

**BEHAVIOURAL
EXCHANGE**

Behavioural insights for public policy

Case studies from around Australia

June 2018





Foreword

Hon Malcom Turnbull MP
Prime Minister

As we all observe in our daily lives, individuals are more rational in economic theory than they are in the real world.

Research on these kinds of behavioural anomalies has a rich history, dating back at least to Adam Smith's *Theory of Moral Sentiments* in 1759.

The emerging field of behavioural economics looks at these issues through a modern analytical lens. The ramifications extend to the very heart of public policy – because even the most impeccably researched policy risks failing if it does not take into account the way people actually behave and react to policy changes.

This is why the Australian Government established the team known as the Behavioural Economics Team of the Australian Government (BETA) in 2016. BETA is one of about 60 government behavioural insights teams around the world. These teams work at the forefront of a number of fields – such as economics, psychology, neuroscience and sociology – and they do this to consider real-world problems through a prism of working out how people actually behave. The goal is to help governments design smarter policy responses.

This report is a collation of recent trials aimed at enriching the lives of Australians. Behavioural insights can help us better understand a range of policy issues, including workforce participation, retirement savings, rural and regional employment incentives, and household cost of living pressures.

There are potentially large dividends from small policy changes, across a wide variety of policy settings.

I am proud Australia is hosting Behavioural Exchange (BX) 2018, bringing together passionate researchers and policy makers from around the world. This global behavioural insights community demonstrates the shared passion and commitment to understanding the ways in which policy changes can improve people's lives.

I encourage you to read this report, to make contact with the Australian teams, and continue to work together to improve citizens' experience of government and public policies.



Dr Martin Parkinson AC PSM
Secretary, Department of the Prime Minister and Cabinet

As policy makers we're often asked to 'think big'. We face sizeable and complex challenges against a backdrop of global, technological and social developments which are transforming economies and societies.

But I urge you to not forget about the small things. Solutions to some of our really big problems can lie in the smallest, simplest solutions.

Behavioural insights offer ways to devise elegant and simple solutions to problems which can't be solved with traditional assumptions, wisdom or tools. The solutions are often modest and cost-effective, often yielding an impact far greater than more expensive policy options.

Behavioural insights encourage people-centred design, which means simpler, clearer and faster public services. Evaluation is a crucial part of this. We need to quickly understand whether we are succeeding or not, and why, so we can advise government on whether to persevere or pivot.

Let's look for these opportunities to make big and meaningful impacts to advance the wellbeing of Australians.



Tim Reardon
Secretary, New South Wales Department of Premier and Cabinet

The NSW Premier has set out her top priorities to improve services and deliver for the people of NSW. Recognising the important role that behavioural insights will play in driving new and better approaches in government, the NSW Government set up the first central behavioural insights team in Australia in 2012.

I am proud to present NSW's significant results from applying behavioural insights. In the last few years, we have helped injured workers return to work safely and more quickly.

We have encouraged greater use of flexible work. We have increased the number of people showing up to hospital appointments and court. These and other initiatives encourage people to take actions that will improve their life outcomes. But they also expand the evidence base by rigorously testing what works.

I look forward to further exploring new avenues for applying behavioural insights to drive better outcomes across the NSW public service.



Chris Eccles
Secretary, Victorian Department of Premier and Cabinet

Victoria's Behavioural Insights Unit works across government to bring what we know about human behaviour to the core of policy design and implementation. Since the Behavioural Insights Unit commenced in 2016, we've applied behavioural insights to optimise our programs and services for citizens.

With a focus on outcomes, Victoria is increasingly applying behavioural insights to complex, multi-sector issues. Driven by the Victorian Government's strong focus on preventing family violence, behavioural insights techniques are being applied to better protect and support victim survivors. Behavioural insights have been used to deepen our understanding of how information sharing works in practice in the family violence service system. Our increased understanding has influenced the physical design of Victoria's new family violence support and safety hubs, and supported the roll out of guidance and training for practitioners.

Our use of behavioural insights is driving a focus on people, evidence and good decision making. We're working with child protection to get children at risk access to the services they need more effectively, partnering across government to help Victorian consumers to get a better energy deal and supporting the learning outcomes of students in high-demand community sector employment areas. We're also running trials to improve immunisation rates, increase registrations for organ donation and encourage Victorian taxpayers to pay land tax through efficient channels.

Finally, we're turning the lens on ourselves. The public service should strive to be more effective around how we use our time, how we allocate our resources, how we share information and how we manage risks. This is not a task contained within jurisdictions. It relies on all of us to collaborate, share what works and what we've learnt along the way. Taking a behavioural insights approach to the way we work can help us to think about policy opportunities in new and different ways, as we seek to deliver public value and transform the public service for the future.

What is a randomised controlled trial?

Most of the interventions in this report were evaluated using a [randomised controlled trial](#) (RCT) design.

A randomised controlled trial is the best way of telling if an intervention is working. They work by randomly assigning people into different groups – usually one or more ‘treatment’ groups which participate in the new intervention, and a ‘control’ group which does not. The differences in outcomes across the groups are then compared.

Well-designed and well-implemented RCTs are considered the ‘gold standard’ for assessing causal impacts because they determine the impact of an intervention or treatment compared to if nothing was changed. There are other evaluation designs in addition to the RCT, such as a pre- and post- evaluation.

More information about RCTs is available on the [BETA website](#).

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Improving the health of Australians

Nudge v. superbugs: Reducing overprescribing of antibiotics

Abstract

The rise of antimicrobial resistance is a global health problem. Thus, it is important antibiotics are only prescribed when it is clinically appropriate.

We undertook a randomised controlled trial with 6,649 general practitioners (GPs) with high antibiotic prescribing rates. GPs were randomly assigned by clinic to one of five different groups. The GPs in the control group received no letter; the GPs in the four intervention groups were sent letters (either an education-only letter or one of three versions of a peer comparison letter) from Australia's Chief Medical Officer.

Overall, we estimate 126,352 fewer scripts were filled over the six-month period as a result of the letters. The peer comparison letters had substantial impact. The most effective letter included a graph of the doctor's prescribing behaviour relative to their peers, and resulted in a 12.3 per cent reduction in prescription rates.

The results of our trial demonstrate a peer comparison letter from a respected authority – the Chief Medical Officer – can have large impacts on antibiotic prescribing by Australian GPs.

Project by



BETA

The policy problem

Antimicrobial resistance is one of the biggest threats to human health today.¹ Antimicrobial resistance occurs when microorganisms, such as bacteria, become resistant to antimicrobial medicine, such as antibiotics. Resistant infections are more difficult to treat and, in some cases, are untreatable.² Antimicrobial resistance can affect anyone, of any age, and in any country.

The strongest contributor is antibiotic use. Australians use a lot of antibiotics and this increases the chance for bacteria to develop resistance to antibiotics.³

Within Australia, GPs currently prescribe the greatest portion of antibiotics due to the types of illnesses seen and the large volumes of patients.⁴ This makes GPs important partners in efforts to minimise antimicrobial resistance.

Our findings and learnings

In 2017, Australia's Chief Medical Officer wrote to high-prescribing GPs (i.e., whose prescribing rates were in the top 30 per cent of their region).⁵ We applied behavioural insights to design the letters, which aimed to prompt GPs to reflect on whether there were opportunities to reduce prescribing where appropriate and safe. The letters were sent on 9 June, just before the rapid increase in prescribing which occurs during the cold and flu season.

In total, 6,649 GPs were randomly allocated by clinic to one of five different groups. One group did not receive a letter. GPs in the remaining groups received one of four letters:

1. **An education-only letter** containing the usual education messages about antimicrobial resistance, antibiotic prescribing and two education posters.
2. **An education with peer comparison letter** including the same education information as the education-only letter above and a tagline providing the GP with their prescribing rate compared to peers in their region.
3. **A peer comparison with graph letter** including the peer comparison tagline along with a visual attention-grabbing graph.
4. **A peer comparison with delayed prescribing letter** including the peer comparison tagline with delayed prescribing material.



Behavioural insight

Peer comparison feedback encourages people to do what most other people do. It is often targeted at outliers.⁶ By showing individuals how they compare to their peers, they are often motivated to change their behaviour towards what is 'normal' for their peer group.

¹ Wise, R. et al. 1998, 'Antimicrobial resistance is a major threat to public health', *BMJ*, vol. 317, no. 7159, pp. 609–610.

² Ibid.

³ McCullough, A. et al. 2017, 'Antibiotics for acute respiratory infections in general practice: Comparison of prescribing rates with guideline recommendations', *The Medical Journal of Australia*, vol. 207, no. 2, pp. 65–69.

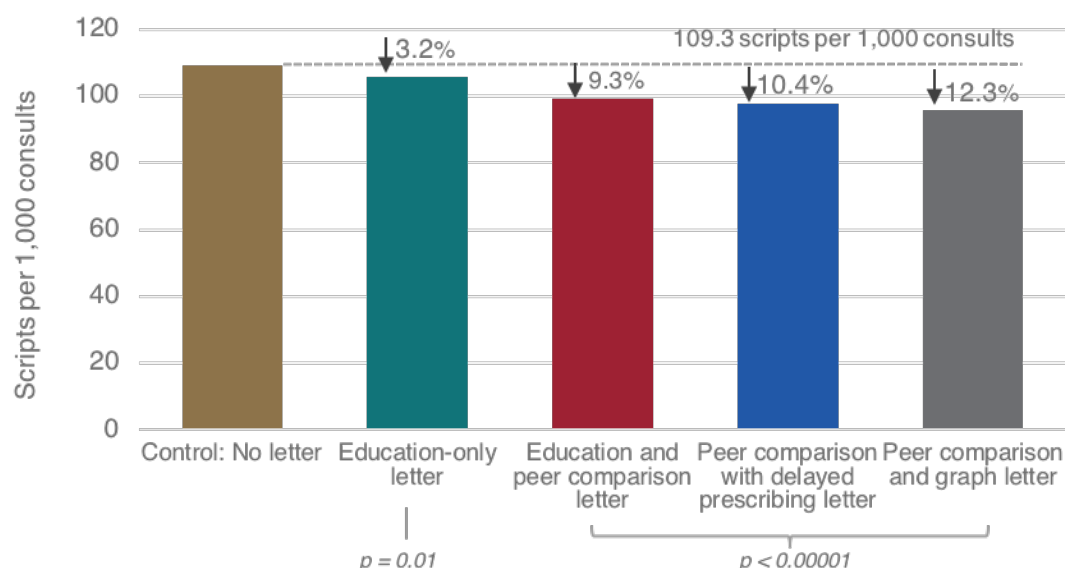
⁴ Recent research estimated that Australian GPs prescribe antibiotics for acute respiratory infections at rates that are up to nine times higher than those recommended by the Australian Therapeutic Guidelines. See McCullough, A. et al. 2017, loc cit.

⁵ Based on Australian Bureau of Statistics, Statistical Area 4.

⁶ John, P., Sanders, M. & Wang, J. 2014, 'The use of descriptive norms in public administration: a panacea for improving citizen behaviours?', Social Science Research Network, viewed 18 April 2018, <http://ssrn.com/abstract=2514536>

Our trial followed a United Kingdom (UK) trial⁷ in which a national peer comparison intervention successfully changed the prescribing habits of GPs. We adapted this trial design by providing individual peer comparison feedback (rather than feedback at a clinic level). Our trial also targeted GPs whose prescription rates were in the top 30 per cent of their geographic regions (compared to the top 20 per cent in the UK trial).

Figure 1: Effect on antibiotic prescription rates over six months



Overall, we estimate 126,352 fewer scripts were filled over the six-month period as a result of the letters.

The three letters containing peer comparison information outperformed the education-only letter, and resulted in a substantial reduction in prescription rates. Compared to GPs who did not receive a letter, the *peer comparison* letters resulted in a 9.3 to 12.3 per cent reduction in prescribing rates over six months. In comparison, the *education-only* letter reduced antibiotic prescriptions by 3.2 per cent over six months.

The *peer comparison with graph* performed best. This letter reduced prescribing rates by 12.3 per cent over the six-month period, and by 14.6 per cent in the best performing month.

Future opportunities

We are keen to explore the effects of GPs receiving ongoing and regular peer comparison information. For example, does regular feedback help GPs to monitor their prescribing or will they begin to disregard the information over time? Depending on the results of the trial, providing peer comparison information to GPs with high prescribing rates might effectively produce continued reductions in inappropriate prescriptions.

Opportunities also exist to incorporate real-time peer comparison feedback into GP practice software. This may be a cost-effective and simple way of helping GPs to monitor their prescribing patterns. Regular feedback could lead to faster and more sustained changes in prescribing behaviours.

⁷ Hallsworth, M. et al. 2016, 'Provision of social norm feedback to high prescribers of antibiotics in general practices: A pragmatic national randomised trial', *The Lancet*, vol. 387, no. 10029, pp. 1743–1752.

Increasing the human papilloma virus vaccination rate

Abstract

Victorian students in grade seven are eligible to receive a free human papilloma virus vaccination; however, only three-quarters of students receive all three doses of the vaccine.

We conducted a randomised controlled trial in which parents were sent text messages reminding them of the school-based vaccine clinics.

The reminders were associated with an up to 3.3 percentage point improvement in the vaccination rate, delivering 'herd immunity' within the trial cohort. The finding suggests text message reminders are a cost-effective way to lift vaccination rates.

Project by



The policy problem

In 2015, an estimated 76 per cent of Victorian adolescents received the full human papilloma virus vaccination, a figure below the estimated 80 per cent immunisation rate required to reach 'herd immunity'.⁸ Almost all parents consent to their child being vaccinated; however, up to 25 per cent of the adolescents don't receive all three vaccine doses.

Our findings and learnings

We compared the effects of two different reminders sent to parents against receiving no reminder. Research suggests that risk of illness is a key factor motivating individuals to get vaccinated.⁹ Further, previous research on 'implementation intentions' has shown individuals are more likely to follow through on a commitment if they plan how they will do so.¹⁰



Behavioural insight

Implementation intentions are used to help people make a concrete plan for achieving a goal by specifying when, where and how they will achieve the goal and by listing any obstacles to the goal.¹¹ In our trial, we prompted the use of implementation intentions by encouraging parents to make a plan to get their child to school on time to ensure they could receive their immunisation.

The behaviourally-informed reminders sent to the participants in this trial are set out below.

Table 1: SMS reminders sent to participants

Cohort	SMS
Control group: One third of the parents were not sent an SMS (similar to the previous year in which no messages were sent)	N/A
Treatment 1: One third of the parents were sent this text message	[Name] has a vaccine appointment at school this Tuesday. Vaccine preventable diseases are still a problem in the community and the children most at risk, are those that have not been immunised. Please contact 9999 9999 if your child cannot attend.
Treatment 2: One third of the parents were sent this text message	[Name] has a vaccine appointment at school this Tuesday. Make a plan now for how [Name] will get to school on time on immunisation day. Please contact 9999 9999 if your child cannot attend. Thank you.

⁸ Brisson, M. et al. 2016, 'Population-level impact, herd immunity, and elimination after human papillomavirus vaccination: A systematic review and meta-analysis of predictions from transmission-dynamic models', *Lancet Public Health*, vol. 1, no. 1, pp. e8–17.

⁹ Conner, M. & Norman, P. 2005, *Predicting Health Behaviour*, Maidenhead: McGraw-Hill Education, Berkshire, pp. 8–12; Janz, N. & Becker, M. 1984, 'The Health Belief Model: A decade later', *Health Education & Behaviour*, vol. 11, no. 1, pp. 1–47.

¹⁰ Milkman, K. et al. 2011, 'Using implementation intentions prompts to enhance influenza vaccination rates', *Proceedings of the National Academy of Sciences*, vol. 108, no. 26, pp. 10415–10420.

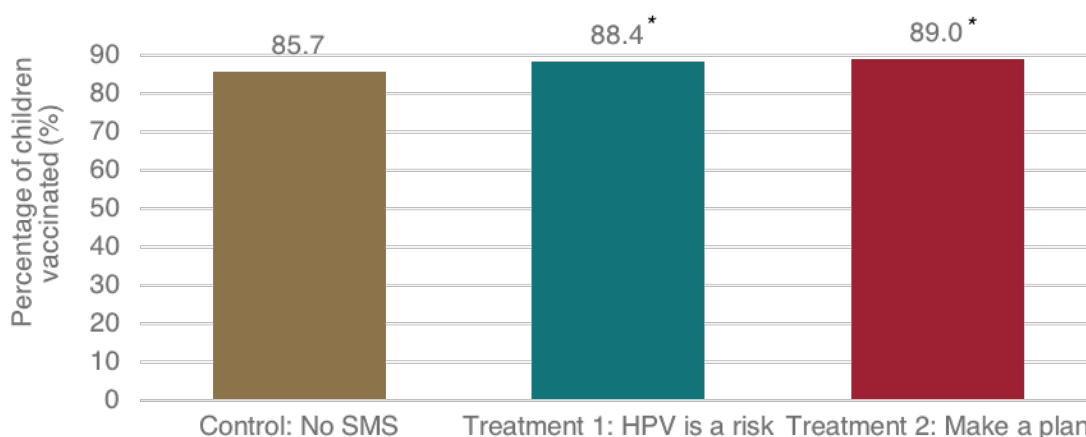
¹¹ It is expressed through 'if-then' plans that spell out what should be done if an event occurs (i.e., the response of the person). See Gollwitzer, P. 1999, 'Implementation intentions: Strong effects of simple plans', *American Psychologist*, vol. 54, pp. 493–503.

The trial showed sending a text message to parents improved vaccination rates by up to 3.3 percentage points. In the control group, 85.7 per cent of consenting students received all three vaccine doses. Conversely, in the intervention groups, 88.4 to 89 per cent of students received all three doses (these effects were significant at $p < 0.05$).

The effect persisted following the school clinic. Students whose parents received a reminder text message were up to 2.5 percentage points more likely to be vaccinated over an extended follow-up period than students whose parents did not receive a text message.

The difference between the two text message groups and the control group was significant. However, there was no significant difference in the effects of the two text messages.

Figure 2: Vaccination rate among students with consent on the day of the third school-based immunisation clinic



* indicates $p < 0.05$

Future opportunities

Our findings suggest the content of a reminder text message is less important than receiving the reminder in the first place. No statistically significant difference was found in relation to the effect of the two different reminders. In the future, the effects of using other behavioural insights when messaging parents, such as social norms, should be examined.

The reminders were low cost and easy to send, however substantial time was required to obtain parents' contact details, students' vaccine status and information from local governments about the scheduling of the school-based clinics. A significant friction cost is likely to arise if schools are required to manage similar interventions without any support.

Improving immunisation data quality and data sharing by schools

Abstract

Access to information about outcomes is critical to understanding the effectiveness of behavioural interventions. Our project aimed to improve the quantity and quality of data provided by schools. School immunisation coordinators were sent letters in which they were encouraged to formulate an action plan as to when and how they would provide the relevant data.

This intervention increased the data provided by schools by 31.2 per cent.

Project by



The policy problem

Evidence-based policy design is often limited by the quality of the data available. Even if data provision has been authorised, data is often under-reported or not up-to-date. To enable governments to address the issues related to poor quality and non-existent data, the causes of both need to be understood.¹²

Our findings and learnings

In the course of designing three trials to increase the uptake of vaccinations, we discovered while Victorian schools are authorised to provide data to the Department of Health and Human Services via local governments to encourage individuals to take advantage of vaccination services, over 50 per cent do not.

We trialled an intervention to encourage schools to supply this data¹³ by ensuring the information request was salient.



Behavioural insight

Salience is the concept that people are more likely to respond to information which is novel, simple and accessible.¹⁴ Drawing important information to people's attention and presenting it in a salient way can have a strong effect on people's behaviour.

A letter was sent to immunisation coordinators, noting:

- all Victorian schools are authorised to share student and parent data with the department
- the data can include contact details and demographic data
- there are benefits to sharing data (with an explanation of how to share the data).

An action planning sheet was included with the letter to assist the immunisation coordinators to upload the data. Similar to the human papilloma virus trial, the planning sheet was based on research about implementation intentions which suggests individuals are more likely to complete a task when they make a plan to do so.¹⁵

We worked with 40 local governments who contract the delivery of school vaccine programs. We randomly allocated 157 schools to the control (no letter) group and 150 schools to the intervention (letter) group.

The results showed the letter increased the proportion of schools providing parents' contact details to their local government from 41 to 54 per cent. The letter also increased the proportion of schools providing data about vaccinated students from 31 to 42 per cent.

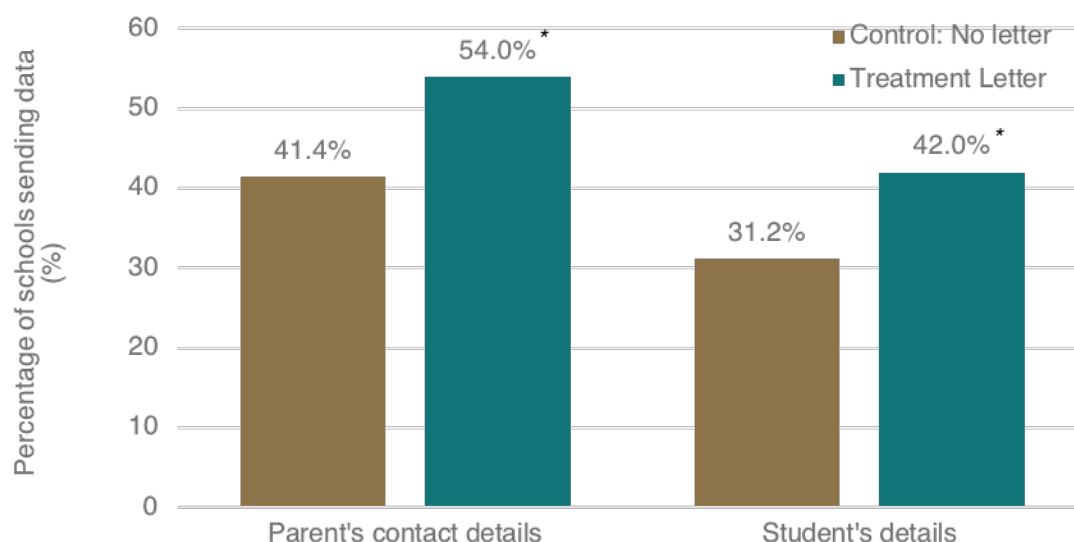
¹² Productivity Commission 2017, *Data Availability and Use*, report no. 82, Productivity Commission, Canberra, pp. 159–164,

¹³ Horvath, J. 2011, *Review of the management of adverse events associated with Panvax and Fluvax*, report for the Department of Health and Ageing, Australia, p. 33.

¹⁴ Dolan, P. et al. 2010, *MINDSPACE: Influencing behaviour through public policy*, Institute for Government and Cabinet Office, London.

¹⁵ Milkman, K. et al., loc. cit.

Figure 3: Share of schools sending data



* indicates $p < 0.05$

The findings suggest data is likely not being provided due to low engagement and awareness. Many of the immunisation coordinators at schools were not aware they were authorised to provide data. Further, many of the immunisation coordinators did not realise there was a preferable format for sending the data (e.g., some schools sent the data as a PDF).

The success of the letter contributes to the behavioural literature about effective communication. The letter was drafted using plain language principles and based on procedural fairness theory. The action planning sheet was informed by research indicating individuals are more likely to complete a task when they write down how they will do so.

Future opportunities

There is further scope to improve the data provided by schools where authorised. This trial demonstrated governments can use behavioural insights to improve the collection and provision of accurate data to support better policy outcomes. The data collected in the trial itself will enable the department to roll out other programs to increase vaccination rates. This approach should be applied to other policy areas requiring data to be gathered from third parties.

Returning injured teacher to work safely

Abstract

In Australia, if a person is injured at work or becomes ill due to work, they may be eligible for assistance and financial support (i.e., workers compensation).

We examined whether simplification, framing and commitment devices improved the experience of people, including injured employees and their families, case workers and workplaces.

The application of behavioural insights resulted in injured teachers returning to work safely and earlier than they would have otherwise (i.e., a 27 per cent faster return within 90 days).

Project by



THE
BEHAVIOURAL
INSIGHTS TEAM ◆



The policy problem

The safe and quick return of injured employees to work benefits everyone. For injured employees, prolonged recovery periods and extended absences from work can harm their physical and mental wellbeing. It also negatively affects family members who care for them and/or rely on them financially. Employers also lose a skilled staff member during such absences. Additionally, delayed recovery and associated costs affect the broader sustainability of the workplace compensation system.

Our findings and learnings

We applied a number of behaviourally-informed tools for case workers and injured employees of the Department of Education.



Behavioural insights

Simplification can be powerful, as people are more likely to take action when it is easy to do so, and it is clear what is being asked.¹⁶ For example, simplification could include reducing the information contained in a letter to the key items that people need to know to take action.

Re-framing can help prime a mindset to shift behaviours. Framing information positively rather than negatively (or vice versa) can affect how people respond to and act on information.

Personal commitments can provide active ownership of goals (encouraging people to try harder and longer) and can promote self-efficacy in relation to the actions taken.^{17 18} The use of commitment devices,¹⁹ such as writing personal goals and articulating three necessary actions, can help people to achieve their goals.

In the first 30 days after a workplace incident, an injured employee is sent multiple communications to obtain details about their injury, with references to legislation which are not easily understood. We reduced and simplified the communications to injured employees, to be clearer about their responsibilities as well as those of their employer and insurer.

Additionally, we used positive priming and re-framed messages to be about 'recovery' and 'returning to work' and used a commitment device, with injured employees writing down a personal recovery goal and three actions to help them achieve it.

As a result of our trial, injured employees in the intervention group returned to work more safely and 27 per cent faster in the first 90 days of the trial than those in the control group.

Additionally, injured employees were nearly three times more likely to complete their claims within 30 days. This reduces the costs incurred by the workers' compensation system and increases the ability of case workers to focus on more complex claims.

¹⁶ Behavioural Insights Team 2014, *EAST: Four simple ways to apply behavioural insights*, BIT, London; Michie, S. & Lester, K. 2005, 'Words matter: increasing the implementation of clinical guidelines', *Quality and Safety in Health Care*, vol. 14, no. 5, pp. 367–370.

¹⁷ Osbaldiston, R. & Sheldon, K. 2003, 'Promoting internalized motivation for environmentally responsible behavior: A prospective study of environmental goals', *Journal of Environmental Psychology*, vol. 23, no. 4, pp. 349–357.

¹⁸ Caplan, R. et al. 1989, 'Job seeking, reemployment, and mental health: A randomized field experiment in coping with job loss', *Journal of Applied Psychology*, vol. 74, no. 5, pp. 759–769.

¹⁹ Cialdini, R. 2001, *Influence: Science and practice*, 4th edn., Allyn and Bacon, Boston; Gollwitzer, P. et al. 2009, 'When intentions go public', *Psychological Science*, vol. 20, no. 5, pp. 612–618.

Notably, both case workers and injured employees provided feedback stating the new approach was more helpful and engaging than previous approaches.

“

‘The new process has really opened my mind and ears up to what these workers say and how we can work with them’. - Case manager

Figure 4: Return to work rates between treatment and control groups



Future opportunities

One unintended benefit of the trial was case workers' performance measures shifted from focusing on compliance to client outcomes. This not only led to improved engagement between case workers and injured employees, but also improved case workers' quality of work and lifted employees' morale within a system ordinarily focused on assessing and processing insurance claims. The results of this trial can be widely applied to many customer service areas in Australia in both the public and private sectors.

Let's get physical personal: Encouraging physical activity in a large organisation

Abstract

To address one of the biggest killers of men, inactivity, we tested whether small changes to a leaderboard in a large organisation could increase physical activity of employees. We found these changes did increase physical activity by 8 per cent, especially among those who were previously less physically active.

Project by

THE
BEHAVIOURAL
INSIGHTS TEAM ♦



The policy problem

Physical inactivity is a risk factor associated with many diseases. An additional 15 minutes of brisk walking five days per week can reduce the disease burden associated with inactivity by an estimated 13 per cent.²⁰ However, very little is known about the differential effects of physical activity interventions. It may be that attempts to encourage individuals to be more physically active merely increase the physical activity of those who are already active.²¹ Our trial targeted individuals at moments when they were most likely to be physically inactive (i.e., at work) and thus sought to increase the physical activity of those who would benefit most.

Our findings and learnings

Prior to our trial, 50 teams (totalling 646 individuals) had been competing in a step challenge organised by Lendlease. We changed the challenge to ascertain whether providing certain information to participants could increase the amount of physical activity undertaken by the participants.

We randomly assigned the teams to two groups to receive different types of feedback. The control group received generic leaderboard information, advising which teams were in the lead. As most people focus on the top of a leaderboard, their attention is directed to the most physically active people. Conversely, for those at the bottom of the leaderboard, seeing others at the top causes them to perceive an unreachable goal and may lead to their disengaging from the competition.

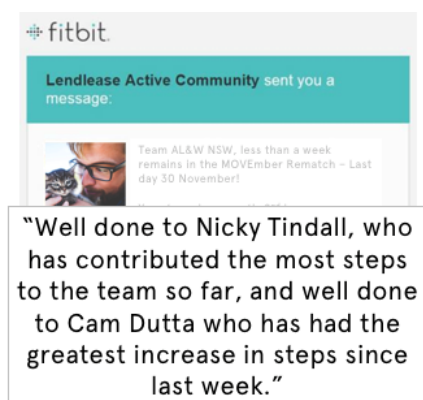


Behavioural insight

Leaderboards can be used to motivate people to strive to achieve first place.

However, leaderboards must be used carefully, as winning first place may not result in high levels of satisfaction and may even have unintended negative effects that impede participants' progress.²²

Figure 5: The leaderboard posting shown to participants in the treatment group



Conversely, in the treatment group the focus was shifted to what participants could achieve. We highlighted the distance of a team from first place **and** the team's closest competitor.

The latter was highlighted, as the likelihood of surpassing the closest competitor is more achievable than placing first and thus provides extra motivation.

We also designed the competition to increase participants' motivation to compete, by designing groups to be evenly matched.

²⁰ Australian Institute of Health and Welfare 2017, *Impact of physical inactivity as a risk factor for chronic conditions: Australian Burden of Disease Study*, Australian Burden of Disease Study series no. 15, AIHW, Canberra, viewed 22 February 2018, <https://www.aihw.gov.au/reports/burden-of-disease/impact-of-physical-inactivity-chronic-conditions/contents/table-of-contents>.

²¹ Ball, K. et al. 2015, 'Addressing the social determinants of inequities in physical activity and sedentary behaviours', *Health Promotion International*, vol. 30, no. 2, pp. ii8–ii19.

²² Bharamgoudar, R. et al. 2016, *Tailoring and utilising gamification to facilitate behaviour change*, Imperial College of Science, Technology and Medicine, London.

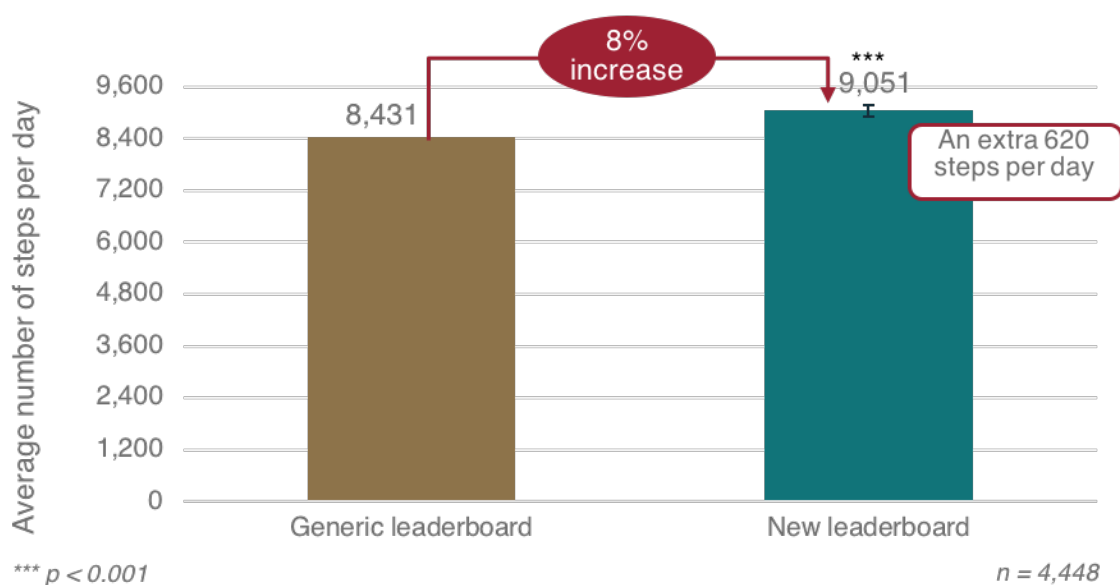
Finally, we highlighted the individuals who represented star performers during the week to provide role models and mentioned those who had improved the most (see Figure 5).

Both groups were sent messages at the beginning of each week. Participants' progress was monitored over three weeks.

At the end of the three weeks, the leaderboard shown to the treatment group had positive and significant effect on participants' physical activity. The improvement occurred across all four outcome measures: total steps, the number of days taken to reach 10,000 steps, calories expended and active minutes (see Figure 6).

As the trial was funded by the Movember Foundation (a foundation seeking to improve men's health), the results were segmented by men and women. We found a significant improvement in the number of days it took men to reach 10,000 steps compared to those in the control group. We also found men who viewed the new leaderboard expended more calories. Conversely, women who viewed the new leaderboard demonstrated significant improvements across all four outcome measures.

Figure 6: Average steps per day across the two groups



As stated above, the focus of this study was to reduce physical inactivity rather than to simply increase physical activity. The greatest increase occurred among those who had previously been the least active (i.e., among the individuals who would benefit the most from physical activity).

The competition lasted for three weeks; however, we wished to examine whether the effects of the competition would persist. A follow-up of people some three months later showed the overall effect continued.

Visit the [UK Behavioural Insights Team website](#) to access the full report.

Future opportunities

The design of leaderboards can significantly affect people's behaviours. The insights of this trial have been replicated in other projects. For example, see the flexible work project (at page 55).

Supporting doctors to claim correctly using peer comparison and loss aversion

Abstract

The cost to the Australian Government of subsidising after-hours services by health professionals grew rapidly from 2005–06 to 2014–15. The highest growth occurred in claims for urgent after-hours services which receive a higher rebate, raising a concern that these items were not always being claimed correctly.

We targeted the top 1,200 health professionals making urgent after-hours claims and conducted a letter-based randomised controlled trial, testing peer comparison and loss aversion.

Health professionals in all of the trial groups significantly reduced their claiming of urgent after-hours items. The trial delivered an estimated \$11.7 million in savings to the Australian Government after six months (i.e., \$9,750 per letter sent). The peer comparison letter produced the largest reduction of 24 per cent (i.e., a saving of \$4.7 million which was \$2.1 million more than that reached in the control study).

Project by



The policy problem

Under the Medicare Benefits Schedule, the Australian Government subsidises health services for Australians. Health professionals working ‘after-hours’ can claim monetary benefits for services provided outside normal clinic hours. These doctors can claim either an ‘urgent’ or ‘standard’ item for a patient, with the ‘urgent’ item attracting higher monetary benefits.

The cost of after-hours services grew by 140 per cent between 2005–06 and 2014–15, with the growth in urgent items exceeding the growth in standard items. The significant growth in urgent items may have been due to incorrect claiming of these items by health professionals or those companies that employ them. Our trial sought to reduce urgent after-hours claims which may be incorrectly claimed.

Our findings and learnings

In April 2016, we targeted the top 1,200 health professionals who claimed urgent after-hours items. Our randomised controlled trial aimed to encourage health professionals to voluntarily acknowledge incorrect claiming of urgent items. We trialled two behavioural interventions and provided information to assist providers to review their claiming, including a visual aid (checklist) to help providers understand correct claiming of urgent after-hours items.

Health professionals were randomly divided into three groups, each receiving a different letter:

- The **control group** letter was based on a standard compliance targeted feedback letter.
- The **peer comparison group** letter examined peer comparison by presenting a visually compelling graph of an individual’s billing compared to their peers.
- The **firm messaging group** letter examined loss aversion by emphasising the consequences of non-compliance (e.g., administrative penalties and legal action).



Behavioural insight

Peer comparison feedback relies on showing individuals how their behaviour compares to their peers. Research suggests individuals given peer comparison feedback will be motivated to change their behaviour to reflect what is normal among their peer group.²³

Loss aversion refers to people’s tendency to try to avoid losses. Research suggests people are more likely to change their behaviour if potential penalties are highlighted rather than potential rewards.²⁴

²³ Ayres, I., Raseman, S. & Shih, A. 2013, ‘Evidence from two large field experiments that peer comparison feedback can reduce residential energy usage’, *The Journal of Law, Economics, and Organization*, vol. 29, no. 5, pp. 992–1022.

²⁴ Kahneman, D. 2003, ‘A psychological perspective on economics’, *American Economic Review*, vol. 93, no. 2, pp. 162–168.

Figure 7: Effect on claims lodged

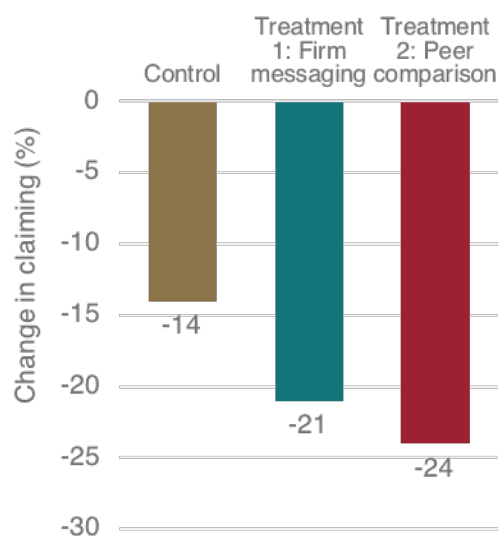
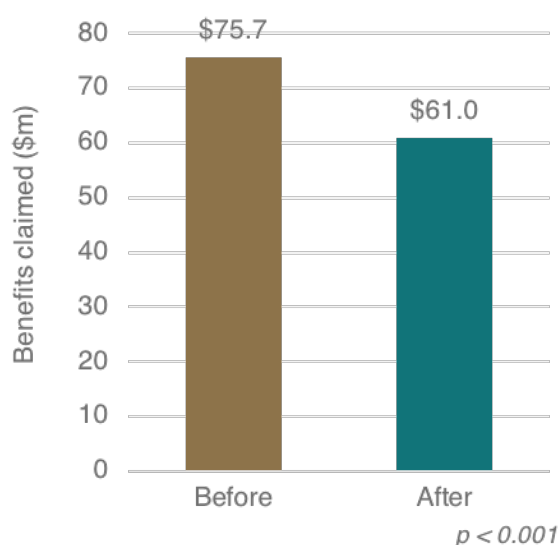


Figure 8: Effect on benefits claimed



Six months after the first letter was sent, all of the health professionals in the trial significantly reduced their urgent item claims by an average of 19.5 per cent. This reduction equated to an estimated \$11.7 million in savings, after taking into account the shift in claims to standard items. In relation to results after six months:

- The **control group** reduced their urgent item claims by 14 per cent (i.e., \$2.6 million).
- The **peer comparison group** reduced their claiming of benefits by 24 per cent (i.e., \$4.7 million; a saving of \$2.1 million more than that achieved by the control group).
- The **firm messaging group** reduced their claiming of benefits by 21 per cent (i.e., \$4.3 million; a saving of \$1.7 million more than that achieved by the control group).

Additionally, during the trial, 18 health professionals voluntarily acknowledged a total of \$1.1 million in incorrect claims.

We suspect the unexpectedly large reduction in the control group was the result of 'spill-over'. A number of companies employ after-hours health professionals. During the trial, these companies communicated with health professionals about the letters sent out during the trial, and health professionals also communicated with each other about the letters. Consequently, it is likely the letters received by the *peer comparison* and *firm messaging* groups also affected the behaviours of participants in the control group.

Future opportunities

The results suggest behavioural insights can be successfully applied to health compliance issues. The degree of behavioural change depends on the particular issue and the health practitioner cohort.

The most successful letter comprised peer comparison feedback. The effects of this type of feedback should be explored further in the future. Peer comparison feedback was also used successfully in our antibiotic prescription trial (see page **Error! Bookmark not defined.**) and has been used in other international trials involving health professionals.



Protecting Australians from domestic violence

Improving domestic violence court attendance

Abstract

Australia is working to reduce the incidence of domestic and family violence.

In NSW, a person can seek protection from domestic violence by applying to a court for an apprehended domestic violence order (ADVO). However, up to 25 per cent of domestic violence defendants fail to attend court.

We tested whether a timely text message reminder could increase court attendance by defendants. This simple solution reduced court non-attendance from 17.6 to 13.5 per cent.

Project by



**THE
BEHAVIOURAL
INSIGHTS TEAM** ♦



The policy problem

In 2017, 30 people died as a result of domestic violence in NSW; representing 40 per cent of the homicides that occurred during this period.²⁵

On average, 25 per cent of domestic violence defendants fail to attend court on their appointed hearing day.²⁶ To ensure judicial efficiency and expedite the protection of victims, it is important that parties engage with the ADVO court process. Early intervention by the police and court officials can help defendants to understand and comply with ADVO conditions. This in turn supports the safety of victims and reduces the distress and harm that may otherwise result if defendants breach their ADVOS. Defendants understanding their ADVOS and complying with their ADVO conditions can also increase the efficiency of the courts and improve the allocation of police resources.

Our findings and learnings

Our trial was informed by research showing text messages can be used as a simple and inexpensive medium to remind people to perform a particular action. Such text message reminders can be particularly valuable if they are effectively timed.



Behavioural insights

Timeliness is often overlooked in the behavioural change process; people respond differently to messages depending on when they are received. Reminders are most effective if they are sent when people are receptive, able to consider any costs and benefits and can plan their actions.²⁷

Messenger effect: People are heavily influenced by who communicates information. For example, people may perceive messages as more credible depending on the age or stated qualifications of the message's source.

We found sending a behaviourally-informed text message to defendants before their court date led to a significant increase in court attendance. These defendants were, on average, 4.1 percentage points more likely to attend court. Figure 9 provides an example of a text message sent to a defendant.

Individuals who did not receive a text (i.e., those in the business-as-usual or control group) failed to attend court 17.6 per cent of the time, compared to individuals in the intervention group who failed to attend 13.5 per cent of the time. Relatively speaking, this meant defendants receiving a text message reminder were 23 per cent more likely to attend court ($p < 0.001$; see Figure 10).

Additionally, the text message reminder caused a significant reduction in the time taken to finalise each domestic violence court case. In the control group, it took 74 days on average to finalise a case, while in the intervention group, it took 69 days on average ($p=0.049$).

Figure 9: Example SMS

Gary, this is a reminder that you have to attend Mount Druitt local court by 9.30am tomorrow. You must also follow the orders of your ADVO. For information on support programs, you can call the Men's Referral Service on 1300 766 491. NSW Police

²⁵ NSW Bureau of Crime Statistics and Research (BoCSAR) (2018). NSW Crime Mapping Tool; source data BoCSAR 2017, accessed 22 March 2018, <http://crimetool.bocsar.nsw.gov.au/bocsar>.

²⁶ BoCSAR 2018, loc. cit.

²⁷ Behavioural Insights Team 2014, loc. cit.

We also examined if there was a difference in domestic violence re-offending or breaches of ADVOs between the two groups (see Figure 11). In the control group, 5.7 per cent of individuals committed another domestic offence within six months of their court appearance. Conversely, in the intervention group, 5 per cent of individuals committed another domestic violence related offence within six months. However, it should be noted that this difference was not statistically significant ($p=0.397$). Similarly, there was no statistically significant differences between the two groups in ADVO breach rates after six months.

Figure 10: Percentage of ADVO recipients who did not attend court on their court date

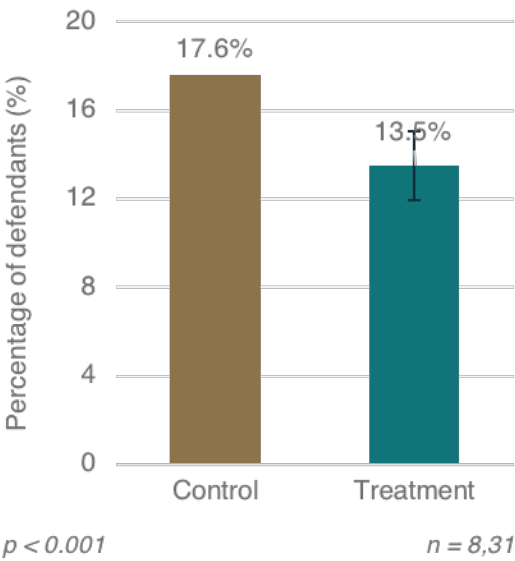
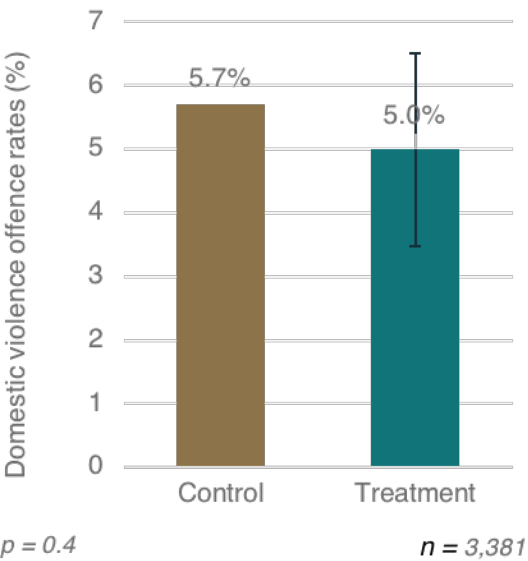


Figure 11: Domestic violence assault rates (within six months of court date)



Feedback from defendants:

During the trial, defendants were able to respond to the text messages. We did this first to ensure the message did not escalate issues and second to confirm that the messages were being received. A number of defendants replied to the text message, expressing their thanks for the reminder.

Future opportunities

We are currently working with the NSW Department of Justice to consider other potential applications of the intervention.

Improving information sharing in the family violence system

Abstract

Victoria's Royal Commission into Family Violence described a family violence system in which information was not routinely or systematically shared, potentially exposing victim survivors to risk of further harm.

To understand how contextual and psychological factors affect the sharing and accessing of information by family violence workers, we conducted:

- over 270 hours of ethnographic field work
- a broad review of the literature on behavioural science and information sharing
- an in-depth investigation of Royal Commission material, including submissions, testimonies and witness statements.

Our work revealed incorporating behavioural insights upstream in the policymaking process could generate improvements broader than those that could be achieved by optimising the delivery of individual services alone.

Project by



The policy problem

Information sharing in the family violence system is essential if victim survivors are to be kept safe and perpetrators are to be held to account. Victoria's Royal Commission into Family Violence found that information is not routinely or systematically shared in the family violence system. This exposes victim survivors to risk of further harm.

Our findings and learnings

We drew on ethnographic field research conducted at Berry Street (a family violence service organisation) and four locations of the Magistrates' Court of Victoria, the literature and material collected for the Royal Commission, including submissions, testimonies and witness statements.

The key findings are outlined below.

Information sharing is an end as well as a means

Many workers' approaches to information sharing are driven by an aspiration to empower victim survivors and hold perpetrators to account. Thus, modifying the legal requirements related to obtaining victim survivors' consent to share information will not necessarily increase the likelihood workers will share that information. This is a critical insight, as policy often uses legislation to drive behavioural changes.

Seeking a victim survivor's consent to share information says to the victim survivor: "You decide how your information is shared. You have a choice"

Cognitive biases affect the information sought

Workers in the family violence system operate in a time-poor environment and rely extensively on memory to recall their clients' details. With demands for family violence services increasing, it is likely that this tax on mental bandwidth will grow over time.

Further, when completing risk assessments, court staff often seek additional information (e.g., information about a perpetrator's criminal history), if factors arise to suggest that the perpetrator is likely a high risk to offend. However, such an approach is circular, as the worker is using a risk assessment to determine whether to gather additional information that should be used to inform the risk assessment.

Such system design failures have the potential to manifest in confirmation bias. Increasing policymakers' awareness of this potential is an important step in building the case that workers should have systematic access to risk-related information (e.g., perpetrators' criminal histories).



Behavioural insight

Confirmation bias refers to the tendency to search for, focus on or remember information in a way that confirms our own preconceptions.²⁸

²⁸ Nickerson, R. 1998, 'Confirmation bias: A ubiquitous phenomenon in many guises', *Review of General Psychology*, vol. 2, no. 2, pp. 175–220.

A great deal of information sharing is reliant on personal relationships rather than professional connections

Physical and system design affects outcomes

Visibility, proximity and accessibility to other workers affects whether information is shared. The setup of workspaces, corridors and general building features can affect staff interactions, which can in turn affect the outcomes delivered to clients. For example, open building designs facilitate conversations and information sharing between staff. Conversely, restricting access to areas in which specialist staff are located can hinder information sharing.

Technology, such as caller verification software, can also encourage information sharing.

Future opportunities

Applying behavioural insights at the early stages of system reform can identify behavioural considerations which could materially affect policy outcomes. By raising awareness of these behavioural factors, early research can improve the effectiveness of policymaking, service design and implementation.

Our exploratory work identified a number of systemic barriers to information sharing and showed how behavioural biases affect workers' decisions to share or not share information. This research was used to simplify the Ministerial Guidelines on how services should share information. Working with Family Safety Victoria, we simplified the number of issues workers must consider in deciding whether to share information from 47 to 13. This simplification should improve efficiency and reduce errors in workers' decisions.

It is important to note that the effect of using behavioural insights in policy design is often not testable, as only one version of a policy can be implemented. This creates both challenges and opportunities when applying behavioural insights to help solve some of society's most challenging problems.

Reducing barriers for Family Violence Intervention Orders applications

Abstract

A prototype online application form for a family violence intervention order (FVIO) was trialled in five Victorian Magistrates' Courts. This prototype represents a new digital interaction between court users and court staff.

The online application aims to make it easier for survivors of domestic violence to seek protection through the courts. Specifically, it aims to reduce the stress, trauma and embarrassment experienced by survivors.

The project demonstrated that technology and training for court staff can provide a better experience for individuals accessing the justice system.

Project by



The policy problem

The FVIO court application process is currently paper-based and presents challenges for survivors of family violence (e.g., it causes stress, inconvenience, confusion and takes a long time to complete).²⁹ Additionally, increasing demands for FVIOs places pressure on court staff and the court system to manage and process applications.

Our findings and learnings

Over the course of the 10-month trial period, 181 FVIO applications (22.9 per cent of the total) were made online. The results showed the online application produced significant benefits for applicants. Victim survivors reported the online option was more convenient and accessible, easier to complete and less stressful than the paper form.

User-centred design

The online FVIO application prototype was co-designed with applicants, family violence workers, registrars and magistrates. Early testing was conducted with people who had previously made an FVIO application using the paper application form.

Ease

FVIO applicants indicated the online form reduced friction costs compared to the paper form, which applicants described as confusing and difficult to complete.

They also reported the online option was more convenient and easier to complete. Applicants reported an increased sense of personal agency and control in completing the online process.



Behavioural insight

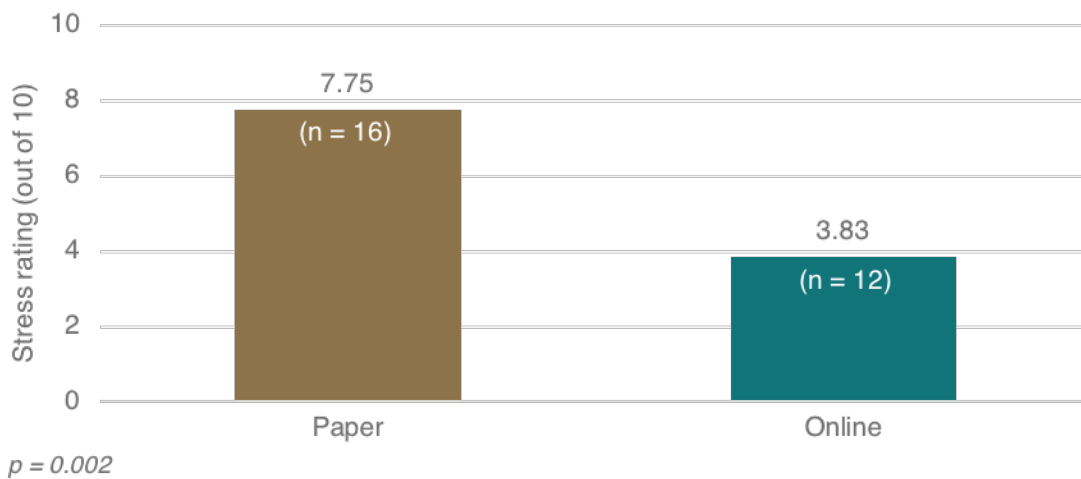
The belief that a person can influence their future outcomes is known as an **internal locus of control**.³⁰ This belief is critical for people as it is correlated with escaping family violence.³¹

²⁹ University of Melbourne and Caraniche 2018, *Family Violence Intervention Order Online Project*, evaluation report, Melbourne; Feldman, S. 1983, *Battered women: Psychological correlates of the victimisation process*, electronic thesis/dissertation, Ohio State University, p. 188, Tables 22 & 26.

³⁰ Rotter J. 1990, Internal Versus External Control of Reinforcement: A Case History of a Variable, *American Psychologist*, vol. 45, no. 4, pp. 489–493.

³¹ Kim, J. & Gray, K. A. 2008, Leave or Stay? Battered Women's Decision After Intimate Partner Violence, *Journal of Interpersonal Violence*, vol. 23, no. 10, pp. 1465–1482 at p. 1477-8.

Figure 12: Participants' mean stress ratings of the application process, by application type



Efficiency

Online applicants reported that they saved time:

- completing the form (on average, the online form took 21 minutes to complete while the paper-based form took 47 minutes, $p = 0.1$)
- waiting for appointments (on average, the waiting time for the online form was 5.5 days while the waiting time for the paper-based form was 18 days, $p = 0.016$)
- waiting in court (the online applicants were given specific appointment times while the paper-based applicants had to wait in court until a registrar became available).

Registrars reported the online FVIO led to substantial savings in time due to the reduced administrative requirements and because it also enabled them to conduct a more efficient phone-based application review with the applicants. The online FVIO also enabled registrars to better manage their work flows and time and allowed for the faster processing of applications, which in turn helped the applicants.

Improved engagement between victim survivors and the courts

FVIO applications are personally sensitive and often emotional. Registrars reported the process of applying online and receiving a follow-up telephone call from a court staff member improved engagement compared to face-to-face applications in court. Registrars suggested a number reasons for this improvement, including that the online process:

- enabled conversations to be conducted away from a public environment
- protected applicants from the registrar's visible competing work priorities (e.g., other waiting applicants)
- increased the information available for registrar preparation prior to the telephone call
- created a positive effect as applicants received a registrar-initiated follow-up telephone call.

'If it hadn't been online I don't think I would have applied... I just don't think it would have happened'. – Applicant

Future opportunities

The online application form has since been rolled out to a further two locations (now available at a total of seven sites). Based on the evaluation and trial experience, the online FVIO will be further re-designed for a progressive roll out across Victoria's Magistrates' Courts. As part of the re-design, friction costs will be reduced e.g., introduction of legislation to remove the requirement for applicants to attend court in order to finalise and sign the application.

The online FVIO is being investigated for trial in the Federal Family Court and in other states.

The trial evaluation also revealed that Victorian Police FVIO processes could adopt similar smart forms and risk assessment algorithms.



Improving economic outcomes for Australians

Trainee teachers accepting rural placements

Abstract

Attracting and retaining skilled professionals such as teachers and health workers to live and work in rural and remote locations across Australia is challenging.

We tested whether novel, salient communications would encourage more trainee teachers to undertake professional experience placements in rural and remote schools in NSW.

The results were mixed. In one study, we found trainee teachers who were made aware of the opportunity via email, postcard and text message were three times more likely to choose rural/remote placements than those in the control group. In another study, we found an email alone did not have the same effect.

Project by



**THE
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The policy problem

Attracting teachers to rural and remote locations in NSW is an ongoing priority for the NSW Department of Education. The decision to relocate from metropolitan NSW can be complex, even if it is temporary. Reasons for not relocating may include family and social reasons. We sought to change the behaviour of trainee teachers (i.e., students enrolled in teaching degrees at universities) who might otherwise be willing and able to relocate.

Our findings and learnings

We examined whether sending behaviourally-informed postcards and emails to trainee teachers encouraged them to apply to rural and remote NSW schools.



Behavioural insights

Personalisation attracts attention; people are more likely to respond to messages or services that have been tailored to them (e.g., people react to their names). When an individual's name is used in a message, that person's attention is drawn to it quickly and effortlessly. Additionally, personalised messages can make it easier for a person to imagine the costs or benefits of an action.³²

Salience describes how people are more likely to respond to stimuli that are novel, simple and accessible.³³ For example, many people receive emails as their primary method of work-related communication and a 'thank you' card sent by a satisfied client would be salient to the recipient.

Social influence matters. Even when information is readily available and accessible, people tend to turn to family, peers and friends for advice. For example, for high school students, a conversation with peers about study options can be more powerful than the advice of a careers coordinator.

Trial with the University of Wollongong

In this trial, half of the trainee teachers (i.e., those in the control group) received a general, business-as-usual communication about teaching placements that briefly referred to remote/rural placements. The other half of the trainee teachers (i.e., those in the intervention group) received a set of personalised and timely prompts, such as behaviourally-informed postcards that were sent to their homes.

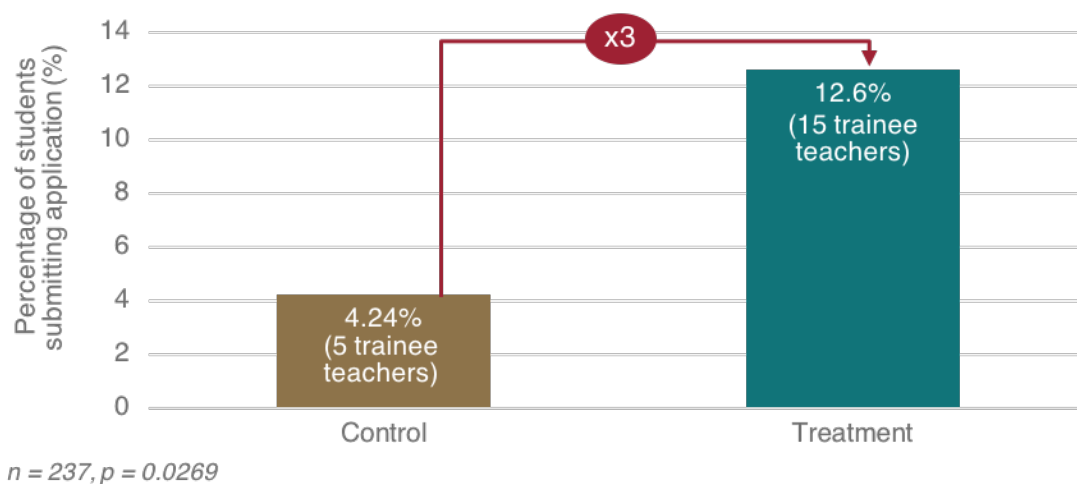
The postcards were effective: the number of trainee teachers in the intervention group who opted for rural/remote placements was triple (12.6 per cent) that of trainee teachers in the control group (4.2 per cent) ($p=0.027$). See Figure 13.

Since the trial, the university has implemented an easier online application process for future trainee teachers who wish to undertake rural and remote placements.

³² For further information about personalisation, see the Behavioural Insights Team 2014, loc. cit.

³³ Dolan, P. et al., loc. cit.

Figure 13: Proportion of students submitting applications for rural/remote placements



Trial with Macquarie University

In this trial, the trainee teachers in the intervention group received an email with additional information about remote/rural placements and a video testimonial from a previous student. The trainee teachers in the control group received an email but with no additional information.

Four applications were received from trainee teachers in the intervention group and no applications were received from trainee teachers in the control group. Due to the small sample size, this increase was not statistically significant ($n = 81, p=0.116$). However, as a result of the trial, Macquarie University has decided to trial an email that will include enhanced video links to encourage more trainee teachers to undertake rural/remote placements.

Future opportunities

Behavioural insights can be applied to improve geographical mobility within one occupational group. As countries become increasingly urbanised, it is valuable to consider which behavioural approaches encourage skilled professionals to seek employment (in this case temporary employment) outside metropolitan areas.

Increasing employment of disadvantaged job seekers via wage subsidies

Abstract

Financial incentives (wage subsidies) are provided by the Australian Government to businesses that employ disadvantaged job seekers. We designed a set of behaviourally-informed solutions to encourage businesses to take advantage of these wage subsidies.

The results showed a simplified online form and improving framing of wage subsidies helped to reduce business 'red tape' and removed negative signals about the qualities of disadvantaged job seekers.

Project by



THE
BEHAVIOURAL
INSIGHTS TEAM ♦



The policy problem

Job seekers face multiple challenges when seeking employment; for example, negative associations with long-term unemployment can reinforce a vicious cycle that is difficult to break. It is vital job seekers are supported to gain employment as quickly as possible. The Australian Government provides wage subsidies to businesses that hire eligible job seekers. These wage subsidies are delivered through a network of *jobactive* employment service providers operating across Australia. Standard economic theory predicts that a financial incentive should effectively encourage uptake; however, in this instance, uptake of wage subsidies was lower than expected in the first months after the launch of *jobactive*.

Our findings and learnings

We conducted a number of workshops with the Department of Jobs and Small Business and the employment service provider, Mission Providence, to map the issues facing employment service providers when promoting and administering wage subsidies to employers.³⁴

We found that to receive the subsidies, employers had to return a scanned and signed hard copy of a Wage Subsidy Agreement. This lengthy paperwork process assumed all employers had access to a printer and a scanner. Additionally, in communications issued by staff members of the employment service provider and the department, the nature of the subsidies was often negatively framed. This sent a negative signal about the qualities of a job seeker and even led some employers to ask, 'Why are you paying me to hire this person?'.

Payment of a subsidy to organisations for employing a job seeker inadvertently sent a negative signal about the quality of the job seeker themselves

We applied The Behavioural Insights Team's Easy, Attractive, Social and Timely (EAST) framework³⁵ to address the behavioural barriers preventing employers from seeking these subsidies.



Behavioural insight: Using the EAST framework for behavioural change

- **Easy:** We reduced the administrative burden placed on employers and employment service providers by designing an online agreement in place of the paper forms.
- **Attractive:** We removed the negative framing of communications relating to the subsidy (e.g., we changed the title of the agreements from 'Wage subsidies for long-term unemployed job seekers' to 'Wage subsidies bonus to hire new staff').
- **Social:** We mentioned other employers were taking advantage of this opportunity in promotional material.
- **Timely:** We restructured the payment of instalments so that they were received more frequently, but in smaller amounts. This allowed employers to receive funds earlier but did not affect the overall amount that could be claimed.

³⁴ Mission Providence is one of many job service providers contracted by the Department of Jobs and Small Business to deliver programs and services to job seekers.

³⁵ Behavioural Insights Team 2014, loc. cit.

Our trial produced an increase in the number of signed wage subsidy agreements (an additional two agreements were signed per month at each site) and a substantial decrease in the administrative times reported by the provider staff.

The insights gained from this trial confirm the findings of previous behavioural economics studies that suggest financial incentives alone will often not be sufficient to change behaviours if they are not framed correctly. The trial increased understanding of human behaviour by showing people (employers and job service provider staff) can help improve the efficiency and effectiveness of government programs.

Future opportunities

The findings of this trial informed policy changes to wage subsidies and led to the introduction of an online Wage Subsidy Agreement. Additionally, behavioural economic principles were also embedded into a broader set of department programs and policies. Findings related to this trial have since been implemented nationally.

For further information about the trial, read the full report at [the Department of Jobs and Small Business website](#).



Improving government service delivery

Encouraging greater survey completion to improve service delivery

Abstract

It is vitally important for governments to understand the people who use their services and to gauge the impact of these services. One of the more common ways of collecting this information is by asking clients to complete a survey.

We tested whether incorporating behavioural insights into the Department of Social Services' Data Exchange client survey would encourage more people to complete the survey. We found our changes had a substantial and statistically significant effect, increasing survey completion by 6.8 percentage points, from 84.7 to 91.5 per cent.

Project by



Australian Government
Department of Social Services



The policy problem

The Community Grants Hub, implemented by the Department of Social Services, supports the administration and delivery of over 21,000 community grants across government. These grants, worth around \$7.8 billion, provide valuable support services to people and communities facing difficult circumstances. Grants can relate to areas like health, wellbeing, family resilience and community harmony.

To enable the collection of meaningful data about service delivery outcomes, a new Data Exchange reporting platform was established. As part of the platform, a client survey was piloted to enable clients to self-report on why they sought assistance and the outcomes of accessing the service.

We developed and tested ways to encourage greater survey completion rates. High completion rates are important to ensure results reflect representative views of all the clients and the feedback is used to improve service delivery.

Our findings and learnings

To encourage more people to complete the survey, we incorporated behaviourally-informed progress updates into the survey.

Updates were presented in a form of a gradually completing pie-chart and were accompanied by short written messages. Overall we provided five updates over the course of the survey. Each update appeared every time a person completed another fifth of the survey.

To enhance the effectiveness of these updates, we incorporated social norms messaging, appealed to respondents' altruistic motivations and made the benefit of completing the survey more salient. The box below describes those behavioural insights aspects in a bit more detail.



Behavioural insights

Social norms are behavioural expectations or rules within a group of people that signal appropriate behaviours. Social norms can have a significant effect on people's behaviour and influence their actions. A number of studies have shown people are more likely to complete a survey if they are presented with a social norms message.³⁶

Altruism refers to a desire to help others without gaining anything in return. More people might be inclined to complete a survey if they understand that their responses could improve service delivery in their communities.



Pseudo sets theory suggests arbitrarily grouping items or tasks together as part of an apparent 'set' of items or tasks motivates people to reach perceived completion point (i.e., to finish a pseudo-set). This form of goal-setting encourages people to reach a target.³⁷ When coupled with the provision of **progress updates**, this approach could be used to encourage more people to complete a greater portion of a survey.

Figure 14 contains two examples of the progress updates used in the study.

³⁶ See Edwards et al. 2009, for a systematic review of the methods that have been used to increase response rates to postal and electronic surveys.

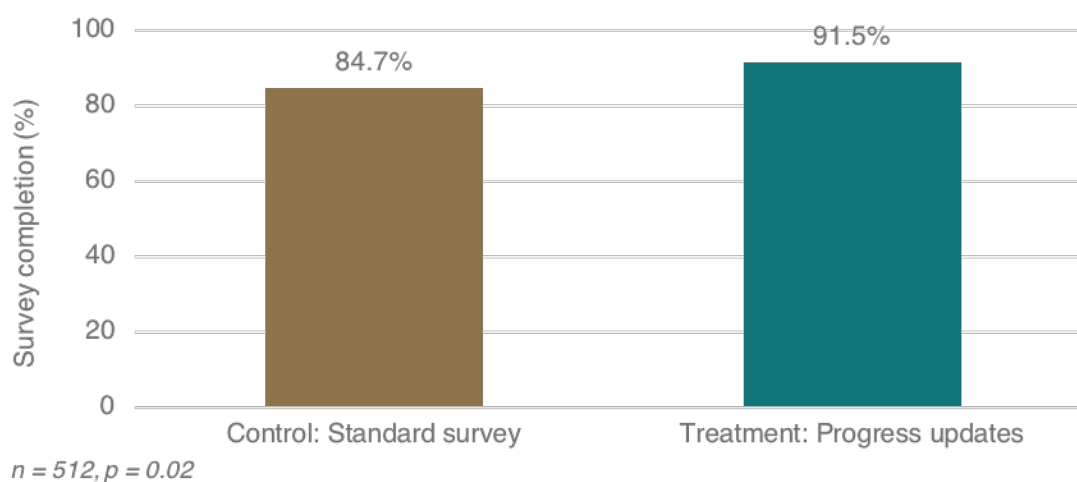
³⁷ Barasz, K. et al. 2017, 'Pseudo-set framing', *Journal of Experimental Psychology*, vol. 146, no. 10, pp. 1460–1477.

Figure 14: Content of progress updates

Progress update	Message displayed	Behavioural insight	Graphic displayed
First progress update	<i>You just finished the first section. Thank you for joining thousands of other contributors by telling us your story</i>	Social norms message was used to signal the appropriate behaviour	
Fourth progress update	<i>Another section complete, last section coming up</i>	A further progress update to reduce uncertainty around the length of the survey	

Our trial ran over seven months and involved more than 500 people. We found receiving progress updates increased survey completion by 6.8 percentage points, from 84.7 to 91.5 per cent (see Figure 15).

Figure 15: Behaviourally-informed progress updates increase survey completion rates



Future opportunities

This trial was one of the first field applications of pseudo-sets theory. The results showed simple low-cost changes to a survey design can increase survey completion. The significance of this finding extends beyond future redesigns of the Data Exchange survey and should be considered by other organisations seeking to understand and service their clients.

Using text message reminders to help income support recipients to report on time

Abstract

The Department of Human Services continually seeks to simplify customer interactions and improve service delivery to Australians.

For income support recipients, reporting late can lead to delayed or cancelled payments and result in adverse outcomes for individuals. To address this issue, we examined whether a text message reminder to income support recipients would increase the number of people reporting their income on time.

We found sending behaviourally-informed text message reminders increased the number of people who reported on time by 13.5 percentage points, from 53.1 to 66.6 per cent. Further, those who received a text message reminder reported sooner than those who did not. Certain reminders also resulted in fewer payment cancellations, representing a decrease of 1.7 percentage points, from 3.9 to 2.2 per cent).

Project by



Australian Government
Department of Human Services

BETA

The policy problem

Approximately 850,000 Australians receive payments for income support while they are unemployed and seeking employment.³⁸ To ensure they receive the correct amount, these recipients need to report their income to the Department of Human Services fortnightly. Reporting on time benefits recipients, as failing to do so may trigger cancellation of payments. It also benefits government by reducing the resources associated with late reporting and payment cancellations.

Unfortunately, many recipients fail to report their income on time. In any given fortnight, over 80,000 people are late reporting their income and approximately 3,100 people are so late their payments are cancelled.³⁹

Our findings and learnings

Our trial comprised 15,000 people who had a history of reporting their employment income late. Of these, 10,000 people were randomly selected to receive different text messages. The remaining 5,000 people received no text message (the business-as-usual scenario).



Behavioural insight: Why do people fail to report on time when it is in their interests to do so?

Cognitive overload occurs when people do not have the capacity to process information and make decisions (e.g., when people have different demands competing for their attention, such as when they are seeking jobs or studying).⁴⁰ In such circumstances, people may forget things or delay decisions, even those in their best interests.

We designed different messages to address the issue of cognitive overload and other behavioural barriers to on-time reporting. The first message was a short simple reminder that their income report was due. The second message (sent to those in the loss frame group) emphasised the cost of not reporting on time. The final message (sent to those in the gain frame group) made the benefits of reporting on time more salient. We also sent each message in a personalised and non-personalised version.

Overall, the trial was successful; reporting on time increased and payment cancellations were reduced.

Figure 16: Increases in on-time reporting

Sending text message reminders improved on-time reporting and increased the number of people who reported their income on time by 13.5 percentage points (from 53.1 to 66.6 per cent).

³⁸ The payments are Newstart Allowance and Youth Allowance (Other).

³⁹ Data from the Department of Human Services.

⁴⁰ Mullainathan, S. & Shafir, E. 2013, *Scarcity: Why having too little means so much*, Time Books, New York.

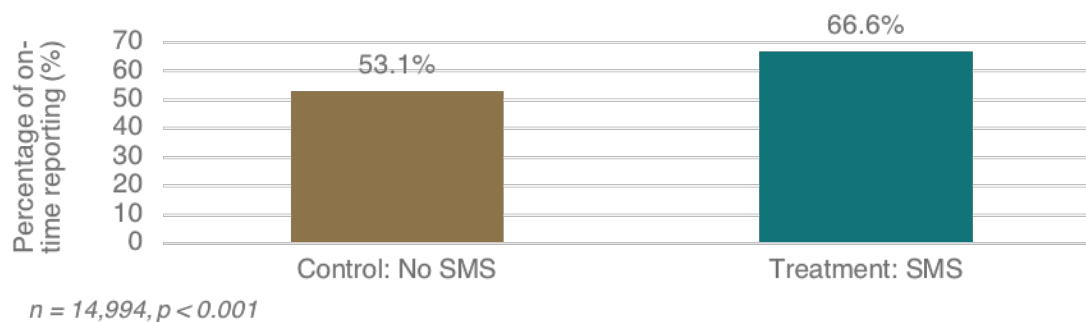
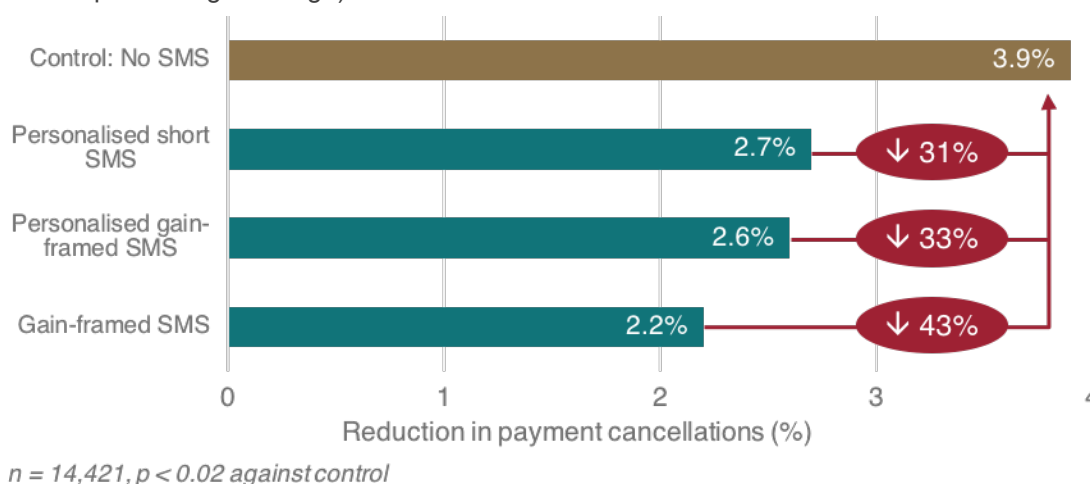


Figure 17: Reductions in cancelled payments

For those who missed their deadline, the reminder reduced overall delays in reporting. Some reminders also resulted in fewer payment cancellations (a decrease of 1.7 percentage points for the best-performing message).



Future opportunities

Following the success of this trial, the department ran a further trial with a slightly different cohort (people receiving Newstart Allowance who were eight days late reporting their income) and found strong results.

The second trial found sending text message reminders increased reporting by 8 percentage points (from 60.6 to 68.6 per cent) and led to a decrease in payment restoration contacts by 7.9 percentage points (from 15 to 7.1 per cent).

The department is now embedding an automated text message solution into their business-as-usual operations to help customers who have missed their reporting dates. This is a great example of scaling a low cost and effective solution across a system. The department is also incorporating the lessons and findings to improve customer interactions in other areas.

For further information about the trial, read the full report at the [BETA website](#).

Helpful tax payment reminders

Abstract

Since 2014, the Australian Taxation Office has been using behavioural insights principles in text message reminders. The text messages are designed to prompt taxpayers with upcoming liabilities to make a payment. They have been successful in influencing taxpayers to meet their obligations and this channel is being considered in projects across the organisation.

Project by



Australian Government
Australian Taxation Office

The policy problem

One of the Australian Taxation Office's key responsibilities is the collection of tax revenue. Our vision is to be a contemporary, service-oriented organisation. Our aim is for taxpayers to willingly meet their obligations and therefore, we make it easy to do so with pre-due date reminders.

Our findings and learnings

A suite of text messages are issued before a liability due date, in order to encourage on time payment. The campaign was designed with analytic models to acknowledge previous behaviour and current circumstances such as active payment plans.

Templates incorporate behavioural insights to highlight this within the content. For example, where a client received a text message for their business activity statement obligation in the previous quarter and paid on time, they may receive a 'Thank You' text message, acknowledging the positive compliance behaviour.

Alternately, where a client received a text message for their 2015 income tax return payment obligation and had an existing debt on the account, they were notified of both the amount owing as per the notice of assessment, and the overdue debt. Tailoring the text messages to a client's specific circumstances was found to increase the response rate.

The behavioural insights principles applied in the trial are below.



Behavioural insights

Personalisation: Personalising a message to an individual makes it more salient to them, which in turn makes it more likely that they will act on it.⁴¹

Make it easy: Various studies in the area of behavioural science have demonstrated that making it easy for someone to carry out a desired behaviour increases the likelihood they will do so.⁴²

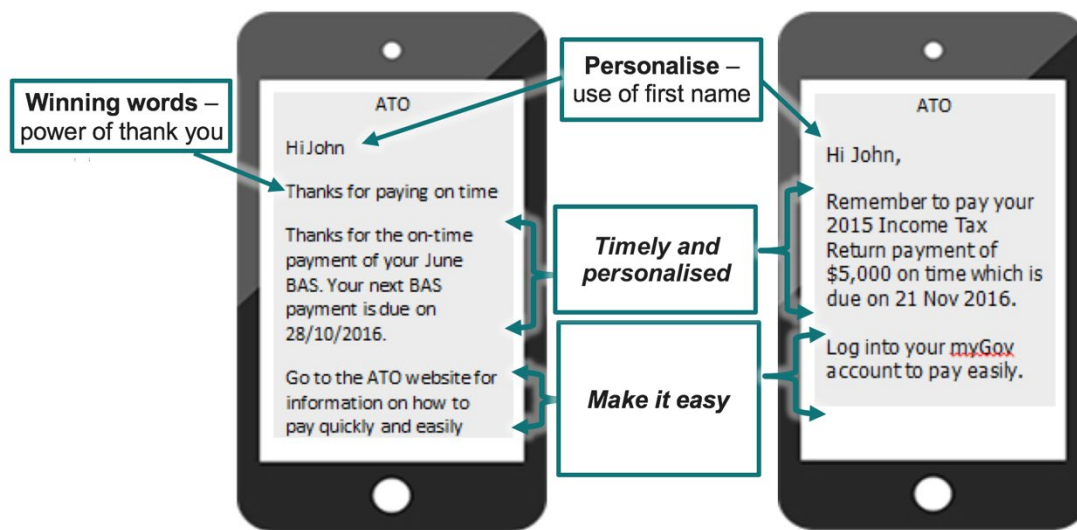
Rewarding desired behaviour: Thanking someone for carrying out a desired action may motivate them to continue with the positive behaviour.⁴³

⁴¹ Behavioural Insights Team 2012, *Applying behavioural insights to reduce fraud, error and debt*, BIT, UK, p. 11.

⁴² Ibid, p. 8.

⁴³ Ibid, p. 17.

Figure 18: Helpful reminder for activity statement and tax respectively



Results:

- In the 2014/15 year approximately 247,000 SMS were issued for those unlikely to pay on time or at all, resulting in payments of \$834 million.
- In the 2015/16 year approximately 540,000 SMS were issued for those unlikely to pay on time or at all, resulting in payments of \$949 million.
- In the 2016/17 year approximately 560,000 SMS were issued for those unlikely to pay on time or at all, resulting in payments of \$800 million.

Future opportunities

The Australian Taxation Office is continuing to trial the effects of issuing text messages to taxpayers under varying circumstances. They can be used to encourage compliance, as well as provide certainty to taxpayers that they have met their obligations. Where possible, we trial different behavioural insights principles in different versions of the text messages to see which are most effective in the specific context we are considering. Other organisations will be able to test how appropriate text messages are in influencing their clients' behaviour.

Encouraging businesses to remain tax compliant on the deferred goods and services scheme

Abstract

The Deferred Goods and Services Scheme (scheme) allows businesses to defer the payment of goods and services tax on taxable importations into Australia.

This helps businesses manage their cash flow. Cash flow is important for businesses because it helps them meet everyday business needs and avoid taking on more debt. This means there is a strong driver for businesses to be on the scheme; however there has been considerable scheme non-compliance.

We trialled emails incorporating behavioural insights principles that encouraged participants in the scheme to remain compliant. The successful intervention increased business compliance.

Project by



Australian Government
Australian Taxation Office

BETA

The policy problem

The Australian Taxation Office's vision is to be a service-oriented organisation. In order for businesses to continue to benefit from deferring their goods and services tax, they need to have all tax obligations up to date. We are assisting them by sending reminder emails to prevent them from losing access to the scheme.

Our findings and learnings

This trial involved scheme clients who were non-compliant with their obligations. We sought to evaluate the effect of different email interventions. The intent was to encourage self-compliance, educate businesses on their tax obligations and reduce recurrent non-compliance. The behavioural insights principles applied in the trial are below.



Behavioural insights

Loss aversion: People are more sensitive to losses than to equivalent gains and will generally behave in ways to minimise losses.⁴⁴

Transparency: Letting people know the information we hold about them can influence their behaviour.⁴⁵

We drafted a suite of emails, including a 'cooperative' and 'direct toned' reminder, a thank you email and a revocation email. A more conversational (softer) tone was used in the reminder email, while a direct (harder) tone was used for the reminder and revoke notification emails.

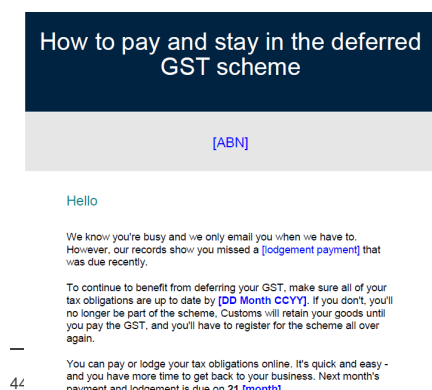
For this trial, a sample of non-compliant business were randomly selected and allocated in equal proportions to three groups:

- Control – received no email
- Co-operative – received softer reminder email, then either a thank you or revoke email
- Direct – received harder reminder email, then either a thank you or revoke email.

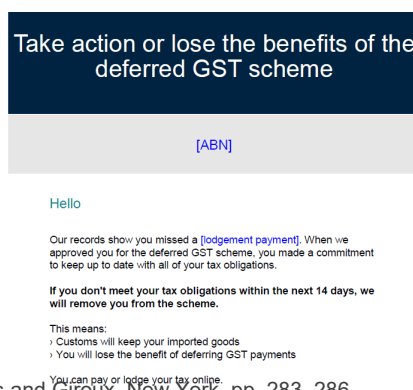
The emails were rolled out in four separate batches from April to June 2017. Businesses had 21 days to comply. Those that complied after receiving the reminder received a thank you email, and those that didn't comply received a revoke notification email.

Figure 19: Examples of emails

Reminder (softer toned)



Reminder (harder toned)



⁴⁴ Thaler, R. & Sunstein, C. 2009, *Nudge: Improving Decisions About Health, Wealth and Happiness*, Yale University Press, New Haven, Connecticut, p. 243.

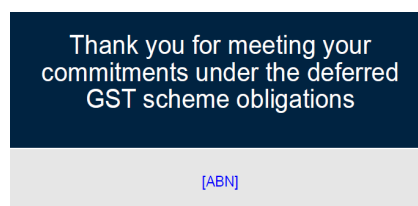
Revoke notification email

Hello

From **[DD Month CCYY]** you can no longer defer GST on imported goods. This means that Customs will keep your goods until you pay GST.

If you think we've made a mistake, you have 60 days to object. You can find objection forms and information about how to lodge an objection on our website at ato.gov.au by searching for 'NAT 13471'.

You can reapply for the scheme if you meet the eligibility requirements.

Thank you email

Hello

Thank you for bringing your obligations under the deferred GST scheme up-to-date. This means you will continue to be part of the scheme. We appreciate your contribution to the tax system.

Both emails led to improved compliance when compared to the control group.

Table 2: Results

Trial group	Number of clients	Percentage that self-complied after 21 days	Percentage point increase in compliance compared to control group
Control (no email)	425	33%	-
Co-operative (softer) email	427	43%	↑ 10%
Direct (harder) email	427	46%	↑ 13%

p<0.005 for emails, compared to the control group

Future opportunities

Due to the success of the trial, the Australian Taxation Office has implemented the emails into business-as-usual processes. The Australian Taxation Office is about to commence a trial with other groups on the deferred goods and services tax scheme, through the use of emails incorporating behavioural insights principles.



Fostering diversity and inclusion in Australian workplaces

Investigating unconscious bias in Australian Public Service recruitment

Abstract

Addressing the gender imbalance across the federal public service is the key priority under the Australian Public Service Gender Equality Strategy 2016–19.

We conducted a randomised controlled trial, inviting senior public servants to shortlist applications for a hypothetical position. The trial aimed to determine whether de identifying an application (removing a candidate's name and personal information) changed the way it was assessed.

We found a surprising effect; overall, participants discriminated in favour of female and minority candidates by a small but statistically significant amount.

The trial demonstrates the value of testing interventions before introducing them at scale. The trial also highlights more exploratory work is needed to understand the recruitment process and broader performance development of employees and how we can reduce the biases affecting the diversity of the public workforce.

Project by



The policy problem

Women represent almost 50 per cent of the Australian workforce but remain underrepresented in management and executive level positions. This issue is experienced in many areas of the Australian Public Service (APS). In 2016, women represented 59 per cent of APS employees, but only 42.9 per cent hold senior executive positions.

A range of factors may influence these figures, including discrimination in hiring. Discrimination can be especially difficult to overcome if it is the result of unconscious biases that are often so internalised that people are unaware these biases are affecting their decisions.⁴⁶

Our findings and learnings

This study examined whether women and minorities were being discriminated against in the shortlisting stage of a recruitment process for senior positions in the APS.

Over 2,100 public servants from 14 agencies participated in the trial. Participants reviewed 16 fictitious curriculum vitae (CVs) against a job description for a hypothetical role in their agency and created a shortlist of the top five candidates.



Behavioural insights: Common biases affecting recruitment

Affinity/Ingroup bias may result in recruiters prioritising candidates who are similar to them or someone they know and with whom they enjoy working.⁴⁷

Confirmation bias refers to the tendency to focus on information confirming initial impressions of a candidate.⁴⁸

The **halo effect** may cause recruiters to focus on salient pieces of information that may affect their perceptions of other elements in a candidate's application.⁴⁹

Status quo bias can occur when recruiters choose the 'safer' option (i.e., to recruit a candidate who is similar to previously hired candidates) rather than the riskier option (i.e., to recruit a candidate with different characteristics and/or a different background).⁵⁰

Participants were randomly allocated to one of three groups, each receiving the following type of CV:

- Control Group 1: Standard form CVs with names of applicants visible
- Control Group 2: Same as the CVs for Control Group 1, with the applicant's name being switched to a name of the opposite gender
- Treatment Group: De-identified form.

⁴⁶ Bertrand, M., Chugh, D. & Mullainathan, S. 2005, 'Implicit discrimination', *American Economic Review*, vol. 95, no. 2, pp. 94–98.

⁴⁷ Taylor, D. & Doria, J. 1981, 'Self-serving and group-serving bias in attribution', *Journal of Social Psychology*, vol. 113, no. 2, pp. 201–211.

⁴⁸ Nickerson, R. 1998, loc. cit.

⁴⁹ Nisbett, R. & Wilson, T. 1977, 'The halo effect: Evidence for unconscious alteration of judgments', *Journal of Personality and Social Psychology*, vol. 35, no. 4, pp. 250–256.

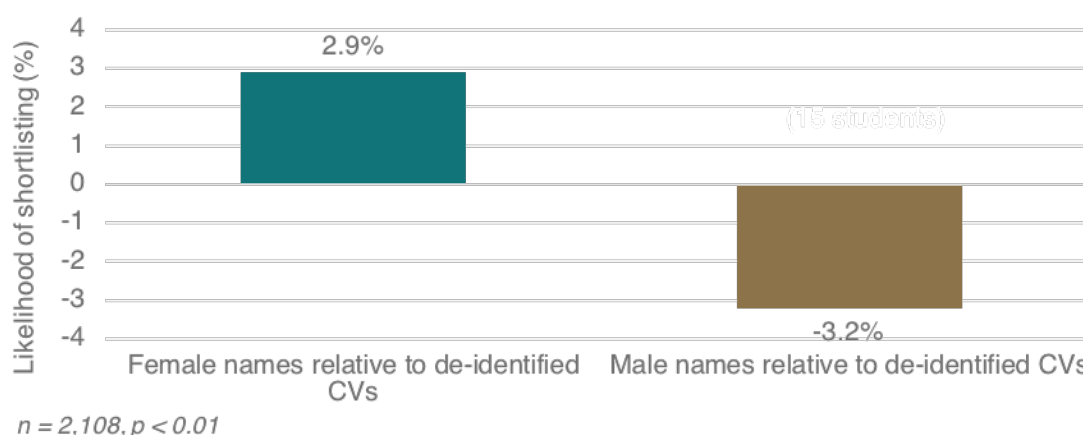
⁵⁰ Samuelson, W. & Zeckhauser W. 1988, 'Status quo bias in decision making', *Journal of Risk and Uncertainty*, vol. 1, no. 1, pp. 7–59.

To test for minority bias, three minority-sounding names associated with specific ethnic minorities were included in each control group. One candidate in each of the control groups and the treatment group was identified as being of Indigenous or Torres Strait Islander descent through a checkbox at the top of the CV.

The participants were aware their behaviours were being observed but were not aware the study sought to explore the effects of de-identification.

We found participants engaged in positive discrimination, favouring female and minority candidates. Specifically, participants were 2.9 per cent more likely to shortlist female candidates and 3.2 per cent less likely to shortlist male applicants, compared to when these applications were de-identified.

Figure 20: Likelihood of shortlisting, based on candidate characteristics



Two potential limitations of the study were identified and addressed:

1. Participation in the study was voluntary. This may have attracted participants who were more likely to support diversity and gender equality. To address this issue, we surveyed a broad set of public servants at similar seniority levels on their views on a range of issues. The survey results revealed both groups held similar attitudes about diversity and gender equality.
2. The trial was conducted as a framed field experiment in which individuals knew they were part of a study and that their behaviours were being observed. Consequently, the participants may have behaved differently to how they would in a real recruitment situation. Additional survey questions were administered in an attempt to identify any participants who had guessed the actual purpose of the trial. When these few participants were excluded from the analysis, the results remained unchanged.

Future opportunities

A number of APS agencies have experimented with 'blind' job application processes and there is increasing interest to improve the diversity of candidates attracted to and selected for APS roles.

This study focused on the shortlisting stage of recruitment; however, this represents one small piece of the diversity puzzle. Other stages of recruitment should be examined, such as how positions are advertised, what information is requested from applicants, how interviews are conducted and how hiring panels are run. We also need to examine factors influencing career trajectories once candidates are hired, including opportunities for professional development and talent management.

For further information about the trial, read the full report at the [BETA website](#).

Encouraging flexible work to support employee choice

Abstract

Many organisations have introduced flexible work policies, recognising the benefits including higher staff retention and morale, a greater ability to recruit skilled employees and a more diverse workforce. However, despite employee demand for flexible work policies, individuals do not necessarily adopt arrangements that enable them to work more flexibly.

We tested whether changing calendar default settings, prompting managers to initiate flexible work discussions with their teams and running a flexible work competition would increase the adoption of flexible work arrangements. The project was conducted in partnership with Transport for NSW with the view that flexible work policies allowing people to change their start and finish times could help reduce city congestion in peak hours.

As a result of the project, the instances of employees arriving at work at non-peak times increased by 8.6 percentage points. This change remained in effect six months after all of the trial interventions had ended.

Project by



THE
BEHAVIOURAL
INSIGHTS TEAM ♦

The policy problem

Reducing central business district (CBD) congestion in Sydney is a priority of the NSW Government. It is estimated the cost of congestion across metropolitan Sydney will increase to around \$8 billion per annum by 2020.⁵¹ The morning and afternoon peak periods are critical, as it is at these times that people travel into and out of the CBD. For example, of the 630,000 trips undertaken each weekday into the CBD, approximately 180,000 occur between 8.00 am and 9.00 am.⁵²

Transport for NSW's Travel Choices program is a core strategy seeking to shift Sydney CBD commuters' behaviours.⁵³ Our trial aimed to explore ways in which CBD employees could be encouraged to adopt flexible work arrangements so that their start and finish times occurred outside the critical peak-hour periods. The trial was implemented in the NSW Department of Premier and Cabinet.

Our findings and learnings

Our analysis revealed behavioural barriers affected employees' decision to adopt flexible work arrangements. Organisational culture is often resistant to change and even after the introduction of a flexible work policy there can still be a strong '9–5' culture. Employees report they are worried about being negatively judged by their managers if they ask for flexible hours, despite most managers saying they would view it positively. Managers who do not themselves work flexibly set an example that their employees tend to follow. Additionally, commuting is strongly habit-based and is hard to change, especially given non-work commitments.



Behavioural insights: Barriers affecting the uptake of flexible work

Social norms: People's behaviours are influenced by what they perceive as 'normal' or what the majority of people are doing. For example, people's energy use is influenced by information about their neighbours' energy use.⁵⁴

Status quo bias: People may be resistant to change and prefer for the status quo to continue. This may be due to the endowment effect, loss aversion and uncertainty about the future.⁵⁵ For example, some people may prefer to eat the same thing every day for breakfast and find it difficult to change this habit.

We addressed these behavioural barriers in two ways.

Changing the default

We disrupted ingrained commuting habits by changing the default availability settings in employees' Outlook calendar settings and by running a workplace competition in which points were rewarded to teams who worked more flexibly.

⁵¹ Transport for NSW 2013, *Sydney City Centre Access Strategy*, Transport for NSW, Sydney.

⁵² Ibid.

⁵³ Transport for NSW, *Travel Choices Handbook*, Transport for NSW, Sydney, accessed 4 April 2018, <http://data.mysydney.nsw.gov.au/files/s3fs-public/Travel%20Choices%20Handbook.pdf>.

⁵⁴ Schultz, P. et al. 2007, 'The constructive, destructive, and reconstructive power of social norms', *Psychological Science*, vol. 18, no. 5, pp. 429–434.

⁵⁵ Kahneman, D., Knetsch, J. & Thaler, R. 1991, 'Anomalies: The endowment effect, loss aversion, and status quo bias', *Journal of Economic Perspectives*, vol. 5, no. 1, pp. 193–206.

Addressing informal workplace norms

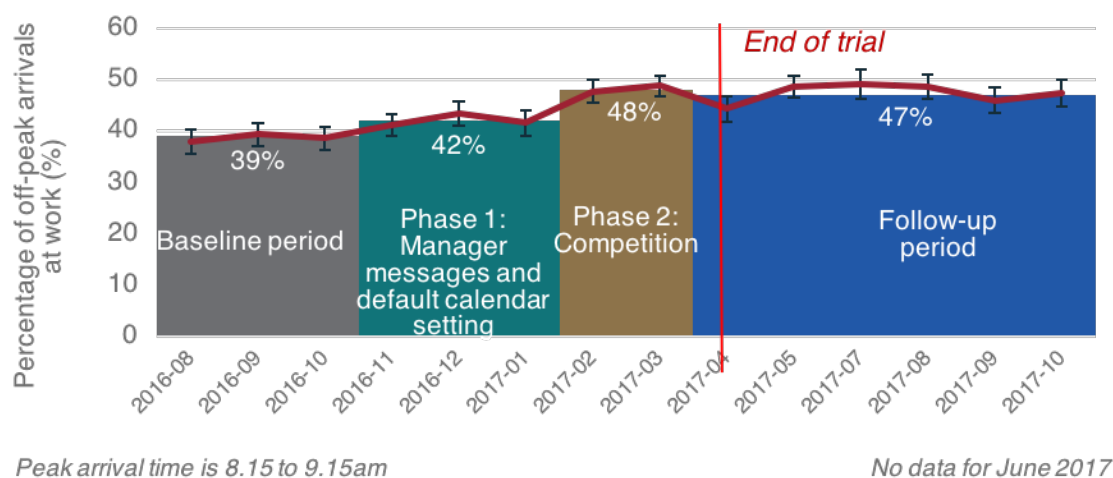
We addressed the workplace norms that were reinforcing employees' perceptions of a standard working day by prompting managers to initiate flexible work conversations with their teams and by designing the competition to be team-based. We also incentivised participation by offering a prize to the winning team.

Results

Six months after the trial ended, we analysed the turnstile data at the entry/exit points of the workplace and found:

- the proportion of arrivals at work outside the peak hour periods increased by 8.6 percentage points compared to the baseline ($p < 0.001$). This is equivalent to 411 additional instances per month of staff avoiding the peak hour periods in their commutes to work
- the proportion of departures from work outside the peak hour periods increased by 3 percentage points compared to the baseline ($p < 0.001$). This is equivalent to 143 additional instances per month of staff avoiding the peak hour periods in their commutes to work
- both women and men were responsive to our interventions; however, the impact was particularly pronounced among women. It is likely the competition had a legitimising effect on women's flexible work behaviours.

Figure 21: Arrival times at work during off-peak periods (August 2016 to October 2017)



Future opportunities

We have been approached by government agencies across Australia interested in adopting elements of our project to increase the adoption of flexible work policies by their employees. We published our trial in the Harvard Business Review to share the tools used in this project and to ensure the wide dissemination of the results among business leaders.⁵⁶

⁵⁶ Wiryakusuma, C., Chai H., King, A. & Pointer, G. 2017, 'How we nudged employees to embrace flexible work', *Harvard Business Review*, viewed 8 March 2018, <https://hbr.org/2017/11/how-we-nudged-employees-to-embrace-flexible-work>.



Improving consumer decisions in a changing world

Supporting older Australians in retirement income planning

Abstract

The Australian population is ageing. More people are retiring and they need to decide what to do with their superannuation savings. This is an infrequent, high stakes and complex decision. There is not currently enough support to help people make this decision.

To help address this problem, this study examined how retirement income plans could be presented to older Australians to maximise consumer understanding and improve decision-making.

Over 3,600 older people responded to a series of hypothetical income plans. The results showed presenting information simply helped people understand the options available and to make decisions that aligned with their superannuation preferences.

Project by



Australian Government
The Treasury

BETA

The policy problem

Similar to other countries around the world, Australia has an ageing population. It is projected the number of people aged 65 and over will more than double by 2061.⁵⁷ Consequently, more people will need to learn the difficult task of how to manage their retirement savings. People must account for uncertainties, such as how long they might live, changes to their lifestyle needs/preferences and uncertainties related to investment performance.

At present, most retirees access an account-based pension requiring them to decide how much to withdraw each year, a complex decision in and of itself. If an incorrect amount is selected, people may run out of retirement savings.

To address these issues, superannuation funds now offer a new plan known as the 'Comprehensive Income Product for Retirement'. This product converts people's superannuation balance into a regular income payment based on the information that people input about their needs.

Previous research has shown when it comes to financial decisions in general and superannuation in particular, many people do not make optimal choices.⁵⁸ We looked at how superannuation funds can present information to members so that they can better understand their options and choose the retirement income product that best suits them.

Our findings and learnings

In our study, older people were asked to compare an account-based pension to the Comprehensive Income Product for Retirement. We examined how the information about the two plans could be presented to improve consumer understanding.



Behavioural insight

Simplification of information about choices is commonly used to assist people making financial decisions. Essentially, simplification seeks to reduce and/or clarify information so that it is easier to understand and use.

There are many different ways to simplify information. Unsurprisingly, the evidence on simplification is mixed.⁵⁹

To contribute to the research on simplification and in an attempt to increase the **salience** of income comparison, we considered the effects of using tables, graphical displays, a visual quality scale (e.g., a star ratings) and an attention cue (e.g., a bold border).

People were randomly assigned to one of eight conditions and asked to view information about the two plans. The conditions varied the combinations of text, number tables, text tables, star ratings and graphs.

⁵⁷ Australian Bureau of Statistics 2013, *Population Projections, Australia 2012*, cat. no. 3222.0, ABS, Canberra.

⁵⁸ For example, see Choi, J. et al. 2004, *For better or for worse: Default effects and 401(k) savings behavior*, National Bureau of Economic Research, Cambridge, Massachusetts; Gerrans, P. 2012, 'Retirement savings investment choices in response to the global financial crisis: Australian evidence', *Australian Journal of Management*, vol. 37, no. 3, pp. 415–39.

⁵⁹ de Goeij, P., Hogendoorn, T. & Van Campenhout, G. 2014, 'Pictures are worth a thousand words: Graphical information and investment decision making', *Working paper*; Kaufmann, C., Weber, M. & Haisley, E. 2013, 'The role of experience sampling and graphical displays on one's investment risk appetite', *Management Science*, vol. 59, no. 2, pp. 323–40.

Most effective presentations of information

Simple text-based descriptions of key plan features (such as those displayed in Figure 22) were the most effective while tables with numerical estimates were the least effective.

The use of a text table that highlighted income (see Figure 22) proved to be the most effective method of presenting information. The text table improved outcomes of comprehension, perceived clarity, decision-making ease, decision-making confidence and where it aligns with their preferences, selecting the Comprehensive Income Product for Retirement rather than the account-based pension.

Future opportunities

Based on people's stated preferences, there is demand for the Comprehensive Income Product for Retirement. Our study showed behavioural insights can be used to increase understanding and hypothetical uptake of this product when it aligns with consumer preferences.

For further information about this trial, read the full report at the [BETA website](#).

Saying more with less: simplifying energy fact sheets

Abstract

A range of behavioural biases contribute to consumer inertia in the energy market. The time and effort required to compare and choose a plan may seem insurmountable.

Consumers need access to information about available energy plans to identify which plan is the most cost-effective plan for them. Energy fact sheets are one of a number of tools designed to help consumers understand and compare energy plans. The information provided in fact sheets should be sufficiently comprehensive to enable consumers to make good choices but should not leave consumers feeling overwhelmed.

We developed five behaviourally-informed fact sheets (i.e., BETA fact sheets) and tested these alternative fact sheets and the existing fact sheet with around 4,500 Australians.

All five BETA fact sheets were clearly preferred to the existing fact sheet. Survey participants found these fact sheets easy to understand and helpful in comparing electricity plans and making household budget decisions.

Project by



The policy problem

The Australian energy market requires consumers to consider large amounts of complex information. This can cause consumers to feel overwhelmed and increase the likelihood of making poor choices about an energy plan or give up making a decision altogether.⁶⁰ Indeed, statistics show 47 per cent of Australian consumers have not changed their electricity company or plan in the last five years.⁶¹

At a time when retail electricity prices are placing cost pressures on households (retail electricity prices have increased by 80 to 90 per cent in the past decade),⁶² not switching to a better plan could be costing consumers hundreds of dollars a year.

Our findings and learnings

We drew on behavioural insights to design five alternative energy fact sheets for the same electricity plan. We designed the fact sheets to be shorter, simpler and more attractive.



Behavioural insights: Cognitive overload and status quo bias

The complexity and number of available energy plans can also cause consumers to ignore some information or use mental shortcuts to simplify the decision-making process.⁶³ For example, consumers may engage in 'elimination by aspects' (i.e., set criteria and ignore options that do not meet baseline thresholds) and 'satisficing' (i.e., search for options until they find one that is 'good enough').⁶⁴

We experimented with changes in the top sections of a single page fact sheet (the middle and lower sections remained the same). Figure 22 shows the top sections of two of the fact sheets.

⁶⁰ Gardner, J. & Nilsson, D. 2017, *Exploring the drivers and barriers of consumer engagement in the Victorian retail energy market*, report for the Department of Environment, Land, Water and Planning, CSIRO, Australia; Jacoby, J. et al. 1974, 'Brand choice behavior as a function of information load', *Journal of Marketing Research*, vol. 11, pp. 63–69.

⁶¹ Australian Energy Market Commission 2017, *2017 AEMC Retail Energy Competition Review*, Final report, 25 July 2017, AEMC, Sydney.














⁶² Australian Competition and Consumer Commission 2017, *Retail Electricity Pricing Inquiry: Preliminary Report*, ACCC, Canberra.

⁶³ Gigerenzer, G., Todd, P. & ABC Research Group 1999, *Simple heuristics that make us smart*, Oxford University Press, New York.

⁶⁴ Simon, H. 1972, 'Theories of bounded rationality', *Decision and Organization*, vol. 1, pp. 161–176; Tversky, A. 1972, 'Elimination by aspects: A theory of choice', *Psychological Review*, vol. 79, pp. 281–299.





Figure 22: The top sections of two new energy fact sheets

Fact sheet 1

		Energy Plan Snapshot Sunny Day Offer at 20 October 2017 To find out more or to get this plan contact us on: Phone: 13 00 00 (you can quote reference number SUN83837MR) Web: www.sunenergy.com.au	
My household is most like:		Estimated yearly bill for this plan	
		Base price	With discounts
 1 to 2 people  1 to 2 bedrooms  Weekly washing, little heating and cooling  Employed full time, spending little time at home		\$1,413	\$1,161
 3 to 4 people  3 bedrooms  Washing a few times a week, regular heating and cooling  Employed full time, home most evenings and weekends		\$2,542	\$2,064
 4 to 5+ people  4+ bedrooms  Daily washing, heating and cooling  Home evenings, weekends and some days		\$3,297	\$2,660

Bill estimates exclude solar payments, concessions and bonuses and are based on an average household. Your household's usage may vary.

Fact sheet 3

		Energy Plan Snapshot Sunny Day Offer at 20 October 2017 To find out more or to get this plan contact us on: Phone: 13 00 00 (you can quote reference number SUN83837MR) Web: www.sunenergy.com.au	
My household is most like:		Estimated yearly bill for this plan	
		Base price	With discounts
 1-2 people 3,281 kWh per year		\$1,413	\$1,161
 3 people 6,941 kWh per year		\$2,542	\$2,064
 4+ people 9,390 kWh per year		\$3,297	\$2,660

Bill estimates exclude solar payments, concessions and bonuses and are based on an average household. Your household's usage may vary.

We compared our five fact sheets to the original fact sheet using a framed field experiment and focus groups:

- Framed field experiment: We asked 4,554 Australian adults with experience in choosing an electricity retailer to complete an online survey.
- Focus groups: We asked three small focus groups (whose members comprised a cross-section of household electricity consumers, including an older group who told us they rarely used the internet) for their views on the fact sheets.

Overall, the results showed the BETA energy fact sheets were clearly preferred to the existing fact sheet. No single fact sheet was substantially more effective than any of the others.

Consumer engagement

Participants' engagement with the fact sheets was determined by how much they agreed or disagreed with positive statements about whether a fact sheet:

- was easy to understand
- was interesting
- provided useful information
- made comparing electricity plans easier
- helped them make household budgeting decisions.

In terms of consumer engagement with their energy plans, at least 65 per cent of the participants who viewed a BETA fact sheet strongly or mildly agreed with the above statements. Conversely, only 50 per cent of the participants who viewed the existing fact sheet strongly or mildly agreed with the above statements.

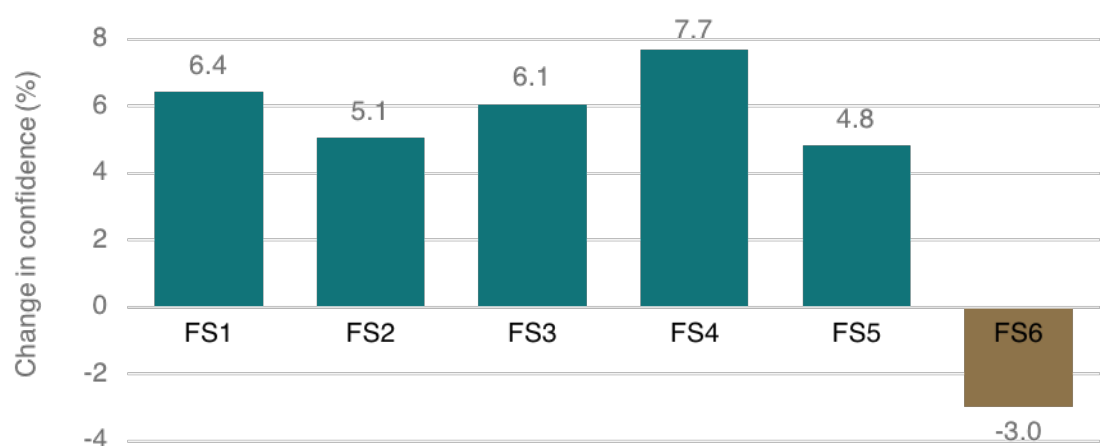
Consumer confidence

In terms of consumer confidence, participants felt moderately more confident after viewing any of the BETA fact sheets compared to those who viewed the existing fact sheet (see Figure 23, FS6 is the existing fact sheet).

The results of this study are not only relevant to future designs of energy fact sheets, but also to any material used by energy companies to communicate with consumers (e.g., bills, contracts and advertised plans). Given the complexity of the energy market, research should investigate whether there is merit for energy companies to agree on a common set of energy terms and images for consumers. We note the Australian Energy Regulator already mandates the use of common terms for its energy fact sheets.

For further information about this trial, read the full report at the [Department of Prime Minister and Cabinet website](#).

Figure 23: Average changes in participants' confidence levels



'FS means fact sheet

$p < 0.01$ compared to FS6

A related question is whether better presentation of information leads to changes in consumer choices. We were unable to draw any firm conclusions on this point so it remains an area for further research.

Future opportunities

Detailed pricing information increases confidence but not understanding

Abstract

We compared five versions of a potential Basic Plan Information Document for energy plans.

The results showed including detailed pricing information increased consumer confidence. However, it should be noted almost 90 per cent of the respondents were unable to interpret the detailed pricing information correctly.

We also found providing detailed pricing information at the top of the document reduced the number of respondents who selected the cheapest plan.

The results suggest there is significant scope for regulators to test disclosure documents to ensure their effectiveness.

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The policy problem

Customers seeking to compare energy plans do not often have an easy, consistent way of assessing the likely cost of different plans.^{65,66,67} Further, it is difficult to determine the best way of providing information to consumers, particularly with the triple goal of maximising consumer 1) confidence, 2) decision-making and 3) comprehension.

This trial sought to build on the findings of a preliminary trial (see page 62) and develop a new standard for delivering information that could be used to replace the current energy price fact sheet.

Our findings and learnings

We compared five versions of a potential Basic Plan Information Document for energy plans in an online framed field experiment. The first four Basic Plan Information Documents had been developed for a preliminary trial (see page 62) while the fifth version was developed by the Behavioural Insights Team.

Respondents were randomly allocated to one of five treatment groups. Each treatment group was shown four hypothetical energy plans within each version of the Basic Plan Information Document. They were then asked to choose the plan that would be cheapest for them and to indicate how confident they were about their decision and how well they comprehended the plan.

Figure 24 shows the version used in Treatment 1; the key components are highlighted. In other versions, the key components differed, for example, variations were made to the position, length, presence (or absence) and use of hyperlinks to access further information.

Figure 23: A version of the Basic Plan Information Document used in Treatment 1

Basic Plan Information Sunny Day Offer at 1 January 2018 | Sun Energy

To find out more, click here or contact us on: **Phone: 1300 65 65 65** (see our website for more information) **1300 65 65 65**

My household is most like:

Household type	Services	Estimated quarterly bill
1 to 2 people	Electricity, heating, hot water, cooling and hot water	\$390
3 to 4 people	Electricity, heating, hot water, cooling and hot water	\$440
5 to 6 people	Electricity, heating, hot water, cooling and hot water	\$490

Key facts about this plan

Contract

- 12 month contract with 12 month benefit period
- 10 day cooling-off period
- 10 day cooling-off period

Discounts and rebates

- 10% to 15% discount off usage charges
- One off \$50 credit on your first bill
- Discount on usage charges
- One off \$50 credit on your first bill

Key features

- We will reduce your price charges
- We will reduce your price charges
- We will reduce your price charges
- We will reduce your price charges

Prices

Plan	Price	Price
Basic Plan	\$390	\$390
Basic Plan	\$440	\$440
Basic Plan	\$490	\$490

⁶⁵ Lunn, P. & Bohacek, M. 2017, 'Price transparency in residential electricity: Experiments for regulatory policy', *Journal of Behavioral Economics for Policy*, vol. 1, no. 2, pp. 31–37.

⁶⁶ Sitzia, S. Zheng, J. & Zizzo, D. 2015, 'Inattentive consumers in markets for services', *Theory and Decision*, vol. 79, no. 2, pp. 307–332.

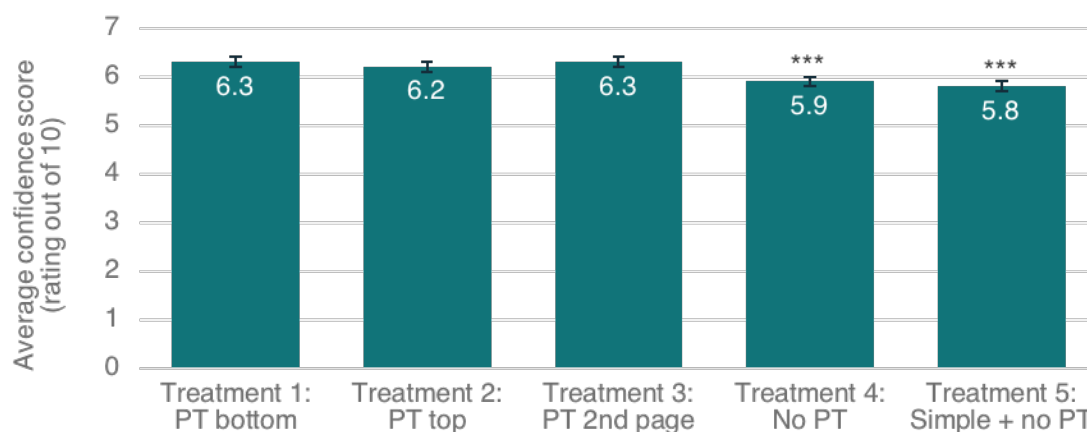
⁶⁷ Sugden, R. & Zheng, J. 2017, 'Do consumers take advantage of common pricing standards? An experimental investigation', *Management Science*, Articles in Advance.

The provision of detailed pricing information improved confidence, but consumers struggled to interpret the content

Three of the treatment arms included a detailed pricing table while two of the treatment arms featured the table in a separate document that the respondents had to click to access.

Consistent with previous qualitative research, we found respondent **confidence in their decision was higher in the treatment arms which included the detailed pricing table** (see Figure 25). However, almost 90 per cent of respondents were not able to correctly use the detailed pricing information to calculate the cost of a hypothetical day's energy usage. This may be because while including more data (in the form of the table) increased respondents' confidence in their decisions, respondents were not able to turn this information into useful knowledge.

Figure 24: Aggregated confidence score, by treatment



*PT means pricing table

*** $p < 0.001$

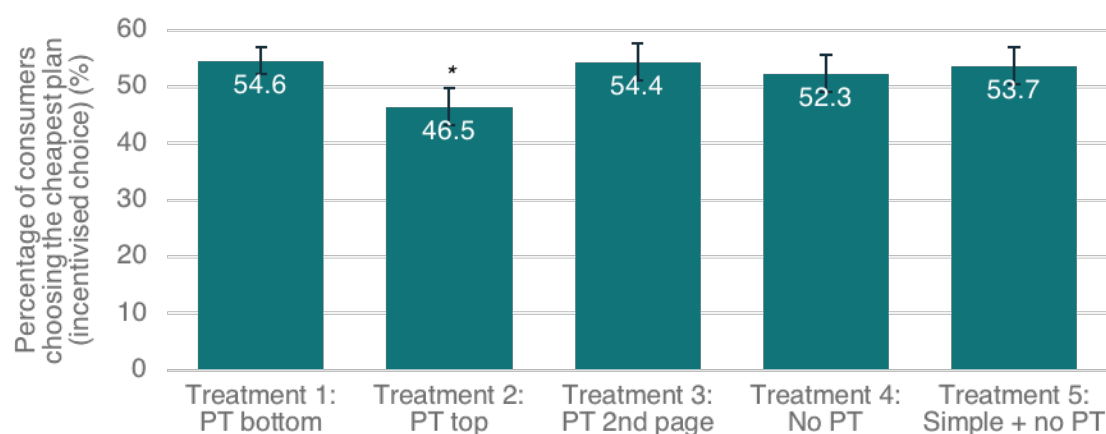
Providing detailed pricing information first leads to poorer decision-making

One treatment arm (i.e., Treatment 2) included a pricing table at the top of the document. This essentially reversed the order with which information had been presented in Treatment 1 (in which the table appeared at the bottom of the page) and Treatment 3 (in which the table appeared on a subsequent page).

Presenting the pricing table at the top of the page led to poorer decision-making; that is, **fewer respondents were able to pick the cheapest plan when a detailed pricing table appeared at the top of the page** (see Figure 26).

It may be that presenting the pricing table at the top of the page encouraged consumers to use the table rather than the comparison price estimates when comparing plans. Alternately, it may be that consumers struggle to convert the information contained detailed pricing table into good decisions.

Figure 25: Proportion of consumers who chose the cheapest plan across treatment groups



'PT' means pricing table

* $p < 0.05$

The trial suggests a balanced approach needs to be adopted when providing detailed information to maximise consumers' decision-making ability and confidence levels. The best approach appears to be to include detailed information, but to de-prioritise it and provide other cues for comparing plans.

Future opportunities

Of the treatments, even the best results led to only 60 per cent of consumers selecting the cheapest plan for them. Future research should seek to increase this percentage and investigate the relationship between consumer confidence and engagement with markets.

The trial represents a rare instance of disclosure documents being rigorously tested to understand how the format of such documents affects consumers' levels of confidence and their decisions. There is significant scope for regulators in many fields to test their disclosure documents to determine if these documents are truly fit for purpose and lead to better consumer decisions and confidence.

Teens ethics and technology: Making moral decisions in the online world

Abstract

We undertook qualitative research to understand how young people use the internet and make ethical decisions online. We identified four ingredients for the long-term ethical development of a young person. With our program partners, we are now incorporating these ingredients into interventions.

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The policy problem

Over the last decade, digital media platforms have commanded a growing share of our collective time and attention. Of individuals aged between 14 and 17 in Australia, 82 per cent view the internet as very or extremely important to their lives.⁶⁸ For these young people, how they think, act and treat each other online affects the kind of adults they will become.⁶⁹ A number of existing programs seek to minimise harm and risk; however, very few policies and interventions seek to use technology as a positive force for ethical development.

Our findings and learnings

We conducted a series of one-on-one interviews with young people and their parents, held two workshops with 29 young people at a school and youth centre, ran an online diary study and engaged in regular consultations with the eight members of our Youth Advisory Panel. This qualitative research culminated in the 'No Filter Forum', a two-day deliberative event attended by 60 young people aged between 12 and 16.

We sought to understand the factors that make an ethical choice more likely in a given situation and the broader conditions that enable a young person to flourish as an ethical person over time. Our research revealed four important ingredients for the ethical development of a young person:

- **Moral awareness and engagement.** Holding the right moral values is not helpful if people fail to apply them when it matters. This means avoiding 'ethical fading', when people fail to even notice the ethical components of their decisions. It also means avoiding moral disengagement, where, after doing something wrong, people mentally reframe it (for example by blaming the victim) to protect their image as good people.⁷⁰
- **Character skills.** Once young people recognise the right thing to do, character skills (e.g., empathy, self-efficacy and self-control) can turn recognition into action. Such skills are important, especially if the right choice is not a comfortable choice.
- **The environment.** To a large degree, young people's decisions are shaped by their environment. In an online context, simple changes, such as modifying notification settings, deleting addictive applications and installing browser filters, can help.
- **Social support.** Family, peers, teachers and role models shape the values a young person develops and can offer the practical support needed to make lasting changes.

⁶⁸ Australian Communications and Media Authority 2014, *Aussie teens online*, research snapshot, ACMA, Melbourne, accessed 24 April 2018, <https://www.acma.gov.au/theACMA/engage-blogs/engage-blogs/Research-snapshots/Aussie-teens-online>.

⁶⁹ Boyd, D. 2014, *It's complicated: The social lives of networked teens*, Yale University Press, New Haven, Connecticut.

⁷⁰ Bandura, A. 2016, *Moral disengagement: How people do harm and live with themselves*, 1st edn., Worth Publishers, New York.

Future opportunities

Our work made two notable contributions. First, a practical understanding of how people's moral capacity is shaped over time could be useful across multiple policy areas. Second, a dual focus on technology and young people is timely. There is a significant policy need for further research on how online environments affect people's behaviours and wellbeing both negatively and positively.

With our program partners, we have put these insights into practice and developed three promising options into full interventions. Specifically, we will:

- release a playbook that seeks to overcome the barriers associated with 'upstanding' (as opposed to bystanding) online. The playbook will help young people 'upstand' while avoiding stressful escalation
- share the best tools and strategies for shaping young people's own online environment. This will give young people choice over their relationship with technology and ensure that they do not revert to default behaviours, such as checking their social media profiles every hour
- use online tools, such as simple messages and prompts, to help young people obtain more support and guidance from their social networks, especially from relationships with family and friends.

What's coming up – stay tuned

Strengthening students' resilience

According to modelling undertaken by the Department of Social Services in 2016, one in five 17- to 19-year-olds receiving student income support payments today will still be receiving income support payments in 10 years.⁷¹ If nothing changes, the 17- to 19-year-olds who transition directly from study to unemployment are expected to receive income support for 33 years of their future lifetimes. Many students who transition from study to unemployment have not completed their studies.

The *Strengthening Students' Resilience* project will use behavioural insights to support university and vocational students to complete their education. It aims to address student completion rates by developing and testing multiple text message and app-based interventions to assist students to leverage supportive peer and mentor groups and to set short- and long-term goals. The approach adopted builds on emerging global evidence about the effectiveness of goal setting and relies on timely reminders and the power of social networks to help boost young people's educational outcomes. For example, in a series of recent trials with students in the UK, The Behavioural Insights Team found:

- timely prompts can motivate learners and help them to engage in their learning and develop study habits. In one trial, sending text message encouragements and reminders to learners studying maths and English at Further Education colleges increased attendance rates by 22 per cent and improved the proportion of students who passed all their examinations by 16 per cent
- many learners lack the continuous encouragement needed to persevere with their studies, despite having friends, family and acquaintances who would be willing to help. Sending text message prompts to students' friends and family members increased attendance rates by 5 per cent and improved achievement rates by 27 per cent.⁷²

The *Strengthening Students' Resilience* project is funded by the Department of Social Services' Try, Test and Learn Fund. This fund seeks to support innovative projects and reduce long-term welfare dependence.

The trial will be implemented in metropolitan and regional locations in NSW. It is anticipated approximately 10,000 students will participate in the trial.

The trial will commence in early 2019 and run for approximately 24 months.



⁷¹ Department of Social Services 2017, *Try, Test and Learn Fund: Strengthening students' resilience*, fact sheet, DSS, Canberra, viewed 24 March 2018, https://www.dss.gov.au/sites/default/files/documents/11_2017/strengthening_students_resilience_factsheet.pdf.

⁷² Hume, S. et al. 2018, *Improving engagement and attainment in maths and English courses: insights from the behavioural research*, Research and project report to the Department for Education, London.

Beyond disclosure: performance based approaches to financial regulation

Previous research has shown people do not make decisions on the basis of information alone.⁷³ However, in Australia, as in many other countries around the world, formal disclosure is relied on as the backbone of financial regulation to protect consumers.⁷⁴ Whenever the incentives for firms do not align with those of their customers, there is a significant risk firms will 'work around' even improved disclosure regulations.

The Australian Securities and Investments Commission is exploring approaches to address this issue and considering the potential use of a concept pioneered by Professor Lauren Willis. This concept would regulate the performance of firms according to the outcomes they produce for consumers.⁷⁵

Presently, this project is in the exploratory stages; however, we hope to create opportunities for important interdisciplinary conversations and collaborations, including conversations about:

- what in fact constitutes 'good' and 'bad' outcomes for consumers
- if robust and efficient performance measures can be designed
- how the incentives received by firms might be realigned to benefit their customers (e.g., via the implementation of performance-based regulations or other approaches).



⁷³ Willis, L. 2017, 'The Consumer Financial Protection Bureau and the quest for consumer comprehension', 3 *Russell Sage Foundation Journal of the Social Sciences*, vol. 3, no. 74; *Los Angeles Legal Studies Research Paper No. 2017–19*.

⁷⁴ Treasury 2014, Financial system inquiry, final report, Treasury, Canberra, accessed 22 January 2018, <http://fsi.gov.au/publications/final-report>

⁷⁵ Willis, L. 2015, 'Performance-based consumer law', *University of Chicago Law Review*, vol. 82, no. 1309; *Loyola—LA Legal Studies Paper No. 2014–39*.

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