THE
BEHAVIOURAL
INSIGHTS TEAM.

The Behavioural Insights Team

Update report 2013-2015

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Foreword

Oliver Letwin,
Chancellor of the Duchy of Lancaster, Cabinet Office

Almost five years ago, I sat in front of a House of Lords committee, which was holding an Inquiry into the Government's new found focus on behavioural change.[1] The Committee Chair asked me to give a sense of what I thought the use of behavioural insights might achieve over the coming years.

I said that I hoped that five years from now, we could come back and say `we can tell you that broadly, in these sorts of domains, we seem to be able to achieve very significant effects quite quickly'. I also said that I expected that in other domains, we would probably find that some of the effects were more slow burn.

Over the last five years, the Behavioural Insights Team, together with a growing list of practitioners from across government, have set about testing and trialling a huge range of interventions. They have discovered hundreds of new ways of delivering smarter, more efficient, more effective public services. This report is the next in a line of publications which details these findings - in this case, the last two years of work from the Behavioural Insights Team.

As I suggested in front of that Inquiry hearing, many of the examples do indeed show that it is possible to achieve significant effects quickly. One example of this I particularly like from this report is the use of existing email channels to help improve uptake of government programmes – helping to reduce the costs of delivering the programme, while supporting SMEs in the process.

This report also shows how behavioural insights can be used in more complex policy areas – as demonstrated by the Behavioural Insights Team's work with DWP and Jobcentre Plus. I have had the privilege of seeing this work progress from a single Jobcentre in Essex to nationwide roll-out.

Finally, the report's breadth demonstrates the use of behavioural insights in many different policy domains. This report covers examples of the Behavioural Insights Team's collaborations with government departments across almost every policy area – from health and consumer policy; through to energy, labour markets and growth; and even examples from international development.

All in all, it has been a great pleasure to see this area of policy develop. And I look forward to lots more examples of effective government practice in years to follow.

Oliver Letwin,
Chancellor of the Duchy of Lancaster, Cabinet Office

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Executive Summary

David Halpern, Chief Executive of BIT and National Advisor on 'What Works'

Owain Service, Managing Director of BIT

This report is the latest in a series of update reports from the Behavioural Insights Team (BIT), detailing the work of the team and recent findings. It covers the last two years of BIT's work.

This period has been an exciting one, both for BIT and for the growing field of practitioners around the world applying insights from the behavioural sciences to real world policy problems.

One of the biggest changes for BIT within the past two years has been to our organisational structure. In February 2014, the Behavioural Insights Team evolved from a unit embedded in the heart of the UK government into a social purpose company, which is partly owned by the Cabinet Office, our new partner Nesta, and the team itself.

This has enabled BIT to continue delivering a core programme of work for the Cabinet Office, and has given us the flexibility to respond to, and encourage the growing interest in the application of behavioural insights to public policy more widely. BIT itself has grown over the past year, from 14 people in February 2014, to more than 60 today. The growth of the team has enabled us to increase both the span and impact of our work – which is reflected in the quantity and range of examples set out in this report.

We have now run over 150 randomised controlled trials across almost every area of domestic policy. These have included a large trial with Jobcentres supporting people back to work, the findings from which have been rolled out across the country; our work on organ donation, which shows how a simple change can add 100,000 people to the organ donor register; a £20 million Growth Vouchers trial, which is testing the effectiveness of providing business support to SMEs; trials that show how we can help increase the number of successful applications to the police from black and minority ethnic communities; and lots of other interventions, detailed in the chapters that follow.

We have also continued to provide the UK Government with strategic policy support and advice, even when it has not been possible to run large-scale randomised evaluations. This has included the work we've been carrying out for the Treasury on the major reforms to UK pension policy; the groundbreaking analysis and policy work we have supported with the Home Office on mobile phone theft; our work with the Department of Health on the regulatory framework for e-cigarettes; and many other policy areas, again detailed in this report. We have also set up the first of what we hope will become several Research Centres, focusing on specific areas of policy. The Behavioural Research Centre for Adult Skills and Knowledge (ASK) has been established with the Department for Business, Innovation and Skills, and will run tens of trials in support of interventions that can help improve adults' literacy and numeracy skills.

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In addition to this has been the advancement of our methodologies and approach to applying behavioural insights. This has included the publication, in April 2014, of our simplified framework for the application of behavioural insights: EAST.[2] The EAST paper details four simple principles (Easy, Attractive, Social and Timely), based on a wide range of academic literature and BIT's own research, that policymakers and professionals can use to apply behavioural insights. Almost all of the work detailed in this update report draws from the thinking set out in EAST, together with the other methodological papers we have published over the years.[3]

Overseas, we have helped the Governments of New South Wales and Singapore to establish highly successful behavioural insights units of their own, headed by our Director of International Programmes, Rory Gallagher. These teams have not only successfully replicated and adapted interventions developed by BIT in the UK, they are now considered to be world leaders in their own right. We have also conducted trials with the World Bank and the United Nations Development Programme (UNDP), which have supported a growing interest amongst the international development community for behavioural insights work. This papers sets out, for the first time, many of the findings from our work with this growing body of practitioners. Over the coming months, our new office will be established in New York, supporting a programme of work for Bloomberg Philanthropies across mid-sized US cities. We look forward to reporting on early results from this important programme in next year's update.

Alongside the direct work we have undertaken internationally, it has been striking to see how behavioural insight approaches are spreading around the world – often looking to the UK for inspiration. These have included the establishment of a Social and Behavioural Science Team in the White House; a team in the German Chancellery; and the publication in late 2014 of the World Bank's annual World Development Report focused on behavioural insights (*Mind, Society, and Behaviour*).[4] Numerous other Governments (including the Netherlands and Finland) and international organisations (including the European Commission, the OECD, and UNDP) are setting up BIT-style functions or undertaking behavioural insights projects, drawing on the growing body of BIT and associated work, together with new findings from elsewhere.

In summary, it has been an exciting couple of years for BIT: we have become a successful social purpose company, and this has enabled us to increase our social impact, not just in the UK but also across the world. Our objectives remain the same: making public services more cost-effective and easier for citizens to use; improving outcomes by introducing a more realistic model of human behaviour to policy; and wherever possible, enabling people to make 'better choices for themselves'.[5]

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1. Economic Growth and the Labour Market

Sam Hanes, Head of Growth and Labour Markets

Economists have long known that psychological factors influence the economy. John Maynard Keynes famously referred to the importance of *'animal spirits'* upon the decisions we take – the notion that many of our choices are the result of a *'spontaneous urge to action'* rather than the *'outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities'*.[6]

The Behavioural Insights Team now has a growing programme of work that seeks to understand better the impact of individual's and businesses' behaviours on the economy, in order to find new ways of improving policy in the UK and overseas. For example, the interventions we started in UK Jobcentres two years ago have now been rolled out nationwide and introduced by governments in Singapore and Australia.

Helping people back in to work

One of the biggest programmes of work that the Behavioural Insights Team has run over the past two years has been with the Department for Work and Pensions and Jobcentre Plus on supporting people back to work. The programme started in a Jobcentre in Loughton, Essex, where we worked with the team of Job Advisors to redesign the process individuals went through when they signed on to receive benefits and began the job searching process.

The core insight was that encouraging claimants to focus on making specific commitments to future activities, linked to their daily routines, helped them to follow through on their job search intentions. The programme drew heavily on the work of Gollwitzer on 'implementation intentions'. This work shows that having a plan to achieve a goal (an 'implementation intention') increases the chance that people will follow it up with actions.

In the original programme in Essex, we ran a small pilot study and measured the difference in employment outcomes between those receiving the new commitment-focused interventions and those operating under the old regime (the control). This showed very promising results: around a five percentage point increase in off-flow rates from benefits, which in this policy area is a very large effect. The pilot also improved staff happiness in the Loughton Jobcentre, as Figure 2.1 shows (the increases in other areas were not statistically significant).

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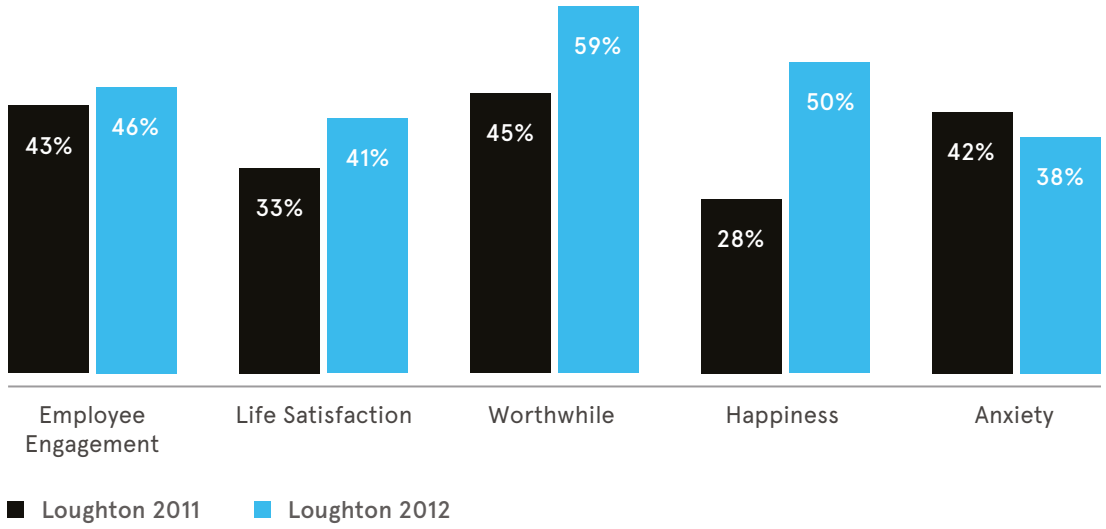
Figure 1.1 Staff wellbeing in Loughton Jobcentre Plus, before and after intervention (n = 32) (average scores on a survey normalised to percentage)[7]



After the original pilot in Loughton showed promise, the next step was to scale up the intervention. So we ran a large-scale 'step wedge' trial in which all the Jobcentres across Essex introduced the intervention over time, so that we could measure the difference in performance between those Jobcentres where the trial had been introduced against those where it hadn't yet started. Figure 2.2 shows how this worked in practice.

Figure 1.2 The step-wedged trial design for the large scale Essex trial

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Colchester	Control	Treat	Treat	Treat	Treat	Treat	Treat	Treat	Treat	Treat
Chelmsford	Control	Control	Treat	Treat	Treat	Treat	Treat	Treat	Treat	Treat
Harlow	Control	Control	Control	Treat	Treat	Treat	Treat	Treat	Treat	Treat
Clacton	Control	Control	Control	Treat	Treat	Treat	Treat	Treat	Treat	Treat
Harwich	Control	Control	Control	Control	Treat	Treat	Treat	Treat	Treat	Treat
Canvey	Control	Control	Control	Control	Treat	Treat	Treat	Treat	Treat	Treat
Rayleigh	Control	Control	Control	Control	Control	Treat	Treat	Treat	Treat	Treat
Grays	Control	Control	Control	Control	Control	Control	Treat	Treat	Treat	Treat
Basildon	Control	Control	Control	Control	Control	Control	Control	Treat	Treat	Treat
Braintree	Control	Control	Control	Control	Control	Control	Control	Control	Treat	Treat
Witham	Control	Control	Control	Control	Control	Control	Control	Control	Treat	Treat
Southend	Control	Control	Control	Control	Control	Control	Control	Control	Control	Treat

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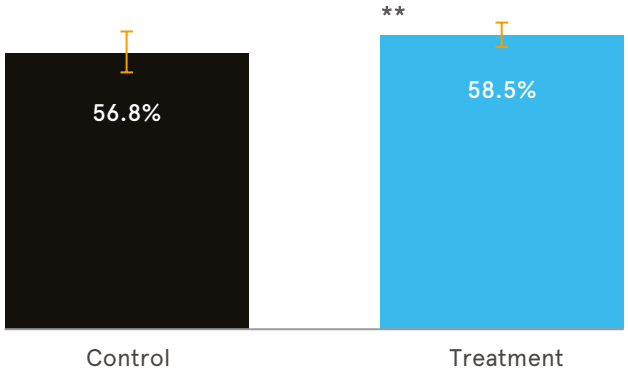
The results showed the interventions worked even when scaled up (see graph below). They also showed an increase in off-flow rates from benefits, albeit with a slightly lower effect than in the original Loughton pilot. In other words, this apparently simple, very low-cost intervention has a real impact on people's ability to find work.

Figure 1.3 Off-flow rates from benefits in Essex 'Stepped Wedged' trial (n = 110,838)



Following the convention of how inferential results are displayed, throughout this report we have used significance stars to indicate p-values (i.e. the level of statistical significance). The number of stars should be interpreted as: no star = P > 0.05, * = P ≤ 0.05, ** = P ≤ 0.01, *** = P ≤ 0.001.

On the back of these results, we have worked with the Department for Work and Pensions to scale up the intervention further. We have supported the training of 25,000 Job Advisors, and the commitment devices we developed in Essex are now in all Jobcentres. Over the course of a year, we expect that they will help hundreds of thousands of people back in to work faster.

In addition to the analysis conducted by BIT, which looked at off-flow rates from benefits, DWP analysts also carried out a separate piece of analysis, using administrative data that measured for cycling in-and-out of, or between benefits. This data also found a difference between the treatment and control group, but it was not statistically significant at the 5 per cent level.

Using text messages to prompt people to turn up to recruitment events

Alongside the core Jobcentre Plus programme, we have tested a variety of other, small-scale interventions to see if we can improve parts of the job searching system.

One of these interventions was undertaken with a Jobcentre in Bedford, using SMS messaging to test the effectiveness of encouraging claimants to attend job fairs. The SMS prompts are very simple and work by informing people when job opportunities arise. But because different messages work in different contexts, we tested which were most effective at getting people to attend these opportunities.

We found out that messages that draw on reciprocity are the most effective. These work by informing job seekers that the Job Advisor has done something specifically for them (in this case booking them an appointment) and wishing them luck from a named individual.

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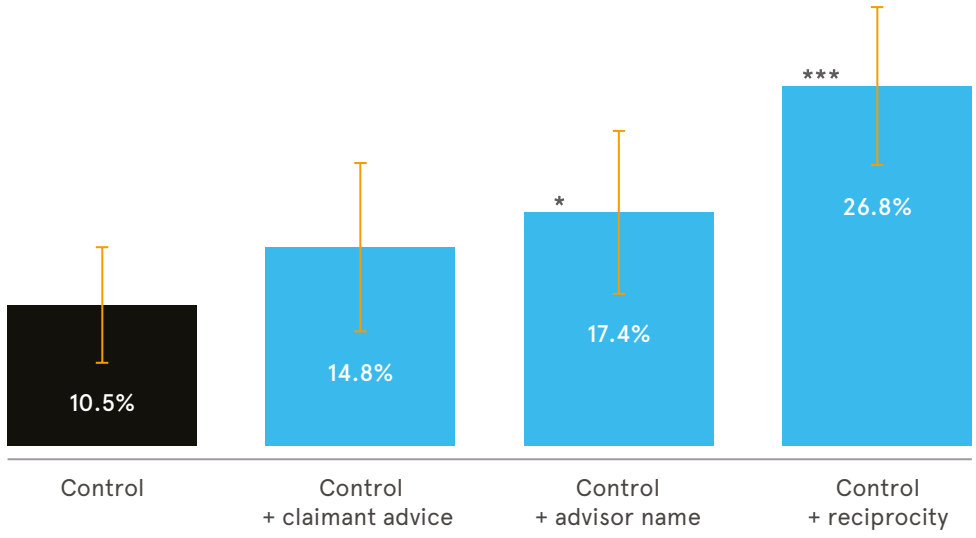
These messages significantly outperform messages that simply tell people where the appointments are taking place, as well as those that solely rely on the personal message with no reciprocity element. DWP are exploring how to implement behavioural approaches to SMS text design in a cost neutral way as part of their SMS text strategy.

Figure 1.4 Percentage turning up to recruitment events following different SMS prompts (n = 1,224)



The Growth Vouchers programme

In 2014, we were asked by the Treasury and the Department for Business to support one of the biggest trials (by funds) ever run in the UK. The Departments wanted to test a variety of Government interventions, aimed at helping small businesses to grow.

The Growth Vouchers programme offered up to £20 million of support, which businesses could apply for to help subsidise the cost of obtaining expert advice on topics such as: HR, web development or how they could increase productivity by upskilling their leadership teams. The programme was also designed to test the effectiveness of different delivery mechanisms such as carrying out an analysis of the business' support needs in person or through an online questionnaire.[8]

After a business had applied for the programme the application route they followed was determined randomly with 75 per cent receiving a face-to-face needs analysis, and the remaining 25 per cent completing the same process online. Rather than handing out the financial support to everyone (which would make it difficult to measure the impact), after their needs had been analysed, businesses were randomly assigned to one of two groups: (i) businesses received a Growth Voucher, which they could then use to pay for half the expert advice; and (ii) businesses received no voucher, but were given the same information about experts that could support them should they wish to pay themselves.

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The trial will take a while to be evaluated, because it takes time for the main effects of the intervention to be measured (ultimately whether a business grows or not as a result of the Vouchers). But alongside the impact of the programme itself is the broader lessons that can be learnt by policymakers – namely that it is possible to run a large scale trial in order to test a strategically important, complex new policy.

Some early evaluation has already taken place and further results of this programme will be published on the BIS website at regular intervals over the next 2-3 years.[9] As the next example shows, we also ran other trials to test new ways of encouraging businesses to take up programmes in the first place.

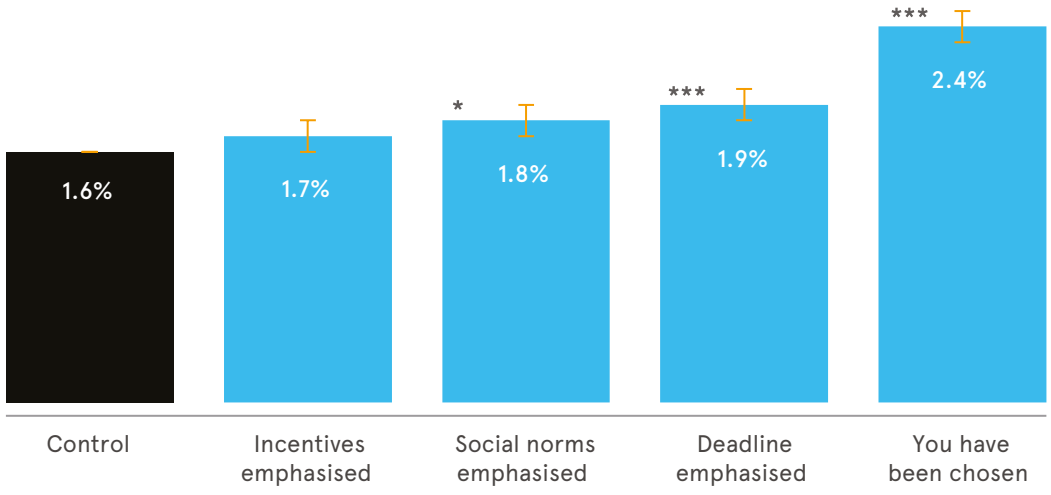
Using government email channels to increase uptake of programmes

Over the past year, we have done a lot of work with HMRC looking at how we can encourage small businesses to make use of government programmes that they can benefit from. One area that we have investigated has been how HMRC can use existing communication channels to prompt and inform small businesses when already contacting these companies about other matters (such as VAT returns). There was some concern that providing extra information might detract from the core HMRC message, so we ran a trial to see what happened when different types of messages were used.

The trial used almost 400,000 HMRC emails to communicate to SMEs about programmes they might benefit from (such as the Growth Vouchers programme – see above - or the Broadband Vouchers programme). Businesses were randomly allocated to two groups: (i) those that received the old type of email message; and (ii) those that that received the new email message, which contained information on government programmes. A variety of ways of conveying information within the email messages were also used.

The trial showed that simplifying the messages (in line with our 'Make it Easy' principle) worked very effectively. But we also found that some messages were more effective than others. Informing firms that their type of organisation had been chosen to receive information on the programmes was the most effective of all. The sheer number of emails also significantly increased sign-ups to the programmes, demonstrated by the peaks in demand in the period following the release of emails.

Figure 1.5 **Click-through rates for different HMRC emails (n = 376,738)**



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2. Health and Wellbeing

Michael Hallsworth,
Head of Health and Tax

Many of the most significant drivers of health are behavioural. The food we eat, the amount we drink, and the extent we exercise make a massive difference to the greatest health problems associated with modern societies. Yet the vast majority of health research spending continues to focus on clinical cures, rather than the behavioural drivers of obesity, cancer, diabetes, and so on.

Separately, there is a growing recognition that we need to understand better the behaviours of patients and clinicians within healthcare systems. We are starting to see that lives and money can be saved using often quite simple changes to the way that we administer healthcare: the way that we design forms, encourage people to turn up to appointments, or give patients feedback.

The Behavioural Insights Team has therefore expanded significantly its health programmes over the past two years, focusing on these two areas: behavioural drivers of health, and the administrative efficiencies of healthcare systems. In so doing, we have built very strong connections with two sister teams that have emerged over the past two years: the Public Health England Behavioural Insights Team and the Department of Health Behavioural Insights Team. Indeed, Public Health England commissioned us to develop and implement six behavioural insights trials with them, many of which are set out below.

E-cigarettes as a substitute for tobacco

Since 2010, we have recognised the potential benefits of e-cigarettes. In our 2010-11 Annual Update, we pointed out that an important tenet of behaviour change is that it is much easier to substitute a similar behaviour than to eliminate an entrenched one.[10] We also stressed how crucial it was to get the regulatory framework for these products right, given their potential benefits and the legitimate concerns around issues like marketing to children.

Over the past five years we have therefore been supporting the development of this regulatory framework. Findings from the past 12 months are encouraging for those who see the behavioural benefits of e-cigarettes. E-cigarettes are now the most successful product at helping people to quit smoking, and the evidence shows that almost all users of e-cigarettes are former smokers.[11]

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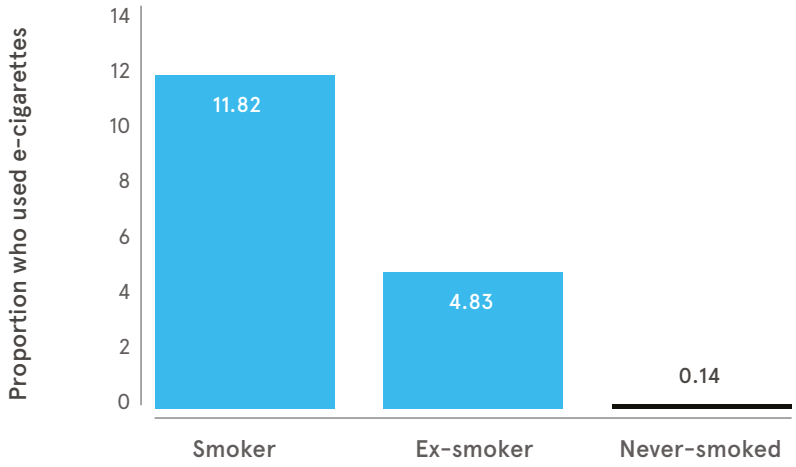
Figure 2.1 E-cigarette usage, by smoking status[12]



Reducing medication errors

One of the co-authors of the MINDSPACE report, Dr Dominic King of Imperial College London, approached the Behavioural Insights Team to support a fascinating programme of work he was undertaking in hospitals. Dominic noticed that the prescription charts (used by clinicians to record prescriptions made for patients) often contained errors on them. Some of these errors were a result, Dominic surmised, of the way that the forms were designed.

The forms were redesigned in order to see if error rates could be reduced. For example, rather than allowing clinicians to write dosages (`micrograms') in a free hand, the new forms allowed them to circle which one applied, in order to reduce the number of illegibly-filled forms (it is difficult, often, to discern whether a handwritten scrawl says `microgram' or `milligram').

In a paper published in the British Medical Journal Open, Dominic reports significantly lower error rates in each of the important domains.[13] In some areas, errors have been all but eliminated in a simulated environment. If adopted, Dominic thinks that he will have saved many more lives through the redesign of these forms than he ever might have done through a lifetime of surgery. The next challenge is to drive uptake of improved charts of this kind (and ensure the next generation of electronic charts adopt these principles).

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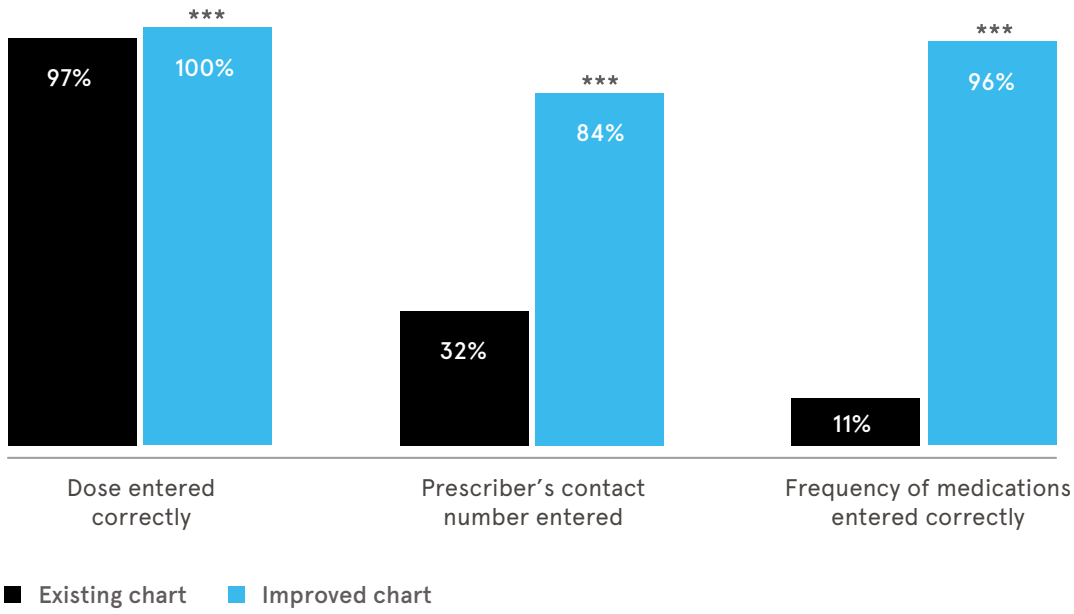
Figure 2.2 **Proportion of correctly entered medication orders in existing and improved charts (n = 337)[14]**



Reducing smoking in pregnancy

One of the areas that we have worked on with Public Health England has been smoking in pregnancy. A core tenet of behavioural thinking is that it can be highly effective to prompt people to change their behaviour at key moments in time. There is evidence that approximately 45 per cent of women who smoke quit spontaneously in the lead up to their pregnancy (if their pregnancy is planned) or on finding out they are pregnant.[15] It is likely that there may be others who intend to quit at this moment, but do not have the resources or information to do so.

Despite this potential, there are currently no stop-smoking interventions that focus on the moment a pregnancy is discovered. In most cases, the earliest intervention takes place at around 8-10 weeks, when women have their first antenatal booking appointment.

This led Public Health England, BIT and researchers from Cambridge and Nottingham universities to work with ASDA to place stickers on pregnancy tests. These stickers pointed out that the purchaser could easily access help to stop smoking in pregnancy by texting a 'shortcode', if desired (see image below).[16] These stickers were piloted in a proof-of-concept study at 10 stores in areas with high rates of smoking in pregnancy.

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Figure 2.3 Trial sticker and pregnancy test kits

The study team measured the number of tests sold and the number of sign-ups to the service. The prompts had only a very small effect on sign-up rates for the service. This is a good illustration of why it is important to test and trial interventions before rolling them out.

Reducing missed hospital appointments

Around one in ten hospital outpatient appointments are missed every year in England. Missed appointments lead to worse patient care and can waste NHS resources. Many hospitals send patients a text message reminder before their appointment. These reminders are effective and cheap, but there is no evidence about what they should contain in order to minimise missed appointments.

In partnership with the Department of Health, we therefore set out to find out which messages were most effective at discouraging no-shows. The study team ran two randomised controlled trials. We will be publishing the findings from these trials with the Department of Health and the trial partners over the coming months.

Increasing organ donations

Behavioural scientists have long been interested in organ donation schemes. Much of their attention has focused on the effect of 'opt out' versus 'opt in' schemes – in other words, whether someone has to make an active choice to join the organ donor register, or make an active choice to leave it. The latter type of scheme generally sees much higher registration rates.

In the UK, we have an 'opt in' system, but government channels are used to encourage people to sign up. A key question is therefore how people are encouraged to join the register. To answer this question, we partnered with the NHS, the Department of Health, the Government Digital Service and the DVLA to run one of the largest trials ever

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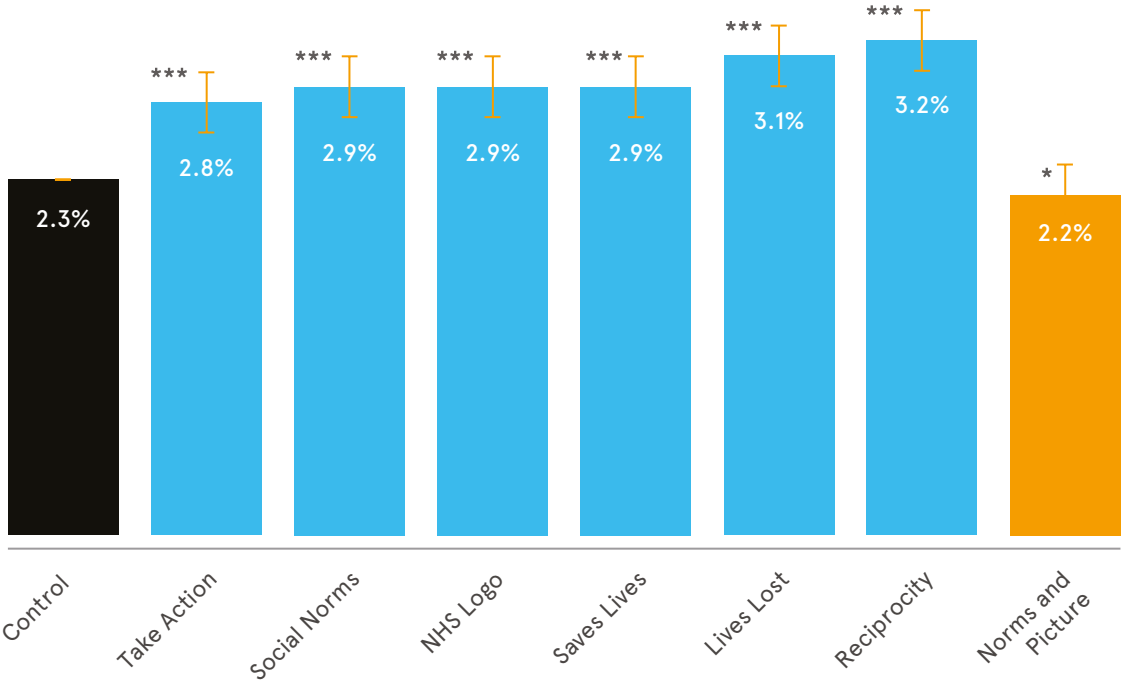
conducted in the UK public sector. This involved inserting short phrases into an existing webpage that provided a link to the organ donor register, and which appeared after a user had finished obtaining their vehicle tax.

The results were very encouraging. The best-performing message was based on reciprocity ('If you needed an organ transplant, would you have one? If so please help others.'). This message outperformed the existing webpage by around 100,000 additional registrants per year. We also discovered that one message (a social norm message with a picture of a group of individuals) actually resulted in fewer registrants – an important reminder of the need to test interventions before rolling them out.

Figure 2.4 **Organ donation register sign-ups resulting from different messages (n = 1,085,322)**



Reducing unnecessary prescriptions of antibiotics

In her recent Annual Report, the Chief Medical Officer highlighted the growing problem of antibiotic resistance.[17] Without effective antibiotics, even minor surgery and routine operations could become high risk procedures if infections cannot be treated.

Part of the solution is to discover new forms of antibiotics. But there is also a strong behavioural component, since resistance is partly driven by unnecessary prescription of antibiotics by doctors.[18]

In partnership with Public Health England, the Department of Health and the Chief Medical Officer, we ran a nationwide letter-based trial to see if GPs could be discouraged from prescribing antibiotics where there was no clinical need. The intervention drew on a classic behavioural effect: informing doctors how their prescribing patterns differed from the norm. A comparison group of GPs received a social marketing pack that included posters and leaflets.

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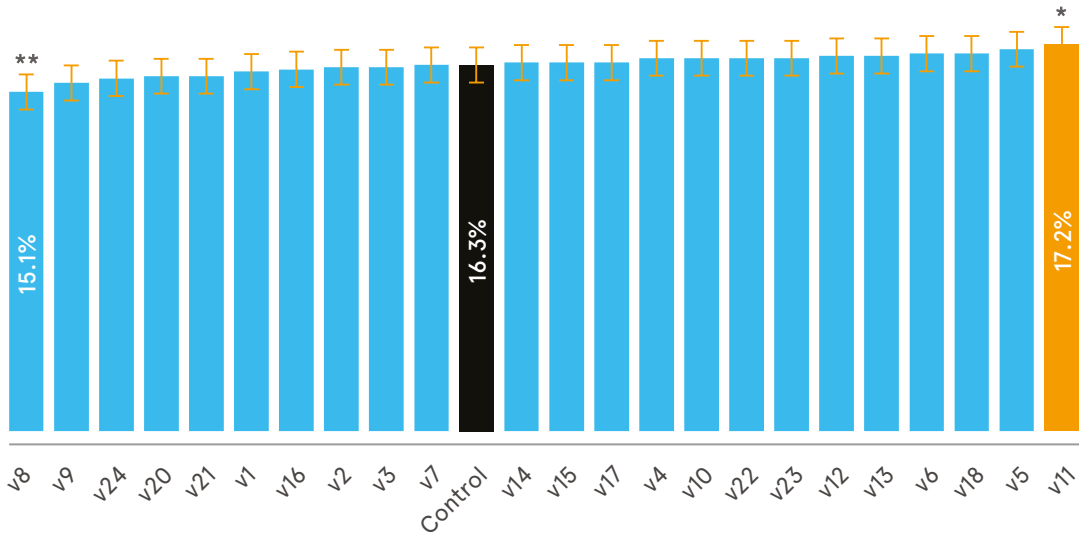
The letter intervention was sent to 3,300 GPs in 791 practices with the highest prescribing rates in their local areas. These practices prescribe around two million antibiotics every year, so even marginal improvements could have a big impact. The results of the intervention – which ran from October 2014 to March 2015 – will be published shortly in a peer-reviewed journal.

Enhancing Stoptober

Public Health England's well-known Stoptober campaign aims to get people to stop smoking for the month of October. In order to participate, people have to sign up at the official Stoptober website. Although advertising and other promotions succeed in directing traffic to the website, not everyone who visits ends up registering.

In order to increase participation in the campaign, we worked with Public Health England to test different website messages, images and choice architecture in a live randomised trial. The best-performing page included a health benefits message and a testimonial, but lacked a rotating carousel of images (this is v11 in Figure 1.5). More importantly we found that including the carousel of images consistently reduced sign-ups by 0.5 percentage points. By removing the carousel while the campaign was still live, Public Health England and BIT were able to add 3,000 registrations to the campaign.[19]

Figure 2.5 **Testing many different web messages to see which is most effective at encouraging people to sign-up at the official Stoptober website (n = 345,469)[20]**



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3. Empowering Consumers

Felicity Algate,
Head of Consumers & Financial Services

Kate Glazebrook,
Principal Advisor

One of the earliest papers produced by the Behavioural Insights Team focused on empowering consumers. Supporting and enabling consumers[21] to make better decisions for themselves has remained a core focus of the Behavioural Insights Team ever since our work began.

This has included a focus on how consumers can access data that firms hold on them to support consumers' choices (the midata programme). It has also seen us doing extensive pieces of work in relation to specific markets – most recently the new pensions system, which gives consumers more choice as to what they do with their pension pots upon retirement.

Supporting the new pension system

One of the biggest policy changes that the Government has introduced in the past two years has been to pensions. Under the old system, most pensioners were required to purchase an annuity with their pension pots. Under the new one, introduced in April 2015, individuals have free choice as to how to spend their pension. They can purchase an annuity should they wish, but they can also decide to invest their money in other ways or withdraw their whole pension pot.

For many people, this is a new and complex decision, and one which is extremely important to their financial wellbeing in later life. So when announcing the new freedoms, the Chancellor of the Exchequer also made a commitment to provide guidance to people to help them think through their options (the 'guidance guarantee', which is delivered under the new Pension Wise service).

Since Autumn 2014, the Behavioural Insights Team has been working with the Treasury in the run-up to the launch of the programme. Our work has been heavily focused on supporting consumers to find out about guidance and to get the information they need to make an informed decision (including understanding their own longevity, something we know from research that most people underestimate).

Evidence shows most people struggle to engage with the volume and complexity of pension information. So, in addition to partnering with pension providers to trial ways of signposting people to guidance, we have also been working with the industry and its regulators to introduce a single-page summary of the key pension details (the 'Pension Passport'). Standardising and simplifying pension information should help consumers more confidently navigate the new landscape and provide a foundation for the wider move towards the electronic integration of information.

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The midata programme

One of the biggest areas of long-term of interest for the Behavioural Insights Team has been the midata programme. This was first launched by the Department for Business, Innovation and Skills in partnership with BIT as part of the consumer empowerment strategy in 2011. Midata enables individuals to access information that businesses currently hold about them, which is often hard to get hold of.

The long-term aim is to simplify the processes that individuals need to go through to access this data, so that third-party app and website developers can build products and services that enable consumers to make decisions based on their actual spending and usage data.

One example is energy switching. If you had an accurate picture of your past usage that you could download from your energy supplier (rather than having to input data from your last bill, which might be hard to understand), you could more readily switch to a cheaper tariff.

Since the introduction of the midata programme, some progress has been made, but it has been slower than we might have hoped. One recent change is that energy companies now have to print a QR code on to people's bills, enabling consumers to scan the code and - with the help of a switching app - switch to the best tariff in a matter of seconds.

Personal current accounts have also seen some progress. Since September 2013 consumers have been able to switch their current account in seven working days – with all outgoing payments transferred to the new account, and any incoming payments automatically redirected for 13 months after the switch date. In the first half of 2014 the overall switching rate increased by 16 per cent compared with the same period the previous year.[22] However, overall switching rates still remain very low at around 1.8 per cent of all active accounts.[23]

Winter fuel notifications

Over the winter of 2014/15, BIT worked with Department for Work and Pensions to test a very simple idea: prompting the millions of recipients of Winter Fuel Notifications to consider switching their energy supplier by providing relevant information on the letters being sent to them.

This is an important issue, as the Winter Fuel Notifications support individuals across the country to pay for their energy expenses over the winter. But it is possible for people to save even more money, if they have not switched their energy supplier in recent years.

The prompts were placed on the outside of the envelopes because we know from our work with HMRC that this is an effective way of encouraging action. They were sent to eight million households. Although the programme was not run as a fully randomised evaluation, we do have some promising early findings. In the period after the letters began being sent out, the number of people visiting goenergyshopping.co.uk (the Ofgem website) increased by up to 20 per cent.

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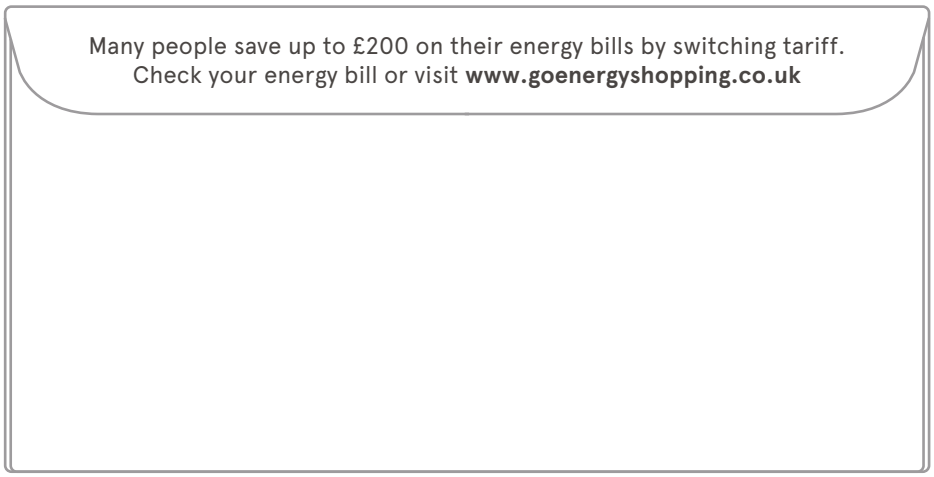
Figure 3.1 Illustration of the simple messages on the outside of envelopes



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4. Skills and Youth

Elspeth Kirkman, Head of Skills & Youth (and Director of ASK)

Zhi Soon, Principal Advisor and incoming Director of ASK

Over the past year, the Behavioural Insights Team has undertaken considerably more work on skills and youth programmes. Most notably, BIT has set up its first Behavioural Research Centre in partnership with the Department for Business, Innovation and Skills.

The Behavioural Research Centre for Adult Skills and Knowledge (ASK) provides us with funding in four financial years to run trials that can further the evidence-base around the acquisition of basic skills in adulthood. It was run by Elspeth Kirkman, but Zhi Soon has now taken over as Director, as Elspeth heads to New York to establish our North America office.

We have also undertaken a variety of other work programmes in partnership with the Department for Education, including further investigations into the way that social workers make decisions. And in partnership with the Cabinet Office, we have conducted some of the most sophisticated evaluations yet undertaken to understand better the efficacy of youth volunteering programmes.

The Behavioural Research Centre for Adult Skills and Knowledge (ASK)

Adults who lack literacy and numeracy skills tend to be less productive at work, earn lower wages, are more likely to suffer from ill health and experience social exclusion. The Behavioural Research Centre for Adult Skills and Knowledge, or ASK for short, was officially opened on 17 September 2014 to conduct research in this important policy area.

In its first year, ASK has focused on the impact of relatively low-cost interventions in colleges, workplaces and with charities. Over the course of the next two years, ASK will scale up the interventions, and will run much bigger interventions across the country.

One of the first of these trials has explored how we can encourage adults, with low English and maths skills, to stick with educational programmes. This has been identified as a key problem, with many college programmes experiencing high rates of attrition at key moments. Using a unique dataset, the ASK team found that attendance rates in these programmes deteriorate by 20 per cent over a 10 week span. In the programmes analysed, we found that deterioration is largest after the one week break in the middle of the programmes.

We therefore tested whether we could make small changes to reduce attrition through a large-scale field experiment in which we send encouraging text messages to students. These simple text messages lead to a 7 per cent increase in attendance relative to the control group.

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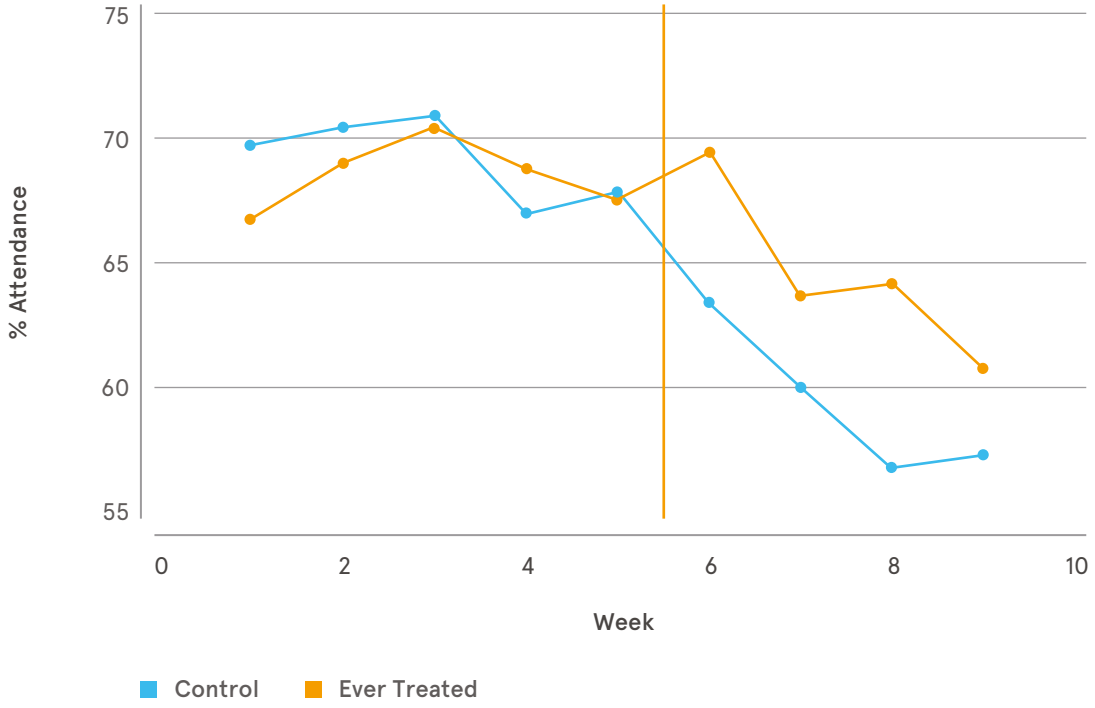
Figure 4.1 Percentage attendance following simple text messages (intervention) (n = 1,632)



More encouragingly still, we see that drop-out (that is to say those who never come back after the mid-term break) decreases by 36 per cent in our treatment group relative to the control. The results of this trial have been received well across the sector, with a number of colleges looking to implement a similar text message regime.

ASK has also conducted a trial in which variants on a CV were used in over a thousand job applications. This provides empirical evidence on the signalling value of different skills, demonstrating that employers value GCSE grade C significantly more than they value Functional Skills Level 2 for low-skilled jobs. Once the final analysis of the results have been completed, ASK will provide a note to BIS including recommendations on how the findings could be incorporated in to government policy.

Finally, we have conducted two further trials using messaging on employee payslips to test the latent levels of interest in improving numeracy and literacy through work. Early indications suggest levels of interest are extremely low.

These trials are just the first of what will ultimately become one of the biggest collections of trials ever run in relation to adult skills and knowledge. In the coming year, we will be launching a series of trials across Children's Centres in the UK designed to test the way in which different types of incentives can motivate parents to improve their skills. This work has considerable cross-departmental involvement with the Department for Education, the Department for Business Innovation and Skills, the Department for Work and Pensions and the Treasury all involved in its development.

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Social worker decision making

In April 2014, the Department for Education published BIT's report on the clinical judgement and decision making processes of children's social workers.[24] This was commissioned by the Secretary of State for Education and the Prime Minister. The specific focus was the 'front door' process, which is the entry point for children coming in to contact with the Child Protection System. BIT undertook a literature review and numerous site visits before drawing on the behavioural science literature to identify a number of recommendations.

The analysis suggested that there was an overarching problem that there was very little evidence that social workers could draw on around 'what works' in particular contexts. And there were four key behavioural factors that complicate or reduce the efficiency of social workers' ability to make often highly complex, challenging decisions. We made four recommendations to address these issues:

- develop quantitative, predictive modelling to identify effective practices;
- introduce feedback loops to help social workers learn from past decisions;
- improve the inputs to the system, by developing simpler systems for filtering out irrelevant information; and
- develop heuristic tools and/or checklists to guide decision-making without the complexity of actuarial tools.

As a follow-up action, the Department for Education commissioned us to undertake two further pieces of work:

- A data analytics task whereby we take all data held by four Local Authority Children's Services Departments at individual case-level to analyse patterns in decision making and identify opportunities for intervention; and
- A further piece of qualitative research into the Adoption matching process and the behavioural factors at play.

West Sussex County Council fostering

Beyond the work with the Department for Education, we also undertook a project with West Sussex County Council's Children's Services Department in which we analysed issues relating to the Adoption and Fostering Service and ran a trial aimed at getting existing Foster Carers to take on more challenging placements. To do this, we focused on improving some of the non-cognitive skills that Foster Carers need in order to keep going when things get tough and to take on increasingly challenging placements.

We designed a course aimed at addressing mindsets, resilience skills, stress reduction, engagement and a sense of community. We used a Train-the-Trainer model, teaching social workers how to run the course for Foster Carers, and ran a randomised control trial in which we allocated 50 Foster Carers to receive the training and 50 to the control group. In pre and post surveys, we see significant improvements for engagement and, most encouragingly, resilience.

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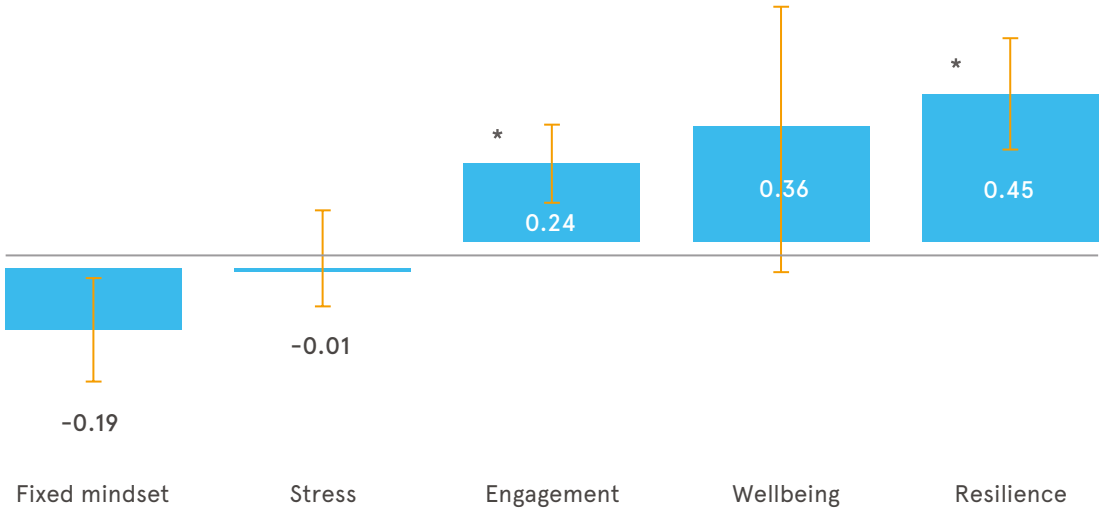
Figure 4.2 **Impact of training on foster carers: survey results (n = 34) (average scores on a survey normalised to percentage)**



Youth Social Action Fund

The Cabinet Office's Social Action Team asked BIT to support an evaluation of a range of different programmes aimed at building the skills and aspirations of young people. In particular, we were asked to find ways to measure the impact of taking part in social action on key skills for work and adult life.

Our analysis provides compelling and robust evidence that young people who take part in social action initiatives develop skills for employment and adulthood and boost their wellbeing in the process. Using randomised controlled trials, and drawing on a mature field of research linking specific character skills to hard outcomes, such as employability, the research demonstrated that – for those programmes we have evaluated – investment in social action leads to benefits for young people taking part as well as for the intended beneficiaries.

The research also provided the first robust evidence for an unanswered question around volunteering – whether volunteering in one environment crowds in or out donations of time and money later. As part of the RCT evaluating the Citizenship Foundation's Youth Social Action Programme, we found that young people were also more likely to express an interest in volunteering to help their community later on. They were also given a chance to donate a small amount of money to charity, and we found that donations to the charity decreased in the treatment – suggesting that donations of time are habit forming, but that these might crowd out donations of money at least in young people.[25]

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5. Education

Michael Sanders, Head of Research, Education & Charitable Giving

Zhi Soon, Principal Advisor and incoming Director of ASK

Education has always been an area of interest to behavioural scientists – a result of the fact that there appear to be a myriad of cultural and behavioural barriers to individuals undertaking educational programmes.

At the same time, there has been growing interest in some of the more administrative aspects of education – like how to encourage the brightest individuals to become teachers, and what the most effective way of giving feedback to pupils or parents might be.

As a result of this interest, we have undertaken several projects on education this year, both at policy level and within schools themselves. Although this remains a relatively small programme at the moment, our ambition is to grow it over the next 12 months.

Pupil Premium awards and reporting tool

In 2014, BIT was asked to make some suggestions as to how the Department for Education could encourage schools to focus their pupil premium budget on improving the performance of disadvantaged pupils (for whom the Pupil Premium is given). We suggested enhancing the existing incentive-based system by reforming the Pupil Premium Awards.

BIT drew on the rich academic literature that shows that the way in which an incentive is framed can have a substantial impact upon the way in which individuals respond to it. For example, rather than giving a financial incentive to everyone (which can be very costly), under certain circumstances, it can be effective to give a large number of small awards and a minimal number of eye-catching larger awards for meeting explicit and easily understood criteria.

This insight lay behind the restructuring of the Pupil Premium Awards, which now offer large rewards for schools that improve the attainment of their disadvantaged pupils with exemplary use of their Pupil Premium funding.With help from BIT, the Department for Education has also implemented a communications campaign that encourages winning schools to collaborate with those that are struggling, and that encourages schools that missed out to push that bit harder for an award. Consistent with the academic literature, we have helped the Department for Education to devise simple messaging that will maximise engagement with the new awards, such as the example on the following page (see figure 5.1).

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Figure 5.1 illustration of the simple messages on the outside of envelopes

In parallel with redesigning the awards, we have also been working with the Education Endowment Foundation (EEF) on devising a web-based tool that schools can use to help plan and report their Pupil Premium spending with direct integration to the toolkit. The aim is to take the friction out of a difficult administrative process (reporting spend) by linking it to the planning process and automating the reporting element.

The Somerset Challenge

The Somerset Challenge was established during the 2013-14 academic year as a collaborative partnership of schools, with the goal of significantly raising standards of achievement for young people in Somerset. Thirty-nine schools are involved.[26]

The Somerset Challenge team asked BIT to work with a number of schools in Somerset in order to test new ways of increasing student performance and outcomes. The ongoing trials have been designed in order to raise future aspirations, to inspire students to reach their full potential by applying to university, and to improve the academic performance of students through structured feedback.

The trials cover a diverse range of areas; from increasing the aspiration of pupils to go to university, by dispelling commonly held myths, to providing more systematic feedback through an online virtual platform built by the BIT team.

We found that when students received a talk – which emphasised the lifestyle benefits of university – this had a significant and positive effect on increasing the students' reported interest in and likelihood of attending university. However, those who received written information about the benefits of university education they were significantly less likely to want to apply.

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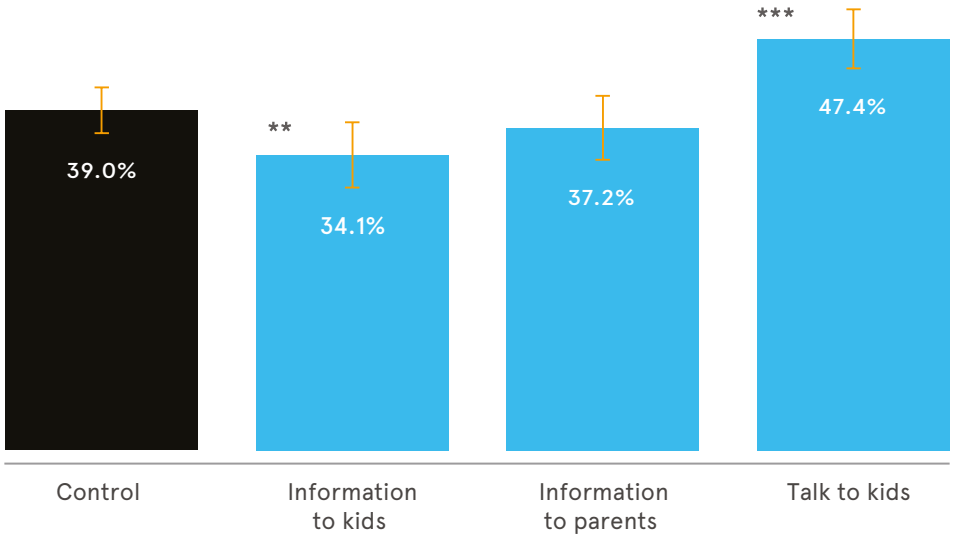
Figure 5.2 **Effects on students' reported likelihood of attending university (total n = 1,440)**



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6. Home Affairs

Simon Ruda, Head of Home Affairs & International Development

There have been few empirical studies in the policy areas that often fall under the umbrella term of 'home affairs' – crime, immigration and national security. There have been even fewer examples of behavioural insights being systematically applied in these areas.

Yet there should be rich pickings here because some of the great reductions in volume crime can be attributed to behavioural factors. For example, motorcycle theft fell dramatically across the world when riders were required to wear helmets. In Germany, after the introduction of helmet laws in 1980, annual motorcycle thefts dropped by two thirds, to about 50,000 in 1986 versus 150,000 in 1980.[27] Why? To steal a motorcycle, offenders now needed to bring a helmet with them to remain inconspicuous on the roads: not a problem for a determined thief, but a major barrier to opportunists. Only a small proportion of motorcycle thefts were displaced to other vehicles.

It is therefore no surprise that BIT has become increasingly interested in how behavioural science can support policymaking in home affairs. This has not just been focused on reducing crime, but on broader issues, such as supporting the Passport Office in periods of peak demand; improving police workforce morale; increasing minority recruits to the police; and reducing online exploitation.

Increasing the diversity of the police workforce

There is a significant body of behavioural science work that focuses not just on the behaviour of individuals, but on the way in which individuals behave within organisations. This research can support organisations to improve workforce wellbeing, productivity and other important activities (such as recruitment) which are associated with improvements in performance.

The Avon and Somerset Constabulary has asked BIT to provide advice and support to help it improve internal practices. A range of trials have been designed and some launched at the time of the publication of this report, many of which we hope will hold lessons for other police forces and large organisations.

One especially interesting trial focuses on increasing the diversity of the police force by targeting the assessment process during recruitment. There was a disproportionate drop in Black and Minority Ethnic (BME) applicants at one stage in the process, where applicants were asked to take an online test that assesses candidates' situational judgement capability. BIT adjusted the reminder email that applicants see before taking a test of their situational judgement, making the tone friendlier and prompting candidates to consider what becoming a police officer would mean to them and their community.

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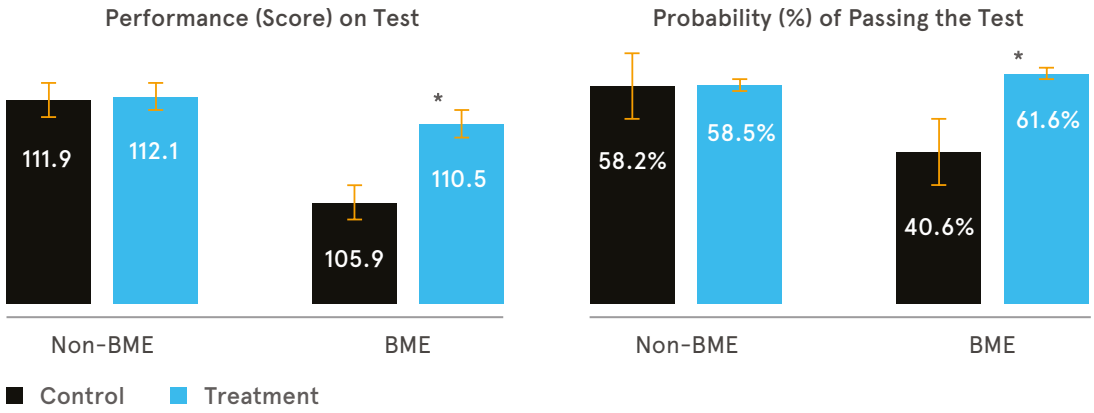
This simple intervention, at no additional cost to the recruitment process, managed to increase the probability that a BME applicant passes this stage by 50 per cent, effectively closing the gap in performance between BME and non-BME applicants. Of course, this is just one step in the application process. Over time, we will be able to measure what impact it has upon final recruitment levels.

Figure 6.1 **Changes in performance and probability of passing recruitment test of black and minority ethnic applicants following BIT changes to process (total n = 1,593)**



Other trials will focus on improving police engagement and morale in ways that should affect overall performance, by improving the way feedback from citizens is given to police officers, and giving police officers on the ground more information about the positive impact of their work.

Reducing illegal migration and illicit employment

In 2014 BIT contributed to the Prime Minister's review of illicit working, focusing on practical measures to encourage exploited workers to come forward and report their plight to the police or relevant authorities. Many exploited workers are foreign nationals who do not have leave to remain in the UK. Unsurprisingly, this is a powerful barrier that prevents workers, many of whom suffer conditions that have been referred to as modern-day slavery, from helping the police prosecute and shut down the illicit employers and human traffickers who drive this appalling industry.

Built in to this situation is an unhappy 'cycle of collusion' between the illicit employer and the illegally employed. Collusion, in various guises, underpins the majority of illegal working arrangements in the UK.

BIT continues to support national policy in this area and have worked with the Home Office and HMRC to undertake a full randomised controlled trial (RCT). The RCT tests the impact of an intervention designed to encourage active decision-making about the working status of employees. Outcome measures include voluntary departure from the UK, employment status and leave to remain in the UK. The results are expected in the second half of 2015.

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Increasing voluntary departures of illegal migrants

BIT has been working with the Home Office to consider new measures to help illegal migrants to voluntarily return home, focusing initially on engagement at reporting centres. Reporting centres are seen as an important but underutilised opportunity to prompt illegal migrants to consider whether leaving the UK voluntarily would be a preferable option in their circumstances.

Starting in December 2014, BIT undertook a short piece of ethnographic research at reporting centres across London, reviewing current procedures and interaction points to gain an understanding of the reporting centre experience from the perspective of a member of the reporting population and the reporting agent.

Informed by this, BIT developed several options for Home Office consideration to employ behaviourally informed trials in reporting centres that could encourage higher numbers of voluntary departures from the UK.

At this stage, the precise scope of a trial is still being finalised, with the aim to combine a number of behavioural elements to create a distinct reporting centre experience that encourages members of the reporting population to consider voluntary departure as an alternative to their current situation.

Reducing mobile phone theft

In September 2014, the Home Office and BIT published a groundbreaking paper on mobile phone theft.[28] Following analysis of results from the Crime Survey for England and Wales, and by analysing thousands of data points detailing mobile phone thefts in London, we produced the most detailed evidence yet on how and when mobile phones are stolen, and who is most at risk.

The data showed that victims of mobile phone theft are likely to have had their phones stolen directly from their person (e.g. through pickpocketing) or when the handset is momentarily left unattended (e.g. from a table in a bar). The data also showed that certain groups of people are especially vulnerable: 14- to 24-year-olds, and particularly women, are more likely than any other group to be the victim of mobile phone theft.

The richness of the London dataset provided by the Metropolitan Police also enabled us to see which types of phone were most likely to be stolen. In the period between 1 August 2012 and 5 January 2014, over 50 per cent of all phones stolen in London were Apple iPhones.

We used this data to produce the first ever 'Mobile Phone Theft Ratio', which shows how likely the top makes of handsets were to be deliberately targeted. The graph below reports the mobile phone theft ratio scores for the 20 most 'over-stolen' phones in London between January 2014 and January 2015 – an update to the report published in September 2014. A score above zero suggests that these phones are being deliberately targeted.

As in the first edition of the index, we find that smartphones are much more likely to be 'over-stolen' than other phone types. The dominance of Apple iPhones of the top rankings in this scale has been slightly disrupted, a pattern that was beginning to emerge at the end of the previous data period.

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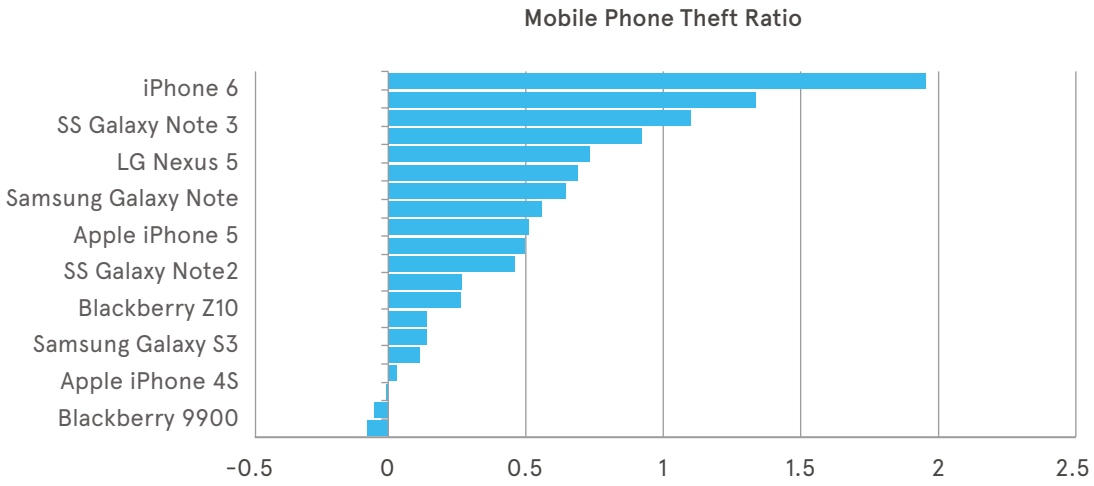
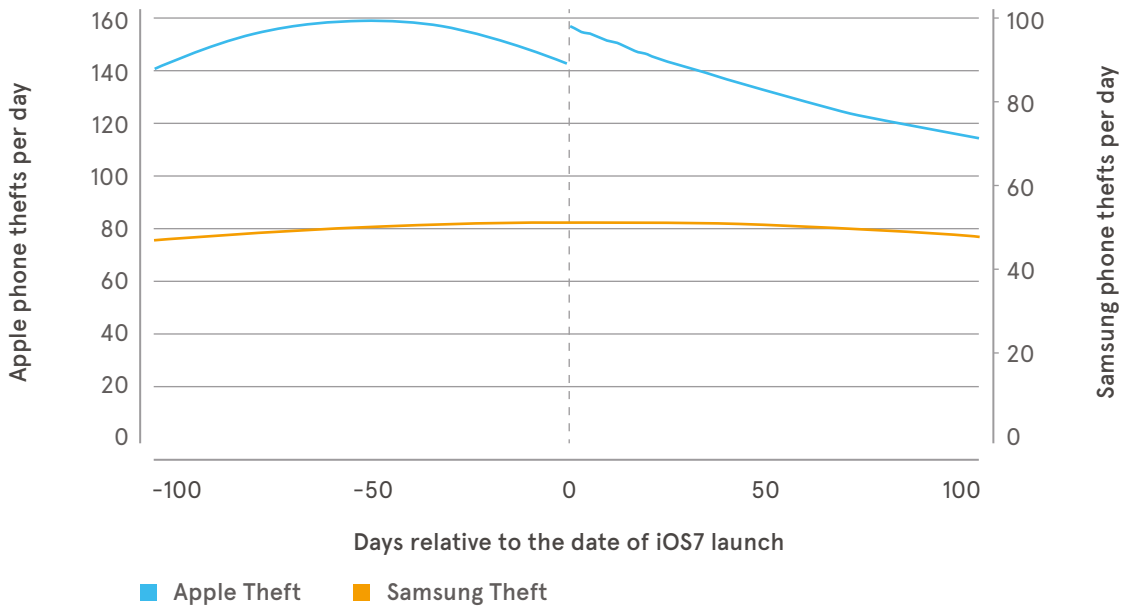
Figure 6.2 Mobile phone theft ratio (a score above zero suggests a phone is being deliberately targeted by thieves) (n = 198,254)



We were also able to observe the impact of new security measures on smart phones. The graph below describes the considerable effect of Apple's operating system iOS7 – which defaults users into setting a passcode lock and makes it easier for them to activate functions like 'Find My iPhone' – at reducing the attractiveness of iPhones to thieves.

Figure 6.3 Reduction of Apple iPhone thefts after launch of iOS7



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Reducing crime through behavioural interventions

At the beginning of 2015, BIT began a long-term programme of work for the Dawes Trust, a charity with a mission to support innovative research that can help reduce crime. The programme of work involves devising and implementing a series of behaviourally-informed Randomised Controlled Trials over 18 months to test the impact of new behavioural interventions within the criminal justice system.

These trials will be focused on four research areas:

1. Changing the behaviour of the general public to reduce crime
2. Reducing mobile phone theft (including through discouraging the false reporting of mobile theft)
3. Taking advantage of in-custody settings to change behaviour
4. Making cybercrime harder to commit.

By implementing a series of robustly evaluated interventions, the aim is to pump-prime the wider use of rapid, practical intervention studies across the criminal justice system, helping to unlock a more fundamental shift towards evidence-based approaches to reduce crime in the UK. It is anticipated that the first trials will be launched in mid-2015, with the research programme to conclude in late 2016.

Supporting the Army Reserve

The Army Reserve provides highly trained soldiers who can work alongside the Regulars on missions in the UK and overseas. It also gives people who have specialist skills, such as medics and engineers, a range of opportunities to use these in new ways.

The Army therefore asked BIT to help increase the effectiveness of its recruitment processes. In particular, BIT was asked to identify why there were large numbers of 'dropouts' between the initial expressions of interest and those who eventually signed up. Following a short piece of work focused on understanding potential Reservists' use of the online sign-up process, BIT designed a trial to test different ways of encouraging people to remain throughout the process.

The intervention was effectively an upgrade to the existing customer relationship management system. We tested, over a five-month period, the impact of an additional programme of emails to candidates who had declared an interest in joining the Reserves. These emails were sent from the account of a real and named officer in the Army Reserve, detailing some of his actual experiences. The emails were sent in addition to standard marketing communications material designed by the advertising agency appointed by the Army.

The intervention had a large impact, almost doubling the proportion of candidates filling out and submitting their application forms.

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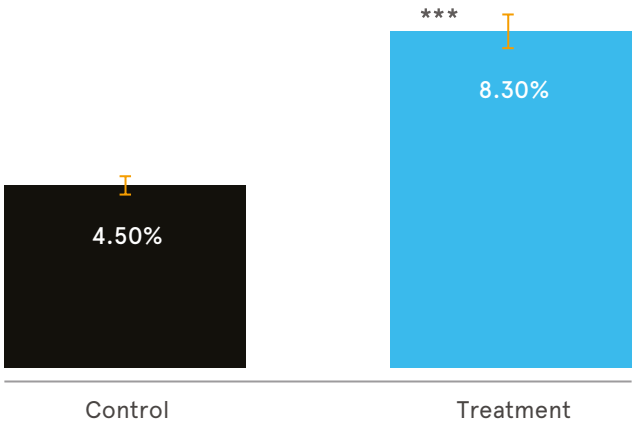
Figure 6.4 Application rates of candidates for the Army Reserve (total n = 5,204)



Online exploitation and cybersecurity

BIT has been working with several partners to understand how behavioural insights can contribute to reducing the online exploitation of individuals and businesses. There are three programmes of work in this space.

Firstly, we designed an online experiment to test different ways to encourage users to create stronger, yet memorable, passwords. We asked 785 people to take part in an online, paid activity, for which they were required to create a password. Four days later, we invited them to take part in a follow-up session, which required them to use the same password to login. We used different prompts when asking people to create a password and then observed password strength and ability to recall passwords.

When individuals were prompted to create a password by stringing together three random words, overall password strength increased by 23.3 per cent. The study participants did not find it harder to recall their password four days later compared to the control condition, which imposed no requirements on the chosen password. The other conditions (abbreviating words from a memorable sentence; and combining two memorable words) also proved easy for the participants to remember, but did not result in stronger passwords relative to the control condition.

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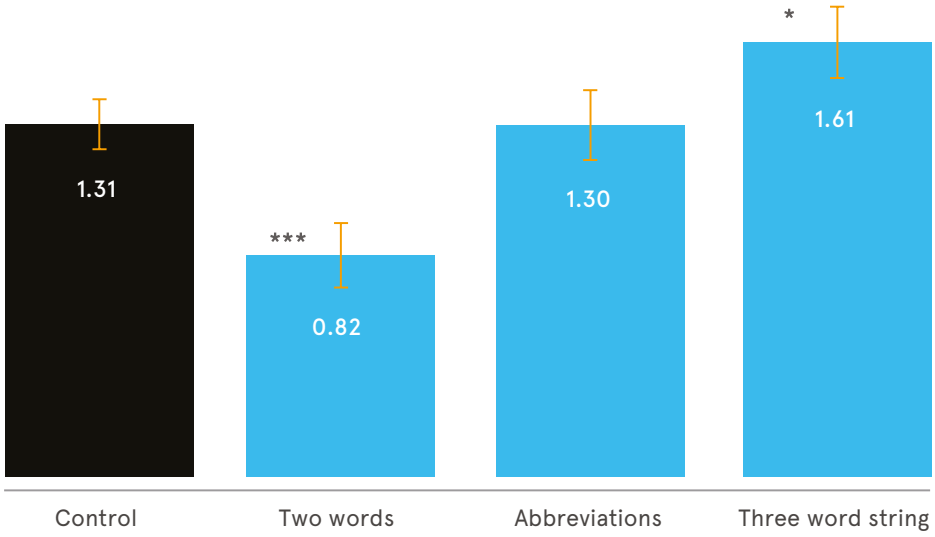
Figure 6.5 Password strength across treatments[29] (password recall remained constant) (n = 572)



Secondly, BIT was commissioned by the Office of Cyber Security and Information Assurance (in the Cabinet Office) to conduct a short project assessing policy implications for cyber security, drawing on insights from the behavioural sciences. The project report focused on target behaviours for individuals and SMEs based around objectives drawn from the Cyber Streetwise campaign.

Finally, as a member of the Home Office Crime Prevention Panel, BIT was engaged in supporting the National Society for the Prevention of Cruelty to Children (NSPCC) in developing a guide for professionals who work with young people to help them understand what constitutes abusive behaviour online,[30] the consequences of that behaviour, and where they can get help to deal with this. BIT assisted by describing several behavioural principles that can be applied to the activities of organisations fighting to stop online bullying and abuse, particularly amongst young people.

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7. Fraud, Error and Debt

Michael Hallsworth,
Head of Health and Tax

One of the longest-standing programmes of work that BIT has been engaged in focuses on reducing fraud, error and debt.

In 2012, BIT published a paper on the subject, including the results from many randomised controlled trials that showed how the UK Government could save millions of pounds by introducing simple changes to the letters, forms and processes used to encourage compliance and make it simpler to pay tax, fines or debts.[31] In the period since then, BIT has focused its work on two main areas: scaling and spreading effective approaches and developing more sophisticated insights.

Scaling and spreading effective approaches

The first area involved scaling up the approaches that had previously only been tested in isolated instances. Often this involved the wider use of messages that had been shown to increase tax compliance or other kinds of payments. Applying successful messages throughout HMRC's debt management practices led to £210 million being brought forward in the 2012/13 financial year alone. The increased interest in this approach within HMRC has led to the creation and expansion of an effective behaviour change team within the department itself.

We have now started working with tax authorities in other areas, both at the local authority level in the UK, and with other national governments – which has led to similar successful results (see chapters ten and eleven). We have also applied these insights to new policy challenges. For example, we have been working with the Pensions Regulator to increase the number of employers who comply with their new automatic enrolment duties. Influencing the compliance of organisations is a key strategic challenge for the future.

Developing more sophisticated insights

The other main focus of work in this area has been to develop a more nuanced understanding of what influences behaviour in fraud, error and debt (and to publish these findings).[32] One way of doing this was to identify which groups of people respond most to which messages. For example, a more detailed analysis showed that the people who owed most tax were also the group that was most responsive to messages asking them to pay because taxes fund public services. This may be because the amount of tax they owed could make a substantial difference to these services.

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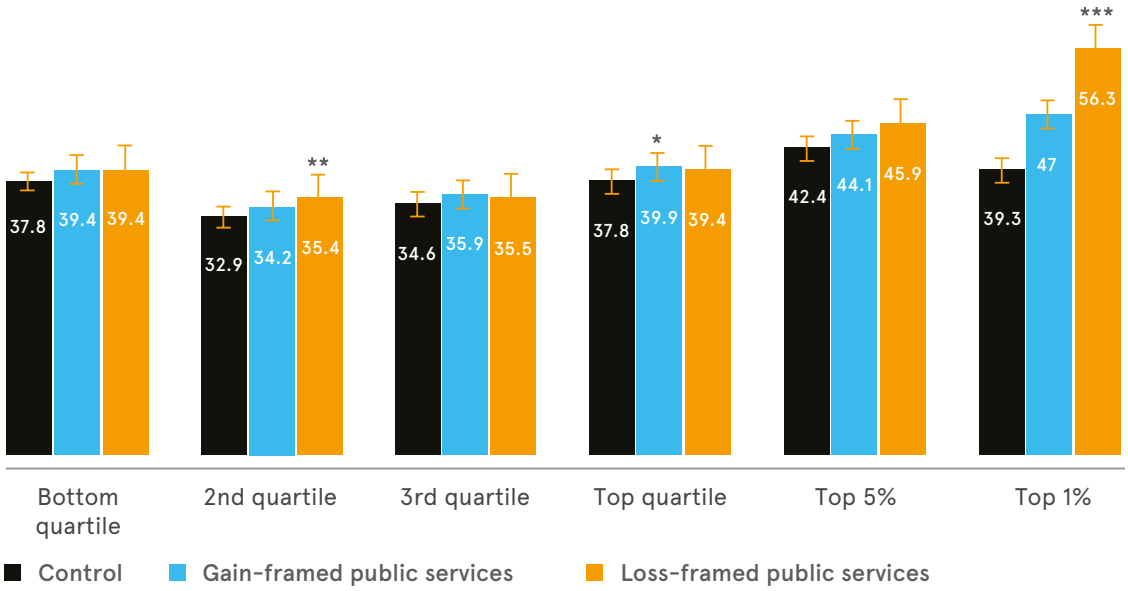
Figure 7.1 **Payment rates at 23 days for taxpayers. Those in the top percentile are much more responsive to messages emphasising the benefits of paying taxes (total n = 98,784)**



Moreover, it turned out that men responded more than women when these messages focused on the potential loss of public services through non-payment (as opposed to the services we gain from paying taxes).[33] One of the main factors that emerged was that people's past behaviour strongly influences their future behaviour (in one study, the effect of having had a debt in the last two years was by far the strongest influence on non-payment that we could measure).[34]

Therefore, we are now developing a trial that uses data on past behaviour to prevent debts from occurring. The new trial uses records to identify people who have been late in paying their tax in the past – and thus who are likely to be late again – so that they can be contacted via SMS before the payment deadline passes. This is part of a wider move 'upstream' in the tax process, reflecting the fact that prevention is usually better than cure.

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8. Giving and Social Action

Michael Sanders,
Head of Research,
Education &
Charitable Giving

The UK is a generous country, home to some of the world's greatest philanthropists, to some 150,000 charities, and to a public that donates billions of pounds to charity every year.

This is important, not just because of the benefits that charities bring to good causes, but also because of the indirect benefits of charitable giving that recent behavioural research has begun to explore. Experiments have shown, for example, that charitable giving is good for donors, for beneficiaries, and for society at large.

Since its inception in 2010, the Behavioural Insights Team has supported a wide range of behavioural research and policy on charitable giving. In particular, we have conducted a large number of trials in relation to charitable giving in partnership with the Cabinet Office and charities, in order to ascertain which practices are most effective in different contexts. Over the past two years we have built on this work, and discovered new insights in this important field.

Applying behavioural insights to charitable giving

Since our last update, we published our report: *Applying Behavioural Insights to Charitable Giving*.[35] It set out the results from numerous trials, which were conducted in partnership with Remember a Charity and the Charities Aid Foundation. These showed that charitable giving could be boosted with a series of small changes.

In one study, we showed the effect of a number of interventions that aimed to get investment bankers to donate a day's salary to charity. These included a personalised email from the CEO (compared to an impersonal one), a visit from a celebrity, being greeted by a volunteer, or of being given a small packet of sweets.

We found that the personalised email and the packet of sweets, which aimed to induce reciprocity, were the most powerful interventions – together boosting the proportion of participants donating from 5 per cent to 17 per cent.

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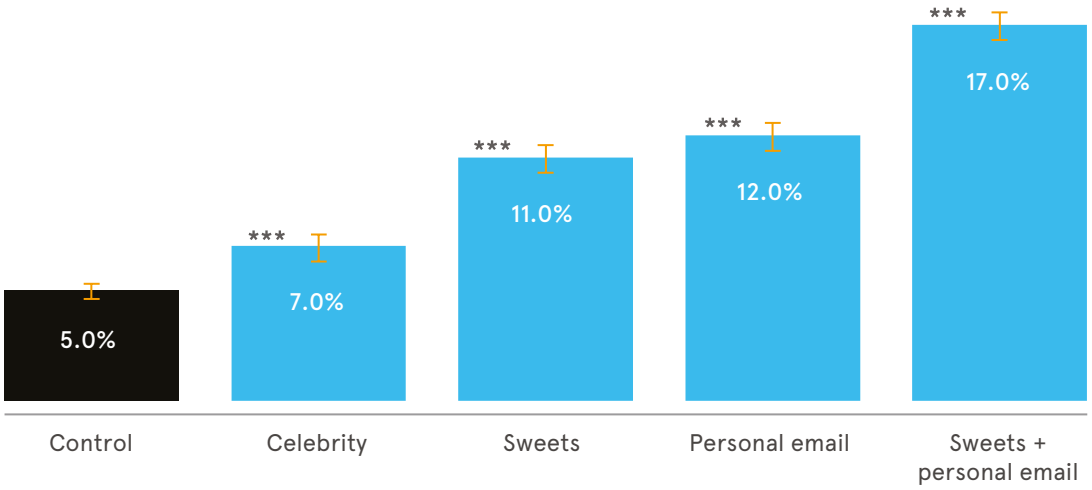
Figure 8.1 Percentage of investment bankers who donate a day's salary to charity (n = 6175)



Since the publication of this paper we have continued to conduct trials in the field of charitable giving, working with partners including Marie Curie and large employers. These trials, as well as raising funds for good causes, have provided an excellent opportunity to investigate behavioural phenomena in areas where academic literature is underdeveloped.

Network nudges

Some people have strong relationships with charities and/or fundraisers, and can be relied upon to donate when asked. These might be a charity's core supporters, or they could be the close family and friends of the fundraiser, who are engaged through fundraising platforms such as JustGiving. Other people, of course, are harder to reach for fundraisers. However, it is possible that some of these harder-to-reach people have strong relationships with people who are dedicated donors to a charity.

In most experiments, we are keen to avoid social contagion, as it can prevent us from identifying the effects of our treatments. In this trial we aimed to do the opposite: we wanted to see if social contagion could help to increase charitable donations.

Mid-ranking managers in an investment bank who had previously donated to the bank's fundraising campaign were emailed, and either thanked for their prior donation; asked to reach out to colleagues in their team ('Reach' in the graph below); or asked to reach out and remind their colleagues about the impact of their donations ('Impact'). This last intervention was especially effective, increasing donation rates from 5 per cent to 38 per cent.

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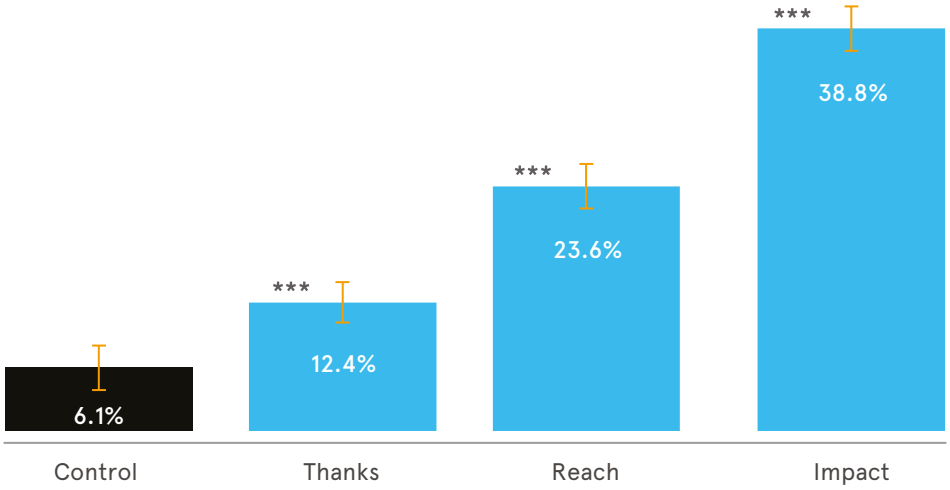
Figure 8.2 **Proportion of investment bankers donating to charity (n = 9,501)**

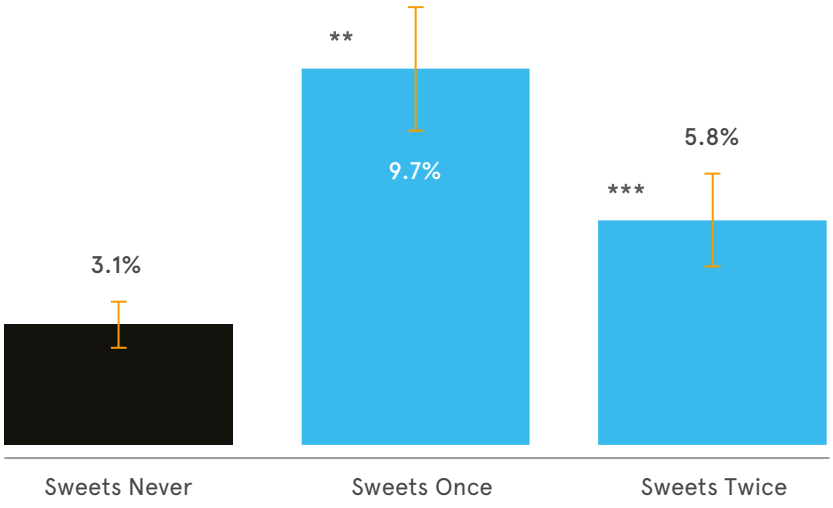


Reciprocity revisited

Another area that has not been explored as widely is the effect of repeatedly using the same interventions on people. To test this, we revisited our previous investment bank trial, in which participants had been given sweets, one year later.

Everyone who had been given sweets before was given them again, as were half of the people who hadn't received them in the first year, for a comparison. The sweets effect was replicated in these new receivers – but the effect fell by roughly a half for participants who had received them before.

Figure 8.3 **Proportion donating to charity (n = 6,833)**



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9. Energy and Sustainability

Marcos Pelenur,
Former Head of Energy & Sustainability

Elisabeth Costa,
Current Head of Energy & Sustainability

Many of the most intractable issues relating to energy and sustainability have a strong behavioural component. Our response to climate change is made all the more complex by the fact that the environmental costs appear far into the future and are (in the present) relatively intangible. Similarly, energy use is an abstract concept for most, resulting in a real disconnect between intention and action.

Despite the challenges, many of the changes that governments around the world want to encourage – such as recycling or consumers engaging more in energy supply markets – require individuals to make active choices that require effort and changes to their routines.

For these reasons, BIT has a long-established programme of work looking at ways in which we can encourage individuals to undertake activities – such as insulating their homes, switching energy suppliers and making more sustainable transport decisions – that both save money and help to reduce carbon emissions.

Energy efficiency labels

In 2014, the Department of Energy and Climate Change asked BIT to support a programme of work that tested different ways of presenting energy information on tumble dryers, washing machines and washer-dryers sold in John Lewis stores.[36]

The aim of the trial was simple: we wanted to know whether the way energy labelling information is displayed would encourage more people to purchase energy-efficient products. Specifically, we wanted to know whether telling people the full lifetime running costs of a tumble dryer, washing machine or washer-dryer would lead people to buy more energy-efficient appliances. Energy efficient machines often cost more upfront, but save the consumer money in the long term as a result of lower energy bills. A similar trial had been run in Norway, which showed a positive effect.

The trial, which was run nationally across all John Lewis stores, showed a positive net effect in relation to washer-dryers, but no effect in relation to washing machines and tumble dryers. This may be largely because the difference between an energy inefficient and efficient washer-dryer is much more pronounced (and the savings to be made are starker) than is the case with the other appliances. As a consequence of the trial, John Lewis are now planning to roll out a modified version of the label across all their white goods.

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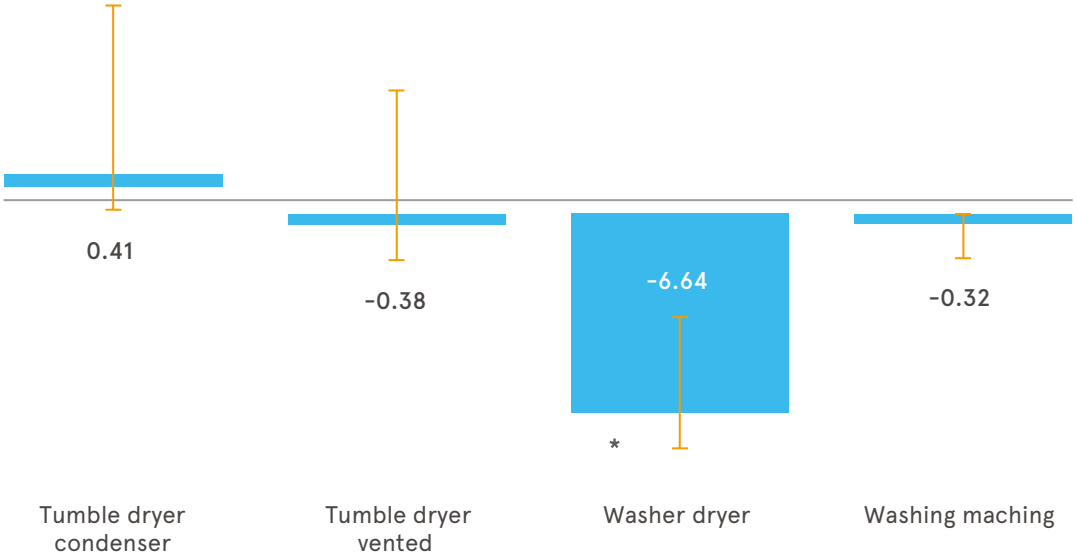
Figure 9.1 **Average net change in energy consumption of different appliances (kWh per year), (n = 120,980)**



Heating controls trial

BIT also supported a programme of work led by the Department of Energy and Climate Change looking at whether it would be possible to encourage homeowners to make more efficient use of their home heating controls.[37] The premise of this project was that individuals already have lots of sophisticated equipment for controlling the way that they use heat in the home (thermostats on boilers and thermostatic radiator valves), but many people are not always aware of how to use these systems effectively.

Therefore, we partnered with Newcastle City Council to test whether boiler engineers (as trusted messengers) could show social housing tenants how to save energy by using their home heating controls better.

The trial had three arms. In the first, boiler engineers carried out their usual winter checks on boilers, but otherwise did nothing else. In the second, the boiler engineers gave tenants advice on how to use their heating controls. And in the third, the boiler engineers left behind a leaflet.

Surprisingly, the trial showed that none of these interventions had an effect on energy use. While it would have been nice to see a positive effect, the broader lesson is that it is very important to test and trial interventions like this before rolling them out across the country. Ultimately, the results of this trial will allow the Department of Energy and Climate Change to focus its efforts on things that will help reduce carbon emissions in the most cost effective way.

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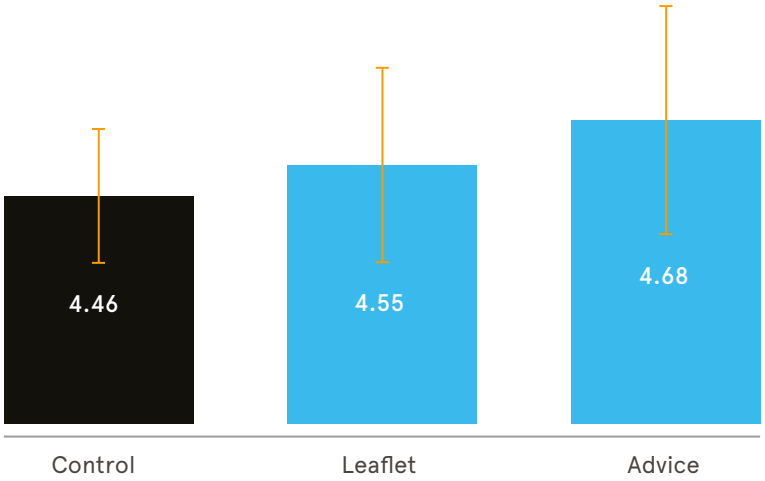
Figure 9.2 **Energy use under different conditions, kWh per heating degree day (n = 1,264)**



The Green Deal

Over the past two years, BIT has worked with DECC on various aspects of the Government's home energy efficiency programme, the Green Deal. The main area of support is through an evaluation project to assess the impact of £2m of additional Private Rental Sector funding to four Green Deal Communities projects analysing the success of door knocking and letter dropping marketing and incentive approaches in engaging landlords and tenants to uptake energy efficient measures in these areas from September 2014 – January 2016. Analysis will involve quasi-experimental difference-in-difference regression analysis with pairwise matching in addition to qualitative research with landlords, tenants and stakeholders.

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10. International Development

Simon Ruda, Head of Home Affairs & International Development

The tradition of applying ideas from the behavioural sciences and running field experiments is probably more established in international development than in domestic policy areas. But the focus has tended to be from within the academic community, rather than something which national governments or international organisations actively promoted.

In the past year, this has started to change. BIT began working with both the World Bank and the United Nations Development Programme to test interventions in the field in Latin America and Eastern Europe in late 2013. And then, in December 2014, the World Bank focused its flagship annual publication (the World Development Report) on the application of behavioural insights to development policy – drawing on BIT's approach and findings. So whilst this is a new area of work for BIT, we think that it will grow significantly over the coming years.

Behavioural tax letters in Guatemala

It has often been said to members of BIT that it is one thing to test the effectiveness of an intervention in a developed country like the UK, but it is quite another to bring some of the same methods and techniques to a developing world context. Here, it was argued, the challenges of administering a tax compliance trial would make it impossible to deliver a similar effect.

When the World Bank contacted BIT to ask if we could support a programme of work doing just that with the Guatemalan tax authority, we therefore jumped at the chance. In June 2014 we ran a large-scale letter trial in which late income tax payers were randomly allocated to receive either no letter, an unchanged letter from the Guatemalan Tax Authority (SAT), or one of four letters adapted using behavioural insights.

In the UK, most people pay their taxes. The same is not true in Guatemala. In fact, in Guatemala, tax revenue as a proportion of GDP is just 11.9 per cent (it is 39 per cent in the UK).[38] This is the lowest figure for Latin America and one of the lowest overall figures in the world. So, in addition to the technical challenge of deploying low cost, individually randomised, large scale field trials, we were faced with the challenge of overcoming a deeply entrenched behaviour in a country with a profound mistrust of its government.

The results, however, were overwhelmingly positive. The best performing treatments were: a deterrent message framing non-declaration as an intentional and deliberate choice, rather than oversight (designed to overcome status quo bias); and a social norms message which referred to the 64.5 percent of taxpayers that had already paid this tax (designed to emphasise that paying tax is the norm). These letters increased the rate of payment as well as the average amount paid conditional on paying, overall more than tripling tax receipts. The graphs below show the average amount of tax paid, and the proportion of taxpayers who went on to pay, per letter sent for each group.

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Figure 10.1 Guatemala tax trial: amount paid after 11 weeks, by letter sent (intention to treat) (n = 43,387)

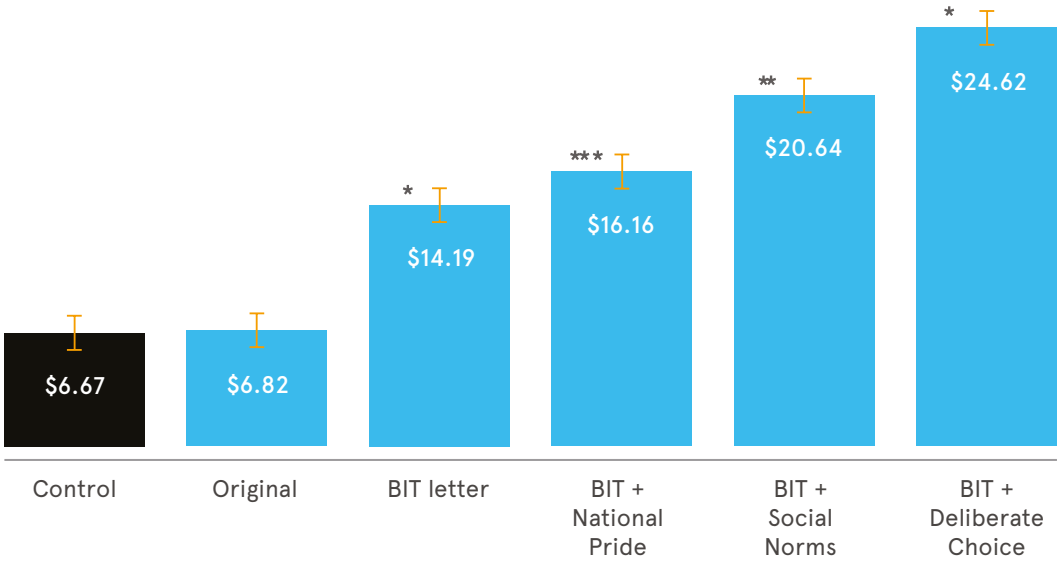
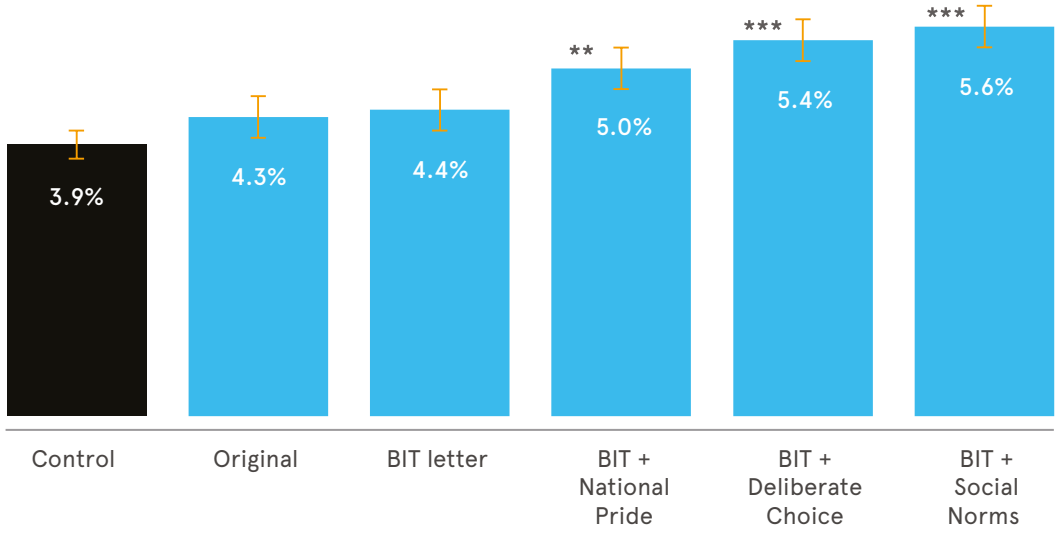


Figure 10.2 Percentage of taxpayers that declared a positive amount by letter received (n = 43,389)



We estimate that if sent to all taxpayers in the sample, in 11 weeks the social norms letter would have generated additional tax revenues more than US $750,000 - thirty six times the cost of sending the letters. The effects are persistent and remain at 12 month follow-up, suggesting the letters actually increased revenue for the tax authority rather than just bringing tax receipts forward.

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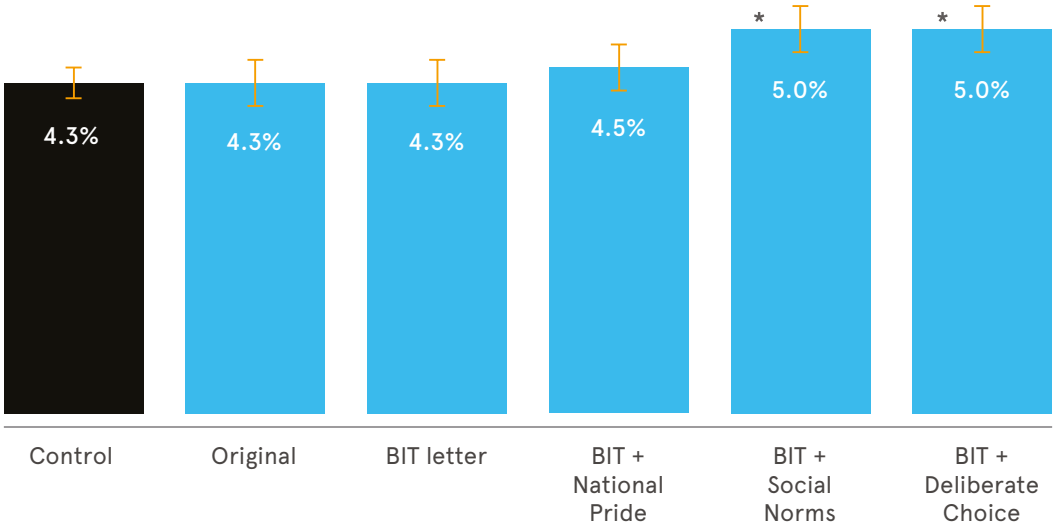
Figure 10.3 Guatemala tax trial: percentage of taxpayers who went on to make a payment the following year (with no further reminder) (n = 43,387)



Medical adherence in Moldova

As well as the work we have undertaken with the World Bank, BIT has begun a large scale field experiment with the United Nations Development Programme (UNDP) in Moldova. The Republic of Moldova has one of the highest documented levels of tuberculosis (TB) and multi drug resistant TB in the world, and individuals who are given medication often have a poor rate of medical adherence.

Patients are required to take their medicine in the presence of a clinician, which stretches the capacity of trained staff. UNDP therefore asked BIT to work with the Moldovan Government to test whether we could devise some interventions that might reduce the strain on clinicians and improve medical adherence and patient wellbeing.

BIT is therefore supporting a ground-breaking trial, which will test whether medical adherence rates and patient wellbeing can be improved by enabling clinicians to observe patients' taking their medicine via internet video calls, rather than requiring the patient to travel to their clinic every day.

The trial, due to launch imminently in Chisinau, will involve 400 TB patients and in total will last approximately 16 months. The trial was originally planned to involve only the 38 per cent of patients with existing internet access, but due to the falling costs of smartphones these will now be provided for patients who do not currently have access to the internet. The trial is being implemented by Act for Involvement (AFI), the UNDP, and the Ministry of Health in Moldova.

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The World Development Report: Mind, Society and Behaviour

In December 2014, our Chief Executive, David Halpern, travelled to Washington to support the President of the World Bank, Jim Yong Kim, to launch their flagship annual report – the World Development Report. The theme for this year's report was the application of behavioural science to international development policy. Its title is *Mind, Society and Behavior*.

The report provides a framework to help development practitioners and governments to apply insights from the behavioural sciences to development policy. It also shows how many of the insights developed by the Behavioural Insights Team in the UK can be applied to development policy. In line with BIT's approach to policymaking, the report argues that:

> *interventions need to take into account the specific psychological and social influences that guide decision making and behavior in a particular setting. That means that the process of designing and implementing effective interventions needs to become a more iterative process of discovery, learning, and adaptation.*[39]

Technical assistance – spreading the use of behavioural insights

An important part of our work is spreading the use of behavioural insights in public policy in developing countries as well as the developed world. For more detail on how we help other countries develop behavioural insights skills, see the next section.

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11. Our Work with Other Governments

Rory Gallagher, Director of International Programmes

In 2010, BIT was the only team of its kind in the world. While there were some great examples of Governments that had applied insights from the behavioural sciences, none had established a dedicated unit to draw on these ideas for more systematic application to public policy.

Over the past few years, all that has changed. Alongside landmark publications focusing on how large organisations can apply behavioural science, such as the World Development Report (referred to in the previous section), we are seeing the emergence of a global network of teams and units in countries around the world.

These teams and units include a new European Commission team focusing on blending behavioural insights with long-term strategic thinking, a new behavioural science team created by the German Chancellor, and a behavioural science team set up in the White House. We have also directly supported the establishment of specialist teams in Australia and Singapore, which were amongst the very first countries to apply behavioural insights across a range of policy domains.

We learn a huge amount from these international partnerships. One of the early motivations for undertaking work with foreign governments was to understand whether behavioural approaches could be effective in different cultural, organisational and political contexts. Whilst it is too early to draw firm conclusions, there is growing evidence that behavioural techniques – particularly those encapsulated by the EAST framework – can be successfully applied across international boundaries.

For example, we have replicated and adapted interventions in the payment of taxes and fines, as well as supporting interventions to help people to find and return to work in both Singapore and Australia, with similar outcomes and effect sizes. We are also excited by the possibilities of international collaboration, replication and the sharing of 'what works' for specific behavioural interventions.

A partnership with New South Wales, Australia

In December 2012, BIT began a long-term programme of work with the Department of Premier and Cabinet (DPC) in the Government of New South Wales, Australia. Our remit was to support DPC to establish Australia's first Behavioural Insights Unit, and to help them to run a series of trials with different departments.[40]

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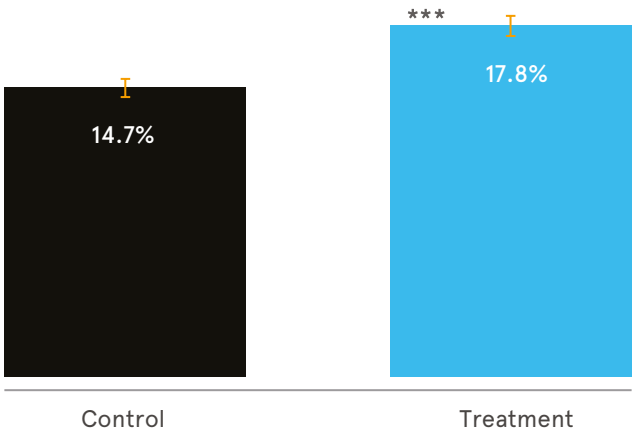
There was a particular focus in the first year, on drawing on lessons from successful trials in the UK – including the findings from our HMRC tax work, and our work within UK job centres. We have now completed the first phases of several major trials:

- **Tax and fines trials:** replicating and adapting approaches used in UK, we designed and trialled new tax letters and penalty/enforcement notices. We found that a clear call to action, through a prominent 'pay now' stamp, was effective in prompting payment. The improved notices are estimated to result in an additional $10 million in fines being paid by their due date each year, with over 60,000 late fees avoided, saving the people of New South Wales $4 million each year, as well as $80,000 in printing costs alone. These revised penalty and enforcement notices have now been rolled out (to 90 per cent of recipients, whilst retaining 10 per cent as a control group who receive the 'old' notices), with effect sizes being sustained.

Figure 11.1 Payment rates of fines enforcement orders in New South Wales (n = 43,467)



- **Supporting patient choice:** we ran a successful trial supporting patients' use of private health insurance in public hospitals by simplifying processes and increasing the salience of incentives for patients and staff. The trial has now been replicated at two other hospitals and key elements are being rolled out across the state. The trial sites have already raised $7 million to date. It is currently being taken to scale and is likely to generate between $90 million and $110 million in additional revenue and cost savings for the New South Wales health system to reinvest in frontline services.
- **Return to work:** building on the UK team's work on implementation intentions in job centres, we designed a suite of interventions to help injured teachers return to work. Injured employees returned to full capacity 27 per cent faster in the first 90 days in the trial compared to the control group (see Figure 11.2 below). Surveys also indicated improved customer satisfaction. Extrapolating the benefits across the Treasury

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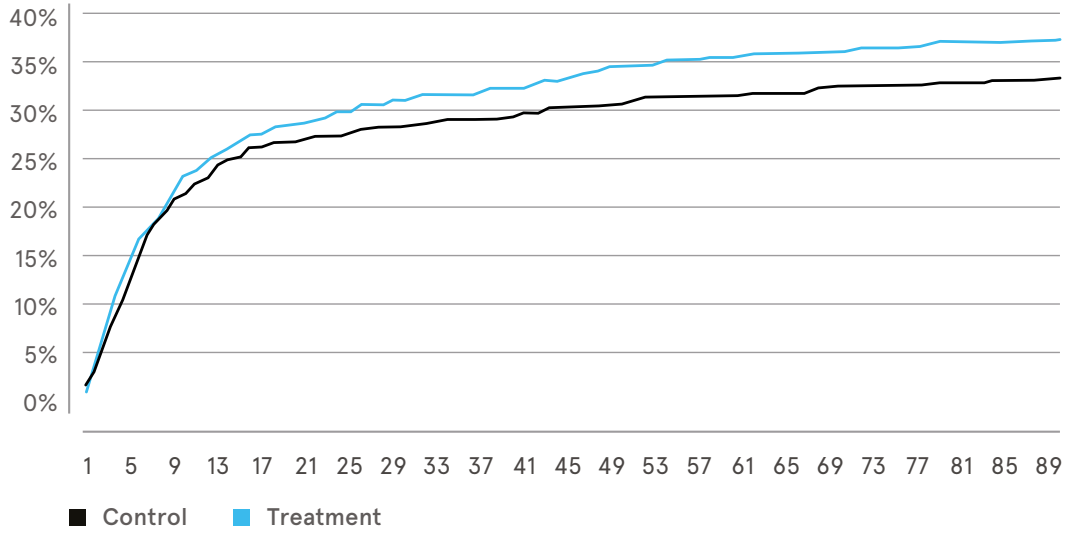
Managed Fund, the annual claim costs fall by between $6 million and $10 million, which equates to a 2 per cent reduction in the overall annual fund contributions. We are now expanding this work to long-term injured workers in New South Wales' emergency services.

Figure 11.2 **Number of days to return to full capacity of injured employees**



Building on these early successes, the New South Wales team is now focusing on a range of complex social policy issues, most notably:

- childhood obesity;
- domestic violence;
- social housing arrears; and
- the return to work of medically discharged employees.

Alongside major projects we have also provided policy advice and delivered a series of more discrete trials. For example in health, we have provided advice on the design of public health campaigns, as well as running RCTs to increase cervical screening and reduce the number of people who do not attend their hospital appointments. And, we have worked on capacity building, establishing the growing Behavioural Insights Community of Practice. We have:

- Trained over 1000 officials in our Behavioural Insights Master Classes;
- Hosted public events for over 1000 people;
- Signed up over 1,200 people to our online platform.

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A core component of this work was our establishment and hosting of Behavioural Exchange 2014 – the world's first global public policy behavioural insights conference. This brought 400 people from the public, private and academic sectors around the world to Sydney to discuss the application of behavioural insights to public policy. The conference is being held in London in September 2015, and will be hosted by Harvard in 2016 and Singapore in 2017.

A partnership with VicHealth, Australia

In 2014, we also established a partnership with the Victorian Health Promotion Foundation (VicHealth), as part of a new initiative to connect international experts with local senior leaders in Victoria. Our Chief Executive, David Halpern, is acting as their inaugural 'Leading Thinker'. The aim is for David to work with VicHealth and our Australian team to think about how we can draw on ideas from behavioural research that might be used to improve health outcomes in Victoria, specifically in relation to reducing obesity. There are two key strands to this work programme:

- **Citizens'Jury:** We are asking a representative sample of the public to take part in a large citizens' jury in October 2015, with materials made widely available online, with the debate amplified through a media partner. We are particularly interested in finding out how the Victorian public feel the Government, food industry and community should address one of the greatest problems Australia faces - obesity. The forum will enable representatives to discuss the best current evidence and behavioural research on obesity. The intention is that the forum will catalyse public debate, generate a social movement for change and create an enabling environment for future government action.
- **A series of trials:** We have also been working with VicHealth to embed a methodology that focusses on behavioural outcomes and is driven by evaluation, by setting up a number of trials. These include interventions to encourage eating more healthily, being more active in cities, curbing sugar sweetened beverage consumption and drinking more water in licensed premises. The results of these early trials will be discussed at the deliberative forum.

A partnership with the Ministry of Manpower, Singapore

In 2012, BIT began a long-term partnership with the Ministry of Manpower, part of the Government of Singapore. Very much like our partnership with the Government of New South Wales, we support the Ministry of Manpower in building their behavioural insights capacity and capabilities.

Over the course of the past two and a half years, BIT has been supporting the Ministry of Manpower's work by helping to identify where behavioural insights can best be applied; supporting the design of new interventions; and providing analytical expertise to help design and analyse trials.

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The Ministry of Manpower has generated a number of impressive interventions and results over the past two years. Similar to our approach in Australia, we focused on replicating and adapting successful interventions from the UK. Interestingly, we are finding that what works in a UK context can work just as well, if not even better, in Singapore. Examples include:

- **Encouraging Foreign Domestic Worker (FDW) levy defaulters to pay the levy promptly:** Behavioural insights interventions in new levy bills produced a three to five per centage point improvement in levy payment rates compared to the control group. This translates to helping 3,800 more FDW employers making prompt levy payments of about S$1.5 million per year. Whilst we drew on familiar techniques such as social norms, salience and personalisation, we adapted these for the local context – for instance by using pink paper, which is associated with overdue debt locally.
- **Helping job seekers find work:** Again we drew on the implementation intention work from the UK Jobcentres, but supplemented this with incentives and redesigned consultation rooms. The results are impressive: 49.4 per cent of job seekers in the intervention group found jobs compared to 37.5 per cent in the control group, after controlling for demographic factors. When implemented to scale, this could lead to potentially around 4,000 more job seekers per year securing jobs within three months of visiting the career centres in Singapore.

But of course, not every trial has resulted in significant improvements of this scale. For example, we ran an RCT testing messaging for self-employed people's Medisave (health insurance) contributions. One intervention tested the efficacy of using cartoons, which is a common tool for communicating policies in Singapore

The use of a cartoon significantly reduced contributions, possibly by trivialising the issue (other trials have indicated that people do not react well to images or communications that seem `gimmicky', particularly in the realm of compliance). Of course, we would not have known this were it not for the fact that we ran the trial, which is helping the Ministry of Manpower to identify what works in different contexts.

Technical assistance – spreading the use of behavioural insights and robust evaluation

An important part of our work is spreading the use of behavioural insights in public policy. In addition to the applied work of testing behaviourally-informed interventions, we work closely with government agencies to develop in-house capacity both in the UK and overseas. Over the last two years, we have conducted training workshops in over twenty countries across five continents, including in cities as far afield as New Delhi and Lima.

We have also established partnerships with internationally renowned public sector training organisations, for example the Singapore Civil Service College and the Australia and New Zealand School of Government, to run executive education courses and training on applying behavioural insights and the use of randomised controlled trials in government.

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Most of these engagements have focussed on sharing knowledge and experience of applying behavioural insights with foreign Governments or international organisations, but we have also helped the commercial partners of Governments deliver social impact projects.

A partnership with Harvard University, USA

Alongside the growing programme of work with foreign governments and international organisations, BIT has also strengthened its relationships with academia. These links have always been strong – we set up an Academic Advisory Panel, composed of the leading behavioural scientists across the UK, back in 2011. But over the past two years, we have embedded these links in the UK and strengthened them significantly in the US by establishing a formal partnership with Harvard University.

Following in the lead of the terminology employed by the Behavioural Insights Team, Harvard established a 'Behavioral Insights Group' in 2013, led by Professors Max Bazerman and Iris Bohnet. The Behavioral Insights Group links professors from across several different Harvard faculties (including Harvard Business School, Harvard Kennedy School and Harvard Law School), encouraging interdisciplinary research and discussion.

In 2014, the Behavioral Insights Group and the Behavioural Insights Team established a formal partnership, supported by a $1 million grant from the Sloan Foundation, whose aim is to promote the interchange of ideas and practices between academics and policy practitioners.

There are two main objectives to this partnership:

- To create a network of academics across the world dedicated to improving knowledge exchange and helping to put in place behavioural insights interventions. This network will allow findings from behavioural insights practitioners around the world to be shared more widely and for randomised controlled trials to be made more rigorous and robust, developing our understanding of human behaviour.
- To host regular conferences and exchanges, bringing together practitioners from around the world interested in applying behavioural insights to public policy challenges. The Behavioural Insights Team will host the Behavioural Exchange conference in London in September 2015, with Harvard hosting the conference in 2016.

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Conclusion

The last two years have been an exciting period for those applying behavioural insights to public policy in the UK and overseas. Over this period, BIT has conducted more than 150 trials, delivered several hundred seminars and training sessions across local and national governments and other public bodies, and provided advice across the spectrum of public policy. Five years on from the founding of BIT, and from the last two years in particular, we can conclude:

1. **Behavioural Insights approaches are delivering successful results across an ever wider range of policy areas.** As this report documents, BI approaches have proven able to deliver valuable results in health, employment, growth, skills, consumer markets, tax collection, crime reduction, energy use, giving, international development and equality. In short, most policy concerns human behaviour, and as such can generally benefit from a more empirical and behavioural focus.

2. **Government departments in the UK are strengthening their internal behavioural capabilities.** Many of the trials and work in this report were conducted in close collaboration with BI teams in Departments. There is now a vibrant cross-government BI network that shares results and expertise and some Departments, such as HMRC, have now built strong BI capabilities such that they only need to draw on the BIT for more specialist advice. BIT now learns as much from these teams as we hope they do from us. This embedding is testament to the increasingly mainstream application of more empirical, BI-style approaches in UK government to make services that are easier and more 'intuitive' for citizens to use.

3. **Governments across the world – at local and national level – are starting to adopt the approaches.** Following BIT's change to a social purpose company co-owned by the Cabinet Office, Nesta and employees 18 months ago, BIT has assisted national and regional governments across five continents, and dozens of local and public bodies across the UK. This has driven the expansion of BIT to more than 50 staff, while at the same time enabling us to offer a broader range of skills and expertise to the Cabinet Office and No10, who we continue to serve.

4. **The use of more experiments and trials, as championed by BIT, is spreading into other areas of Government and practice.** This is manifest in the vibrant new 'What Works?' institutes, dedicated to generating, translating and aiding the adoption of evidence.[41] There are now 'What Works?' institutes covering health, education, early intervention, local economic growth, crime reduction, better aging, and wellbeing, plus dedicated centres in Scotland and Wales. David Halpern, of BIT, serves as National Adviser on

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What Works including chairing the Council of What Works institutes as part of his responsibilities to the Cabinet Office. At the same time, methods training for the civil service is being strengthened, and a cross-government trial advisory panel has been launched with more than 20 leading academics and 15 within government experts, to aid the adoption of better trial methods.

5. **An important corollary of this experimental approach is that it also identifies things that do not work.** We have included examples of interventions that did not work in this report (as previously), such as how adding labels on pregnancy tests to encourage quit attempts had little impact. It is always disappointing when a promising idea doesn't work, but it is much better to establish this in a small scale trial – and hopefully identify a better alternative – before moving to a national roll out. Senior policymakers need to see this as a normal part of good government and practice.

6. **Identifying what works, when and for whom is a key frontier.** Combining behavioural and experimental approaches with more detailed data can open the door to far more tailored interventions and services. Recent work with HMRC is an illustration. Early trials showed average responses across a population. More recent trials have shown how different types of taxpayers respond to different messages. For example, the people who owed most tax were also the group that was most responsive to messages asking them to pay because taxes fund public services. However, such behavioural segmentations rest on data linking that can be practically difficult, and need to be sensitively handled to address any public or ethical concerns.

The year ahead looks equally exciting. On 2-3rd September, the UK will be hosting BX2015 – the annual gathering of behavioural experts from governments and academia across the world. We are looking forward to launching our first 'products and services' aimed at addressing social policy challenges, funded by a £1m grant from Nesta. And, within the UK, we will be responding to the policy priorities of the new government.

The combination of behavioural and experimental approaches is delivering real results.[42] Nonetheless, we are keenly aware of the sheer volume of processes, policies and practices that have yet to be looked at through this lens. If the successes we have seen so far are any guide to the future, the potential positive impacts for citizens of extending BI approaches across the full range of what governments do is great.

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