



*ARC Centre of Excellence  
in Policing and Security*

# Social change and violence: Regional and remote transformations

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# What is the rural crisis?

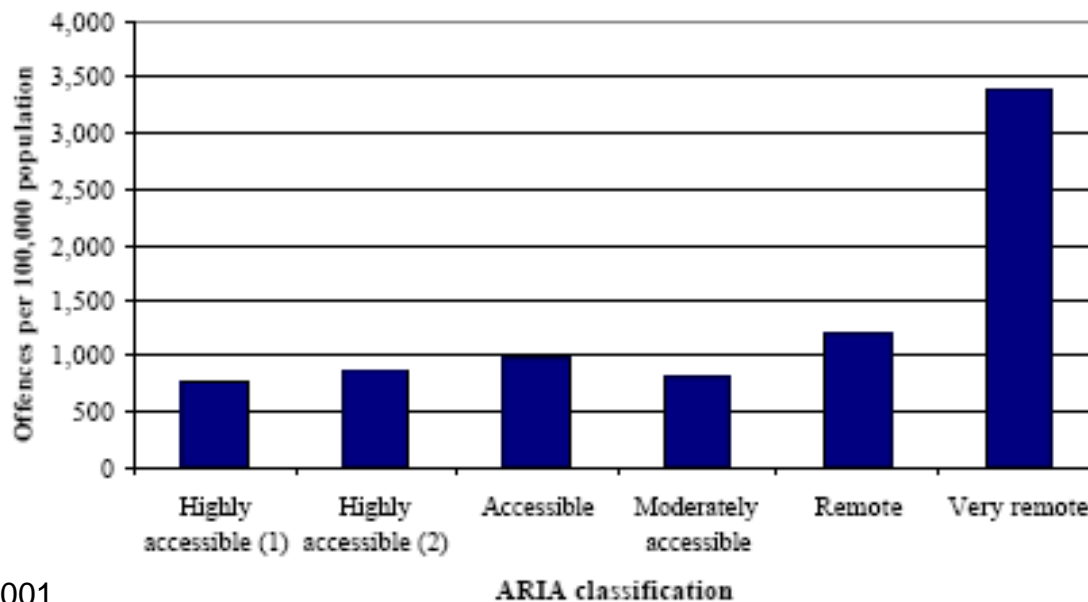
- Population decline
- Age restructuring
- Economic vulnerability to environmental extremes
- Centralising impact of globalisation



# Violence in rural areas

- Rural violent crime rates higher than urban rates
- 'Very remote' parts of Queensland are the most violent

Rates of offences against the person per 100,000 population by ARIA classification, Queensland, 2000-01



# Research site: Queensland



- Non-metropolitan Queensland
- Excludes:
  - ❖ South-east Queensland (Brisbane and adjacent coastal centres)
  - ❖ Toowoomba
  - ❖ Townsville
  - ❖ Cairns





# Research questions

- Is social and economic disruption related to fluctuation in violent crime in non-metropolitan Queensland?
- Are some types of violence more susceptible to social and economic disruption than others?
- How can an exploration of ‘extremes’ contribute to understanding this process?







# Research design

- Secondary data analysis
  - ❖ Queensland Police Service
  - ❖ Australian Bureau of Statistics (ABS)
  - ❖ Queensland Centre for Population Research
  - ❖ National Key Centre for Social Applications of Geographic Information Systems (GISCA)
- SLA unit of analysis ( $N=124$ )
- Uses data from two time periods; 1996 and 2001



# Measuring 'change'

- Residual change scores
  - ❖ Predict the time 2 score from the time 1 score
  - ❖ Calculate the difference between the *predicted* time 2 score, and the *actual* time 2 score
- Avoid making inferences about systemic change by using measures reflecting stasis

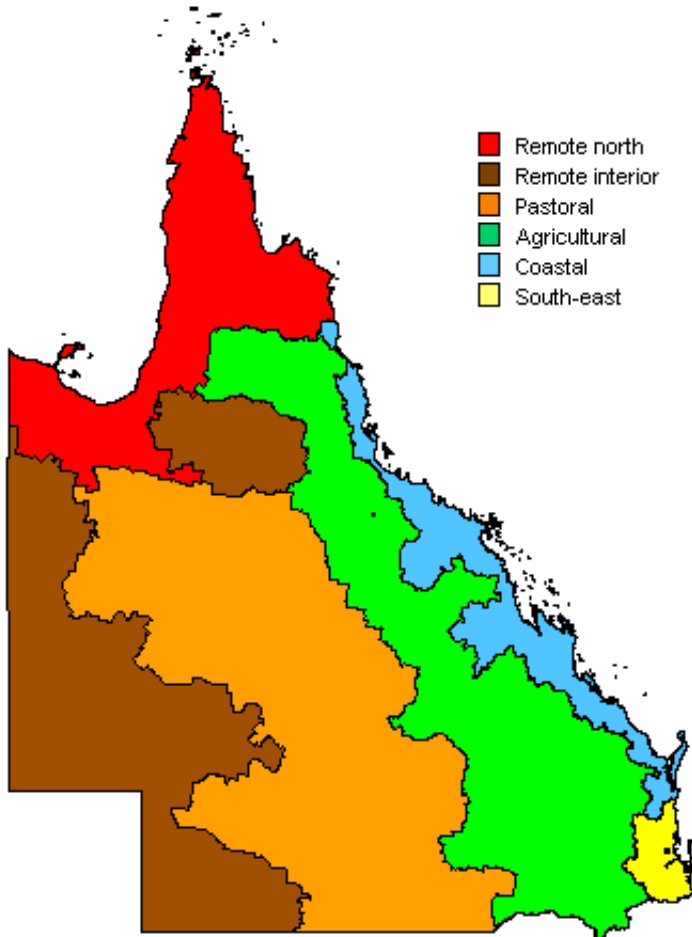


# Variables

- Explanatory variables:
  - Ethnic heterogeneity
  - Familial and residential instability
  - Primary industry workforce quotients
  - Age profile
  - Population density
  - Gender balance
  - Indicators of economic status
  - Accessibility/remoteness index of Australia Plus (ARIA+)
  - Settlement zones
- Outcome variables:
  - Homicide-related offences
  - Serious assaults
  - Common assaults
  - Armed robbery
  - Unarmed robbery
  - Menacing person offences
  - Sexual offences
  - Total violent crime



# Settlement zones



- ❖ Zonings based on:
  - economic structures and dependencies
  - Age structure
  - Population density and movements
- ❖ Each zone has a unique ‘sensitivity to differential demographic and related socioeconomic trends’ (Holmes, Charles-Edwards & Bell, 2005, p.16)



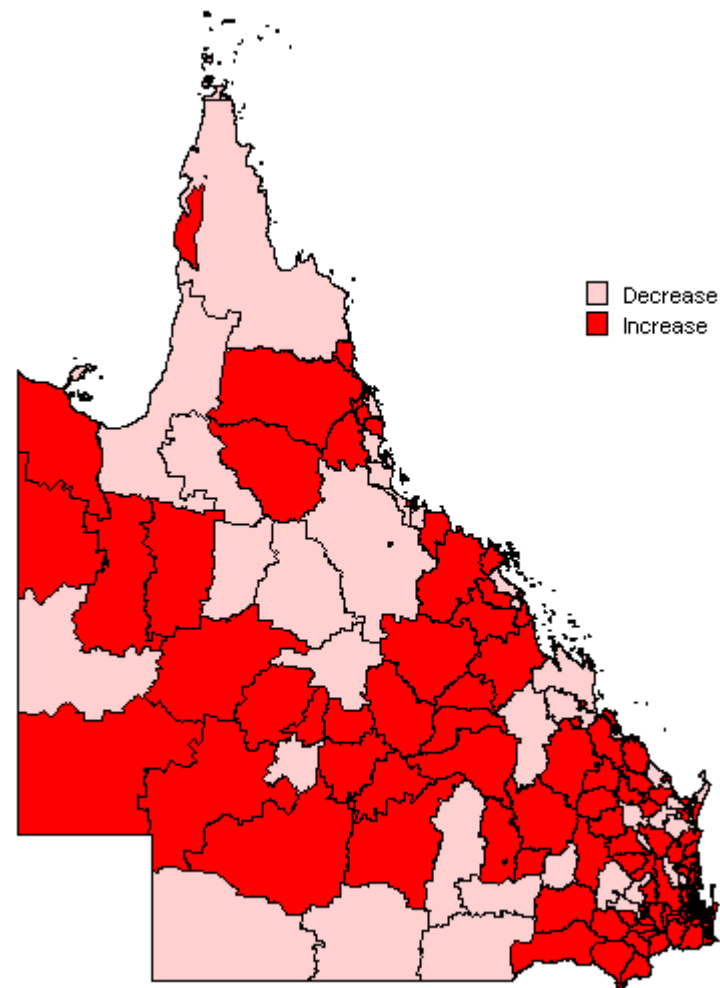
# Results

- General trends
  - ❖ Violence across Queensland
  - ❖ Violence across settlement zones
- Multiple regressions
- Descriptive exploration of 'extremes'



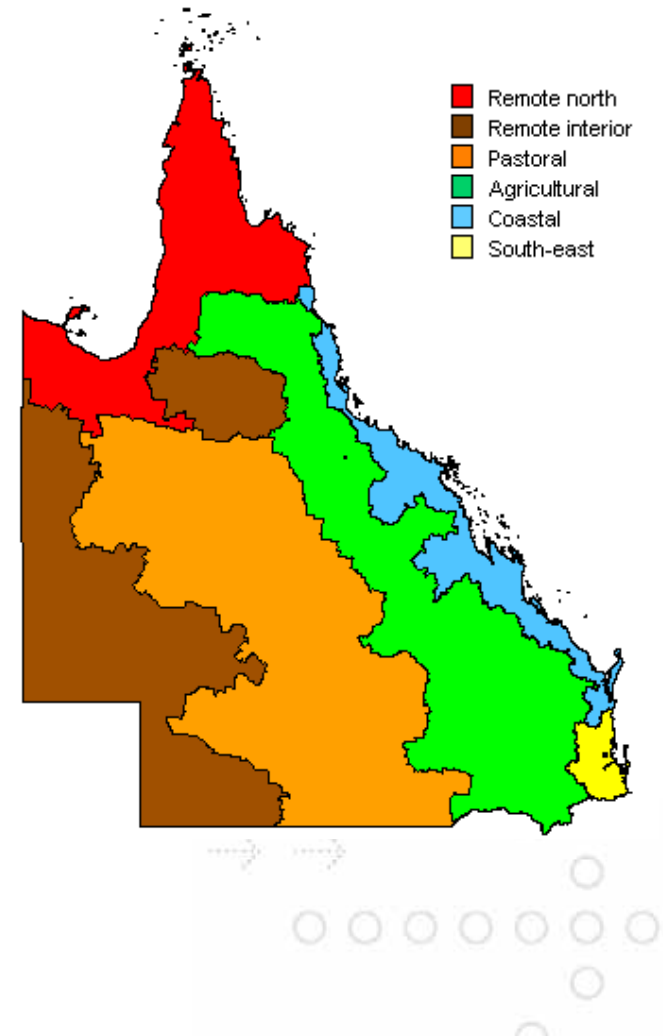
# Violence across Queensland

- 67 per cent of SLAs across Queensland experienced a larger than predicted decrease in total violence from 1996-2001



# Violence across settlement zones

- South-east Queensland
  - 75 per cent of SLAs showed decreases
- Coastal Queensland
  - 67 per cent of SLAs showed decreases
- Agricultural Queensland
  - 74 per cent of SLAs showed decreases
- Pastoral Queensland
  - 58 per cent of SLAs showed decreases
- Remote interior
  - 57 per cent of SLAs showed decreases
- Remote north
  - 40 per cent of SLAs showed decreases



# Predicting change across the site

- Significant models
  - ❖ Total violent crime
  - ❖ Homicide-related offences
  - ❖ Serious assaults
  - ❖ Menacing person offences
  - ❖ Sexual offences
- Failed to reach significance
  - ❖ Common assaults
  - ❖ Unarmed robberies
  - ❖ Armed robberies



# Total violent crime

	<i>b</i>	<i>SE b</i>	$\beta$	<i>sr</i> <sup>2</sup>
Constant	0.18	0.26		
Homes owned	0.37	0.13	.37**	.06
Newcomers	-0.63	0.13	-.64**	.17
	<i>R</i> <sup>2</sup>	.27		
	<i>F</i>	2.63**		

\**p*<.05 \*\**p*<.01 \*\*\**p*<.001





# Menacing person offences

	<i>b</i>	<i>SE B</i>	$\beta$	<i>sr</i> <sup>2</sup>
Constant	0.18	0.26		
Homes owned	0.40	0.13	.40**	.05
Newcomers	-0.57	0.13	-.57***	.13
<i>R</i> <sup>2</sup>	.26			
<i>F</i>	2.46**			

\**p*<.05 \*\**p*<.01 \*\*\**p*<.001

# Serious assaults

	<i>b</i>	<i>SE b</i>	$\beta$	<i>sr</i> <sup>2</sup>
Constant	0.01	0.24		
Homes owned	0.44	0.12	.44***	.08
Pop density	-0.25	0.12	-.21*	.03
Newcomers	-0.66	0.12	-.66***	.19
Disadvantage	-0.37	0.17	-.37*	.03
	<i>R</i> <sup>2</sup>	.35		
	<i>F</i>	3.88***		

\**p*<.05 \*\**p*<.01 \*\*\**p*<.001



# Homicide-related

	<i>b</i>	<i>SE b</i>	$\beta$	<i>sr</i> <sup>2</sup>	<i>F</i>
Constant	0.38	0.25			
Settlement zone <sup>†</sup>					
South-east	-0.26	0.38	-.07	.00	
Agricultural	-0.40	0.22	-.20	.02	
Pastoral	0.02	0.47	.01	.00	5.03**
Remote interior	0.07	0.57	.02	.00	
Remote northern	2.50	0.63	.50	.10	
Indigenous	0.32	0.11	.33**	.05	
Newcomers	0.31	0.12	.31*	.04	
	<i>R</i> <sup>2</sup>	.29			
	<i>F</i>	2.89**			

\**p*<.05 \*\**p*<.01 \*\*\**p*<.001

<sup>†</sup> Reference category is 'coastal zone'



# Sexual offences

	<i>b</i>	<i>SE B</i>	$\beta$	<i>sr</i> <sup>2</sup>	<i>F</i>
Constant	.13	.26			
Settlement zone <sup>†</sup>					
South east	-0.47	0.39	-.12	.01	4.53*
Agricultural	-0.22	0.23	-.11	.01	
Pastoral	-0.13	0.49	-.05	.00	
Remote interior	-0.14	0.60	-.03	.00	
Remote northern	2.40	0.65	.48	.09	
Indigenous	0.24	0.12	.24	.03	
	<i>R</i> <sup>2</sup>	.24			
	<i>F</i>	2.23**			

\**p*<.05 \*\**p*<.01 \*\*\**p*<.001

<sup>†</sup> Reference category is 'coastal zone'

# Predicting change in violence

- Contributors

- Ethnic heterogeneity
- Residential instability
- Population density
- Indicators of economic status
- Settlement zones

- No evidence for contribution

- Familial instability
- Primary industry workforce quotients
- Age profile
- Gender balance
- Accessibility/remoteness index of Australia Plus (ARIA+)





# Research questions

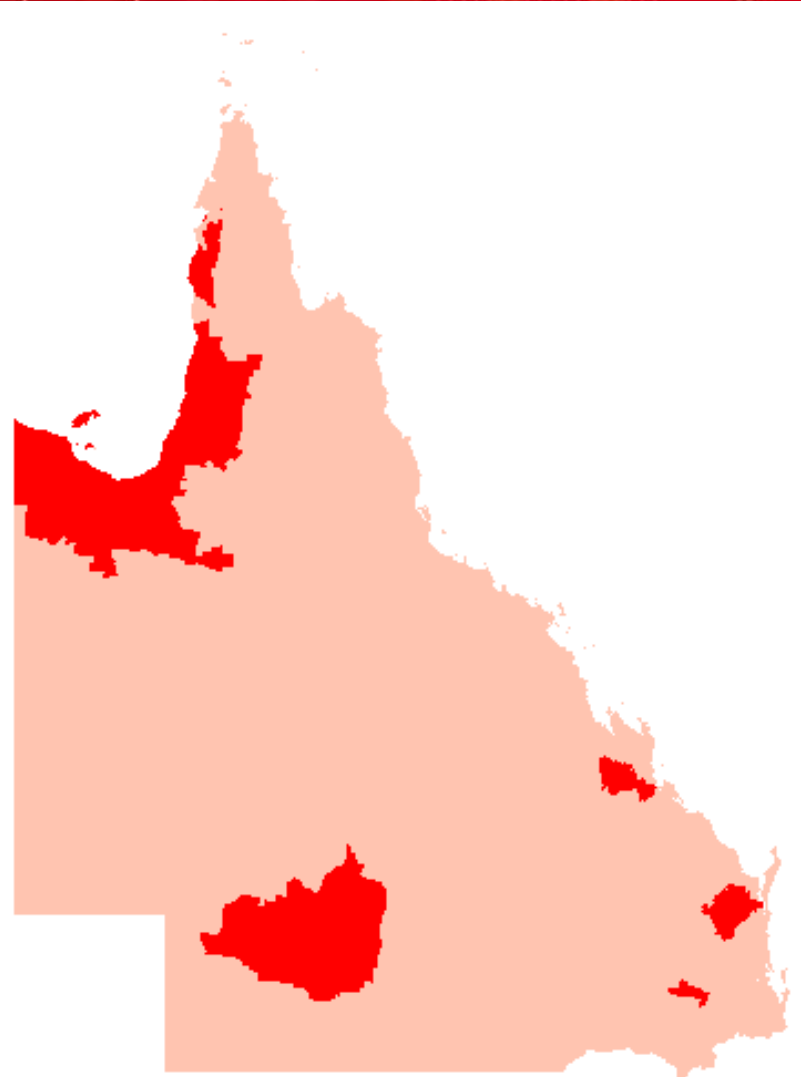
- Is social and economic disruption related to fluctuation in violent crime in non-metropolitan Queensland?
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- **How can an exploration of ‘extremes’ contribute to understanding this process?**





# 'Extremes'

- 10 SLAs registered as 'extremes'
- 18 cases of extreme change
  - 14 cases were extreme increases (78 per cent)
  - 4 cases were extreme decreases (22 per cent)
- All settlement zones *except* the remote interior
- Evenly distributed between 'accessible' and 'very remote' categories of remoteness






# Conclusions and implications

- Overall decline in violence across Queensland
- More extreme increases than there are extreme reductions in violence
- Crime specificity is important
- Change matters
- Further exploration is needed into understanding the extremes





# Future thoughts

- How can this type of study be replicated on a national scale to better gauge the national experience of violence and social change?
  - How can this type of study be replicated on a local scale to understand micro-social process (e.g. Mt Isa's lead scandal)
  - How can these findings feed into understanding of community resilience?
  - Theory generalisability question for the focal shift from urban to rural
  - What can we learn from social **organisation** and some types of violence (sexual offences, domestic violence, stock-related offences)?
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