Business Development Approach to Growing your Research Career

BITA Geek Seminar Series August 27, 2025

Tony Beatton 1, 2

¹ ARC Training Centre for Behavioural Insights for Technology Adoption (BITA), Queensland University of Technology.

² College of Adjuncts, University of Canberra.

World Wellbeing Panel

ORCID 0000-0002-6742-4508

QUT Homepage

Google Scholar Tony Beatton







Tony Beatton

I am not an academic

1967: Royal Australian Navy School, electrical fitter; electronics & communications;

- 1971: Guided missile computer systems;
- 1977: Hewlett-Packard Co. (HP) computer engineering;
- 1981: Business Development Manager (BDM);
- 1998: Retired;
- 2000: went back to school; B. Bus. Finance & Banking, Management
- IT Consulting startup BDM (part-time);
- 2005: Masters by Research (Org. Psych.);
- 2008-2011: PhD (Economics of Happiness);
- 2012- current: Research Fellow QUT, UC; previous: RMIT, UQ (an unpaid volunteer researcher).

What do I work on?

2012 to today: Economics of Happiness/Wellbeing:

- Frijters, P. & Beatton, T. (2012). <u>The mystery of the U-shaped relationship</u> between happiness and age. *Journal of Economic Behavior & Organization*, 82(2), pages 525-542.
- Beatton, T., Chan, H.F., Dulleck, U., Ristl, A., Schaffner, M. & Torgler, T. (2024). Positive Affect and Heart Rate Variability: A Dynamic Analysis. <u>Scientific Reports</u>.

2016-current: World Wellbeing Panel

2012 to today: Education-Crime Projects:

- Beatton, T., Kidd, M. P., & Machin, S. (2018). <u>Gender crime convergence over twenty years: Evidence from Australia.</u> European Economic Review, 109, 275-288.
- Beatton, T., Kidd, M.P., Niu, A. & Vella, F. (2023). <u>Age of Starting School, Academic Performance, and the Impact of Non-Compliance: An Experiment within an Experiment, Evidence from Australia</u>. *Economic Record, 326, 175-206*.

2012: Academic presentation at QUT by Professor Stephen Machin LSE CEP.



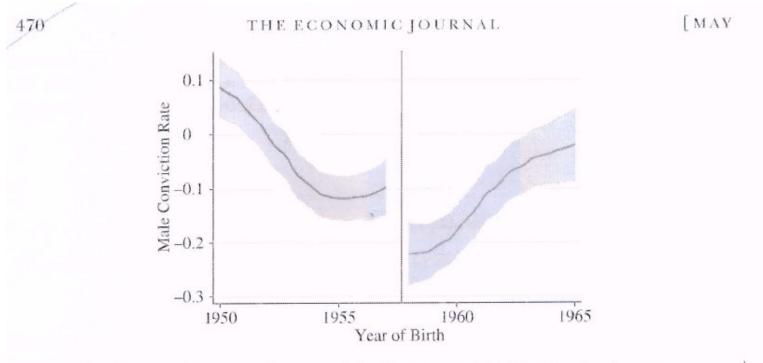


Fig. 2. Crime Discontinuities Around the Compulsory School Leaving Age Increase Notes. Based on Offenders Index Data from 1972 to 1996, men aged 18–40. Graph shows residuals from regression of offence rate per 1,000 male population de-trended from a model containing GHS controls (proportion British born, proportion employed, proportion non-white and proportion living in London), year and age dummies. Lines denote kernel weighted smooth polynomial fit to data points before and after the discontinuity denoted by the vertical line. Grey shaded area is 95% confidence interval.

Machin, S., Marie, O. and Vujic, S. (2011) The Crime Reducing Effect of Education, <u>Economic Journal</u>, 121, 463-84.

A Research Journey

The 2012 QUT Seminar:





Machin, S., Marie, O. and Vujic, S. (2011) The Crime Reducing Effect of Education, Economic Journal, 121, 463-84.

Post Seminar Questions:

Steve to Mike: Can we replicate this for Queensland?

Mike to Tony: Can you replicate what Steve did for Queensland?







Beatton, T., Kidd, M. P., Machin, S., & Sarkar, D. (**2018**). Larrikin youth: Crime and Queensland's Earning or Learning reform. *Labour Economics*, *52*, 149-159.

What started it all?

Does an increase in education decrease crime? Is the link causal?

Researchers: Prof. Michael Kidd (RMIT); Dr. Tony Beatton (ISSR/QUT/RMIT); Prof. Steve Machin (LSE); Dr. Dipa Sarkar (QUT).

Research Partners: Dr. Angela Ferguson (DoE); Sandra Smith (QPS) &; Claire Slater (JAG).

Overview: Since 2012, the research team has been collaborating with the Queensland Government agencies: Queensland Police Service, Queensland Department of Justice & Attorney General, and the Queensland Department of Education & Training to examine the causal effect of the 'Earning or Learning' one-year increase in high-school education on youth crime.

During the conduct of this study the QUT research team has **gained much experience in using data from Queensland Government agencies.** Most importantly, in conjunction with all agencies involved, we collectively **overcame the legal impediments** to **linking data across agencies**.

As a result of this effort the research team and our **Queensland Government** partners are now conducting multiple cross-agency studies.

Publications 2017 to 2018

The Education – Crime Research Journey

Research Computer(s)/Storage/Data Security: to crunch the data, PC Server,

HPC, HPC-FS

Data: find aggregate education crime data like Steve used from the UK Data Archive.

ABS data was no good Where else can we get data? The primary source?

> Queensland Education Queensland Police Service Justice & Attorney General







Why Panel Data: Causation & micro-information

```
Example: earnings panel data regression (multiple time periods)
y_{it} = \mathbf{z}_i \alpha + \mathbf{x}_{it} \beta + \varepsilon_{it}
where:
y_{it} = \log \text{ wage};
```

 \mathbf{z}_{i} = observable time-invariant (variant) factors (education, etc.); \mathbf{x}_{it} = observable time-varying factors (e.g. job tenure); $\mathbf{\epsilon}_{it}$ = random error (e.g. "luck"; endogeneity)

Possible misspecifications, causing bias:

- Omitted dynamics (lagged variables are observed)
- Reverse causation (e.g. pay and tenure; changes seen over time; fixed effects
- Omitted unobservables (e.g. "ability"), fixed effects
- Causation evidence

2012: Goal - Opportunity to write a paper like Steve

 2012 Literature Review: funding from Micheal Kidd (HOS) for Eddie (RA).

no data

What would you do at this point?

Solution: use my HP network Business Development Approach

Business Development Approach:

- 1. Choose Research Area & Focus on it:
- 2. Vision: what did I want to achieve?
- 3. Identify Stakeholders and how our deliverables match the 'customers' value set
 - Build Trust
- 4. Build Relationships with Stakeholders to get research approvals and \$Research.
- 5. Develop Research Assets
- 6. Build a Research Team
- 7. Plus, all the other stuff researchers do: ethics, budget, grants ...
- 8. Produce Deliverables

1. Choose Research Area & Focus on it

Economics of Wellbeing

or

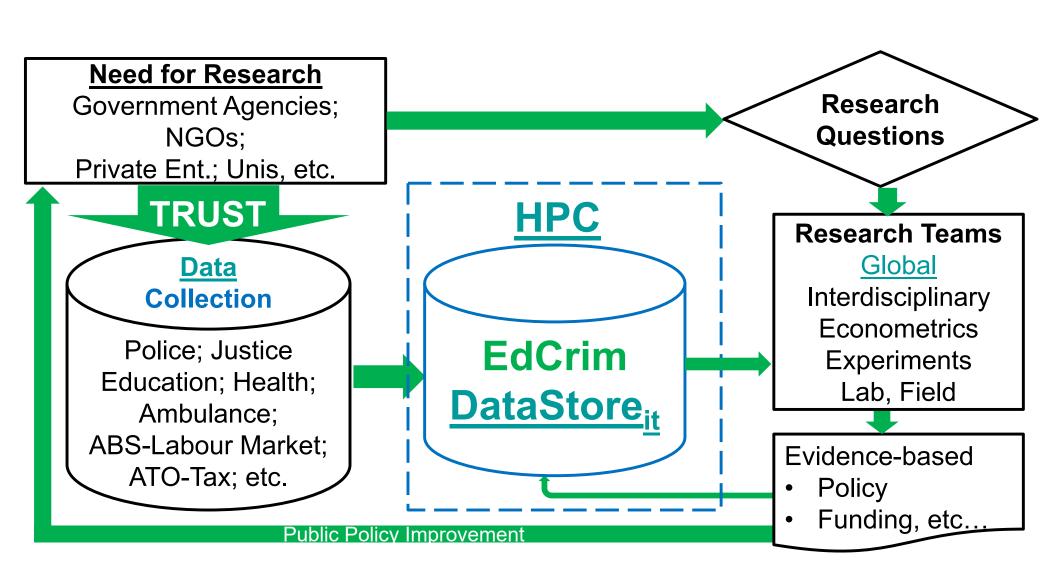
Primary & Secondary Education-Youth Crime







2. Vision: Research Education-Crime Policy questions that contribute to the wellbeing of our community.



3. Identify Stakeholders

Young Queenslanders attending State Government Schools
Their Parents & Guardians
Queensland State Government Schools (K to 12; ages very young to 25)

Queensland State Government Agencies:

Queensland Department of Education (DoE)

Queensland Police Service (QPS)

Department of Justice & Attorney General (JAG)

Youth Justice, Communities,

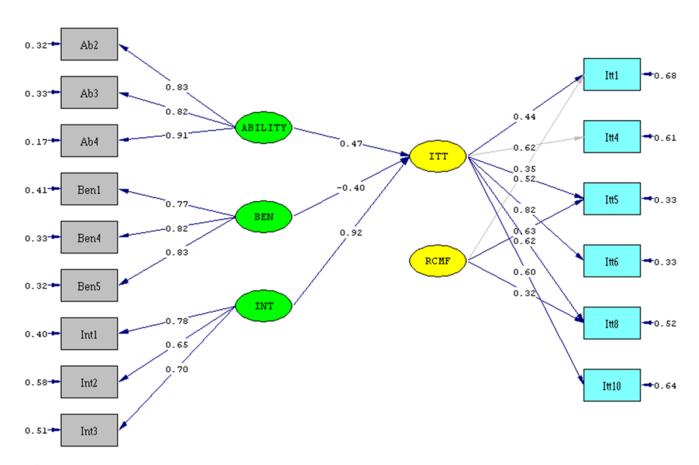
Australian Federal Government Agencies: ABS, Department of Education; ATO; PLIDA

Universities: worldwide

Research Funding Providers: DoE, QPS, ARC, Brisbane Broncos,

3. Identify Stakeholders

- How our deliverables match the 'customers' value set:
 - Queensland Police Service; community safety & reduce crime
 - Queensland Ambulance; Queensland Health
 - Queensland Education; a progressive, high performing education system realising the potential of every student.
 - Youth Justice/ Community Services; help youth transition to adulthood in our community.
 - Justice & Attorney General; <u>administer justice</u> by <u>applying the</u> <u>law</u> to serve the people of Queensland
 - QETA
 - YMCA
 - Anglican Diocese of Brisbane
 - QCOSS QLD Poverty Day
 - ATO, Federal DoE, ABS
 - LSE, RMIT, Georgetown University, UQ, Universita Cattolica del Sacre Cuore,



Chi-Square=142.08, df=81, P-value=0.00003, RMSEA=0.058

- Direct contact with decision-makers
- Technical seminars
- Public seminars/conferences
- Contribution to stakeholder activities/technical seminars/training/conferences
- Contribution to community service organisations.

QPS, DoE & JAG: Where to start?

- With the contact database I had from the IT industry
 - QPS: Contacts Group Operations project
 - DoE: Operations systems tender response contacts
 - JAG: QPS JAG contact network
 - Queensland Government Statistician: DoE contact network

DoE:

- Multiple presentations to <u>DoE</u> Research Department, DDG, Schools on research projects: Crime mitigating effects of education.
- Work with individual schools: The effect of single-gender classes on learning outcomes.
- QETA monthly presentations
- QUT Graduate School
- QUT DVC research
- QuBE



- Direct contact with decision-makers
- Letters to the Ministers, 2016.
- DDG Premiers, QPS, Attorney General, Treasury, QLD Statistician
 & cabinet presentation 'Tower of Power', 2016.
- Queensland Premiers & Cabinet presentations, 2017.
- Multiple meetings with QLD Police Commissioner/Deputy Commissioners, 2015-2018.



Exhibit technical expertise -Bring in the overseas experts:

Tom Kirchmaier (LSE - CEP) presented how they used AI to develop a system to help London Metropolitan Police position response assets: (LSE funded)

Day 1: Annual Conference of Queensland Police Senior Officers (QUT funded)



Day 2: Heads of Queensland Government Agencies: QPS, DoE, Attorney General; Treasury; Premiers & Cabinet..... (QGOV funded)









2. Vision: Build Trust



Queensland Police Service & Justice & Attorney General provide their data

- Technical Seminars
 - Australasian Drug and Alcohol Strategy Conference, Mar 2015



Response to QPS Alcohol Fuelled Violence Tender

Queensland Government: exhibit expertise in education & crime.

- Education Crime Workshop 2014 at QUT Graduate
 School involved 11 QGOV Agencies to discuss the benefits to education
 & crime arising from Government data integration.
 - Attendees: QPS, DoE, Queensland Health; Queensland Ambulance; QLD Government Statistician; Queensland Treasury; Youth Justice; QLD Community Services; QLD Attorney General; North Brisbane Medical Region; QLD Premier & Cabinet.

Technical Seminars







Alcohol- Fuelled Violence – QUT Conference Nov 2014









Alcohol- Fuelled Violence - Conference























- CoED Project with 4 Brisbane State & High Schools (2015)
 - Presentation to DDG (Schools)



- Today we continue with Technical Session presentations on Education-Crime to:
 - QPS
 - Department of Education
 - QETA
 - Youth Justice
 - Community Services
 - LSE; Harvard; MIT; Griffith; WEN (RMIT); Bayreuth; Oviedo; UQ;
 Bocconi & Universtat Cattolica (Milan); Georgetown



Build Trust with Stakeholders-QGov Statistician

Queensland Government Statistician:

- We needed the 'Next Step' dataset to undertake a project to examine post school education alternatives and work outcomes post grade 12.
- Next Step project is funded by DoE
- Data are collected by QLD Statistician
- DoE set up and sponsored multiple meetings with the Queensland Statistician request data access.
 - Access was denied (Internal Government Politics)

4. Build Relationships with Stakeholders

Why: get research approvals and \$Research

- Internal Customers: Gap Analysis
 - Information Security
 - Ethics
 - Research Office
 - Research Grants: ARC, NHMRC, Linkage, etc.

External Customers

- Participate in Stakeholder Events
 - DoE Research Showcase
 - QPS Seminars & Technical Days
 - QGOV DDG Conference
 - Premier & Cabinet meetings

5. Develop Research Assets

- Needed a PC Server QUT EOI Grant
- Write 10,000+ lines of code
 - HPC account
 - STATA
- Data Storage Strategy
 - Data Storage & Archive White Paper
 - Encryption
 - SSD
 - HP-FS
 - HPC
- Information Security Act
 - DoE Crown Law
 - Overcome Queensland Information Security Laws which prohibited data sharing and linkage



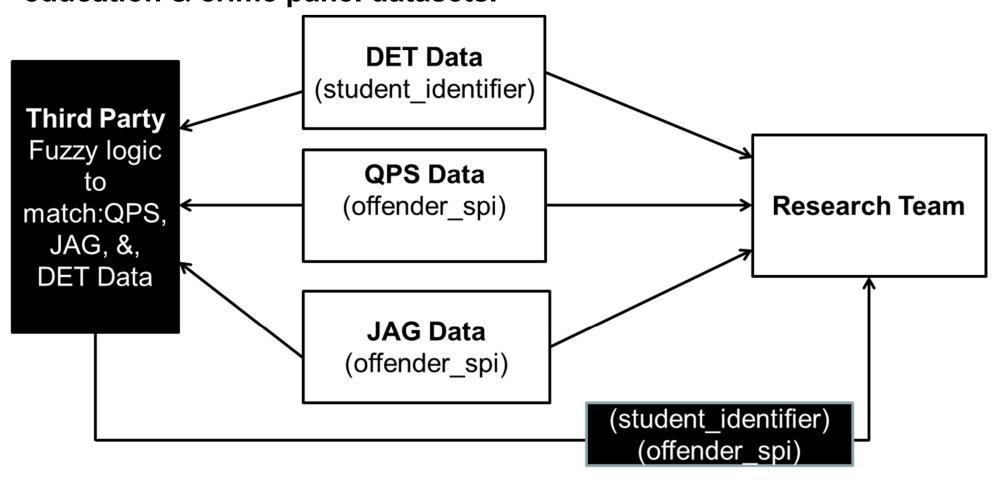




Information Security Act



Queensland Government: Letter to DDG with White Paper; Presentation & to Government Heads of Department: data integration of education & crime panel datasets.



6. Build a Research Team

The Economics of Educational Outcomes Research Team

Tony Beatton¹, Michael Kidd², Stephen Machin³ Dipanwita Sarkar¹ Francis Vella⁴



Queensland University of Technology (QUT) ¹
Royal Melbourne Institute of Technology (RMIT) ²
London School of Economics (LSE) & University College London (UCL) ³
Georgetown University ⁴

The Education – Youth Crime Research Team

Michael Kidd^{1,2}, Dipanwita Sarkar¹, Tony Beatton^{1,2,5,7}, Stephen Machin³, Francis Vella⁴, Karen Thorpe ⁵ Matteo Sandi ^{3,6} Francesca Mameri ⁶



Queensland University of Technology (QUT) ¹; Royal Melbourne Institute of Technology (RMIT) ² London School of Economics (LSE) ³ Georgetown University ⁴ ISSR, The University of Queensland ⁵ Universita Cattolica del Sacro Cuore, Milan ⁶ University of Canberra ⁷

7. Plus, all the other stuff researchers do

- Ethics Reviews
- Update Project Plans
- Revise Budgets
- Pursue more \$: Grants; ARC Linkage; Private \$
- Internal Seminars
- Conferences: Qube; ARC-BITA; WEN; RES; European Education Society;

- 2015 Education Crime Linkage Development Grant, QUT
- The when, what, and how of observing and assessing practice in ECEC: Towards an observational framework for Authorised Officers in Queensland (2018–2020).
- The developmental significance of sleep transition in early childhood.
 (2020–2024) ARC Discovery Project; 2020.
- Queensland Government Department of Education; <u>Evaluation of the Beyond the Broncos Girls Academy Program</u> (2019–2020) Brisbane Broncos Rugby League Club Limited.
- Queensland Government Department of Education; <u>STEM subject</u> selection by female senior students: enablers and inhibitors; 2020.
- Azhar Hussain Potia is funded by an ARC Industry Fellowship (IE230100268). Karen Thorpe is funded by an ARC Laureate Fellowship (FL220100137)

- Queensland Police Service; Crime reducing effects of early childhood education (QPSRC-0521-1.01 2022).
- Queensland Government Education Horizon Grant;
 Successful transition: Identifying predictors of resilient trajectories of transition into secondary school; 21 April 2021.
- Queensland Government Department of Education;
 Classroom Peer capital: contribution to student outcomes (Ref. 550/27/2517 December 2021).
- Queensland Police Service; Crime reducing effects of early childhood education (QPSRC-0521-1.01 2022).

- Spring 2017 'Larrikin Youth' LSE Centrepiece Working Paper
- Beatton, T., Kidd, M. P. and Machin, S. & Sarkar, D. (<u>2018</u>). <u>Larrikin Youth:</u>
 New Evidence on Crime and Schooling. *Labour Economics*, <u>52</u>, 149-159.
- Beatton, T., & Kidd, M. P. & Machin, S. (<u>2018</u>). "<u>Gender crime convergence over twenty years: Evidence from Australia, European Economic Review, Elsevier, 109(C), 275-288.</u>
- Thorpe, K., Rankin, P., Beatton, T., Houen, S., Sandi, M., Siraj, I., & Staton, S. (2020). The when and what of measuring ECE quality: Analysis of variation in the Classroom Assessment Scoring System (CLASS) across the ECE day. *Early Childhood Research Quarterly*, 53, 274-286.
- Thorpe, K., Potia, A. H., Beatton, T., Rankin, P., & Staton, S. (2020).
 Educational outcomes of Queensland's investment in early childhood education and care (2007-2020), University of Queensland. Queensland Government Department of Education.

- Beatton, T., Kidd, M. & Sandi, M (2022). School Indiscipline & Crime. Cesifo Working Papers 9526 Munich Society for the Promotion of Economic Research - CESifo GmbH
- Beatton, T., Kidd, M.P., Niu, A. & Vella, F. (2023). Age of Starting School, Academic Performance, and the Impact of Non-Compliance: An Experiment within an Experiment, Evidence from Australia. *Economic Record*. 10.1111/1475-4932.12722
- Potia, A., Woodroffe, K.W. & Thorpe, K. (2025). <u>Transition From Primary to Secondary School: Igniting Attendance and Engagement Among Aboriginal and Torres Strait Islander Students Through National Policy Reform.</u>
 Australian Journal of Social Issues, July 2025.

Projects we have worked on:

<u>Improving Education-Youth Crime Outcomes for Queensland Children:</u>

- Does an increase in education decrease crime? (QPS, DoE, JAG; QUT, LSE);
- Gender crime convergence over twenty years (DoE, QPS, QUT, LSE);
- The Earning and Learning reform: The dual path of VET and High School Education (QPS, DoE, JAG; QUT);
- The effect of single-gender classes on learning outcomes (QUT; DoE; Earnshaw & Kedron State High School; Milton & Raceview State Schools);
- Age of Starting School, Academic Performance, and the Impact on noncompliance. (DoE; QUT, UQ, Georgetown);
- School Indiscipline and Crime (DoE, QPS, LSE, QUT, LSE, Cattolica)
- Queensland's Investment in early childhood education: Recent experience and assessment of educational outcomes (DoE; UQ);
- Did the introduction of Universal Prep in Queensland Reduce Youth Crime? (DoE, QPS; QUT, LSE, Cattolica);
- The when and what of measuring ECE quality: Analysis of variation in the Classroom Assessment Scoring system (UQ, DoE, Uni Melbourne).

Projects we have worked on:

Children at Risk:

- Evaluating the Effectiveness of Education programs for young persons under the care of the state (Elizabeth Howe & Travis Anderson-Bond, Youth Justice).
- Altering the path of Student Engagement via VET (QPS, DoE, QTAC;
 VET, Justice & Attorney General, <u>Government Statistician</u> & Next-Step data).
- Quantitative evaluation of the Beyond the Broncos Girls Academy program. – effectiveness of Broncos Girls Program on participants Education Outcomes (DoE, Brisbane Broncos; UQ).

Funded Research Projects:

- Queensland Government Department of Education; Classroom Peer capital: contribution to student outcomes (Ref. 550/27/2517 December 2021; UQ).
- Queensland Government Education Horizon Grant; Successful transition:
 Identifying predictors of resilient trajectories of transition into secondary school;
 21 April 2021 (DoE).
- Queensland Government Department of Education; STEM subject selection by female senior students: enablers and inhibitors; 2020; (UQ).
- The developmental significance of sleep transition in early childhood. (2020–2024) ARC Discovery Project; 2020.
- Queensland Government Department of Education; Evaluation of the Beyond the Broncos Girls Academy Program (2019–2020) Brisbane Broncos Rugby League Club Limited.
- The when, what, and how of observing & assessing practice in ECEC: Towards an observational framework for Authorised Officers in Queensland 2018–2020 (UQ).

Funded Research Projects:

Queensland Police Service:

Crime reducing effects of early childhood education (QPSRC-0521-1.01 2022; QUT)

What will happen to the Education – Youth Crime Research Team in the Future?









BITA ARC Training Centre for Behavioural Insights for Technology Adoption

