

Criminal
Justice
System
Modelling:
The
Queensland
Juvenile
Justice
System

Juvenile Justice Modelling in Queensland

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Strategic Partnerships with Industry Research and Training (SPIRT) grant

- Jointly funded by ARC and Industry Partners
- Team includes;
 - myself (Chief Investigator, GU)
 - Ian O'Connor (Chief Investigator, UQ)
 - Nancy Spencer (Partner Investigator, OESR)
 - Industry Partners
 - OESR (Walter Robb)
 - Department of Families (Sue Bell)
 - Ross Homel and Rodney Wolff
 - APAI
 - Susan Barrett (supervision team - myself, Ross Homel and Janet Chaseling)
 - Project Manager



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Outline of Presentation

- Starting point
- Project plan
- Proposed project outputs
- Current project status



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Starting point

- good communication between model developers and model users
- technology is user friendly
- users have a framework for incorporating modelling into their repertoire of methodologies
- good technology is an adjunct not a substitute for good judgement/research/analysis



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Project Plan

- Develop descriptive model of juvenile justice system
 - develop detailed flow chart
 - identify significant factors influencing each point in system
 - determine disaggregate stock and flow at each point
 - collect/estimate cost data for each point in the YJS (youth justice system)



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- Identify the specific policy issues to be addressed by the model
- Determine model specifications on basis of SPIRT commitment and likely user requirements



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- identify users
- survey users
- create mock inputs and outputs
- negotiate achievable model specifications
- refine specifications



- Decide on the platform and programming environment
 - review other CJS models
 - consider
 - input and output requirements
 - computer resources
 - team expertise
 - sustainability of model
- Determine architecture for modular program design



- Develop basic modules
 - program core modules
 - develop statistical algorithms
 - validation against historical data
 - develop user interfaces
- Refine and calibrate model
- Assess model portability
 - examine interstate data
- Model Documentation
 - technical documentation
 - user documentation



- Develop a framework for using the model to assist in policy decision making
 - Identify skills and develop processes for describing policy/program scenarios using quantitative terms
 - Identify skills and develop process for describing modelling results in policy/program language



- User training
 - develop training package
 - deliver training
- Simulations
 - identify relevant scenarios
 - policy
 - theoretical
 - legislative
 - quantify implications of scenarios
 - run model
 - interpret and document results
 - discuss results in policy focus groups

Proposed Project Outputs

- the technology
 - validated in Queensland and interstate
- documentation
- training materials for model users
- PhD dissertation and graduate
- various academic publications
 - review of modelling
 - framework for using models to assist decision making
 - policy simulations
- ARC report



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Current Project Status

- Developing descriptive model
- Determining factors of significance
 - examining literature and data
 - age
 - gender
 - indigenous status
 - location
 - child protection history
 - offending history
- Review of other models (overseas and interstate)
- Literature review and annotated bibliography



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