



Supporting men to take longer parental leave and work flexibly

Research Report

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Executive summary

Executive Summary

Background

Men are less likely than women to take time out of work to care for children, and less likely to make use of flexible working options. Whilst there are a range of barriers contributing to men's lower uptake of parental leave and flexible working, one explanation could be that, while men privately want to take more paternity leave and work flexibly, and are supportive of others who do, they underestimate support for these behaviours among their co-workers - a case of pluralistic ignorance.

We sought to find out whether pluralistic ignorance occurs in relation to men's parental leave and flexible work uptake at Santander UK, and if so, whether providing feedback on actual beliefs among peers would affect men's intentions to engage in these behaviours in the future. We subsequently ran a similar trial with a second banking partner - one of the world's largest banks - who has chosen to remain anonymous.

Intervention and methodology

We investigated this idea by testing whether providing feedback on actual norms - what most people believe - about parental leave and flexible working among male employees at Santander UK made them more likely to plan to take longer parental leave and work flexibly in the future.

We first conducted a baseline survey to collect employees' personal opinions about men who take long parental leave and work flexibly. We also asked them what they thought their colleagues' and managers' beliefs were on these issues. We went on to compare the difference between employees' own opinions about men who take long leave and work flexibly and the perceived opinions of others. This showed us whether pluralistic ignorance was occurring - and we found it was.

We then conducted a Randomised Controlled Trial (RCT), in which the treatment group was told that the majority of their male peers supported men who take longer parental leave and work flexibly - based on the data collected in the baseline survey. The control group did not receive such information. Finally, we asked participants in both groups about their future intended behaviour (i.e. did they intend to make use of flexible working options, or take long parental leave).

We then ran a similar trial with a second large bank, but this time only focusing on parental leave. We revised the wording of the feedback information to avoid 'anchoring' men to the number of weeks of parental leave mentioned in the feedback.

Findings

Providing feedback which made clear that the majority of male peers were supportive of parental leave significantly increased participants' intentions to take between 5 and 8 weeks of parental leave in comparison to the control group in both trials - at Santander by 62% and at the second bank by 50%. However, the feedback also had an unintended effect and significantly decreased participants' intentions to take more than 16 weeks of leave at Santander UK. The feedback therefore clearly had an impact on intentions, but as these effects went in opposite directions, overall the feedback did not increase the *average* number of intended weeks of parental leave in either trial.

The feedback was **effective at increasing the intention of men at Santander UK to work flexibly** in the future, in comparison to the control. The treatment group expressed that they were 4% more likely to work flexibly than the control group. Changing flexible working intentions was not in scope for the second trial.

Implications

Our findings suggest that pluralistic ignorance exists in relation to men's parental leave behaviours: men are likely to underestimate their peers' support for men who work flexibly and take long parental leave. The study also provides evidence for the potential of interventions that address pluralistic ignorance to change working patterns among men. More specifically, pluralistic ignorance interventions can help to realign working patterns with privately held preferences. This study also indicates that pluralistic ignorance interventions can work in relation to binary choices i.e. getting men to move from *not* working flexibly, *to* working flexibly.

However, this study also provides a useful warning that pluralistic ignorance interventions can have unintended consequences. In the Santander trial, feedback which focused on men's support for 5 or more weeks of parental leave may have anchored participants to taking around 5 weeks of leave, rather than longer periods. Men who already wanted to take longer leave may have decreased their intended length of leave to better align with perceived social norms. We mitigated this effect in the second trial by amending the feedback wording to include mentions of leave of different lengths, with some success.

Introduction

Introduction

Men are less likely than women to take time out of work to care for children.¹ There are many barriers towards men's higher uptake of parental leave - both structural and behavioural.² For instance, men are often financially disincentivised from taking longer leave.³

One possible reason for men's low uptake of parental leave and flexible working could be related to pluralistic ignorance.⁴ This occurs when people hold a particular opinion privately while mistakenly believing the majority of people disagree with that opinion. For example, if men think that their colleagues and managers would disapprove of their taking more than two weeks of paternal leave, they may limit themselves to two weeks leave even if they would privately like to take more. If, in reality, their peers actually support fathers taking time out of work to care for children, then informing fathers of this could reduce their fear of criticism for taking longer paternity leave. This could lead to increased paternity leave and flexible working among fathers to balance work and non-work responsibilities.

Pluralistic ignorance often exists during periods of social change - as people's perceptions may not have yet caught up with the reality of shifting norms. There is evidence that such social change is currently occurring in terms of people's beliefs about parenting. The latest report on the British Social Attitudes Survey shows that, between 2012 and 2018, the percentage of people who thought the mother and father of a child should take equal amounts of shared leave increased from 22% to 34%.⁵ One study in Japan found that pluralistic ignorance impairs men's paternity leave rates.⁶ To establish whether pluralistic ignorance occurs in relation to parental leave behaviours in the UK, we ran a pilot study using an online survey platform with a sample of 312 men in banking and finance industries. Participants guessed that 62.3% of men in the same industries would support longer paternity leave. In fact, 82.8% of these men supported paternity leave – an increase of 20.5 percentage points (pp) (or 32.9%) on participants' private perceptions of social norms.

If pluralistic ignorance is indeed a barrier towards men's uptake of parental leave and flexible working, then an intervention which overcomes this could be a low-intensity and cost-effective way of encouraging men to make use of policies already available to them, without requiring any structural policy changes.

Interventions to 'correct' for pluralistic ignorance typically focus on providing accurate feedback on social norms. Studies have found that providing such feedback has led to behavioural changes in a range of contexts. For instance, in the US, peer discussions about drinking behaviours reduced perceptions that student alcohol consumption was high, and led to students reporting lower rates

misperceiving the social norm. Journal of Personality and Social Psychology, 64, 243-256.

¹ Costa Dias, M., Joyce, R., & Parodi, F. (2020). The gender pay gap in the UK: children and experience in work. *Oxford Review of Economic Policy*, *36*(4), 855-881.

² Birkett, H., & Forbes, S. (2019). <u>Where's dad? Exploring the low take-up of inclusive parenting policies in the UK</u>. Policy Studies, 40(2), 205-224.

³ Burgess, Adrienne & Davies, Jeremy. (2017). Cash or Carry? fathers combining work and care in the UK. ⁴ Prentice, D. A., & Miller, D. T. (1993). Pluralistic ignorance and alcohol use on campus: Some consequences of

⁵ The National Centre for Social Research (2019). <u>British Social Attitudes 36, Women and work</u>.

⁶ Miyajima, T., & Yamaguchi, H. (2017). I Want to but I Won't: Pluralistic Ignorance Inhibits Intentions to Take Paternity Leave in Japan. Frontiers in psychology, 8, 1508.

of drinking.⁷ Similarly, in Saudi Arabia, updating married men's perceptions about what men like them thought of women working outside the home increased their willingness to allow their wives to search for jobs - in line with their existing, privately held preferences.⁸

Drawing upon these ideas, we developed a two-part study to test whether we could increase men's intentions to take longer parental leave and work flexibly by correcting for the pluralistic ignorance men experienced in relation to these behaviours.

We first conducted an online baseline survey of participants' (men working at the bank) personal opinions about men who take long leave and work flexibly, and their perceptions of their colleagues' beliefs. This was to see whether pluralistic ignorance was occurring.

Next we investigated whether providing feedback on actual norms would lead to changes in intended behaviours. We conducted a randomised controlled trial RCT, in which the treatment group was given feedback about the level of support amongst their colleagues for men who take longer parental leave and work flexibly, based on the data collected in the baseline survey. The control group did not receive such information. We then asked participants about their intended behaviour.

We then ran a further trial exploring pluralistic ignorance and parental leave with a second large bank. The stages and the content of the trial built upon those in the first trial. The key difference was that only parental leave was in scope, so we did not look at flexible working.

This research is part of a Government Equalities Office (GEO) funded three-year collaboration between The Behavioural Insights Team (BIT) and GEO - the Gender and Behavioural Insights (GABI) programme - which generates evidence for what works to improve gender equality in the workplace.

The Policy Challenge

There are significant employment and earnings gaps between women and men, and these are influenced by inequalities in caring responsibilities. From April to June 2019, ONS data finds that 75.1% of mothers with dependent children were in work, compared to 92.6% of fathers.⁹ 29.5% of mothers with a child aged 14 or younger had reduced their working hours because of childcare, compared to just 4.8% of fathers.¹⁰ Further, women perform the majority of unpaid domestic work, including childcare and housework.¹¹ Women's greater participation in unpaid domestic work contributes to the gender pay gap that worsens substantially when men and women become parents.¹² These gaps are associated with actions related to caring responsibilities: time out of the

⁷ Prentice, D. A., & Miller, D. T. (1993). Pluralistic ignorance and alcohol use on campus: some consequences of misperceiving the social norm. *Journal of personality and social psychology*, *64*(2), 243.

⁸ Bursztyn, L., González, A. L., & Yanagizawa-Drott, D. (2020). Misperceived social norms: Women working outside the home in Saudi Arabia. *American Economic Review*, *110*(10), 2997-3029.

⁹ ONS Families and the Labour Market 2019

¹⁰ ibid

¹¹ ONS <u>Women shoulder the responsibility of 'unpaid work' 2016</u>

¹² Wage progression and the gender wage gap: the causal impact of hours of work IFS Briefing note BN223

labour market; greater part-time work and flexible working; slower in-work progression; and lower pay for part-time work.¹³

In the UK, fathers and non-childbearing parents are eligible to take up to 2 weeks of paternity leave, and up to 50 weeks of Shared Parental Leave (SPL).¹⁴ SPL policy aims to support a more equal division of childcare responsibilities between mothers and fathers, as well as helping women who have had children to return to work faster. However, since the introduction of SPL in 2015, estimates for uptake vary from 0.5% to 8% among eligible fathers.¹⁵

Meanwhile, at Santander UK, all eligible fathers and secondary parents are allowed to take up to 4 weeks of leave, with enhanced pay, using the bank's paternity leave policy; up to 16 weeks, with enhanced pay, using the bank's SPL policy; and up to 50 weeks using the national SPL policy. However average rates of leave remain around 4 weeks.¹⁶

At the second banking trial partner, all eligible fathers and secondary parents are entitled to take up to four weeks of leave in the 8-week-period after the birth or adoption of their child with enhanced pay using the bank's paternity leave policy; up to 26 weeks with enhanced pay using the bank's SPL policy; and up to 50 weeks using the national SPL policy. However, most men in recent years took just 2 weeks of leave.¹⁷

Research shows that when men are more involved with childcare, it has benefits for women, children, and men. If men share the care burden, it may enable their partners to return to work faster, and help reduce the penalties new mothers face at work - such as lower perceived competence and commitment, a lower likelihood of being hired and promoted, and lower starting salaries than men or non-mothers - by normalising taking time out of work.¹⁸ For instance, in Sweden, evidence suggests that every additional month of parental leave taken by the father increases the mother's earnings by 6.7%.¹⁹ Early paternal participation has a positive impact on a child's IQ, mental and physical health, career success, and happiness.²⁰ Evidence also suggests that fathers being more involved with early care of their child is associated with long-lasting effects on men's involvement in childcare and housework,²¹ higher life satisfaction,²² fewer hospital

¹³ Goldin, C. (2014). A grand gender convergence: Its last chapter. *American Economic Review*, *104*(4), 1091-1119. Manning, A., & Petrongolo, B. (2008). The part-time pay penalty for women in Britain. *The economic journal*, *118*(526), F28-F51.

 $^{^{14}}$ Further information is available \underline{here} and \underline{here}

¹⁵ Further information is available <u>here</u> and <u>here</u>

¹⁶ <u>Santander family friendly policy details</u>

¹⁷ The percentage of men taking more than 14 days was 2% in 2015, 9% in 2016, 13% in 2017 and 20% in 2018 ¹⁸ Correll, S. J., Benard, S., & Paik, I. (2007). Getting a Job: Is There a Motherhood Penalty? 1. *American journal of sociology*, 112(5), 1297-1339.

¹⁹ Johannson, E.-A. (2010). <u>The Effect of Own and Spousal Parental Leave on Earnings</u>. Uppsala, Sweden: Institute of Labour Market Policy Evaluation.

²⁰ Allen, S., & Daly, K. (2002). The effects of father involvement: A summary of the research evidence. *The FII-ONews*, *1*(1-11).

 ²¹ Tamm, M. (2018). Fathers' parental leave-taking, childcare involvement and mothers' labor market participation.
 ²² Eggebeen, D. J., & Knoester, C. (2001). Does fatherhood matter for men?. *Journal of marriage and family*, *63*(2), 381-393.

admissions and premature deaths,²³ and even a modest positive impact on work and career success.²⁴

²³ Pleck, J. H. (1997). Paternal involvement: Levels, sources, and consequences.

²⁴ Pleck, J. H., & Masciadrelli, B. P. (2004). Paternal involvement by US residential fathers: Levels, sources, and consequences.

Intervention design and methodology

Intervention design and methodology

Research questions

This study aimed to generate evidence to answer the following questions:

- 1. Does pluralistic ignorance exist with regards to men's paternal involvement? Specifically, is there a gap between men's private beliefs regarding men who take paternity leave and work flexibly, and their perception of the norms (i.e. the beliefs of others) in relation to these behaviours?
- 2. If a gap exists, does feedback about actual norms among men lead to men changing their behavioural intentions about parental leave and flexible working?

Baseline Survey

To see whether pluralistic ignorance was occurring in relation to men's parental leave and flexible working at Santander UK, we conducted an online baseline survey. This measured participants' personal opinions about men who take long parental leave and work flexibly, and their perceptions of their colleagues' beliefs about men who take long parental leave and work flexibly. We also investigated stereotypes about men who take more than 4 weeks leave, or work flexibly. Finally, we measured participants' knowledge of the bank's policies and relevant demographic data.

The baseline survey served two main purposes:

- To establish whether there was pluralistic ignorance related to paternal involvement at the bank (and whether therefore to proceed with the experiment)
- To establish the average norms about paternal involvement, which we would then use as the basis of feedback provided as part of the intervention

Specifically, we asked a series of questions about men's personal opinions, and then later in the survey asked them to respond to the same questions, but from the perspective of what they thought other male colleagues or managers would answer.

Questions included:25

- How many weeks of family leave would you encourage a male colleague to take?
 - Response options: up to 2 weeks; 2-4 weeks; 5-8 weeks; 9-12 weeks; 12-16 weeks; more than 16 weeks
- How many weeks of family leave would men in your workplace encourage a male colleague to take?
 - Response options: up to 2 weeks; 2-4 weeks; 5-8 weeks; 9-12 weeks; 12-16 weeks; more than 16 weeks
- I would encourage a male colleague to work flexibly to balance their work and non-work responsibilities
 - Response options: strongly agree; agree; disagree; strongly disagree

²⁵ See Appendix 3 for the full survey

- Please indicate what percentage of male colleagues would encourage a male colleague to work flexibly to balance their work and non-work responsibilities
 - Response options: 0-10%; 11-20%; 21-30%; 31-40%; 41-50%; 51-60%; 61-70%; 71-80%; 81-90%; 91-100%

When collecting participants' perceptions of norms, we asked men to answer from the perspective of a male colleague, and a male manager. This is because we did not know whether there would be a meaningful difference between participants' perceptions of the two groups and their group norms, or whether men would be more influenced by norms among peers or managers.

The baseline survey at the second banking partner included questions about parental leave but not flexible working. There were minor differences in the wording of the guestions about parental leave from those used at Santander UK which were requested by the trial partners.²⁶

Questions included (see Appendix 4 for the full survey):

- How much parental leave would you support a male colleague to take?
 - Response options: 0 weeks; 1 week; 2 weeks; 3 weeks; 4 weeks; around 6 weeks; around 2 months; around 3 months; around 4 months; over 4 months; other - please specify below
- How many weeks of parental leave do you believe men at [this employer]²⁷ would encourage a male colleague to take?
 - Response options: 0 weeks; 1 week; 2 weeks; 3 weeks; 4 weeks; around 6 weeks; around 2 months; around 3 months; around 4 months; over 4 months; other - please specify below

Sample

The baseline survey was sent to 1,016 men working at Santander UK, in 15 organisational units. We received 480 responses - a response rate of 47%. The survey was launched on 28 February 2020 and was open for 2 weeks.

At the second bank, the baseline survey was sent to 1,100 men and ran from 24 November to 8 December 2020. We received 274 responses - a response rate of 25%.28

Results

We found that pluralistic ignorance existed for both parental leave and flexible working.

²⁶ These included using the word 'support' at the second bank and 'encourage' at Santander in asking about how much parental leave an individual would support/encourage a male colleague to take. In addition, periods of parental leave were referred to in weeks only at Santander and weeks and months at the second bank.

²⁷ In practice this included the name of the employer themselves. This has been redacted in this report.

²⁸ Of this sample: 67.3% are between ages 25-44, 67.2% have children, 39.4% would like to have children at some point in the future, 47.1% have taken parental leave previously, 44.9% are grade C13 or above, 43.5% are managers

Parental leave: Assuming that people's responses would be evenly distributed within each category²⁹, on average, Santander UK participants would encourage men to take 8 weeks of leave, but thought that others would encourage only 6 weeks.

We found the biggest gap (between actual beliefs and perceptions) occurred in relation to intention to take 5 weeks or more leave: a 21 pp difference from the perspective of a colleague; 25pp from the perspective of a manager.

Figure 1: Santander UK: Results from baseline survey - private views v perceived norms for family leave



How many weeks of family leave would you encourage a male colleague to take?

At the second bank, on average, men would encourage male colleagues to take around 12 weeks of leave, but thought that others would encourage around 8 weeks (see Figure 2). We found the biggest gap (between actual beliefs and perceptions) occurred for 6 weeks of leave: a 23pp difference from the perspective of a colleague, 36pp from the perspective of a manager. We also found that twice as many men supported male colleagues taking at least 4 months of leave as men assumed.

²⁹ Average number of actual weeks for <2 category would be 1, for 2-4 category 3, for 5-8 category 6.5, for 9-12 category 10.5, for 12-16 category 14, for >16 category, 33

Figure 2: Results from the second banking partner's baseline survey - private views vs perceived norms for family leave



How much parental leave would you support a male colleague / a man you manage to take

Flexible working: At Santander, on average, participants thought that 65% of their colleagues would encourage other male colleagues to work flexibly to balance their work and non-work responsibilities, while in reality 99% would do so. The numbers were almost exactly the same for this question when asked from the perspective of a manager: 65% of participants thought their managers would support someone they manage to work flexibly to balance their work and non-work responsibilities, while 99% of people would support it when taking the perspective of a manager.

Additional results

At Santander UK, we found little evidence that men held negative stereotypes about men who work flexibly or take more than 4 weeks of leave. The majority of respondents thought that men who did either were just as committed to their job, just as motivated to progress, just as reliable, and just as productive as men who did not. We also found that 72% of men knew where to find details of Santander UK's parental leave and flexible working policies. Given these findings, we did not include these questions in the experimental survey.

At the second bank, we similarly found little evidence for negative stereotypes about men taking more than 4 weeks of leave. More than 88% of respondents agreed that men who did this were just as committed to their job and more than 96% agreed that they were just as competent at their job.

Figure 3: Beliefs about characteristics of men taking more than four weeks of leave at the second banking partner



Experimental Survey

Once we had established that pluralistic ignorance was present in relation to parental leave and flexible working, we conducted a randomised controlled trial (RCT). The trial tested the effect of providing accurate feedback on norms on participants' intended parental leave and flexible working behaviours. We ran this in the form of experimental surveys at Santander UK and the second bank, using a similar structure to the baseline survey.

COVID-19 restrictions requiring people to work from home if they could were introduced in March 2020 - in between the baseline and experimental surveys at Santander UK. Therefore, the definition of flexible working in the introduction to the experimental survey was amended to instruct people not to take the current impact of COVID-19 into account, unless otherwise directed to do so.³⁰

Intervention: Santander UK

Clusters were randomly assigned to one of two intervention arms: control or treatment. All participants in the treatment group were provided with feedback about the existing support among colleagues for men taking 5 weeks or more of parental leave (Figure 2) and the existing support among colleagues for men working flexibly at the bank (Figure 3). Participants in the control group

³⁰ See Appendix 2 for the full survey

clusters did not receive such information. Otherwise, the treatment and control surveys were identical. Figure 4 shows the intervention design, for both the baseline and experimental surveys.

Feedback about parental leave in the treatment arm was provided at the start of the survey (screen 2), and then followed by additional questions on parental leave (screens 3-4, see Appendix 2 for full survey screens). Feedback about flexible working was provided mid-way through the survey (screen 5), and followed by additional questions on flexible working (screens 6-7). Outcome measures for parental leave and flexible working were collected immediately after participants received the relevant feedback. We asked men about their intended behaviours, and also repeated some questions from the baseline survey to capture participants' privately held opinions about men who take parental leave or work flexibly, and their perception of the opinions held by male colleagues. Finally, we collected some covariates, which are characteristics of the participants (such as age, or whether the participant already manages flexible workers) which could be related to the results (Appendix 2 Figure A8).

Screen 2: Santander UK: Feedback provided about colleagues' support for parental leave used in the treatment group

We have already asked some male colleagues in Santander their views on family leave. Their responses revealed that:

The majority of male staff at Santander would encourage their male colleagues to take 5 weeks or more of family leave'

We are now interested in your views.

Screen 5: Feedback provided about colleagues' support for flexible working used in the treatment group

We have already asked some male colleagues in Santander their views on family leave. Their responses revealed that:

Almost 100% of male respondents would encourage their male colleagues to work flexibly in order to balance their work and non-work responsibilities.

We are now interested in your views.



Figure 4: Santander UK: Intervention design for baseline and experimental surveys

Intervention: Second banking partner

Unlike the trial with Santander UK, individuals rather than clusters were assigned to either the control or the treatment arm. The Santander UK baseline, and design of the RCT, took place during January-February 2020, when the majority of respondents were office-based. For Santander UK, we used clustered randomisation to reduce the scope for spillovers. The trial with the second bank took place December 2020 - February 2021 (while the UK was in lockdown and office-based workers were encouraged to work remotely if they could). With the shift to home working, we decided that spillovers would be low in this trial even without clustering. All participants in the treatment group saw the following text at the start of the survey:

"We invited 1,100 men at [name of the employer] in the UK to tell us their thoughts on men taking parental leave. Of the respondents:

- 7 in 10 managers told us that they would be supportive of men they manage taking at least 6 weeks' parental leave.
- Of those managers, 74% were supportive of men they manage taking at least 12 weeks' parental leave."

These messages differed slightly from those in the Santander trial. We wanted to avoid 'anchoring' men to the number of weeks which is mentioned in the text. The 'anchoring effect' describes a cognitive bias where decisions can be influenced heavily by an initial piece of information received.³¹ In the case of the trial with Santander UK (which we ran first), we reflected that the feedback we provided risked anchoring respondents to select the '5-8 weeks of leave' option. This is because the time period '5 weeks' was clearly mentioned in the feedback and was the only number mentioned in the feedback. Therefore it may have become more salient in people's minds and the '5-8' weeks response category was the only category which matched this.

We tried to mitigate this in the second bank's trial by (i) specifying the size of the large majority that supported leave of more than 6 weeks and (ii) including a second point with a higher anchor (12 weeks). Participants in the control group clusters did not receive such information. Figure 5 shows the intervention design, for both the baseline and experimental surveys.

Figure 5: Intervention design for baseline and experimental surveys at the second banking partner



Sample: Santander UK

The survey was sent to approximately 2,244 men working at Santander UK. We excluded participants from the 15 organisational clusters which received the baseline survey. We also excluded men working in retail banking and customer interactions on Santander UK's request, as individuals in these teams had a different flexible working policy to men in other teams.

We separated men into approximately 125 clusters: half received the control, and half received the treatment. The clusters represented teams in the business, which ranged in size from 1 to 326 men, with a median size of approximately 18. Implementation of the trial may have differed slightly from this plan, due to there being a small number of new joiners and leavers in between

³¹ Kahneman, D. (1992). Reference points, anchors, norms, and mixed feelings. Organizational behavior and human decision processes, 51(2), 296-312.

randomisation and the implementation of the trial. We decided to cluster teams this way to prevent any spillover effect from participants talking to each other about the survey (although we thought that remote working would reduce this likelihood).

The trial survey was launched on 19 June 2020 and ran for two weeks. We received responses from 1,180 men, indicating a higher response rate than anticipated (50.6% vs. anticipated 45%). In our eligibility criteria, we specified that the survey should only be sent to men between 25 and 45 years old. We decided to use this age range because ONS data shows that 85.4% of live births in England and Wales in 2017 were to fathers aged between 25-55.³² However, 21.6% of responses were from men above 50 years old, and 0.003% below 20. Due to response brackets used in the survey to collect information about participants' age, it was not possible to determine the percentage of respondents between 20 and 24, or 45 and 50 years old. We therefore excluded any men below 20 or above 50, and included men between 20-50 for analysis purposes. This resulted in a final sample containing responses from 921 men, which was 12.1% lower than anticipated.

Sample: Second banking partner

The survey was sent to approximately 4,097 men working at the second bank, who did not receive the baseline survey. It was open during 3-12 February 2021.

We received responses from 1,004 men, so that the response rate was at 25%, in line with the baseline survey. We included respondents who were 25-44 years old and responded to all questions that were used as covariates in the analysis. The final sample contained responses from 649 men.

	Santander UK	Second bank
Primary outcome	Intended weeks of leave after becoming a father. Response options: Up to 2 weeks 3-4 weeks 5-8 weeks 9-16 weeks More than 16 weeks	Intended weeks of leave after becoming a father. Free textbox with two digits.
Secondary outcomes	Self-reported likelihood of working flexibly in the future. Responses were coded from 1 ("extremely unlikely") to 6 ("extremely likely").	Perceived levels of support for parental leave among male colleagues measured in weeks.
		Perceived support for taking more than 4 months of parental leave among male managers in percentages from 0% to 99%.

Outcome Measures

³² ONS Births deaths and Marriages 2017

1		
Exploratory analysis	Changes in the pluralistic ignorance 'gap' i.e. did the intervention bring participants' perceptions of their colleagues' opinions closer to actual norms, for both parental leave and flexible working.	The respondent's actual support for male colleagues taking parental leave.
		The proportion of men who would request 0-2 weeks, 3-4 weeks, 5-8 weeks, 9-17 weeks, more than 17 weeks.
	Whether the effects of the intervention on the primary and secondary outcomes differed for sub-groups, according to: Current parental status Participants' plans to have children in the future Age	Whether the effects of the intervention on the primary and secondary outcomes differed for sub-groups, according to: Current parental status Participants' plans to have children in the future Age

Analytical strategy is presented in Appendix 7.

Results

Results

Primary outcomes: A shift in distribution but no effect on the average

At Santander, our results show that the feedback treatment significantly increased the number of men intending to take between 5-8 weeks of leave by 12.6pp (an increase of 62% in comparison to the control group).

However, the feedback treatment also significantly decreased the number of men intending to take more than 16 weeks by 4.5pp (a decrease of 59% in comparison to the control).





This meant that overall, the average number of intended weeks of parental leave did not differ significantly between the control and treatment groups.

We found similar results in the second trial, but also avoided a significant reduction in intended leave taking above 17 weeks. The treatment did not have a significant effect at the 10% level on the average intended number of weeks of parental leave. At the same time, the intervention led to a significant increase (at the 1% level) in the proportion of men who would request 5-8 weeks of leave.





Secondary Outcome: An increase in the intention to work flexibly at Santander UK

The feedback treatment significantly increased the likelihood that participants would work flexibly in the future. The treatment group expressed that they were 4% more likely to work flexibly than the control group (an increase of 0.2pp).

^{**} p<0.01, * p<0.05, + p<0.1

Figure 8: Santander UK: Self-reported likelihood of working flexibly in the future, 1 ("extremely unlikely") to 6 ("extremely likely").



Secondary analysis: No change in the perceived and actual support for parental leave at the second bank

The intervention did not have a significant impact at the 10% level on the perceived support for parental leave among male colleagues and among managers (Figure 8 and Figure 9).





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Figure 10: Perceived support for parental leave among male managers at the second bank, 0-100%

There was no significant impact on the actual support for male colleagues taking parental leave (Figure 11)





Exploratory analysis: Reduction in the gap between actual and perceived support at Santander UK

We found that 65.3% of managers were supportive of men taking 5 weeks or more of parental leave. In the control group, participants believed that on average only 43.5% of managers would be supportive of men taking 5 weeks or longer parental leave, whereas in the treatment group men believed that 48.8% of managers would be supportive. This reduced the pluralistic ignorance from 21.8pp to 16.5pp (5.3pp difference).

Similarly, we found that the treatment significantly increased perceived support for flexible work among others:

- The percentage of men working in Santander UK who perceived that their peers supported male colleagues who chose to work flexibly in order to balance work and non-work responsibilities' increased from 60% to 69%
- The percentage of men who perceived that managers would support someone they manage to work flexibly in order to balance work and non-work responsibilities increased from 60% to 69%
- Given that 99% of men were actually supportive of flexible work, both from the personal and managers' perspective, our intervention reduced the pluralistic ignorance from 39pp to 30.5pp on average.

We also found that the treatment significantly increased participants' personal support for men working flexibly from 5.73 in the control group to 5.79 in the treatment group (on a 6 point scale, where 6 is strong support).

In the case of personal support for parental leave, we found that our intervention significantly increased the proportion of men who would encourage others to take between 5-8 weeks from 24.1% to 36.3% (12.2pp). However, our intervention also decreased the proportion of men who would encourage other men to take more than 16 weeks from 17.6% to 10.4% (7.2pp).

No differences between the subgroups for parental leave, some differences for flexible working

We conducted subgroup analysis for parental leave at both banks and for flexible working outcomes at Santander UK. Overall, we did not find differences in how men responded to the feedback provided across subgroups based on age and whether they already had children. At the second bank, there were also no differences in responses to feedback based on whether men planned to have children in the future.

However, at Santander UK we found a marginally significant interaction effect between the treatment and men who planned to have children in the future for flexible working. This meant that, compared to men who did not plan to have children in the future, those that did plan to have children also had a tendency to plan to work flexibly more often.

Figure 12: Santander UK: Proportion of respondents intending to take different lengths of parental leave, by whether they plan to have more children in the future or not, and by treatment conditions.

- Control (Does not want children in the future)
- Treatment ((Does not want children in the future)
- Control (Wants children in the future)
- Treatment (Wants children in the future)



Men planning to have more children in the future were also more likely to say they were likely to work flexibly in the treatment group compared to the control group (Figure 8), which drove the overall secondary analysis result.

Figure 13: Santander UK: Self-reported likelihood of working flexibly in the future, 1 ("extremely unlikely") to 6 ("extremely likely") by whether respondents' plan to have more children in the future.



- Control (Does not want children in the future)
- Treatment ((Does not want children in the future)
- Control (Wants children in the future)
- Treatment (Wants children in the future)

Further analysis details are presented in Appendix 7.

Challenges and limitations

We encountered a number of challenges during design and implementation of this trial, which either limited the survey design, or results. These are outlined below:

- Inability to measure field outcomes: We hoped to assess the effect of the intervention on field outcomes i.e. how much actual leave new fathers at Santander UK took, and whether they were more likely to work flexibly as a result of the intervention. However, the small number of men at Santander UK who become fathers in any year meant that we did not have a sufficient sample for this analysis, and the timeline of the GABI programme meant we were unable to measure field outcomes over a longer period. There was also no reliable way to measure changes to flexible working, as, like most employers in the UK, Santander UK only had records of formal flexible working arrangements (i.e. contractual changes, such as parttime working), and not informal ones which they also wanted to encourage (e.g. remote working, greater use of flexi-time etc). By their nature, informal flexible working arrangements are generally not captured, because they are so flexible. As a result, we were only able to measure self-reported future intended behaviours. We also considered whether we could use proxy behavioural measures such as providing a link for participants to read more information about SPL. However, this was not technically feasible within the survey template.
- **Sample:** Our sample included all men at Santander UK in the eligible clusters. Many of these men will never have children, while some may have already had children but will not have any future children, meaning both groups would therefore not be eligible to take parental leave in the future. We asked whether participants were considering having children in the future in the survey, so that we could check whether results were different for those who planned to have children compared to those men who did not. It was not feasible for us to narrow the sample in advance to just those men planning to have children, as this data was not available. In order to restrict the sample somewhat to men who might have future children, we designed the eligibility criteria to send the survey to men between 25 and 45 years of age. However, ultimately we decided to include all men in the analysis because a) people do not always know whether they will have children in the future either because they have children unexpectedly, or change their minds and so men who may not be planning to become fathers now may nevertheless become eligible for parental leave in the near future, and b) our secondary outcome considered flexible working, and this was not limited just to fathers.
- Eligibility criteria age: Our eligibility criteria specified that the RCT should be sent to men between 25 and 45 years old. Due to response brackets used in the Santander UK survey to collect information about participants' age, it was not possible to determine the percentage of respondents between 20 and 24, or 45 and 50 years old. We therefore excluded any men below 20 or above 50, and included men between 20-50 for analysis purposes. Despite this, our total sample was still slightly lower than expected, as the response rate for over-50s (who were excluded) was higher than that of 20-50-year-olds. For the second bank, we were able to just include men who met the age criteria.
- **Categorical response options:** fathers are allowed to share up to 50 weeks of Shared Parental Leave. When asking men questions about length of leave (including how much leave they wanted to take in the future, how much leave they supported colleagues to take, and how much leave they thought other others were supportive of) we had hoped to allow men to

enter the precise number of weeks. However, this was not technically feasible for the survey platform Santander UK used. Instead, we had to provide set response options. Santander UK did not want to risk overwhelming survey respondents with too many options, and we therefore limited these to 5 options. This meant that the time periods covered by the options varied (from 2 weeks to 34 weeks), and also meant that we probably lost some nuance from participants' responses (i.e. we were not able to tell whether people who wanted to take 5-8 weeks of leave skewed towards the bottom or top of this range). For the second bank, we were able to enter the precise numbers of weeks of leave they would like to take, and 11 response options for other questions.

- **Sample imbalance:** We found that the Santander UK samples for the treatment and control surveys were imbalanced across 3 characteristics: grade, tenure, and prior flexible working arrangements. We included these as covariates in the analysis, so that we could check that none of these characteristics were responsible for driving the results, and that the intervention itself was primarily responsible for the differences in outcomes between the control and treatment groups, rather than any sample imbalances. There was also a higher attrition rate in the treatment group however the attrition rates were not significantly different between groups. More information is provided in Appendix 1.
- COVID-19's impact on working patterns and norms: We ran the Santander UK baseline survey in February-March 2020, and the experimental survey in June-July 2020. COVID-19 restrictions came into effect in between the two surveys - with staff at Santander UK asked to work from home, wherever possible, from the 17th of March. This is relevant as remote working is considered to be one way to work flexibly. We do not think that this would have affected the results of the RCT in a major way, given that we compared the control and treatment groups at the same time - and both groups were equally likely to have been working from home as a result of COVID-19. Further, we specifically requested that participants ignore the impact of COVID-19, unless otherwise directed. However, it could be the case that COVID-19 normalised flexible working, somewhat, and that participants in the RCT were therefore already more inclined to support flexible working than participants in the baseline survey. Given that 99% of participants in the baseline expressed support for men working flexibly, there was already a natural ceiling effect for men's support for flexible working. On the other hand, COVID-19 presented difficulties for many people who did not choose to work remotely, and may have struggled with inadequate space, equipment, and competing child care demands.³³ As such, we are not able to conclusively say whether or not people's experience of remote working during COVID-19 would have been positive or negative, and whether this is likely to have affected their wider opinions on flexible working.

³³ Chung, H., Seo, H., Forbes, S., & Birkett, H. (2020). Working from home during the COVID-19 lockdown: changing preferences and the future of work.

Discussion

Discussion

We ran trials with two large UK banks, Santander UK and a second global bank, to explore whether providing feedback on colleagues' support for men who take parental leave would increase the length of men's intended parental leave. In addition, with Santander UK we explored whether providing feedback on support for flexible working would change the intentions to work flexibly. With both partners we identified sizeable gaps between men's support for these activities and the assumptions they held about others' support - the latter being much lower. We found that the intervention increased the intentions to work flexibly at Santander.

However, the feedback on parental leave did not increase the average length of intended parental leave overall in either trial. At Santander, there was an increase in intentions to take 5 to 8 weeks of parental leave. Nevertheless there was an unintended effect among those who intended to take 16 weeks or more whereby the rate of men intending to take this period of leave halved, so that there was no effect on the average number of weeks.

This result was potentially affected by the 'anchoring effect' that occurs when our decisions are heavily influenced by an initial piece of information received.³⁴ In this case, the feedback we provided may have anchored people to selecting the '5-8 weeks of leave' options. This is because the time period '5 weeks' was clearly mentioned in the feedback at Santander UK and therefore became salient in people's minds. Whilst we tried to mitigate this, by specifying '5 or more weeks of leave' - 5 weeks was still the only number explicitly referenced, and the '5-8' weeks response category was the only category which matched this.

We made some changes for the trial with the second bank to avoid the potential anchoring effect. In particular, we (i) specified the size of the (large) majority that supported leave of more than 6 weeks and (ii) included a second point with a higher anchor ("Of those managers, 74% were supportive of men they manage taking at least 12 weeks' parental leave"). We did not observe a backfire effect on those intending to take long parental leave, although this could be affected by the small sample size as the relevant estimated coefficient was negative.

Nevertheless, the overall result was similar to the one observed at Santander. There was a change in the distribution of responses. The intervention increased the proportion of men who would take 5-8 weeks of leave from 20% to 30%. This was offset by a reduction in the proportion of men who would take 3-4 weeks from 43% to 32%. It is possible that the 'anchoring effect' was not fully mitigated despite the changes in the wording. In particular, men could still be 'anchored' to the first point in the intervention feedback ("7 in 10 managers told us that they would be supportive of men they manage taking at least 6 weeks' parental leave").

³⁴ Kahneman, D. (1992). Reference points, anchors, norms, and mixed feelings. Organizational behavior and human decision processes, 51(2), 296-312.

There are further factors which may have contributed to this result:

- Large range of behaviour: Shared Parental Leave is a behaviour with a large scale of options: men can take anywhere up to 50 weeks of leave. Yet, at present, men at Santander UK and the second bank are clustered towards the bottom of the scale. We wanted men to take more leave on average but we did not have a specific length of leave we or the employer wanted to move men towards, and men were starting from a range of different points. For example, before the intervention, many men may have planned to take 2 weeks paternity leave, while a small minority may have planned to take much more, making use of Santander's and the other bank's SPL policies. Hence, the information we gave them in the feedback may have implicitly influenced people towards the 5 or 6 week mark and away from thinking about longer periods of leave. With such a large scale, it may also be hard to avoid anchoring people to a specific point (e.g. the middle), which in turn prevents men from opting to take leave on the higher end of the scale.
- **Policy complexity and disincentives**: There are many barriers towards men taking up SPL using the national policy.³⁵ For instance, secondary carers only receive statutory pay when taking SPL, so may be financially disincentivised from using SPL, given that statutory pay will likely be lower than their contractual pay. The national SPL policy also means that any leave a father takes between 2-50 weeks reduces the leave available to his partner/the baby's mother. Santander UK and the other bank offer additional policies enabling secondary carers to take longer periods of leave.³⁶ It is possible that despite the generous parental leave policies at these two banks, men are discouraged by other factors such as the complexity of the procedure.
- **Binary vs non-binary outcomes:** The flexible working result suggests that the intervention worked for a binary behaviour (i.e. knowing that peers support men who work flexibly increased the likelihood that men would work flexibly in the future). In this case, we simply wanted to move men from *not* working flexibly, *to* working flexibly. However the parental leave results suggest that the intervention may have limitations when applied to a behaviour along a ranging scale of options i.e. a non-binary outcome.
- **Survey language:** The language used in the surveys may have unintentionally influenced the responses. In particular, in the survey used at the second bank asked how many weeks of leave the respondent would request. The use of "weeks" in the question may have resulted in respondents choosing a shorter length of leave (rather than longer periods of leave which would be more naturally expressed in months). An alternative approach which was not possible due to technological limitations would have involved having a free-text box next to a drop-down menu containing the options "weeks" and "months". Some men stated in the free-

³⁵ Birkett, H., & Forbes, S. (2019). <u>Where's dad? Exploring the low take-up of inclusive parenting policies in the UK.</u> <u>Policy Studies</u>, 40(2), 205-224.

³⁶ Santander UK staff are able to take up to 4 weeks of leave, with enhanced pay, using the bank's paternity leave policy; and up to 16 weeks, with enhanced pay, using the bank's SPL policy, as well as using the national SPL policy to take up to 50 weeks. The second bank's paternity leave policy entitles eligible UK employees to take up to 2 weeks' paternity leave at any time in the 8-week-period after the birth or adoption of their child. This bank's Shared Parental Leave policy entitles eligible UK employees to take up to 50 weeks of leave following the birth or adoption of their child, and to receive discretionary enhanced pay for up to 26 weeks of leave.

text box that they would support as much as the bank's policy allowed. This should have been specified as a possible response.

- Furthermore, the flexible working increase at Santander UK may have been limited by a 'ceiling effect'. The positive result for flexible working was fairly small, at a 3.9% increase. This may have been limited because in the control group there was already a high average likelihood of working flexibly - 5.1 on a 6-point Likert scale. Hence, it seems that there was not much room to change participants' intentions further.
- Social desirability bias in the survey. Our primary and secondary results may also have been influenced by social desirability bias, which is the tendency for respondents to project a favourable image of themselves (e.g. say what they think the researcher wants to hear).³⁷ For instance, respondents in the treatment group may have believed that the feedback implied that leadership at the bank wanted men to take more leave, and so they may have adjusted their responses to align with that view, perhaps without even realising they were doing so.

³⁷ Fisher, R. J. (1993). Social desirability bias and the validity of indirect questioning. *Journal of consumer research*, *20*(2), 303-315.

Recommendations

Recommendations

We recommend that if organisations want to increase rates of flexible working, they should share communications with positive survey results about colleagues' attitudes towards flexible working (e.g. that 99% of participants would support men to work flexibly). However, future communications to men about parental leave should seek to avoid anchoring men to a single length of longer leave.

Feedback should always remain authentic and based on actual norms. Feedback may be less effective when there is a smaller gap between actual norms and perceptions, or when the prevalence of the target social norm is perceived as low. For instance, in the baseline survey at Santander UK we found that while pluralistic ignorance occurred for 16+ weeks of leave (i.e. participants were privately more supportive of men taking longer leave than they assumed their peers to be), only 20% managers and 17% peers actually supported men who took 16+ weeks of leave. This is higher support than people anticipated, but could sound low given only one fifth of managers supported 16+ weeks of leave. Therefore, providing feedback on levels of support for 16+ weeks may not have been effective (depending on how strong a norm people require before they change their own behaviour to align). It's not clear whether pluralistic ignorance interventions work best where there are greater gaps between perceptions and norms, or stronger norms.

We suggest that in such situations, organisations could avoid anchoring people by combining feedback on norms with information about the policy and the leave men are entitled to take - thus making different options equally salient.³⁸

³⁸ Hacohen, R., Likki, T., & Londakova, K. (2018). Return to work: parental decision making.

Appendices

Appendices

Appendix 1: Balance checks

Santander UK

Due to unknown factors, the treatment group had a higher attrition rate than the control group: we received responses from 483 men in the control group, vs. 438 in the treatment group. Furthermore, the dataset contains missing values in either outcome measures or covariates in 16.1% of cases in control group (15.5% when taking into account only control variables), and in 17.1% cases in the treatment group (16.4% when taking into account only control variables), suggesting that the attrition occurred at the beginning of the survey. Missing data can be partially attributed to a lack of information about tenure and work location of new joiners. In the main analysis, all incomplete cases are excluded.

As a robustness check, we repeat the analysis using imputed missing data points for control variables. For imputation, we used Multivariate Imputation by Chained Equations, and the following variables as predictors: age, being a primary carer, being a parent, planning to have children in the future, grade, organisational level, managing somebody who works flexibly, managing somebody who is a primary carer, being a manager, and having flexible work arrangement.

We observed an imbalance between treatment groups across grade, tenure and flexible working arrangement, suggesting that the randomisation was imbalanced on these observable characteristics. Specifically, the treatment group had more men with longer tenure, of higher grade, and with a flexible working arrangement prior to lockdown. The first two characteristics significantly differ between control and treatment group (Tenure: χ^2 (4) = 11.38, p <0.05; Grade: χ^2 (6) = 130.89, p <0.0001), based on the chi-squared contingency test. The table below reports results from a linear regression when treating the first two ordinal variables as continuous. The third variable was treated as binary, and we used logistic regression to assess if control and treatment groups differed in that respect.

	(1)	(2)	(3)
	Tenure	Grade	Flexible work arrangement
Treatment	0.28**	0.37**	0.28*
Constant	3.18	1.94	0.19
Observations	864	921	919

Table A1: Balance Checks

Robust Standard Errors in Parentheses, p<0.1 +, p<0.05 *, p<0.01 **

Second bank

Table A2 shows the results of balance checks performed for the members of the control and treatment groups used in the main analysis (aged 25-44 and not missing any covariates).

We find significant imbalance at the 5% level in the desire to have children in the future, and significant imbalance at the 10% level in age range. We also observe significant imbalance at the 10% level for business area, but this is driven by the large proportionate difference between the two groups for the "Other" category. Nevertheless, we control for all of these covariates in regressions.

Table A2: Balance checks

Covariate: Having children (<i>p</i> =0.130)							
Arm	Yes		No		Prefer	Prefer not to say	
Control	67.1%		31.1%		1.8%		
Treatment	59.7%		38.7%		1.6%		
Covariate: Hay	ving children in the	future	(p=0.027)				
Arm	Yes	No		Unsure		Prefer not to say	
Control	48.9%	28.7%)	18.4%		3.9%	
Treatment	59.4%	21.4%)	17.3%		1.9%	
Covariate: Age range (p=0.053)							
Arm	25-34			35-44			
Control	32.6%			67.4%			
Treatment	39.9%			60.1%			
Covariate: Ha	ve taken previous le	eave (p	=0.113)				
Arm	Yes			No			
Control	55.9%			44.1%			
Treatment	50.3% 49.			49.7%			
Covariate: Business area (p=0.061)							
Arm	Global Functions Institutional (al Clients Group (CCG) Ot		Other		
Control	23.0%	75.5%				1.5%	
Treatment	22.3% 73.0%		4		4.7%		

Covariate: Grade (p=0.240)										
Arm	C11 and below	C12	C	13	C14		C15		C16 and above	Other
Control	11.2%	11.2%	32	2.9%	12.4	%	19.0%	;	5.4%	7.9%
Treatment	8.5%	15.7%	35	5.8%	14.8	%	13.8%		4.4%	6.9%
Covariate: Tenure (p=0.700)										
Arm	Less than	1 year	1-2 y	ears		2-4 years		More that	More than 4 years	
Control	6.6%		6.6%			19.9%		66.8%		
Treatment	7.2%		6.9%			16.4%		69.5%		
Covariate: Manager status (p=0.951)										
Arm	Not a manager N		Manag	Manager of others		Manager of managers		inagers		
Control	65.9%		25.1%		9.1%					
Treatment	65.7%			24.5%	24.5%		9.7%			

Appendix 2: Santander RCT survey content: treatment arm

Figure A1: introductory screen of experimental survey - treatment arm

Welcome

Thank you for taking part in this short survey about the take up of family leave and flexible working. Your views are essential in helping us to better understand the perceptions of male colleagues across the bank in relation to this important topic.

Please note: This survey is part of an external research trial being conducted in partnership with the Government Equalities Office and the Behavioural Insights Team. The trial focuses on our perceptions of how other colleagues may view our decisions.

Definitions used in this survey:

Family leave - For the purpose of this survey, family leave is any period of paid or unpaid leave (with the exception of annual leave) that a male colleague is entitled to take in the first year of becoming a father i.e. paternity leave, shared parental leave or parental leave.

Flexible working - For the purpose of this survey, flexible working is any informal, formal, permanent or temporary adjustment of a colleague's working pattern e.g. working remotely or working from home, adapting start and finish times or working less than full-time working hours. The current impact of Covid-19 should not be taken into account in terms of your responses unless otherwise directed to do so.

Your responses will be submitted directly to Mercer Sirota and will be kept completely confidential. Results of the survey will be reported in summary form so that individual's responses cannot be identified.

Please click here to read our full Privacy Notice: <u>http://www.Sirota.com/privacy</u>

Figure A2: feedback on family leave - screen 2 of experimental survey - treatment arm

Family leave - What some Santander colleagues have already told us

We have already asked some male colleagues in Santander their views on family leave and flexible working. The survey revealed that:

The majority of men male respondents would encourage their male colleagues to take 5 weeks or more of family leave

We are now interested in your views.

Figure A3: questions on family leave - screen 3 of experimental survey - treatment arm

Your views on family leave

For the following questions and statements on family leave, please respond with your own view.

For the purpose of this survey, family leave is any period of paid or unpaid leave (with the exception of annual leave) that a male colleague is entitled to take in the first year of becoming a father i.e. paternity leave, shared parental leave or parental leave.

If you were submitting a request to your manager to take family leave after becoming a father, how many weeks leave might you request? (please input the maximum number of weeks you would request)

Up to 2 weeks	3-4 weeks	5-8 weeks	9-16 weeks	More than 16 weeks	
How many w input the max	eeks of family leave kimum number of w	e would you end veeks you would	courage a male co l support)	olleague to take? (please	
Up to 2 weeks	3-4 weeks	5-8 weeks	9-16 weeks	More than 16 weeks	
You are the manager of team. How many weeks of family leave would you support a male colleague who works in your team to take? (please input the maximum number of weeks you would support)					
Up to 2 weeks	3-4 weeks	5-8 weeks	9-16 weeks	More than 16 weeks	

Figure A4: questions on family leave from perspective of colleague - screen 4 of experimental survey - treatment arm

Your perception of the view of your male colleagues on family leave We would now like to ask you to respond to the same questions but this time from the perception of what you think other male colleagues would answer. How many weeks of family leave do you believe would men in your workplace would encourage a male colleague to take? (please input the maximum number of weeks you would support) Up to 2 weeks 3-4 weeks 5-8 weeks 9-16 weeks More than 16 weeks What percentage of male managers in your workplace do you believe would support a

male colleague in their team to take more than 5 weeks of family leave?

0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%

Figure A5: feedback on flexible working - screen 5 of experimental survey - treatment arm

Flexible working - what some Santander colleagues have already told us

We have already asked some male colleagues in Santander their views on flexible working. Their responses revealed that:

Almost 100% of male respondents would encourage their male colleagues to work flexibly in order to balance their work and non-work responsibilities

We are now interested in your views.

Figure A6: questions on flexible working - screen 6 of experimental survey - treatment arm

Your views on flexible working

For the following questions and statements on flexible working, please respond with your own view.

For the purpose of this survey, flexible working is any informal, formal, permanent or temporary adjustment of a colleague's working pattern e.g. working remotely or working from home, adapting start and finish times or working less than full-time working hours. The current impact of Covid-19 should not be taken into account in terms of your responses unless otherwise directed to do so.

How likely are you in the future to work flexibly to balance your work and non-work responsibilities?

Extremely Likely	Very Likely	Slightly Likely	Slightly Unlikely	Very Unlikely	Extremely Unlikely	
Please indicate to what extent you agree with the following statements.						
l would fe work and	eel comfortable s non-work respo	peaking to my n nsibilities	nanager about w	orking flexibly to	balance my	
Strongly Agree	Moderately Agree	Slightly Agree	Slightly Disagree	Moderately Disagree	Strongly Disagree	
I would encourage a male colleague to work flexibly to balance their work and non-wo responsibilities					and non-work	
Strongly Agree	Moderately Agree	Slightly Agree	Slightly Disagree	Moderately Disagree	Strongly Disagree	

I would support someone I manage to work flexibly to balance their work and non-work responsibilities

Strongly	Moderately	Slightly Agree	Slightly	Moderately	Strongly
Agree	Agree		Disagree	Disagree	Disagree
0	0		0	0	0

Figure A7: questions on flexible working from perspective of colleague - screen 7 of experimental survey - treatment arm

Your perception of the view of your male colleagues on flexible working

We would now like to ask you to respond to the same questions but this time from the perception of what you think your male colleagues would answer.

For the purpose of this survey, flexible working is any informal, formal, permanent or temporary adjustment of a colleague's working pattern e.g. working remotely or working from home, adapting start and finish times or working less than full-time working hours.

Please indicate what percentage of men working in Santander UK you believe would:

Encourage a male colleague to work flexibly to balance their work and non-work responsibilities.

0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%

Support someone they manage to work flexibly to balance their work and non-work responsibilities.

0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%

Figure A8: demographic questions for use as covariates - screen 8 of experimental survey - treatment arm

About you					
The following questions w	The following questions will provide additional context to help us evaluate your responses:				
Do you have childr	en?				
Yes	No	Prefer not to say			
Would you conside	er having children ir	the future?			
Yes	No	Prefer not to say			
Do you have other	caring responsibilit	ies?			
Yes	No	Prefer not to say			
Do you manage co	Do you manage colleagues who have children or other caring responsibilities?				
Yes	No				
Prior to Covid-19, or arrangements?	did you have in plac	ce any formal or informal flexible working			
Yes	No				
Prior to Covid-19, of flexible working arr	did you manage col angements?	leagues who have in place any formal or informal			
Yes	No				
If you needed to, w parental leave and	vould you know whe flexible working?	ere to look to find Santander UK's policies on			
Yes	No				

Figure A9: final screen - screen 9 of experimental survey - treatment arm

Thank you

Thank you for participating in this survey

Appendix 3: Santander baseline survey content

Figure A10: introductory screen for baseline survey

Welcome

Thank you for taking part in this short survey about the take up of family leave and flexible working. Your views are essential in helping us to better understand the perceptions of male colleagues across the bank in relation to this important topic.

Please note: This survey is part of an external research trial being conducted in partnership with the Government Equalities Office and the Behavioural Insights Team. The research focuses on our perceptions of how other colleagues may view our decisions

Definitions used in this survey:

Family leave - For the purpose of this survey, family leave is any period of paid or unpaid leave (with the exception of annual leave) that a male colleague is entitled to take in the first year of becoming a father i.e. paternity leave, shared parental leave or parental leave.

Flexible working - For the purpose of this survey, flexible working is any informal, formal, permanent or temporary adjustment of a colleague's working pattern e.g. working remotely or working from home, adapting start and finish times or working less than full-time working hours. The current impact of Covid-19 should not be taken into account in terms of your responses unless otherwise directed to do so.

Your responses will be submitted directly to Mercer Sirota and will be kept completely confidential. Results of the survey will be reported in summary form so that individual's responses cannot be identified.

Please click here to read our full Privacy Notice http://www.sirota.com/privacy

Thank you for your participation

Mercer/ Sirota

Figure A11: questions on family leave - screen 2 of baseline survey

Family leave - your views

For the following questions and statements on family leave, please respond with your own view.

For the purpose of this survey, family leave is defined as any period of paid or unpaid leave (with the exception of annual leave) that a male colleague is entitled to take in the first year of becoming a father i.e. paternity leave, shared parental leave or parental leave.

How many weeks of family leave would you encourage a male colleague to take? (please input the maximum number of weeks you would support)

Up to 2 weeks	3-4 weeks	5-8 weeks	9-12 weeks	12-16 weeks	More than 16 weeks	
You are the manager of team. How many weeks of family leave would you support a male colleague in your team to take? (please input the maximum number of weeks you would support)						
Up to 2 weeks	3-4 weeks	5-8 weeks	9-12 weeks	12-16 weeks	More than 16 weeks	
Please indicate	to what exte	ent you agree with	the following state	ements		
Male colleagues who take more than four weeks of family leave are less committed to their job than those who don't.						
Strongly Disagr	ee Di	sagree	Agree	Strong	y Agree	
Male colleagues who take more than four weeks of family leave are just as motivated to progress in their career as those who don't.						
Strongly Agree	Ag	ree	Disagree	Strong	y Disagree	
Male colleagues who take more than four weeks of family leave are less reliable in delivering their work commitments than those who don't.						
Strongly Disagr	ree Dis	sagree	Agree	Strongl	y Agree	
Men should be able to take the same amount of family leave as women.						
Strongly Agree	Ag	ree	Disagree	Strongl	y Disagree	

Figure A12: questions on family leave from perspective of colleague - screen 3 of baseline survey

Your perception of the view of your male colleagues on family leave

We would now like to ask you to respond to the same questions and statements on family leave, but this time from the perception of what you think other male colleagues would answer.

For the purpose of this survey, family leave is defined as any period of paid or unpaid leave (with the exception of annual leave) that a male colleague is entitled to take in the first year of becoming a father i.e. paternity leave, shared parental leave or parental leave.

How many weeks of family leave would men in your workplace encourage a male colleague to take? (please input the maximum number of weeks you think they would support) Up to 2 weeks 3-4 weeks 5-8 weeks 9-12 weeks 12-16 weeks More than 16 weeks How many weeks of family leave would men in your workplace support a male colleague who they manage to take? (please input the maximum number of weeks you think they would support) 9-12 weeks Up to 2 weeks 3-4 weeks 5-8 weeks 12-16 weeks More than 16 weeks Please indicate what percentage of male colleagues would agree with the following statements Male colleagues who take more than four weeks of family leave are less committed to their job than those who don't. 0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100% Male colleagues who take more than four weeks of family leave are just as motivated to progress in their career as those who don't. 0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100% Male colleagues who take more than four weeks of family leave are less reliable in delivering their work commitments than those who don't. 0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100% Male colleagues should be able to take the same amount of family leave as women 0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%

Figure A13: questions on flexible working - screen 4 of baseline survey

Flexible working - your views

For the following questions and statements on flexible working, please respond with your own view.

For the purpose of this survey, flexible working is any informal, formal, permanent or temporary adjustment of a colleague's working pattern e.g. working remotely or working from home, adapting start and finish times or working less than full-time working hours.

I would encourage a male colleague to work flexibly to balance their work and non-work responsibilities.

Strongly Agree	Agree	Disagree	Strongly Disagree		
I would support someone I manage to work flexibly to balance their work and non-work responsibilities.					
Strongly Agree	Agree	Disagree	Strongly Disagree		
Male colleagues	who work flexibly are les	ss committed to their job	than those who don't.		
Strongly Disagree	Disagree	Agree	Strongly Agree		
Male colleagues	who work flexibly are just	st as productive as those	who don't.		
Strongly Agree	Agree	Disagree	Strongly Disagree		
Male colleagues	who work flexibly are les	ss likely to be promoted t	than those who don't.		
Strongly Disagree	Disagree	Agree	Strongly Agree		
Male colleagues are trusted to work flexibly.					
Strongly Agree	Agree	Disagree	Strongly Disagree		

Figure A14: questions on flexible working from perspective of colleague - screen 5 of baseline survey

Your perception of the view of your male colleagues on flexible working

We would now like to ask you to respond to the same questions and statements on flexible working, but this time from the perception of what you think other male colleagues would answer.

For the purpose of this survey, flexible working is any informal, formal, permanent or temporary adjustment of a colleague's working pattern e.g. working remotely or working from home, adapting start and finish times or working less than full-time working hours."

Please indicate what percentage of male colleagues would:

Encourage a male colleague to work flexibly to balance their work and non-work responsibilities.

0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%

Support someone they manage to work flexibly to balance their work and non-work responsibilities.

0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%

Please indicate what percentage of male colleagues would agree with the following statements:

Male colleagues who work flexibly are less committed to their job than those who don't.

0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%

Male colleagues who work flexibly are just as productive as those who don't.

0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%

Male colleagues who work flexibly are less likely to be promoted than those who don't.

0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100% Male colleagues are trusted to work flexibly.

0-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%

About	About you						
The following questions will provide additional context to help us evaluate the aggregated survey results							
	Do you have children?						
	Yes	No	Prefer not to say				
	Would you consider havin	g children in the future?					
	Yes	No	Prefer not to say				
	Do you have other caring	responsibilities?					
	Yes No Prefer not to say						
	Do you manage colleagues who have children or other caring responsibilities?						
	Yes	No					
	Do you currently work flex	kibly?					
	Yes	No					
	Do you manage colleague	es who work flexibly?					
	Yes	No					
	If you needed to, would you know where to look to find Santander UK's policies on parental leave and flexible working?						
	Yes No						

Figure A15: demographic questions for use as covariates - screen 6 of baseline survey

Appendix 4: Second bank's RCT survey content - treatment arm

Introduction

Thank you for taking part in this survey.

We are sharing this survey with male colleagues at [name of the employer], to gather your views about parental leave* and to support the implementation of future parental leave policy.

* **Parental leave**: throughout this survey we refer to 'parental leave'. This includes any leave, paid or unpaid, which fathers at [name of the employer] are entitled to take during the first year of becoming a father.

- Eligible UK employees can take up to 4 weeks' paid paternity leave in the 8-week-period after the birth or adoption of their child.
- Eligible UK employees can take up to 50 weeks of Shared Parental Leave, with discretionary enhanced pay for up to 26 weeks.

You can find full details about both Parental Leave policies on City for You.

Data sharing:

Your responses will be anonymous. We will be sharing data with the Behavioural Insights Team for analysis purposes. Results will be reported in aggregate form only, and no individual responses will be identifiable.

Questions (Text in blue to appear for treatment group only)					
We invited 1,100 men at [name of the employer] in the UK to tell us their thoughts on men taking parental leave. Of the respondents:					
 7 in 10 managers told us that they would be supportive of men they manage taking at least 6 weeks' parental leave. 					
 Of those managers, 74% were supportive of men they manage taking at least 12 weeks' parental leave. 					
3. Imagine you are submitting a request to your manager to take parental leave after becoming a father. How many weeks leave would you request?					
Response option: free text box with two digits allowed					
2. How much parental leave would you support a male colleague to take?					
Response options: 0 weeks; 1 week; 2 weeks; 3 weeks; 4 weeks; around 6 weeks; around 2 months; around 3 months; around 4 months; over 4 months; other – please specify below					
3. If you selected other, please provide your response here					
Response options: free text box					
4. How many weeks of parental leave do you believe <u>men at [name of the employer]</u> would encourage a <u>male colleague</u> to take?					
Response options: 0 weeks; 1 week; 2 weeks; 3 weeks; 4 weeks; around 6 weeks; around 2 months; around 3 months; around 4 months; over 4 months; other – please specify below					
5. If you selected other, please provide your response here					
Response options: free text box					
6. What percentage of male managers at [name of the employer] do you believe would support a male colleague in their team to take more than 4 months parental leave?					
Response option: free text box with two digits allowed					

7. Do you have children?

Response option: yes; no; prefer not to say

8. Would you like to have (more) children at some point in the future?

Response options: yes; no; unsure

9. Have you taken paternity or shared parental leave in the past?

Response options: yes; no

Thank you for your responses so far. We'd now like to ask a few questions about your role at [name of the employer]. You do not have to provide answers to these, but your responses will help us to analyse all survey responses. All of your responses are anonymous and no individual responses will be identifiable.

10. What business area are you in?

11. What grade are you?

12. How many years have you worked at [name of the employer]?

Response options: less than 1 year; 1-2 years; 2-4 years; more than 4 years

13. Which age bracket do you fall into?

Response options: below 25; 25-34; 35-44; 45-55; 55+

14. Are you a manager?

Response options: Yes - manager of managers; yes manager of others; no

Appendix 5: Second bank's baseline survey content

Thank you for taking part in this survey.

We are sharing this survey with a selection of male colleagues at [name of the employer], to gather your views about parental leave*. We will use survey responses to support the development and implementation of future parental leave policy at [name of the employer].

* **Parental leave**: throughout this survey we refer to 'parental leave'. This includes any leave, paid or unpaid, which fathers at [name of the employer]are entitled to take during the first year of becoming a father.

- [Name of the employer]'s paternity leave policy entitles eligible UK employees to take up to 2 weeks' paternity leave at any time in the 8-week-period after the birth or adoption of their child.
- [Name of the employer]'s Shared Parental Leave policy entitles eligible UK employees to take up to 50 weeks of leave following the birth or adoption of their child, and to receive discretionary enhanced pay for up to 26 weeks of leave.

You can find full details about both Parental Leave policies on City for You.

Data sharing:

Your responses will be anonymous. We will be sharing data with the Behavioural Insights Team for analysis purposes. Results will be reported in aggregate form only, and no individual responses will be identifiable.

Imagine you are submitting a request to your manager to take parental leave after becoming a father. How many weeks leave would you request?

Response option: free text box with two digits allowed

4. How much parental leave would you support a <u>male colleague</u> to take?

Response options: 0 weeks; 1 week; 2 weeks; 3 weeks; 4 weeks; around 6 weeks; around 2 months; around 3 months; around 4 months; over 4 months; other – please specify below

5. If you selected other, please provide your response here

Response options: free text box

6. How much parental leave would you support a man you manage to take?

Response options: 0 weeks; 1 week; 2 weeks; 3 weeks; 4 weeks; around 6 weeks; around 2 months; around 3 months; around 4 months; over 4 months; other – please specify below

7. If you selected other, please provide your response here

Response options: free text box

8. How many weeks of parental leave do you believe <u>men</u> at [name of the employer] would encourage a <u>male colleague</u> to take?

Response options: 0 weeks; 1 week; 2 weeks; 3 weeks; 4 weeks; around 6 weeks; around 2 months; around 3 months; around 4 months; over 4 months; other – please specify below

9. If you selected other, please provide your response here

Response options: free text box

10. How many weeks of parental leave do you believe <u>male managers</u> at [name of the employer] would encourage a <u>male members of their team</u> to take?

Response option: free text box with two digits allowed

11. If you selected other, please provide your response here

Response options: free text box

12. To what extent do you agree or disagree with the following statement: men at [name of the employer] who take more than four weeks of parental leave are just as committed to their job than those who do not.

Response options: strongly agree; agree; slightly agree; slightly disagree; disagree; strongly disagree

13. To what extent do you agree or disagree with the following statement: men at [name of the employer] who take more than four weeks of parental leave are just as competent at their job as those who do not.

Response options: strongly agree; agree; slightly agree; slightly disagree; disagree; strongly disagree

14. Do you have children?

Response option: yes; no

15. Would you like to have (more) children at some point in the future? Response options: yes; no; unsure

16. Have you taken paternity or shared parental leave in the past?Response options: yes; no

17. What business area are you in?

18. What grade are you?

19. How many years have you worked at [name of the employer]? Response options: less than 1 year; 1-2 years; 2-4 years; more than 4 years

20. Which age bracket do you fall into?

Response options: below 25; 25-34; 35-44; 45-55; 55+

21. Are you a manager?

Response options: Yes - manager of managers; yes manager of others; no

Appendix 6: Analytical strategy

Santander UK

For the primary outcome, we tested if the distribution of categorical response options (Up to 2 weeks, 3-4 weeks, 5-8 weeks, 9-16 weeks, More than 16 weeks) significantly differed between treatment and control groups using two-proportions z-test, separately for each response category.

For the secondary outcome, we estimate the following beta regression model:

$$c_{ij} = \frac{0.2(index.\,likelihood.\,flexwork_{ij} - 1)(N - 1) + 0.5}{N};$$
$$logit(c_{ij}) = \alpha + \beta T_j + \gamma X_{ij} + \theta Z_j + \varepsilon_{ij};$$
$$var(c_{ij}) = \frac{logit^{-1}(\alpha + \beta T_j + \gamma X_{ij} + \theta Z_j)[1 - logit^{-1}(\alpha + \beta T_j + \gamma X_{ij} + \theta Z_j)]}{1 + p}$$

Where *index*. *likelihood*. *flexwork*_{*ij*} is the self-reported likelihood of working flexibly (1-6 scale), linearly transformed to lie in the range [0,1] and then transformed as suggested by Smithson and Verkuilen (2006) to lie in the range (0,1). *N* is the sample size. *p* is the unknown precision parameter. The covariates were the same as for the primary outcome.

Due to limitations of used R packages, the above beta regression did not use clustered standard errors. Instead, as a robustness check, we repeated the above analysis using a linear regression model with clustered standard errors. As the results are consistent between these two types of analyses, we report the results from the linear regression for ease of interpretation.

For exploratory data analysis, in each case when comparing proportions in control and treatment groups, we used a two-proportions z-test.

To investigate if the intervention reduced the pluralistic ignorance 'gap' we calculated what percentage of men who are managers responded to a question: "You are the manager of a team. How many weeks of family leave would you support a male colleague who works in your team to take? (please input the maximum number of weeks you would support)" with 5-8 weeks or higher. We then compared this percentage to the average answer in treatment and control groups to the question: What percentage of male managers in your workplace do you believe would support a male colleague in their team to take more than five weeks of family leave? The ordinal answers were averaged based on the assumption that responses were evenly distributed within each response bracket (e.g. 0-10% was treated as 5 on average).

In a similar fashion, we compared the actual percentage of men who responded at least "slightly agree" to a question "I would encourage a male colleague to work flexibly to balance their work and non-work responsibilities." and "I would support someone I manage to work flexibly to balance their work and non-work responsibilities.", with the average response in treatment and control groups to questions "What percentage of men working in Santander UK would encourage a male colleague to work flexibly to balance their work and non-work responsibilities." and "I would encourage a male colleague to work flexibly to balance their work and non-work responsibilities." and "What percentage of men working in Santander UK would support someone they manage to work flexibly to balance their work and non-work responsibilities."

respectively. Again, the ordinal answers were averaged based on the assumption that responses were evenly distributed within each response bracket (e.g. 0-10% was treated as 5 on average).

Differences in personal support for flexible work were tested exactly as in the case of secondary analyses, but instead of self-reported likelihood of working flexibly, we used self-reported support for working flexibly "to balance work and non-work responsibilities", expressed on a scale ranging from 1 (strongly disagree) to 6 (strongly agree).

Differences in personal support for parental leave were assessed by testing if the distribution of categorical response options (Up to 2 weeks, 3-4 weeks, 5-8 weeks, 9-16 weeks, More than 16 weeks) significantly differed between treatment and control groups using two-proportions z-test separately for each response category.

For subgroup analyses, we tested an interaction effect between the treatment group and being a parent or planning to have children in the future. For the primary outcome (intended weeks of parental leave), we transformed the ordinal scales into a continuous one, by taking the middle point from the bounds of each category (and assuming that for the last category, the upper bound is equal to 50 weeks - the maximum amount of leave men can take under the Shared Parental Leave policy).

$$log(weeks_{ij}) = \alpha + \beta_1 T_j + \beta_2 P T_j + \gamma X_{ij} + \theta Z_j + \varepsilon_{ij}$$

In the above equation:

 $weeks_{ij}$ is the intended weeks of leave given by respondent *i* in organizational unit *j*. We perform a log transformation on this outcome because we observed a positive skew for this outcome in the Predictiv PI experiment and in actual weeks of leave at Santander.

 T_i is a binary indicator for their cluster *j* being in the treatment group.

 PT_j is either an interaction term between being a binary variable indicating that a person is a parent and treatment group or that a person is planning to have children and treatment group.

 X_{ii} is a vector of individual-level covariates:

binary variables related to:

having knowledge of where to look for Santander policies on parental leave and flexible working (70.2% had knowledge)

having flexible working arrangements;

managing colleagues who have caring responsibilities;

managing colleagues who have flexible working arrangements;

categorical variables related to:

tenure

having children (yes / no / prefer not to say);

considering having children in the future (yes / no / maybe / prefer not to say);

having other caring responsibilities (yes / no / prefer not to say);

work location;

grade;

age.

 Z_i is a vector of cluster-level covariates, for example:

proportion of employees that are men;

average age of employees (we will calculate this by taking the midpoint of each age bracket).

 ε_{ij} is the error for person *i* in cluster *j*. In the main specification, we will cluster standard errors at the level of a cluster as defined in this trial.

Second bank

Primary outcome - intended weeks of leave to take after becoming a father

We analysed the effect of our intervention on our primary outcome by estimating the following model by OLS:

$$log(1 + weeks_i) = \alpha + \beta T_i + \gamma X_i + \varepsilon_i$$

In the above equation:

weeks_i is the intended weeks of leave given by respondent *i*. We performed a log transformation on this outcome because we observed a positive skew for this outcome in the Predictiv PI experiment and in actual weeks of leave at this bank. T_i is a binary indicator for *j* being in the treatment group. X_i is a vector of individual-level covariates: binary variables related to: taking parental leave in the past (yes / no) age bracket (25-34 / 35-44) categorical variables related to: having children (yes / no / prefer not to say) wanting to have children in the future (yes / no / unsure) business area grade tenure (<1 year, 1-2 years, 2-4 years, >4 years) being a manager (manager of managers / manager of others / no) ε_i is the error for person *i*

For the main specification, our sample consisted of all respondents to the control or treatment surveys aged 25-44 and who provide all covariates.

We did not have a partner in full-time employment as a covariate because we chose not to ask for it in the surveys (to keep them short). We classified missing information for grade as "other" rather than "missing" because not all positions fit in one of the grades that we specified. Also, we did not use heteroskedasticity-robust standard errors since we fail to reject the null hypothesis of homoskedasticity via the Breusch-Pagan test (p=0.911).

Secondary outcome - perceived support for parental leave among male colleagues (weeks)

We analysed the effect of our intervention on our first secondary outcome in the same way as our primary outcome. We did not find evidence of heteroskedasticity via the Breusch-Pagan test in our main specification at the 5% level (p=0.082), so we did not use White standard errors.

Secondary outcome - perceived support for parental leave among male managers (0-100%)

We used a beta regression where the perceived percentage (0-100, rather than 0-99 as prespecified in the TP) is first linearly transformed to lie in the range [0,1] and then transformed as suggested by Smithson and Verkuilen (2006) to lie in the range (0,1):

$$c_{i} = \frac{(1/100)(perceived. percent. managers_{i})(N-1) + 0.5}{N};$$

$$logit(c_{i}) = \alpha + \beta T_{i} + \gamma X_{i};$$

$$var(c_{i}) = \frac{logit^{-1}(\alpha + \beta T_{i} + \gamma X_{i})[1 - logit^{-1}(\alpha + \beta T_{i} + \gamma X_{i})]}{1 + q}$$

*perceived.percent.managers*_i is the perceived percentage of male managers who would support a man taking more than four weeks of parental leave. N is the sample size. q is the unknown precision parameter. The covariates are the same as for the primary outcome.

Exploratory outcome - actual support for male colleagues taking parental leave (weeks)

We used the same model as for our primary outcome.

Exploratory outcomes - subgroup analysis

We performed regressions by subgroup in the same way as the relevant primary and secondary outcomes (but omitting the subgroup covariate as necessary).

Exploratory analysis - proportion of men who would request 0-2 weeks, 3-4 weeks, 5-8 weeks, 9-17 weeks and more than 17 weeks of leave

We used logistic regressions with the same covariates as the primary outcome.

Mediation analysis (exploratory)

We also performed a mediation analysis to estimate the effect of our intervention on the primary outcome that occurs through correcting beliefs about social norms (proxied by the secondary outcomes), updating private beliefs (proxied by the first exploratory outcome) and other mechanisms.

In step 1, we estimated the main specification used in the primary analysis.

In step 2, we estimated the effect of the intervention on each mediator using simple OLS models:

*perceived.support.colleagues*_i = $\alpha_1 + \delta_1 T_i + \gamma_1 X_i + \varepsilon_{1i}$

*perceived.percent.managers*_i = $\alpha_2 + \delta_2 T_i + \gamma_2 X_i + \varepsilon_{2i}$

actual. support. colleagues_i = $\alpha_3 + \delta_3 T_i + \gamma_3 X_i + \varepsilon_{3i}$

perceived. support. colleagues_i is the first secondary outcome, perceived. percent. managers_i is the second secondary outcome and actual. support. colleagues_i is the first exploratory outcome. In step 3, we added the mediators as covariates in the main model, estimating:

 $log(1 + weeks_i) = \alpha + \beta T_i + \gamma X_i + \lambda_1 perceived. support. colleagues_i$

 $+\lambda_2 perceived.\, percent.\, managers_i \dots$

 $+\lambda_3 actual. support. managers_i + \varepsilon_i$

Appendix 7: Second bank's detailed results

Survey	Number of respondents randomised	Respondents of any age ³⁹ (response rate)	Respondents aged 25-44 who provide all covariates	Mean of primary outcome for respondents aged 25-44 who provide all covariates	Standard deviation of primary outcome for respondents aged 25-44 who provide all covariates
Baseline	1,100	274 (24.9%)	171	8.15	7.91
Control	2,048	500 (24.4%)	331	8.16	8.64
Treatment	2,049	504 (24.6%)	318	7.86	6.71

Table 7.1: Summary statistics for each survey

Primary Analysis Findings

Table 7.2 presents the results of the primary analysis.

Column 1 uses the main specification described above, with a sample of all men aged 25-44 who responded to the control or treatment surveys and provided all covariates Columns 2 and 3 contain the results of pre-specified robustness checks: Column 2 includes responses from the baseline survey (where all covariates are provided) for men aged 25-44 and adds an indicator for a response being from the baseline survey as a covariate

Column 3 includes responses from partially-completed surveys for men aged 25-44 as well as responses to the baseline survey, using the missing-indicator method to fill in covariates

³⁹ We cannot directly identify duplicates. We classify a set of responses as duplicates if they chose the "other" option and then had the same free-text response for either the first secondary outcome or first exploratory outcome.

Table 7.2: Estimated effect of intervention on primary outcome (weeks of leave requested)

	(1)	(2)	(3)
	Main specification	Include responses from baseline survey	Include partially- completed surveys (and responses to baseline survey)
Mean for control group	8.16 weeks	8.16 weeks	8.20 weeks
Estimated coefficient on intervention indicator	-0.009 (0.050)	-0.009 (0.050)	-0.009 (0.048)
Estimated coefficient on baseline survey indicator	N/A	-0.002 (0.060)	-0.017 (0.058)
Observations	649	820	864

Notes: Standard errors in parentheses; ** p<0.01, * p<0.05, + p<0.1

We do not find that the treatment had a significant effect (at the 10% level) on our primary outcome in any specification - the p-values from columns 1-3 are all above 0.8. The estimated effects are also small - the main specification implies that the treatment reduced the weeks of leave requested by 0.08 at the control-group mean of 8.16 weeks.

Secondary Analysis Findings

Perceived support for parental leave among male colleagues (weeks)

Table 7.3 contains the results of the analysis for the first secondary outcome. Columns 1-3 are analogous to the same columns in Table 6.1. Column 4 excludes "other" answers (inputted into a free-text box) that were recoded manually compared to the main specification.

Table 7.3: Estimated effect of intervention on first secondary outcome (perceived support for parental leave among male colleagues, in weeks)

	(1)	(2)	(3)	(4)
	Main specification	Include responses from baseline survey	Include partially- completed surveys (and responses to baseline survey)	Exclude "other" answers (inputted into free-text box)
Mean for control group	9.41 weeks	9.41 weeks	9.41 weeks	8.78 weeks
Estimated coefficient on intervention indicator	-0.060 (0.056)	-0.060 (0.057)	-0.063 (0.055)	-0.042 (0.055)
Estimated coefficient on baseline survey indicator	N/A	-0.092 (0.069)	-0.102 (0.067)	N/A
Observations	624	786	829	607

Notes: Standard errors in parentheses; ** *p*<0.01, * *p*<0.05, + *p*<0.1

Again, we do not find a significant treatment effect (at the 10% level) in any specification and the estimated effects implied by the coefficients are small (see table).

Perceived support for parental leave among male managers (0-100%)

Table 7.4 contains the results of the analysis for the second secondary outcome.

Column 1 uses the main specification described above, with a sample of all men aged 25-44 who responded to the control or treatment surveys and provided all covariates Column 2 is a pre-specified robustness check which includes responses from partially-completed surveys for men aged 25-44. We do not use responses to the baseline survey because we did not include the relevant question there.

Table 7.4: Estimated effect of intervention on second secondary outcome (perceived support for parental leave among male managers, 0-100%)

	(1)	(2)
	Main specification	Include partially-completed surveys
Mean for control group	37.6%	38.1%
Estimated coefficient on intervention indicator	0.065 (0.098)	0.062 (0.096)
Observations	646	676

Notes: Standard errors in parentheses; ** p<0.01, * p<0.05, + p<0.1

Once again, we fail to find a significant treatment effect (at the 10% level) in any specification and the estimated effects implied by the coefficients are small.

Exploratory analysis

Actual support for male colleagues taking parental leave (weeks)

Table 7.5 contains the results of the analysis for the first exploratory outcome; columns 1-4 are analogous to the same columns in Table 5.

Table 7.5: Estimated effect of intervention on first exploratory outcome (actual support for parental leave among male colleagues, in weeks)

	(1)	(2)	(3)	(4)
	Main specification	Include responses from baseline survey	Include partially- completed surveys (and responses to baseline survey)	Exclude "other" answers (inputted into free-text box)
Mean for control group	13.56 weeks	13.56 weeks	13.46 weeks	12.44 weeks
Estimated coefficient on intervention indicator	-0.033 (0.054)	-0.028 (0.054)	-0.037 (0.053)	-0.020 (0.054)
Estimated coefficient on baseline survey indicator	N/A	-0.027 (0.071)	-0.031 (0.069)	N/A
Observations	625	785	827	584

Notes: Standard errors in parentheses; p<0.01, p<0.05, p<0.1We do not find a significant treatment effect (at the 10% level) in any specification.

Subgroup analysis

Table 7.6 shows the estimated treatment effects for the primary and secondary outcomes by (pre-specified) subgroup. We correct for multiple comparisons within each combination of (i) subgroup analysis (e.g. having children vs. not and age are two different analyses) and (ii) outcome type (primary or secondary).

Table 7.6: Estimated effects of intervention on primary and secondary outcomes by subgroup

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Subgroup	Have children	Do not have children	Would like to have children in the future	Would not like to have children in the future	Age 25-34	Age 35- 44	Age 45+
Primary outcor	me - intende	d weeks of le	ave to take	after becomi	ng a father		
Mean for control group	7.05 weeks	10.49 weeks	8.37 weeks	6.64 weeks	10.11 weeks	7.21 weeks	6.17 weeks
Estimated coefficient on intervention indicator	0.018 (0.062)	-0.034 (0.088)	0.045 (0.066)	-0.061 (0.105)	-0.030 (0.085)	-0.011 (0.063)	0.129 (0.074)
Observations	412	226	351	163	235	414	272
Secondary out	tcome - perc	eived suppor	t for parenta	al leave amor	ng male colle	agues (weel	ks)
Mean for control group	9.12 weeks	9.99 weeks	8.80 weeks	10.42 weeks	10.02 weeks	9.11 weeks	7.77 weeks
Estimated coefficient on intervention indicator	-0.001 (0.072)	-0.189 (0.098)	-0.036 (0.075)	-0.032 (0.126)	-0.097 (0.096)	-0.054 (0.072)	0.127 (0.085)
Observations	394	219	338	154	229	395	246
Secondary outcome - perceived support for parental leave among male managers (0-100%)							
Mean for control group	38.2%	33.3%	33.0%	42.1%	32.9%	38.5%	38.9%
Estimated coefficient on intervention indicator	0.164 (0.100)	-0.063 (0.138)	0.034 (0.110)	0.141 (0.150)	0.140 (0.136)	0.001 (0.123)	-0.068 (0.144)
Observations	410	225	349	162	233	413	271

Notes: Standard errors in parentheses; ** *p*<0.01, * *p*<0.05, + *p*<0.1

After correcting for multiple comparisons as described above, we do not find a significant treatment effect at the 10% level on any outcome for any subgroup. The usefulness of the subgroup analysis is severely limited by low power.

Mediation analysis (exploratory)

The results of the step-3 regression, which adds the two secondary outcomes and first exploratory outcome as covariates to the main specification in the primary analysis, are shown in column 2 of Table 9 below. Column 1 repeats the main specification used in the primary analysis but on the sample of men who provided all covariates used in the step-3 regression.

Table 7.7: Summ	ary of media	ation analysis
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	(1)	(2)
	Main specification used in primary analysis	Step-3 regression of mediation analysis
Mean for control group	8.06 weeks	8.06 weeks
Estimated coefficient on intervention indicator	-0.003 (0.051)	0.030 (0.044)
Estimated coefficient on perceived support for parental leave among male colleagues (weeks)	N/A	0.011** (0.004)
Estimated coefficient on perceived support for parental leave among male managers (0- 100% rescaled to (0,1))	N/A	-0.175* (0.081)
Estimated coefficient on actual support for male colleagues taking parental leave (weeks)	N/A	0.031** (0.003)
Observations	605	605

Notes: Standard errors in parentheses; ** p<0.01, * p<0.05, + p<0.1

The sign of the estimated coefficient on the indicator variable for being treated is reversed when the mediators are added as covariates. This means that the intervention's estimated direct effect (i.e. the effect which does not occur through any of the three mediators) is positive - though it is not even close to being significant at conventional levels. The estimated coefficients on all three mediators are also significant at the 1% or 5% level. Interestingly, the estimated coefficient on perceived support for parental leave among male managers (which is significant at the 5% level) is negative.

According to Sobel tests, the estimated treatment effect is unchanged by each mediator at the 10% significance level (p=0.22, 0.47 and 0.53 for the first secondary outcome, second secondary outcome and first exploratory outcome respectively).



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