Booth 15
Level One

Perceptions, understanding and reactions to climate change.
What people care about: focusing effort on highly effective adaptations

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What people care about framework for vulnerability and adaptation assessments

- flexible and adaptable framework
- “of what”
- “to what”
- single or cross multiple scales
- geographical or sectoral application
- vulnerability and adaptation
- uncertainty
STEP 1:

Importance weighted index of WPCA

WPCA = Importance * Satisfaction

Subjective self reporting measures
STEP 2: Causal models of change in WPCA

- Bayesian belief network (BBN) models
- What causes change in state of WPCA
Key assumption

All change is mediated through causal processes
STEP 3: Assessment

- Perturb models
- Assess vulnerability
- Identify adaptation options
WPCA – NW Region

Health

Financial situation

Employment opportunities

National Research
Climate Adaptation
FLAGSHIPS
CSIRO.
Causal model – Employment satisfaction

Industry:
- UnknownNA: 34.8
- AgricultureForestryFishing: 2.50
- Mining: 1.06
- Manufacturing: 5.66
- ElectricityGasWater: 0.65
- Construction: 5.23
- WholesaleTrade: 1.57
- RetailTrade: 7.28
- AccommodationFood: 4.14
- TransportPostal: 2.75
- InformationMediaTele: 1.46
- FinancialInsuranceSe: 2.59
- RentalHiringRealEstate: 0.93
- ProfessionalScientific: 5.15
- AdministrativeSupport: 1.99
- PublicAdministration: 4.21
- EducationTraining: 6.65
- HealthCareSocialAss: 8.48
- ArtsRecServices: 1.16
- OtherServices: 2.46

Age:
- 14 to 17: 4.21
- 17 to 25: 14.9
- 25 to 35: 15.9
- 35 to 45: 18.1
- 45 to 55: 18.0
- 55 to 65: 12.9
- 65 to 75: 8.92
- 75 to 100: 7.11
- 45 ± 20

Gender:
- Male: 46.9
- Female: 53.1

Employment status:
- EmployedFT: 39.6
- EmployedPT: 23.7
- Unemployed: 6.36
- NotInWorkforce: 30.3

Education:
- PostgradMastersDoctorate: 3.63
- GradDiploma: 5.03
- BachelorHonours: 12.3
- AdvDiplomaDiploma: 8.63
- Cert34: 18.2
- Cert12: 2.01
- CertNotDefined: 0.88
- Year12: 15.1
- Year11Below: 33.7
- Undetermined: 0.43

Region:
- Unknown: 17.5
- MajorCity: 15.9
- InnerRegional: 19.2
- OuterRegional: 17.7
- Remote: 15.0
- VeryRemote: 14.8

Income:
- -3e6 to 0: 0.97
- 0 to 52: 3.79
- 52 to 7800: 11.1
- 7800 to 13000: 10.4
- 13000 to 20800: 15.3
- 20800 to 31200: 13.0
- 31200 to 41600: 11.5
- 41600 to 52000: 10.1
- 52000 to 67600: 9.20
- 67600 to 83200: 6.17
- 83200 to 1.04e6: 3.74
- 1.04e6 to 2e6: 4.79
- 65300 ± 310000

Financial sat:
- 0: 1.66
- 1: 1.73
- 2: 3.36
- 3: 4.53
- 4: 5.25
- 5: 13.4
- 6: 12.8
- 7: 19.1
- 8: 20.4
- 9: 9.68
- 10: 8.05
- 6.52 ± 2.3
Causal model – Employment satisfaction

- Education and employment status explain 89% of variance in satisfaction with employment opportunities
- Employment status strongest effect
- Model correctly predicts employment status 62% of the time
- Employment status and industry of employment dominant sources of uncertainty
Perturb model – minerals price reduction and graze productivity reduction

- Who loses jobs?
  - Young men with limited education

- What happens to income?
  - Not that much

- What happens to overall importance weighted satisfaction?
  - Notable reduction in satisfaction

CSIRO.
So what adaptations will have greatest effect?

• Improve training / education in young men

• Expand part time work options
What people care about framework for vulnerability and adaptation assessments

• Focus attention - WPCA
• Causal models of change
• Change occurs through causal mechanisms
• Use models to focus on key vulnerabilities and best bet adaptations
Thank you

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