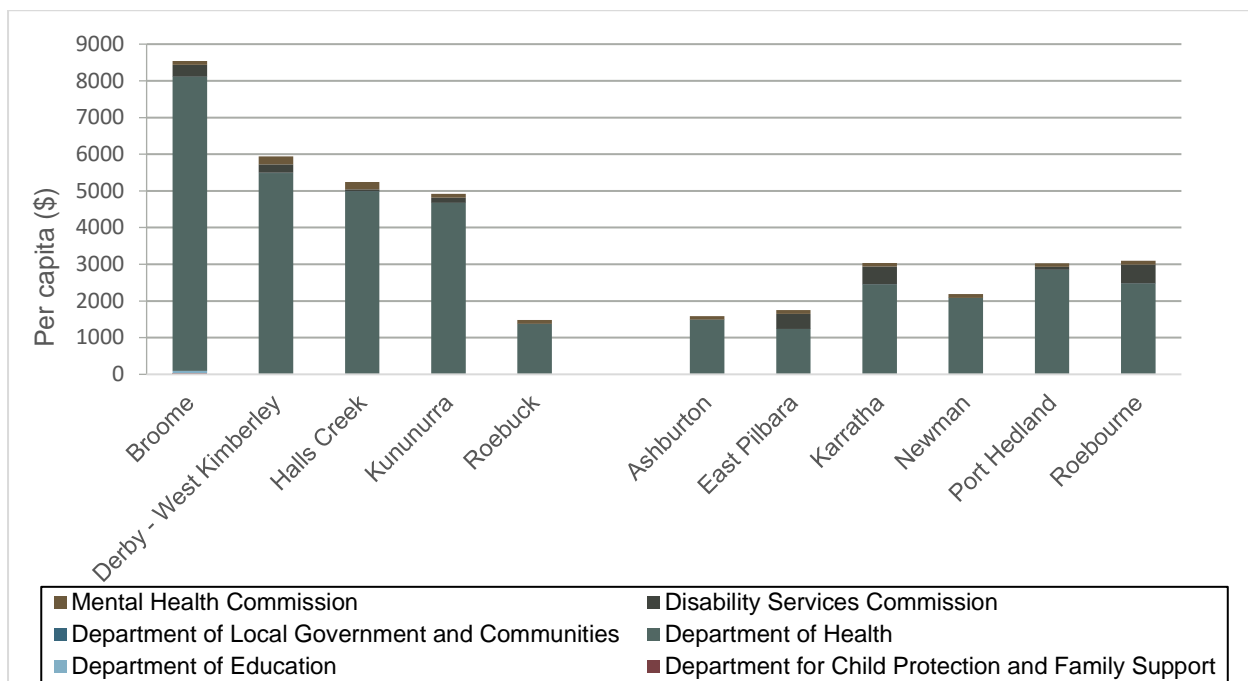


Figure 6: Estimated State Government Economic Participation Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16

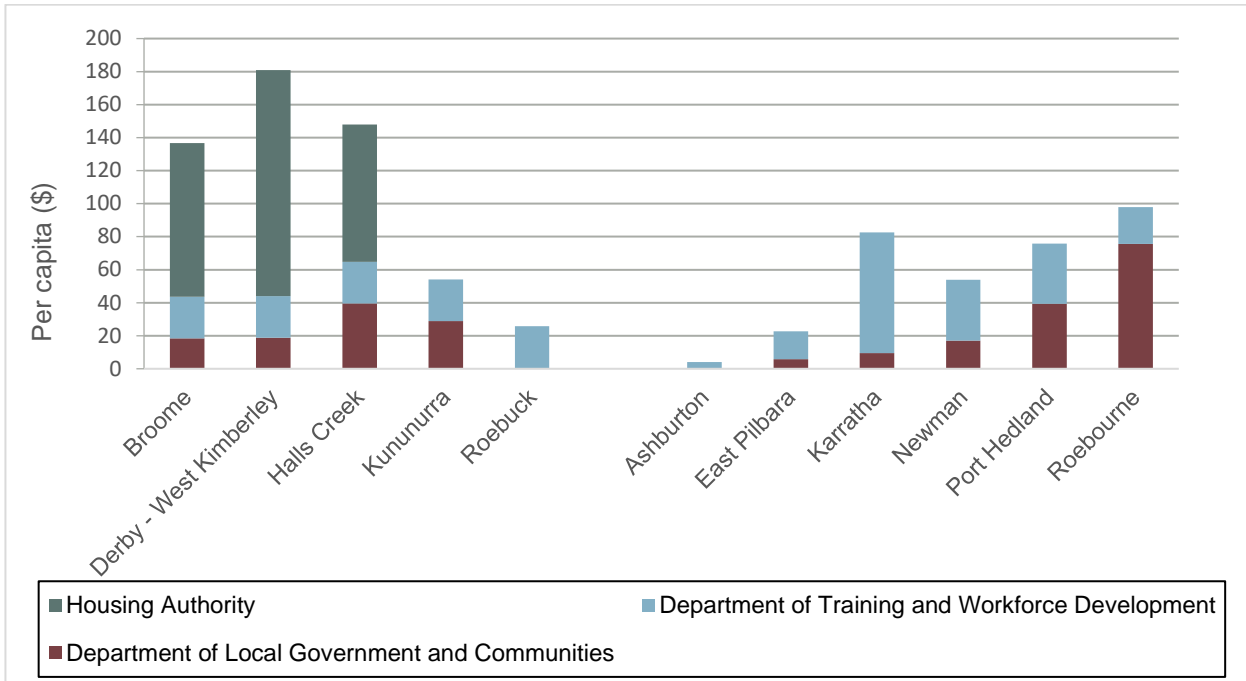


Figure 7: Estimated State Government Home Environment Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16

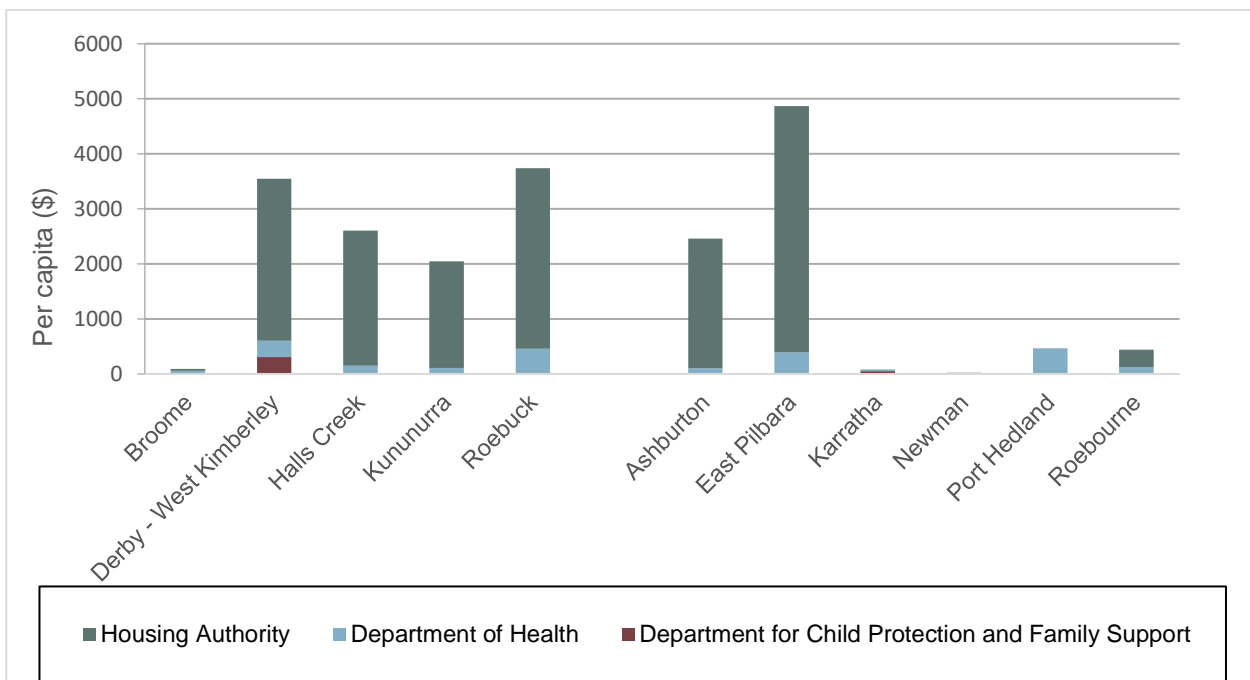


Figure 8: Estimated State Government Safe and Supportive Communities Indigenous Direct Service Provision Expenditure Per Capita (\$) in the Kimberley and Pilbara by Sub-Region (SA2), by department, 2015-16

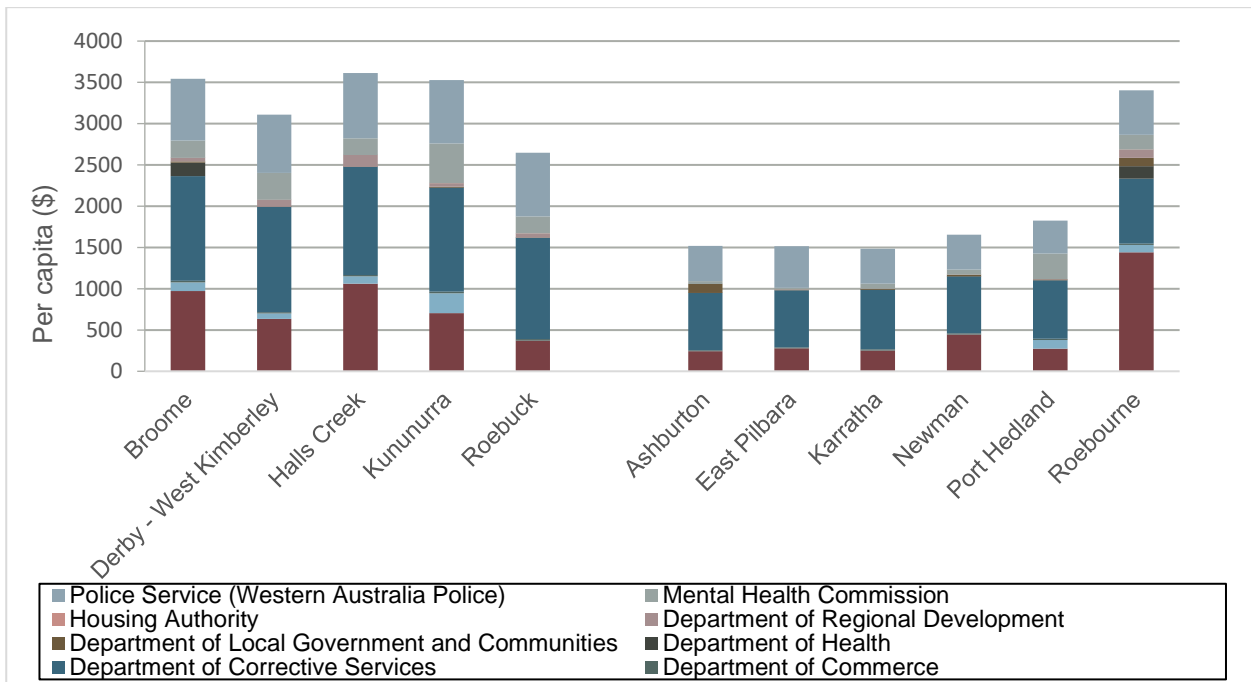


Table 4: Key Indicators displayed in Maps

OID Area	Indicator	Measure	DAA	COAG	NIRA	OID	ROGS	Notes
Governance, Leadership and Culture	Access to Traditional Lands and Waters	Indigenous Protected Areas in the Kimberley and Pilbara, by type of protection, by SA2, as at 1 December 2016				X		Not a key indicator, presented as a map due to the nature of the data.
Early Child Development	Birthweight	Proportion of babies born with low birthweight in the Kimberley and Pilbara, by Indigenous status of mother, by mother's SA2 of residence (2010-2014)	X		X	X		
	Young child mortality	Still births, neonatal and perinatal mortality rates per 1000 births in the Kimberley and Pilbara, by Indigeneity, by mother's SA2 of residence (2010-2014)	X	X	X	X		Infant deaths were used as a proxy for child deaths (0-4).
	Early childhood education	Proportion of students in the Kimberley and Pilbara with kindergarten attendance rates of 90% and above by School and Indigenous status, 2015	X	X		X		Kindergarten attendance rates were used as a proxy for enrolment rates as the 4-5 year old population was not known.
Education and Training	Year 1- 10 Attendance	Primary School Attendance, government schools 2015				X		There were not enough year 10 students in some regions for the Year 10 attendance rates, so Primary and Secondary School Attendance rates are used instead.
		Secondary School Attendance, government schools 2015	X	X	X	X	X	
	Reading, writing and numeracy	Proportion of Year 5 Students who achieved at or above the national minimum standard for Reading NAPLAN 2015	X	X	X	X	X	
		Proportion of Year 5 Students who achieved at or above the national minimum standard for Writing NAPLAN 2015	X	X	X	X	X	
		Proportion of Year 5 Students who achieved at or above the national minimum standard for Numeracy NAPLAN 2015	X	X	X	X	X	
	Year 12 attainment	20-24 population having attained at least a year 12 or equivalent or AQF Certificate II or above, 2011	X	X	X	X	X	
		Year 12 Achievement 2015				X		Presented in addition to 20-24 population having attained at least a year 12 or equivalent or AQF Certificate II or above

OID Area	Indicator	Measure	DAA	COAG	NIRA	OID	ROGS	Notes
								based on census data, as Year 12 Achievement was more recent.
Education and Training	Post-secondary education – participation and attainment	VET Module Load Completion Rate 2015	X			X		VET Module Load Completion rate was used as a proxy for proportion of 20-64 year olds with a cert III or currently studying.
Healthy Lives	Potentially preventable hospitalisations	AAR per 100,000 person years of potentially preventable hospitalisations of persons aged 15+ 2005-2014				X		Proxy indicator as there were limited indicators from the WA Progress against Closing the gap dashboard that was available at the SA2 level.
	Mental Health	Mental Health Occasions of Service age standardised rates 2014				X		Used as a proxy for suicide rates as this data was not available at the SA2 level.
Economic Participation	Employment	Indigenous Employment Rate in the Kimberley and the Pilbara, by SA2, 2011	X		X	X		
		Indigenous Unemployment Rate in the Kimberley and the Pilbara, by SA2, 2011				X		
		Indigenous Employed Persons in the Kimberley and the Pilbara that are Employed Full-Time, by SA2, 2011	X			X		
	Home Ownership	Proportion of Households with Indigenous Person(s) in the Kimberley and the Pilbara Owned Outright, by SA2, 2011	X			X		
	Income Support	Indigenous people receiving Centrelink Newstart Allowance payments, as at June 2015	X			X		Rate of Newstart allowance recipients was used as a proxy for percentage of population whose primary income is income support payments as this data was not available. Presented at Sub-SA3 level as data was not available at SA2 level.
	Household and individual income	Median Total Personal Income (\$/Weekly), 2011	X			X		
Home Environment	Overcrowding in Housing	Proportion of households that need one or more extra bedrooms	X			X		
	Rates of disease associated with	Environmental related hospitalisations per 100,000 people by area, 2011-2015	X			X		Hospitalisations used as a proxy for rate per 100,000 of people dying from environmental

OID Area	Indicator	Measure	DAA	COAG	NIRA	OID	ROGS	Notes
	poor environmental health							health related diseases, as this data was not available at SA2 level.
Safe and Supportive Communities	Substance use and Harm	Alcohol related hospitalisations, 2011-2015	X			X		This was included in the Healthy Lives domain in the WA Progress against Closing the gap dashboard.
	Juvenile Diversions	Proportion of juvenile diversions, 2015-16				X		Used as a proxy for juvenile detention rates as this data was not available at SA2 level.
	Community Functioning	Rate per 1000 of Adult Arrests by Sex, 2015-16						Used as a proxy for adult imprisonment rates as data was not available at SA2 level.
	Substantiated child abuse and neglect	Children in the CEO's care as at 30 June 2016	X			X	X	Presented at Department for Child Protection and Family Services geographical regions as they were unable to supply data at a lower geographical level.

Note:

DAA: Department of Aboriginal Affairs: WA Progress against Closing the gap dashboard indicator

COAG: Council of Australian Government Closing the Gap target

NIRA: National Indigenous Reform Agreement performance indicator

OID: Overcoming Indigenous Disadvantage Report performance indicator

ROGS: Report on Government Services performance indicator

Table 5(a): Spearman’s Rho Correlation Matrix for OID Outcomes in the Kimberley and Pilbara

	Governance Leadership and Culture Outcomes Rank	Early Child Development Outcomes Rank	Education and Training Outcomes Rank	Healthy Lives Outcomes Rank	Economic Participation Outcomes Rank	Home Environment Outcomes Rank
Early Child Development Outcomes Rank	-0.32	1.00				
Education and Training Outcomes Rank	-0.34	0.75**	1.00			
Healthy Lives Outcomes Rank	0.39	0.32	-0.20	1.00		
Economic Participation Outcomes Rank	-0.24	0.84***	0.89***	0.06	1.00	
Home Environment Outcomes Rank	-0.22	0.80***	0.89***	0.04	0.88***	1.00
Safe and Supportive Communities Outcomes Rank	0.42	0.50	0.63	0.60*	0.27	0.31

Note: ** Correlation is significant at the 0.01 level. *** Correlation is significant at the 0.001 level.

Table 5(b): Spearman’s Rho Correlation Matrix for OID Outcomes and Expenditure in the Kimberley and Pilbara

	Governance Leadership and Culture Expenditure	Early Child Development Expenditure	Economic Participation Expenditure	Education and Training Expenditure	Healthy Lives Expenditure	Home Environment Expenditure	Safe and Supportive Communities Expenditure
Governance Leadership and Culture Outcomes Rank	-0.32	-0.51	-0.29	-0.45	-0.33	0.56	0.08
Early Child Development Outcomes Rank	-0.50	-0.16	-0.57	0.36	-0.42	-0.68*	-0.76***
Education and Training Outcomes Rank	-0.13	0.01	-0.49	0.16	0.19	-0.76***	-0.62*
Healthy Lives Outcomes Rank	-0.73**	-0.60*	-0.31	0.40	-0.93***	0.18	-0.32
Economic Participation Outcomes Rank	-0.36	-0.13	-0.66*	0.28	-0.08	-0.76***	-0.87***
Home Environment Outcomes Rank	-0.35	-0.18	-0.53	0.34	-0.02	-0.79***	-0.74**
Safe and Supportive Communities Outcomes Rank	-0.74**	-0.44	-0.57	-0.17	-0.71**	0.17	-0.45

Note: * Correlation is significant at the 0.05 level. ** Correlation is significant at the 0.01 level. *** Correlation is significant at the 0.001 level

Table 6: Spearman’s Rho Correlation Matrix for OID Outcomes and State Government Department Expenditure in the Kimberley and Pilbara

	Department for Child Protection and Family Support Expenditure	Department of Indigenous Affairs Expenditure	Department of Commerce Expenditure	Department of Corrective Services Expenditure	Department of Education Expenditure	Department of Health Expenditure	Department of Local Government and Communities Expenditure	Department of Regional Development Expenditure	Department of Sport and Recreation Expenditure	Department of Training and Workforce Development Expenditure	Department of Transport Expenditure	Disability Services Commission Expenditure	Housing Authority Expenditure	Mental Health Commission Expenditure	Police Service (Western Australia Police) Expenditure
Governance Leadership and Culture Outcomes Rank	-0.34	-0.27	-0.15	-0.10	-0.44	-0.50	-0.25	0.50	-0.21	-0.19	0.15	0.35	0.36	0.00	-0.02
Early Child Development Outcomes Rank	-0.36	0.45	-0.66*	-0.67*	0.38	-0.47	0.17	-0.46	0.20	0.23	0.66*	0.69	-0.58*	-0.64*	-0.68*
Education and Training Outcomes Rank	-0.20	0.54	-0.47	-0.43	0.21	-0.07	0.38	-0.61	0.11	0.43	0.47	0.19	-0.88***	-0.11	-0.72**
Healthy Lives Outcomes Rank	-0.49	-0.63	-0.22	-0.36	0.37	-0.70**	-0.60*	0.29	-0.16	0.02	0.22	0.64	0.34	-0.58*	-0.12
Economic Participation Outcomes Rank	-0.39	0.54	-0.71**	-0.63*	0.29	-0.29	0.23	-0.54	0.27	0.36	0.71**	0.48	-0.82***	-0.39	-0.89***
Home Environment Outcomes Rank	-0.31	0.59	-0.59*	-0.47	0.39	-0.18	0.30	-0.46	0.08	0.62*	0.59*	0.30	-0.84***	-0.30	-0.79***
Safe and Supportive Communities Outcomes Rank	-0.73**	0.16	-0.56	-0.69**	-0.17	-0.79***	-0.03	-0.07	-0.10	-0.05	-0.56	0.45	0.18	-0.70*	-0.42

Note: * Correlation is significant at the 0.05 level. ** Correlation is significant at the 0.01 level. *** Correlation is significant at the 0.001 level.

Appendix 3: Maps

Individual maps and a complete book of the maps listed below are available online at www.regionalservicesreform.wa.gov.au.

- Map 1: Governance, leadership and culture: Indigenous protected areas (IPA) in the Kimberley and Pilbara, by IPA name and SA2, as at December 1 2016
- Map 2: Early Child Development: Indigenous still births, neonatal and perinatal mortality rates per 1000 births in the Kimberley and Pilbara, by mother's SA2 of residence (2010-2014)
- Map 3: Early Child Development: Proportion (%) of Indigenous kindergarten students in the Kimberley and Pilbara with attendance rates of 90% and above by SA2, 2015
- Map 4: Early Child Development: Proportion of Indigenous babies born with low birthweight in the Kimberley and Pilbara, by mother's SA2 of residence (2010-2014)
- Map 5: Education and Training: Proportion of Indigenous Year 5 students in the Kimberley and Pilbara who achieved at or above the national minimum standard for Reading (NAPLAN 2015), by SA2.
- Map 6: Education and Training: Proportion of Indigenous Year 5 students in the Kimberley and Pilbara who achieved at or above the national minimum standard for Writing (NAPLAN 2015), by SA2.
- Map 7: Education and Training: Proportion of Indigenous Year 5 students in the Kimberley and Pilbara who achieved at or above the national minimum standard for Numeracy (NAPLAN 2015), by SA2.
- Map 8: Education and Training: Proportion of Indigenous students in the Kimberley and Pilbara that graduated high school with Certificate II or higher and/or ATAR 55 or higher, by SA2, 2015.
- Map 9: Education and Training: Proportion of Indigenous people in the Kimberley and Pilbara aged 20-24 with at least a Year 12 or Equivalent Australian Qualifications Framework (AQF) Certificate II or above, by SA2, 2011.
- Map 10: Education and Training: Proportion of Indigenous students in the Kimberley and Pilbara with primary school attendance rate of >90%, by SA2, 2015
- Map 11: Education and Training: Proportion of Indigenous students in the Kimberley and Pilbara with primary school attendance rate of >90%, by SA2, 2015
- Map 12: Education and Training: Vocational Education Module Load Completion Rate, by SA2, 2015
- Map 13: Healthy Lives: Age-adjusted rate (per 100 000 person years) of potentially preventable hospitalisations in the Kimberley and Pilbara, persons aged 15+, by SA2, 2005-2014.
- Map 14: Healthy Lives: Age-standardised rates (per 100, 000 person years) of mental health occasions of service in the Kimberley and Pilbara, by SA2, 2014
- Map 15: Economic Participation: Indigenous employment rate in the Kimberley and Pilbara, by SA2, 2011
- Map 16: Economic Participation: Indigenous unemployment rate in the Kimberley and Pilbara, by SA2, 2011
- Map 17: Economic Participation: Proportion of Indigenous employed persons in the Kimberley and Pilbara that are employed full-time, by SA2, 2011
- Map 18: Economic Participation: Labour Force Participation Rate of Indigenous Persons in the Kimberley and Pilbara, by SA2, 2011

Map 19: Economic Participation: Median Indigenous personal weekly income (\$) in the Kimberley and Pilbara, by SA2, 2011

Map 20: Economic Participation: Indigenous rate per 1000 people of Newstart Allowance recipients in the Kimberley and Pilbara, by Pilbara SA3 and West Kimberley and East Kimberley Empowered Communities Regions, at 30 June 2015

Map 21: Economic Participation: Proportion of households with Indigenous person(s) in the Kimberley and Pilbara owned outright, by SA2, 2011

Map 22: Home Environment: Proportion of Indigenous households in the Kimberley and Pilbara that need one or more extra bedrooms, by SA2, 2011

Map 23: Home Environment: Indigenous environmental-related hospitalisations in the Kimberley and Pilbara (age-standardised rate per 100, 000 people) by SA2, 2011-2015

Map 24: Safe and Supportive Communities: Indigenous alcohol-related hospitalisations in the Kimberley and Pilbara (age-standardised rate per 100, 000 people), by SA2, 2011-2015

Map 25: Safe and Supportive Communities: Proportion of Indigenous Juvenile Offenders Diverted from the Criminal Justice System via Caution or Juvenile Justice Team Referral, by SA2, 2015-16

Map 26: Safe and Supportive Communities: Rate (per 1000) of Indigenous Adult Arrests, by SA2, 2015-16

Map 27: Safe and Supportive Communities: Indigenous children in the Department of Child Protection and Family Support (DCPFS) CEO's Care, by DCPFS district boundaries (rate per thousand), as at 30 June 2016.

Map 28: Per Capita Commonwealth and State Government Direct Service Provision Expenditure Apportioned to Indigenous People by SA2, 2015-16

Map 29: Per Capita State Government Direct Service Provision Expenditure Apportioned to Indigenous People by SA2, 2015-16

Map 30: Per Capita Commonwealth and State Government Governance, Leadership and Culture Direct Service Provision Expenditure Apportioned to Indigenous People by SA2, 2015-16

Map 31: Per Capita Commonwealth and State Government Early Child Development Direct Service Provision Expenditure Apportioned to Indigenous People by SA2, 2015-16

Map 32: Per Capita Commonwealth and State Government Education and Training Direct Service Provision Expenditure Apportioned to Indigenous People by SA2, 2015-16

Map 33: Per Capita Commonwealth and State Government Healthy Lives Direct Service Provision Expenditure Apportioned to Indigenous People by SA2, 2015-16

Map 34: Per Capita Commonwealth and State Government Economic Participation Direct Service Provision Expenditure Apportioned to Indigenous People by SA2, 2015-16

Map 35: Per Capita Commonwealth and State Government Home Environment Direct Service Provision Expenditure Apportioned to Indigenous People by SA2, 2015-16

Map 36: Per Capita Commonwealth and State Government Safe and Supportive Communities Direct Service Provision Expenditure Apportioned to Indigenous People by SA2, 2015-16

Appendix 4: List of Indicators

OID AREA	Indicator	Measure	Source	Map#	Rank	
1. Governance, Leadership & Culture	1.1 Valuing Indigenous Australians and their culture	1.1.1 Selected Indicators for Valuing Indigenous Australians and their culture, Western Australia, 2014/15	ABS NATSISS 2014/15			
	1.2 Participation in Decision Making	1.2.1 Selected Indicators for Participation in Decision Making, Western Australia, 2014/15	ABS NATSISS 2014/15			
	1.3 Engagement with Services	1.3.1 Discharge against medical advice in the Kimberley and Pilbara per 100,000 people by SA2, 2011-2015	Department of Health			X
		1.3.2 Selected Indicators for Engagement with Services, Western Australia, 2014/15	ABS NATSISS 2014/15			
	1.4 Language Revitalisation & Maintenance	1.4.1 Number of children in the Kimberley and Pilbara in their first year of schooling speaking Indigenous Languages, by Indigenous language, by SA2 2015	AEDC			X
		1.4.2 Selected Indicators for Language Revitalisation and Maintenance for Western Australia, 2014/15	ABS NATSISS 2014/15			
	1.5 Indigenous Cultural Studies	1.5.1 Selected Indicators for Indigenous Cultural Studies, Western Australia, 2014/15	ABS NATSISS 2014/15			
	1.6 Participation in Community Activities	1.6.1 Selected Indicators for Participation in Community Activities, Western Australia, 2014/15	ABS NATSISS 2014/15			
1.7 Access to Traditional Lands and Waters	1.7.1 Selected Indicators for Access to Traditional Lands and Waters, Western Australia, 2014/15	ABS NATSISS 2014/15				
	1.7.2 Indigenous Protected Areas in the Kimberley and Pilbara, by type of protection, by SA2, as at 1 December 2016			1		
2. Early Child Development	2.1 Antenatal care	2.1.1 Selected Indicators for Antenatal Care, Western Australia, 2014/15	ABS NATSISS 2014/15			
	2.2 Health Behaviours during Pregnancy	2.2.1 Selected Indicators for Health Behaviours During Pregnancy, Western Australia, 2014/15	ABS NATSISS 2014/15			
	2.3 Teenage Birth Rate	2.3.1 Births to Teenage Mothers by Age of Mother, 2015	ABS Births			X
	2.4 Birthweight	2.4.1 Proportion of babies born with low birthweight in the Kimberley and Pilbara, by Indigenous status of mother, by mother's SA2 of residence (2010-2014)	Department of Health		4	X
		2.5 Early Childhood Hospitalisation	2.5.1 Number and rate of hospitalisations in the Kimberley and Pilbara, children aged 0-4, by Indigeneity, by SA2 (2005-2014)	Department of Health		
	2.6 Injury and Preventable Disease	2.5.2 Number and rate of hospitalisations in the Kimberley and Pilbara, children aged 5-14, by Indigeneity, by SA2 (2005-2014)	Department of Health			X
		2.6.1 Number and rate of potentially preventable hospitalisations in the Kimberley and Pilbara, children aged 0-4, by type of condition, by Indigeneity, by SA2 (2005-2014)	Department of Health			X
	2.6.2 Number and rate of potentially preventable hospitalisations in the Kimberley and Pilbara, children aged 5-14, by type of condition, by Indigeneity, by SA2 (2005-2014)	Department of Health			X	
	2.7 Ear Health	2.7.1 Selected Indicators for Ear Health, Western Australia, 2014/15	ABS NATSISS 2014/15			
	2.8 Basic Skills for Life and Learning	2.8.1 Australian Early Development Census of five year old children in the Kimberley and Pilbara, by area of development, by SA2 and Indigenous Status, 2015	AEDC			X
	2.9 Young child mortality	2.9.1 Still births, neonatal and perinatal mortality rates per 1000 births in the Kimberley and Pilbara, by Indigeneity, by mother's SA2 of residence (2010-2014)	Department of Health		2	X
		2.9.2 Deaths, children aged 0-4 years, 2015	ABS Deaths			X
	2.10 Early childhood education	2.10.1 Number of children in the Kimberley and Pilbara enrolled in a preschool program in the year before full time schooling, by school, 2015	Department of Education			
		2.10.2 Number of children in the Kimberley and Pilbara enrolled in a preschool program in the year before full time schooling, by SA2, 2015	Department of Education			X
2.10.3 Kindergarten School Attendance Rate in the Kimberley and Pilbara by School and Indigenous Status, 2015		Department of Education				
2.10.4 Kindergarten School Attendance Rate in the Kimberley and Pilbara by SA2 and Indigenous Status, 2015		Department of Education			X	

2. Early Child Development	2.10 Early childhood education	2.10.5 Proportion of students in the Kimberley and Pilbara with kindergarten attendance rates of 90% and above by School and Indigenous status, 2015	Department of Education	3		
		2.10.6 Proportion of kindergarten students in the Kimberley and Pilbara with attendance rates of 90% and above by SA2 and Indigenous status, 2015	Department of Education		X	
3. Education and Training	3.1 Year 1- 10 Attendance	3.1.1 Primary School Attendance, government schools, by school 2015	Department of Education			
		3.1.2 Secondary School Attendance, government schools, by school 2015	Department of Education			
		3.1.3 Pre Primary to Year 10 School Attendance Rates by school, government schools, 2015	Department of Education			
		3.1.4 School Attendance Rate: Proportion of Students attending 90%< 2015, by school	Department of Education			
		3.1.5 Primary School Attendance, government schools 2015	Department of Education	10	X	
		3.1.6 Secondary School Attendance, government schools 2015	Department of Education	11	X	
		3.1.7 Pre Primary to Year 10 School Attendance Rates, government schools, 2015	Department of Education		X	
		3.1.8 School Attendance Rate: Proportion of Students attending 90%< 2015, Government Schools	Department of Education		X	
		3.2 Transition from School to Work	3.2.1 Persons Aged 17-24 who are engaged in education, training and/or employment, 2011	ABS Census 2011		X
	3.2.2 Level of highest non-school qualification and employment status, people aged 18–64, 2011		ABS Census 2011		X	
	3.3 Reading, writing and numeracy	3.3.1 Proportion of Year 3 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN 2015 by school	3.3.1 Proportion of Year 3 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.2 Proportion of Year 5 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.3 Proportion of Year 7 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.4 Proportion of Year 9 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.5 Mean Scaled Score of Year 3 Students Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.6 Mean Scaled Score of Year 5 Students Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.7 Mean Scaled Score of Year 7 Students Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.8 Mean Scaled Score of Year 9 Students Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.9 Participation Rate of Year 3 Students Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.10 Participation Rate of Year 5 Students Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.11 Participation Rate of Year 7 Students Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.12 Participation Rate of Year 9 Students Reading, Writing and Numeracy NAPLAN 2015 by school	Department of Education		
			3.3.13 Proportion of Year 3 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education		
			3.3.14 Proportion of Year 5 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education		
			3.3.15 Proportion of Year 7 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education		
			3.3.16 Proportion of Year 9 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education		
			3.3.17 Mean Scaled Score of Year 3 Students Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education		
			3.3.18 Mean Scaled Score of Year 5 Students Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education		
			3.3.19 Mean Scaled Score of Year 7 Students Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education		

3. Education and Training	3.3 Reading, writing and numeracy	3.3.20 Mean Scaled Score of Year 9 Students Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education			
		3.3.21 Participation Rate of Year 3 Students Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education			
		3.3.22 Participation Rate of Year 5 Students Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education			
		3.3.23 Participation Rate of Year 7 Students Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education			
		3.3.24 Participation Rate of Year 9 Students Reading, Writing and Numeracy NAPLAN, Government Schools 2015	Department of Education			
		3.3.25 Proportion of Year 3 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.26 Proportion of Year 5 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN 2015	ACARA	5,6,7	X	
		3.3.27 Proportion of Year 7 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.28 Proportion of Year 9 Students who achieved at or above the national minimum standard for Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.29 Mean Scaled Score of Year 3 Students Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.30 Mean Scaled Score of Year 5 Students Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.31 Mean Scaled Score of Year 7 Students Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.32 Mean Scaled Score of Year 9 Students Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.33 Participation rate for Year 3 Students for Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.34 Participation rate for Year 5 Students for Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.35 Participation rate for Year 7 Students for Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.3.36 Participation rate for Year 9 Students for Reading, Writing and Numeracy NAPLAN 2015	ACARA		X	
		3.4 Year 12 attainment	3.4.1 20-24 population having attained at least a year 12 or equivalent or AQF Certificate II or above, 2011	ABS Census 2011	9	X
			3.4.2 Highest level of schooling completed by Indigenous people aged 15 years and over and not currently studying at secondary school, by age, by level of schooling completed, 2011	ABS Census 2011		X
			3.4.3 Year 12 Achievement by School 2015	Department of Education		
	3.4.4 Year 12 Achievement 2015		Department of Education	8	X	
	3.4.5 Year 12 students achieving ATARs, by ATAR range, 2015 by school		Department of Education			
	3.4.6 Year 12 students achieving ATARs, by ATAR range, 2015		Department of Education			
	3.5 Post-secondary education – participation and attainment		3.5.1 Non-school qualification at Certificate III level or above and/or currently studying, by Indigenous status and sex, 20–64 years old, 2011	ABS Census 2011		X
		3.5.2 VET Pass Load Rate for completed assessable enrolments 2015	Department of Training and Workforce Development			
		3.5.3 VET Module Load Completion Rate 2015	Department of Training and Workforce Development	12	X	
	4. Healthy Lives	4.1 Access to Primary Health Care	4.1.1 ASR per 100,000 person years of all cause hospitalisations 2005-2014 aged 15+	Department of Health		X
			4.1.2 Selected Indicators for Access to Primary Health Care, Western Australia, 2014/15	ABS NATSISS 2014/15		
		4.2 Potentially preventable hospitalisations	4.2.1 AAR per 100,000 person years of potentially preventable hospitalisations of persons aged 15+ 2005-2014	Department of Health	13	X

4. Healthy Lives	4.2 Potentially preventable hospitalisations	4.2.2 AAR per 100,000 person years of potentially preventable hospitalisations of persons aged 15+ by cause 2005-2014	Department of Health		X
		4.2.3 Diabetes related hospitalisations per 100,000 people by area, 2011-2015	Department of Health		X
	4.3 Potentially avoidable deaths	4.3.1 AAR per 100,000 person years of potentially avoidable deaths 2004-2013	Department of Health		X
	4.4 Tobacco consumption and harm	4.4.1 Selected Indicators for Tobacco Consumption and Harm, Western Australia, 2014/15	ABS NATSISS 2014/15		
	4.5 Obesity and Nutrition	4.5.1 Selected Indicators for Obesity and Nutrition, Western Australia, 2014/15	ABS NATSISS 2014/16		
	4.6 Oral Health	4.6.1 Age standardised rate of diseases of oral cavity, salivary glands & jaws hospitalisations per 100,000 persons 2005-2014	Department of Health		X
	4.7 Mental Health	4.7.1 Mental Health Occasions of Service age standardised rates 2014	Department of Health	14	X
		4.7.2 Mental Health Hospitalisations Age standardised rates per 100,000 person years 2005-2014	Department of Health		X
		4.7.3 Selected Indicators for Mental Health, Western Australia, 2014/15	ABS NATSISS 2014/15		
	4.8 Suicide and Self Harm	No data available			
	4.9 Life Expectancy	4.9.1 Selected Indicators for Life Expectancy, Western Australia, 2010-12	ABS Life Tables for Aboriginal and Torres Strait Islander Australians		
		4.9.2 Deaths by age, 2015	ABS Deaths		
	4.10 Disability and chronic disease	4.10.1 Persons needing assistance with core activities by Indigenous status, 2011	ABS Census 2011		X
		4.10.2 Persons providing unpaid assistance to a person with a disability by Indigenous status, 2011	ABS Census 2011		X
4.10.3 Labour force status of carers by Indigenous status, 2011		ABS Census 2011		X	
4.10.4 Labour force status of persons needing assistance with core activities by Indigenous status, 2011		ABS Census 2011			
4.10.5 Cancer Incidence Rates per 100000 person years (2005-2014)		Department of Health		X	
5. Economic Participation	5.1 Employment	5.1.1 Labour Force Status by age by sex, 2011	ABS Census 2011		
		5.1.2 Labour Force Status by Sex and Occupation, 2011	ABS Census 2011		
		5.1.3 Labour Force Status by Age and Sector, 2011	ABS Census 2011		
		5.1.4 Labour Force Status by Sector, 2011	ABS Census 2011		
		5.1.5 Labour Force Status by Age, 2011	ABS Census 2011		
		5.1.6 Labour Force Status by Sex, 2011	ABS Census 2011	15,16,17	X
		5.1.7 Employed Persons by CDEP Status by Indigenous Status by Sex, 2011	ABS Census 2011		
		5.1.8 Employed Persons by CDEP Status by Indigenous Status by Age, 2011	ABS Census 2011		
	5.2 Indigenous Owned or controlled land and business	5.2.1 Self-employment people aged 15-64, 2011	ABS Census 2011		X
	5.3 Home Ownership	5.3.1 Home Ownership by Tenure Type, 2011	ABS Census 2011	20	X
	5.4 Income Support	5.4.1 Persons receiving income support payments as at March 2016	Department of Prime Minister and Cabinet		
		5.4.2 Indigenous people receiving Centrelink payments by payment type, as at June 2015	Department of Prime Minister and Cabinet	19	X
		5.4.3 Selected Indicators for Income Support, Western Australia, 2014/15	ABS NATSISS 2014/15		
5.5 Household and individual income	5.5.1 Total Household Income (Weekly) by Indigenous Status of Household, 2011	ABS Census 2011			
	5.5.2 Total Personal Income (Weekly), 2011	ABS Census 2011			

	5.5 Household and individual income	5.5.3 Median Total Household Income (\$/Weekly), 2011	ABS Census 2011		X
		5.5.4 Median Total Personal Income (\$/Weekly), 2011	ABS Census 2011	18	X
6. Home Environment	6.1 Overcrowding in Housing	6.1.1 Average household size and average number of persons per bedroom by Indigenous status	ABS Census 2011		X
		6.1.2 Proportion of households that need one or more extra bedrooms by Indigenous status	ABS Census 2011	21	X
		6.1.3 Selected Indicators for Overcrowding in Housing, Western Australia, 2014/15	ABS NATSISS 2014/15		
	6.2 Rates of disease associated with poor environmental health	6.2.1 Environmental related hospitalisations per 100,000 people by area, 2011-2015	Department of Health	22	X
	6.3 Access to clean water and functional sewerage	6.3.1 Selected Indicators for Overcrowding in Housing, Western Australia, 2014/15	ABS NATSISS 2014/15		
7. Safe and Supportive Communities	7.1 Substance use and Harm	7.1.1 Alcohol related hospitalisations, 2011-2015	Department of Health	23	X
		7.1.2 Other Drug related hospitalisations, 2011-2015	Department of Health		X
		7.1.3 Selected Indicators for Substance Use and Harm, Western Australia, 2014/15	ABS NATSISS 2014/15		
	7.2 Juvenile Diversions	7.2.1 Method of processing juvenile offenders by offence type, 2015-16	WAPOL		
		7.2.2 Number and proportion of juvenile diversions, 2015-16	WAPOL	24	X
		7.2.3 Method of processing juvenile offenders by sex, 2015-16	WAPOL		
	7.3 Repeat Offending	7.3.1 Number of prisoners by LGA of Last Known Address and Prior Imprisonment for prisoners held in WA prisons as at 30 June 2016	Department of Corrective Services		X
		7.3.2 Number of prisoners by LGA of Last Known Address and Prior Sentenced Imprisonment for prisoners held in WA prisons as at 30 June 2016	Department of Corrective Services		X
	7.4 Community Functioning	7.4.1 Number and Rate per 1000 of Adult Arrests by Sex, 2015-16	WAPOL	25	X
	7.5 Substantiated child abuse and neglect	7.5.1 Children in the CEO's care by Indigenous status at 30 June 2016	Department for Child Protection and Family Support	26	X
		7.5.2 Children in the CEO's care by Order type and by Indigenous status at 30 June 2016	Department for Child Protection and Family Support		
	7.5 Substantiated child abuse and neglect	7.5.3 Indigenous children placed in accordance with the ATSI child placement principle	Department for Child Protection and Family Support		X
		7.5.4 Substantiated Safety and wellbeing assessments by Indigenous status 1 July 2015 - 30 June 2016	Department for Child Protection and Family Support		X
		7.5.5 Number of Mandatory Reports for child sexual abuse by Indigenous status 1 July 2015 - 30 June 2016	Department for Child Protection and Family Support		X
		7.5.6 Number of children with a reported STIs by Indigenous status, age group and gender 1 July 2015 - 30 June 2016	Department for Child Protection and Family Support		X
		7.5.7 Number of STIs reports by Indigenous status, age group and gender 1 July 2015 - 30 June 2016	Department for Child Protection and Family Support		
		7.5.8 Number and rate of Sexually Transmitted Infections Notifications, persons aged 0-14, by SA2 (2005-2014)	Department of Health		X
	7.6 Family and community violence	7.6.1 Number of Victims of Assault by Sex, 2015-16	WAPOL		X
		7.6.2 Victims of Assault by Relationship to Offender, 2015-16	WAPOL		
		7.6.3 Victims of Sexual Assault by Relationship to Offender, 2015-16	WAPOL		

7. Safe and Supportive Communities	7.6 Family and community violence	7.6.4 Victims of Sexual Assault by Location of Assault, 2015-16	WAPOL		
		7.6.5 Victims of Homicide Related Offences, 2015-16	WAPOL		
		7.6.6 Children escaping family violence by Indigenous status 1 July 2015 - 30 June 2016	Department for Child Protection and Family Support		X
		7.6.7 Number of children involved in a report of concern due to a DVIR by Indigenous status 1 July 2015 - 30 June 2016	Department for Child Protection and Family Support		X
		7.6.8 Number of children involved in a DVIR notification by Indigenous status 1 July 2015 - 30 June 2016	Department for Child Protection and Family Support		X
	7.7 Imprisonment and juvenile detention	7.7.1 Daily Average Population of Adult Prisoners by LGA of Last Known Address, 2015-16	Department of Corrective Services		X
		7.7.2 Daily Average Proportion of Aboriginal Adult Prisoners by LGA of Last Known Address, 2015-16	Department of Corrective Services		X
		7.7.3 Daily Average Population of Adult Prisoners by Offence Type, by LGA of last known address 2015-16	Department of Corrective Services		
		7.7.4 Daily Average Proportion of Adult Prisoners by Offence Type, by LGA of last known address, 2015-16	Department of Corrective Services		
		7.7.5 Daily Average Number and Proportion of Adult Prison Population by Legal Status, by LGA of last known address, 2015-16	Department of Corrective Services		X
		7.7.6 Daily Average Population of Young People in Detention by LGA of last known address, 2015-16	Department of Corrective Services		X
		7.7.7 Daily Average Population of Young People with Community Corrections Orders by LGA of last known address, 2015-16	Department of Corrective Services		X

Note: Measures that were included in the outcomes rank composite scores are indicated with an “x” in the “Rank” column. For measures that are split by gender, only aggregate performance was included in the rank.