



Mapping of government-funded services

An expenditure and outcomes mapping
exercise for the Kimberley and Pilbara regions

Regional Services Reform Unit

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Acknowledgement

The Regional Services Reform Unit would like to thank the *Centre for Social Impact University of Western Australia* for their expertise in the analyses of the data.

Acknowledging this mapping exercise was made possible with the support and data sharing across multiple government agencies at both a State and Commonwealth level.

This mapping is the first systematic, comprehensive approach in Australia to mapping Aboriginal expenditure and outcomes across geographical regions. Analyses until now have been based on national, State, Territory or individual locations.

This mapping makes a significant contribution to the body of knowledge about regional government direct service expenditures and Aboriginal outcomes in the Pilbara and the Kimberley.

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Foreword

Central to regional services reform is a commitment to make government-funded services outcome-focused and more responsive to the differing needs and circumstances of regions and communities.

State agencies typically operate in silos within a region, providing disconnected services to common clients. Policies and programs do not always take into account the significant differences in demographics, geography, environment and the economy in the regions, or the differences between regions.

To support structural solutions for regional service delivery, the State Government has mapped wellbeing outcomes and government direct service provision expenditure in the Kimberley and Pilbara regions. The mapping will inform and facilitate work between government agencies, other organisations and communities on developing place-based service systems.

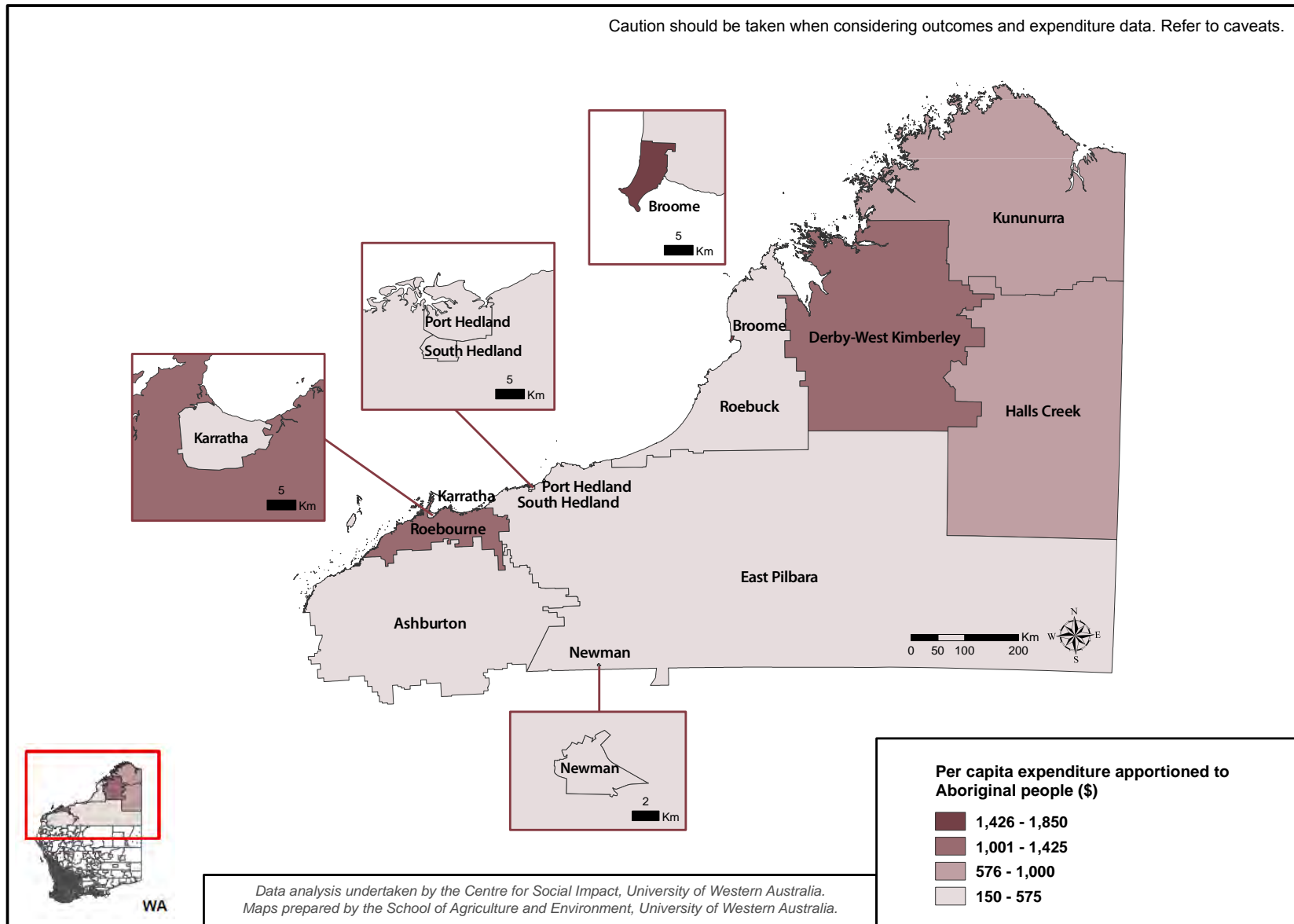
The data collated through this project will provide a baseline of government expenditure and outcomes in the Kimberley and the Pilbara.



Expenditure Maps

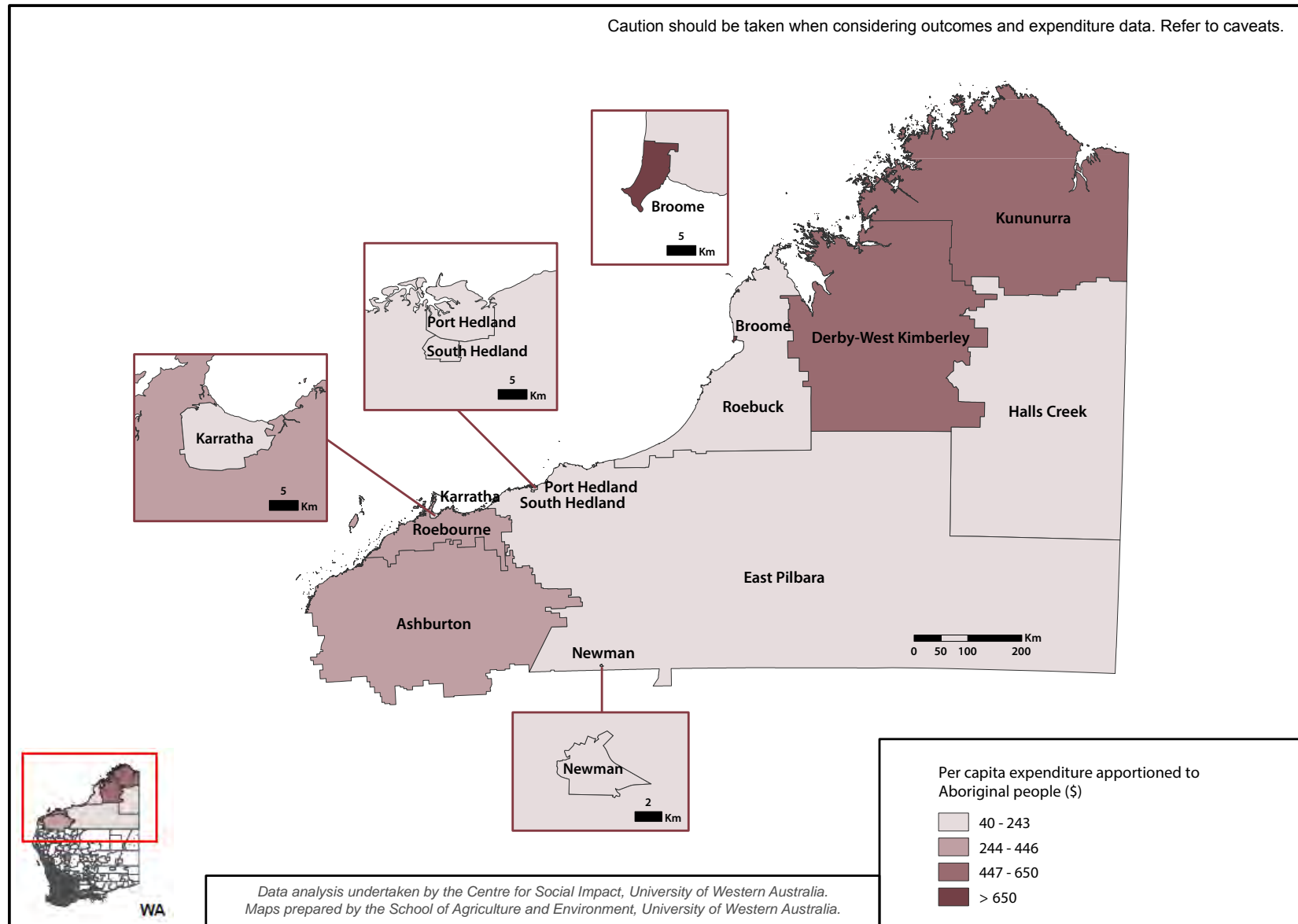
Expenditure map - Governance, leadership and culture

Per capita Commonwealth and State government governance, leadership and culture direct service provision expenditure apportioned to Aboriginal people by statistical area level 2 (SA2), 2015-16



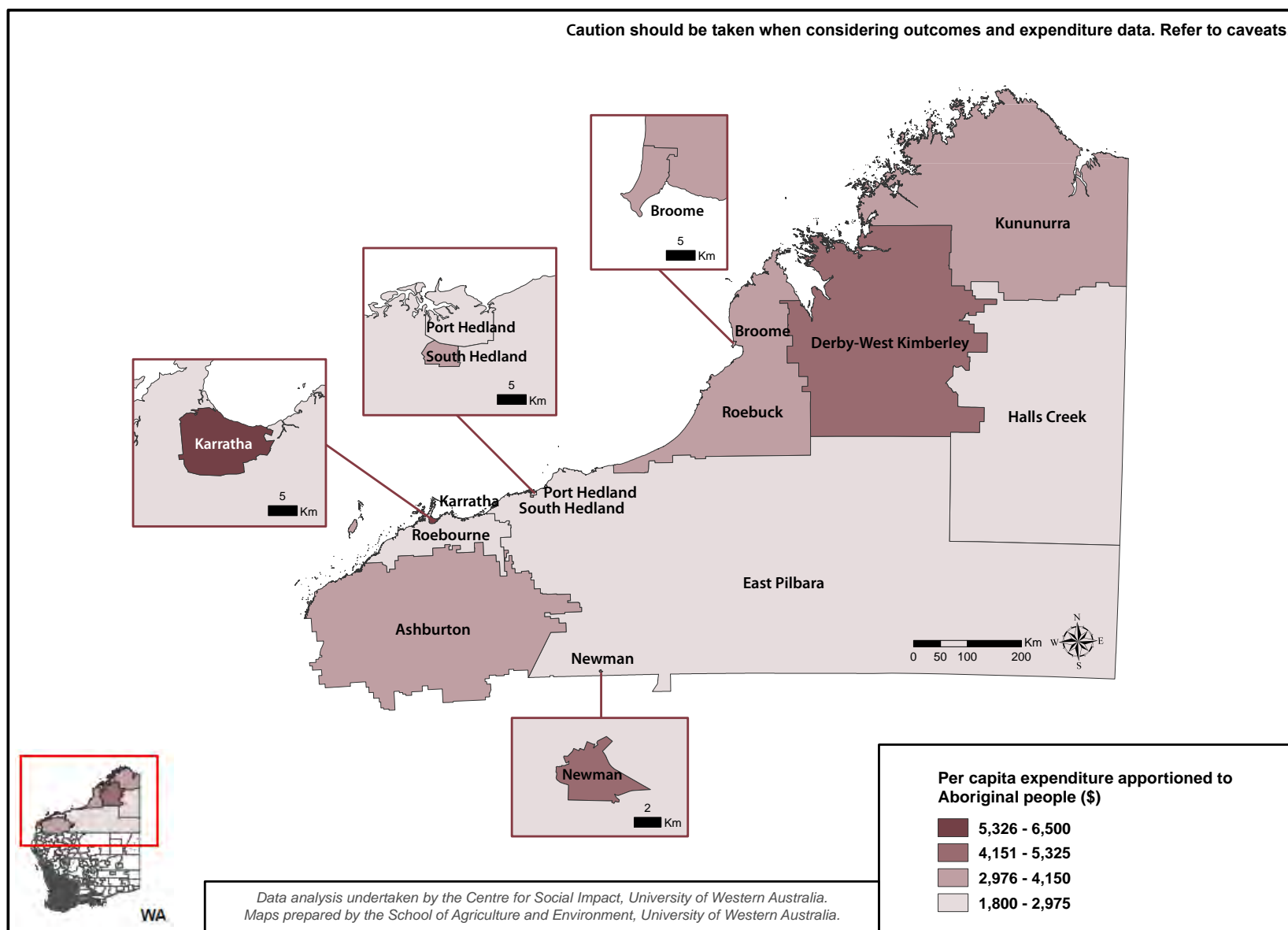
Expenditure map - Early child development

Per capita Commonwealth and State government early child development direct service provision expenditure apportioned to Indigenous people by statistical area level 2 (SA2), 2015-16



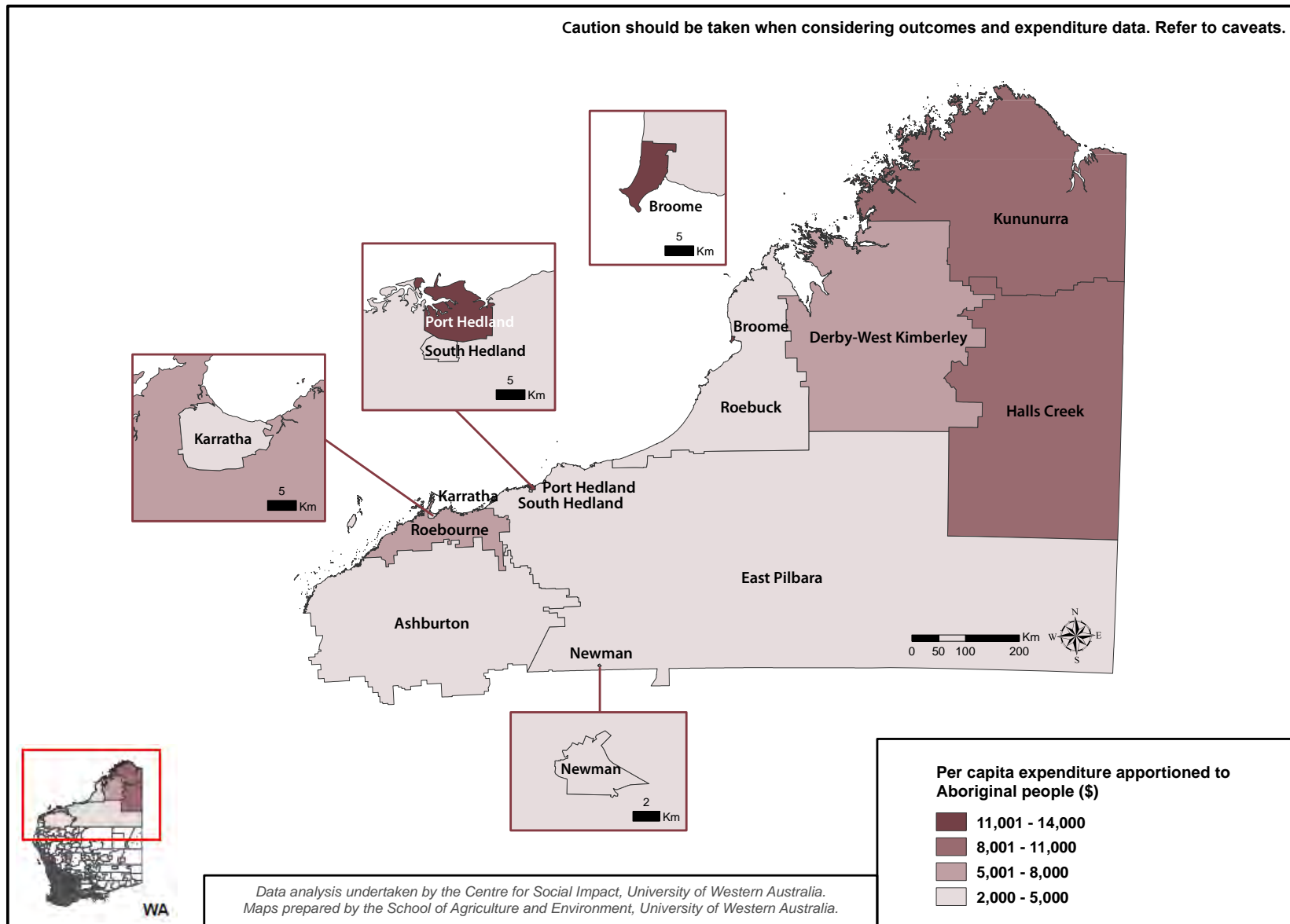
Expenditure map - Education and training

Per capita Commonwealth and State government education and training direct service provision expenditure apportioned to Indigenous people by statistical area level 2 (SA2), 2015-16



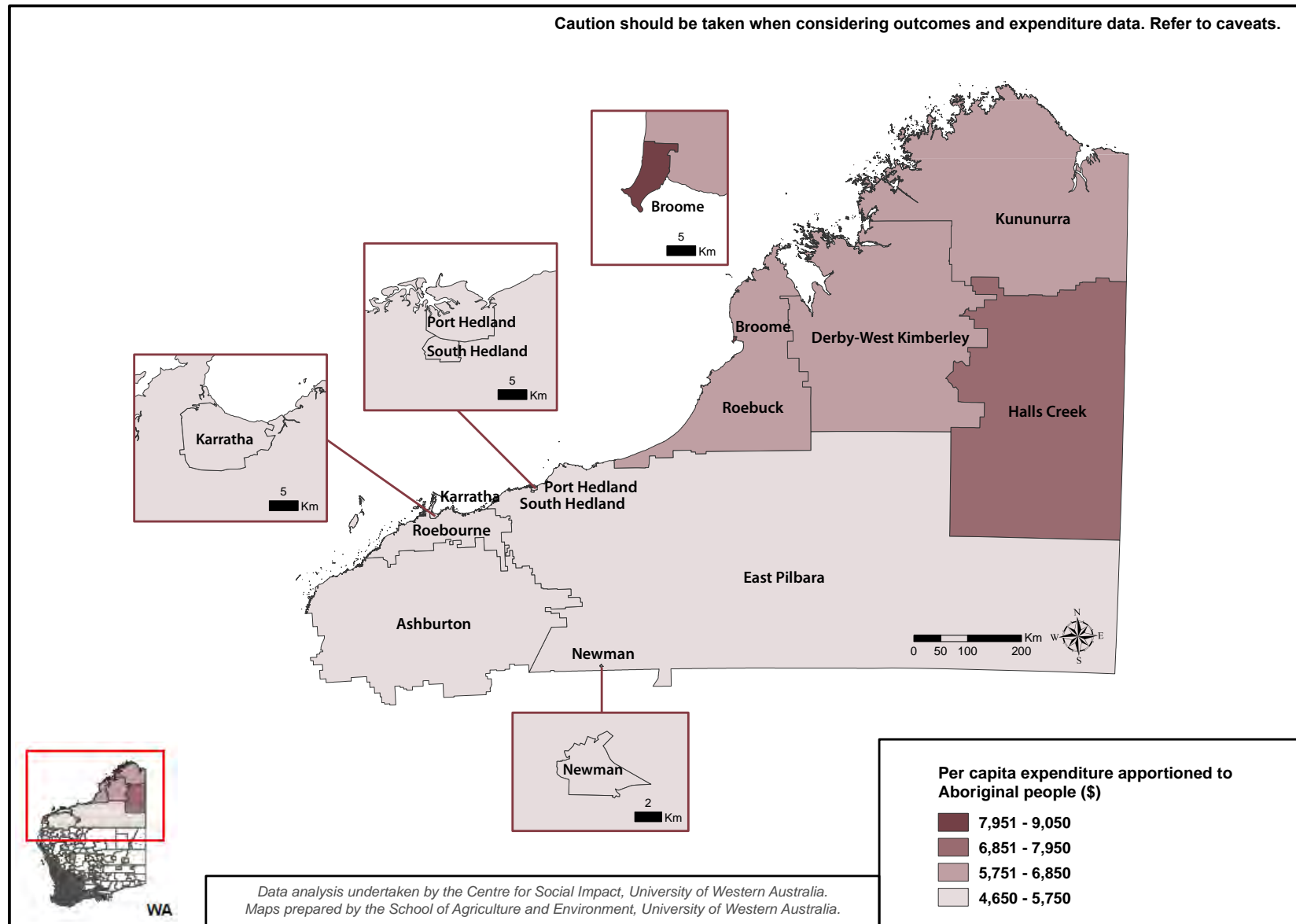
Expenditure map - Healthy lives

Per capita Commonwealth and State government healthy lives direct service provision expenditure apportioned to Indigenous people by statistical area level 2 (SA2), 2015-16



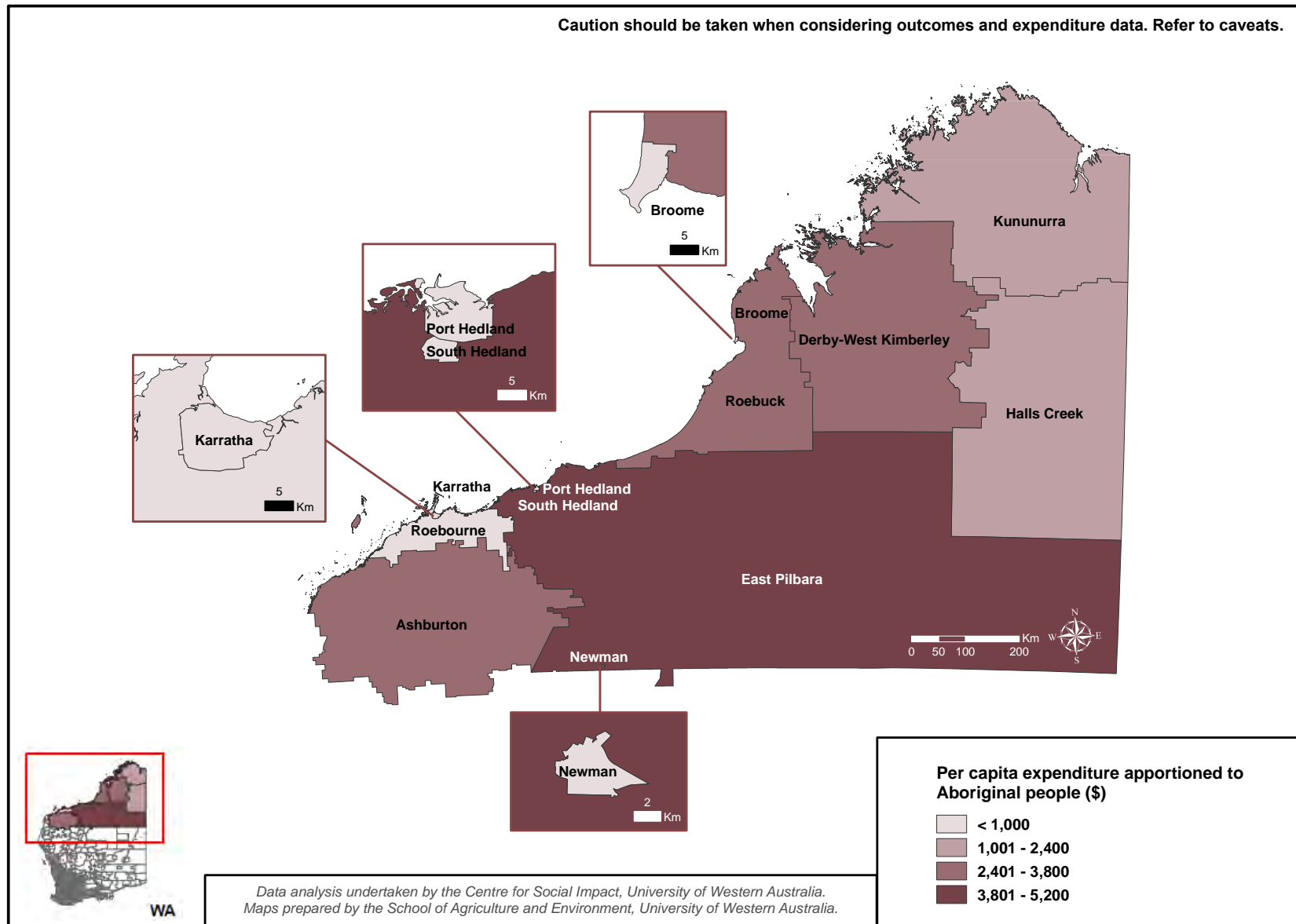
Expenditure map - Economic participation

Per capita Commonwealth and State government economic participation direct service provision expenditure apportioned to Indigenous people by statistical area level 2 (SA2), 2015-16



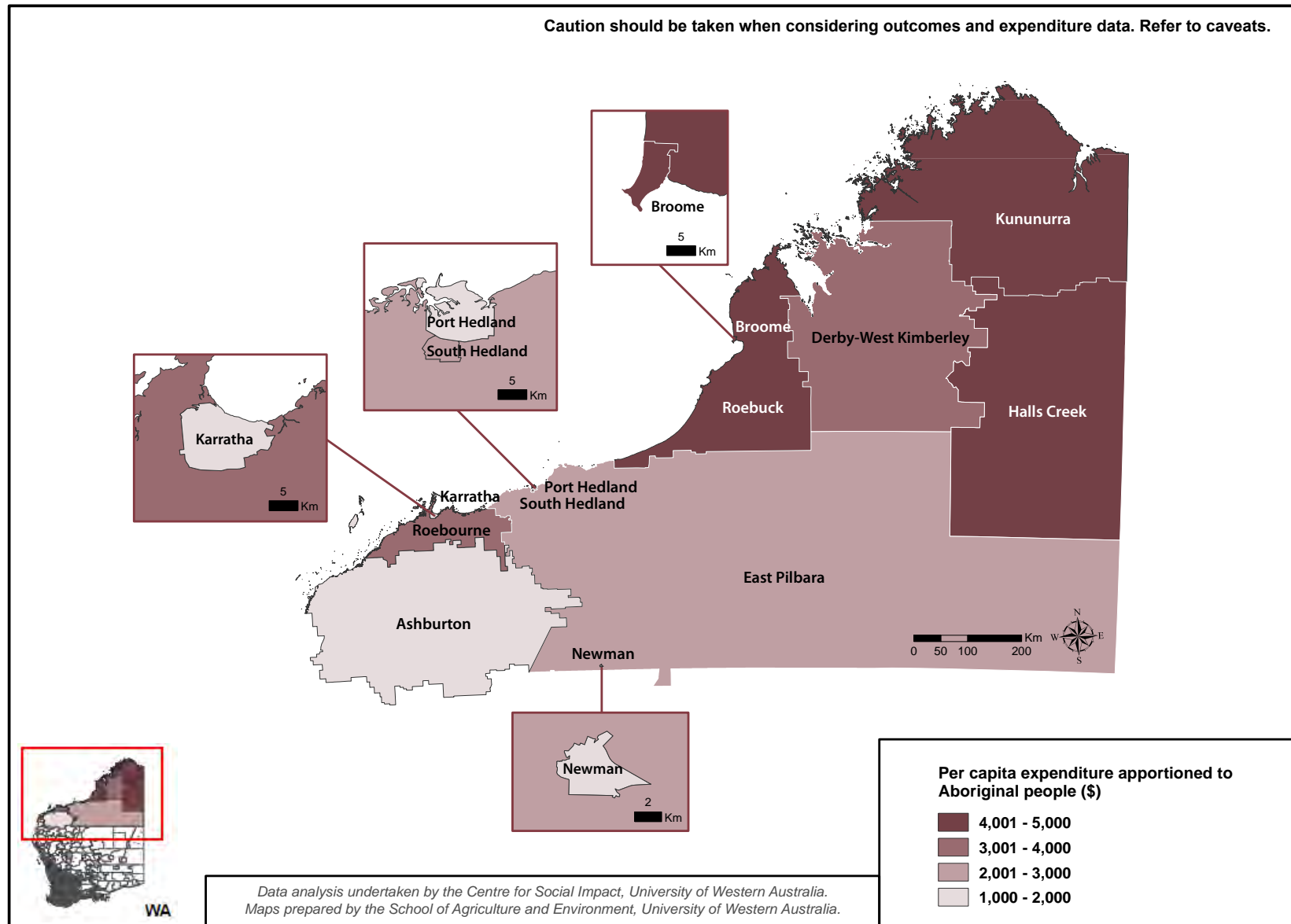
Expenditure map - Home environment

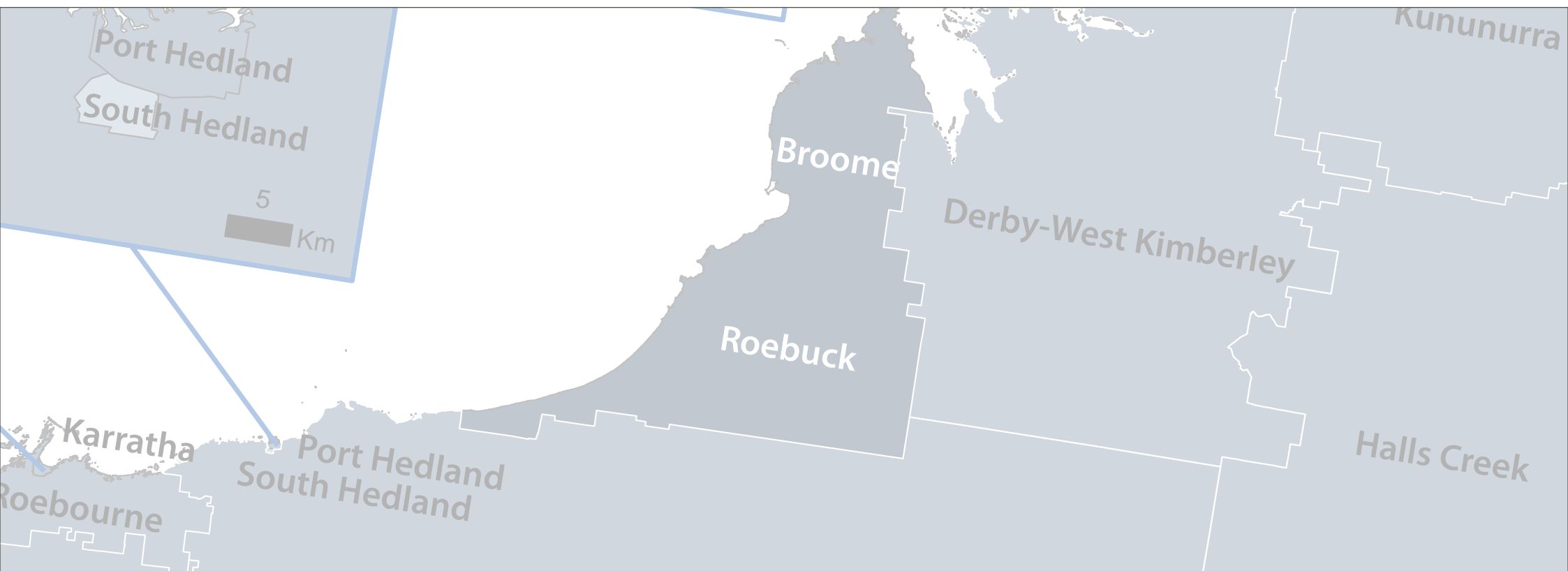
Per capita Commonwealth and State government home environment direct service provision expenditure apportioned to Indigenous people by statistical area level 2 (SA2), 2015-16



Expenditure map - Safe and supportive communities

Per capita Commonwealth and State government safe and supportive communities direct service provision expenditure apportioned to Indigenous people by statistical area level 2 (SA2), 2015-16



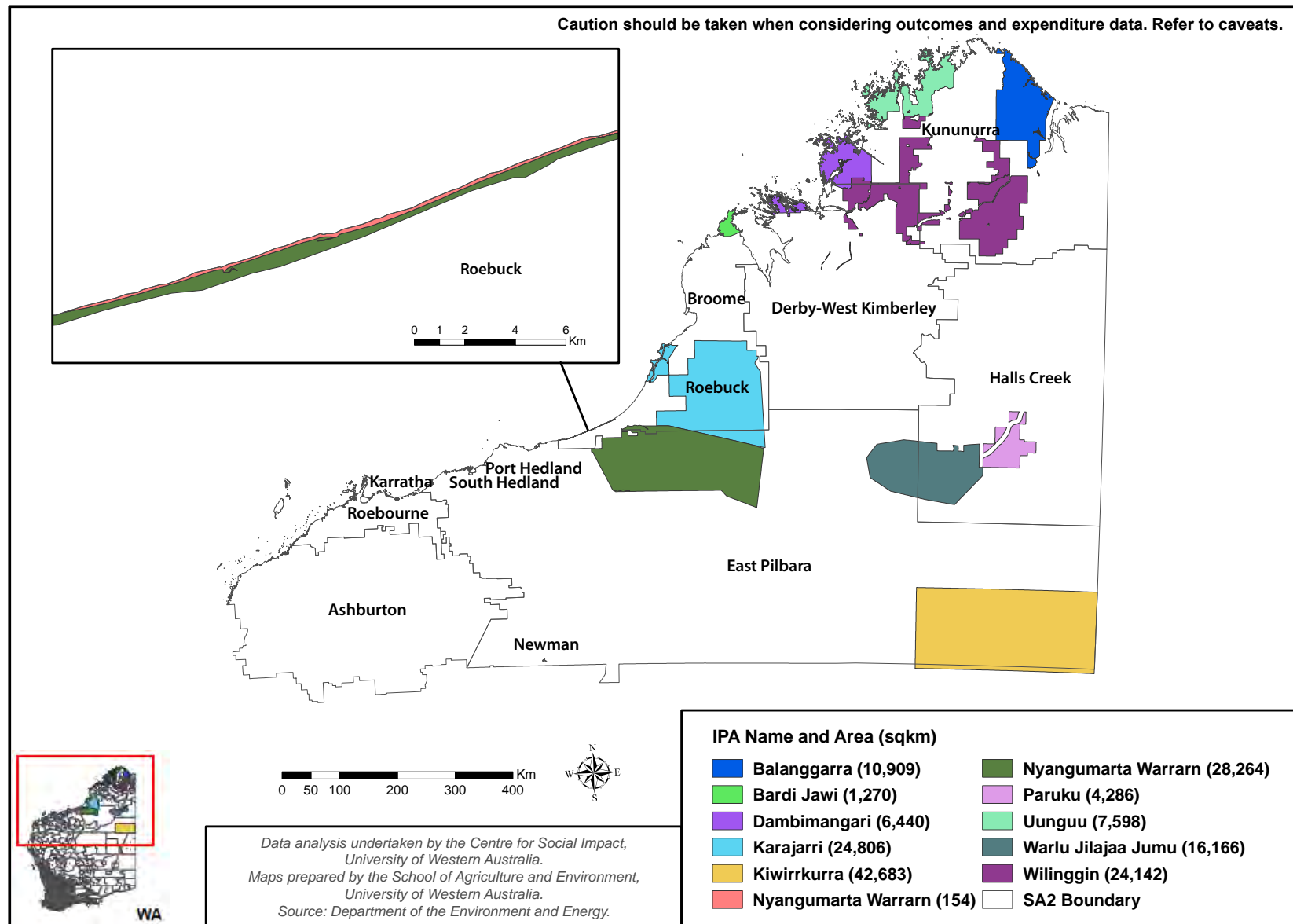


Outcomes Maps

Outcome map - Governance, leadership and culture

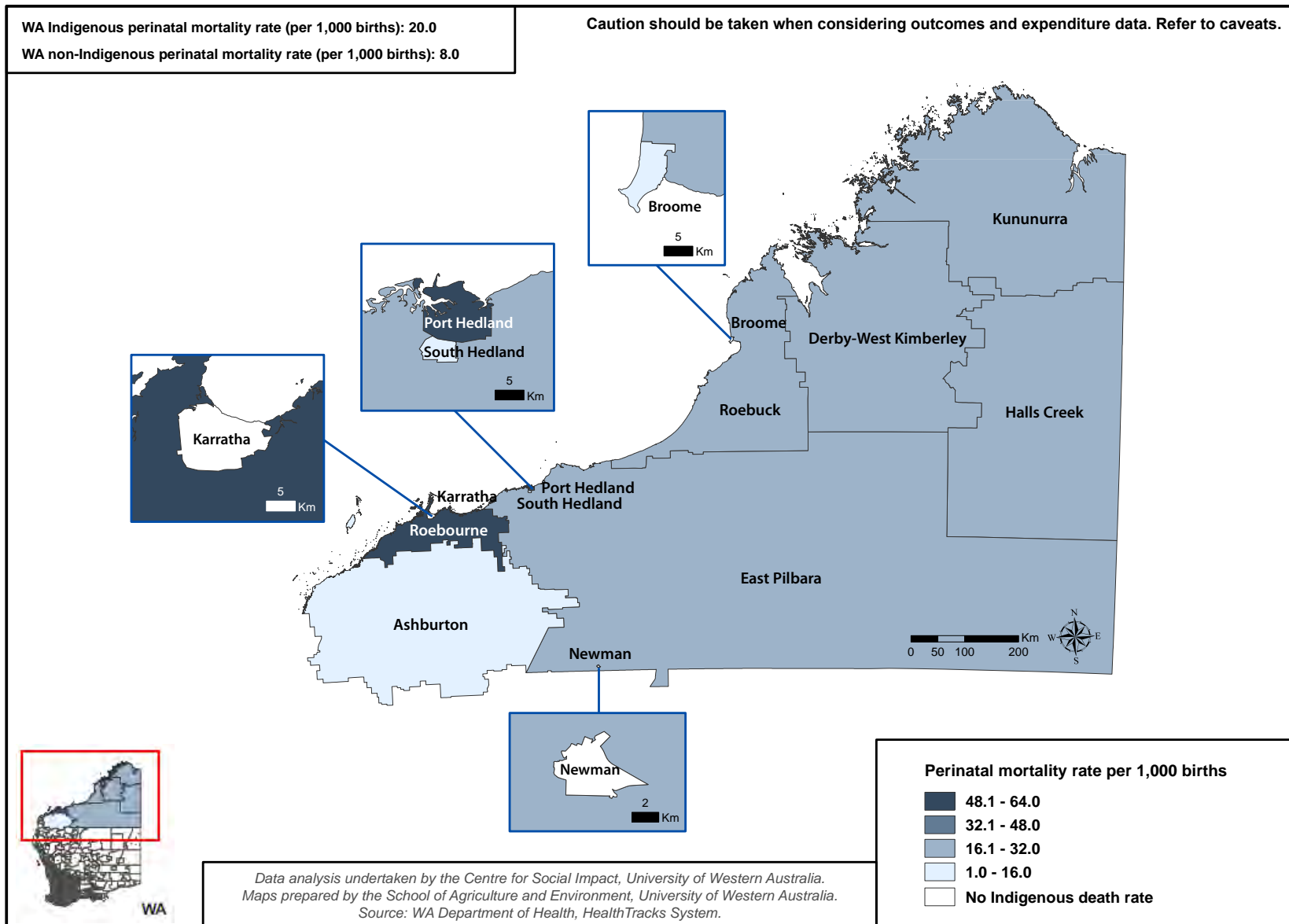
Indigenous Protected Areas (IPA) in the Kimberley and Pilbara

by IPA name and SA2, as at 1 December 2016



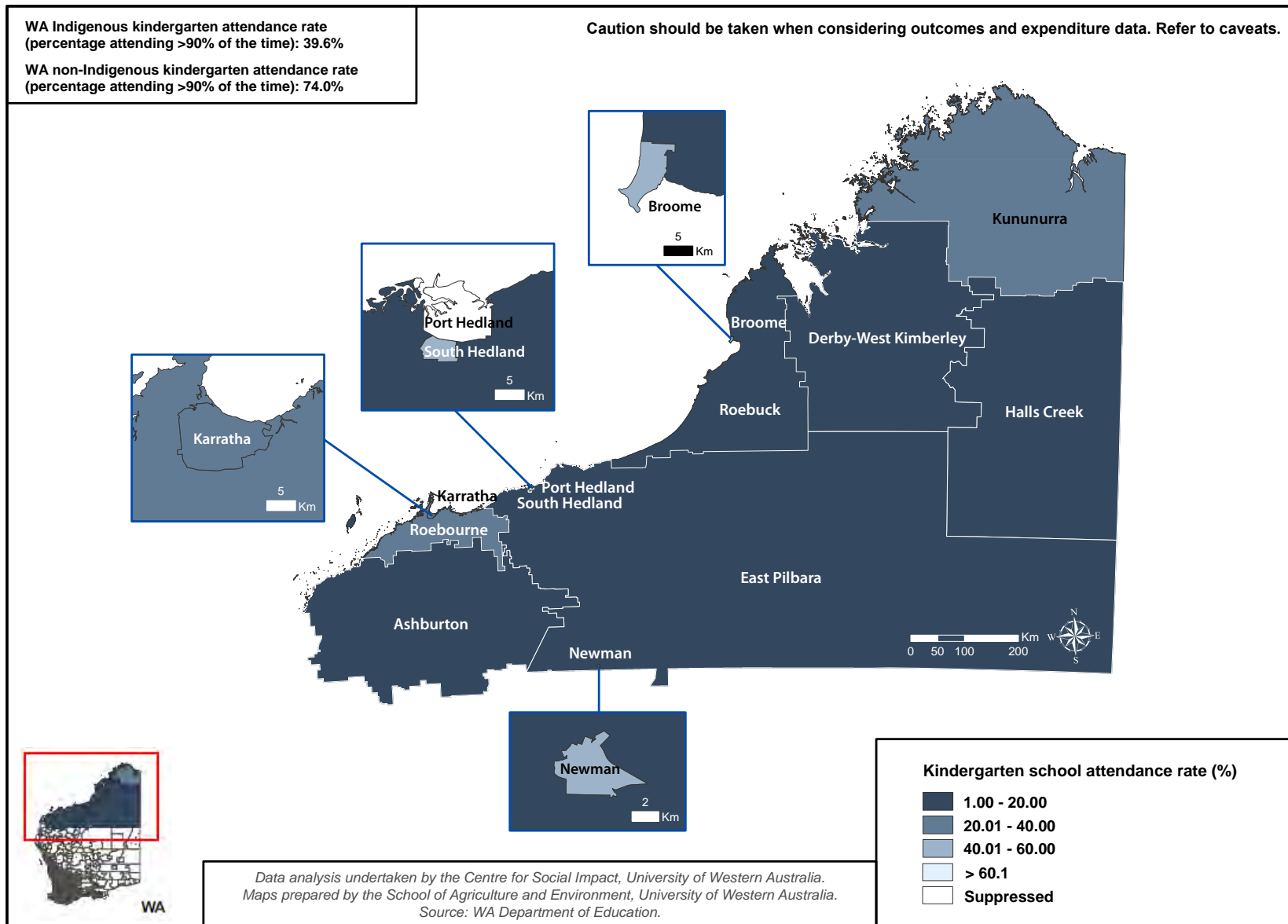
Outcome map - Early child development

Indigenous still births, neonatal and perinatal mortality rates per 1,000 births in the Kimberley and Pilbara, by mother's SA2 of residence (2010-2014)



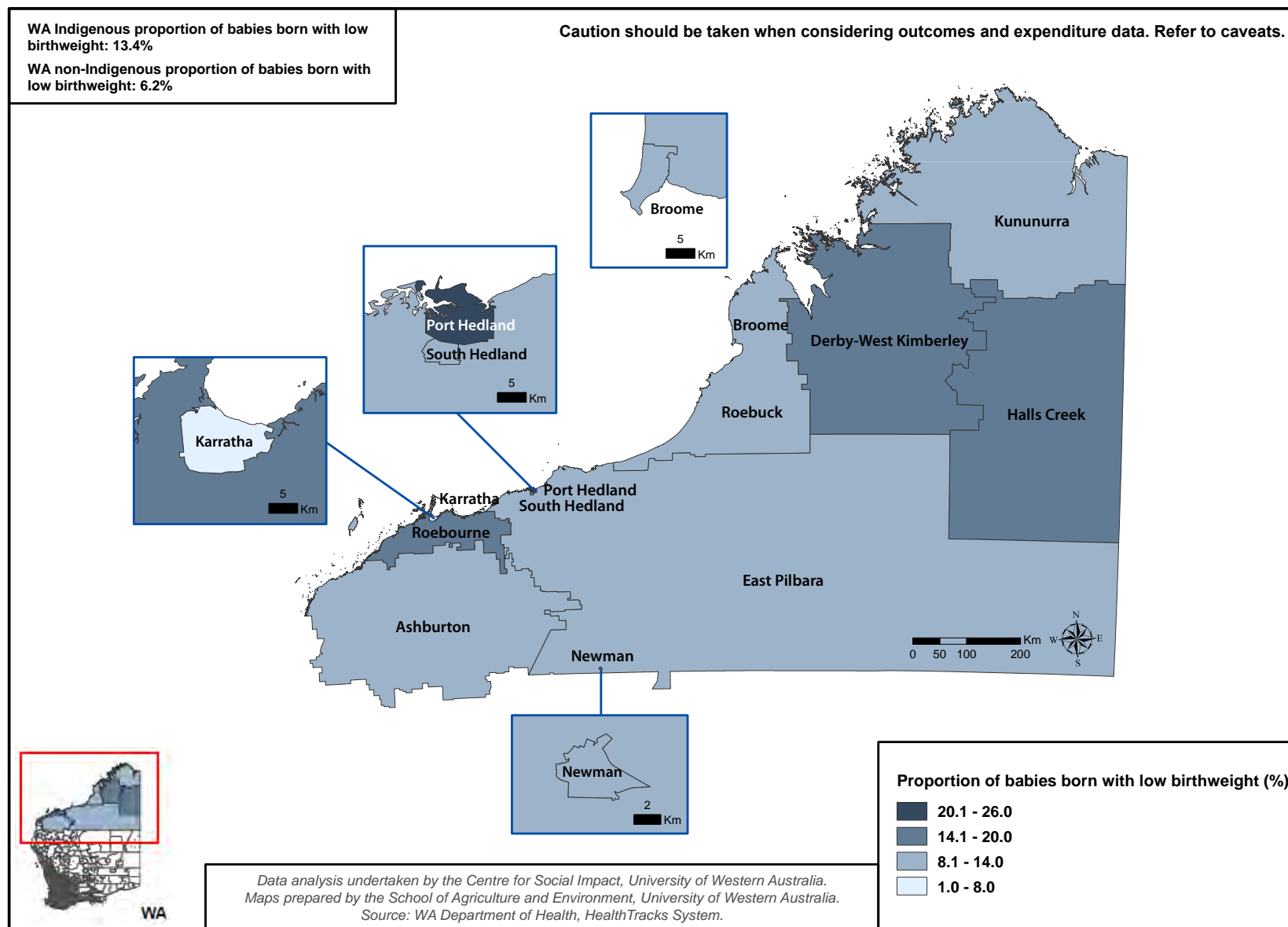
Outcome map - Early child development

Proportion (%) of Indigenous kindergarten students in the Kimberley and Pilbara with attendance rates of 90% and above by SA2, 2015



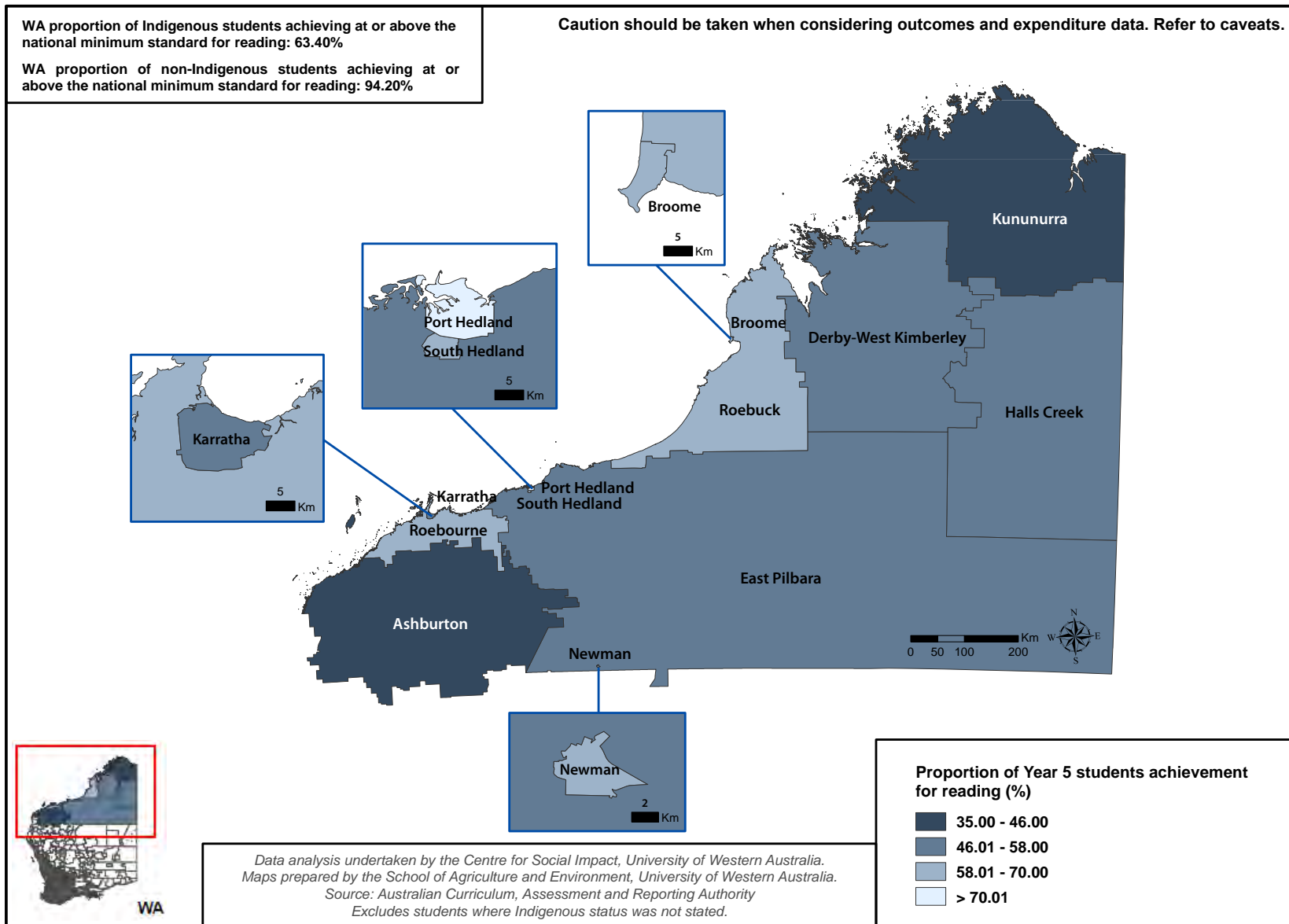
Outcome map - Early child development

Proportion of Indigenous babies born with low birthweight in the Kimberley and Pilbara, by mother's SA2 of residence (2010-2014)



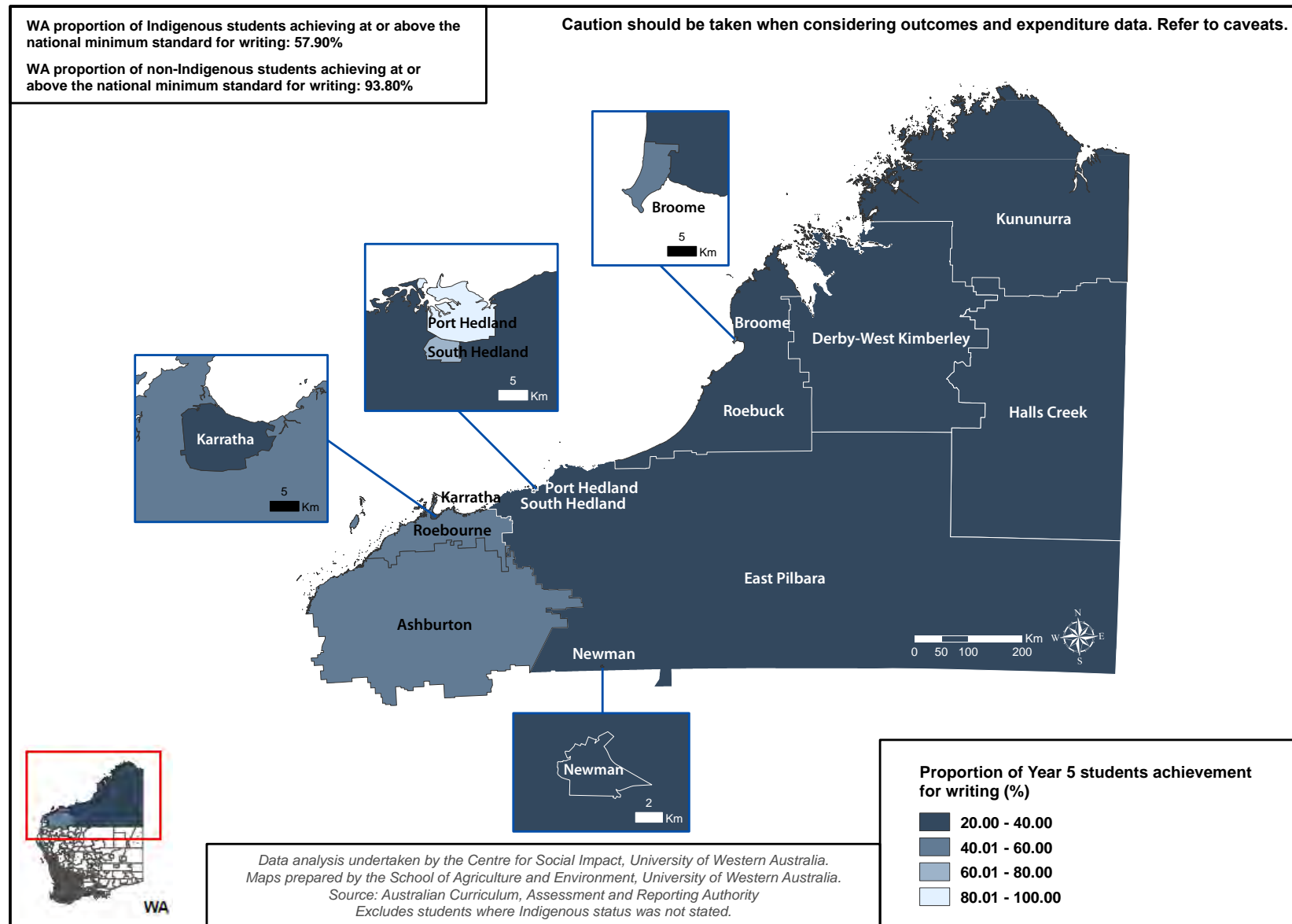
Outcome map - Education and training

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



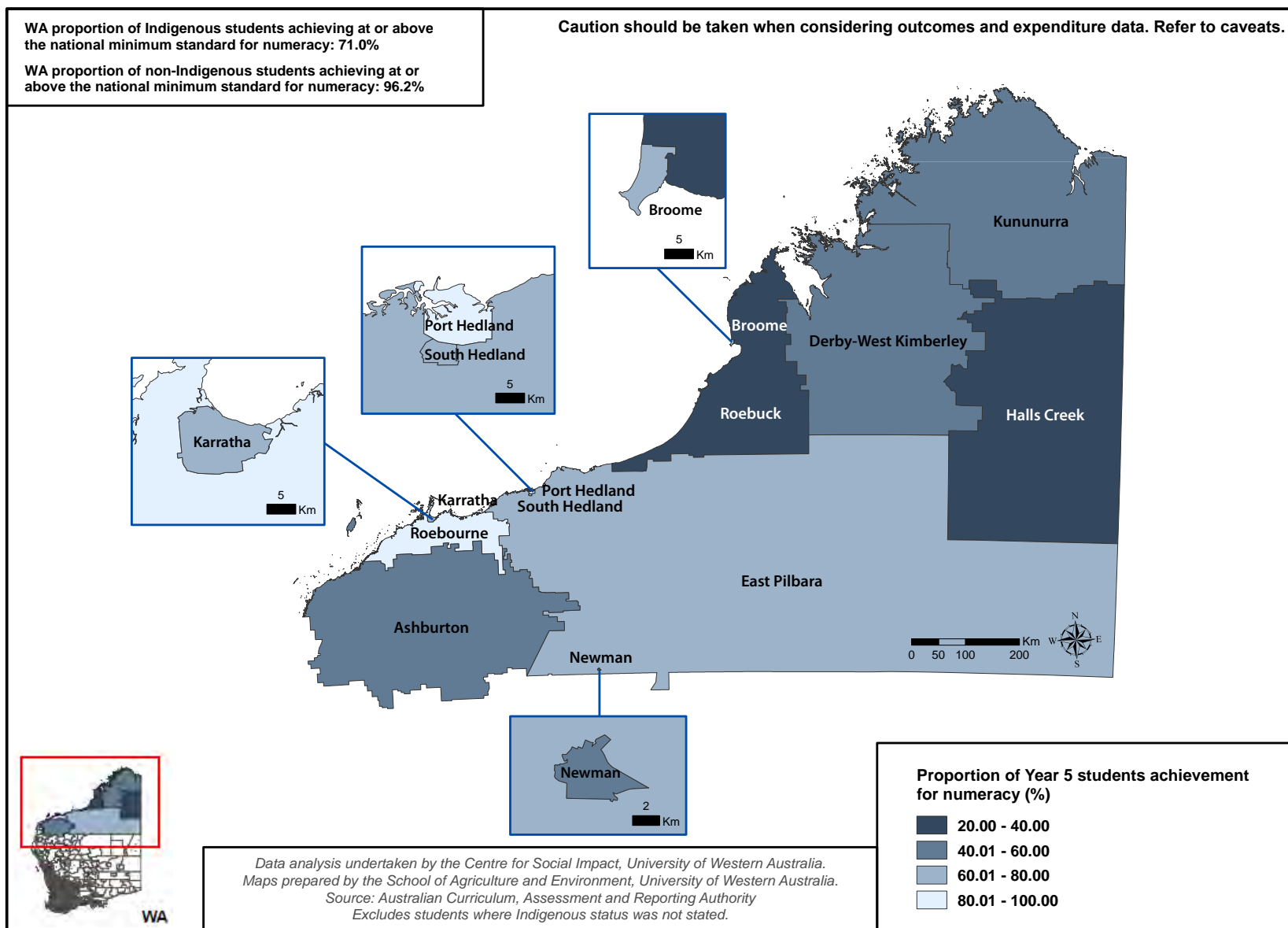
Outcome map - Education and training

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



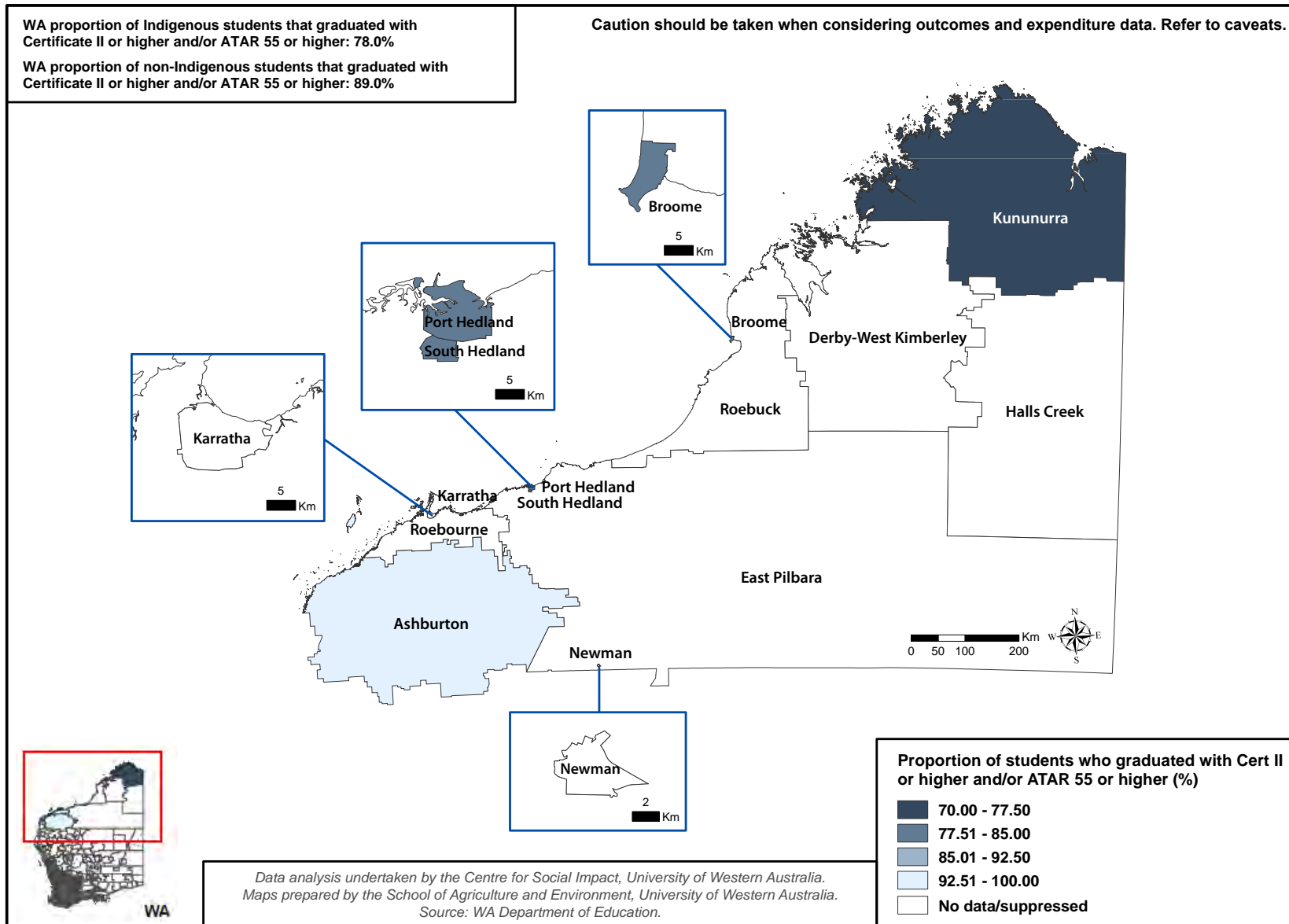
Outcome map - Education and training

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



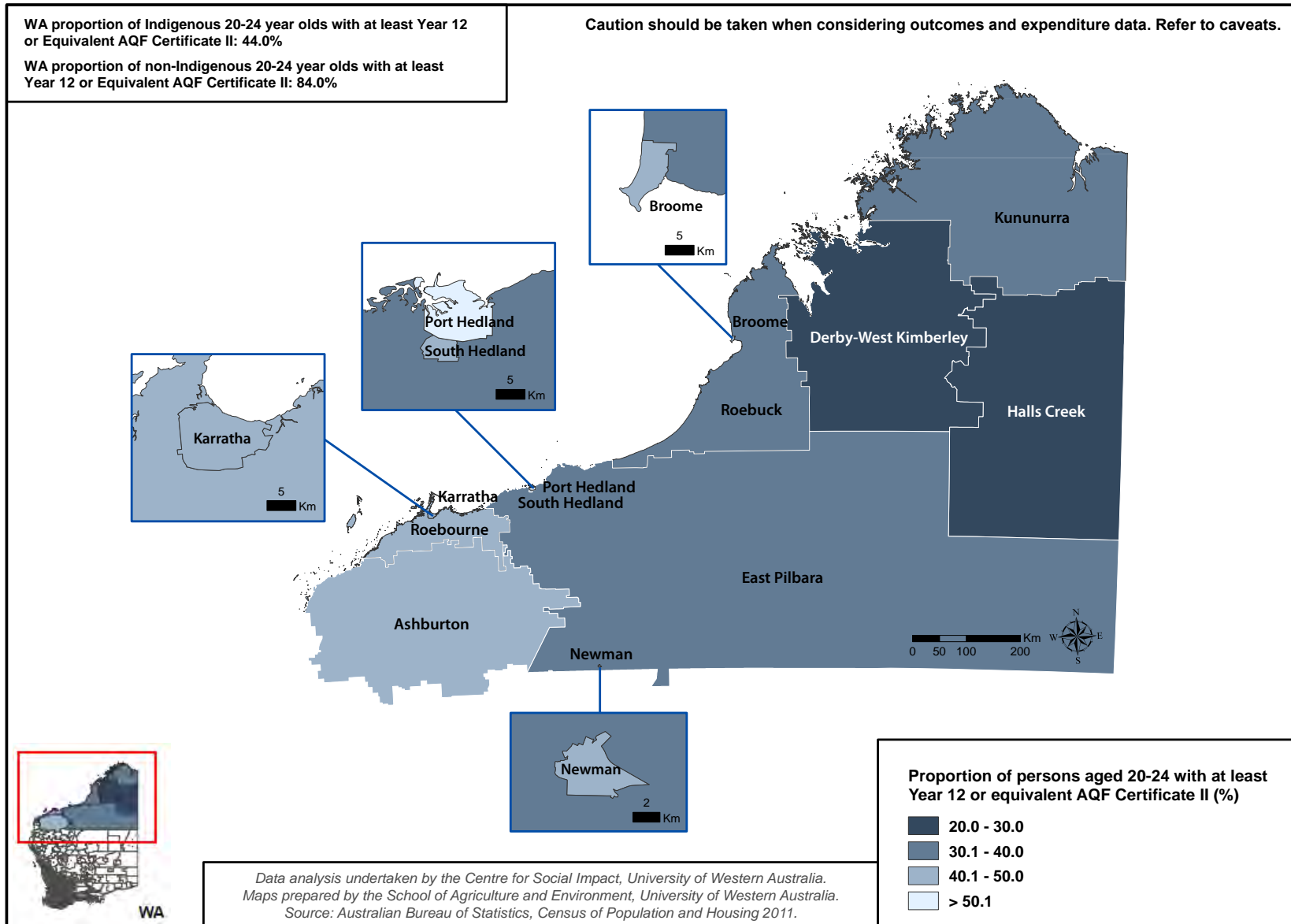
Outcome map - Education and training

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

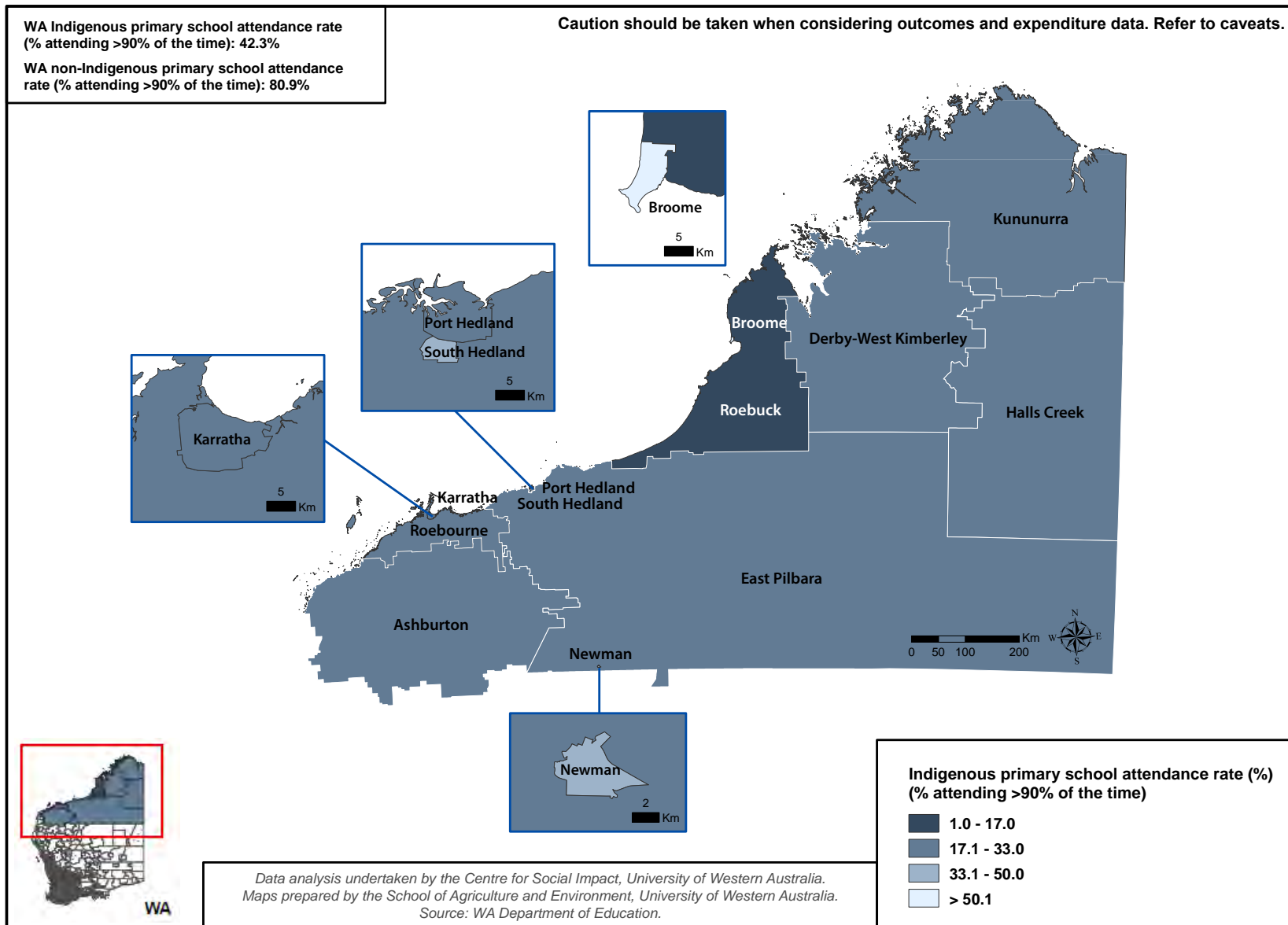


Outcome map - Education and training

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

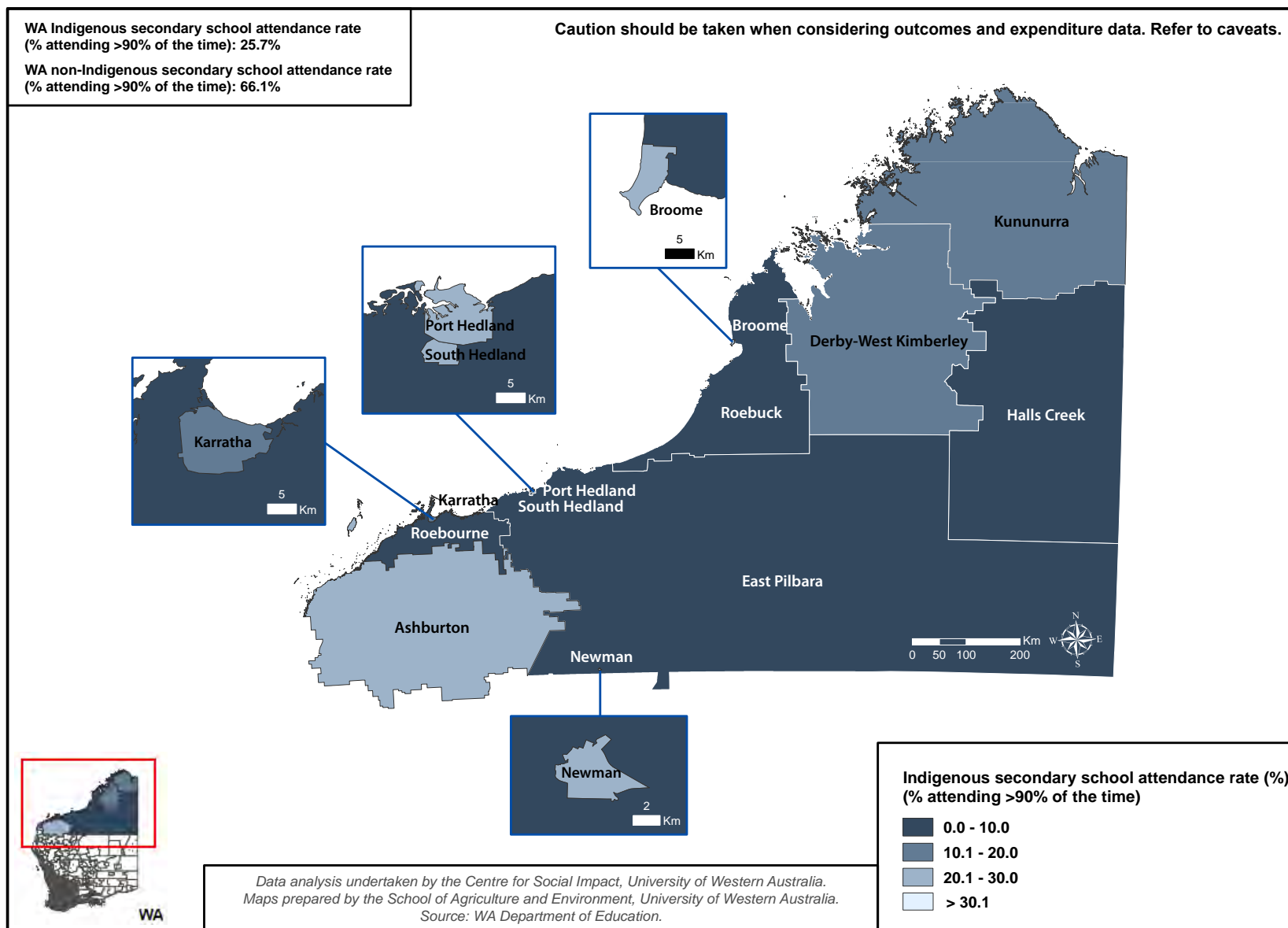


Outcome map - Education and training Proportion of Indigenous students in the Kimberley and Pilbara with primary school attendance rate of above 90%, by SA2, 2015

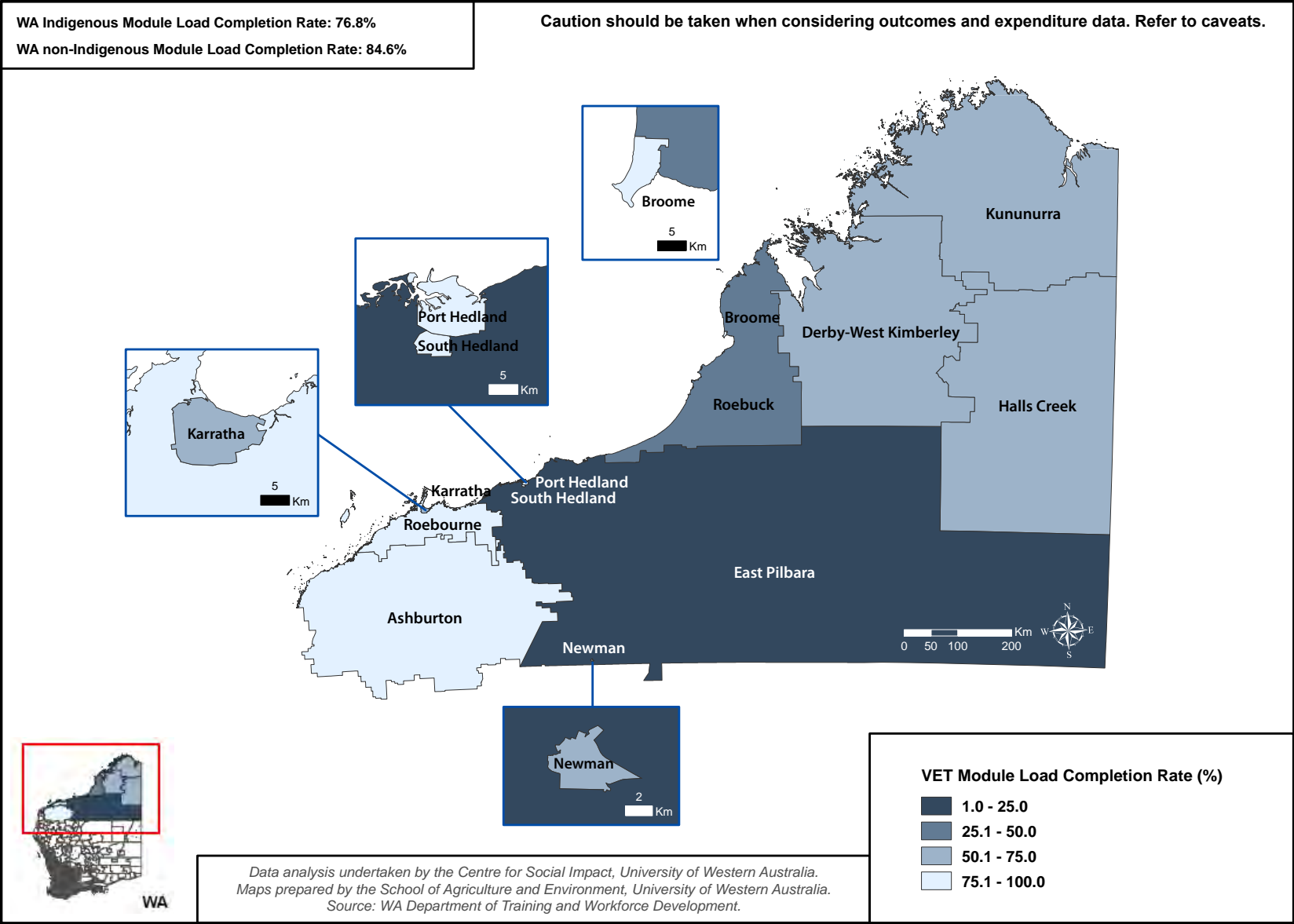


Outcome map - Education and training

Proportion of Indigenous students in the Kimberley and Pilbara with secondary school attendance rate of above 90%, by SA2, 2015

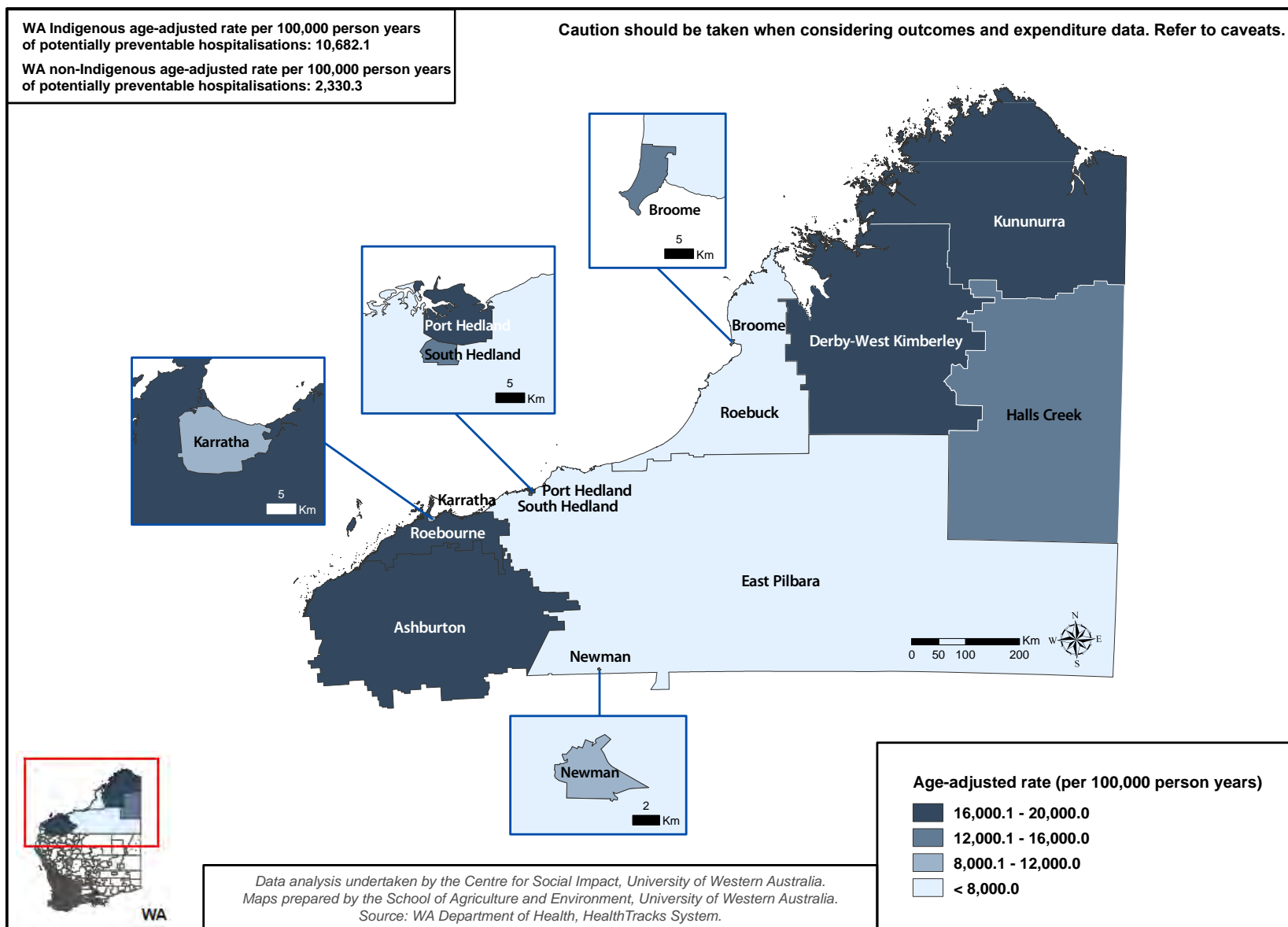


Outcome map - Education and training
Vocational education module load completion rate, by SA2, 2015



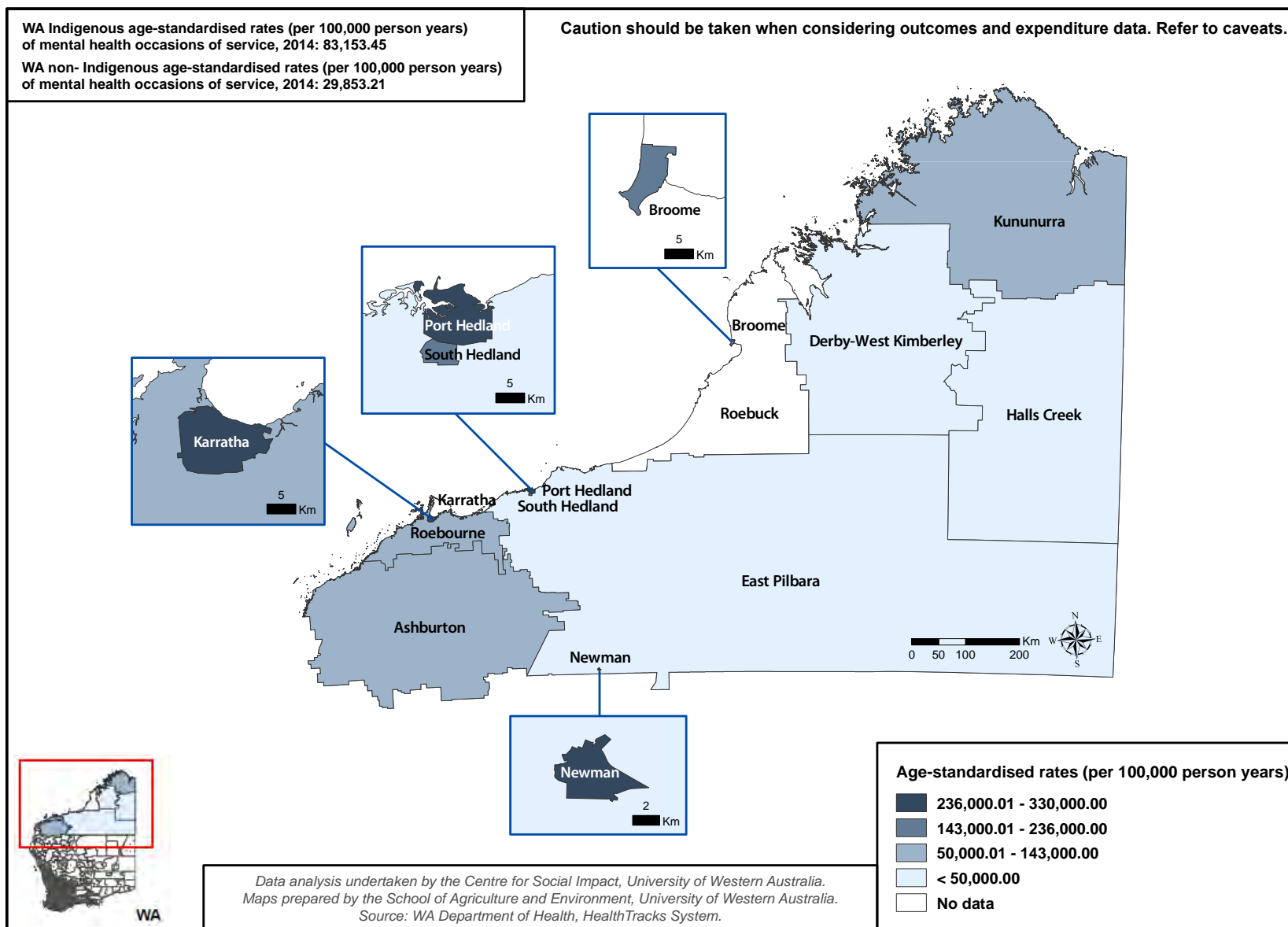
Outcome map - Healthy lives

Age-adjusted rate (per 100,000 person years) of potentially preventable hospitalisations
in the Kimberley and Pilbara, persons aged 15+, by SA2, 2005-2014



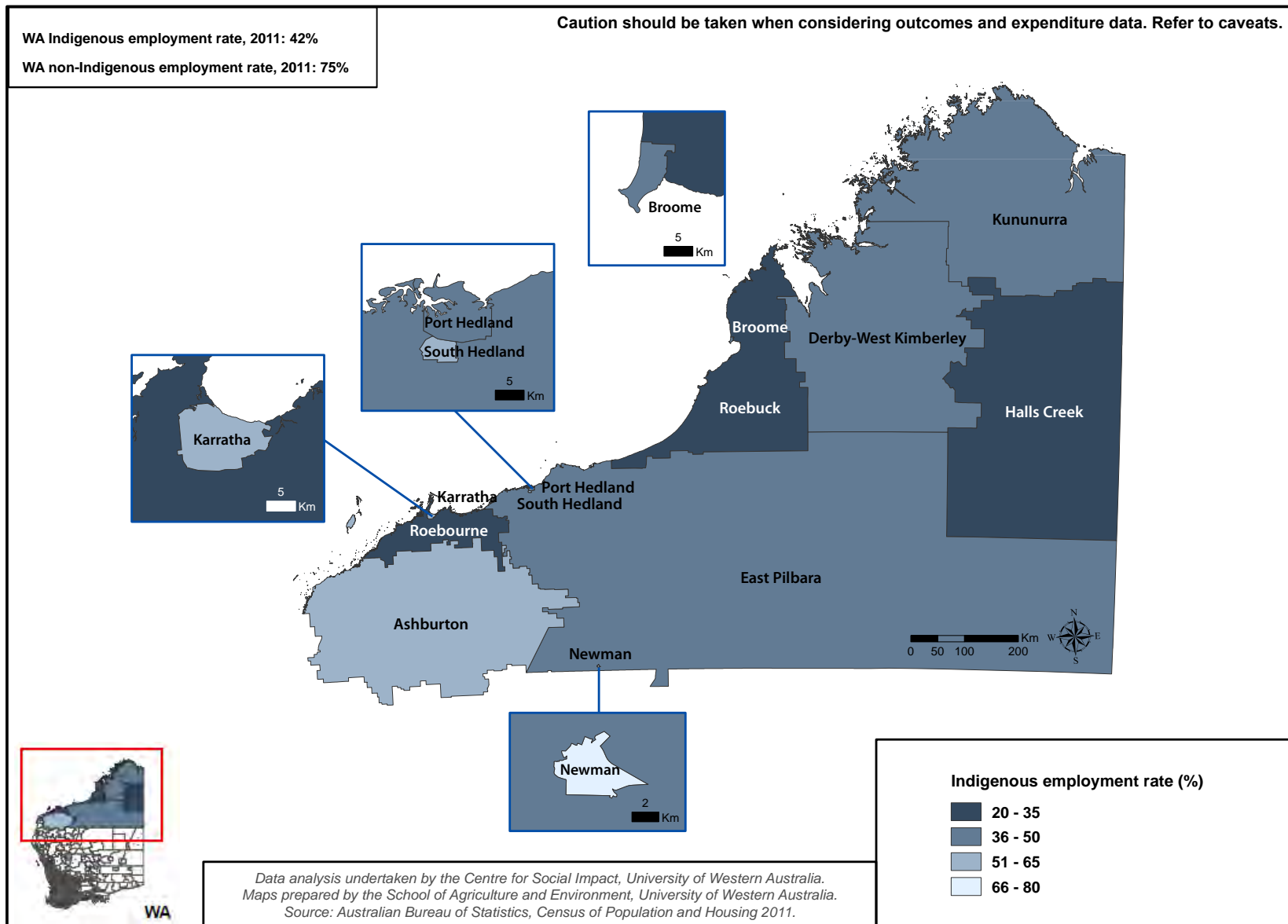
Outcome map - Healthy lives

Age-standardised rates (per 100,000 person years) of mental health occasions of service in the Kimberley and Pilbara, by SA2, 2014



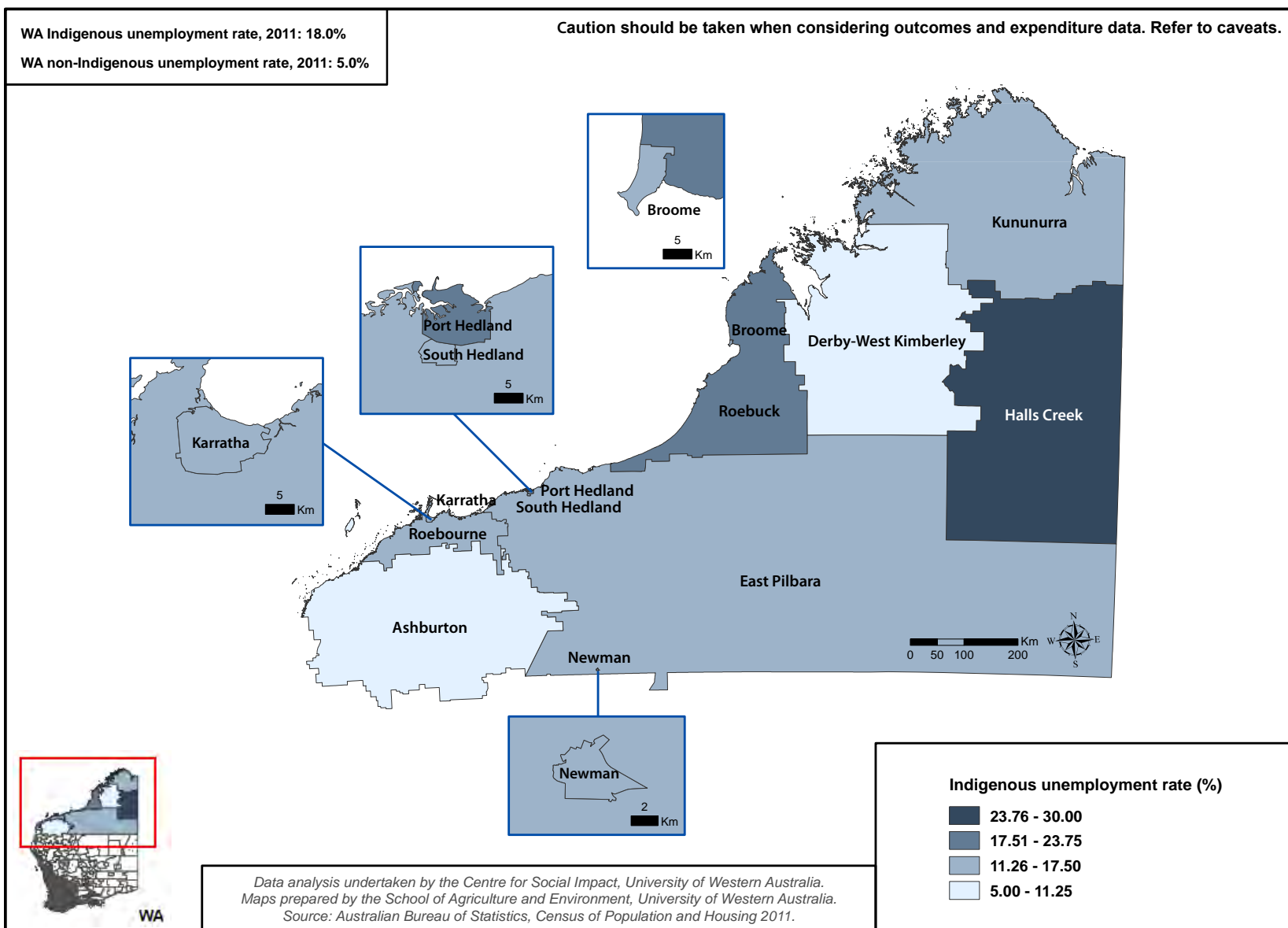
Outcome map - Economic participation

Indigenous employment to population ratio in the Kimberley and Pilbara, by SA2, 2011



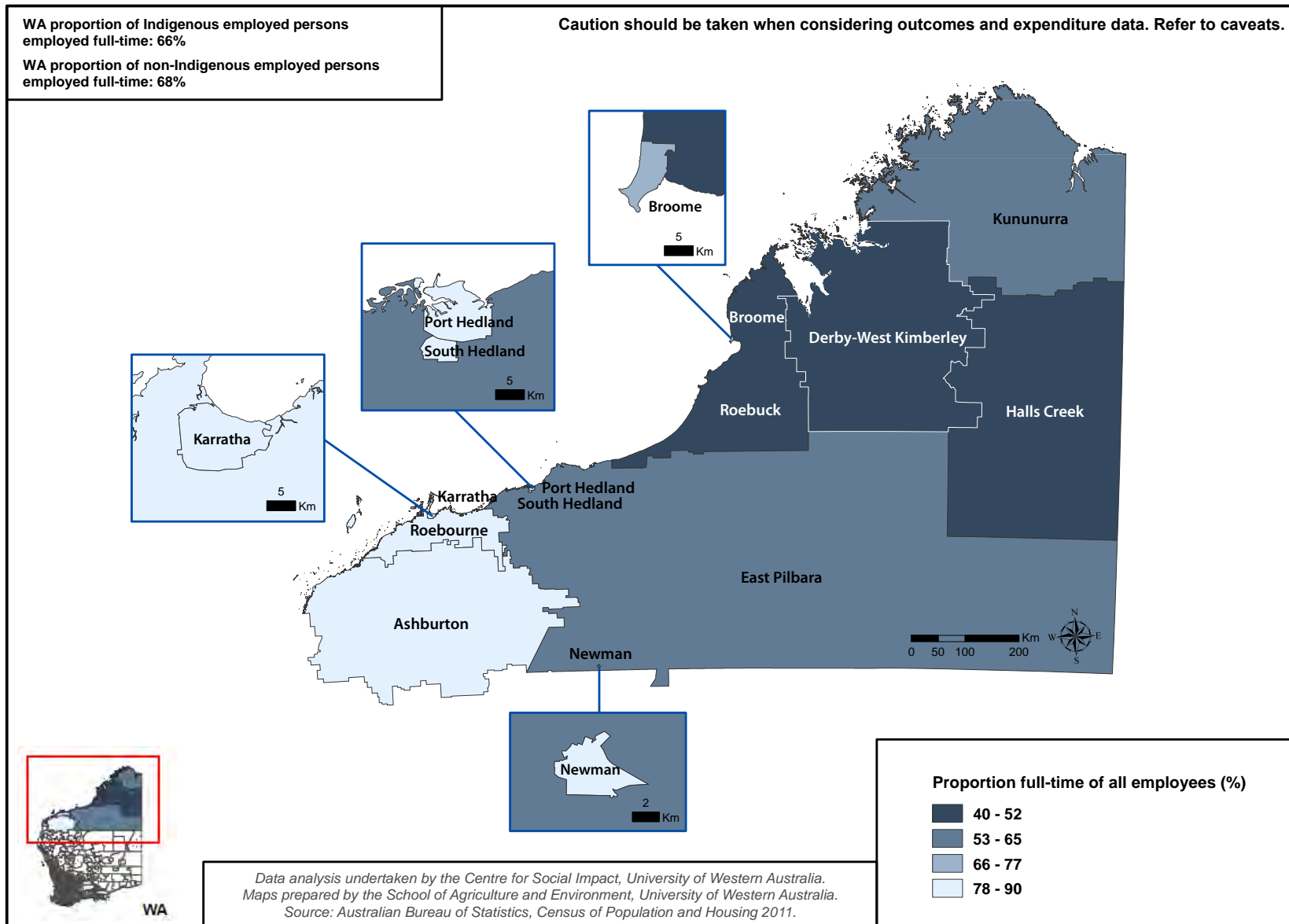
Outcome map - Economic participation

Indigenous unemployment rate in the Kimberley and Pilbara, by SA2, 2011



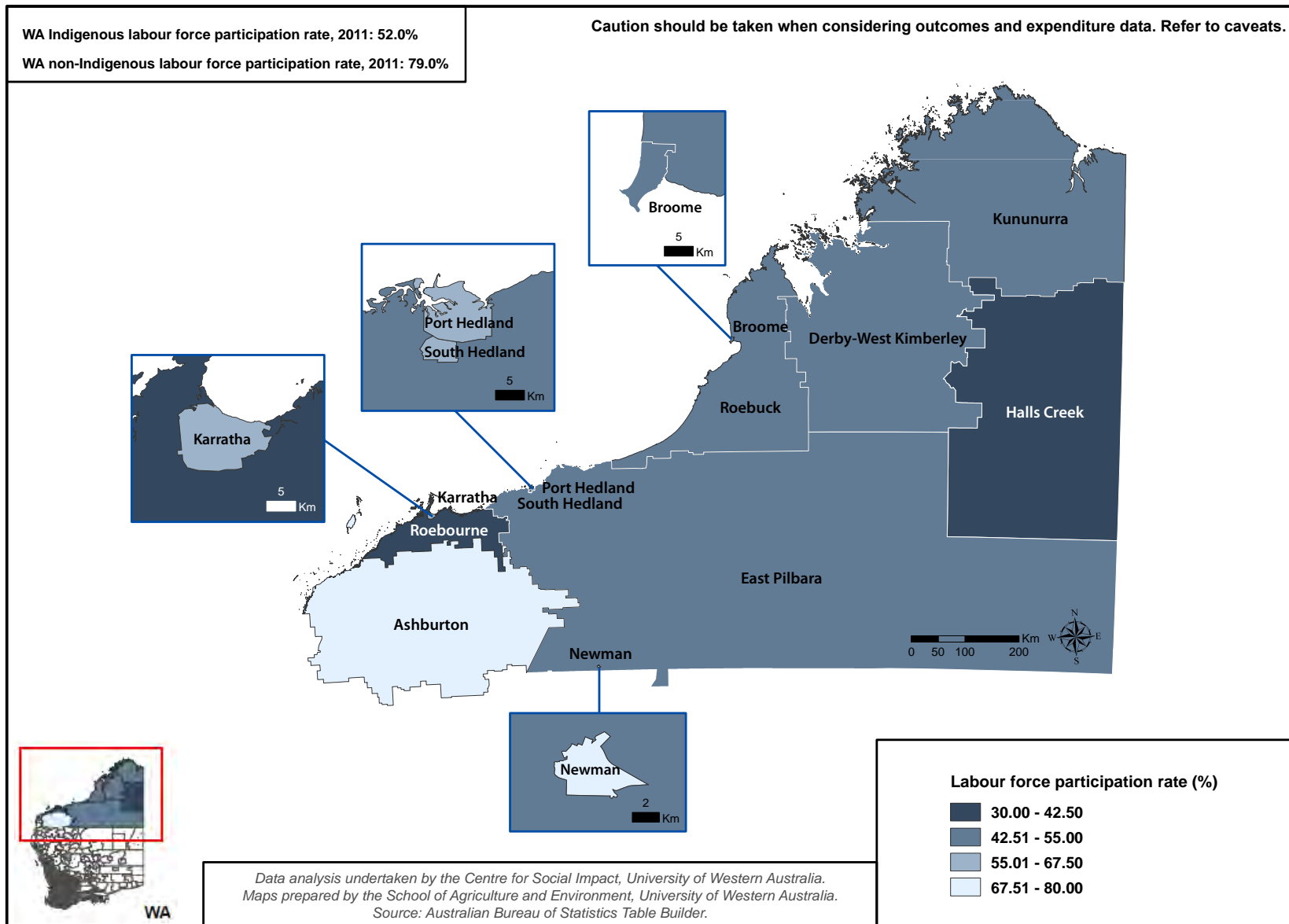
Outcome map - Economic participation

Proportion of Indigenous employed persons in the Kimberley and Pilbara that are employed full-time, by SA2, 2011



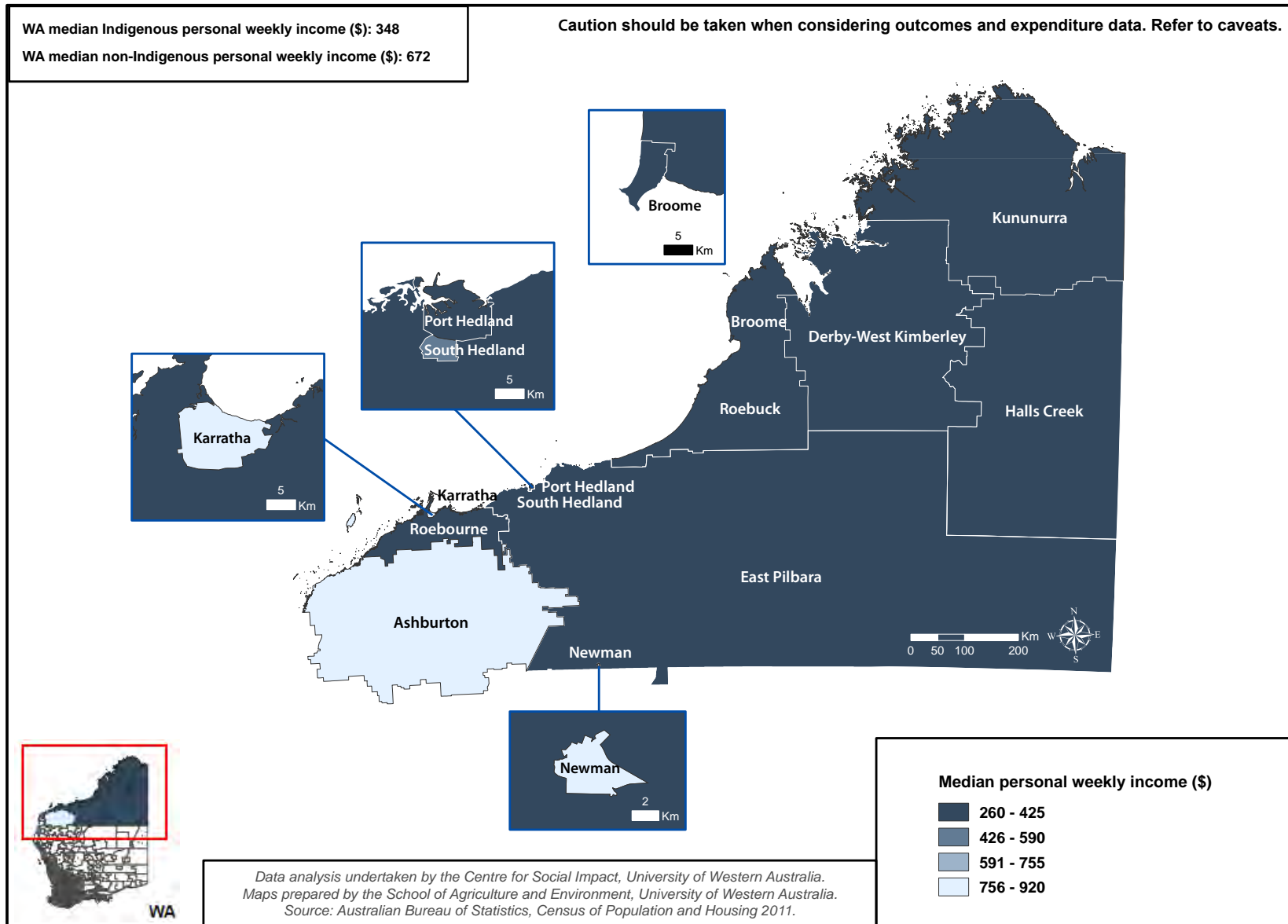
Outcome map - Economic participation

Labour force participation rate of Indigenous persons in the Kimberley and Pilbara, by SA2, 2011



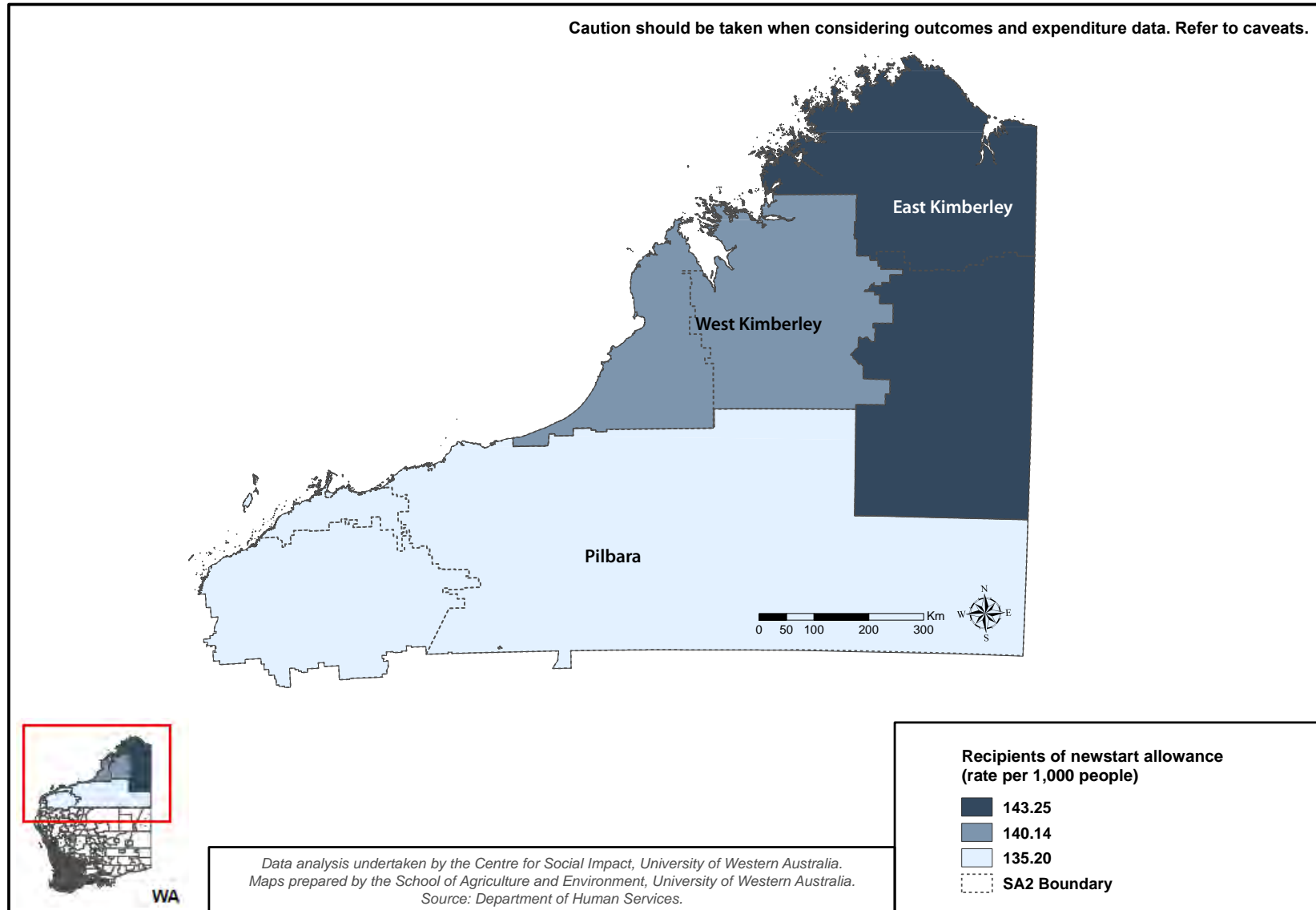
Outcome map - Economic participation

Median Indigenous personal weekly income (\$) in the Kimberley and Pilbara, by SA2, 2011



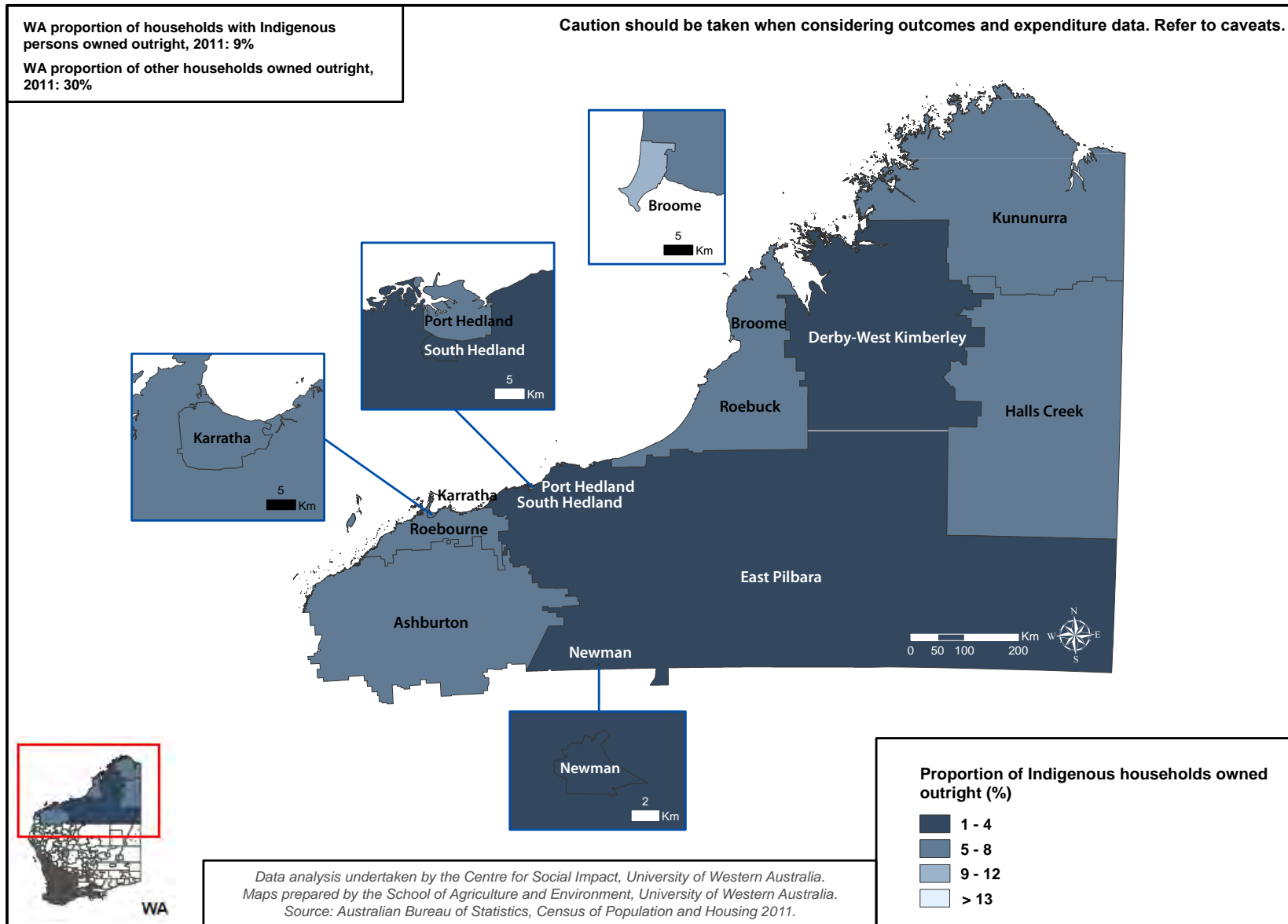
Outcome map - Economic participation

Indigenous rate per 1,000 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



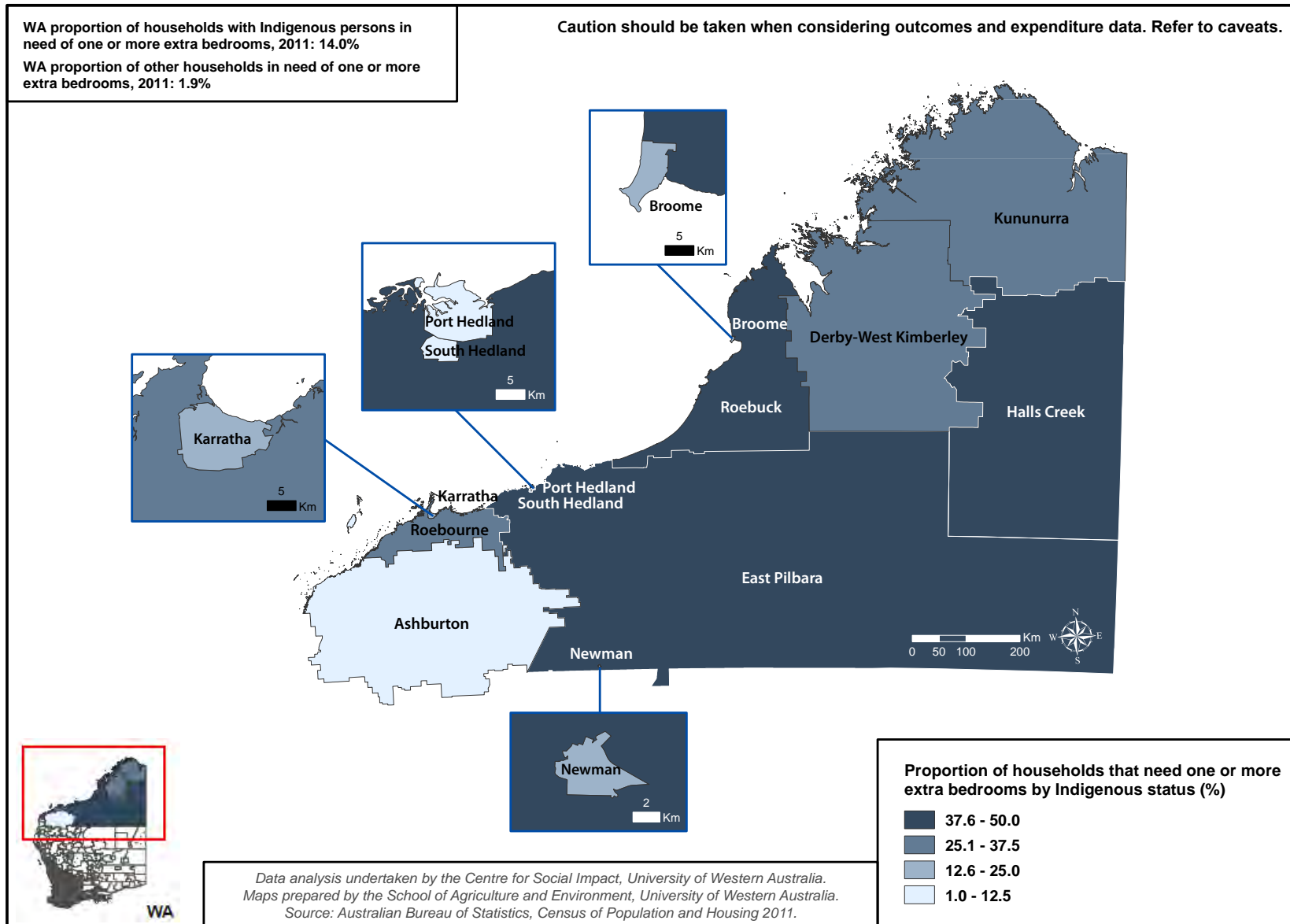
Outcome map - Economic participation

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



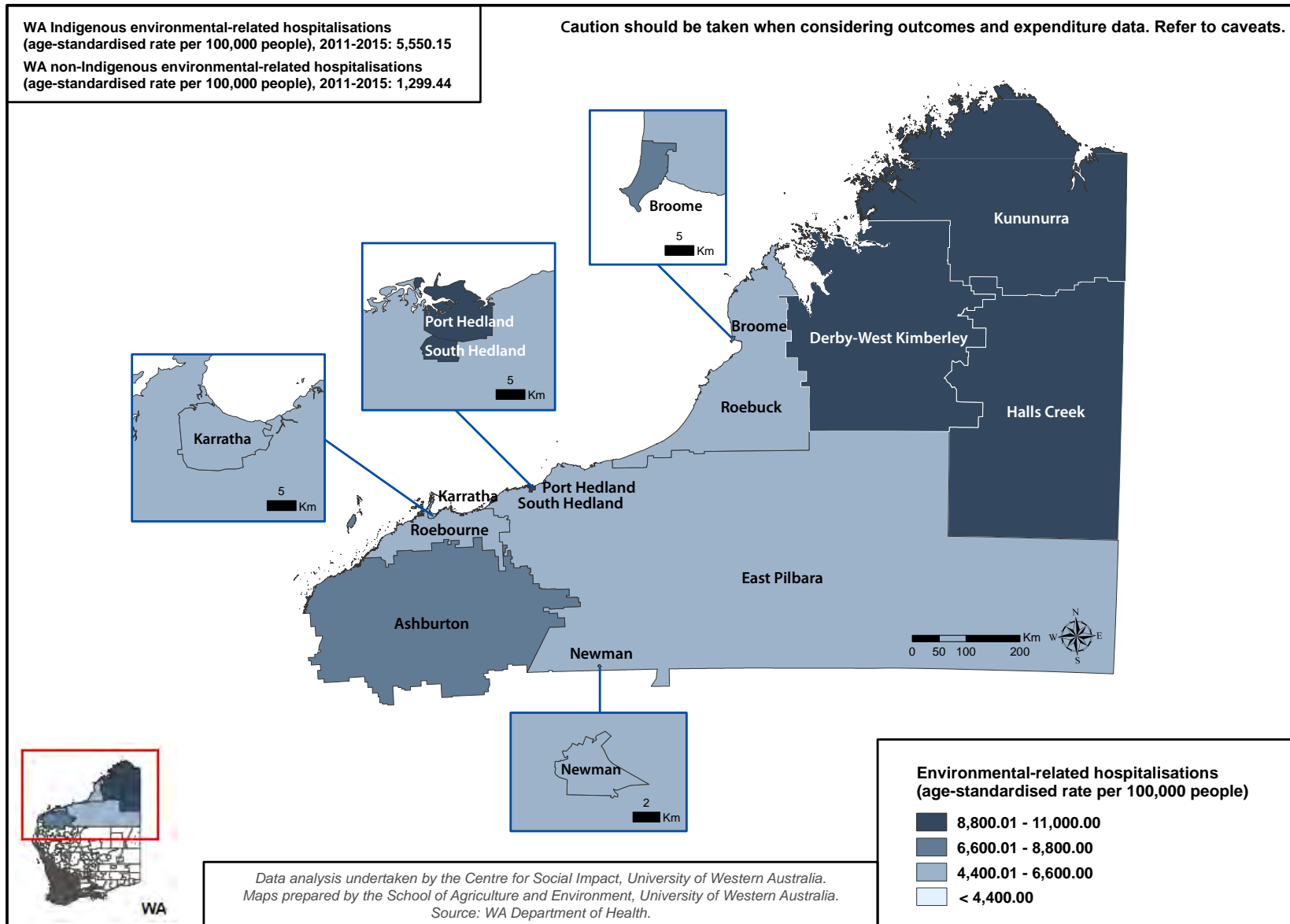
Outcome map - Home environment

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

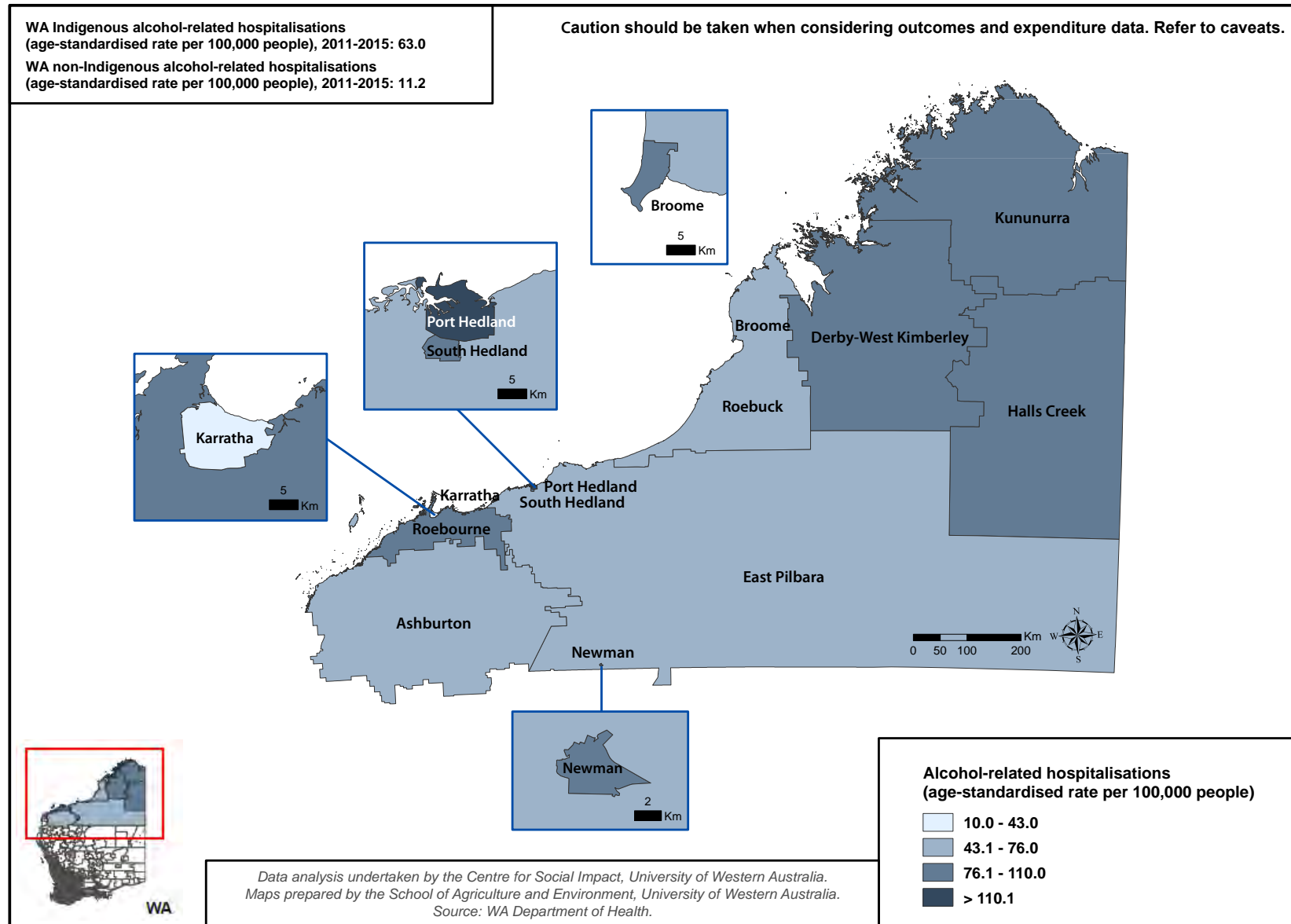


Outcome map - Home environment

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

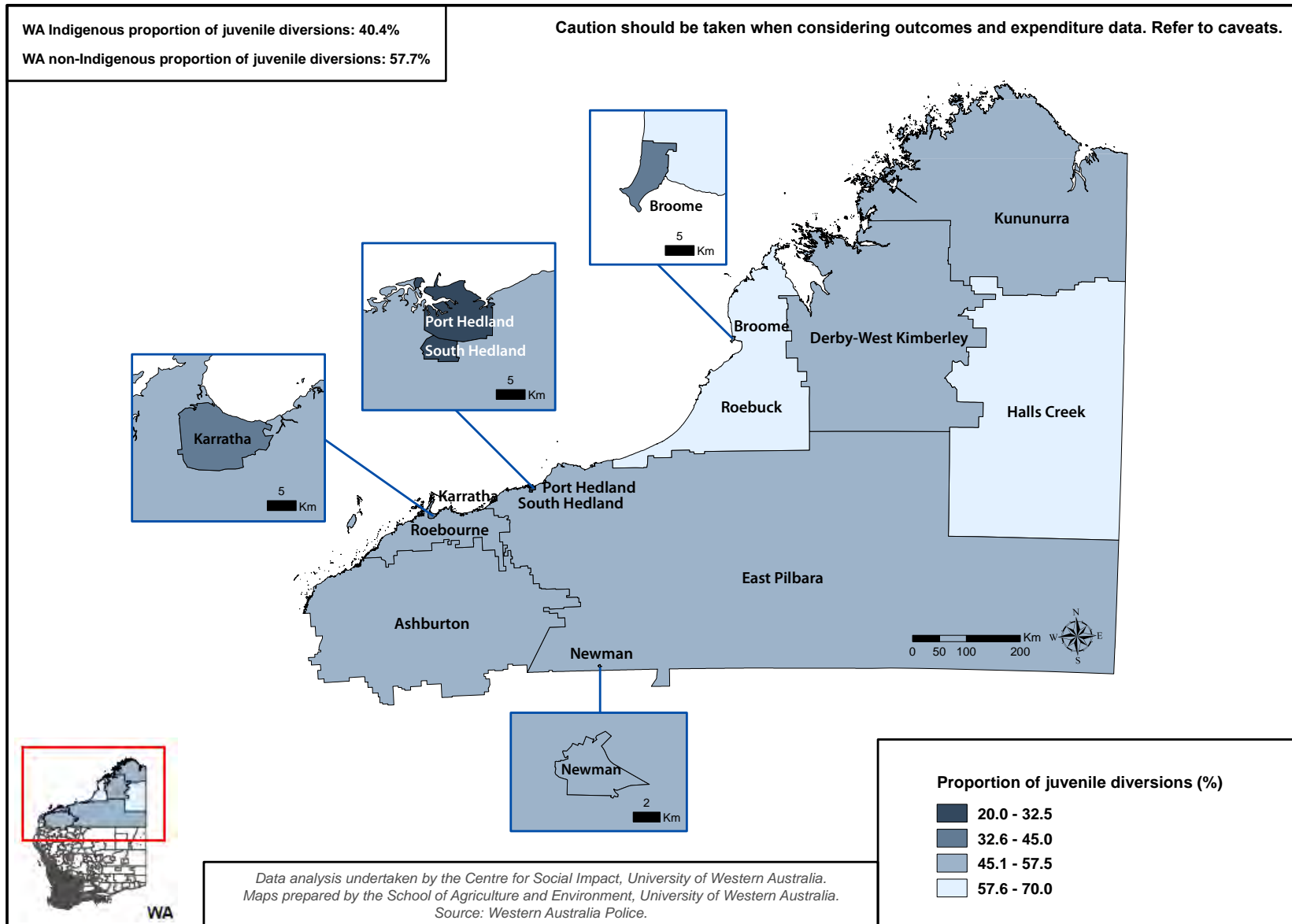


Outcome map - Safe and supportive communities
 Indigenous alcohol-related hospitalisations in the Kimberley and Pilbara
 (age-standardised rate per 100,000 people), by SA2, 2011-2015



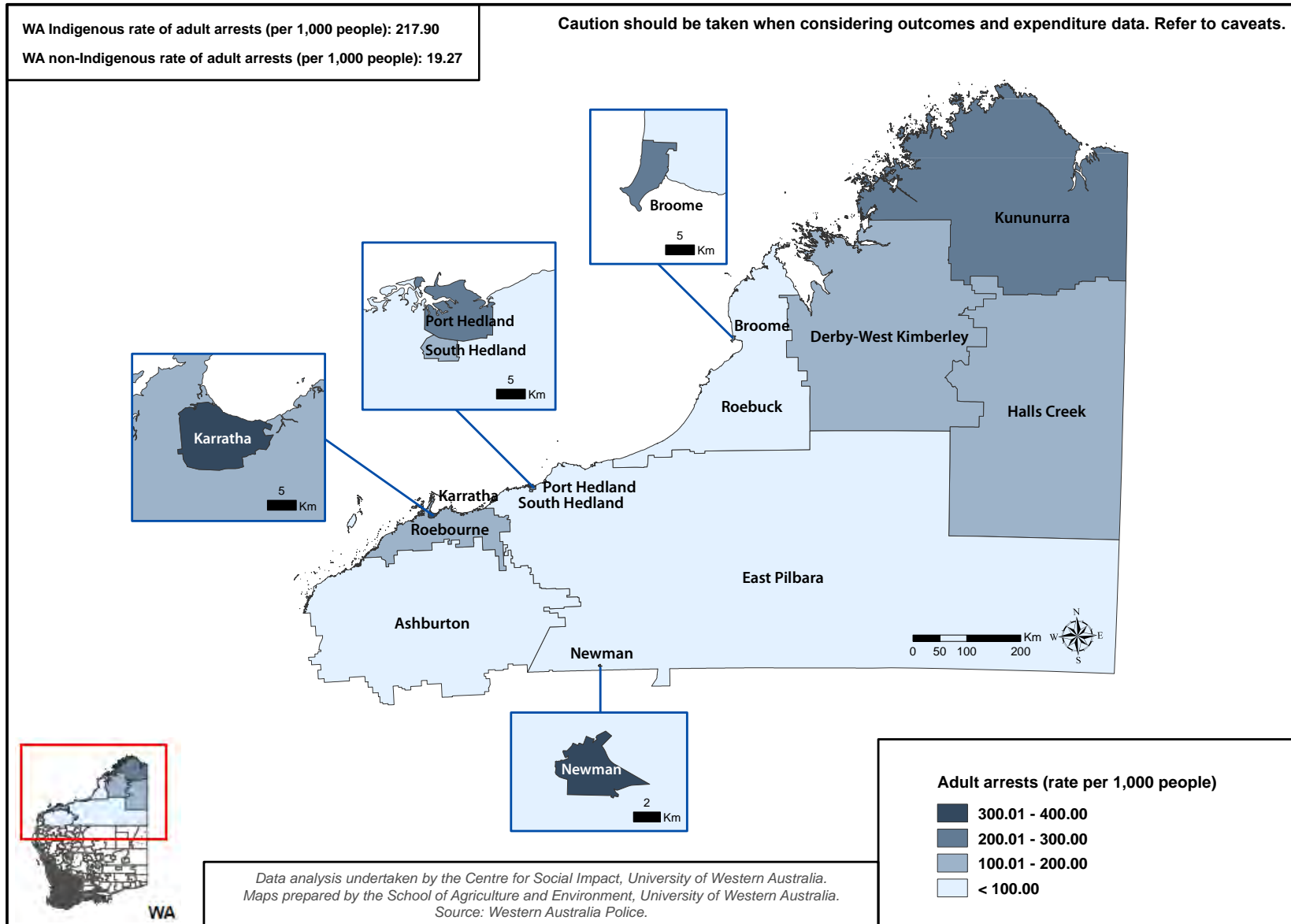
Outcome map - Safe and supportive communities

Proportion of Indigenous juvenile offenders diverted from the criminal justice system via caution or juvenile justice team referral, by SA2, 2015-16



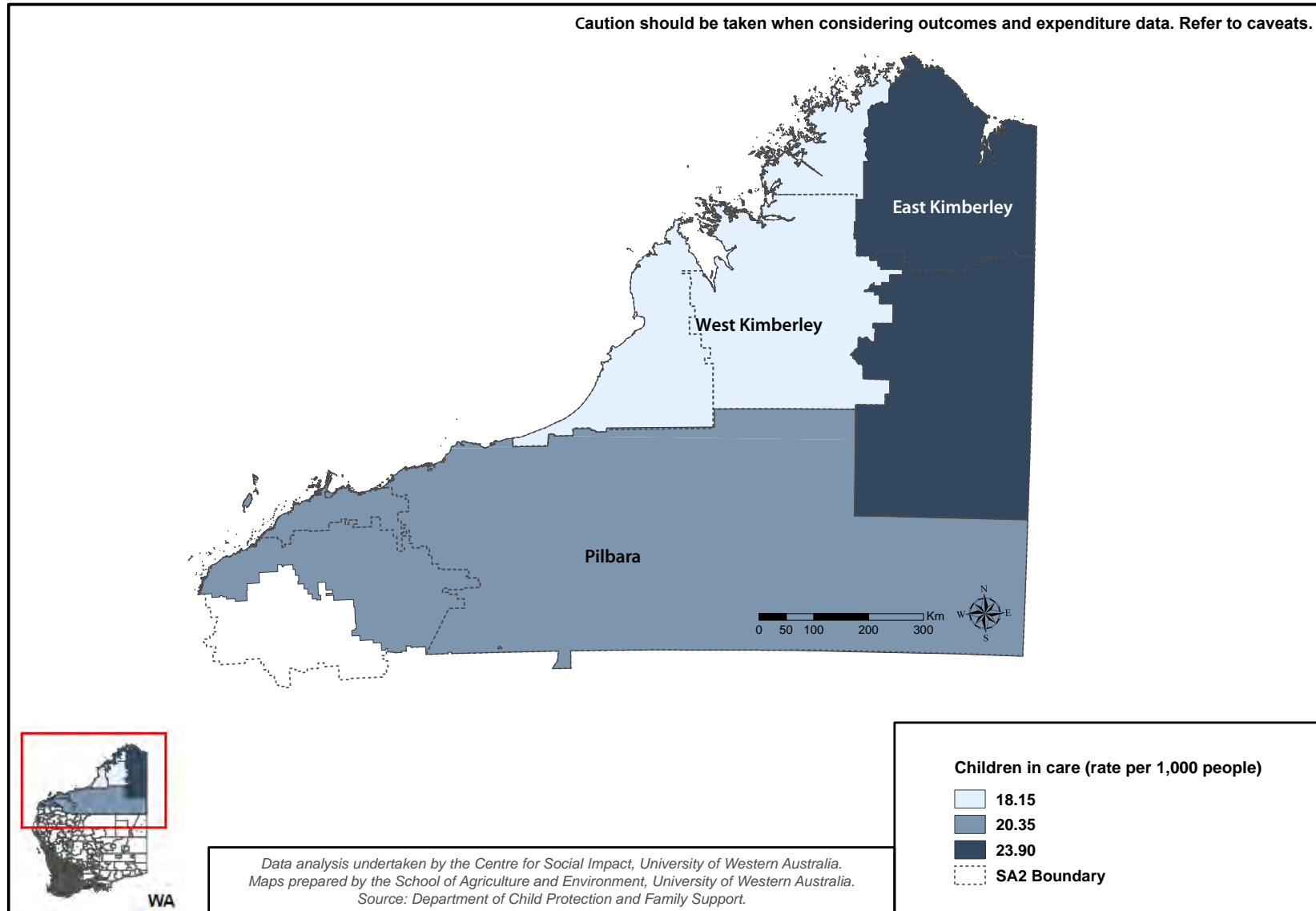
Outcome map - Safe and supportive communities

Rate (per 1,000) of Indigenous adult arrests, by SA2, 2015-16



Outcome map - 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



Caveats

Caveats when considering expenditure and outcomes together

Extreme caution should be taken when considering outcomes and expenditure and attributing causal links between outcomes and expenditure, for the following reasons:

- There are a large number of confounding factors that affect outcomes achieved, other than the level and form of government expenditure.
- Government expenditure is often targeted to areas of greater need. A correlation between high expenditures and poor outcomes may reflect primarily this cause rather than ineffective government expenditure.
- Direct service provision expenditure data were collected for the 2015-16 financial year, while the outcomes data were based on a range of latest available information to the 2015-16 year used. This means that the data for outcomes data are from different years. Therefore, expenditure data and outcomes data cannot be directly compared due to the different date ranges. For example: outcomes in 2011 cannot be attributed to expenditure in 2015-16.
- Attributing outcomes to specific expenditure or a specific timeframe requires detailed contextual analysis that is not reflected in the current presentation of the data. For example: an investment in early childhood education in 2015 may yield outcomes many years later.
- Investments in one OID strategic area will affect outcomes in other OID strategic areas at different time intervals. For example: an investment in early childhood education will engender downstream effects in economic participation, health, education and justice outcomes.

Explanation Notes

Geographic Level

Data is mapped at the 2011 Australian Statistical Geography Standard (ASGS) Statistical Area Level 2 (SA2) with the exceptions of:

- Map 20: Economic Participation: Indigenous rate per 1,000 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.

This is because the federal Department of Human Services and Department of Social Services use Empowered Communities boundaries, which do not map directly to ASGS regions. Therefore, data is presented at the Pilbara SA3 level and the West Kimberley and East Kimberley Empowered Communities regions.

- 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.

Data for this map was provided by DCPFS district boundaries which do not map directly to ASGS regions.

Data Suppression

Agencies that provided outcomes data had rules for suppression for statistical reliability and validity and confidentiality purposes.

- WA Department of Education and the Australian Curriculum, Assessment and Reporting Authority (Maps 3, 5 -11) suppress data for cohorts of fewer than 6 students.
- Department of Human Services (Map 20) suppressed data where fewer than six persons were in receipt of Newstart. Data are presented as rates per thousand for data reliability.
- WA Department of Health do not include data where of less than 20 persons for statistical reliability purposes. Accordingly, data are aggregated over 5 or 10 year periods to ensure data reliability.

Secondary Education Data

The Port Hedland and South Hedland SA2s represent a single catchment area of Hedland Senior High School. Therefore, although Hedland Senior High School is located in the South Hedland SA2, its data is reflective of high school students from both the Port and South Hedland SA2s. Accordingly, data for attendance rates and Year 12 attainment (Maps 8 and 11) is the same for both Port Hedland and South Hedland.

Glossary - Abbreviations

ABS: Australian Bureau of Statistics

ACARA: Australian Curriculum, Assessment and Reporting Authority

AEDC: Australian Early Development Census

ATAR: Australian Tertiary Entrance Rank

ATSI: Aboriginal and Torres Strait Islander

CDEP: Community Development Employment Projects

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

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

ILC: Indigenous Land Corporation

LGA: Local Government Area

MLCR: Module Load Completion Rate.

NAPLAN: National Assessment Program – Literacy and Numeracy

NATSISS: National Aboriginal & Torres Strait Islander Social Survey

NHMRC: National Health and Medical Research Council

OID: Overcoming Indigenous Disadvantage

STI: Sexual Transmitted Infection

VET: Vocational Education and Training

WACE: Western Australian Certificate of Education

WAPOL: Western Australia Police

Glossary - key terms

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 periods.

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.

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

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.

Number or N: The raw number of observations.

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.

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.

