The power of linked data: Evaluating diverse multi-program projects designed to reduce welfare dependence

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The power of linked data: Evaluating diverse multi-program projects designed to reduce welfare dependence

Abstract
This presentation showcases the innovative use of linked government administrative data in Australia to evaluate a range of diverse social interventions aimed at supporting vulnerable groups to achieve economic independence. The interventions were developed and funded as part of the Australian Priority Investment Approach to Welfare, an approach supported by actuarial analyses of administrative data designed to deliver targeted support for groups at-risk of long-term welfare dependence. In 2018, the Australian Government, commissioned an impact evaluation to assess the effectiveness of the approach in achieving its intended outcomes. The evaluation is based on analyses of linked administrative data to assess the extent to which the new interventions enabled pathways out of welfare dependence. Our presentation will outline the strengths and weaknesses of using government administrative data to evaluate the outcomes. Strengths include easy comparison across diverse programs designed to achieve the same goals; reduced respondent reporting burdens; robust quasi-experimental techniques such as a matching design based on exact matching on a few key characteristics and/or propensity score matching on a broad range of pre-program characteristics; and evidence-based investment practice decisions. Weaknesses include the adoption of an observational rather than experimental design and the lack of information on some social characteristics such as orientations to work, attitudes and social values. The presentation not only assesses the compilation of administrative data used for the first time to evaluate multi-program projects, it will also describe how these data feed into visual interactive dashboards used to monitor the outcomes of the interventions.

Comments
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The power of linked data: Evaluating diverse multi-program projects designed to reduce welfare dependence

Jenny Povey, Janeen Baxter, Christopher Ambrey, Guyonne Kalb, David Ribar, and Mark Western
Australian Policy context

- Australia adopted an Investment approach

- Actuarial analyses of the social security and income support systems identified groups at risk of long-term welfare dependence
A new model for public programs

• Try Test and Learn (TTL) Fund was established to implement and test the effectiveness of new policy responses (interventions)
• The interventions are innovative approaches aimed at reducing potential welfare dependence by providing job readiness training, identifying job opportunities, reducing barriers to work or study participation, and increasing confidence and resilience
• The interventions were developed through a co-design process (Providers, Government and end-users)
TTL social interventions aimed at young carers

1. Data analytics and Augmented Intelligence (AI) used to match young carers to guaranteed job opportunities and provision of **training** and **support** to increase **job readiness**

2. Provision of online **training** modules supported by a **coach** and access to support services such as counselling and respite

3. Provision of a combination of **coaching**, coordinated referrals and peer networking to increase **readiness for workforce or study participation**
TTL social interventions aimed at young parents

1. Provision of mentors to assist young parents with health, education and other services during pregnancy, birth and in the first two years after birth.

2. To improve job readiness, this intervention identifies goals and plans to overcome barriers to employment.

3. Matching the training of participants to needs identified by employers and business development to get parents job ready.

4. Provision of mentors, hands-on learning and work trials with childcare paid for by the project so that participants can participate in the practical training.
TTL social interventions aimed at young current students

1. Cognitive function and social and emotional skills training to improve **mental control** and **self-regulation** to increase engagement in education

2. Peer and **mentor** groups, a **goal-setting tool** and “**nudge**” **texts** via an app and website

3. Coordinated and individualised suite of **support services**, using a holistic, location-based, early intervention approach
TTL social interventions aimed at young former students

1. Task-based ‘gig’ economy with socially-motivated task buyers. This will occur using a website and existing gig economy platforms.

2. Hands-on vocational training one-on-one with mentors to build **skills**, **real paid work opportunities** and support to overcome **barriers** to ongoing employment.

3. Provision of a **mentor** to improve **job readiness**

4. Training to build **skills** through using **simulated work environments** and **hands-on learning** experiences for small groups and wrap-around **support** from youth development workers.
Innovation

Integrating Federal and State level administrative datasets for the first time to evaluate multi-program projects. These datasets contain the following:

- Funded support services and program outputs (DEX)
- Income support payments (DOMINO)
- Estimated cost of welfare reliance (PIA)
- Post school education and training (VET & Uni)
- Job search activities and short courses (RED)
- Employment data (ATO/MADIP)

Linking to additional Federal secondary data:
- DEX client survey (3 time points)
- Quarterly Activity Work Plan (AWP) reports from each program

Complemented with in-depth qualitative data:
- Stakeholder & client interviews
Innovation cont...

Administrative data was used to:
• Identify at-risk groups (actuarial analysis)

Linked administrative data will be used to:
• Create quasi experimental (artificial) control groups
• Evaluate interventions (multi-program projects) targeting the at-risk groups
• Monitor outcomes through interactive dashboards
• Determine whether the interventions have value for money
Section 2: Participant characteristics at program start continued

8. Proportion of participants who received income support unrelated to study for 20+ months in the 24 months prior to program commencement

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>48</td>
</tr>
<tr>
<td>Q2</td>
<td>36</td>
</tr>
<tr>
<td>Q3</td>
<td>30</td>
</tr>
<tr>
<td>Q4</td>
<td>38</td>
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<tr>
<td>Q5</td>
<td>30</td>
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<tr>
<td>Q6</td>
<td>33</td>
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<tr>
<td>Q7</td>
<td></td>
</tr>
<tr>
<td>Q8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>

9. Proportion of participants who are not in work or study

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>46</td>
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<tr>
<td>Q2</td>
<td>41</td>
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<tr>
<td>Q3</td>
<td>47</td>
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<td>Q6</td>
<td></td>
</tr>
<tr>
<td>Q7</td>
<td></td>
</tr>
<tr>
<td>Q8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
</tr>
</tbody>
</table>

10. Social support, self-beliefs and access to information - quarter 5 only

<table>
<thead>
<tr>
<th>Access to Information</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants have people in their lives who support their goals</td>
<td>3.5</td>
</tr>
</tbody>
</table>

11. Barriers to workforce or study participation - quarter 5 only

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack education or skills needed</td>
<td>4.4</td>
</tr>
<tr>
<td>Lack of assistance to look for work or study</td>
<td>4.6</td>
</tr>
<tr>
<td>Lack sufficient work experience</td>
<td>4.3</td>
</tr>
</tbody>
</table>
## Strengths and weaknesses

### Strengths
- **Easy comparison** across diverse interventions
- **Reduced** respondent reporting burden
- **Robust** quasi-experimental techniques
- **Evidence-based** investment practice
- **Cost savings**

### Weaknesses
- **Observational** design
- Admin data **lacks information** on social characteristics
- Standardisation across interventions **loses the uniqueness** inherent to each intervention
- Linking Federal and State data is **complicated** and **uncertain**