Evaluating the impact of workers' compensation policy in Australia using insurance claims data and comparative quasi-experimental methods

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Evaluating the impact of workers' compensation policy in Australia using insurance claims data and comparative quasi-experimental methods

Abstract
Australia, like the USA, has state-based workers’ compensation (WC) systems that provide income support, healthcare and rehabilitation for injured and ill workers. The eleven major Australian WC systems provide coverage for over 90% of the labor force and accept approximately one quarter of a million new claims per annum. Governments commonly use changes in scheme design (most often enacted through legislative amendment) to influence WC system performance including rates of claiming, costs and return to work (RTW) outcomes. Using a national, longitudinal, case level dataset of WC insurance claims data, we evaluated the impact of multiple, state level legislative amendments. The impact of legislative amendments in the states of South Australia (year of 2009), Tasmania (2010), Victoria (2010) and New South Wales (2012) were evaluated using interrupted time series analysis. Outcomes included volume and incidence of accepted WC claims, employer and insurer claim processing timeframes, and duration of work disability. Major findings include (1) the Tasmanian amendments designed to improve RTW outcomes failed; (2) the South Australian amendments designed to encourage early employer claim lodgment were partially effective; (3) the New South Wales amendments designed to ensure the financial viability of the WC scheme reduced access to benefits and disproportionately affected workers with occupational disease and mental health conditions; (4) the Victorian amendments designed to increase benefit generosity led to an increase in claims and longer duration of disability. Study findings demonstrate both intended and unintended consequences of WC system reform, and provide an evidence base for future reform.

Comments
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Determining the impact of workers’ compensation policy reform in Australia using a population-based administrative insurance claim dataset.

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Data
The data used in the COMPARE Project is provided by (1) Comcare and by the following organisations via SafeWork Australia: (2) WorkSafe Victoria (3) WorkCover Tasmania (4) WorkCover WA (5) ReturnToWork SA, (6) State Insurance Regulatory Authority of NSW (7) Office of Industrial Relations, QLD Govt (8) ACT Government and (9) NT WorkSafe.

Advisory Group
The project advisory group includes representatives from the above organisations plus (1) the Australian Industry Group; and (2) the Australian Council of Trade Unions.

Collaborators
The project has academic collaborators from the University of British Columbia in Vancouver, Canada; the Institute of Work and Health in Toronto, Canada; and the University of Melbourne.
Burden of disease in Australia’s working age population.

Labour market, work injury and disease in Australia

- Approx 70% working age people are employed.
- Of these, >90% are covered by workers’ compensation insurance.
- There were ~532,000 work-related injuries in 2014/15 (1 per minute)$^2$
- There were 242,000 workers’ compensation claims in 2014/15 (1 per 2 minutes)$^3$
- Work injury has an estimated economic cost of $61.8 billion or 4.1% of GDP$^4$

Australia - paradise for workers’ compensation policy research

Eleven major workers’ compensation systems.

Policy variation between systems regarding eligibility, income support, healthcare, dispute processes etc...

Regular changes in policy and practice within systems (legislation, regulation, treatment payment policy, practice).

Two sources of national data:
1. A national minimum database of workers’ compensation data with a long time series.
2. A national return to work survey of injured workers covering all workers compensation jurisdictions.

➢ A natural experiment!
The COMPARE Study

• Compensation Policy And Return to work Effectiveness (COMPARE) study.

• National comparative effectiveness study of the impact of workers’ compensation policy on return to work (RTW) following work-related injury.

• Objectives
  1. Identify policy settings that have positive or negative impacts on return to work and time lost from work in Australians who make workers’ compensation claims.
  2. Develop a government/research collaboration that enables transfer of knowledge between researchers, policy agencies, employers and workers.
Features of our research design

1. Use existing, population level data.

2. Use system relevant outcomes.

3. Identify and evaluate major policy events.

4. Use robust, quasi-experimental methods.

5. Engage with policy agencies throughout.

6. Logical progression of analyses ("slow build").

Intent = create an evidence base that will influence future policy choices
Overview

- Individual, case-level insurance claims data.
- Collected by insurance companies for the purpose of managing workers’ compensation claims.
- Includes 9 major workers' compensation schemes.
- Collated by Commonwealth (national) government agency Safe Work Australia.
- Updated annually.
- Longitudinal.
- Time series from 2003/4 to 2016/17
- Current total of 4,363,267 cases

Content

- Worker (age, gender, postcode)
- Job (occupation, pre-injury hours)
- Employer (industry, location)
- Nature, location and mechanism of injury/disease
- Insurance claim (event dates, dispute indicators etc)
- Aggregated payment data (service use)
- Time lost to injury/disease

+ Denominator data (covered labour force, million working hours by occupation, industry, age, sex).
1. Evaluations of policy change impacts.

2. Cohort studies.

3. Understanding the impact of employer and insurer practices on RTW.

4. International comparison (with like systems in Canada)
Comparison between jurisdictions suggests that policy variation is important.

Standardised national cohort of claims with min 10 days time loss (N=95,655).

Cox regression adjusted for worker, job and workplace factors + jurisdiction.

Outcome = duration of time loss.

> State/territory of claim is significant predictor of time loss duration.

Assessing the impact of legislative change on worker outcomes

New South Wales 2012
- Restricted eligibility
- Limited benefit generosity
- Some groups exempt

Tasmania 2010
- New return to work model
- Increased benefit generosity

South Australia 2009 & Tasmania 2010
- Employer incentives to lodge claims quickly

Victoria 2010
- Increased benefit generosity
Summary of changes to eligibility

• Claims for disease & mental ill health only compensable if employment was \textit{the main contributing factor}.

• Journey claims (travel to and from work) require \textit{real and substantive connection} between employment and accident/injury.

• Firefighters, Paramedics, Police and Coal Miners were \textit{exempted}. 

New South Wales

- Workers Compensation Legislation Amendment Act
- Effective date 19 June 2012
Rate of claims per 100,000 workers (whole state)

- Reduction in monthly claim incidence of 44.2 per 100,000 workers.
- Equivalent to a 14.6% reduction.
- ~1470 fewer per month / 17.7k per annum

- Reduction in monthly claim incidence of 36.5 per 100,000 workers.
- Equivalent to a 19.6% reduction.
- ~1200 fewer per month / 14.5k per annum
Rate of claims per 100,000 workers (by condition)

- 25.7% reduction in disease claims
- 27.9% reduction in mental illness claims
- 11.4% reduction in traumatic and musculoskeletal claims
Rate of claims per 100,000 workers (by occupation)

- 14.9% reduction in affected occupations
- 24.7% reduction in first responders followed by long-term trend increase
- 30.1% increase in coal miners who were exempted from the policy change
Summary

- Workers’ compensation is the primary means via which Australian governments seek to support and rehabilitate injured and ill workers.

- The COMPARE project has used and extended an existing national insurance claims database to create new evidence on the impact of policy change on worker outcomes.

- Study findings are beginning to be cited in discussions around future policy change.

- Major next steps: (1) Further policy evaluation using existing data (2) Extend database to allow examination of quality of health care: (3) Link workers compensation data to Medicare and social security data.