

THE  
BEHAVIOURAL  
INSIGHTS TEAM ♦

# The Behavioural Insights Team

## Update Report 2016–17

# About this report

This report sets out the latest findings from the Behavioural Insights Team and its global partners between September 2016 and August 2017.

In previous years, the Annual Update served as a comprehensive summary of our work. But the breadth and range of our work now necessitates a more concise approach.

This Annual Update is still arranged by policy themes but is shorter than in previous years, with each section providing an overview and examples of this year. The sections conclude with a short summary of our plans for the year to come – noting that these may change according to the requests we receive from government and the public sector partners we serve.

Over the year, we will supplement this update with in-depth reviews of specific policy areas, including skills, health and home affairs. Sign up on our website for these updates and the latest news on our work: [\*\*www.behaviouralinsights.co.uk/subscribe\*\*](http://www.behaviouralinsights.co.uk/subscribe).

As ever, if you would like to talk to us about any of these projects, share results of your own, or wish to be involved in an intervention, we'd be delighted to hear from you: [\*\*info@bi.team\*\*](mailto:info@bi.team).

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# Foreword

Sir Jeremy Heywood

UK Cabinet Secretary and Head of the Civil Service



In November last year I chaired the first panel to bring together the six living Cabinet Secretaries in an event to mark 100 years of the Cabinet Office. As we discussed what made us proud to have led the UK civil service, Gus O'Donnell – my immediate predecessor – talked about the Behavioural Insights Team (BIT). It is an example of the innovation that government can foster, both in its outputs and ways of working. This report is evidence of that continuing innovation.

The (short) history of BIT is full of new frontiers. As the first government unit in the world dedicated to the application of behavioural approaches to policymaking, the team has brought novel solutions to the most persistent policy challenges. It has also championed and extended the use of randomised control trials to collect the evidence needed to inform policy; I am delighted to see this spread into ever more areas of government policy and practice.

This year's report shows once more that BIT's appetite for new challenges remains strong. The team is applying behavioural approaches to increasingly challenging and diverse issues, such as their work in refugee camps in Jordan and Lebanon. They also continue to push methodological frontiers, as seen in their growing use of the latest data science techniques.

Innovation leads to new solutions, and to hard results. The increase in GCSE pass rates resulting from the BIT 'study supporter' intervention and the reduction in speeding caused by their work with drivers are remarkable – and low cost. It is important that such interventions are scaled up to reach more people.

As our government departments, and other governments across the world, build their own capability in behavioural and experimental approaches to policy, the role of BIT is itself evolving. It has moved from establishing the basic viability and relevance of behavioural science to policymaking, to providing leadership across government and supporting the application of behavioural science to ever more challenging areas.

I would also like to take this opportunity to congratulate Richard Thaler on his recent Nobel prize for economics: recognition of his contribution to the field of behavioural science. He was integral to the creation of BIT and continues to support the team's work.

Looking at what BIT has achieved this year it is hard not to feel pride that it was the UK Civil Service that fostered this world leader in government innovation, and to be excited to see what the year ahead brings.

A handwritten signature in grey ink, appearing to be 'JH'.

Sir Jeremy Heywood

Cabinet Secretary and Head of the Civil Service



# Foreword

Professor Peter Shergold AC  
Chancellor of Western Sydney University



In the two decades that I spent in the Australian Public Service, including five years as Secretary of the Department of the Prime Minister and Cabinet, I often had cause to channel the sentiments of an American television personality of my early childhood, Art Linkletter: people, I would forewarn my staff, “often do the darnedest things”. On this, at least, I was usually correct. I had learned, from my own mistakes, that people – politicians, administrators and service providers, just as much as the public at large – frequently behave in unexpected and ‘irrational’ ways.

Public service is a challenging if rewarding vocation. Administrators, working with their Ministers, are faced day-to-day with the challenge of how to help citizens to act in the public interest. Whether through government financial subsidy, program support, regulatory intervention or public communication campaigns, they seek to identify the most effective means to help individuals and institutions to act in pro-social ways.

In my more recent roles, working for a number of Australian governments, the dilemmas of wickedly complex issues continue to confound me: how, for example, can the state best help refugees to use their entrepreneurial risk-taking to build new lives in Australia; how can university students be supported so that more of them complete their degrees; and how can patients be given greater confidence that their e-health records will remain private? To answer such questions, I need to understand the psychology by which people form their views and make their decisions.

In my previous life as an academic, I had already come across the innovative work in behavioural science undertaken by this year’s Nobel prize-winner in Economics, Richard Thaler. As an economic historian, I was naturally inclined to accept his argument that conventional market-based approaches to economics are of limited applicability to the real world. Human beings, far from being perfectly rational creatures, are susceptible to a wide range of routine biases, social preferences and limited self-control. These are the human traits that make history interesting. They are the same idiosyncratic foibles that undermine the best intentions of policy-makers.

Luckily, Thaler was that rare academic, a fine theoretical thinker and strong empirical researcher, who wanted to make the implications of his ideas accessible to a wider audience. In *Nudge* (2008) and *Misbehaving* (2015) he showed how his work is applicable to the real world. He revealed that often small interventions can help to create more effective public policy. In their absence, individuals will consistently make ‘illogical’ choices that sabotage their own longer-term economic interests and those of the wider community.

In the UK in 2010, partly in response of the research of Thaler and others, a Behavioural Insights Team (BIT) – unofficially dubbed the ‘Nudge Unit’ – was established in the Cabinet Office. The Behavioural Insights Team has now become a social purpose company. The BIT’s innovative application of psychology to the design and delivery of public policy soon found adherents overseas.


I can vividly remember Martin Stewart-Weeks and I persuading the Premier of New South Wales, Barry O’Farrell, accompanied by the Secretary of his Department, to attend an international videoconference with David Halpern in London. The meeting was a success. In 2012 O’Farrell’s government entered into a partnership with BIT to help set up a team in the New South Wales Department of Premier & Cabinet. BIT then established its own office in Sydney in 2014, and the team now works with agencies across Australia – including the specialist BI Units that have been created in New South Wales, Victoria and the Australian Commonwealth government.

This report shows the influence that behavioural insights are already starting to wield in diverse areas, from youth unemployment, domestic violence and alcohol misuse to obesity, emergency management and the ethical development of teenagers.

Such initiatives are teaching public servants how to build policy around how people actually behave. They routinely test a variety of approaches which can be robustly evaluated and compared. As I emphasised in *Learning from Failure* (2015), this mode of working allows governments to become more agile and experimental. They can manage the risks of innovation. They can learn from how people respond. They can adapt.

The application of behavioural insights to public policy creation seems to me, however, to extend far beyond specific areas of intervention. The underlying ethos of the approach can underpin new ways of enhancing participatory democracy. We can build cross-sectoral collaboration to ensure that the public, private and community sectors work together on the development and implementation of government programs. We can ensure that bureaucratic hierarchy does not inhibit the experience of front-line staff being incorporated into policy design. We can enable citizens in need of support to be involved in directing the assistance they require and choosing the provider from whom they wish to receive it. Rather than remaining passive recipients, they can become active participants.

Behavioural insights, combined with large data analytics, are already enhancing the manner in which public servants can facilitate the co-design of government payments, services, programs and regulations. Perhaps I am irrationally optimistic, but I foresee that their impact will become ever more influential in framing public policy interventions in the years ahead.



Professor Peter Shergold AC  
Chancellor of Western Sydney University

## Executive summary

Over the past year, the work of the Behavioural Insights Team (BIT) has spread into new countries and issues: we have conducted **163 trials in 25 countries**, opened offices in Singapore and New Zealand, and expanded our work in Australia and North America.

Our focus remains on social impact, but with a gradual shift to more complex behavioural challenges. Our ongoing interventions are making longer-term and deeper impacts, such as the 27 per cent increase in maths or English pass rates of further education students experiencing our 'study supporter' intervention, at a cost of less than £10 per student.

This year saw the growth of our team in Sydney and the opening of new offices in Wellington and Singapore. We have worked with a large number of government, non-government and academic institutions to address a range of social and economic challenges. These include increasing ethicality in young Australians, reducing domestic violence, increasing employment among disadvantaged job seekers and increasing mortgage repayments for public housing. We have also fed directly into policy design and service delivery by providing departments with advice on how to apply behavioural insights to their policy problems.

As well as this important social impact, our work in APAC has enabled us to spread the application of behavioural insights and better understand the effect that cultural factors have on their use.

In order to address an increasing range of challenges, we have expanded the range of techniques we are using. For example, this year has seen the creation of a new Data Science team within BIT which has begun to explore the use of machine learning to improve and tailor interventions.

Results from across our global team's work this year include:



Increasing by **7 percentage points the number of staff arriving at work outside peak hours**, in collaboration with the NSW Behavioural Insights Unit.



A **38 per cent reduction in patient referrals to over-booked hospitals**, resulting from a pop-up prompt in the GP referral system. The intervention is now being scaled across the NHS.



A **ten fold increase in the proportion of savers visiting the Pension Wise website** when sent a one-side 'Pension Passport' rather than the standard pension 'wake-up' pack.



An **8% reduction in annual household gas consumption following installation of smart heating controls**. This significantly outperforms loft and cavity-wall insulation pound-for-pound, and could cut millions from consumers' energy bills.



A **20 per cent reduction in speeding** in the six months after including a one-side explanation of why and how speeding limits are set in police correspondence to drivers caught speeding.



A **34 per cent increase in acceptances by students from under-represented schools to top universities** following a letter from a current top-tier university student from a similar background.



A **25 per cent increase in 'social trust' among young people** with low levels of social trust, measured four weeks after the introduction of a ten-minute ice-breaker discussion about the similarities between participants at the beginning of National Citizen Service.



A **28 per cent increase in comprehension of privacy notices** required for a back-to-work programme, following a rewrite which also dramatically reduced their length.



Successful demonstration of a **feedback platform for government purchasing**, which we believe will promote improved purchasing and the more rapid growth of high-performing small and medium-sized enterprises.



A **text trial to around 750,000 businesses in Mexico** – one of our largest ever trials – leading to a 37 per cent increase in tax declaration rates.



With the support of Bloomberg Philanthropies, we conducted **60 trials in 36 states** over the past year. These were designed to be rapid interventions to build city capability in the running of behaviourally based trials, but also to bring immediate benefits to citizens. These included increasing by 75 per cent the uptake of a free pension advice session by city staff in Scottsdale, Arizona, and increasing by 31 per cent the sign-ups to automatic water bill payments by changing a lottery into a 'regret lottery'.

We also, of course, found some interventions did not work.

One striking example was an intervention designed to reduce pregnancy- and maternity-related discrimination in the workplace. This particular trial, where line managers completed an exercise to increase 'perspective-taking', was found, if anything, to have a small negative impact – that is, it appeared to reduce how supportive line managers were towards women. This result echoes findings in the USA that certain forms of diversity or unconscious bias awareness training, despite their current popularity, may do little good and may even increase discrimination. This shows how important it is to evaluate interventions.

Our view, more widely championed through the 'What Works' movement, is that it is important to publish and learn from results – both positive and negative. When initiatives are unsuccessful it reinforces why it is so important for public bodies to test out ideas on a small scale to find out whether they work before implementing them more widely – better to fail fast and small, than fail slow and large.

Finally, however impressive any individual intervention result is, its social impact will be limited if it is not delivered to scale. With the increasingly large number of effective interventions we have developed, the scaling of interventions has become more of a focus for us. This has led to new partnerships, such as the creation of **BIT: North** with Greater Manchester Combined Authority and the soft launch of Test+Build, a platform designed to help a wider community of local authorities and other public bodies adapt and replicate trials in their own local context.

Sometimes the solution to a problem is not a government policy per se but something more akin to a product or service. That is why this year we launched **BI Ventures**, an arm of BIT which will identify these types of solution and take them to scale. For example, our interest in reducing bias in recruitment processes – both for policy and for our own internal needs – led to us developing an online recruitment process that we found dramatically outperformed conventional CV sifts. We have now made this process available to any organisation to use through a spin-out called Applied, which has already been used by more than 600 hiring managers across the public and private sectors to process more than 13,000 applications. We hope this will be the first of many successful social purpose ventures.

The use of behavioural and experimental approaches to address social challenges is developing in scale, complexity and ambition. We are still some way from being able to call these approaches 'mainstreamed', but there can be no doubt that they are bringing a practical and powerful new lens to policy challenges – no longer just in the UK, but across the world.





If you would like to find out more about BIT's work in Australia and New Zealand, please get in touch by emailing us at: **[info-aus@bi.team](mailto:info-aus@bi.team)** or **[info-nz@bi.team](mailto:info-nz@bi.team)**

You can also be kept informed of our latest global work, findings and publications, subscribe:  
**[www.behaviouralinsights.co.uk/subscribe](http://www.behaviouralinsights.co.uk/subscribe)**



# The evolution of behavioural insights in policy

**It is now seven years since the establishment of the Behavioural Insights Team (BIT), and six years since we started publishing our Annual Update. These reports have charted the progress and development of the use of behavioural science in policy development in UK government, and increasingly around the world.**

Over the past year, our work has spread to more countries, including through the opening of offices in Singapore and New Zealand, along with expansions in our offices in the USA and Australia, all with a focus on supporting social impact. Overall, our focus continues to shift gradually to more complex policy challenges, such as social mobility, economic growth and reducing corruption, as well as testing the longer-term and more profound impacts of interventions. We are also increasingly focusing on the scaling of impact, including by conducting larger trials and through the launch of BI Ventures.

In our first two years, we were set the objectives of transforming at least two different policy areas, spreading the understanding of behavioural science across government, and generating a ten-fold return on the costs of the team to government<sup>1</sup>.

Given these objectives, and the political and fiscal context of the time, our initial focus was on a few specific areas, and particularly those that might provide ‘quick wins’ – demonstrable savings to government and immediate gains to consumers. For example, we showed how small changes in reminders led to more timely payment of tax, bringing forward £millions in payment while also saving citizens from late-payment fines.

By using randomised evaluations, we were able to quantify these effects, helping to show clearly how a behaviourally informed approach could make government policies more effective and efficient, as well as encouraging a more empirical approach to government practice more generally.

## The spread of behavioural insights

In the years since, our work has spread into wider areas and has helped build the capacity of a wide range of public sector bodies to think about their work through a more behavioural, or ‘human-centric’, way. In the UK, almost every major government department now has a behavioural insights function of its own. Many of these teams have been, and continue to be, supported by us through projects and training programmes.

At the same time, there has been a global spread of behavioural insights to governments around the world. This spread now encompasses most of the world’s continents – there are now government ‘behavioural teams’ in North America, Latin America, Europe, Asia and Australia.

International organisations – including the Organisation for Economic Co-operation and Development (OECD), the World Bank, the United Nations Development Programme (UNDP) and the European Commission – have become active in spreading understanding of behavioural insights, including to those parts of the world where governments themselves may not have this capacity.

We have played an important role in this global spread. As this report shows, through our teams based in New York, Sydney and Singapore, and our international projects run from London, we now see a core part of our mission as helping to spread understanding of behavioural science not just across the UK public sector but globally – wherever there is opportunity for social impact.

### Sustained impact

We are increasingly focusing on more complex, longer-term challenges. This has become possible because of the growing evidence base for what works in the application of behavioural science to practice; the growing capability of public sector bodies to apply behavioural approaches to simpler policy problems; and the growing confidence of policymakers to view policy through a behavioural lens.

There is now a well-established track record showing that behavioural approaches can affect one-off decisions, such as whether to pay a tax bill on time. Nonetheless, the question is rightly asked whether such effects are sustained and whether they reach beyond the specific target behaviour to deeper, long-term consequences.

We have explored this question in more depth this year. Our ongoing work on tax payment across countries has already shown that such interventions can not only boost the rapidity and level of payment for amounts already due but also boost subsequent payment rates among those who receive the prompts<sup>2</sup>. But was this true for other areas?

In last year's report, we set out the latest results from our work in further education. This work sought to develop non-cognitive skills and social structures which would support academic persistence throughout the year – using values affirmation, exercises to increase grit, and nominated 'study supporters'. In last year's report, we showed how these interventions were improving attendance in colleges. This was an important result, but our ambition was always more than filling seminar and lecture rooms.

This year, we can report how these programmes are impacting academic achievement. The research has taken a huge amount of effort by the research team and the colleges involved, and more than a few shredded nerves waiting to see whether the interventions would impact educational attainment. They do: GCSE pass rates were increased by as much as 27 per cent in the intervention groups compared with randomly matched controls ([See Early years, education and skills](#)).



Similarly, last year we reported how informing speeding drivers of the consequences of their decisions results in individuals paying their speeding fines faster and, as a result, reduces the legal costs and number of prosecutions following late-paid fines. Once again, it was a good result, but we really wanted to know whether the intervention would actually change drivers' behaviour back on the road. We can now report that it did. Our redesigned speeding notices, which draw attention to why speed limits are set, led to a 20 per cent fall in reoffending rates in the six months following their introduction (See [Crime, security and integration](#)).

### Addressing increasingly complex problems

The range and complexity of issues that we are taking on continue to increase. Policymakers sometimes refer to 'wicked issues': those that have complex and multiple causes and that seem unlikely to be addressed by any single measure. Despite initial scepticism, recent work has shown that behaviourally based approaches can bring fresh and highly effective angles on such policy issues. For example, the introduction of the UK's sugar tax, itself based heavily on behavioural evidence, has already led to extensive reductions in sugar intake through a combination of reformulation by drinks manufacturers and consumer (non-)reactions.

We are now working on a range of such wicked issues. These include driving up economic productivity, increasing the aspirations and educational outcomes of the most disadvantaged, reducing domestic violence, and seeking to develop new approaches to address the 'scourge of corruption' across the world<sup>5</sup>.

Our view is that strong behavioural components lie at the centre of many of these issues. For example, with respect to productivity and growth, we believe there are strong behavioural aspects behind differences in managerial performance; in whether firms decide to invest; in decisions to seek out, or listen to, advice; and why some firms export and others don't. Similarly, we believe that there is more to the career choices of the disadvantaged than the rational cost-benefit analysis of an economics textbook, and that there is more to corruption than can be explained by transparency alone.

Most of these work programmes involve multi-year projects and interventions, and go well beyond a simple change to a tax letter (for example). It is too early to say how successful they will be. Indeed, it is likely that many of the behavioural interventions targeting these wicked problems will not succeed. However, if even a handful do have an impact, particularly given the low cost of the interventions concerned, these will be of enormous social and economic significance. We believe that it is right to try.

We also see our role as pioneering new techniques and methods for tackling public and social challenges, as well as developing and testing new interventions. We are delighted, therefore, to announce that this year has seen the creation of a Data Science team within BIT which is using the latest methods from data science, machine learning and predictive analytics to develop new insights into human behaviour. Recent years have seen the development of powerful new techniques to pick up 'weak signals' and patterns in the increasingly vast volumes of data generated through our everyday behaviour. The public sector is itself accruing much of this data, and there are ongoing debates about how it should be protected and used.

For example, within the frame of BIT's governance, set up and enforced by the Cabinet Office, we have begun to explore how predictive analytics, combined with behavioural science, may enable underperforming health services, schools and other public services to be identified earlier and more accurately. This should allow public service inspectors to focus their resources more efficiently and should ultimately lead to more tailored interventions and better services for the public.

### Scaling impact

Some of our trials are becoming very large. For example, one Mexican trial reported in this year's report involved a sample size of around 750,000 small firms. The direct revenue impacts of such trials, even before 'implementation', can run into millions of dollars.

Nonetheless, however impressive an intervention is, if it is not replicated or scaled, its social impact will be limited. With this in mind, as a design principle we have always favoured interventions with the potential to be rapidly and cheaply scaled over those likely to be bureaucratically or operationally complex to scale. Our early tax trials, for example, embodied this principle. Even if initial interventions required time-consuming manual processes (such as around randomisation), the essence of the intervention itself was designed to be simple enough that, if the trial proved effective, the intervention could be rapidly adopted at scale.

This design principle remains as relevant as ever. For example, this year's report shows how changes to the e-Referral Service, through which GPs offer their patients choices about where to go for hospital appointments, can reduce waiting times ([See Health and welfare](#)). When small-scale interventions of this kind are found to be effective, they can then be implemented at system level. Indeed, this new and clearer way of presenting information about waiting times to GPs and their patients is now being scaled up through the NHS with our support.

Sometimes our trials and policy advice can achieve scale by direct adoption into government policy or practice at a national level, as (for example) seen in the adoption of revised practices in Jobcentres to prompt more effective job searches that get people back into work faster. However, many of the very practical interventions that we have developed (and tested by randomised controlled trials, or RCTs) involve changes to operational practices that are devolved to local level, or to the operational discretion of public service professionals<sup>4</sup>.

Publishing and sharing our results – including in reports such as this – is an important place to start in encouraging adoption across the public sector. Our specialist teams in areas such as health and education also publish in more specialist outlets and attend conferences to share results. In the coming year, we will build on this further through the publication of more in-depth pieces summarising results within each of these domains.

This year has also seen the soft launch of our Test+Build platform, designed to help local authorities and other public sector bodies to design and conduct trials. It is our intention that this will be especially helpful to smaller authorities that may have relatively limited in-house research capabilities. It should enable a wider range of public bodies to draw on promising results produced by us (or our sister organisations) and to adapt and test them to fit their own local context.

BIT was built by, and for, government and public service. However, there are many problems for which a better solution may be a product rather than a policy. In general, our hope is that the market, existing companies and public sector players will find these solutions and scale them. But sometimes, particularly if the commercial gains are weak or opaque compared with the social impacts, these products or practices may be slow to emerge, or may never emerge at all.

For this reason, we have now set up a product development arm, BI Ventures ([See Building scalable products with a social impact](#)). BI Ventures retains the social impact focus of the rest of the team, but has been tasked with taking some of BIT's most promising ideas that are not really matters of policy and developing them into products which can be delivered at scale. For example, BIT has spun out its first socially focused commercial venture – Applied – which is a platform designed to reduce bias in recruitment and to provide better feedback and learning to applicants too. The Applied platform was originally developed within BIT to apply behavioural principles to our own recruitment. Anyone who knows the team can imagine how much time we spent studying the literature on biases in recruitment and how to reduce them. Having built the platform, we also ran an internal trial on nearly 800 applicants to BIT to compare the effectiveness of a conventional CV sift with the new platform we built. Suffice to say, when measured by the performance of the selected applicants at the full assessment centre, the new platform outperformed the conventional sift.

In principle, government could mandate that all employers need to use a platform like Applied. But others may come up with better options. Why not instead make the platform available for other organisations to use? Applied is now a separate entity. Whether it succeeds or fails commercially is for the market and wider public sector to decide. Either way, we think it will prove an effective way to encourage a more evidence-based approach to reducing bias and will improve the predictive accuracy of recruitment to organisations in the public and private sectors.

# BIT: Asia-Pacific

Australia, New Zealand and Singapore



## BIT: Asia-Pacific (Australia, New Zealand and Singapore)

This year saw the growth of our team in Sydney and the opening of new offices in Wellington and Singapore. This has enabled us to spread the application of behavioural insights and better understand the effect that cultural factors have on their use. We addressed a range of social and economic challenges, and maximised our impact by feeding directly into policy design and service delivery.

The growth of our work in Asia-Pacific reflects the increasing interest in and institutionalisation of behavioural insights in the region. We have established long-term partnerships with a number of central government departments in Australia and Singapore, and are now setting up similar partnerships in New Zealand. These partnerships have helped develop the capacity of local behavioural insights units and informed the design of major programmes and policies. For example, this year we supported the spread of evidence-based practices to improve hospital discharge across New South Wales and fed into policy changes relating to the design of financial incentives in the Australian labour market.

This year we expanded the breadth of policy areas we are addressing, looking towards increasingly challenging problems. For example, in Australia and New Zealand, we tackled a number of social issues, ranging from youth unemployment and alcohol misuse through to obesity and emergency management. In Singapore, we worked on issues that spanned reducing reoffending and increasing recruitment of foster parents.

We also expanded our programme into new economic spheres, from improving savings decisions to changing commuter behaviours so as to reduce burdens on transport infrastructure. We supported a series of trials to increase employment and apprenticeship completion rates, and worked on supporting consumers and economic growth, particularly through online markets, disclosure systems and financial capability.

### Reducing domestic violence

Domestic violence imposes huge personal and societal costs across Australia. We have been working closely with the New South Wales Department of Premier and Cabinet Behavioural Insights Unit and the Department of Justice to reduce domestic violence reoffending. We worked together to redesign and simplify court forms and rolled them out across the state, and we partnered on an SMS intervention that increased defendant court attendance. We are now supporting a brief court-based intervention in 46 sites across the state. Focused on defendants, it draws on the mental contrasting with implementation intention literature that we have used in other policy areas (such as employment and health) and tailors them for this context.

### Increasing flexible working

As part of efforts to increase flexible working and reduce congestion in Sydney CBD, we supported the NSW DPC to run a trial to reduce peak time commuter journeys amongst departmental employees. This tested three interventions: 1) we changed the default 'core working hours' setting on departmental workplace calendars; 2) we prompted managers to have flexible work discussions with their teams; 3) we ran a team-based flexible work competition. All three interventions had a sustained impact: two months after the trial ended, there was still a 7 percentage point increase in the number of occasions people worked flexibly, compared to the period before the trial.

### Increasing employment among disadvantaged job seekers

We worked with the Australian Department of Employment to run a cluster step-wedge trial in south-west Sydney which successfully increased hiring of disadvantaged job seekers. The intervention focused on promoting wage subsidies to employers, redesigning financial incentives and making it easier for employers to sign contracts. For example, the introduction of electronic agreements decreased the time taken by employers to sign from an average of 17 days to 11 days (this was marginally statistically significant). This trial suggests that digitalisation of government services can often bring substantial social benefits beyond simple administrative cost reductions, and electronic signatures have now been rolled out as 'business as usual' nation-wide.

### Supporting the ethical development of teenagers

In 2017, we began a partnership with the Vincent Fairfax Family Foundation to look at how to foster the ethical development of young people online. This question has taken on fresh urgency as technology reshapes how we socialise, learn, and express ourselves. Guided by input from 81 young people, and frontline, academic and industry experts, we identified four crucial ingredients for ethical development. First, our research suggests that most young people do not lack moral values, but need to avoid 'ethical fading' and 'moral disengagement' to apply them when it counts. Once young people recognise the right thing to do, character skills such as empathy, self-efficacy and self-control can turn that recognition into action. Third, we must recognise how much a young person's decisions are shaped by their environment. Taking control of their online environment – changing notification settings, deleting addictive apps, installing browser filters – is one of the best ways for young people to exert agency online. Finally, ethical development requires social support: family, peers, teachers and role models all shape which values a young person comes to adopt, and they can offer the practical support needed to make lasting changes.

### Improving the Work and Income client experience

Over the past year, our Wellington team has worked closely with the Ministry of Social Development to conduct fieldwork at several Work and Income offices, service providers and interview dozens of staff and clients. Our research has focused on clients such as those with health conditions and disabilities, young people who are not in education, employment or training and the sign-up process for an in-work support service.

This research will identify opportunities for MSD to provide a better experience for clients and increase their chances of finding sustainable employment. We look forward to continuing to work with the Ministry over the coming year.

### Increasing mortgage repayments for public housing

Most Singaporeans own and live in public housing. We sent short letters to nearly 5,000 households prompting them to make an early mortgage repayment. The letters highlighted the savings they could make, and we tested a high anchor (repay \$20,000 and save x) versus a low anchor (repay \$10,000 and save y). Those receiving the letters were more than four times as likely to make a repayment, though the difference between the high anchor and the low anchor was not statistically significant. From this trial, we learned that the ‘payment prompts’ we often use can work even for expensive, voluntary behaviours. These results could be used, for example, to shape the regulation of private mortgage or credit lenders.

### Looking ahead

The year ahead will be particularly exciting, as we look to take on more complex and systemic problems as well as emerging issues and technologies. We will be trialling the use of innovative technologies to reduce energy use and domestic violence. We will undertake projects to reduce deep-seated inequalities, for example reducing gender discrimination in the workplace and increasing social cohesion and wellbeing. And finally, in parallel with the UK team, we will expand our data science and evaluation portfolio, working on issues ranging from homelessness to social mobility.

## UK Policy updates

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## Health and welfare

**Our work on public health issues, from diet to physical activity, continued to reflect national priorities. Increasingly, we looked at improving health systems themselves, and wider determinants of good health.**

Much of our health work to date has focused on public health issues such as diet, physical activity, smoking and antimicrobial resistance. This was enabled, in large part, by our long-term partnership with Public Health England. Public health issues continue to be important to us, and we have helped to shape national policies through providing advice to government.

Over the past year, the government announced the introduction of the sugared drinks levy, which takes effect in April 2018 and which has already started having an impact: some of the most widely consumed sugary drinks have been reformulated to avoid the tax. We also helped to address government priorities such as preventing mental ill-health and improving access to digitally assisted mental health services.

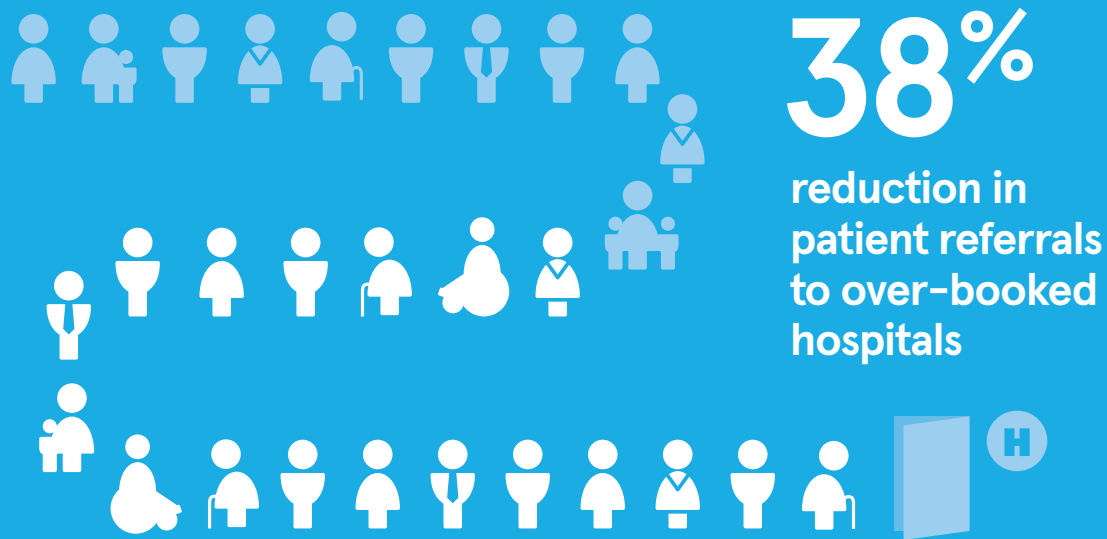
More recently, we looked at resolving issues within health systems themselves. There are many opportunities to improve the way these systems operate, as shown by our past work on reducing missed appointments through improving text message reminders. Health systems cannot be changed overnight, but we can already point to promising results that can be scaled up to achieve large impacts. One example is our work to reduce referrals to hospitals with limited capacity.

### Reducing referrals to hospitals with limited capacity

National waiting times for elective care treatments began to breach targets in early 2016 and have remained above target since. We were commissioned by NHS England to work with NHS Digital on the online e-Referral Service to reduce pressure on specialities with long waiting times, initially at the local hospital in Barking and Dagenham.

Referral decisions are made by primary care referrers (GPs and their staff), often at the end of appointments with another patient waiting. Given this time pressure, the 'easy' option is for referrers to refer patients to the same service as usual or the one at the top of the list (previously the closest). Weighing up all the information presented, of which treatment waiting times were one piece among several, makes the referral considerably more arduous.

We wanted to make it easier for primary care referrers to see quickly which services have long waiting times and identify good alternatives. We created red 'limited capacity' alerts to highlight long waiting times more clearly, while introducing a green 'good capacity' box in a salient position at the top of the screen to attract attention to alternative services in the



area where waiting times are shorter. If GPs shortlisted limited capacity services, they were informed by a pop-up message that the patient would not be treated within the 18-week target by this service, and were asked to reconfirm their choice. This did not prevent patients choosing to be treated at services with long waiting times, if that was their preference. Nonetheless, this extra step created a prompt for referrers to provide patients with the information to make a more informed choice.

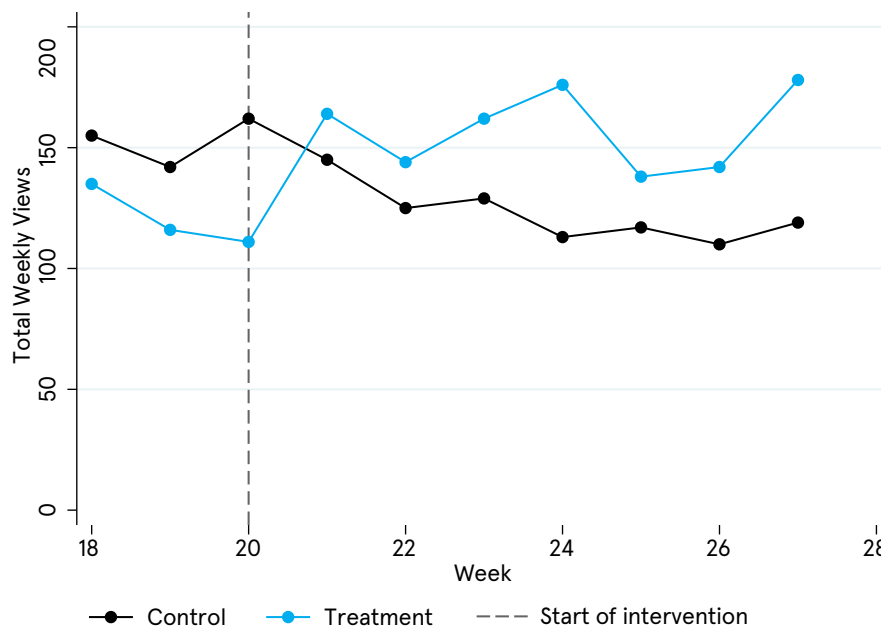
The alerts were rolled out across four specialties, one specialty at a time (this included 27 sub-specialty services). When red alerts were present, referrals to those services reduced by 38 per cent.

This trial identified an effective and timely tool that can be used to signal capacity information to frontline referrers. We are now working with NHS England to roll the alert functionality and capability out across all English regions.

### Increasing use of patient data through Summary Care Records

Another project relates to the use of Summary Care Records (SCRs), which provide healthcare staff with faster access to basic clinical information about patients, such as their allergies and medication history. SCRs can help prevent adverse reactions to drugs while also saving time for GPs and pharmacists. We showed that sending a series of three emails that outlined the benefits of SCRs led to around 40 extra views per week among a group of 159 London pharmacies (Figure 1). This low-cost intervention can easily be scaled up to other areas.

Figure 1: Increases in views of Summary Care Records by pharmacists



### The Health and Work Conversation

Health is affected by a broad range of factors. For example, there is strong evidence that employment has considerable positive impacts on physical and mental health, while spells of unemployment put people at risk of developing ill-health<sup>5</sup>. With this in mind, by collaborating with employment services, we developed initiatives which specifically support those out of work. In 2017, the Department for Work and Pensions (DWP) began to roll out the Health and Work Conversation (HWC) – an intervention that we designed with the DWP to increase motivation and goal-setting among unemployed people with health conditions. Recently, we trained 100 DWP staff to deliver face-to-face training to work coaches across the country. The training gives work coaches the skills and tools to have effective and supportive first conversations with new claimants.

The DWP is now offering the training to all work coaches, including Universal Credit staff, meaning that 16,000 people will be trained to deliver the HWC. In total, around 300,000 people will participate in the HWC in 2017/18. Early reactions during the roll-out have been positive, with staff describing the HWC as a ‘powerful engagement tool’ and more claimants asking for follow-up sessions than expected.

### Looking ahead

We will continue to find new ways of improving NHS and welfare services at low cost, explore new ways of reducing childhood obesity in Lambeth and Southwark with the Guy’s and St Thomas’ Charity, and work with the Wellcome Trust on how behavioural insights can be applied to medical science funding.



## Early years, education and skills

**A successful education system is one in which everyone is helped to reach their potential. We worked to understand and tackle the barriers that people of all ages face, regardless of the route they choose to pursue.**

The increased emphasis on technical qualifications and apprenticeships means that the routes offered through our education system are increasingly diverse, but take-up of these routes is still relatively low and strongly related to an individual's background. Through our work with the Department for Education (DfE), this year we sought to understand the barriers to technical and apprenticeship routes, and ran trials to increase employer engagement with the incoming changes in this area.

This sat alongside a continued emphasis on improving core school provision, where we particularly focused on encouraging collaboration between schools and supporting teacher recruitment efforts. Given the importance of early education, we also undertook a project to better understand how parents make decisions surrounding childcare.

Choice and opportunity should not expire after a person leaves formal education. Supporting on the UK Government's lifelong learning agenda, we conducted research using our online experimental platform – Predictiv – to identify key moments when adults are most likely to engage with retraining opportunities.

The course that a person chooses, and the content and implementation of that course, is only part of the picture. Factors outside the school or college can play an even greater role in an individual's chance of success. Our work over the past year has continued to develop interventions to mobilise social support to help learners succeed.

### Increasing post-16 English and maths pass rates through mobilising social support

Since August 2014, 16–19-year-olds in the UK who have not already achieved a GCSE grade A\*–C (grades 9–4 in the reformed system) in maths and/or English have been required to study these subjects as part of their study programme. In 2015, this became a condition of funding, with many 16–19-year-old learners flowing into further education (FE) colleges. In the 2016 exams, following the tightening of the rules, the pass rates (A\*–C) for those resitting their GCSEs were just 27 per cent in English and 30 per cent in maths.

The FE college learners we interviewed identified 'not knowing who to turn to' as a key barrier to their academic engagement. This chimes with the literature, which consistently finds strong social support to be predictive of better academic outcomes, including higher aspirations, persistence and attainment. As part of the Behavioural Research Centre for Adult Skills and Knowledge (ASK), run as a partnership between us and the DfE, we collaborated with Professor Todd Rogers at Harvard University to design an intervention which would encourage those around the learner to provide support throughout their course.

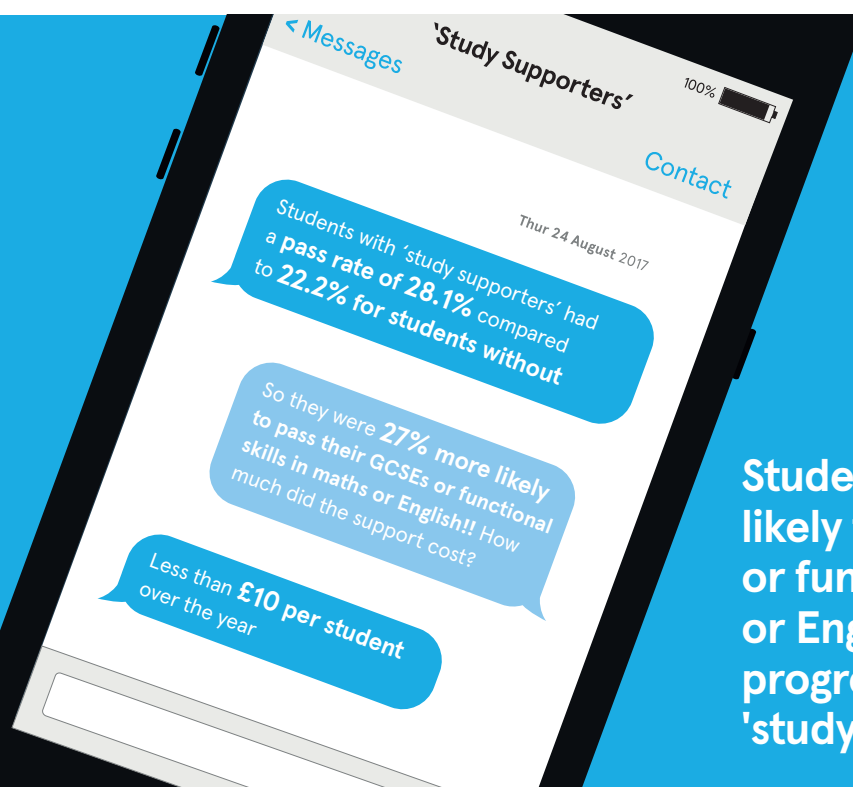
Learners nominated up to two 'study supporters' to receive regular text messages about their course throughout the year, with nominees including family, friends and employers. The messages highlighted key events, such as upcoming tests, or updated the supporter on what the learner was learning in class. In addition, they made it easier for study supporters to engage with the learner by suggesting questions they could ask to prompt a learning conversation.

The intervention cost less than £10 per student over the year but had a dramatic effect on attainment. Students receiving the messages were 27 per cent more likely to pass their GCSEs or functional skills in maths or English, with a pass rate of 28.1 per cent compared to 22.2 per cent among students who had volunteered to be part of the programme but had not been selected for the trial.

These outcomes demonstrate the intervention's impact on key exam results, which previous work has shown to predict long-term earnings and other outcomes. Follow-up interviews with those who had been part of the trial suggest there were also other 'softer' impacts, particularly around strengthened relationships:

*'[Before] they didn't even know if I had exams... They didn't know it until the text messages started. I think [our relationship] became closer because every time they get a text message they're like, "Come sit here", and just go through everything.'*

This was just one of the exciting results to come from ASK. A separate intervention in FE colleges, developed in collaboration with Professor Geoffrey Cohen at Stanford University, which looked at reducing feelings of threat (such as fear of appearing stupid in front of classmates) through four short online exercises over the course of the year increased attainment in maths or English by 25 per cent, with end-of-year exam pass rates in GCSE or functional skills increasing from 16.7 per cent to 20.9 per cent.<sup>6</sup>



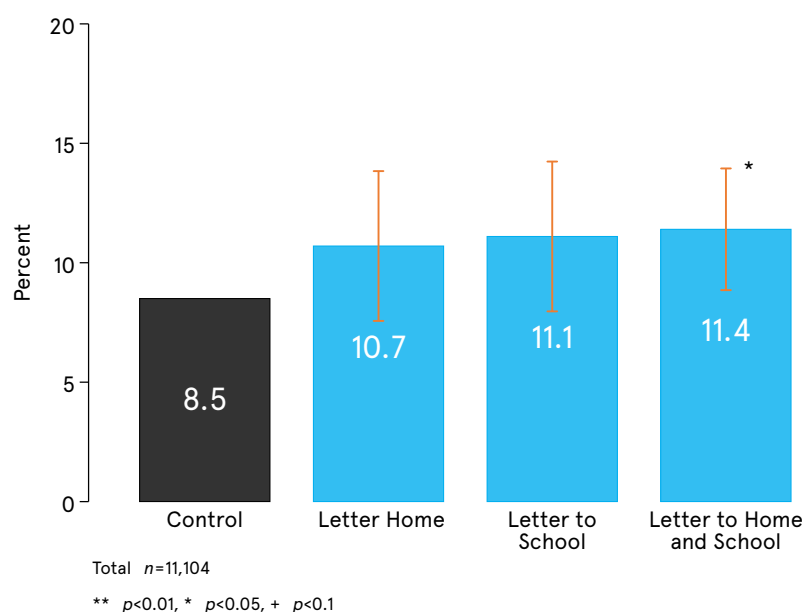
**Students were 27% more likely to pass their GCSEs or functional skills in maths or English when we texted progress updates to their 'study supporters'**

### Increasing applications to competitive universities

Social networks do not only provide support. They are often the most trusted source of information about the choices and routes available. However, sometimes this information can be incomplete and impose limitations on the routes being considered by a young person.

In a project with the Cabinet Office and the DfE, we identified 11,104 pupils with good GCSE grades at schools where few pupils went to a university other than a local one, and tested the impact of peer influence on decisions. These prospective university students were sent letters from current students of a similar background at a top university, emphasising how much these universities valued students like them. Of those receiving a letter to both their home and their school (from two different students), 23.2 per cent applied to a Russell Group<sup>7</sup> university – a 17 per cent increase compared to those not receiving letters. Offers from Russell Group universities and acceptances also increased: accepted offers were 2.9 percentage points higher amongst students receiving both letters, suggesting 88 per cent of the additional applications resulted in an accepted offer (Figure 2).

Figure 2: Increase in acceptances to Russell Group universities



Separately, we worked with King's College London's Widening Participation initiative to understand the experiences of students through their first year of university. Full results from this project will be available later in the year, with interim results available on the [project blog](#).

### Looking ahead

In the coming year, we will continue our strong relationship with the DfE, trialling interventions which build on our research from this year and supporting the DfE as it builds its own Behavioural Insights Unit. We will also continue to work with the Education Endowment Foundation to trial and evaluate different interventions. While maintaining our work on traditional areas of focus, such as university access, we will also look to increase our focus in areas such as career decision-making for both young people and adults. Finally, we will further test and develop the insights arising from the ASK research centre, and will work on scaling and disseminating these findings in partnership with the sector.



## Crime, security and integration

**This year we brought pioneering approaches to some of the highest priority and most challenging issues of policy, from immigration to counter-radicalisation and cyber security.**

Our work on justice and police efficiency saw the launch of multiple RCTs with police forces across the UK, the USA and Western Australia. We worked with police forces and government agencies to target emerging high-harm priority areas, such as domestic abuse, while continuing to address more traditional focuses, such as acquisitive crime and repeat offending. Much of our work sought to build a more human interface between citizens and the law, with the hypothesis that this would increase compliance, satisfaction and trust in the system.

In addition to working in law enforcement, we considerably expanded our work within the wider criminal justice system, seeking to reduce no-shows at court, to support better decision-making early on in the justice journey and to improve joined-up working between agencies at a local level. We continued to work to improve recruitment processes with numerous police forces in the UK and the USA.

Finally, we began to mix behavioural science with more advanced data science techniques, such as applying machine learning techniques to improve the targeting of crime-reduction initiatives, like identifying drivers more at risk of dangerous accidents.

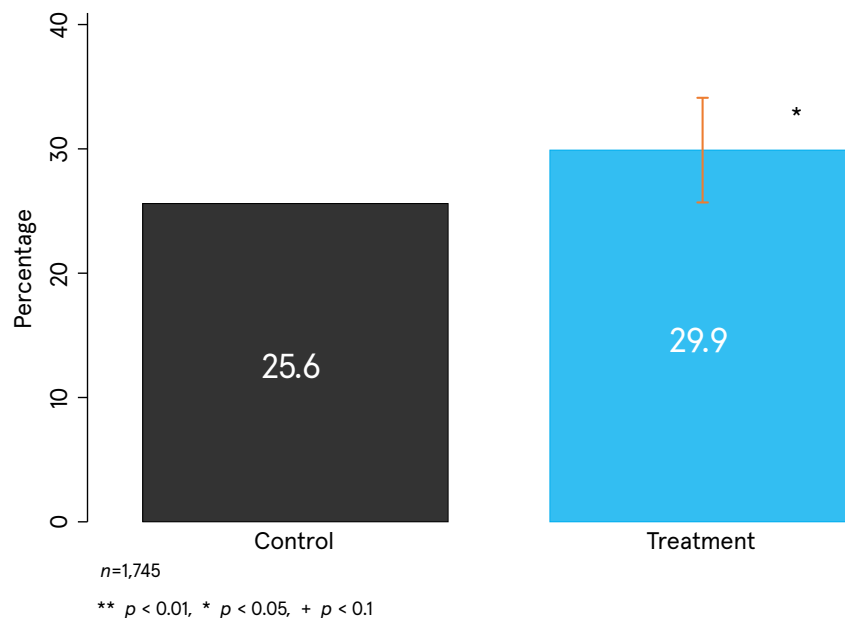
### Evaluating the impact of body worn video cameras

Body worn video cameras (BWVCs) are one of the most significant recent innovations in the changing climate of policing. In last year's report, we introduced a large-scale RCT, run in partnership with Avon and Somerset Constabulary, to test the impact of BWVCs for 'stop and search' and domestic abuse incidents. These initial results were based on surveys from officers using the cameras, who reported a greater sense of personal safety and, more importantly, believed the cameras increased the quality of evidence provided for the prosecution of domestic abuse incidents.

This year we are able to report the impacts on observable outcomes. We found statistically significant improvements in both officer absenteeism and outcomes of stop and search. Specifically, we found that officers wearing BWVCs took an average of 3.3 fewer days of absence over the six-month trial period, than those not wearing the cameras (a fall of more than 20 per cent). This fall was due to shorter spells rather than fewer occasions of absence. In addition, the cameras increased positive outcomes from stop and search procedures (Figure 3), such as possession charges resulting in a warning or voluntary interview, particularly among male officers wearing the devices.



Figure 3: Increase in the likelihood of a stop and search resulting in a positive outcome when BWVCs were used



### Improving targeting of road safety initiatives

Our work this year expanded not just in terms of the scale of the problems addressed and the geography covered but also in terms of the techniques we applied, with an increasing focus on the use of cutting-edge data science techniques.

East Sussex County Council has a high rate of collisions in the area resulting in someone being killed or seriously injured (64 per cent above the average for England). We worked with the council to determine why, using a decade's worth of collision data.

Our predictive model allowed us to test historically held beliefs, predict future behaviours and recommend how interventions could be better targeted.

We found that occupational drivers (those driving as part of their work) are not, as was widely perceived, disproportionately involved in these serious collisions. Also contrary to widespread impressions, the drivers involved were disproportionately local to the area, not visitors passing through.

We also identified characteristics which increased the chance of serious collisions and could provide a focus for future interventions. For example, we found a collision between a person over 65 and a younger driver is more likely to result in someone being killed or seriously injured if the 'younger' driver is aged 40–50. This could be due to a reduction in patience or capability, or even an increase in overconfidence as drivers move from their 30s to their 40s, which may make them less responsive to the minor mistakes of others.

One preconception which was confirmed in our work was that speeding drivers are more likely to be involved in these serious collisions.

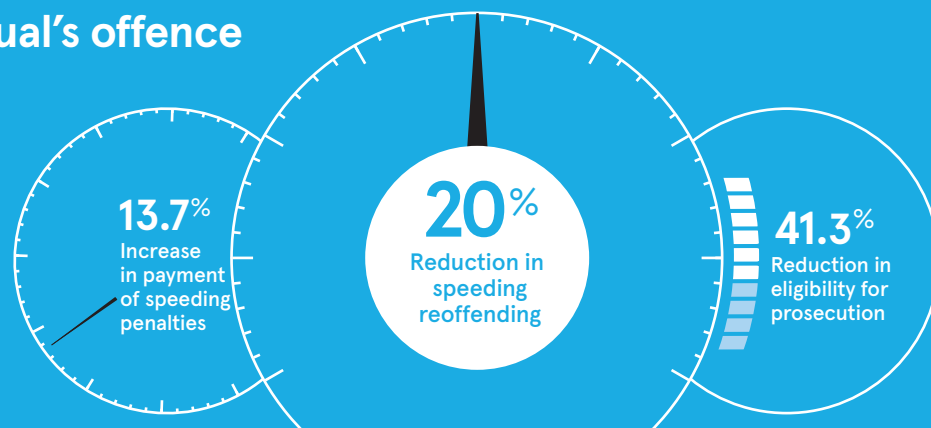


### Reducing reoffending for speeding offences

Road accidents remain one of the leading causes of harm in the UK and, as our work on serious collisions in East Sussex demonstrated, road accidents are often caused by drivers who have previously been caught speeding. We partnered with West Midlands Police, the second largest force in England and Wales, to target dangerous driving.

Due to tight police budgets, we had no money to spend on a totally new intervention, so we focused on adapting an existing point of contact with speeding drivers – the Notice of Intended Prosecution received after being caught speeding. We identified two areas for improvement: making it easier for drivers to comply with the sanction (and thus reducing the number of drivers who face the possibility of prosecution as a result of non-compliance) and convincing drivers of the legitimacy of speeding limits so they are less likely to reoffend.

**The intervention reduced reoffending by 20% within 6 months of an individual's offence**



Following a clustered RCT over 19 weeks, with a cohort of 15,346 drivers, we found that the intervention reduced reoffending by 20 per cent within six months of an individual's offence in the West Midlands alone.

These results are in addition to the increased payment rate and speed reported in last year's update, which reduced eligibility for prosecution by 41.3 per cent. Using police and Home Office data, we estimated the intervention will save the criminal justice system £1.5 million per year in the West Midlands alone – as well as reducing the numbers hurt or killed on our roads. We are very excited about these results, which we think have wide implications, and are replicating the trial with the London Metropolitan Police.

More broadly, criminology studies show reoffending to be extremely difficult to shift, with the two-year reconviction rate for adults at 20 per cent even in the highest-performing countries, and over 40 per cent in many others<sup>8</sup>. We think this approach – treating offenders in a more adult way by explaining the rationale behind laws – could have broader application across the criminal justice system.

In June, this project won the Nudge for Good award at Nudgestock 2017, sponsored by Ogilvy. In addition to Ogilvy, we would like to specifically thank the Dawes Trust for supporting this, and other, innovative trials to reduce crime and improve justice.

### Looking ahead

In the coming year, while continuing to work with law enforcement and wider criminal justice system agencies to increase efficiency and reduce harm, we will focus increasingly on deep-seated issues, such as alcohol-related violence, domestic abuse and child abuse. We will look too to build on our successes this year and consider their application to new contexts, for example through extending our use of data science techniques to areas such as bicycle safety. We will also try to unpick more complex areas of policy, such as corruption and fraud, and pervasive macro-trends, such as social cohesion, which are affecting countries across the world.



## Consumers and finance

**Our work is putting human behaviour at the heart of market regulation and policy to deliver better, fairer outcomes for consumers.**

This year, we have built on our framework for applying behavioural science to regulation<sup>9</sup>, testing and implementing our ideas with UK regulators, Citizens Advice Bureaus and the financial sector. In particular, we have supported Ofgem to test and implement ways of increasing consumer engagement in the energy market. In one of these RCTs, Ofgem wrote to customers who have been on expensive tariffs for a number of years with personalised cheaper offers from rival suppliers. Early results from this novel market intervention indicate that presenting customers with alternative cheaper tariffs is a highly effective way to prompt consumers to shop around and switch.

We've considerably expanded our work on improving financial decision making through the launch of the Financial Capability Lab with the Money Advice Service. Through this work we have also developed our capability to run controlled online lab experiments through our new venture, Predictiv. We have used Predictiv in partnership with financial institutions, government and regulators to rigorously test ways to improve comprehension and decision making before materials are rolled out to consumers.

### Increasing engagement with pension information

With most people spending at least 25 years in retirement, deciding what to do with their pension pot is one of the most significant financial decisions they can make. It is also one of the most complicated, and the wrong choice can lead to a significant loss of lifetime income.

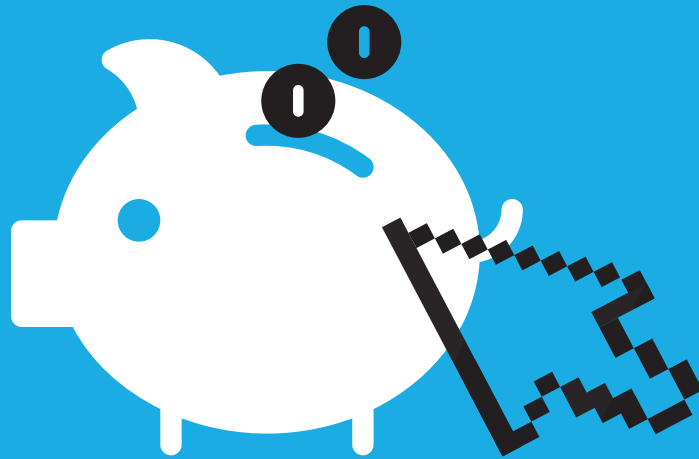
In order to help people who are reaching retirement age to make use of free information and guidance, we collaborated with the UK government's Pension Wise service and three pension providers to test different ways of encouraging people to access the Pension Wise guidance services.

In one trial with LV= (Liverpool Victoria), we designed a Pension Passport which consolidated the essential information from the usual 50–100-page pension wake-up pack issued by the industry – sent to those approaching retirement – onto one side of A4 paper. The Pension Passport included the personalised information a customer needs to access open-market retirement product options and a clear call to action to visit the Pension Wise website. Those receiving the new single-page Pension Passport were ten times more likely to visit the Pension Wise website compared with those receiving the usual wake-up pack.

In light of these findings, LV= has committed to overhauling all wake-up packs to effectively signpost consumers to guidance and advice about their retirement options. We would urge the adoption of similar Pension Passports across the sector.

# 10x

increase in  
the proportion  
of savers visiting  
the Pension Wise  
website for  
free guidance

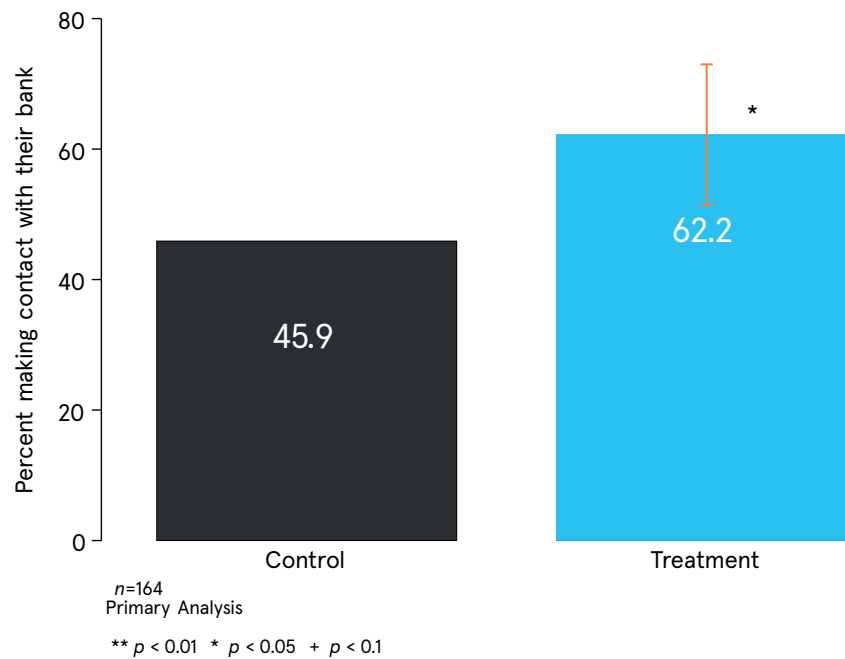


### Increasing contact between mortgage lenders and consumers in arrears

Northern Ireland suffered particularly severely in the 2008 financial crisis, leading to very high rates of negative equity and many homeowners at risk of mortgage arrears and potentially repossession. One common problem with debt is that many borrowers ignore the issue and avoid speaking to their lender, which is rarely beneficial to the borrower.

We worked with the Department for Communities and mortgage lenders in Northern Ireland to explore ways to encourage people in arrears to engage more proactively with their banks. Simplified letters harnessing aspects of reciprocity and loss aversion were sent in handwritten, coloured envelopes with handwritten post-it notes attached, alongside text messages prompting people to open and read the letter. The early results were promising, with this approach leading to a 35.5 per cent increase in the proportion of consumers contacting their bank (Figure 4).

Figure 4: Increase in debtors contacting their bank



### Looking ahead

In the coming year, we will continue to work with government and regulators to support the development of well-functioning consumer markets. We will also look to apply behavioural insights in more complex markets, such as care homes. The Financial Capability Lab's results will be published at the end of the year. We will progress the most promising ideas from the lab into field trials and pilots, tackling some of the most complex financial capability challenges facing people across the UK.



## Economic growth and productivity

**Small interventions can impact the behaviours of firms and individuals to drive productivity. This year we supported the development and effective implementation of national growth policy.**

Economic growth and productivity remain key focuses of policy as the government develops its industrial strategy. Our work suggests that many of the factors driving productivity are rooted in the micro-behaviours of individual people and firms, including how they interpret and respond to policy (such as through business confidence). For this reason, this year we created a team within BIT dedicated to addressing economic growth challenges.

We worked to maximise the effectiveness of existing government initiatives to support business. This included a novel pilot trial with Sage accountancy software which used commercial data to target fast-growing companies with information on scale-up programmes. It also encompassed support for the Productivity Leadership Group's new Be The Business movement, which is seeking to improve private sector productivity by improving the sharing of best practice across firms.

Our work this year included several projects to improve productivity and efficiency in the public sector, including developing and trialling new tools to improve management practices within the civil service, and improving feedback systems for public sector procurement.

Finally, we worked closely with government to inform the industrial strategy and to shape the policy guiding the UK's future growth.

### Making business-to-business markets work better

Despite the development of TripAdvisor-style platforms across consumer markets, which help people share information on quality and improve purchasing decisions, business-to-business markets in the UK remain deeply shrouded. Government has an opportunity to take a lead in demonstrating how feedback can transform these markets.

We are supporting the Crown Commercial Service (CCS) to trial feedback in public sector procurement, allowing information on quality of service to be shared across the public sector. Evidence from consumer markets shows that feedback platforms improve competition, particularly benefiting new and smaller companies over incumbents.<sup>10</sup> Introducing feedback could therefore also support the government's aim to spend more on goods and services with small and medium-sized enterprises (SMEs).

CCS is currently piloting the collection of supplier feedback from purchasers for some IT products and office supplies on their frameworks. The feedback is not currently being displayed to buyers. However, the results of the CCS pilot so far indicate that buyers are willing to provide feedback, and that this feedback could potentially help highlight the quality on offer from smaller, less well-known businesses compared with larger businesses with a more

established brand. While the numbers in the pilot are still small, SMEs were as likely as non-SMEs to get the best (5-star) rating from buyers, and SMEs were also less likely to receive very negative reviews.

The CCS has also been able to use the information to follow up on purchasing problems. With around 20 per cent of orders experiencing a delay and 77 per cent of suppliers not communicating these delays, feedback has already identified areas for improvement.

**Introducing feedback platforms could support the government's aim to spend more on goods and services with small and medium-sized businesses (SMEs).**



Note: Feedback was collected from 1 April 2017 to 1 July 2017.  
During this time period, 1,343 purchases were made, with 201 feedback requests completed.

### Looking ahead

We plan to expand our work and expertise in several areas relating to economic growth and productivity over the next year. We will be working to improve the effectiveness of business support and boost investment and exports by UK businesses, while building our understanding of how confidence affects consumer and business decision-making in the economy. We will also be working on how to ensure that productivity gains are felt across the regions and UK cities. We will continue our work on improving management practices in the public sector and beyond, and will support the development of the industrial strategy and government policy more widely.



## Energy and sustainability

**Broadening and deepening our expertise, we looked beyond individual energy use to wider behaviours with environmental implications, and continue to champion the use of sophisticated evaluation methods to assess the impact of environmental products.**

Sustainable behaviour can be difficult to change, often requiring people to shift ingrained household habits around energy use, recycling and commuting practices, or asking them to make perceived sacrifices in terms of up-front costs, effort or enjoyment. As is often the case with these sticky behaviours, we've found in previous trials that providing information alone is often not enough<sup>11</sup>.

This year we reflected on the latest theory and evidence to find out what really works; we've expanded the range of our policy focus, covering issues as diverse as sustainable food consumption and farmers' biosecurity behaviours; and we've been running increasingly sophisticated field experiments and evaluations in a sector dominated by laboratory testing and engineering models of energy efficiency. The latter has included advising the Department for Business, Energy and Industrial Strategy (BEIS) on how energy suppliers can be encouraged to better serve the interests of customers, and our ongoing work with Nest Labs, maker of the Nest Learning Thermostat.

### Reducing household energy consumption: the power of evaluation

Household heating currently accounts for around 10 per cent of the UK's carbon footprint, and the average household gas bill is over £650 per year.<sup>12</sup> Despite this, heating controls in many UK homes are outdated and difficult to use, with behavioural factors often leading to sub-optimal use of our heating systems – many people leave their heating on while they are out, or have it unnecessarily high at night. The Nest Learning Thermostat aims to overcome these pitfalls by learning and automating the optimal schedule. In last year's update we introduced a 4,500-home evaluation to quantify its energy-saving potential. Using propensity score matching – a quasi-experimental technique for robust analysis in the absence of an RCT – we found savings of around 6% of annual household gas consumption.

However this preliminary result left some questions unanswered, and so this year we've run three further studies – another exploratory, quasi-experimental study using more recent gas data, a small-scale, 276-home RCT using higher quality smart-meter data, and an independent evaluation of Nest's 'Seasonal Savings' algorithm, an opt-in feature aiming to make additional savings over the basic Nest functionality. For the basic Nest, we find savings of around 7% of the heating system's gas use (equating to around 5% of the total annual household gas use). We also find that those opting in to the Seasonal Savings algorithm achieve additional savings of more than 4% of heating system gas use (3% of annual household gas) above the basic Nest. Combined, this ~11% saving in heating system gas (or ~8% of annual household gas) represents a saving of around £40–65 per year for medium-larger homes, giving a payback period of 4–7 years<sup>13</sup>.



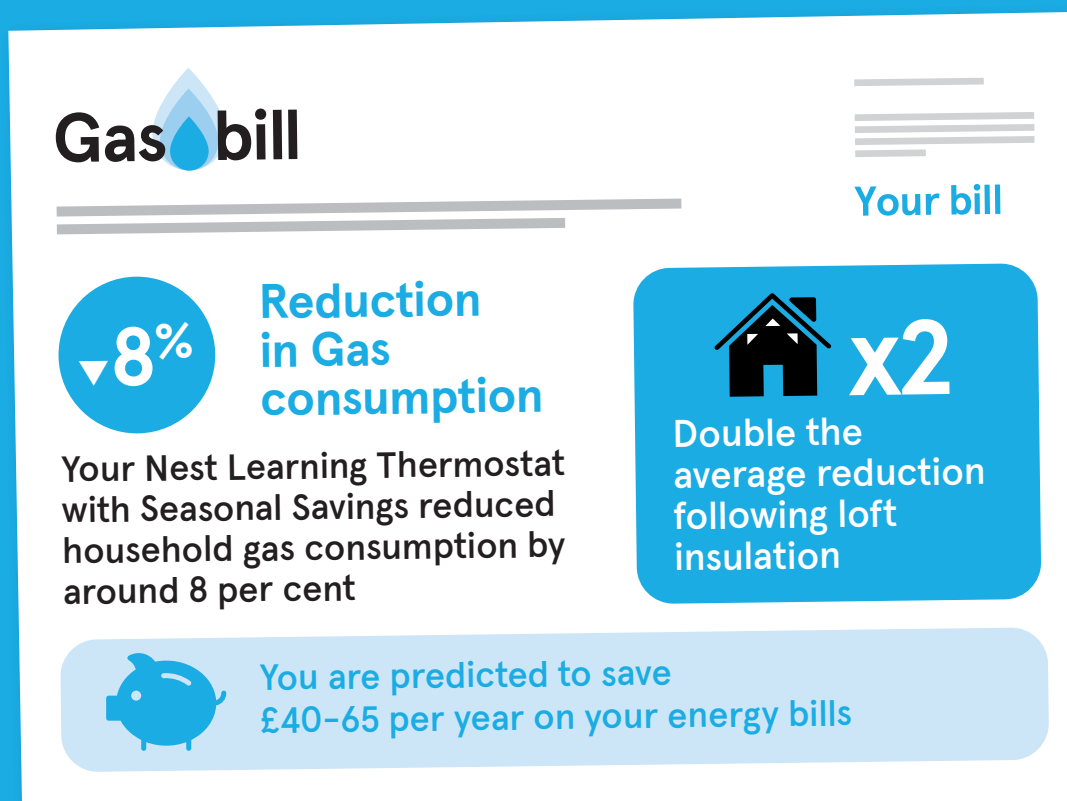
More impressively, these savings are compared to a full modern suite of heating controls – a programmable timer, room thermostat, and thermostatic radiator valves. We would therefore expect the savings to be significantly greater, and the payback potentially shortened, where replacing more rudimentary controls\*. For example, 23% of homes have no thermostat, and a minority have no proper heating controls at all<sup>14</sup>.

To put this in perspective, BEIS find that loft insulation saves around 4% of household gas, and cavity wall insulation around 9%<sup>15</sup> – both more expensive products, demonstrating that pound-for-pound spent, smart heating controls out-perform most traditional energy efficiency retrofits, and in some cases dramatically so.

### Looking ahead

This year we will continue to expand the range of topics we engage with, having only scratched the surface of sustainable behaviour to date. Water conservation and sustainable consumption are firmly within our sights, and we plan to focus on complex policy issues at the intersection of sustainability and public health, such as air quality. We also intend to leverage our growing engagement in economic policy and business behaviour to explore whether behavioural insights can contribute to green growth and sustainable organisational behaviours.

\*This assumes that those with more rudimentary controls are otherwise similar in terms of behaviours and preferences. Estimates would be longer if, for example, elderly individuals were more likely to have basic heating controls and were also more likely to be in the house for longer periods with low level heating throughout.





## Community and giving

**Behavioural insights can strengthen the fabric of our society. Our work on social action, community and giving encourages pro-social behaviour and supports the efforts of charities and their volunteers.**

This year we continued our partnership with the National Citizen Service (NCS), successfully showing how ice-breaker activities can increase the social trust of young people from diverse backgrounds. We also launched a new trial in June with 3,500 young people to test whether pairing them with a buddy, and providing joint incentives, can improve attendance rates.

We began a new partnership with the Raspberry Pi Foundation and Code Club to get more adults to volunteer to help bolster young people's digital skills. This sat alongside new work to support the running of public events, including a successful trial with the Greater London Authority to increase the use of FAQ (frequently asked questions) pages in the run-up to London's New Year's Eve Fireworks, ensuring more people had access to the FAQs to ensure their questions were answered before the event and freeing up resources for those with more complex and urgent enquiries.

Our ongoing programme of work on these topics reflects the important role that charities, the voluntary sector and 'people helping people' play in nurturing and forming the fabric of our society. This importance is reflected in the large literature about these activities in behavioural and social science, and we hope our work is also contributing to that literature.

### Building social trust through the National Citizen Service

Higher levels of social trust are associated with multiple better outcomes for societies and the individuals within them, from faster economic growth to increased life satisfaction. Trust of out-groups – people of a different ethnicity or religion from ourselves – is similarly associated with more positive outcomes. As part of our ongoing work with the NCS, we tested whether one of three ice-breaker activities could increase social trust and creativity, particularly among young people from poorer backgrounds and with lower social trust to start off with.

Young people who at the start of the NCS programme participated in an ice-breaker in which they discussed their similarities reported significantly higher levels of social trust four weeks later. The effects are the equivalent to moving from the 25th to the 50th percentile of social trust.

### Increasing volunteer registration for Code Club

Code Club runs nearly 6,000 volunteer-led clubs across the UK to develop children's coding skills. All volunteers need to complete a Disclosure and Barring Service (DBS) check before they can start, and this friction causes significant numbers to drop out during the sign-up process.



New Code Club  
volunteers are 48%  
more likely to start  
the DBS process

= 48% >

This year we collaborated with Code Club and the Raspberry Pi Foundation to draft two emails, sent one and ten days after registration, to people who had registered as volunteers but who had not yet started the DBS process. The emails encouraged new volunteers to make a public commitment to being a volunteer and reminded them that they had already made a lot of progress along the path, using an intervention known as 'endowed progress'. Recipients were 48 per cent (6.54 percentage points) more likely to start the DBS process, and Code Club is now sending these emails to all new volunteers.

### Looking ahead

Over the next year, we will continue our existing partnerships: with the NCS to maximise the social impact of this national scheme and with Raspberry Pi Foundation to understand how to improve the systems underlying volunteer-led initiatives. We look forward to sharing the results of our NCS buddy-pairing intervention later in the year. We are also hoping to expand our earlier research on charitable giving, working with both corporations and charities to run fundraising experiments and to trial interventions to increase youth volunteering.



## Equality and discrimination

**We expanded our work on issues relating to diversity, applying behavioural science to tackle discrimination and encourage participation in both labour markets and childcare roles regardless of gender. This included a particular emphasis on gender equality.**

Much of our early work on equality focused on improving diversity through recruitment, such as increasing the proportion of successful black, Asian and minority ethnic candidates in police recruitment and in apprenticeships. This work continues, both in the UK and in the USA, and last year we announced the launch of Applied – an online recruitment platform to reduce implicit bias in recruitment. Since then, however, we have increased our focus on how behavioural science can be harnessed to foster gender equality.

This focus reflects the increased attention gender equality has received in UK policy over recent years. This has included initiatives to increase women's representation on executive boards, new legislation to require employers to report their gender pay gap figures and the UK's prominent role in the UN's High-Level Panel on Women's Economic Empowerment. We have been engaged by the government and organisations such as the Equality and Human Rights Commission (EHRC) to conduct research on the uptake of shared parental leave and promoting the availability of flexible working opportunities, and have begun testing behaviourally informed solutions to these challenges.

### Potential limits of perspective-taking exercises by line managers

It can be as important to identify what doesn't work as to identify what does. In partnership with the EHRC, we ran our first two gender equality trials to reduce pregnancy- and maternity-related discrimination in the labour market. One of the trials, funded by the EHRC and conducted with a large employer, tested the impact of an online perspective-taking exercise on improving the relationship between line managers and female staff. Perspective-taking exercises have been found, in some studies, to reduce stereotyping and in-group bias,<sup>16</sup> and they are increasingly being advocated in professional environments.

Staff surveys following our intervention indicated no impact on the relationships between female staff and their line managers, and a small negative impact on how well managers dealt with hypothetical situations in a behavioural simulation. These results suggest – similarly to what has been found for some unconscious bias training – that drawing attention to bias and unequal treatment can be counterproductive, at least without providing specific tools and sustained support to create behaviour change.

### Looking ahead

In the year ahead, we will continue to work with the Government Equalities Office (GEO) on testing ways to encourage men to participate more in childcare and to enable women to return to work if they wish to do so. We are also excited to work with the GEO on a range of issues related to gender equality, such as improving employer compliance with the gender pay gap reporting regulations.



## Local government and cities

**This year saw a step change in the scale and scope of support we are offering to local government, from the establishment of our first regional office in Manchester to partnerships with the Local Government Association (LGA) and London Councils. We are now helping councils with problems as varied as improving adult social care services, testing new approaches to public health and increasing recycling.**

Last year, much of our local work was focused on revenue collection, and we were only just establishing our first regional office in Manchester. This office is now established and has driven an increasing body of work with local authorities and city regions across the North of England, including a series of projects as part of our partnership with the Greater Manchester Combined Authority.

As well as expanding geographically, we actively developed our expertise across a broader range of policy areas so that we could support local authorities with their most pressing challenges. For example, we conducted a programme of both quantitative and qualitative research for Sheffield City Region to identify ways it could more effectively support job seekers in the region. One focus of this work was supporting those who have been made redundant to find new jobs and take up retraining opportunities – a challenge faced by many areas in the UK.

Alongside these developments, we continued to build on and expand our existing partnerships. We currently have two strategic partnerships with local government bodies: one with the LGA and one with London Councils. As part of these we have worked with local authorities on a range of priorities around the country, covering issues from sugar consumption to children's social care.

### Reducing sugary drink consumption

In England, over a quarter of adults are obese and a further 36 per cent are overweight. A strong behavioural driver of increased obesity is the high availability of calories, especially sugar, in our day-to-day lives. If obesity is to be reduced, cutting sugar consumption is essential (See also [Health and welfare](#)). We partnered with the LGA and Liverpool City Council to explore how behavioural insights can be used to reduce sugar consumption.

Our intervention aimed to change decision-making at the point of purchase. We tested the impact of introducing simple pop-out 'stop' signs on shelves containing high-sugar drinks in three hospital stores in Liverpool. These signs provided an explicit reminder of the high sugar content of these drinks in order to support customers who wanted to make healthier choices. We found evidence that the signs reduced purchases of high-sugar drinks by 7.3 per cent of total purchases, although this was only significant at the 10 per cent level rather than the conventional 5 per cent level.

Encouragingly for retailers, we found no evidence that total chilled drink sales declined when the signs were in place, suggesting that people substituted low-sugar alternatives. This is similar to the displacement effect we found in trials with Alfred Health in Australia on changes to the price and positioning of high-sugar drinks.<sup>17</sup> Over the course of a year, we estimate that this measure would lead to roughly 930 fewer high-sugar drinks being bought in the participating stores.

**Stop signs  
reduced high  
sugar drinks  
purchases by  
7.3% of total  
purchases**



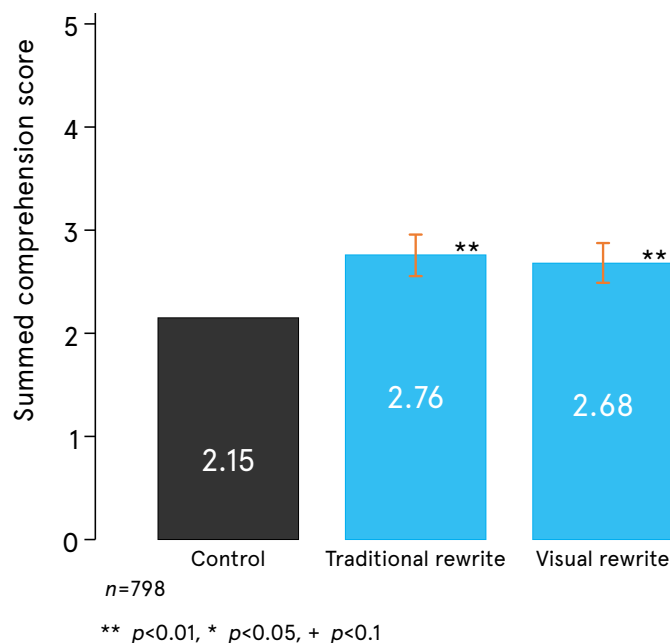
### Helping people understand how public services use their personal information

Working Well is a programme in Greater Manchester which supports people back into work. During their first appointment, potential clients are asked to read and consent to a privacy notice detailing how their personal information might be shared. This can take up to half an hour, close to a third of the first appointment. The notice is difficult to read as well as lengthy, containing complex language and legal terms.

Using our online platform, Predictiv, we tested two new versions of the privacy notice against the original. The 'traditional rewrite' was a simplified two-page version of the notice. The 'visual rewrite' further simplified the content by using images and graphics to convey key messages. Both rewrites increased comprehension (Figure 5).

We also hope these changes will help make the initial meeting between caseworkers and potential clients feel less legalistic and bureaucratic, shifting the focus onto the help the programme can offer.

Figure 5: Improved comprehension of the Working Well privacy notice



Greater Manchester is currently rolling out a version of our simplified notice across the Working Well programme, and considering how a similar approach could be applied to a range of programmes in the region. Many local areas are implementing programmes which cut across public service silos and aim to offer people more integrated support. In these programmes, quickly, thoroughly and comprehensively explaining to members of the public how data-sharing works will become increasingly important.

Finally, we soft launched our Test+Build platform to help local authorities and other devolved services with the design, implementation and analysis of RCTs. The platform is currently in beta testing, but the initial results have been very promising and we hope to have the platform fully available to local authorities in the coming year.

### Looking ahead

Through our partnerships with the LGA and London Councils, over the next year we will be working on a range of policy challenges, including sexual health, housing, domestic abuse, immunisation, sugar consumption and children's social care. We will also be finishing our first set of demonstrator projects in Greater Manchester, showing the value of behavioural insights in cities and city regions, as well as continuing to work with other places across the North.

We are additionally planning to work with the LGA to publish guidance for council officers who want to use more behavioural insights in their work.

## BIT: North

BIT: North is BIT's first regional UK office, based in Manchester and established in May 2016. Our founding partner is the Greater Manchester Combined Authority. We exist to help city regions and other local places across the North of England to use behavioural insights to improve local public services and maximise the opportunities of devolution.

Since we were set up last year, we have been establishing ourselves in Greater Manchester and identifying a range of 'demonstrator projects' to show how behavioural insights can be applied across the region. In the coming year, we will be working on a broad range of problems, including supporting health and social care integration, reducing loneliness, increasing parental uptake of the flu vaccination among their young children and increasing the payment of council tax.



Alongside our partnership with Greater Manchester Combined Authority, over the past year we worked with other places in the North of England. For example, in partnership with the BIT Skills team, we explored how adults in Sheffield City Region understand the labour market, how they navigate the options available to them and how they look for work. We also worked with Wirral Council to explore how behavioural insights could be used to help tackle fly-tipping, a perennial challenge in many of our towns and cities.

We believe that behavioural insights have a valuable role to play in helping cities and regions in the North of England to achieve their goals, from reforming public services to generating inclusive and sustainable growth. We look forward to testing this over the next 12 months.





## International programmes

**Our work internationally, now entering its fourth year, shows the impact behavioural science and robust testing can have across the globe.**

Since 2014 we have applied BIT's approach in more than 20 countries. The evidence and impact from these projects have demonstrated that our approach can be highly impactful outside the UK. Initially, we focused on testing successful trials from the UK in an international context, which explains our early focus on tax compliance. However, in the past few years, we have been applying our approach to address tough challenges that are prevalent across the world.

One such challenge is the informal economy. Small, informal firms provide a large majority of employment in middle-income countries. These firms frequently stay below the radar of the tax authorities, reducing tax revenues but also leaving most of these firms' employees without access to social security. In Mexico, this represents close to 30 million people. Below we report two trials, involving 750,000 businesses, supporting the Mexican government's efforts to increase business formalisation.

Our international programme of work this year has drawn us into more complex policy problems. For example, we have been working across several countries on anti-corruption interventions in partnership with the UK Foreign and Commonwealth Office. We have also begun new partnerships, such as with the International Rescue Committee, to deliver childhood development support in refugee camps in Jordan and Lebanon.

Finally, we have started to focus more on the sustainability of our work with overseas governments. We are working more on increasing capacity within government departments to follow this approach independently, just as we have done in the UK. We believe this shift is crucial to ensure that behavioural science and rigorous testing are institutionalised and so have a sustainable impact.

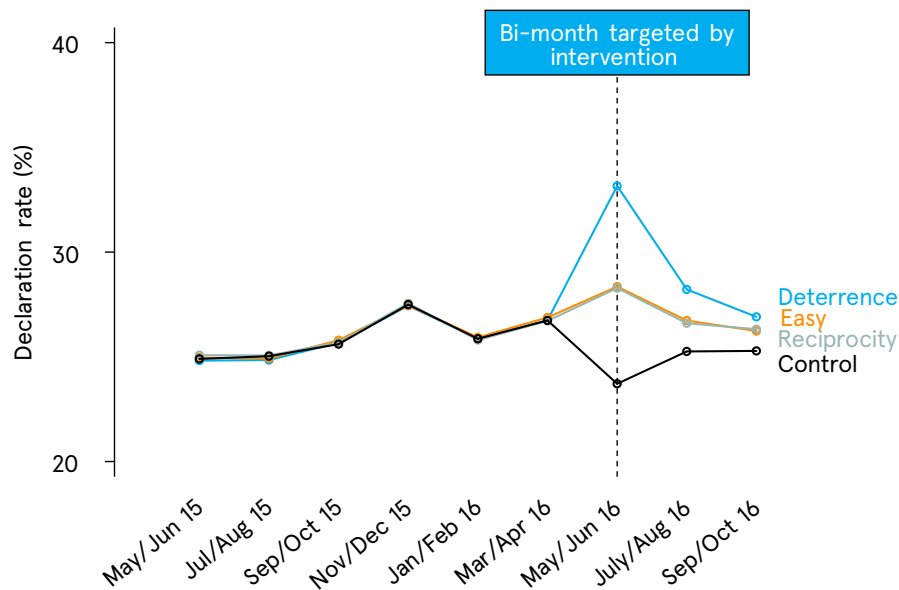
### Increasing business formalisation in Mexico

To encourage formalisation, the Mexican government offers small, informal businesses large tax discounts through the programme *Regimen de Incorporación Fiscal*. Together with the Mexican Ministry of Finance, we conducted two trials to encourage businesses that had formalised through this regime to comply with their new obligations to declare revenues and to register their employees for social security.

In our first trial, we encouraged businesses to declare bi-monthly revenues on time. In this trial, 748,499 taxpaying businesses that had not submitted their declaration a fortnight before the deadline received either one of three SMS reminders or no reminder. All three reminders significantly increased declaration rates.

The most effective reminder, which highlighted the potential fines for non-compliance, increased declaration rates from 24 per cent to 33 per cent (Figure 6). The messages also continued to impact on declaration in the following four months with no further reminder. The increased revenues represented a return on investment of 400 per cent for the SMS, even though these firms currently still receive either a 90 per cent or 100 per cent discount on their payments.

Figure 6: Increase in tax declarations following deterrence messages



*Deterrence, Easy and Reciprocity are three distinct treatment SMS messages: Deterrence highlights negative consequences of non-compliance; Easy provides instructions on how to declare; Reciprocity reminds taxpayers of the subsidies provided.*

In a second trial, we sent letters to businesses that had failed to register at least one of their employees for social security, highlighting either the norm of registering or the sanction for failing to do so. We used a novel targeting method to identify 'non-compliers', which involved combining the databases of two separate public agencies. Businesses that received either version of the letter were 14 per cent more likely to have registered at least one employee three months after the letters were sent (from 18 per cent to 20.5 per cent). The letters also encouraged more employers to register themselves for social security.

These are important results. Complying with social security obligations has a clear social impact but is costly, especially for small businesses. This makes it a difficult behaviour to encourage through simple nudges, or indeed any intervention. The success of these low-cost letters, made possible by matching data from different agencies, is therefore promising for the future.

### Increasing teacher and school director attendance in Peru

In Peru, random spot checks conducted by the Ministry of Education suggest that on any given day, 7 per cent of classrooms do not have a teacher present and 9 per cent of school directors are absent. This absenteeism is linked to significant decreases in pupils' performance in mathematics and reading.<sup>18</sup> Working with the Peruvian Ministry of Education's Innovation Lab (MineduLAB) and the World Bank's Mind, Behavior, and Development Unit (eMBed), we tested the effect of sending teachers and principals emails highlighting either the current level of attendance – the 'norm', or the positive effects of attendance on student performance.

We measured attendance using the random spot checks: The 'norm' message significantly increased directors' presence – by 3.7 percentage points, from 83.5 per cent to 87.2 per cent – suggesting behavioural emails could be an effective way to affect directors' performance. However, we found no effect on teachers, potentially due to a very low email opening rate, and will keep looking for cost-effective solutions to teacher absenteeism.

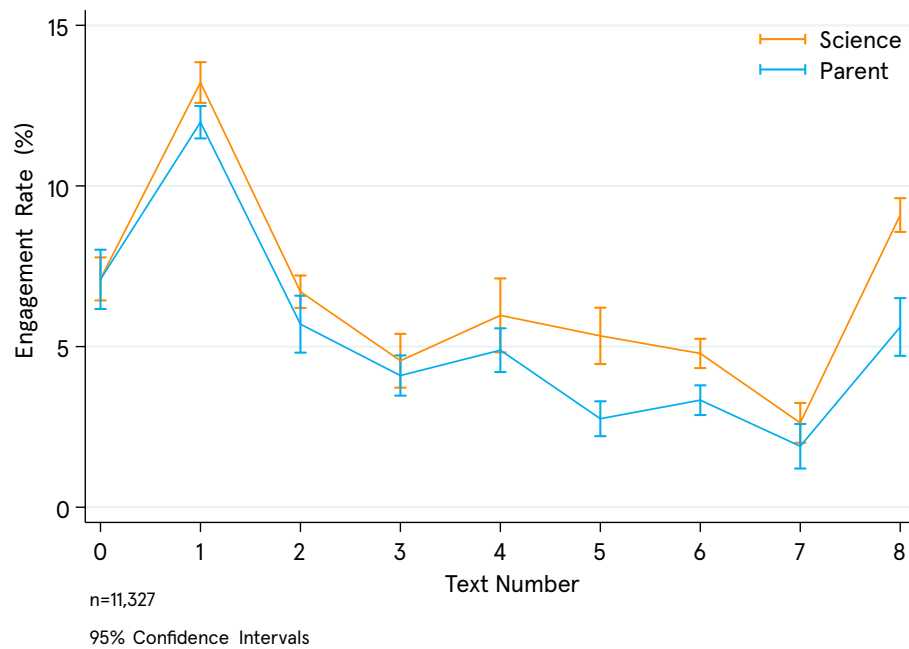
### Bringing childhood development support to Syrian refugees

In partnership with the International Rescue Committee (IRC), our North American and UK teams worked together on what we believe to be one of the first RCTs of its kind: a test of different message frames to bring early childhood development content to displaced Syrian refugees in Jordan and Lebanon. Using a mass SMS platform, we sent out a series of messages to Syrian parents and caregivers of preschool-aged children, directing them to interactive videos adapted by the IRC. We used two different message frames – 'science', emphasising the clinical or developmental benefits to children, and 'parent', highlighting the fun that parents and children would have engaging with the videos. While both messages and the overall approach were novel, the science frame is commonly used to engage parents in equivalent programmes in the USA. We found the science framing was the most effective for the Syrian refugee population, driving higher engagement, especially from the final message (Figure 7), which gave the recipient the option to watch a final video, complete a short survey and receive more information about the programme.

### Looking ahead

This year we will be supporting the creation of behavioural units in four middle-income countries in partnership with the Global Innovation Fund. Through our programme of work on corruption with the Foreign and Commonwealth Office, we hope to achieve an impact in this highly complex area of policy. We will also be working with our other key international partners – the Department for International Development (DfID), the Inter-American Development Bank, the International Rescue Committee, the United Nations Development Programme (UNDP) and the World Bank – to tackle issues as diverse as increasing birth registration and reducing sexual violence. One of our early projects with the UNDP – improving adherence to tuberculosis medication in Moldova – is now finishing with promising results and we look forward to sharing these in the coming year.

Figure 7: Increased engagement with interactive childhood development videos



# BIT: North America

## BIT: North America

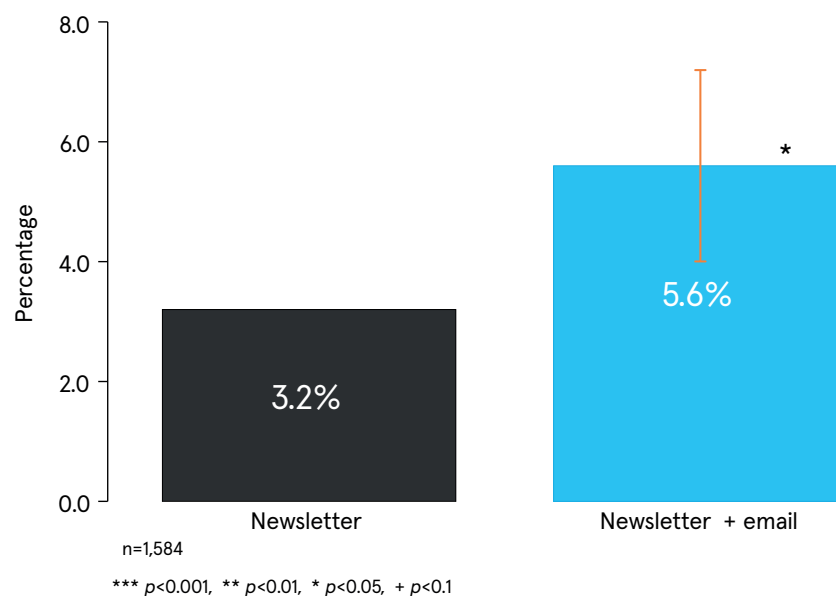
Launched in 2015, our North American office has worked in multiple countries on a range of issues, including improving domestic violence reporting in New York, boosting charitable giving across Canada and reducing incidents of gender-based violence in Egypt.

In the past two years we have run over 60 trials in 36 states, and learned many lessons along the way. Much of this work has been with city governments throughout the USA, largely through our involvement in the Bloomberg Philanthropies What Works Cities initiative, where we continue to learn more about how using data and evidence can make city government more effective.

### Increasing uptake of retirement planning advice

In the USA, 45 per cent of working-age households have no retirement account assets.<sup>19</sup> Getting workers to save is imperative at an individual level but also impacts the financial health of the nation. In a trial in Scottsdale, Arizona, we found that a simple email prompt increased the number of city staff taking up a free appointment with a retirement adviser by 75 per cent (from 3.2 per cent to 5.6 per cent), despite employees already having access to information about retirement planning options (Figure 8).

Figure 8: Increased uptake of appointments with a retirement adviser



### Improving efficiency of public utilities through increased autopayments

With 117 million households in the USA,<sup>20</sup> public utilities can potentially achieve large efficiencies – to the benefit of residents – by reducing transaction costs. In Gresham, Oregon, this has led to a focus on getting water customers to sign up for autopayment of their bill. The city had previously tried using a lottery to incentivise action, in which customers had to sign up to autopay to enter. Working together, we found evidence that suggests ‘regret lotteries’ – a simple change in structure in which the participant is told they have been entered into the draw but, in the event of winning, can only claim the prize if they have first enrolled in automatic water bill payments – are 31 per cent more effective than regular lotteries (and more than twice as effective as no lottery at all). We found they increased enrolment from 1.8 per cent to 2.3 per cent (although this latter result was not significant at conventional levels).

In a related trial in Scottsdale, simply adding an insert into the paper utility bill packet increased sign-up for online billing by 56 per cent, albeit from a starting sign-up rate of 0.32 per cent. At 75 cents per customer each monthly billing cycle, these small efficiencies add up; an estimated 66 per cent of US households still get paper bills, and moving just 0.5 per cent online would yield a little under \$700 million in savings each year.<sup>21</sup>

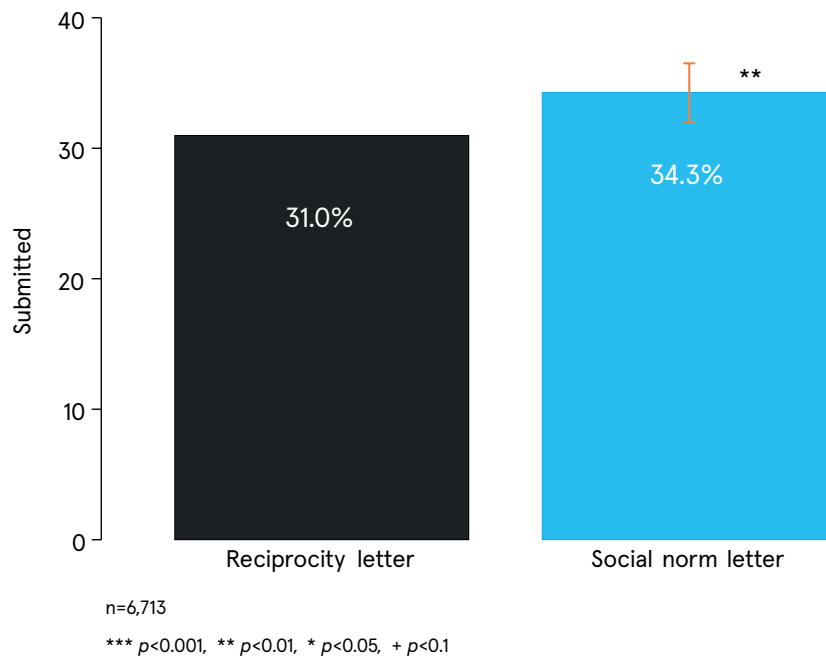
### Increasing online recertification for housing vouchers

Over 5 million low-income households in the USA use federal assistance to rent at an affordable cost.<sup>22</sup> To keep their housing choice vouchers, households receiving this assistance must recertify annually. Doing this online can be easier for residents, while also saving local resources for those who need a more intensive form of support to recertify.

In partnership with the New York City Housing Authority (NYCHA), we found that telling tenants ‘Join thousands of tenants in NYC and submit your Annual Recertification online!’ (a social norm message) was more effective at boosting recertification online than letters stating ‘We created an account just for you to submit your Annual Recertification online!’. The more effective letter increased the overall number of households that recertified online and on time by 5 per cent.

New residents in NYCHA housing responded even more strongly to the norm-based message, with an increase in on-time web certification of 10 per cent, suggesting early signals of a norm can drive online usage from the outset (Figure 9). The letter has now been scaled up and sent to all eligible households because of the successful results of this pilot – we estimate this will lead to at least 1,100 additional on-time web recertifications each year.

Figure 9: Increase in online certifications by new residents



### Looking ahead

We will continue to work through mayors' offices across the USA thanks to the continued generosity of our partners at Bloomberg Philanthropies and their What Works Cities initiative. As part of this work, we will complete a suite of trials across dozens of cities investigating key aspects of national issues, including recruiting effective and representative police officers, improving voter registration and turnout, reducing staff burnout, and collecting debts owed to municipal government. We will also work more with state-level governments, increase our presence in Canada and continue with our international humanitarian work.





## BI Ventures: Building scalable products with a social impact

**The best solution to a policy challenge is not always another policy or government programme. Sometimes the creation of a disruptive product or service may offer a better answer.**

Over the past year, BIT created a new arm, called BI Ventures. Its mission is to identify and scale promising ideas from BIT that are better suited to being 'products'. Often these will have a strong digital component that can lower the financial cost to make the technique, product or service more widely available.

Sometimes this will involve turning insights from successful trials into digital platforms. Sometimes it will entail creating tools that enable any organisation to use behavioural insight methodologies, such as randomised controlled trials, without needing a PhD in experimental design. In all, BI Ventures created five products this year, with one already spun out and two more in development.

### Applied

[www.beapplied.com](http://www.beapplied.com)

The first product created through BI Ventures is the online recruitment platform Applied. Applied enables any organisation to draw on the latest behavioural science research to remove implicit bias from its recruitment decisions. We originally developed the platform largely for our own use, but we were so impressed by its performance that we decided we should make it available for any organisation to use. It name-blinds applications, randomises the order in which sifters see applications, and chunks whole applications into their constituent parts so that different applicants' responses to the same questions can be compared side by side. Over the past year, over 600 hiring managers have used the Applied platform to process more than 13,000 applications. Applied is BI Ventures' first spin-out. Its CEO is Kate Glazebrook, a former member of BIT.

### Predictiv

[www.predictiv.co.uk](http://www.predictiv.co.uk)

As anyone who follows BIT will know, we have a passion for running randomised controlled trials to test whether a new policy works in practice. But sometimes it is not possible to run a real-world trial – it might be too costly to do so, or impossible to randomly allocate interventions (for example, it would be difficult to change the tax code for some people and not others). We built Predictiv to get around this problem. It is an online experimentation platform that allows organisations to run large-scale trials at speed, using online panels of people. It has now been used by local authorities to test processes before they go live, by regulators that want to know which version of a letter is easiest for recipients to understand before letters are sent out, and by financial services firms that want to know which way of framing risks will result in the best outcomes for their customers.

### Promptable

[www.promptable.com](http://www.promptable.com)

In this Annual Update, we report the results from our work in further education (FE) colleges (see [Early years, education and skills](#)) where we have been running trials to encourage students to stick at their maths and English courses. These interventions were so successful that we have built their core insights into a product that any FE college can use to run such supportive interventions themselves. It's called Promptable, and it is now live in its first colleges. Promptable is an online platform that enables the FE colleges to send behaviourally informed messages to students and their 'study supporters' throughout the academic year. Promptable will enable the interventions we develop to be rapidly and cheaply scaled, with potentially hundreds of colleges and schools using the tool to support their students to stick at their courses and achieve better results.

### Test+Build

[www.testandbuild.com](http://www.testandbuild.com)

We have run around 50 RCTs that show how effective behavioural insights can be at improving tax compliance. Until now, this required quite intensive support from our staff. But we have found that the time and costs involved in running more of these interventions make it difficult for many authorities to be involved. We therefore built Test+Build to enable us to automate large parts of the process of running a trial, enabling the running of many more trials at a much lower cost. The first users of Test+Build have been local authorities. They have seen increases in tax compliance through using Test+Build that are similar to those we find with one of our typical trials. Over the next year, we hope to run hundreds more trials through Test+Build and have just expanded its use to new areas, including charitable giving.

### Good Habit Lab

[www.goodhabitlab.com](http://www.goodhabitlab.com)

In our 2015–2016 Annual Update, we reported the results from our trials with the Movember Foundation using activity trackers. They showed that a range of well-designed behavioural insights increased activity levels among individuals participating in a fitness programme. Importantly, the interventions were most effective at getting the least active to exercise more. We have turned these core ideas into an online tool called Good Habit Lab, which will help organisations who want to motivate their employees to get more active to do so using the latest available evidence and methods. In the longer term, our ambition is to use Good Habit Lab to manage long-term conditions and achieve other kinds of objectives (for example, a savings goal).

### Online executive education

We are frequently approached by people looking for training in behavioural insights but who don't necessarily have the time to undertake a master's programme. We are therefore developing a series of online courses that anyone can use to get a good understanding of how to apply behavioural insights to achieve social impact. The first step in this process is the development of an Executive Education programme. The material developed for the Executive Education programme, together with other resources, will then be used to support the online modules, which will come online in 2018. These courses are being developed in partnership with Warwick Business School, which has the second-highest-ranked distance-learning MBA in the world and a new London campus based in the Shard building in London.

BI Ventures is an exciting new departure for BIT which we hope will enable many more people and organisations to use behavioural science insights for good over the coming years.

## Conclusion

**This has been a year where we have increasingly been focusing on the scaling of high social impact intervention. But at the same time, we have continued to push ourselves to be more innovative.**

We remain committed to developing and applying more realistic models of human behaviour to public policy. At the same time, we are seeing a continued expansion in the number of governments and public bodies across the world using a behavioural lens, including Australia, Canada, Germany, Mexico, Netherlands, the United Arab Emirates and many others.

We believe it is important, both for learning and for public confidence, that all bodies using behavioural and experimental approaches commit to openness and to publishing results. That applies whether an organisation is public or private, and should include results of interventions that didn't work, too.

The importance of this empirical approach, consistently championed by BIT, goes far beyond behavioural insights per se. We need to apply this same rigour and methodological scepticism to everything that governments and public services do, from major legislative programmes to the daily business of public service.

With 163 trials conducted this year, alongside extensive quantitative and qualitative research, our Annual Update cannot hope to cover all we have tried and learned. This document is intended to give a rounded sense of what we are doing, but interested readers are encouraged to look at our more specialist publications, and indeed our blog, for more details.

At the same time, we are publishing new, more in-depth reports, and this year we will be launching a series of papers covering topics from financial decision-making to health. These are intended to be helpful to sector specialists who wish to understand in more detail how we are applying BI to particular areas.

This year's report highlights more cross-cutting and thematic issues. One prominent theme is efforts to scale interventions that have been found to be effective. For those of us working in the public domain, exciting though it is to find a new result or publish in a well-regarded academic paper, our real motivation and passion is to have a positive social impact.

It is genuinely thrilling to get results such as the 20 per cent reduction in speeding reoffences ([See Crime, security and integration](#)), the 8 per cent reduction in energy use from smart heating controls ([See Energy and sustainability](#)) and the 27 per cent increase in pass rates associated with our 'study supporter' intervention ([See Education, early years and skills](#)). But creating the social impact BIT was built for requires that successful interventions are scaled up. For example, as important as the original result is, the take-up of our speeding intervention by the UK's largest police forces, or that the remarkable results of our study supporter model – if replicated in follow-up – is scaled within further education and beyond.

Finally, we hope we have given a sense of how BIT is continuing to innovate.

We are excited about our early results from using machine learning predictive analytic techniques, which we think have the potential to greatly improve the efficiency and effectiveness of public services, including how services listen to and learn from the experiences of users.

We're excited about the growing range of public sector partners we are working with across the world, and the mutual learning that this brings.

And we're excited about our early steps into social purpose ventures – a way to scale impact without burdening taxpayers.

If you are a partner, thank you. If you are a public servant, researcher, student or simply someone with an interest in behavioural insights, we hope you continue to find our work interesting and useful. And, if you are curious and want to know more, please do get in touch: we are always happy to discuss any of our results in more detail and to speak to those interested in partnering further to conduct new research or interventions.

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