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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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Australian Policy context



50% of the population, receives, or has received welfare payments.



1/10 people not currently receiving welfare **will start receiving payments** over the next 5 years.

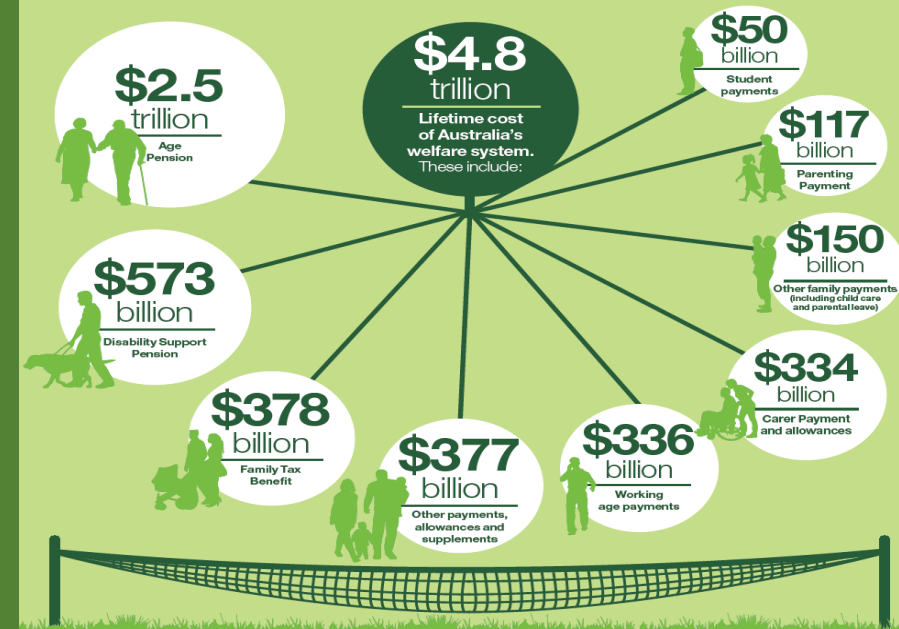
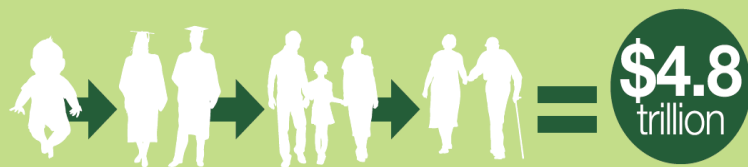
- Australia adopted an **Investment approach**

- **Actuarial analyses** of the social security and income support systems identified groups at risk of long-term welfare dependence

Australian Government
Department of Social Services

The Australian Priority
Investment Approach
to Welfare

As at **30 June 2015** the **future lifetime cost** of welfare payments for **all Australians** is



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**

Quarterly snapshot report number 5 - Overall TTL Fund

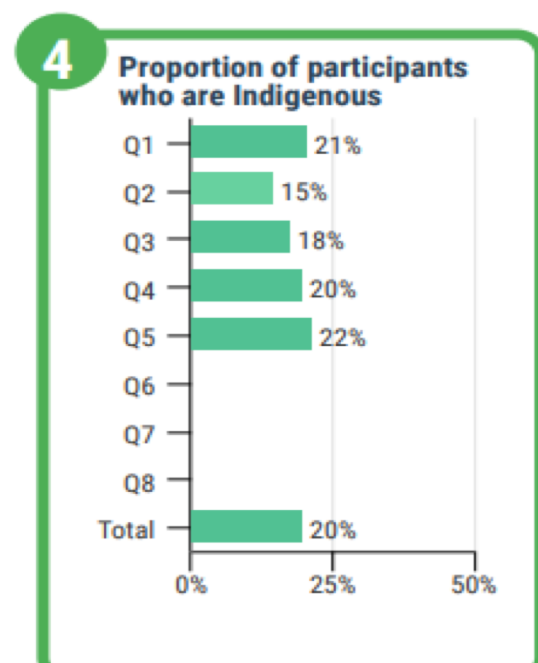
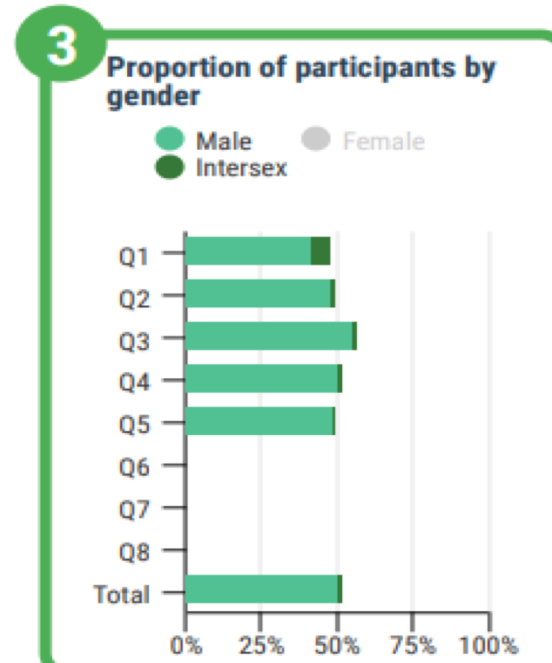
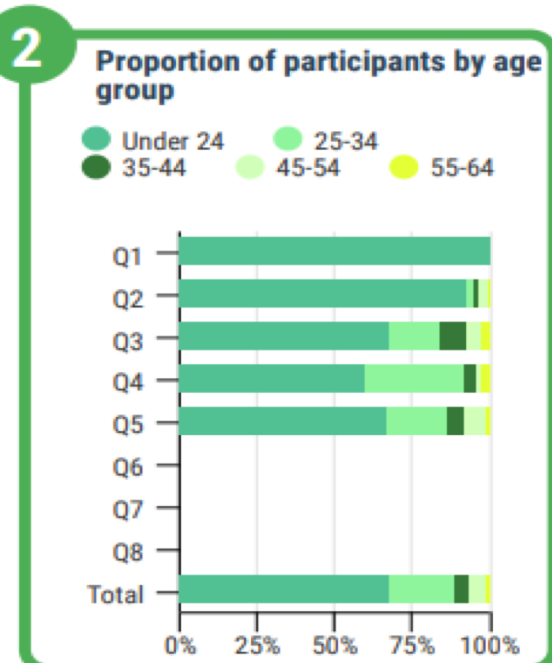
Section 1: Intake

FICTITIOUS DATA

1

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Total
Number of participants	48	970	1900	2500	4000				9418
Average number of sessions (excl intake)	3.3	5	8.1	7.5	10				4.2
Proportion of participants linked to administrative data	80%	85%	88%	75%	90%				84%
Proportion of participants with poor quality SLKs	14%	17%	19%	9%	7%				13%

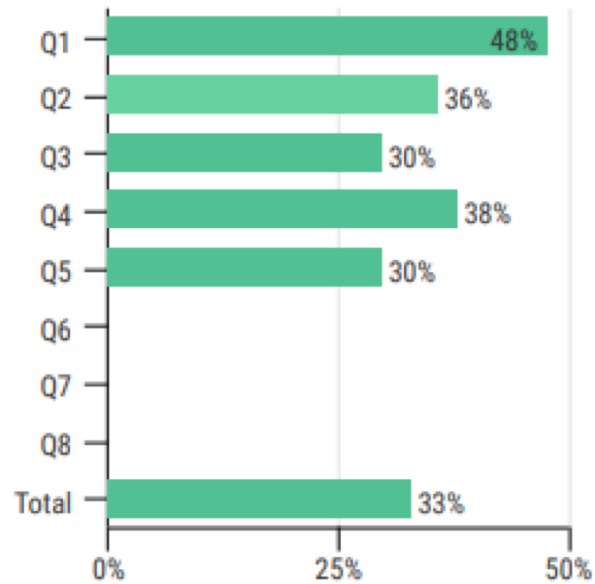
Section 2: Participant characteristics at program start



Section 2: Participant characteristics at program start continued

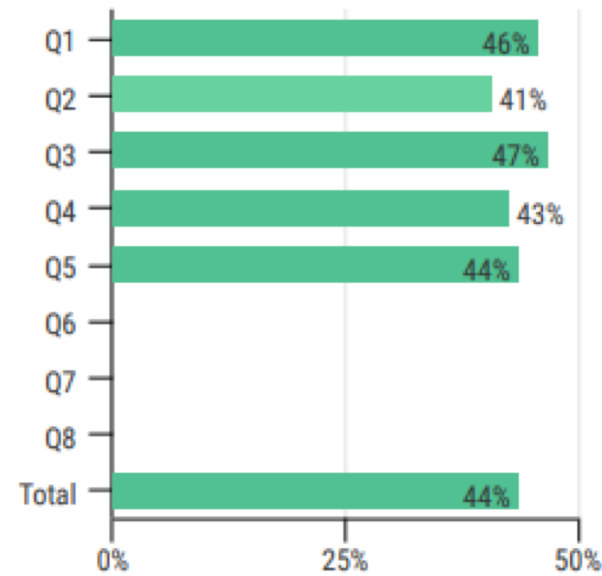
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Proportion of participants who received income support unrelated to study for 20+ months in the 24 months prior to program commencement



9

Proportion of participants who are not in work or study



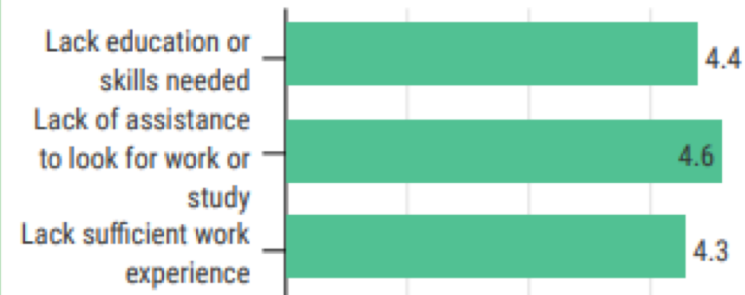
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Social support, self-beliefs and access to information - quarter 5 only



11

Barriers to workforce or study participation - quarter 5 only



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**