



The Behavioural Insights Team

Annual Report 2017-18

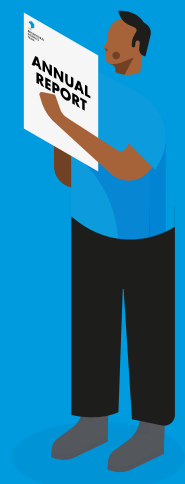
About this report

This report is a summary of the work of the Behavioural Insights Team and its partners from September 2017 to November 2018.

It includes highlights from our six offices around the world – in London, Manchester, New York, Singapore, Sydney and Wellington. We also cover our growing portfolio of BI Ventures, products that draw on behavioural insights to make positive social impact.

More details of our team and its work can be found on our website: **www.bi.team**

If you would like to talk to us about any of these projects, share results of your own, or be involved in a future intervention, please get in touch: **www.bi.team/contact**



Contents

Foreword

Sir Mark Sedwill

Oliver Dowden MP

06 Executive summary

08 Policy areas

08 Consumers and finance

14 Crime, justice and security

20 Education and skills

24 Energy, environment and sustainability

26 Equality and diversity

30 Government and society

34 Health and wellbeing

38 International development

42 Local government and services

48 Work and the economy

52 BI Ventures

54 Our teams

56 London

58 Manchester

58 Singapore

59 Sydney

60 New York

61 Wellington

62 Endnotes

64 BX2019

65 Get in touch



Foreword

Sir Mark Sedwill

Cabinet Secretary and Head of the Civil Service



Any organisation that wants to be a world leader must constantly look beyond itself to learn, improve and innovate. The Behavioural Insights Team was created inside the UK Government and Civil Service to do just that - to draw on research from across the world to apply to policy challenges in the UK. From this springboard, BIT work has itself become world-leading, its approaches emulated both in UK departments and across the world.

It is an approach that BIT continues to embody: outward looking, intellectually rigorous, and actively building effective partnerships for social purpose. This report alone contains results of trials from across eight countries. Many of these trials have been informed by BIT's UK work, expanding the impact of the original interventions and learning. Other interventions, many with international partners, are pushing new frontiers, generating new ideas, interventions and evidence. We can look to these findings, from improved medical adherence for TB treatment in Moldova (more than a million people die from TB every year in the world, many because they fail to complete the treatment), to increased voter turnout in Denver. We can then incorporate the lessons learned into our own service provision and policy, wherever we are.

An outward focus is not only about looking beyond national borders. Sometimes the most serious barriers to more effective policy and practice are the presumptions in our own heads. We need to draw inspiration and insights from across sectors and specialisms, and seek to anticipate new developments on the horizon. The work of BIT, and other behavioural scientists and innovators, can help us break through these mental and organisational barriers, identifying new angles, solutions and partnerships.

The UK, along with many other countries, faces new challenges and opportunities. Looking outwards, being open to new ideas, and building effective new partnerships will be key to our future success. BIT embodies this openness of mind and approach, and we can learn as much from this as we can from the specifics of the practical interventions they continue to develop.

A handwritten signature in dark ink, appearing to read 'M Sedwill'.



Foreword

Oliver Dowden MP

Parliamentary Secretary (Minister for Implementation)



Governments face no shortage of challenges. There is, quite rightly, ceaseless pressure from our citizens to do better. We want prosperity, better schools, to be safe, and to live longer, healthier lives. Addressing these challenges almost always involves understanding human behaviour.

The work of the Behavioural Insights Team has brought fresh thinking and methods into what we do, and how we do it. The Team's latest results range from developing techniques to make the police more resistant to cyber attacks, through to saving lives by boosting the cancer referrals by GPs who currently have unusually low referral rates.

Yet equally important has been the role that BIT has played in changing how we do government. The team has exemplified the wider use of robust testing and trialling in government. Their championing of such approaches started in the UK, but increasingly reaches across the world.

It is a hard thing for a minister, a government, or a public service professional, to say that they aren't sure which approach or intervention will work best. Yet sometimes, this is exactly what we should do. That doesn't mean doing nothing, or being frozen in uncertainty. Rather it means that governments, wherever possible, should test ideas empirically, including variations to see which version works best. This approach also finds voice in the What Works program, over which I have oversight, and the recent rewriting of the Treasury Green Book setting out how policy should be developed and evaluated.

Sometimes the best way forward is not another piece of legislation or government policy. The growth of BI Ventures over the past year illustrates this. For example, building on the Team's work to boost the educational outcomes of young people, they have gone on to develop a platform that can be used by any school and college to more effectively engage parents and pupils, scaling up effective programs at a lower cost. Similarly, BIT's work with the Money Advice Service and with fintech innovators such as Monzo, is helping to identify ways in which privately delivered services can better protect the most vulnerable consumers, reduce debt and increase saving.

We can be proud of the UK's role in pioneering an evidence-based approach to policy formation and service provision, and within it the role played by BIT. Policy and public services need to be built around citizens, not the other way around. When we do come up with promising ideas, we should test them robustly to see what does and doesn't work, before focusing our efforts on scaling those that do work.

A handwritten signature in black ink, which appears to read 'Oliver Dowden'.

Executive summary

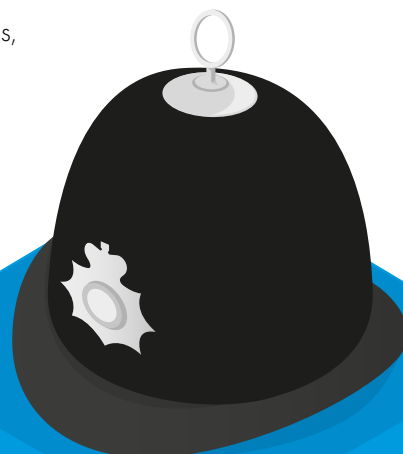
The Behavioural Insights Team exists to improve people's lives and communities. We work in partnership with governments, local authorities, businesses and charities, often using simple changes to tackle major policy problems.

Over the last eight years, the Team has grown from a seven-person unit at the heart of the UK government to a global social purpose company with offices around the world. Our work spanned 31 countries in the last year alone.

Our mission remains the same. We generate and apply behavioural insights to inform policy, improve public services and deliver results for citizens and society. We have a track record of success across a range of policy areas, from healthcare to humanitarian aid, and we increasingly work to scale up our successful interventions.

Our diverse portfolio of projects reflects the complexity of challenges that we address. These include results such as:

- **Tackling tuberculosis in Moldova:** Tuberculosis remains one of the top ten causes of death worldwide. The condition is treatable, but depends on daily medication taken under the supervision of a doctor or nurse, which patients often struggle to keep up. We trialled a virtual version of this supervision to encourage people to complete their treatment. It nearly doubled observed adherence rates from 44 per cent to 84 per cent, increasing the chances of patients making a full recovery.
- **Better deals for energy customers:** Many households don't switch energy provider, even when it could save them money. Working with Ofgem, the UK energy regulator, to send letters to disengaged customers, we tripled switching rates from a baseline of one per cent. Customers who switched after receiving a letter saved on average £50 more than those who switched of their own accord.
- **Strengthening the Metropolitan Police against cyber attacks:** Cyber attacks can have a devastating impact on public services but often start from a simple source: phishing emails. We worked with the Met to help protect their systems, using embedded training. Three months after this one-off, simple intervention, the training was still effective, with police officers 21 per cent less likely to fall for a phishing email.




- Encouraging sustainable food choices:** Our eating habits have a huge impact on the environment. Livestock production accounts for around 14.5 per cent of total global greenhouse gas emissions, directly driving climate change. In an online experiment we found that describing food as 'field-grown' rather than 'meat-free' made people twice as likely to choose vegetarian options. Our partner, the World Resources Institute, has replicated these results in UK cafes, and we are supporting them with a similar programme of work in the US.
- Earlier treatment for cancer patients:** Almost half the UK population will get cancer during their lifetime, but many people are diagnosed late. A series of letters to GPs increased early referrals to specialists by 9.6 per cent. If scaled up in England, this intervention could increase likely survival rates and potentially save the NHS £20m in just six months.
- Increasing public understanding of economics:** We worked with the Bank of England to redesign their inflation report – using simple, relatable visuals – which improved comprehension by over 40 per cent, and increased trust in the information at the same time.
- Boosting early tax returns in Indonesia:** Timely tax revenue is essential for the functioning of government and public services. Working with the Indonesian Tax Authority to contact 11.2 million taxpayers, we ran our largest randomised controlled trial and brought forward the equivalent of USD 1.93 million.
- Encouraging more trainee teachers to work in rural areas:** Teachers play the biggest part in a student's education, but schools in remote or rural areas in Australia often struggle to recruit them. By replacing a paper application form with a pre-filled online version and issuing timely prompts to applicants, we encouraged three times as many trainee teachers to apply for rural placements.

- Helping businesses close the gender pay gap:** We worked with the UK government to publish evidence-based guidance for businesses, helping them to better recognise and unlock the potential of all employees, regardless of gender.



We have now run more than 780 projects to date, including 400 randomised controlled trials in dozens of countries. This year saw the first outputs of our in-house machine learning and Data Science team, applying these approaches to improve public services.

Our growing portfolio of BI Ventures makes behavioural science-backed tools available to a wider range of organisations and challenges.  **Applied**, an online recruitment platform created within BIT to eliminate bias from hiring, has now been used by over 70,000 job applicants.

In addition to our own interventions, we aim to share expertise and support others. Our staff have conducted over a thousand workshops and training courses for governments around the world, training 20,000 civil servants and practitioners in behavioural insights. We have also launched an Executive Education programme with Warwick Business School.

We believe any organisation working to apply behavioural science has a responsibility to be open and transparent. We publish our work in detailed briefings on particular policy areas, in peer-reviewed academic publications, and through regular blog posts on our website.

 Read more at www.bi.team

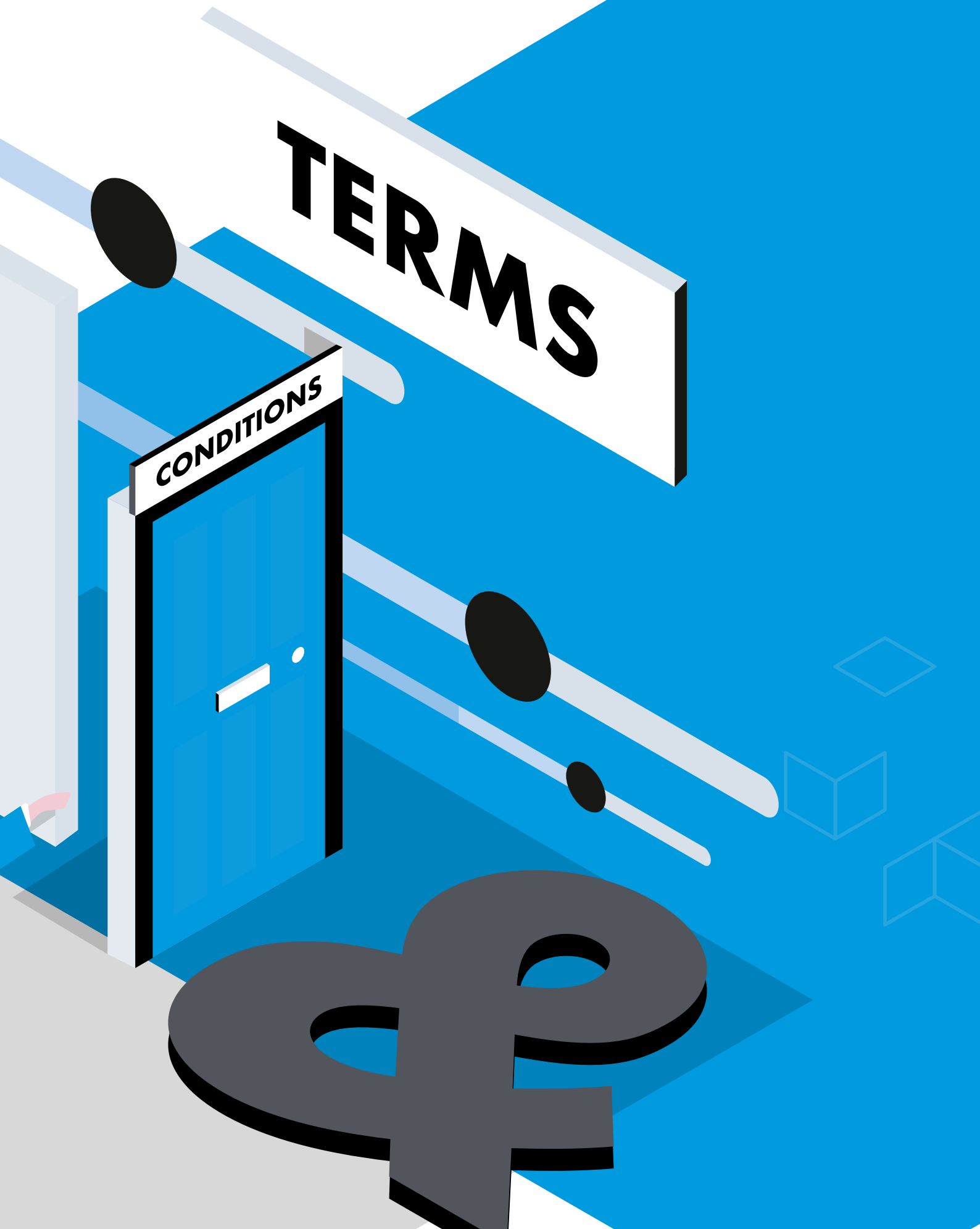
1. Consumers and finance

Consumer markets have changed dramatically over the past decade, with widening gaps between the best and worst value deals in regulated markets, and technology and big data changing what we buy, how we buy it and from whom.

This year we've worked with governments, regulators and industry on how to design markets to deliver good value, meaningful choices and quality for consumers, and to understand the evolving character of markets themselves in the digital age. In particular, we've supported the UK Government to set out their vision for 'Modernising Consumer Markets'¹, considering how to shape markets to fundamentally change the incentives on firms, improve consumers' understanding of online terms and conditions and tackle the 'sludge' in subscription traps.

The results from the first phase of our Financial Capability Lab partnership with the Money Advice Service, published in May, highlight ideas to help people save, manage credit and seek financial guidance at timely moments. Our work on helping people plan for retirement continues globally.






Encouraging consumers to switch to better energy deals

Energy markets around the world have increasingly been opened up to competition, but many consumers remain disengaged and continue to pay significantly over the odds for their energy.

In the UK, we've supported the energy regulator, Ofgem, to design and test communications to improve customer engagement and increase switching rates. Together we launched and evaluated a large-scale trial with nearly 150,000 customers, testing a series of personalised letters that showed households how much they could save by switching energy provider and including the top three deals in the market for them.²

Within 30 days, the letters effectively tripled switching rates from a baseline of one per cent. The quality of these switches also improved – customers who switched after receiving a letter saved on average £50 more than those who switched of their own accord. This demonstrates the potential of these market interventions not just to prompt action, but also to help consumers to make better decisions. A recent Ofgem trial, where BIT provided quality assurance support, found that letters offering customers an exclusive tariff and personalised support from a third party price comparison service (a 'collective switch'), resulted in eight times as many customers switching, from 2.6 per cent to 22.4 per cent.³

In Australia, too, there has been renewed debate about energy markets. New rules mean retailers must notify consumers by letter once their introductory discounts expire, the aim being to encourage them to use the government comparison website (Energy Made Easy, or EME) to compare alternative plans. We worked with the Australian Energy Regulator to run an online randomised controlled trial on  **Predictiv** to test the best way of framing the letter. We found that a headline that focuses on loss aversion ('you are about to lose your discount') was most effective. We also helped develop the design for standard information documents.

Our findings have fed directly into the design of the regulations. The notice letters will have to state that a consumer is 'losing' their discount and also include other behaviourally informed concepts – for example, by providing all the information that a consumer needs to use EME, in a standardised format that matches the EME website.

These trials and experiments have provided valuable insights into what drives effective consumer engagement, which we will continue to apply – with regulators around the world – to other regulated markets like telecoms, water, insurance and mortgages.

“Within 30 days, the letters effectively tripled switching rates.”



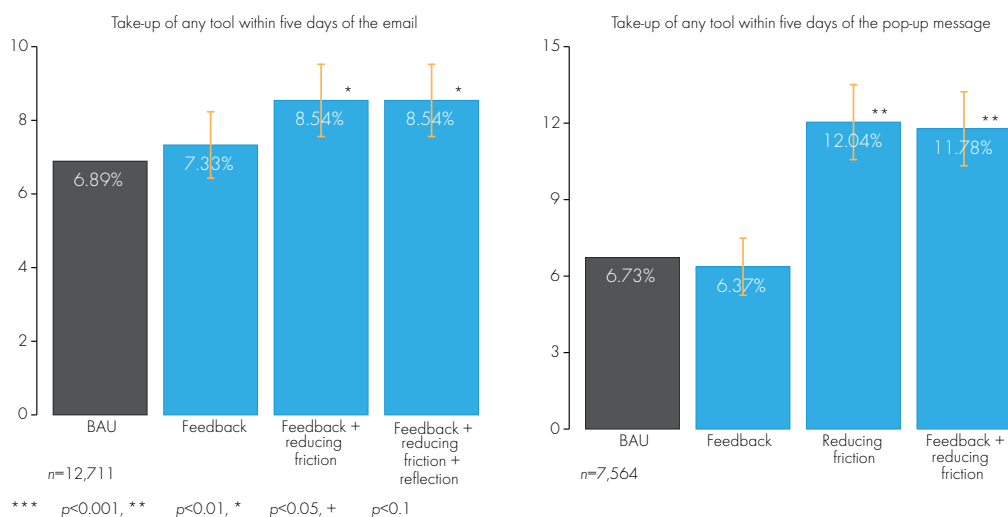
Reducing risky play in online gambling

The rise of online gambling means that placing a bet is only ever a few clicks away. While a majority of gamblers continue to play safely, for others increased accessibility poses a risk of financial, social or health-related harm.

We sought to understand which behavioural influences might be most relevant to online gambling, as part of the GambleAware remote gambling research programme. In our qualitative research, gamblers told us that the nature of online sites can encourage them to become engrossed in their play, and that money spent online doesn't 'feel real'.

This work culminated in launching some of the first online randomised controlled trials in partnership with gambling operators, Sky Betting & Gaming and bet365. We trialled behaviourally-informed messages to increase the uptake of responsible gambling tools by making them easier to access (i.e. reducing 'friction'), and informing the player that their gambling behaviour is riskier than other people's (i.e. 'social norms'). For players on both websites, we found that reducing friction increased the number of players setting deposit limits and setting a cool-off period. On the other hand, our social norms condition did not prove effective (Figure 1).

Figure 1: Encouraging uptake of responsible gambling tools



Increasing credit card repayments

Minimum repayments – a regulatory requirement in the UK and many other countries – are typically featured prominently on credit card statements. The minimum repayment in the UK is designed to protect consumers from spiralling debts, but can also act as an anchor that leads to lower repayments, over time increasing the cost of credit cards as they accumulate more interest.

Through our Financial Capability Lab partnership with the Money Advice Service, we tested a slider-based repayment interface to help people counteract some of this effect. Sliders are commonly used across the financial sector to help consumers decide how much they would like to borrow. We wanted to see if they could also help consumers decide how much of their credit card bill to repay.

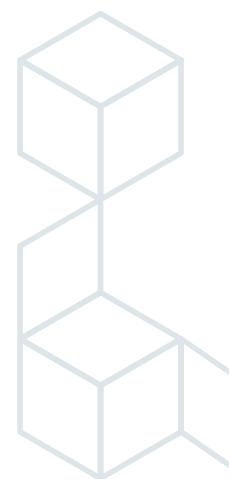
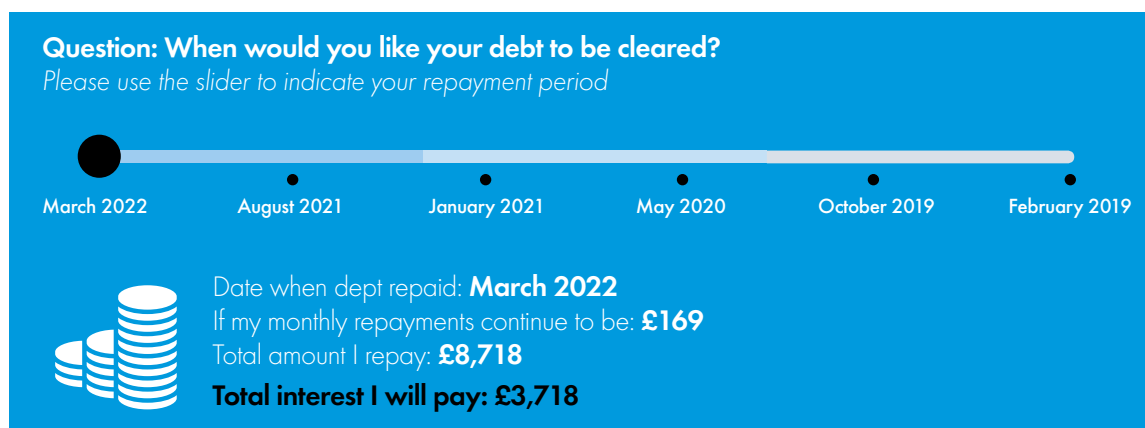



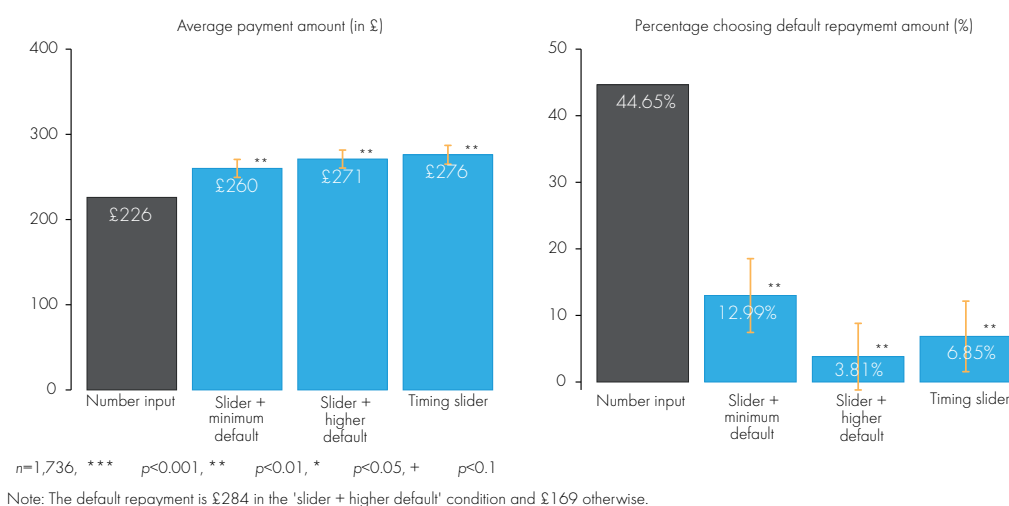
Figure 2: The repayment date slider interface



In an online experiment using  **Predictiv**, we randomly allocated participants to one of three slider interfaces: a monthly repayment slider that was defaulted to the minimum repayment; a monthly repayment slider defaulted to a higher repayment; and a time-based slider that asked people 'When would you like your debt to be cleared?' (Figure 2). On all sliders, participants could see the total interest paid and time taken to clear the debt being automatically updated.

We asked participants to make decisions on what they thought they *would* repay, and what they thought they *should* repay. Our results showed a significant increase in repayments on both decisions, and a significant drop in the anchoring effect of the default, both when this was the minimum repayment and when it was a higher amount (Figure 3).

Figure 3: Impact of slider interface on debt repayments



Relative to the control, the minimum monthly repayment slider increased repayment amounts by 15 per cent, the higher monthly repayment slider by 20 per cent and the repayment date slider by 22 per cent. The proportion of participants sticking with the default repayment amount was significantly lower for all slider conditions than for the control condition where the default repayment amount had been pre-entered.

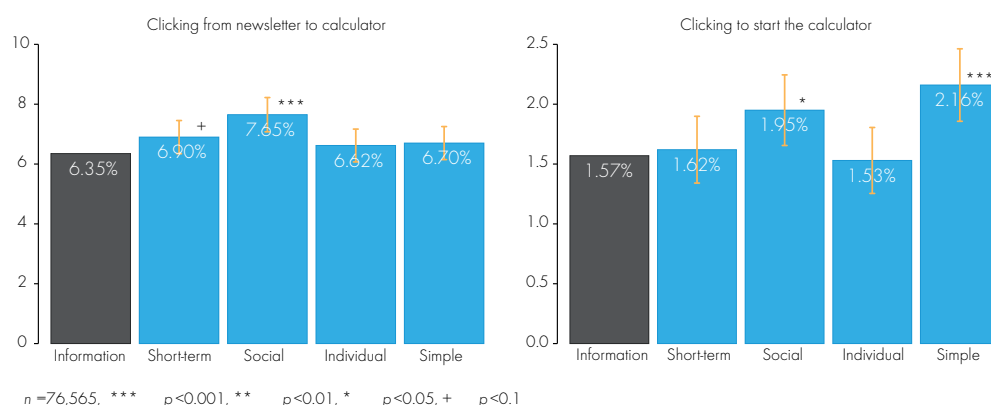
UK consumers alone hold £70 billion in outstanding debt across more than 30 million credit card holders.⁴ We are seeking partners to test with many more of those 30 million card holders whether sliders are an effective tool to reduce their credit card debt.

Helping people plan for retirement

Although retirement planning is a key step towards achieving financial security, making a retirement plan is often a challenge. In Ontario, Canada, 54 per cent of pre-retired people aged 45 or older have no financial plan for their retirement, and only 14 per cent have a formal, written plan.⁵ We partnered with the Investor Office of the Ontario Securities Commission to explore how insights from behavioural science can shed light on what keeps people from making retirement plans and what public and private sector organisations can do about it.

We identified nine behavioural barriers to creating a retirement plan and 30 potential interventions and strategies to address them. We also tested messages to encourage people to access the Canadian Government's online Retirement Income Calculator. Recipients who were told to 'Picture who you'll spend time with in retirement' were 20.5 per cent (1.3 percentage points) more likely to click through to the online retirement calculator than recipients simply told to 'Prepare for your retirement'. This message also out-performed ones focused on the short-term benefits of retirement planning, the activities people could do after retirement, and the simplicity of completing a retirement plan (Figure 4).

Figure 4: Engagement with online retirement calculator



These results, which the Ontario Securities Commission and others are taking up, demonstrate the potential of socially-focused messages to make the future feel nearer and more relevant, a challenge that permeates many aspects of government policy.

What next

We are working with the Money Advice Service to take the Financial Capability Lab into the field, testing up to six of the most promising ideas about managing personal finances. We will be working with the UK challenger bank Monzo, and up to five other UK financial institutions which range from large retail banks to pension providers. We'll also be testing ways to boost savings amongst lower income households and vulnerable consumers, specifically young people leaving the care system, through our partnership with MyBnk, Settle and the JPMorgan Chase Foundation.

The first phase of our GambleAware work has demonstrated that there are simple steps operators can take to improve access to responsible gambling tools. We will continue partnering with operators to test ambitious and impactful solutions that reduce problem gambling.

In early 2019 we'll publish results of our collaboration with the UK Department of Business, Energy and Industrial Strategy – testing ways to improve consumers' understanding of online contractual terms and privacy notices. That project is part of our growing focus on the role of behavioural insights in evolving markets and the challenges ahead as digital markets become increasingly central to consumers' lives.

2. Crime, justice and security

Our societies rely on effective criminal justice systems. But security services around the world face an array of rapidly evolving challenges, from cyber crime to terrorism.

To tackle these complex areas of policy we need to think about methods beyond our existing punitive systems. Our work to date has helped to deter crime, improve trust in policing, and tackle domestic violence.

This year, we report on the design of email-based training to increase police resilience to cyber attacks; a novel approach to improve the take-up of services designed to prevent reoffending; supporting efforts to tackle domestic violence; and scaling our work with traffic police.

Strengthening the Metropolitan Police against cyber attacks

Many of the world's most disruptive cyber attacks have a simple culprit: phishing emails. Since 2017, we have partnered with the Metropolitan Police Service to try to reduce its susceptibility to phishing attacks.

Together we created three types of preventative training. The first drew on advice from the Centre for the Protection of National Infrastructure ('CPNI email'). The second was based on BIT's own research and used simple rules of thumb for how officers could avoid phishing attacks ('BI email'). The third used the same content as the BI email, but the content was delivered following a mock (i.e. non-malicious) phishing email. If officers clicked on the link in the mock phishing email and submitted their login credentials on a mock landing page, they would then be presented with the BI anti-phishing training ('BI embedded training'), creating a 'teachable moment'.

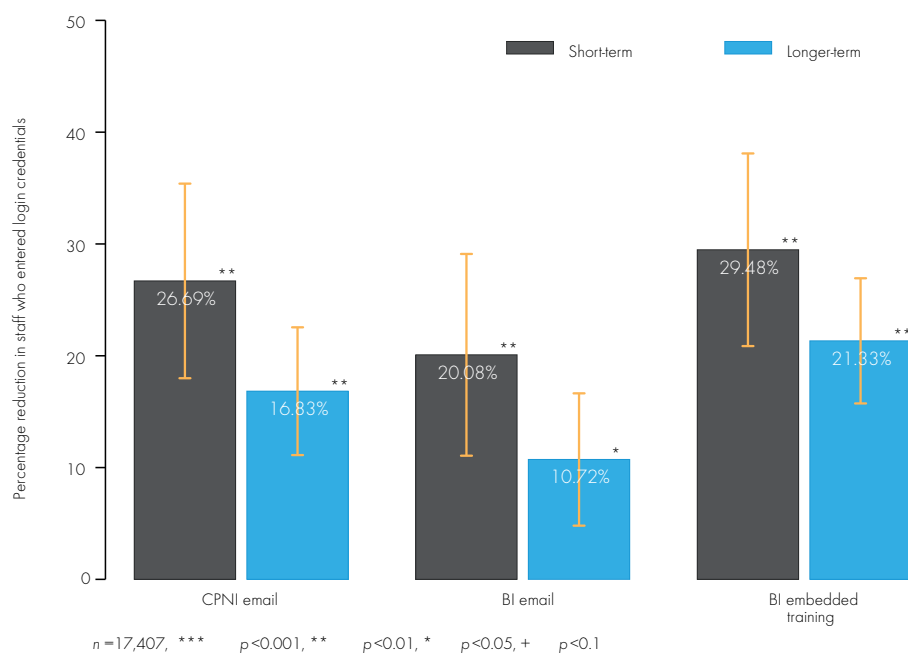
We randomly allocated more than 17,000 officers in 25 boroughs and six specialist units to receive either one of the three types of training or no training (control).

To evaluate impact, we sent mock phishing emails (closely resembling actual phishing emails from past attacks) to those officers three weeks (short term) and three months (longer term) after the training was delivered. We then measured whether officers clicked on the link in the mock phishing email and submitted their login credentials on the mock landing page.

We found that all three types of training were effective at reducing, although not eliminating, the number of officers who clicked on the link and the number of officers who submitted their login credentials (Figure 5). The training was still effective three months later.



Figure 5: Reduction in staff entering login credentials



Note: graph shows per cent reduction (higher=better)

Helping repeat offenders make a fresh start away from crime

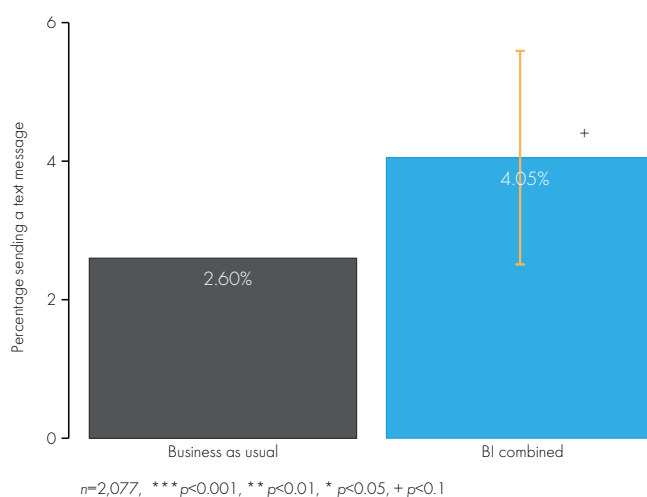
People's hopes and motivations are higher around 'fresh start' events such as birthdays and the beginning of a new year, or even a new week. We wanted to test whether we could use this insight to encourage prolific offenders to seek help to change their behaviour.

In partnership with the West Midlands Police and the Dawes Trust, which funds cutting-edge research in criminal justice and enables us to test more unusual interventions, we asked former offenders to write birthday cards to known prolific offenders in the West Midlands. These cards highlighted this birthday as a chance for a fresh start away from crime, and invited recipients to text a phone number for support.

We randomly assigned 2,077 offenders to receive either a handwritten birthday card which included details of support services available to prolific offenders, or a letter from the West Midlands Police on a random date which advertised the same service.

We found that the offenders in the 'fresh start' condition were 56 per cent more likely to respond to the offer of support (Figure 6). We will also measure the impact of the fresh start message on future criminal behaviour and will report those results in 2019.

Figure 6: Offenders responding to offer of support





“People’s hopes and motivations are higher around ‘fresh start’ events such as birthdays”

Reducing domestic violence

One in every three women in a relationship has experienced physical or sexual violence at the hands of a partner.⁶ In 2017, 30 people died as a result of domestic violence in New South Wales (NSW), Australia, and on average, 20-25 per cent of domestic violence defendants fail to attend court on their appointed hearing day, putting victims' safety at risk and wasting court and police resources.[†]

We worked with the NSW Department of Premier and Cabinet's Behavioural Insights Unit and the NSW Department of Justice to run a trial to increase court attendance for domestic violence cases. SMS reminders can be particularly valuable if effectively timed, so we tried sending a simple message to defendants the day before their court appearance.

'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'

We tested this in a randomised controlled trial across five local courts, with a total sample size of 4,388 defendants. The SMS led to a 4.1 percentage point (or 23 per cent) reduction in non-attendance. The reminders also significantly reduced the time taken to finalise each court case, from 74 to 69 days. In addition, we observed a modest but not statistically significant drop in domestic violence reoffending or breaches of Apprehended Domestic Violence Orders between the two groups. In the control group, 5.7 per cent of individuals committed another domestic violence offence within six months of their court appearance, while five per cent of individuals in the text message group did so.

These reminders are now being automated and will be scaled up across NSW in 2019.

“One in every three women in a relationship has experienced physical or sexual violence at the hands of a partner”



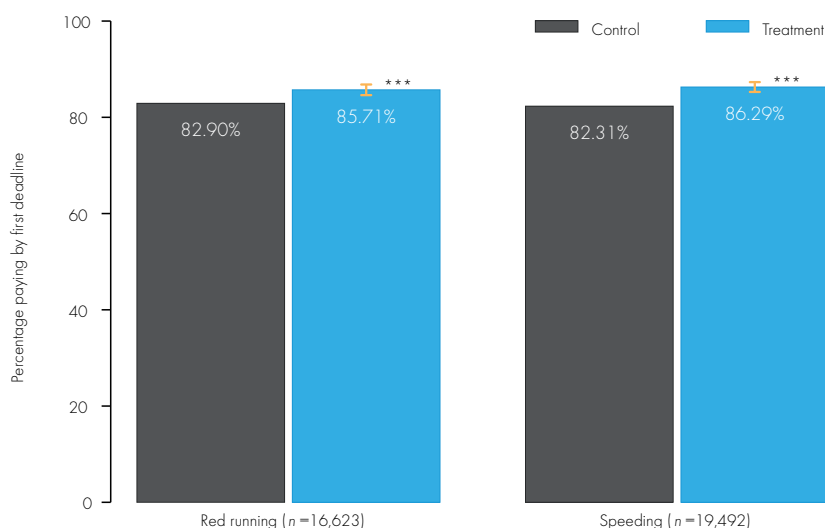
Supporting traffic police to keep roads safe

In Singapore, 10,000 people are caught speeding or running red lights each month. Paying fines promptly benefits both offenders and the traffic police: appeals and court settlements bring much higher costs in terms of money, time and anxiety. We partnered with the Singaporean Ministry of Home Affairs to simplify the current traffic offence notice, make clearer how to pay the fine, and emphasise the potential consequences.

We ran a randomised controlled trial with over 36,000 individuals and found the redesigned notices significantly increased payment rates (Figure 7). We saw a decrease in court settlements and warrants of arrest, leading to substantial savings.

Singapore's traffic police have now scaled up this approach, applying the same letter to all traffic offences. Comparing the outcomes when scaled up with both the treatment and control group in the original trial, we find the effects are consistent with the original experiment. We are often asked about the persistence of our impact at scale; in this case we find that redesigned notices continued to significantly increase payment rates.

Figure 7: Red-running and speeding fines paid on time



*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$

What next

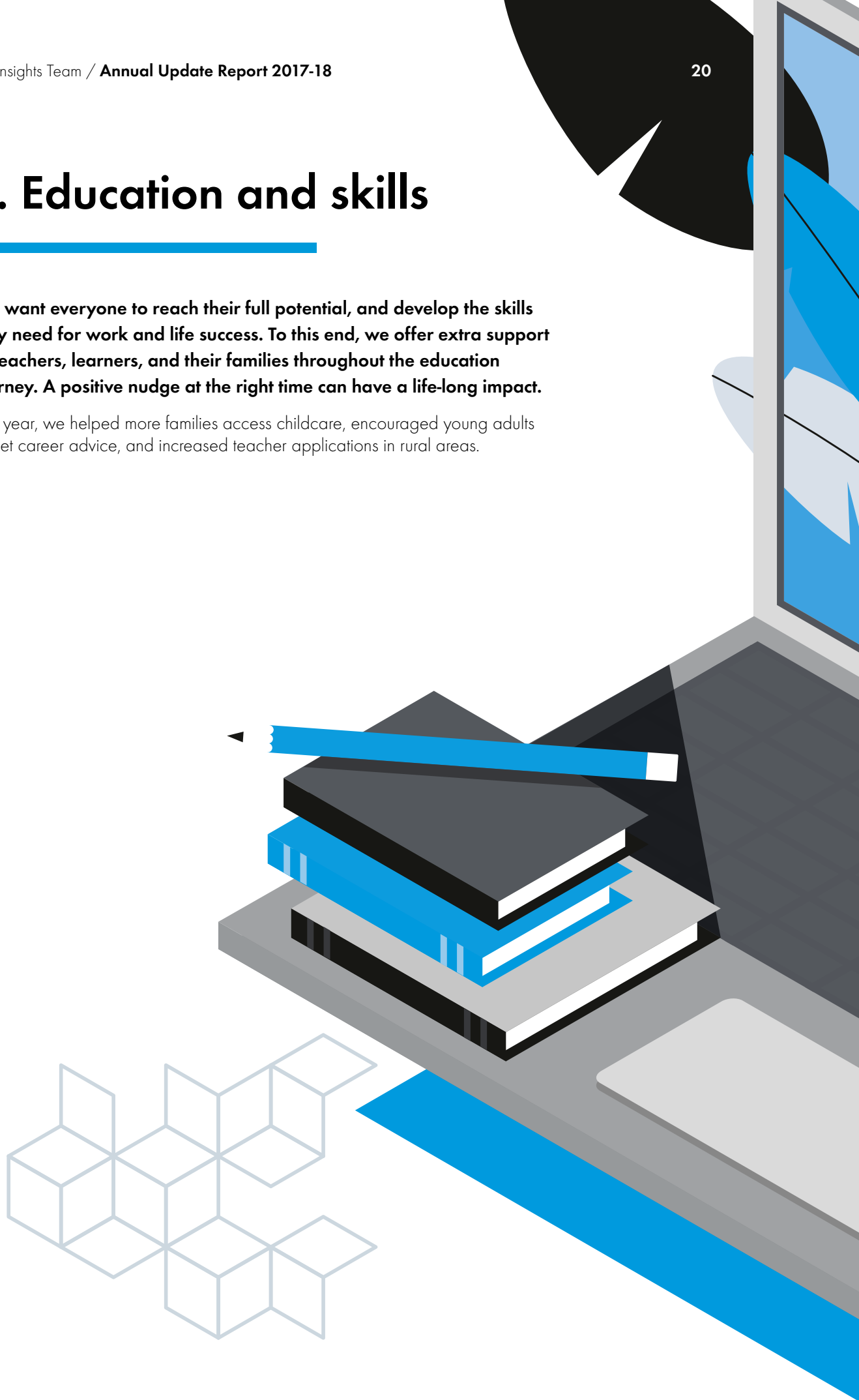
Alongside our work with the Metropolitan Police, we continue to expand our work in cybersecurity and fraud. We are excited to be working with HSBC UK Bank to fight social engineering fraud and, in 2019, we hope to launch what we believe will be one of the first field trials to test the effectiveness of anti-fraud messaging on an online banking platform. We have also partnered with the Department for Digital, Culture, Media and Sport, the National Cyber Security Centre, Nominet and the Federation of Small Businesses to explore how small businesses can be encouraged to keep website software up-to-date and secure. We expect to launch a trial involving thousands of UK businesses in early 2019.

We are pleased to be continuing our partnership with the West Midlands Police to help address increases in violent crime in the force's area.

3. Education and skills

We want everyone to reach their full potential, and develop the skills they need for work and life success. To this end, we offer extra support to teachers, learners, and their families throughout the education journey. A positive nudge at the right time can have a life-long impact.

This year, we helped more families access childcare, encouraged young adults to get career advice, and increased teacher applications in rural areas.





“Career advice gives people the confidence and knowledge they need to find work”

Encouraging take-up of affordable childcare

Making sure everyone has access to affordable childcare is one way the government aims to help working families. Tax-Free Childcare (TFC) allows parents to manage their childcare costs, while also receiving a contribution from the government. For every £8 parents pay into their TFC account, they receive an additional £2 from the government.

Following a series of interviews with parents, we developed four letters to address common concerns and boost application rates. One letter sought to counteract present bias – the tendency to focus only on immediate costs and benefits – by encouraging parents to think about the long-term benefits of a return to work. Another highlighted the advantages for children, the third encouraged parents to tell their friends and family about the offer, and the fourth included a checklist of items needed to complete the online TFC application form.

We compared these variants against one another, no communication at all, and the standard letter sent by the government. The results suggest that providing parents with a checklist of items needed to fill out the online form is most effective. This practical information increased the number of completed applications for TFC by 13.2 per cent, when compared with families who received the standard letter. If everyone in the trial had received the best performing letter, an extra 1,784 parents would have completed an application for TFC.

Increasing attendance at careers appointments

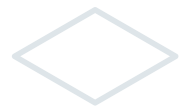
Career advice can give people the confidence and knowledge they need to find work. The Education Development Trust provides face-to-face careers advisory services to adults in the UK as part of the UK Government’s National Careers Service. Unfortunately, around 30 per cent of people who book appointments do not attend, meaning valuable resources are wasted.

We worked with the trust to increase attendance at career advisory appointments, using text messages because of their low cost and accessibility.

We compared three different text reminders to each other and to the status quo of receiving no message. One reminder was an information-only message. The other two were behaviourally-informed messages, one focused on attendance planning and the other on self-efficacy, aimed at helping recipients believe in their own ability to achieve their goals.

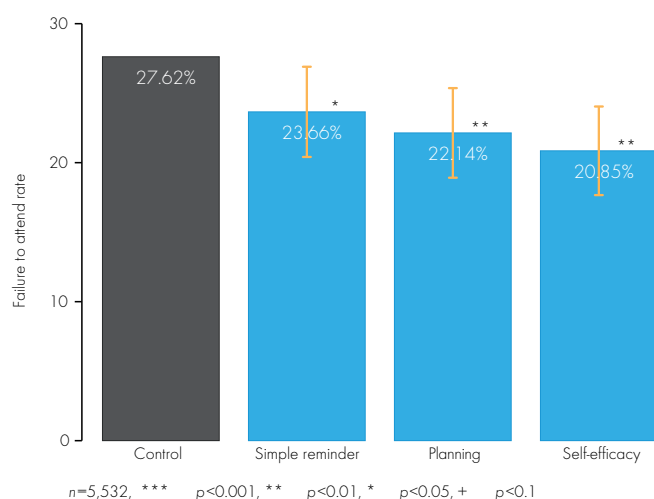
‘Hi Sarah, no one is born with a perfect career. Time & effort can boost your skills & CV. We’ll help you get started tomorrow at 10:00. Tom (National Careers Service)’

We found that all three text messages significantly increased attendance, but the most effective message was the self-efficacy message (Figure 8). Compared with those who received no message, the self-efficacy group were 24 per cent less likely to miss an appointment; a seven percentage point decrease from approximately 28 per cent to 21 per cent.



We estimate that the texts prevented 254 appointments being categorised as 'Failed to Attend' over this two-month period. Over the course of a year, this could mean that about 1,500 more people show up to career appointments to receive potentially life-changing advice.

Figure 8: Failure to attend career appointments



Tackling teacher shortages in rural areas

It is a constant challenge to attract teachers to rural and remote Australia. However, teachers are more likely to work in rural schools if they have already completed a rural placement during their teacher training.

Alongside the New South Wales (NSW) Department of Premier and Cabinet Behavioural Insights Unit, NSW Department of Education, and three universities, we ran a set of trials to encourage trainee teachers to apply for teaching placements in rural New South Wales.

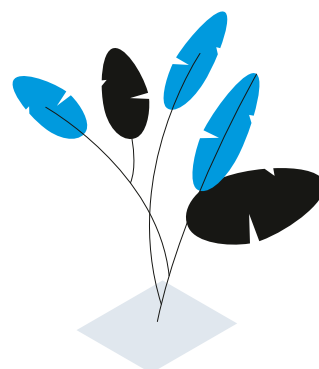
To overcome some of the 'friction' in the application process, we made it easier to apply for rural placements by replacing the paper application with a partially pre-filled online form and increasing the number of rural schools that could be selected for students' placements. We also tested a series of prompts, including: extra information about rural schools; encouragement to discuss the idea with family and friends; and a timely reminder before applications closed.

Three times as many trainee teachers applied when these prompts were introduced. The online application process is now the standard and the School of Education at the University of Wollongong is using the lessons learned to trial new communication tools and framing. As teachers are the biggest influence on students' outcomes, this could make a real difference to the lives of learners in rural Australia.

What next

Next year we will run interventions at all stages of education. We will test a preschool curriculum for parents, delivered via SMS, to promote early reading, maths and socio-emotional skills. At GCSE level, we are testing software to diagnose the root causes of students' maths mistakes and help teachers tailor support.

Fewer girls take STEM subjects (science, technology, engineering and mathematics) at A-levels than boys. We are testing interventions to boost the perceived value of STEM subjects and tackle barriers that young women may encounter.

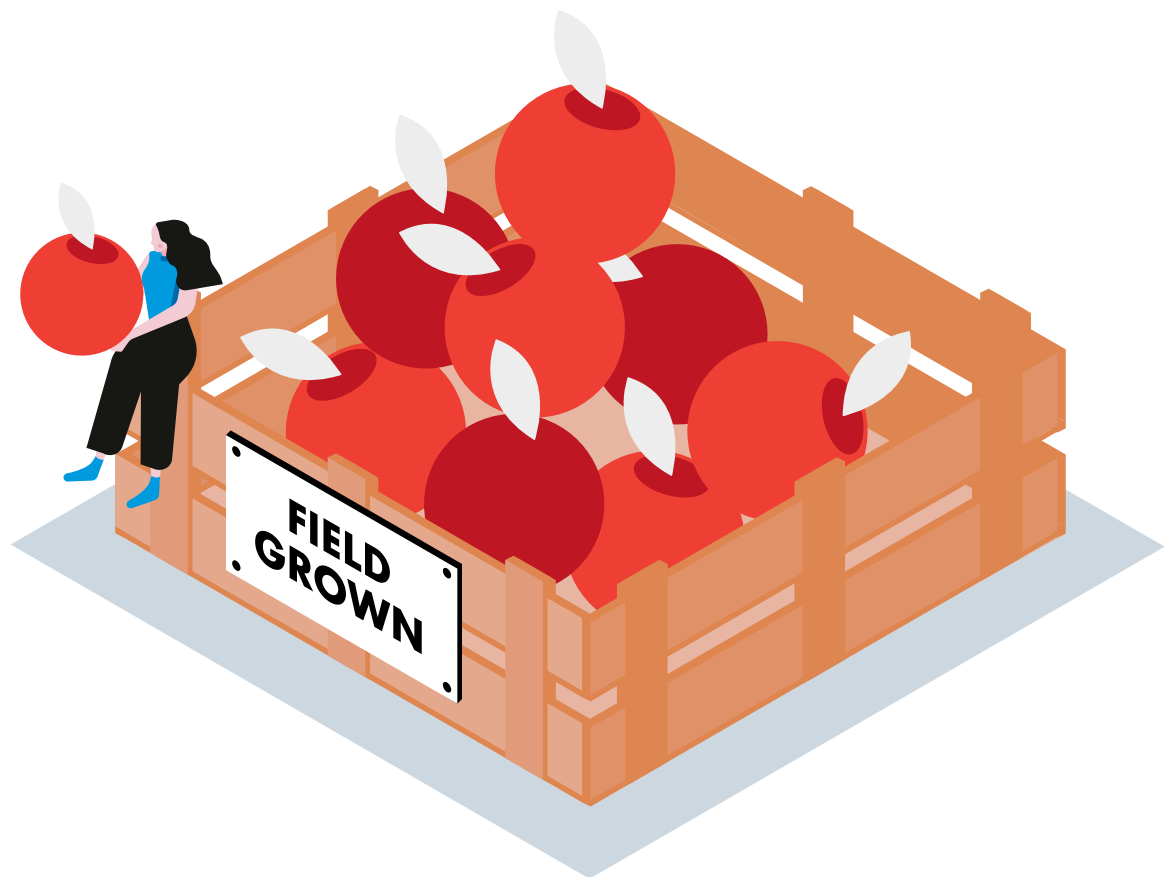


4. Energy, environment and sustainability

Plastic pollution in our seas. Species going extinct in record numbers. Time running out to act on climate change. Society is increasingly aware of the threats human behaviour poses to our planet and future.

Behavioural issues underpin many of these challenges. We all have a part to play in reducing our personal impact, but we must also work with business and governments who have greatest power to effect change.

This year our focus on sustainable behaviour has covered domestic energy use, cleaner transport, sustainable diets, and the illegal consumption of ivory and other wildlife products.



“Early results suggest ‘field-grown’ is a good alternative to ‘meat-free’”

Promoting sustainable diets

One lifestyle choice in particular is now recognised as a major part of the problem: our food. Livestock production for meat and dairy is a disproportionate contributor to greenhouse gas emissions, deforestation (to make way for grazing land), freshwater use (for irrigation), and pollution of our waterways (from fertilizers and other chemicals).

In theory, our diets and eating habits can be easily changed. In practice, it is an emotive, difficult subject – rooted in culture, identity, strong personal tastes, and an aversion to being told what we should eat. That's why in the coming months we are publishing a major new report on applying behavioural insights to sustainable diets, looking at what does and doesn't work, but also reflecting on the rationale for government intervention. It's a sensitive subject, but a debate we think needs to be had.

This year we also worked with the World Resources Institute's Better Buying Lab to explore how language might be used to encourage non-vegetarians to choose plant-based options from cafe and restaurant menus. Would you rather eat a 'meat-free breakfast' or a 'feel-good fry-up', for instance?

We co-designed and ran an online experiment testing the impact of different names across a variety of plant-based menu items. Our early results suggest 'field-grown' is a good alternative to 'meat-free' and, in general, more indulgent names outperform conventional terminology for vegetarian meals.

The World Resources Institute have since replicated these results in UK cafes, and we are now supporting them with a similar programme of work in the US.

Improving air quality on the UK's strategic road network

Poor air quality is estimated to cause 40,000 deaths per year in the UK, with vehicle emissions and particulates from brakes and tyres a major contributor. Efforts are underway to change the UK's long-term transport infrastructure – including a ban on petrol and diesel cars from 2040 – but that leaves a need for short-term strategies to clean up our air now.

This year we worked with Highways England to look at the current choices and behaviours of road users. We studied existing literature on transport choices, vehicle purchasing decisions and driving styles to identify behaviours with the potential to contribute to cleaner air on the strategic road network. We developed a number of potential interventions, including novel ways to support and encourage driving styles which reduce pollutants.

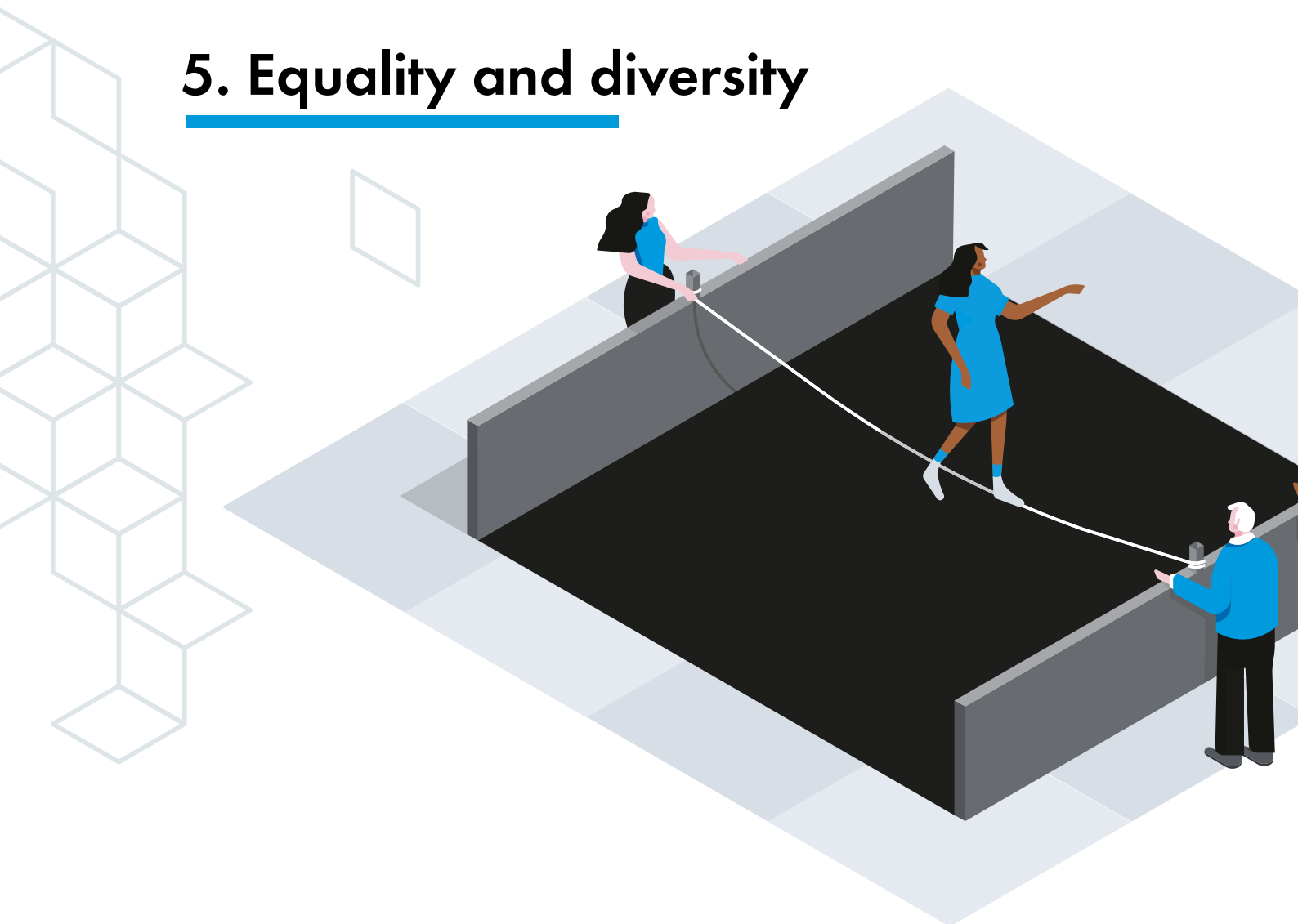
In a similar vein, the government recently consulted on green number plates for electric cars – an idea we support and provided early advice on. Electric cars are becoming increasingly popular in the UK, but are often indistinguishable on the roads. Making them more obvious might have subtle benefits to the way we perceive them, since we tend to gravitate towards choices which feel familiar and which we perceive as normal.

What next

In addition to the work on sustainable food mentioned above, in the coming year we will be significantly expanding our conservation work, aiming to help address the consumption of illegal wildlife products in parts of South-East Asia and Africa. We will also continue to support the UK's Department for Business, Energy & Industrial Strategy in the rigorous evaluation of energy-saving technologies, as well as delve into topics newer to us, including the impact of nature-based interventions on the health and wellbeing of children and disadvantaged groups.

And, in the coming year, we will be publishing more of our behaviourally-informed ideas to tackle air pollution.

5. Equality and diversity



We work to improve gender equality and tackle discrimination across society, at home and in the workplace. This year, thousands of businesses across the UK reported their pay gap for the first time – but they now need tools to address it.

In the UK, we have partnered with the Government Equalities Office (GEO) and a growing number of employers to improve our understanding of what works to increase gender equality and reduce the pay gap between men and women.

This year we have also broadened our work to look at gender norms, as well as discrimination against people on the grounds of sexuality or transgender identity. Across the world, our teams work to promote diversity and inclusion more broadly in organisations and society.



Building diverse police forces


Police departments across the US are working to recruit more diversely, in an effort to better reflect the communities they serve as well as to increase police numbers. With funding support from Bloomberg Philanthropies, we worked with police departments in 21 cities to understand what motivates people to pursue careers in policing, and to test whether alternative messages, informed by behavioural insights, could attract a more diverse pool of candidates.

We sent postcards to potential applicants to encourage them to apply. As policing has traditionally been promoted as a public service job, we tested pro-social framing that highlighted the chance to help people in the community. Our other trial arms included messages emphasising alternative attractions of the occupation, such as the challenge of the job, or the opportunity it offered as a long-term career.

We found that messages focusing on these alternative attractions were often more effective overall – especially for candidates in underrepresented demographic groups, such as women or people of colour – than messages emphasising the pro-social benefits. However, no single message worked best across all geographies for a specific demographic – showing that local context is key.

These results suggest that if police forces want to increase diversity, they may have to recruit differently – not just more widely – than they have in the past.

Reducing bias in the hiring process with Applied

 **Applied**, BIT's first spin out, is a people platform focused on using behavioural and data science to improve hiring decisions. Applied uses (and conducts) research to design products that help teams to hire in ways that are smarter, fairer and more diverse. Since its launch in 2016, 70,000 candidates have applied for jobs through the platform, which involves being tested on job-relevant tasks rather than CVs or pedigree.

In the past year, Applied has expanded to service over 60 organisations – including government departments in the UK and abroad, start-ups, and large corporates like Hilton, Penguin Random House and GroupM – and recruited for an array of jobs ranging from product managers to ministerial speechwriters, interns to chief marketing officers. In addition to scaling the platform and successfully securing venture capital backing, 2018 saw the Applied team expand its product into better interviews and tools to improve the inclusivity of the language used in job descriptions, amongst other things.



How to tackle the gender pay gap

Many employers are trying to improve their gender pay gap (GPG), but do not know where to start, or what to prioritise.


This year we produced evidence-based guidance outlining actions employers can take to improve their pay gap and gender equality more broadly. The guidance helps employers to de-bias their HR policies by highlighting evidence about which actions work, and which do not. The guidance classifies actions into three categories – ‘effective’, ‘promising’, or ‘mixed results’ – depending on whether approaches have been shown to work, or require further research before they can be recommended more widely.

Our guidance has been published by the UK government⁷ and widely shared by employers and industry groups.

Improving public understanding of companies’ pay gaps

This year the UK government became the first in the world to require companies with over 250 employees to publicly report their annual GPG figures. But for this reporting to effectively hold companies to account, the information needs to be presented in a clear and meaningful way.

We worked with GEO to test alternative ways of presenting GPG figures to affect comprehension and public attitudes; we wanted the public to be able to distinguish between companies with a large GPG and those with a small GPG.

We ran an online randomised controlled trial using BIT’s  **Predictiv** platform. We tested four different ways of presenting GPG figures, including charts and illustrations, against simply presenting them as percentages.

We found that using an illustration of coins was the most effective way of presenting information: people rated companies with low GPGs more positively than those with higher GPGs. Trial participants also understood the meaning of GPG figures better when information was presented in monetary terms. GEO has updated their online viewing service in response to our findings.

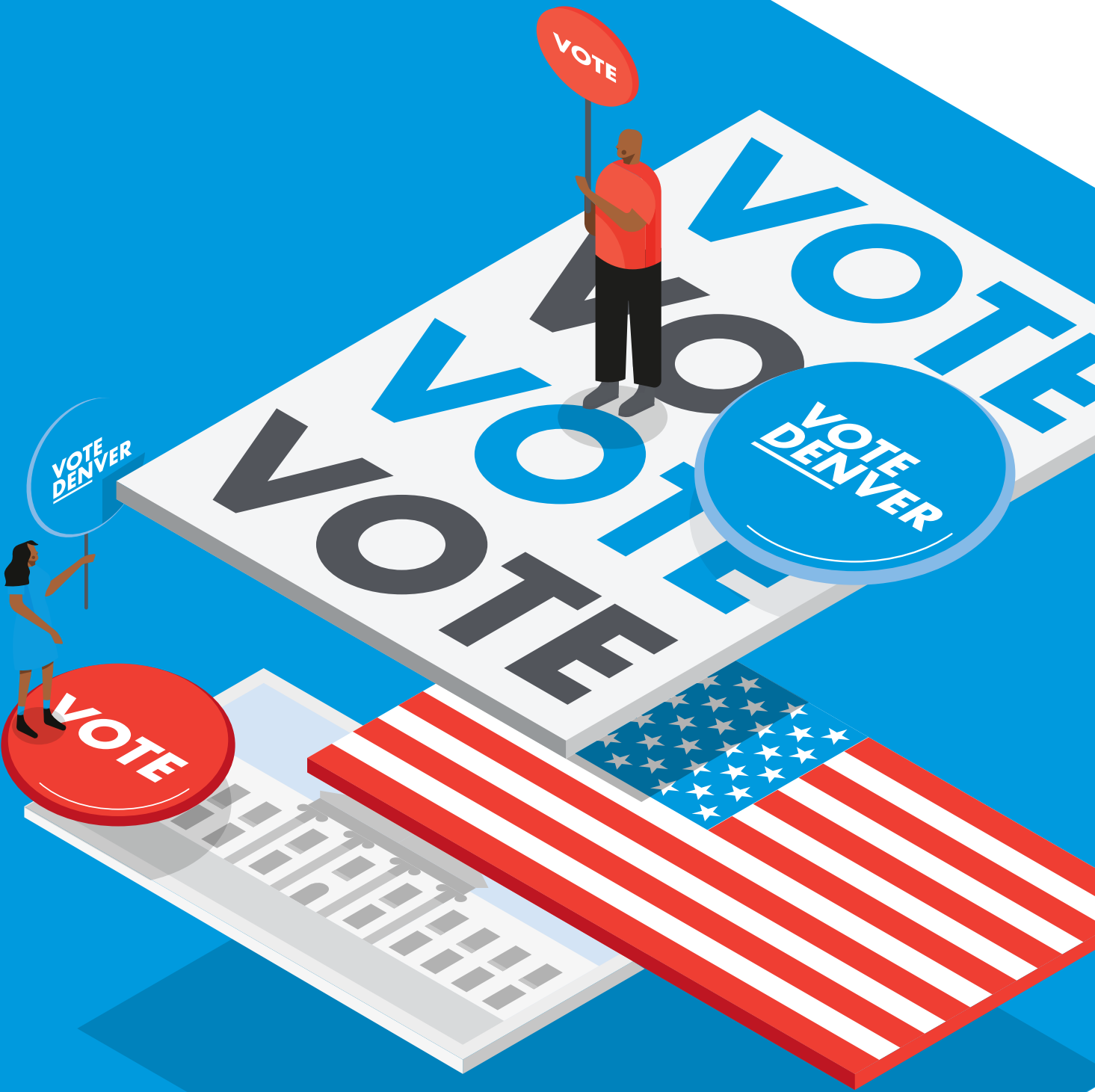


What next

In the coming year, we will continue our partnership with GEO in the UK. Our trials will be cutting edge, building the evidence base for what works to improve gender equality. We will be working with several large UK employers, including Zurich and Citibank, to investigate the causes of the GPG. Our trials will then tackle the gaps we find: across recruitment, pay and reward, promotion, progression and retention.

In Australia we will continue our work with VicHealth and the Victorian Department of Health and Human Services on bystander inaction after incidents involving sexism or sexual harassment. In two trials in universities, we are seeking to increase the number of people who intervene in support of people on the receiving end of these unwanted behaviours.





6. Government and society

Strong societies depend on the connections between citizens and government. Since the Team's creation, we have worked to embed a clearer understanding of human behaviour at the heart of policymaking, while also helping people make better decisions for themselves.

This year we looked at the untapped potential to foster better links between groups in our society, such as helping new arrivals settle into their communities, or supporting people struggling with loneliness.

Much of our work to date has focused on how citizens behave and interact with government and public services. While that work continues – for example, our trials in the USA to increase voter turnout – this year we turned a behavioural lens onto government itself, to understand how we might overcome bias in policymaking.

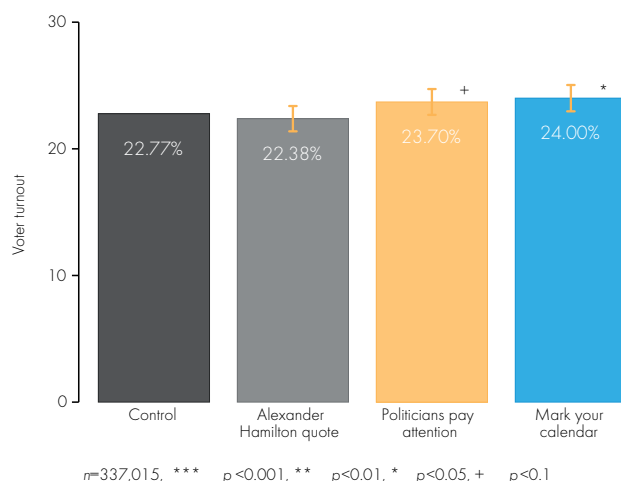
Increasing voter turnout in Denver, Colorado

We worked with Denver's Election Division to increase voter turnout at their 2017 City and County election. We tested three postcard designs, each with a peelable 'I voted' sticker that recipients were told would encourage their friends, neighbours, and colleagues to vote if they wore it. We also tested a different behavioural insight on each postcard.

The first emphasised the individual's connection to their broader community, making clear the link between their vote and their community being listened to. The second used the idea of a planning prompt to ask recipients to make an implementation intention. And the third employed the 'messenger effect' to highlight that voting is a normatively good behaviour by sharing a quote from Alexander Hamilton.

We found the postcards to be effective at increasing voter turnout (Figure 9). The card with the Alexander Hamilton quote on it had no effect, but the 'politicians pay attention' message saw an increase of 0.9 percentage points and the message asking voters to mark their calendar saw a 1.2 percentage point increase.

Figure 9: Impact of postcards on voter turnout



These are large effects for a non-partisan get out and vote mailer, which are typically closer to 0.3 percentage points. If the same message were scaled up and sent to all residents in Denver, we would expect to see approximately 4,250 more voters in a similar election. This project was delivered through the What Works Cities initiative, funded by Bloomberg Philanthropies.

Fostering integration of new citizens

We tend to treat those that we consider similar to us more favourably than those that we don't.

There is scant evidence that it is possible to eradicate these biases in the real world, but there is emerging evidence that it is possible to shift who we consider to be part of our group by highlighting the things we have in common, or creating new groups that blur the lines between *us* and *them*.

We are currently piloting this approach by encouraging existing citizens to attend citizenship ceremonies in the UK. We think allowing existing citizens to witness the value and loyalty that newcomers attach to citizen status and their new country will highlight shared identities, promoting greater tolerance towards newcomers.

Helping young people make the right decisions online

Nine out of ten Australian teens aged 14 to 17 own a mobile phone,⁸ spending 3.3 hours of their day on social media.⁹ We partnered with the Vincent Fairfax Family Foundation to find ways to support young people's ethical development in a world of disorientating technological change.

Building on our understanding of the four ingredients that are essential for ethical development – moral awareness and engagement; character skills; taking control of your environment; social support¹⁰ – we held the #NoFilter Forum¹¹ in April 2018. This event combined two distinct methodologies: a citizens' jury and a design sprint, bringing together 61 twelve- to sixteen-year-olds from across Greater Metropolitan Sydney. Enthused by the opportunity to have a hand in decisions that will directly affect them, the young people debated how to make good choices in an online world. The two days were full of lively discussion, fresh ideas and confronting honesty, and resulted in a series of practical 'asks' for parents, schools, peers and the tech industry.¹²

Using these insights, we have designed the Digital Compass programme, which aims to assist young people to develop a deeper understanding of their relationship with technology and build the skills required to improve the interactions they have on and offline, an increasingly blurred distinction for today's teenagers. The intervention mixes all four of the ingredients for ethical development identified by our research, and will be delivered by The Alannah and Madeline Foundation as a series of in-school workshops for young people in years 8 to 10 from April 2019.

Using behavioural science to improve how governments make decisions

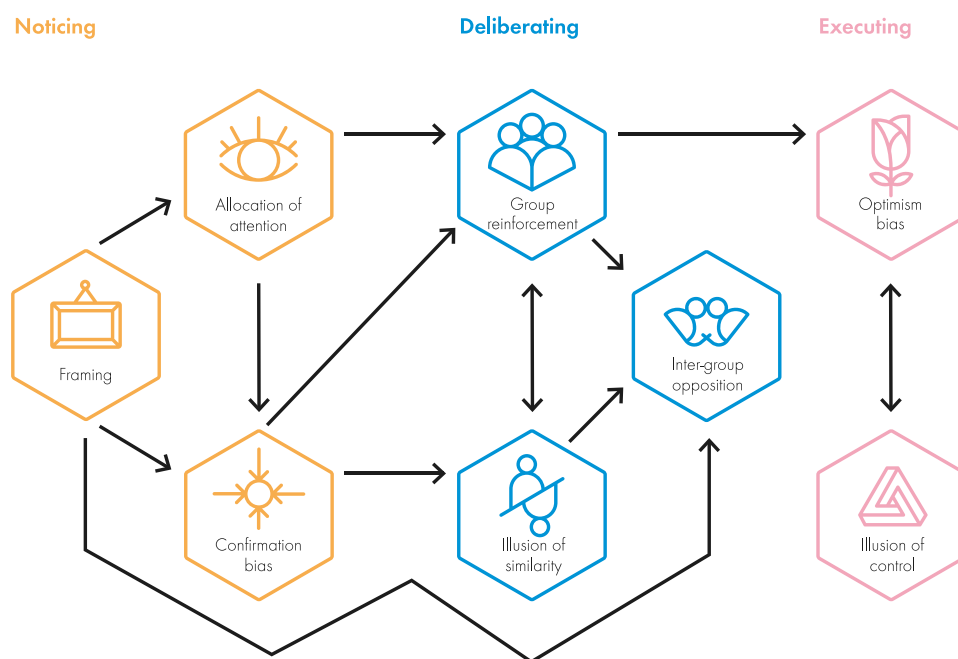
Governments around the world are now using behavioural insights to design, enhance and reassess their policies and services. This update report demonstrates the positive impact this approach can make.

But elected and unelected government officials are just as influenced by heuristics and biases as citizens are. These can create problems in the way policies are developed, and reduce the benefits that they could otherwise bring.

This year we published our **Behavioural Government** report, with support from the Institute for Government. Pulling together the latest evidence from around the world, we set out the most common biases that harm decision-making in government (Figure 10). We also proposed practical strategies that officials and politicians could adopt to improve the way they make policy.

We've since run training workshops with many UK government departments to help put these tools into practice. Preliminary results from that training suggest that it has reduced overconfidence among UK civil servants.

Figure 10: Issues affecting policymaking as identified by *Behavioural Government* report



Read the report: www.bi.team/behaviouralgovernment

What next

We will continue our work on integration in 2019. One insight we're trialling with young people is that when we affirm our identity by thinking about the values that are important to us, we are more open to difficult ideas and less discriminatory towards people from different backgrounds.

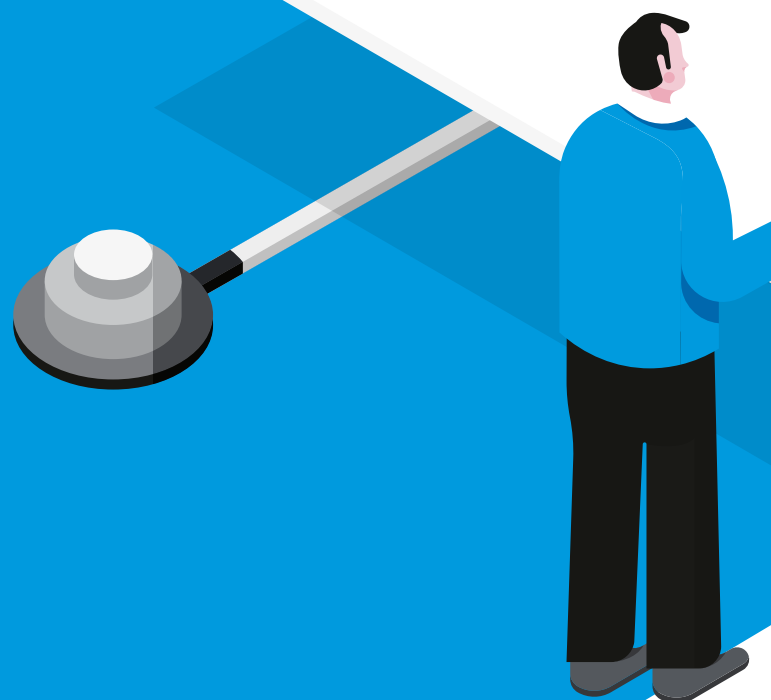


7. Health and wellbeing

We want people to live long, happy and healthy lives. But around the world, healthcare systems face similar pressures: from ageing populations to antimicrobial resistance.

Working closely with partners such as Public Health England and the UK's National Health Service, we use behavioural insights to improve policy and systems. We find ways to encourage people to make healthier choices for themselves, and make the healthcare they rely on more accessible and affordable. As the top contributors to years of life lost are behavioural, we must tackle these issues to achieve our goals.¹³

This year, we've helped patients understand how the NHS uses their personal data, got more at-risk patients to cancer screening and eased pressure on stretched emergency services.





“Our intervention could give earlier diagnoses for around 2,500 more cancer patients, improving their chances of survival”

Tackling childhood obesity

One in five children in the UK are overweight or obese by age 11. The evidence suggests our environment matters just as much as our own individual choices when it comes to how we eat.

We started work on the UK's sugar tax with partners at the Department of Health and Social Care and Public Health England in 2013. The design of the tax used sales data to pinpoint the sugar content levels in market-leading products. The thresholds – 5g/100ml and 8g/100ml – were set because industry would be able to reformulate to meet them, substituting sugar without compromising the consumer price or quality of popular drinks.

The tax came into force in April 2018. But even before a penny was due, popular brands made substantial improvements, resulting in an 11 per cent reduction of sugar in soft drinks – the equivalent of removing 10,000 tonnes of sugar from UK shelves.

By applying the same insights we might use for individual behavioural change to industry, small changes lead to population-level benefits. Reformulation also means the benefits are shared across the population, and not just enjoyed by the most health conscious.

The second chapter of the UK's Childhood Obesity Plan was also published this year, which included many behaviourally-informed recommendations such as restricting the advertising, placement and promotion of unhealthy food.¹⁴ These policies will help to reduce unnecessary eating cues in our environment, making it easier for people to make healthy choices.



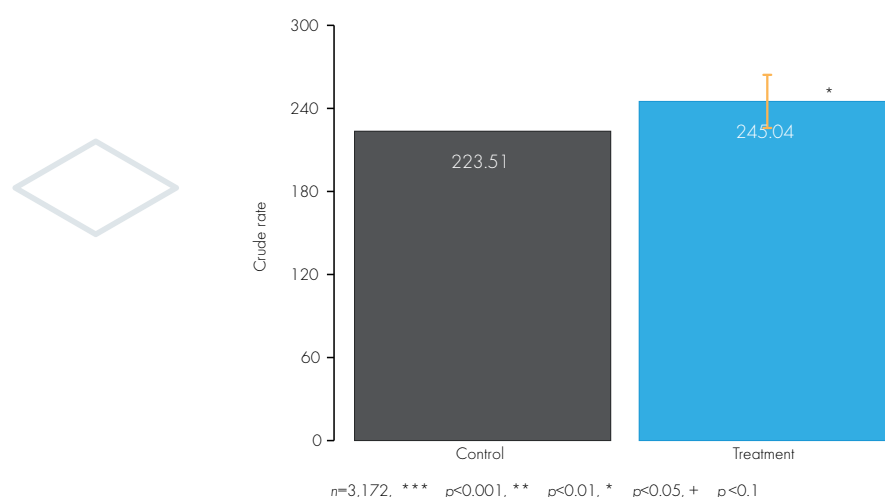
Increasing urgent referrals for cancer treatment

Almost half the UK population will get cancer during their lifetime. The urgent cancer referral process – where GPs can refer patients to be seen by a specialist within two weeks – is the first route for early diagnosis in England. But referral rates vary substantially across the country, with many areas underusing the process.

We wanted to test the impact of social norm feedback on urgent referral rates. We thought that telling GPs how their referral decisions compared with local colleagues could help guide their referral behaviour.

We tested this hypothesis with 244 GPs in Greater Manchester who referred below the England average over 2017–2018. During that period, each practice received a short series of personalised letters. The GP practices we sent the letter to increased their urgent referral rate by 9.6 per cent (Figure 11).

Figure 11: Urgent GP referrals to cancer specialists



If scaled up in England for a 6-month period, our intervention could give earlier diagnoses for around 2,500 more cancer patients, improving their chances of survival. It would also generate savings of up to £20m to the NHS within six months thanks to the lower costs of early treatment.

Reducing demand on oversubscribed services across the UK

Many patients face long wait times for elective care treatments, but often there are nearby hospitals under less pressure. Making more efficient use of NHS resources can make a huge difference to treatment times.

Last year we made it easier for GPs and patients in Barking and Dagenham to see which hospitals in their area could offer appointments quickest. Our redesigned booking system also highlighted which hospitals were already overbooked. After we saw successful results, we scaled up this new e-referral design to hospitals in south London.

This resulted in a 20 per cent reduction in referrals to services with limited capacity at those hospitals, confirming our initial work. Based on this strong evidence the service is now being rolled out nationally by NHS England, maximising the potential impact. If our results hold, there could be 40,000 fewer referrals to oversubscribed services every month – good news for service staff and patients.

What next

We look forward to continuing our work on prevention, particularly on childhood obesity with Guys and St Thomas' charity and engagement with early mental health services with Mayden.

8. International development

We apply our behavioural science, impact assessment and subject matter expertise to social issues in low and middle income countries, working with a range of partners from sovereign governments, development agencies, foreign services and NGOs.

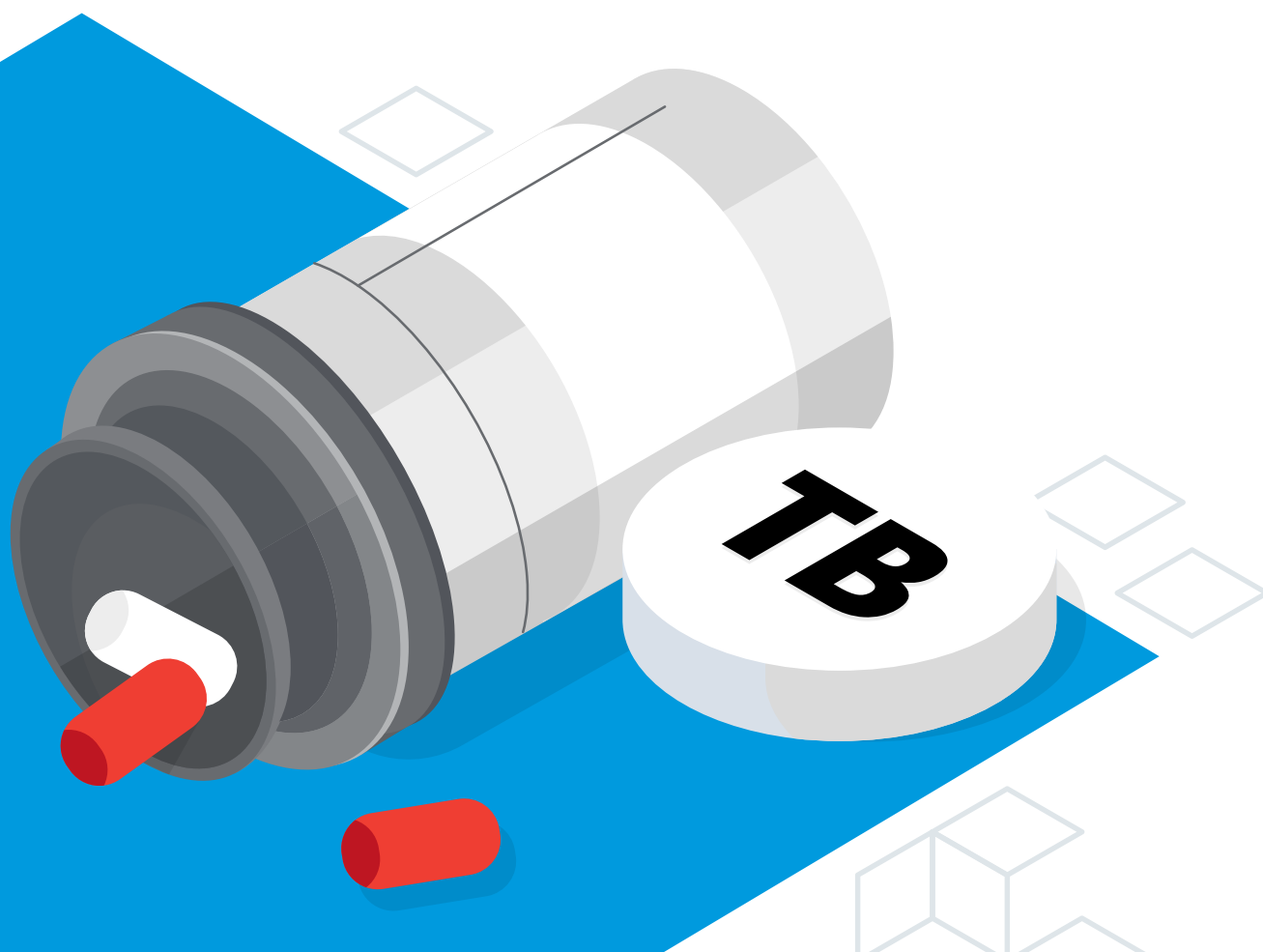
But we have as much to learn from our local partners as they do from us. Building strong partnerships in countries around the world has allowed us to adapt, improve and scale many of the tools we have used in the UK, US, Singapore and Australia.

Our work tackles some of the most urgent policy challenges in emerging economies, including revenue generation, financial inclusion, and public health.

Building capacity and ensuring timely tax returns

Working with the Indonesian Tax Authority (Direktorat Jenderal Pajak, or DJP) on our second project together, we ran our largest randomised controlled trial with 11.2 million taxpayers. The aim was to encourage submissions of annual tax returns at least two weeks before the deadline. In previous years the online filing system crashed and there were long queues at local tax offices for manual filing because many taxpayers filed at the last minute. This situation can erode tax morale and negatively impact tax revenue.

Six weeks before the filing deadline in 2018, we tested six different email messages against a 'no email' control. These messages were co-designed with representatives from four DJP directorates, and most used very different language to conventional taxpayer communication in Indonesia, which tends to focus on regulations.



Our best performing message highlighted that early filing avoids problems, with a link to a website where taxpayers could choose a filing date and receive reminders in the run-up. Preliminary analysis indicates that it increased early filing by seven per cent and overall filing by two per cent. It also brought forward an extra USD 1.93 million in tax payments at the point of filing, equivalent to USD 13.53 million if scaled to the whole sample.

This was part of a wider programme of work, supported by the Global Innovation Fund, to build behavioural insights and evaluation capacity with governments in Indonesia, Guatemala and Bangladesh.

Tackling tuberculosis in Moldova

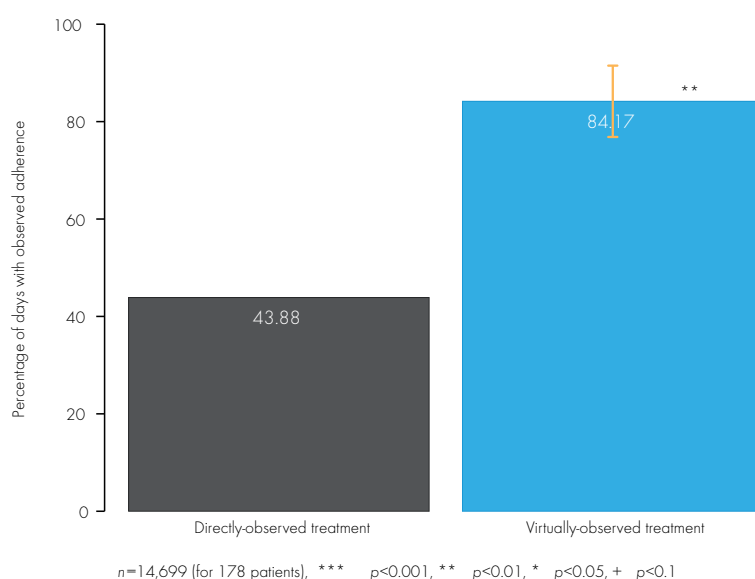
There are still 1.6 million tuberculosis (TB) related deaths a year around the world despite the availability of effective treatment. The barrier is largely behavioural – patients are required to take medication over a long period of time, typically six months, even when their symptoms have disappeared.

To overcome this behavioural barrier, World Health Organization guidelines recommend Directly Observed Treatment (DOT) – where TB patients must be observed by a doctor or nurse when they take their daily medication. While this compulsory approach works for some TB patients, the inconvenience of visiting a clinic each day may lead to lower observed treatment adherence among others.

The Republic of Moldova has one of the highest rates of multi drug resistant TB in the world and follows DOT.¹⁵ In partnership with the United Nations Development Programme, the Moldovan Ministry of Health and Act for Involvement, BIT created a virtual form of DOT (called VOT) where, rather than going to a clinic, patients can record a video of themselves taking their pills and submit it to a medical professional for verification.

With evidence from a small-scale randomised controlled trial, we found that VOT increased observed adherence from 44 per cent for DOT patients to 84 per cent for VOT patients (Figure 12). The Moldovan Ministry of Health now plans to scale access to VOT across the country

Figure 12: Observed patient adherence to TB medication



Promoting financial inclusion in Mexico

The Government of Mexico is currently digitising its flagship conditional cash transfer programme, Prospera. Beneficiaries will now receive money straight into a bank account, often their first, which provides new opportunities for promoting positive financial behaviours. However, with over three-quarters of beneficiaries withdrawing their payments in full after they are deposited, the first step is to encourage active usage of accounts.

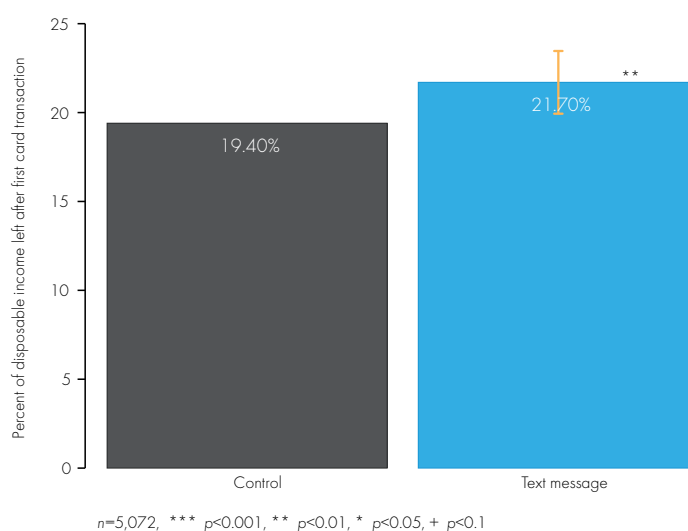
BIT and a consortium of partners including the President's Office, Women's World Banking and the Centro de Investigación y Docencia Económicas (CIDE), worked with Prospera to encourage beneficiaries to leave some money in their accounts; make transactions other than withdrawals; and use access points beyond ATMs, such as small shops.

We developed three behavioural interventions: a personalised letter, training session, and a series of text messages. We piloted the letter and training with over 15,000 beneficiaries in January and February 2018. Around 5,000 of these beneficiaries were then randomly assigned to receive the text messages or not.

We found that beneficiaries who received the text messages left more of their first digital transfer in their account (a 12 per cent increase, from 19.4 per cent to 21.7 per cent of the money available for them to withdraw) (Figure 13). They were also more likely to check their balance (a 5.6 per cent increase, from 53 per cent to 56 per cent). However, there was no impact of the text messages on other financial inclusion outcomes such as payments in shops and deposits.

Following from this pilot, we have worked with Prospera to improve the letter, training session, and text messages. These are now being tested at scale with over 300,000 beneficiaries.

Figure 13: Proportion of cash transfer left in bank account after first card transaction

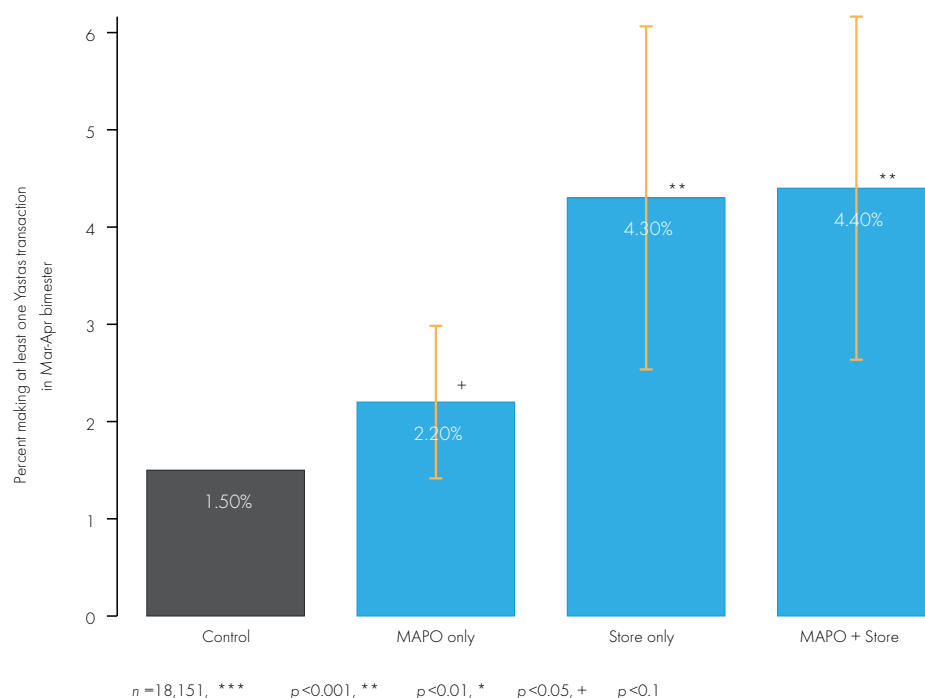


A second project, which aimed to increase account usage at Yastás agent banking points, targeted Prospera beneficiaries who were already receiving their payments digitally.

We tested two interventions. The first was a large poster with a map showing nearby access points. This was presented to beneficiaries during bimonthly Prospera meetings ("MAPO" intervention). The second intervention was targeted at banking agents belonging to the network. The agents were provided with a poster to promote their services, and they were incentivised with small items (a cap, thermos and folder) if they completed more than 20 transactions with Prospera beneficiaries within two months ("Store" intervention).

The results show that both interventions were effective at increasing transactions at Yastás banking agents (Figure 14). The store intervention was the most effective, almost tripling the likelihood that beneficiaries used Yastás agents at least once.

Figure 14: Transactions carried out at Yastás



What next

BIT is excited to have commenced a new partnership with the International Planned Parenthood Federation to work on comprehensive sexuality education (CSE). In collaboration with three of their Member Associations in India, Nigeria and Bosnia and Herzegovina, BIT will be exploring how we can evaluate the impact of CSE in terms of tangible sexual and reproductive health outcomes; improve the delivery of CSE by educators; and increase the take-up of CSE among young people.

We expect to publish the results of this partnership in 2019.

9. Local government and services

Local government finds itself on the front line of some of society's most significant challenges. On top of providing the day-to-day services we take for granted, they must also provide urgent support to the most vulnerable adults and children in their areas.

This year we've grown our team and expertise, offering support to dozens of cities and local authorities across the UK and USA.

“BIT has launched 99 trials in partnership with 37 cities. We believe this accounts for the majority of all field trials run by local governments in the US – ever.”

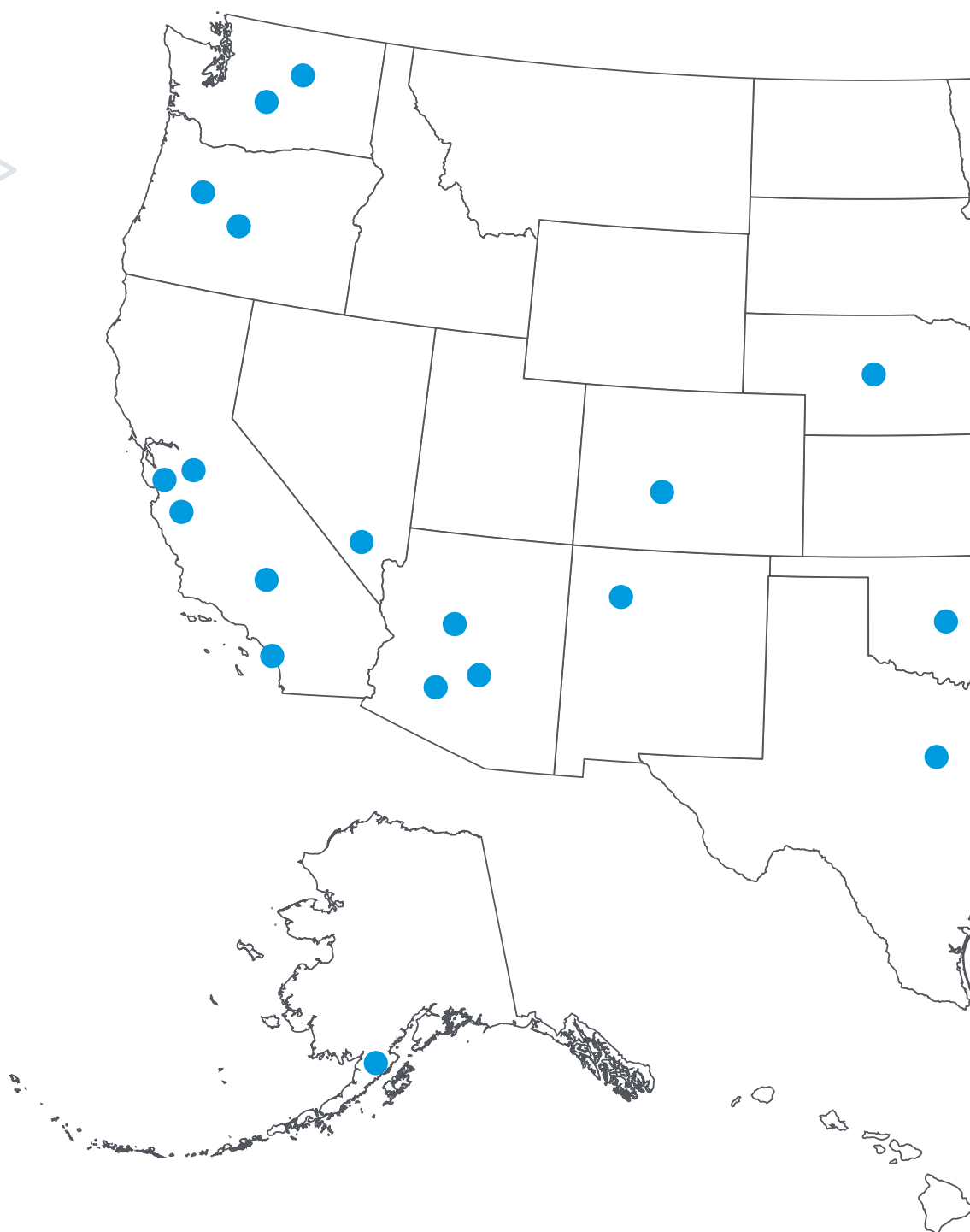




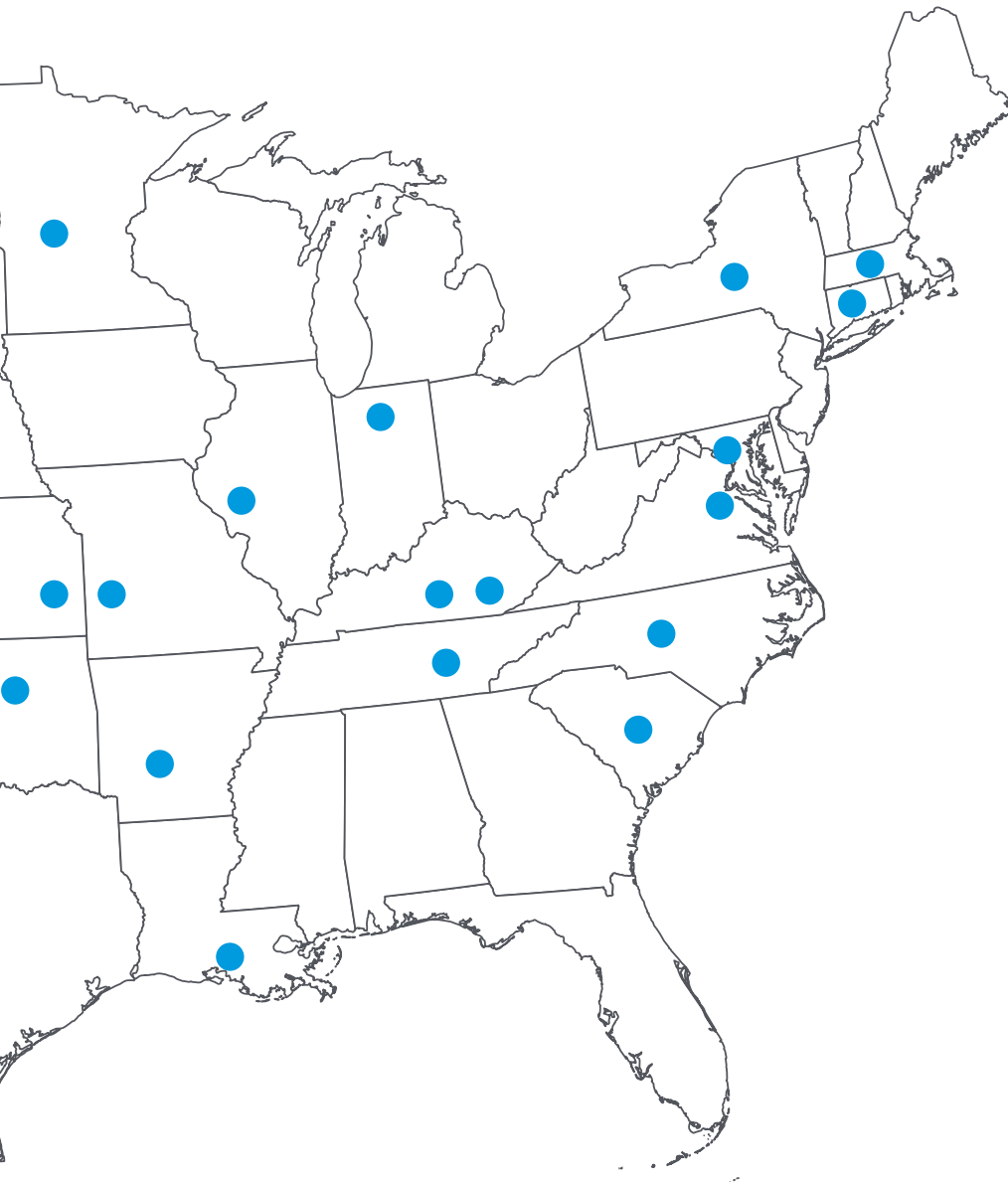
Running 99 trials in 37 US cities

The What Works Cities (WWC) initiative, established and funded by Bloomberg Philanthropies, was developed to increase the use of data and evidence in US cities. We, along with four other organisations, provide technical assistance to help cities achieve this goal. Our support focuses on how to conduct high quality evaluations (primarily randomised controlled trials), at low cost and in ways relevant to local residents' needs.

We also work hand-in-hand with cities to develop and test interventions. In the first three years of the initiative, BIT has launched 99 trials in partnership with 37 cities. We believe this accounts for the majority of all field trials run by local governments in the US – ever.



“Work in a large US city showed that framing domestic abuse differently can encourage take-up of resources to help victims.”



These trials have addressed a broad range of challenges facing local government – from reducing code violations and errors in business licensing applications, to increasing uptake of health programmes and applications to police departments, to shifting residents and businesses from in-person to online service channels.

Reducing unpaid court fines

Through our partnership with the WWC initiative, we help local government staff build the capacity and skills they need to design and test new ways of working.

A leading model for this approach has been the City of Tulsa, Oklahoma and its work to reduce court-issued warrants. The Municipal Court issues approximately 22,000 extensions for unpaid court fines a year. Over 70 per cent of these extensions – or Time Pay Orders – result in a failure-to-pay warrant, which can result in a suspension of driver's licenses, accrual of additional fines, and further involvement in the criminal justice system.

City government staff from the Office of Performance Strategy and Innovation and the Tulsa Municipal Court worked in partnership with BIT and Code for Tulsa to design, implement, and evaluate a new text message reminder system for 1,900 residents with Time Pay Orders over six months.

Using BIT's EAST framework¹⁶ for guidance, Tulsa developed reminder language that was simple and accessible but remained consistent with court standards. Messages were personalised with the individual's first name and stated the payment deadline. Tulsa also decided to test a second version of the message that used a friendly tone against the more standard reminder language.

Tulsa launched its new text message reminder system in March 2018 and evaluated its effectiveness through a six-month randomised controlled trial. They found a 31 per cent increase in on-time payments for residents that received automatic payment reminder texts compared with those that did not receive text reminders. Both text messages performed equally well.

We view the Time Pay Order project as a key step in Tulsa's journey toward building an evaluation function that can cultivate ongoing improvement and learning. The Tulsa Municipal Court is already exploring other ways to apply both behavioural science and low-cost trials to other initiatives, including reducing failures to appear, while the City is exploring nine additional evaluation projects.



You can read more about our results from the WWC project on our website:
www.bi.team/wwc

Helping victims of domestic abuse access support

Work in a large US city showed that framing domestic abuse differently can encourage take-up of resources to help victims †. In the UK we partnered with the Local Government Association and Kent County Council to build on these findings.

Following an incident of domestic abuse, Victim Support, a charity, attempt to call the victim and offer support. Unfortunately, over 60 per cent of victims are not contactable. We think this is partly because the call is made from a withheld number as a safeguarding measure.

We designed a small, discreet card that the police could hand out to victims following an incident which informs the individual that Victim Support will try to make contact. The card explains how contact will be made, and visually suggests that the victim has already taken steps towards accessing support by contacting the police.

We tested our intervention across all police stations in Kent. The results were not statistically significant, although the raw figures suggest receiving the cards led to more victims being successfully contacted and more victims receiving support over the phone, compared to business as usual.

Given the intervention is light touch, low cost and shows no sign of having a negative impact, we are working with the LGA to test this approach further in other local areas.

Increasing food recycling

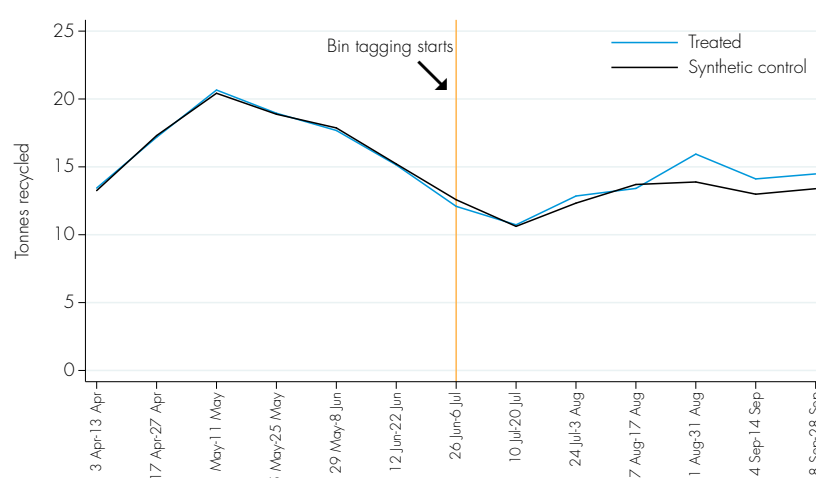
Food waste is one of the most common recyclable materials being sent to landfill. BIT worked with Wigan Council to test whether a behaviourally informed intervention could increase food waste recycling.¹⁷ Our intervention consisted of tagging bins with hangers to encourage households to order a food caddy, testing three different messages on the hangers. In addition, all those who ordered a caddy received an information leaflet and caddy sticker, and also could opt-in to three email reminders to help them get started.

Bin tagging did not have a statistically significant impact on the overall tonnage of food waste recycled (Figure 15). As the first graph below shows, the amount of food waste collected starts to diverge around nine weeks after tagging. Given that households need to order and receive the caddy, a lag is not unexpected. So, while the difference was not statistically significant, we believe the trend line is promising.

Tagging bins did, however, increase food caddy orders. The social norms message was more effective than an ease message at getting people to order a caddy, increasing order rates by more than 60 per cent. The project indicates that tagging bins to encourage food caddy orders may be a good first step in encouraging food waste recycling.



Figure 15: Impact of bin tagging on food waste recycling



What next

Over the next three years the What Works Cities initiative will be tackling more complex policy challenges – like increasing economic mobility – and helping local governments obtain WWC Certification.¹⁸

We have been trialling work with emergency call centres in nine cities across the US to reduce staff burnout. Analysis of this study is under way and we will report results in 2019.

In the UK we will continue to help councils support vulnerable adults and children with live projects in preventative services for older people and in children's services, including using data science to support professional decision making.¹⁹



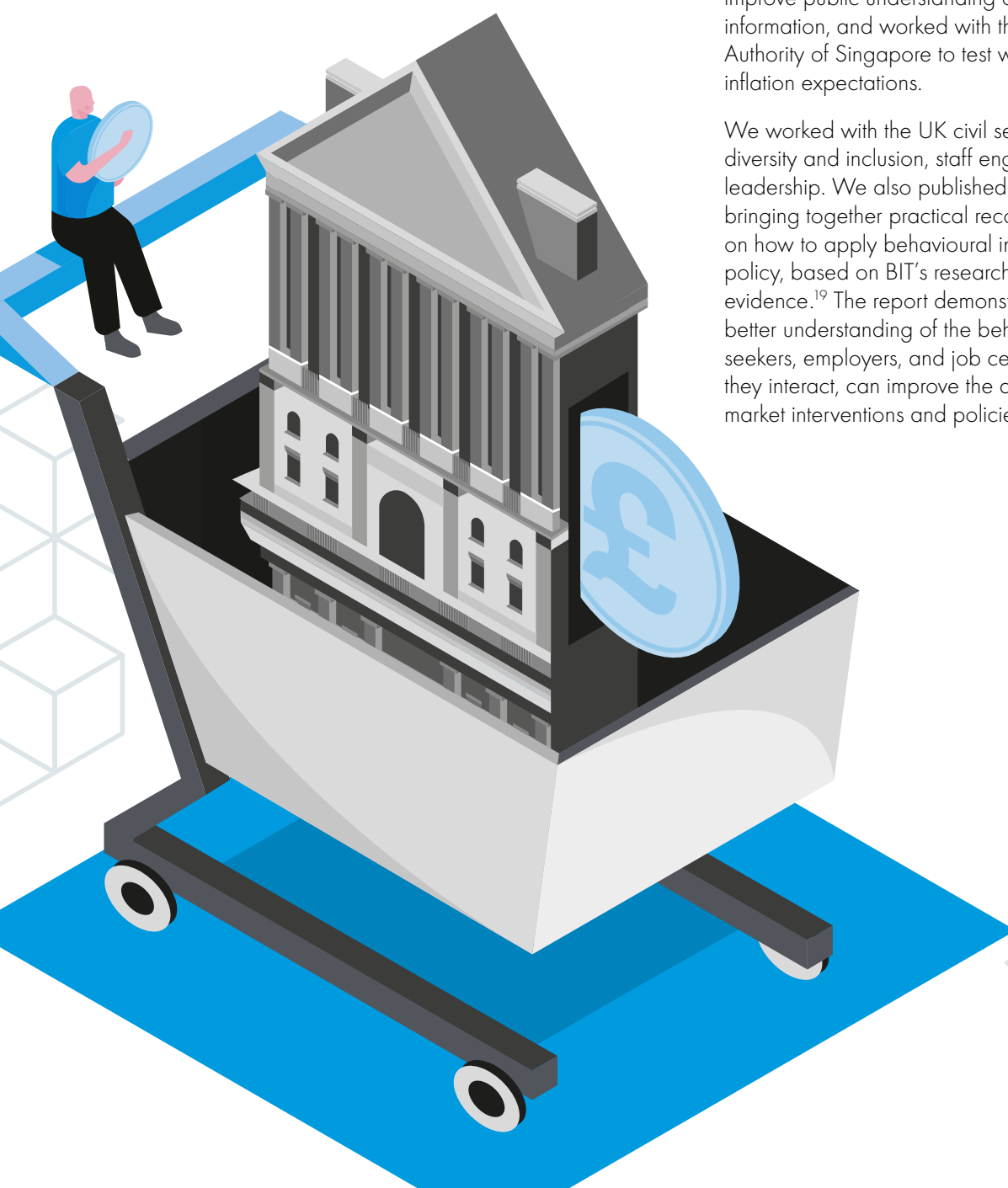
10. Work and the economy

Human behaviour drives the actions of consumers, workers and businesses, and in doing so, drives the performance of the wider economy. We can apply behavioural insights to increase access to high quality work; improve business productivity and growth; and improve macroeconomic policy to the benefit of citizens and businesses across the economy.

This year, we supported the UK and Australian governments to understand the behavioural barriers to business productivity and what this means for business policy design.

We collaborated with the Bank of England to improve public understanding of macroeconomic information, and worked with the Monetary Authority of Singapore to test ways of measuring inflation expectations.

We worked with the UK civil service to improve diversity and inclusion, staff engagement and leadership. We also published a new report, bringing together practical recommendations on how to apply behavioural insights to employment policy, based on BIT's research and wider evidence.¹⁹ The report demonstrates how a better understanding of the behaviour of job seekers, employers, and job centres, and how they interact, can improve the design of labour market interventions and policies.



Improving public understanding of economics

Central banks' inflation targets are more likely to be effective if they are widely understood and credible. But only around a quarter of the public can typically identify the correct range for current inflation, even when given a small number of options to choose from.

Poor comprehension of economic policy and low trust in economic institutions risks undermining economic stability and leading consumers and firms to make poor financial decisions.

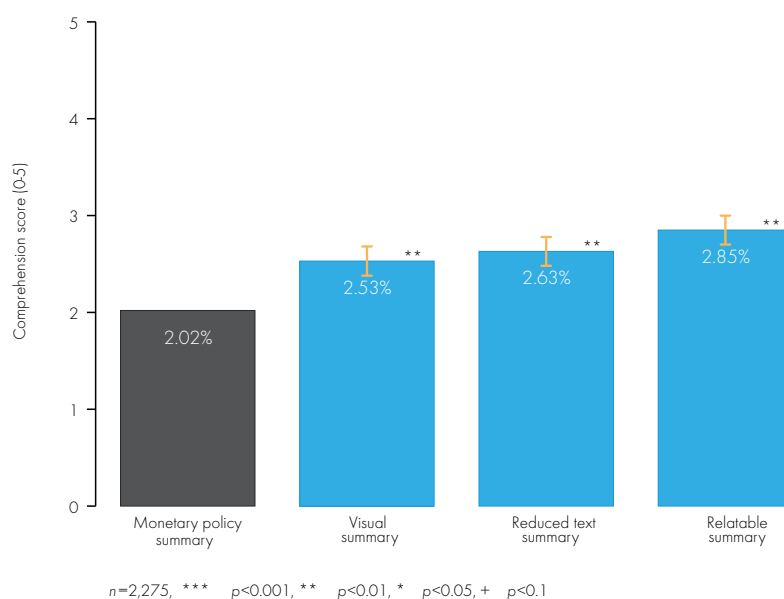
We partnered with the Bank of England to test how to improve comprehension of the Bank's quarterly Inflation Report. We used an online experiment to test four versions of the report with members of the public. The most successful was what we called a 'Relatable Summary' (Figure 16), which restructured the information to make it clearer why the Bank took the decision it did; and made the content more 'relatable' to day-to-day lives, for instance explaining what a two per cent inflation rate means for the cost of a basket of goods next year. This summary improved comprehension scores by over 40 per cent compared with the Bank's traditional monetary policy summary, and by 13 per cent compared with the Bank's existing Visual Summary (Figure 17). The Relatable Summary also improved participants' rating of the information for trustworthiness compared to the more traditional summary, and was the most effective at improving perceptions of the Bank.

Figure 16: An extract from the 'Relatable Summary'



Central banks are increasingly viewing communication as an important policy lever in its own right. Our work demonstrates the value of taking an experimental approach to central bank communications, allowing institutions to test what works before rolling out more widely. More broadly, we see this work as an early step towards better integrating behavioural insights into monetary and macroeconomic policy.

Figure 17: Testing public understanding of economics



Supporting the UK government to increase productivity

Although UK employment is strong, UK productivity is relatively weak. In 2016, output per hour in the UK was 16 per cent below the rest of G7 average, and the UK has a long tail of poorly performing businesses. This year, BIT worked with the Department for Business, Energy and Industrial Strategy and the Department for International Trade to study the behavioural barriers to improving business growth and productivity. This included qualitative interviews with over 60 small and medium sized enterprises (SMEs).

We found that SMEs often underestimate the performance and innovativeness of other businesses in their sector, dampening the perceived need to innovate to compete. Time pressure means that they are often unaware of Government support and incentives, and lack a good understanding of eligibility criteria for schemes such as R&D tax reliefs, grants and loans.

Good quality business advice can help SMEs improve business planning, marketing, and skills and technology investment. But we found SMEs often don't know the best place to find it, and when they do access advice, the quality of the advice is variable.

Our results suggest that business growth policy can be improved in three main ways. The government can be more proactive, offering advice at timely moments. It can leverage the power of social and peer effects, by demonstrating how other businesses are taking action to improve productivity, thus helping businesses to learn from each other. Government also has a role to make strategically important markets such as business advice more transparent and accessible – enabling businesses to make better choices.

Improving public service productivity

Public services impact millions of lives every day. Yet the job of public servants is not easy. The scale of decisions, changing technology, demands for efficiency, growing demand for better services and the pressures of an aging population place our services under considerable stress.

Over the last year we have supported the public sector on a number of fronts including how to improve diversity and inclusion, productivity, staff engagement, decision-making and leadership. In October, we released an evidence report in support of the UK's new Centre for Public Services Leadership. Our work suggests that interventions to develop leaders, such as development programmes, networking and feedback, can work. However, they must account for culture and context, offer practical insights and focus on behaviour change before, during and after any training or intervention.

Real gains can be made by applying behavioural insights to how organisations and our public services work. Our work suggests careful nudges can spark inclusion, collaboration and innovation across organisations and help make us better leaders, managers and employees.

What next

Over the next year, we will put new ideas for improving business growth policy to the test with a set of trials to prompt businesses to take up productivity-enhancing practices and technologies, under the Department for Business, Energy and Industrial Strategy's Business Basics programme. We will build on our existing work with the public sector to look at how we can improve workplaces more generally. We also plan to broaden our work to look at how behavioural insights can be applied to monetary and fiscal policy, and how to improve in-work progression and labour markets.

“SMEs often under-estimate the performance and innovativeness of other businesses in their sector”





BIVENTURES

BI Ventures (BIV) was created in 2015, driven by the idea that the solution to a challenge could lie in a product or service, rather than new policy. Now our products are supporting over 100,000 job applicants and students, and making rigorous testing and evaluation more accessible to public servants, businesses and charities.

Our first venture, **Applied**, (see [Equality and diversity](#), p25) has, in two years, reduced recruitment bias for 70,000 job applicants, helping organisations increase their talent pool and diversity.

Building on this success, we scaled existing products and launched ventures in exciting new areas. **Promptable** and **Networky** are two products with a common ambition: to use the power of social networks for good. They have been deployed in education and social action and are looking to expand into new areas shortly.

TEST + Build addresses a widespread need to improve communication campaigns, and **Predictiv**, BIT's online experimentation platform, has been successfully deployed in over 50 trials across a range of policy and business challenges.

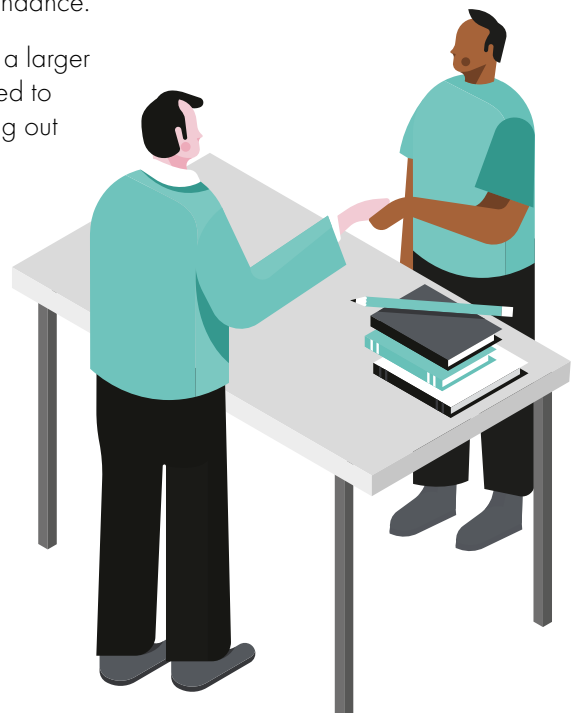
Promptable

Promptable, our student support programme, aims to increase attendance and attainment. Students receive timely and motivational SMS messages including study tips, practical information such as exam dates, and content relating to what they have studied that week. It also harnesses the power of a student's social network: they can nominate a Study Supporter, who also receives messages to help them be more involved. We've previously found that regular contact from friends and family can help boost exam pass rates and attendance.

The platform allows us to deliver support and help to students at a larger scale than previously possible. In 2018, Promptable was delivered to over 10,000 students within 80 educational institutions, branching out from FE colleges to sixth form colleges and secondary schools.

Visit www.promptable.com for more information

For more on our study supporter trials visit www.bi.team/education





Networky is a digital buddying platform that we originally built for the National Citizen Service. It has connected 40,000 young people to have safe online conversations before starting the 2018 summer programme.

This year we've used Networky to match incoming first year university students, looking for effects on their sense of belonging and aiming to reduce the drop-out rate. We have also run a 27-college trial with the Sixth Form Colleges Association, pairing students who have been offered conditional places but are yet to enrol. Some have been paired with older students, using Networky to create and test mentoring relationships.

 Visit www.networky.co.uk for more information

TEST + Build

TEST + Build provides a way for organisations to draw on BIT's experience and apply insights from behavioural science to their live communication projects. It is a digital platform that provides tools to design letters, emails and text messages and – with support from BIT – to then test these designs through a randomised controlled trial.

So far, TEST + Build has partnered with nine organisations to help send out over 62,000 communications. We are currently running trials with two international organisations, including a partnership between Include a Charity, The Smith Family and the charity consultancy company More Strategic.

This year we gave TEST + Build a fresh new look and added new content and features to the system. Demonstrations and test accounts are available.

 Visit www.testandbuild.com for more information



Predictiv is an online research platform that allows organisations to make better, evidence-based decisions by rigorously testing communication, product and service design ideas in randomised control trials when field experiments are not possible or too expensive.

Last year Predictiv was put through its paces by partners in business and the public sector. We ran 51 experiments with over 85,000 participants testing how menu wording could reduce meat consumption, how tax form guidance can increase compliance, and how FinTech product design can be improved to prompt better saving and investment decisions. Predictiv was a semi-finalist for the OECD's Innovation in Government Award.

Our ambition is to be the first choice for rigorous online testing and bring a new evidence-based approach into public services and boardrooms across the world.

 Visit www.predictiv.co.uk for more information

What next

In 2019 we will take Promptable into new policy challenges – higher education, with trials in two new universities, and care sector employment, aiming to reduce staff churn. We'll also be using the platform to tackle the growing problem of social isolation and loneliness with partners at Monmouthshire County Council.

Alongside scaling our existing range of products, BI Ventures will also be launching a new parenting support app in the spring of 2019, with a focus on pre-school development.

Our Teams



London



Manchester



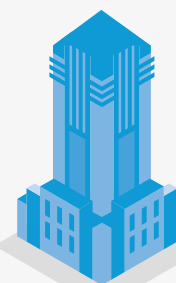
Singapore



Sydney

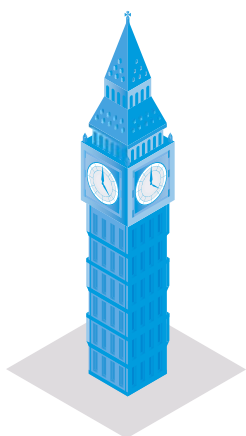


New York



Wellington





London

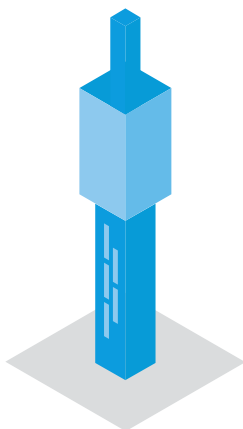
Our global headquarters are based in London, a few streets away from where the team was originally set up in 10 Downing Street. Our team of 120 work in clusters covering the full range of domestic policy areas, as well as international development. It's also home to BI Ventures, and our data science and research team.

This year we've welcomed guest speakers such as Nobel Prize winner Richard Thaler, run a series of seminar events, and hosted news crews from around the world.

For a full overview of our work, visit www.bi.team/london







Manchester

BIT North is based in Manchester and was established in 2016. We work across a range of local issues, from recycling to education. As well as running trials, we develop strategic responses to some of the biggest challenges facing local authorities, such as health and social care.

We are proud to work in close partnership with the Greater Manchester Combined Authority and the Greater Manchester Health and Social Care Partnership.

This year our work we're pleased to report results from our project to improve cancer outcomes (See [Health and wellbeing](#), page 35) and boost local recycling (See [Local government and services](#), page 45).

For a full overview of our work, visit: www.bi.team/manchester



Singapore

We have been working with Singaporean government agencies since 2012, and opened a permanent office in 2016 following our successful work with the Ministry of Manpower, the Public Services Division of the Prime Minister's Office, and the Ministry of Home Affairs, amongst other ministries. Singapore is a hub of economic activity and is a global hub for healthcare, education, and trade. Our office reflects the country's status as a frontrunner in growth and innovation. We partner with most government ministries to innovate social policy and improve outcomes, with a focus on empiricism and social impact. Our current priorities include retirement, home affairs, financial wellbeing, housing, social cohesion, and public health. We're pleased to report our work with Singapore's Traffic Police (See [Crime, justice and security](#), page 17).

For a full overview of our work visit: www.bi.team/singapore





Sydney

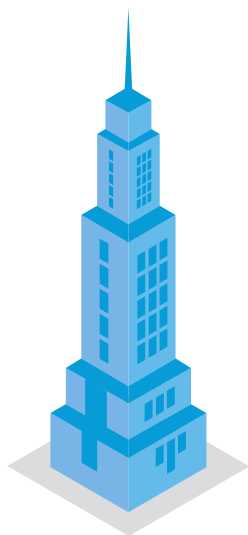
Our Sydney office plays a leading role in developing new behavioural approaches to public policy and service delivery across Australia and the Asia-Pacific region.

We work across all policy areas and have partnered with a wide range of government agencies and NGOs at the federal level, and in Victoria, New South Wales, Western Australia, Tasmania and South Australia.

This year we're pleased to report results from our work to improve teacher mobility (see **Education and skills**, page 21) support energy customers (see **Consumers and finance**, page 8) and reduce domestic violence (see **Crime, justice and security**, page 16). We also highlight our work supporting young people's ethical development and use of technology, reducing sexism and sexual harassment (see **Government and society**, page 30), and on improving the design of employment policies and programmes (see **Work and the economy**, page 46).

 For a full overview of our work, visit: www.bi.team/sydney





New York

Our North America office works with local and regional government agencies, multilaterals, philanthropies, nonprofits and the private sector. We operate internationally – from Canada to Colombia – on issues ranging from humanitarian relief to retirement savings. In particular, our long-running involvement in the What Works Cities programme has seen us run 99 trials in 37 US cities since 2015.

This year we worked to increase voter turnout in Denver (see [Government and society](#), page 29) and concluded the first phase of the What Works Cities initiative (see [Local government and services](#), page 42).

For a full overview of our work, visit: www.bi.team/newyork



Wellington

Our Wellington office was established in 2016. Since then we have worked with central and local government clients including Ministry of Social Development, the Ministry of Primary Industries and the New Zealand Police.

We are passionate about using a blend of behavioural science, data analytics and human-centred design and applying it to the local context. We take a co-design and co-ownership approach to our work, including working with kaupapa Mori.

This year our work includes a rapid mixed methods research project with the Ministry of Education, which identified seven ideas for tackling New Zealand's chronically high rate of school absenteeism.

 For a full overview of our work, visit: www.bi.team/wellington

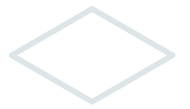
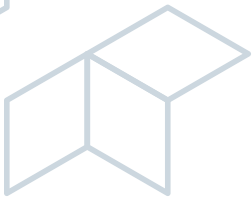


Endnotes

- 1 <https://www.gov.uk/government/consultations/consumer-green-paper-modernising-consumer-markets>
- 2 <https://www.ofgem.gov.uk/publications-and-updates/results-cheaper-market-of-fers-letter-trial>
- 3 <https://www.ofgem.gov.uk/publications-and-updates/eight-times-many-people-get-better-deal-ofgem-s-collective-switch-trial>
- 4 <https://www.fca.org.uk/publications/research/research-note-helping-credit-card-users-repay-their-debt-summary-experimental-research>
- 5 Innovative Research Group (commissioned by the Ontario Securities Commission) (2017). Investing As We Age. Retrieved from http://www.osc.gov.on.ca/documents/en/Investors/inv_research_20170926_investing-as-we-age.pdf
- 6 <https://www.who.int/news-room/fact-sheets/detail/violence-against-women>
- 7 https://gender-pay-gap.service.gov.uk/public/assets/pdf/Evidence-based_actions_for_employers.pdf
- 8 <http://www.roymorgan.com/findings/6929-australian-teenagers-and-their-mobile-phones-june-2016-201608220922>
- 9 Australian Psychological Society 2017, Digital Me, November 2017, <http://apo.org.au/node/118961>
- 10 <https://www.behaviouralinsights.co.uk/australia/why-ethics-matter-online/>
- 11 <https://www.behaviouralinsights.co.uk/australia/we-spoke-to-teenagers-about-tech-this-is-what-they-told-us/>
- 12 <https://vimeo.com/275564064>
- 13 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)32207-fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)32207-fulltext) 4/
- 14 <https://www.gov.uk/government/publications/childhood-obesity-a-plan-for-action-chapter-2>
- 15 Geneva: World Health Organization (2018) Global tuberculosis report 2018 <http://apps.who.int/iris/bitstream/handle/10665/274453/9789241565646-eng.pdf?ua=1>
- 16 <https://www.bi.team/east>
- 17 Lyndhurst, B. (2009). Enhancing participation in kitchen waste collections. Defra Waste & Resources Evidence Programme (WR0209), Final Project Report.
- 18 <https://medium.com/@WhatWorksCities/5c514f1dff1b>
- 19 <https://www.bi.team/publications/applying-behavioural-insights-to-labour-markets/>

† In this report we are using the term “victim” to describe those who have been subjected to domestic violence (DV) or intimate partner violence (IPV).

We work on this issue with a number of partners internationally, and we recognise that some individuals, including those who have experienced DV or IPV, prefer the term “survivor” in reference to individuals who relate to their experience as being in the past.

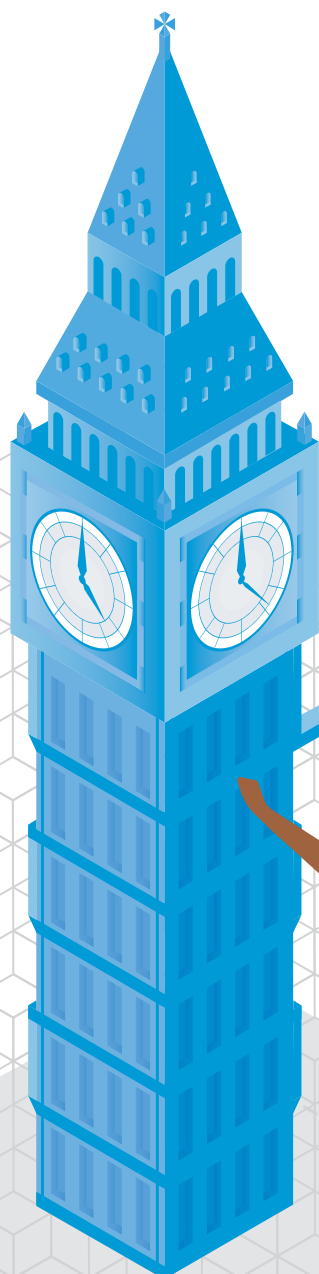




BEHAVIOURAL EXCHANGE

London 2019

SAVE THE DATE
5-6 SEPTEMBER 2019



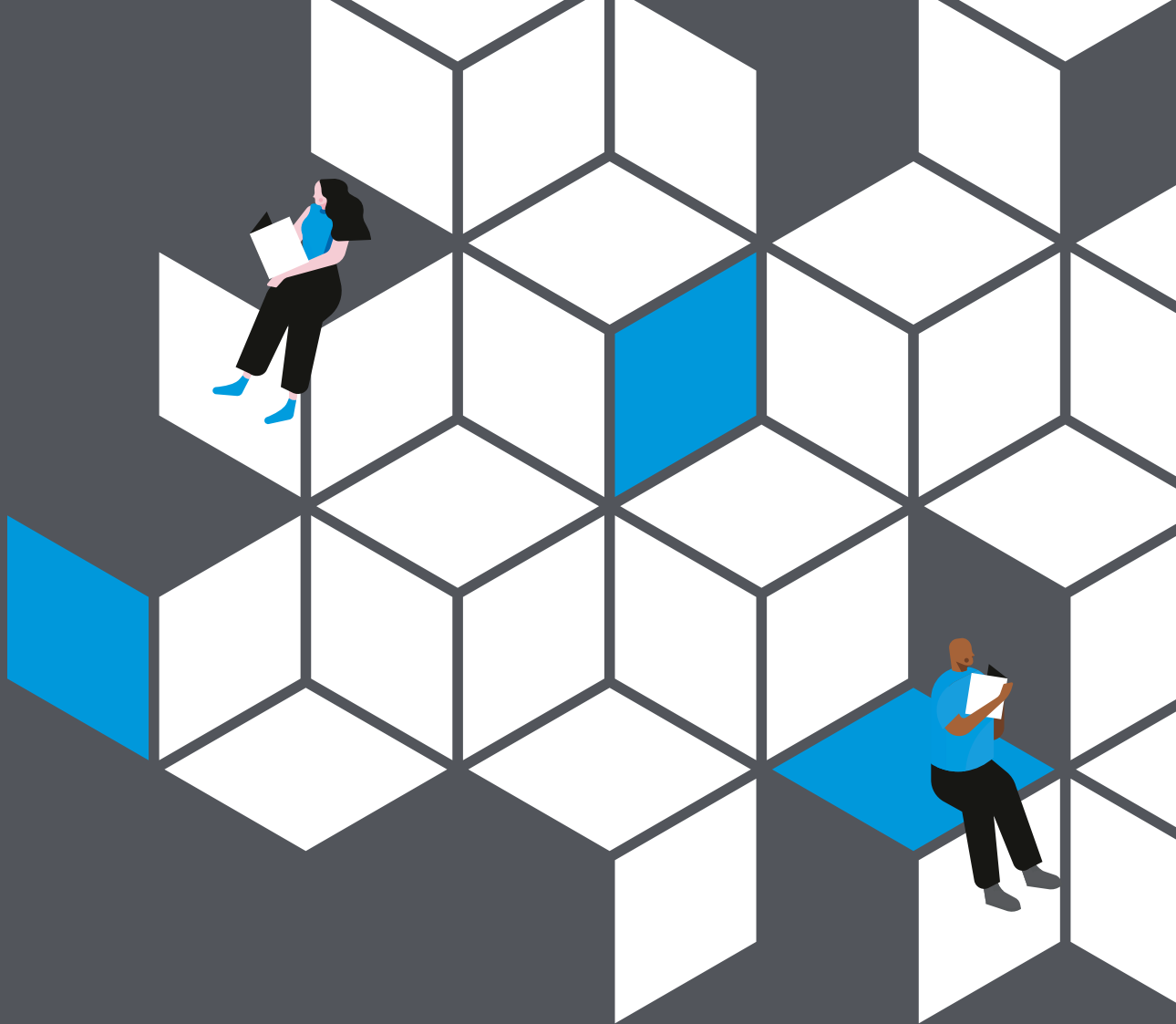
Behavioural Exchange
is returning to London
in 2019.
Register your interest now:
bx2019.com

Stay in touch

Contact the team at [**www.bi.team/contact**](http://www.bi.team/contact)

Stay up to date with our latest work, findings and job vacancies. Subscribe for email updates at [**www.bi.team/subscribe**](http://www.bi.team/subscribe)





The Behavioural Insights Team

www.bi.team

4 Matthew Parker Street
London SW1H 9NP

© Behavioural Insights Ltd. Not to be reproduced without
the permission of the Behavioural Insights Team



THE
BEHAVIOURAL
INSIGHTS
TEAM