# MEANING AT WORK*

Nava Ashraf[†] Oriana Bandiera[‡] Virginia Minni[§]

Luigi Zingales[¶]

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**Abstract**

Firms traditionally use incentives to align their goals with the workers'. In this paper, we evaluate a firm's attempt to do the opposite: encouraging employees to realize their own goals and ask whether those can be met at work. They do so by means of a day-long workshop to "discover your purpose", a reflection process of pivotal life experiences, which we randomize among 3000 employees in 14 countries. We track outcomes over the subsequent two years and find that the workshop leads to an increase in worker performance, driven by the bottom tail either leaving or becoming more productive. Worker pay also increases by 4 percent. The results, which are stable over two years, indicate that the workshop doubles the probability of worker exits and increases the probability of lateral transfers by 18 percent. We also find evidence of a trade-off between meaning and pay in the control group which disappears among the treated, who are also less likely to list "work-life balance" as a leading concern. These point towards the potential mechanism: a greater understanding of personal meaning via a coherent narrative of one's past memories and present work, which can permanently decrease the cost of effort.

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[†]STICERD and Department of Economics, The London School of Economics. n.ashraf1@lse.ac.uk

[‡]STICERD and Department of Economics, The London School of Economics. o.bandiera@lse.ac.uk

[§]Institute for Fiscal Studies and The University of Chicago Booth School of Business. virginia.minni@chicagobooth.edu

[¶]The University of Chicago Booth School of Business. luigi.zingales@chicagobooth.edu

> "What, then, constitutes the alienation of labor? First, the fact that labor is external to the worker; that in his work, he does not feel content but unhappy, does not develop freely his physical and mental energy...The worker therefore only feels himself outside his work, and in his work feels outside himself. He feels at home when he is not working, and when he is working he does not feel at home."
> — Marx, Karl, 1844. *Estranged labor*.

# 1 Introduction

Modern society is characterized by a clear demarcation between work and personal life. Indeed, the alienation of labor - not only from the product of its labor or each other but also from an individual's 'human essence' - has long been a critique of capitalism.[1]

Firms traditionally attempt to compensate for this alienation through monetary means, connecting workers to the profits of the firm, or, more recently, through connecting workers to the firm's broader purpose (Henderson and Steen, 2015; Gartenberg, Prat and Serafeim, 2019). We study, instead, a bottom-up approach that asks employees to find their own individual sense of purpose. We randomize the rollout of a "Discover Your Purpose" workshop among 3000 employees in 14 countries and evaluate its impacts over the subsequent years on employee exits from the company, job transfers, performance, pay, and sense of meaning. We find that the workshop significantly increases average performance for workers in the treatment group; approximately one-third of this effect comes from low-performing employees exiting the firm or transferring to better matched jobs within the company, while the remaining two-thirds of the performance effect comes from those who remain in the same job. Workers in treatment report greater meaning in their jobs and less concern about work-life balance.

In a simple conceptual framework of labor and leisure time allocation, we propose that meaning at work decreases the cost of effort. As in standard principal-agent mod-

[1] Marx (1844) described four dimensions of alienation in modern capitalist society: alienation of labor from the product of its labor, from their productive activity (working in ways that are debilitating physically or mentally); from other workers (seeing others as means to ends); and from their own human nature ('species-essence'; Gattungswesen). This is the aspect of human nature that is purposeful, generative, and self-realized. The last form of alienation underpins the other three.

els, we assume that the principal (the company) tries to elicit effort from an agent, where effort is not observable, but output is. Unlike traditional models, we assume that worker cost of effort is affected by how the effort is perceived by the individual. As the painting of the fence in the classic "The Adventures of Tom Sawyer" can be transformed from a chore to a treat, we assume that the individual cost of effort is influenced by whether the worker sees the job as congruent with personal values and goals. The effect of the workshop is to clarify this alignment or lack thereof to workers. Workers who understand that their job is not aligned with their personal goals find it too difficult to work at the company and quit their jobs. The others will experience a reduction in the cost of their effort, leading to an increase in the effort exerted, in their compensation, and in their overall utility. Since the job of the workers who stay becomes more fulfilling, the work-life balance becomes more favorable to work.

Recent neuroscience research has found that subjects' purpose or goal can significantly change the value given by the brain to objects, and particularly impact the connections perceived between seemingly unrelated objects (De Martino, 2012; Castegnetti, Zurita and De Martino, 2021).[2] This is ultimately a form of meaning-making, which humans have most often done with stories. Indeed, the "Discover Your Purpose" workshop consists of preparing and sharing four pivotal stories from one's past; finding in the stories, with the help of the other workshop participants, a coherent through-thread which it can be simplified into a purpose statement; and attempting to connect that to one's work. In this way, it reshapes previous important memories and reframes present activities.

A growing literature in economics underscores of the importance of memory of past experiences for current choices (Malmendier and Wachter, 2022; Bordalo, Gennaioli and Shleifer, 2020). This has long been understood in psychology, where it has been linked to story memories of one's life.[3] As Bruner writes, "The self-telling of life narratives achieves the power to structure perceptual experience, to organize memory, to segment and purpose-build the very 'events' of a life" (Bruner, 2004).

[2]In a brilliant example, Castegnetti et al. (2021) show how the brain's valuation of a wooden chair vs a metal chair, and the connections with a bottle of whisky and matches, changes when subjects are told to imagine that they are stranded on an island and need to signal for help

[3]Schank and Abelson (1995), for example, make the following three arguments: (1) Virtually all human knowledge is based on stories constructed around past experiences. (2) New experiences are interpreted in terms of old stories. (3) The content of story memories depends on whether and how they are told to others, and these reconstituted memories form the basis of the individual's remembered self.

In this paper, we test the economic impact of encouraging individual meaning-making in the workplace, and thus bring together two strands of literature. First, a long tradition in organizational behavior and organizational psychology argues that individuals get meaning from their work that extends beyond financial compensation (for a review, see Rosso, Dekas and Wrzesniewski, 2010 and Cassar and Meier, 2018). While many have called for a greater incorporation of meaning into economics- see, in particular, Karlsson, Loewenstein and McCafferty (2004), and Chater and Loewenstein (2016)- much less is known about how to generate meaning effectively in the workplace. In a lab experiment, Ariely, Kamenica and Prelec (2008) manipulate meaning through changing the fate of Lego figures assembled by subjects and find large effects on performance and labor supply. Chandler and Kapelner (2013) extends these results to a field experiment by having Amazon's Mechanical Turk (M-Turk) workers label tumor cells, but some workers are explicitly told the purpose of their task was to help researchers identify tumor cells, while others are not. Related papers highlight the importance of job mission as a source of worker alignment in a principal-agent framework (Besley and Ghatak, 2005; Delfgaauw and Dur, 2007; Delfgaauw and Dur, 2008; Cassar and Armouti-Hansen, 2020), which is backed up by empirical evidence of workers being willing to accept lower wages due to an organization or a job having a strong mission (Preston, 1989; Leete, 2001; Chandler and Kapelner, 2013; Hedblom, Hickman and List, 2019; Gosnell, List and Metcalfe, 2016). While existing research has exclusively focused on settings or intervention where meaning was defined by the organization, we run a field experiment to study the impacts of workers engaging directly in *meaning-making* and envisioning their *own* sense of purpose.

Second, our paper contributes to the emerging literature on organizational culture shaping worker identity and influencing workplace performance (March and Simon, 1958; Graham, Grennan, Harvey and Rajgopal, 2022; Gartenberg and Serafeim, 2023). In particular, a recent set of papers has started to investigate how organizations can use stories to motivate workers (Akerlof, Matouschek and Rayo, 2020). Stories are a crucial force shaping employee behavior: they affect knowledge and beliefs (Bénabou, Falk and Tirole, 2018; Gibbons and Prusak, 2020), serve as "mental models" (Cremer, Garicano and Prat, 2007; Mullainathan, Schwartzstein and Shleifer, 2008), and directly influence preferences (Akerlof and Kranton, 2005). In our field experiment, we in-

vestigate empirically how personal narratives can affect worker utility and influence decision-making.

# 2 Institutional context and data

## 2.1 Setting

We collaborate with a private consumer goods multinational firm (henceforth, the MNE) with offices in more than 100 countries worldwide. The company's products are used by billions of people every day, and turnover in 2019 was in the tens of billions. The firm has a workforce of about 124,000 employees, of which approximately 69,000 are white collars (WC), and 55,000 are blue collars (BC); 30,000 are in high-income countries, and 94,000 are in low to middle-income countries.

Typical WC occupations in the MNE consist of sales, engineering, marketing, HR, R&D, and general managerial activities. BC workers are predominantly machine operators. Overall, it is a homogeneous workforce regarding the educational requirements upon entry, which are standardized across establishments (having a college degree for white collars and secondary education for blue collars). The company is organized into a hierarchy of work-levels (WL) that goes from WL1 to WL6 (C-Suite). Employees with a work-level above one are considered performing managerial roles (WL2+).

This paper focuses on white-collar 'work-level 1' employees. The study time horizon is from January 2019 until December 2021. In each country, we randomize workers from January 2019 onwards, and we analyze outcomes until December 2021. Because each country had different project timelines, countries started the experiment in different months in 2019 (ranging from January 2019 to August 2019). Our intervention partly overlapped with Covid-19 and 13% of the workers in the treatment group did the workshop virtually because of this. We control for whether the workshop was virtual in the analysis. As baseline outcomes and variables, we take the average values over 2018.

## 2.2 Global administrative data

The main variables are obtained from the personnel records of the organization, which provide monthly snapshots of the workers worldwide. We create a panel dataset by combining the global HR records with the payroll and performance data, and the surveys we designed as part of the intervention. Table I summarizes the main outcome variables and data sources.

The global personnel records keep track of demographic variables of interest (age, gender, tenure, education), and give a monthly snapshot of the workers' hierarchy levels, functions, and job titles (from which promotions and lateral moves can be constructed). It is also recorded if a worker has been made redundant (involuntary exit) or if she has decided to quit the job for alternative employment or other activities (voluntary exit). In terms of the types of jobs, there are 14 functions in the MNE, with the biggest six being Sales, HR, R&D, Supply Chain, Finance, and Marketing. Within each function, there are multiple sub-functions (for example, in the finance function, an employee can be working in the tax sub-function or in the M&A sub-function).

We supplement this data with payroll data, including employee earnings and bonus payments. Salary differences are an important metric to assess performance within the firm. Practically, there are three ways in which workers with the same job title can earn a different salary: the salary grade, the salary band and the annual bonus (variable pay, which is on average 10% of fixed pay for entry-level workers). In addition, the firm's talent management system includes worker evaluations, such as the performance score set annually by the manager. The manager is the main decision-maker after considering the views of all the colleagues who have interacted with the worker (360-degree reviews). The decision process is designed to be as fair as possible and to limit manager bias; the manager has to justify any salary increase, transfer, or promotion decision against a set of objective criteria to the rest of her colleagues in talent forums dedicated to this discussion. The performance assessment is done in the same way in every function and office so that comparisons can be made between workers in different jobs and offices.

## 2.3 Local data from country offices

Country offices provided access to two data sources. The first are the records about the running of the purpose workshops, which report attendance to the workshop, including the time of each workshop, list of participants, and names of the facilitators.

The second is sales performance data at the individual or team level (depending on local HR practices). The worker sales performance is based on reaching targets each month set by the country demand planning teams in the Supply Chain function. Some examples of sales targets include growth of sales, product placement, on-shelf availability, additional exhibitions, and number of orders vs. total visits each month. While most of the data come from the global personnel records, sales data are managed independently in each country and need to be separately collected on a country-by-country basis by liaising with the countries' local sales teams. The annual performance score is strongly positively correlated with the sales performance measure (see Appendix Figure A.1). In particular, moving from being a worker in the bottom group of the performance score (a score of 70) to being a worker in the medium group (a score of 100) increases sales productivity by 0.21SD.

## 2.4 Surveys

We run three surveys to the treatment group and two surveys to the control group to track self-reported measures such as sense of meaning, team engagement, job satisfaction, life satisfaction, and clarity of mind. Appendix Table B.1 lists the survey questions and their references. Figure I illustrates the survey administration timeline. For the treatment group, the timing of the surveys is anchored around the timing of the treatment (the workshop invitation email). In particular, the baseline survey is sent 7 days before the workshop day, a "reflections survey" is sent 7 days after the delivery of the workshop, and the endline survey is sent 6 months after the workshop. The reflections survey is only sent to the compliers (the workers in the treatment group who take up the workshop invitation), as it asks workers to reflect on their workshop experience. This survey timing ensures that we hold constant the time of the endline survey outcomes among all compliers.

For the employees in the control group, we run a baseline and an endline sur-

vey. For these surveys, the median workshop date of the treatment group within each country is used to anchor the timing of the control group surveys, which are sent to all the workers in the control group at the same time. This same method is adopted to send the survey among the non-compliers in the treatment group who do not sign up for any workshop.

We check whether the treatment group has a higher variation in responses given the greater variation in the calendar month at which they receive the endline survey (compared to the control group workers who receive the endline survey all at the same time) but we do not find any differences in the coefficient of variations across all survey questions (see Appendix Figure A.2).

Due to an implementation oversight that we only realized at the end of the field experiment we cannot use the baseline survey, as the treatment group received an email containing some pre-work materials to prepare ahead of the workshop *before* receiving the baseline survey (the pre-work was sent 14 days before the workshop date and the baseline survey was sent 7 days before the workshop date). We had planned to send the baseline survey 14 days before the workshop and the pre-work 7 days before but the IT team in the company accidentally recorded the dates the other way around. Because of this, there are statistically significant differences between the treatment and control groups in the baseline survey.

The average response rate of the endline survey is 43.7% for the treatment group and 44.9% for the control group. The average response rate of the reflections survey sent only to compliers is 24.5%.

# 3 Experimental design

Our study is a collaboration with a multinational firm to understand the economic and social impact of the *Discover Your Purpose Workshop*, which are one-day workshops on connecting individual purpose with work and personal life. The firm designed and implemented these purpose workshops internally. The experiment is based on the staggered roll-out of these workshops. Because the company had been running the workshops for several years already, the sequential roll-out of the workshop was common knowledge, and it was due to logistical reasons: there was not enough capacity

and facilitators to cover all workers at the same time.[4] It was also common knowledge that everyone would be able to attend the workshop at some point and the employees were invited to attend sequentially due to the inherent limited capacity to cover all workers simultaneously. Because of the nature of these workshops, participation in them was entirely voluntary, and neither HR nor managers could use them as criteria for high performance and promotion.[5] No employee was told that s/he was part of an experiment run by external academic researchers nor that an experiment was being carried out to evaluate the purpose workshops.

One employee from HR in each country acted as the Experiment Facilitator, i.e., as the main point of contact between the Research Team and the local organization of the workshops. S/he was in charge of communicating with the Research Team and ensuring that the purpose workshops were conducted according to the agreed execution principles. The Experiment Facilitator was responsible for sending over the lists of employees still to be invited to attend a purpose workshop, which the team randomized, and for the treatment group receiving the workshop emails. S/he was also responsible for ensuring that attendance at the purpose workshops would be carefully tracked and that all employees in the study sample would receive emails to complete the three surveys designed by the research team.

## 3.1 Sample

The study sample corresponds to 2,967 workers in 14 countries. The research was carried out across 14 countries flagged as "Virgin Countries" because the purpose workshops had not been extensively rolled out yet. There was some variation in which stage of the workers' roll-out each of these 14 countries was in, with the share of the workers already invited to a workshop before the RCT ranging between 30% and 50%.

Figure II shows the 14 countries that participated in the experiment, they are Costa Rica, El Salvador, Ghana, Greece, India, Indonesia, Italy, Mexico, Nigeria, Philippines, Russia, Singapore, South Africa, and Thailand. In each of these countries, the Research Team obtained the list of employees not invited yet to the workshop and randomized

[4]The *Discover Your Purpose Workshop* initiative started in 2017 and was rolled out among the managers at the top echelons of the multinational. Because of the huge success and positive feedback, it then trickled down to the rest of the managerial workforce and to the front-line workers.

[5]The take-up rate among managers (WL2+), which were not part of the experimental sample, in the 14 countries involved in this study was 68.3%.

it to create the treatment and control groups with a 50% split. The randomization is at the worker level, stratified by country and whether the worker is in the Customer Development (sales) function.[6] Figure III illustrates the experimental design.

In practice, the only difference between the treatment and the control group is that the former received an email invite to participate in one of the purpose workshops occurring in the office within the next months. We followed what was already the practice at the firm and receiving the email invite to sign up for the workshop was necessary to attend the purpose workshop. The control group did not receive an invitation email to sign up for the purpose workshop at that stage. We agreed with the firm that it would only be invited after the end of the study period in December 2021. It was common knowledge among the employees at the firm that everyone would have the opportunity to attend the workshop at some point and that workshop participation was entirely voluntary. In addition, historically, the actual workshop sign-up date had been dictated by calendar constraints. The workshop experience is different from a team bonding exercise. In fact, in our sample, few employees attend the workshop with a colleague working in the same office and sub-function: only 29% of the workers in the data do the workshop with at least one colleague.

Table II shows that the treatment and control groups are balanced in terms of baseline variables. Figure A.3 compares the demographics of the RCT sample with those of the 'work-level 1' employees outside of the RCT sample. The RCT sample has slightly more female, younger, and lower-tenure workers working in the Supply Chain function (compared to the Customer Development function) than the rest of the white collars in work-level 1. Moreover, Appendix Table A.1 compares the baseline performance of workshop attendees who were part of the RCT with those not part of the RCT. We do not find systematic differences in performance between the two groups at the baseline. The take-up rate among the two groups is also very similar (65.3% in the RCT sample and 68.3% in the non-RCT sample). These two facts provide support to the understanding that the roll-out of the workshop among the RCT participants was equivalent to that of the other workers.

[6]We stratified by belonging to the Customer Development function as HR told us that we could obtain function-specific productivity measures at the worker level for those employees working in sales.

## 3.2 Discover Your Purpose Workshops

The company designed the purpose workshop to give employees a chance to dedicate some time to reflect on their past, present, and long-term goals, and overall purpose in life. The core underlying principle from the Company's perspective is that *Purpose is unique to each individual*: it is about who you are, what gives you meaning and happiness, what you love, and what makes you keep going. As part of the facilitator handbook, it is stated that:

> "It [your purpose] provides you with a compass that motivates you and inspires you to be your best in a changing world so that you can embrace the changes that are coming at you. We as a Company hope that our employees are motivated by their purpose in their lives as well as their job, and we do want to promote one day in which we give everyone like you the chance to reflect on what your purpose is, and how this may translate into your everyday life within the Company."

The workshop's contents are two-fold: a pre-work briefing pack, sent to participants 14 days before the workshop, and the workshop day, which is attended in person. Figure IV shows some excerpts about the contents of the pre-work and workshop. The basic premise is to reflect on pivotal personal life experiences through story-telling. The pre-work consists of inspirational readings and videos, such as a summary of "Man's Search for Meaning" book by Victor Frankl (1985), and the "From Purpose to Impact" Harvard Business Review article by Craig and Snook (2014), and self-reflection exercises. In the self-reflection exercises, participants are prompted to reflect on their life experiences to date and bring them alive by asking family and friends what words they would use to describe them and by crafting personal life stories they would tell at the workshop. Specifically, the workshop experience is structured around 4 personal stories based on the following key themes:

1. When I Was Young: *Think back to your childhood. Before you knew about the 'right' or 'expected' thing to do. What did you love? What did you enjoy spending your time doing and where were you at your happiest?*

2. Crucible: The Challenge That Shaped Me: *Think about your life in general or your career so far. When have you faced a real challenge? Why was it so tough? Did it*

*challenge your skills, values or identity? Were you with people or in a place that you found difficult? What did you do and how did that challenge shape you? How did it change how you see yourself? How did it redefine you?*

3. Sparking My Interest: *Forget the Company for a moment. Outside of work, what do you most enjoy doing? What about this energizes you, makes you tick, or sparks your interest? What got you interested in this? Has there been a significant or special moment as you have explored this interest?*

4. My Success Story: *Think about your career and your life outside work. When have you been really successful and thriving or at your best? Why were you so successful? What was it about what you did that made you succeed and what motivated you to achieve these things? Why did it make you feel proud?*

The pre-work contains relevant questions and details to help workers craft personal stories for each of the 4 themes above. Participants are told that each story should take approximately 5 minutes to tell in the workshop. Moreover, they are prompted to ensure that each story is about a situation or experience that has been completed rather than something that is still ongoing and to choose situations and experiences that have really helped to shape their life and have a strong personal connection to who they are.

On average, 20 workers attend the workshop on the same day. For each workshop, there is one Lead Facilitator and several Group Facilitators. Facilitators are internal workers from any function and in any position who volunteer to act as facilitators, and before acting as facilitators, they must have done the purpose workshop and completed a training course run by the firm HR. The workshop must have at least 1 facilitator for every 4 workers (including the Lead Facilitator). The workshop day lasts for 8 hours and starts with a welcome session in a plenary room, which consists of an introductory presentation by the Lead Facilitator about the goals of the day. Each participant is also given a workbook to capture any notes they wish to make from the sessions. Subsequently, participants are randomly divided into small groups of 3-4 people, each led by a Group Facilitator, and given a personal workbook to take notes during the group discussions. Before starting, the Group Facilitator reiterates the three ground rules: "Today is all about learning, instead of assessment", "Everything that is

said in the room stays in the room", and "Nothing that is said here will be misused".

In the morning session, participants share their 4 personal stories in their group based on the questions they were asked to complete as part of the pre-work: When I Was Young, Crucible: The Challenge That Shaped Me, Sparking My Interest, and My Success Story. Participants are actively prompted to ask questions and comment on each other stories following the principle that working collaboratively with the group helps keep the discussion engaged and focused via active listening, summarizing, and deepening.[7] Once all participants have told all 4 of their stories, they have 15 minutes for self-reflection exercises to review the feedback and insights they captured in their workbook and consider what key themes are emerging that may help them define their purpose.

After a lunch break, participants return to their groups and work individually to complete a series of targeted questions in their workbook that involve thinking about their transformative relationships, own values and legacy in terms of family, community and career, strengths, and their special superpower. They also complete the first draft of their purpose statement, a one-line sentence that completes the prompt "My Purpose is to . . . ". Then, working in their groups, each participant reads through and shares their responses to the workbook questions and their draft purpose statement, and group members reflect and share their thoughts as to whether this reflects what they have seen and heard from this person. After this, participants are given some additional time to refine and shape their purpose statement based on the group discussion and based on some final workbook questions such as describing your purpose as if you were talking to a 10-year-old child. In the end, everyone returns to the plenary room, where the Lead Facilitator delivers a short presentation about going from purpose to impact, and participants watch a short video about some fellow employees' and managers' workshop experiences.

## 3.3 Workshop involvement and feedback

We analyzed the responses from our Reflections Survey sent to the compliers one week after the purpose workshop to gauge workers' feedback about the workshop. Overall,

[7] Participants are encouraged to use the workbook to make notes on the stories they hear from their fellow group members, so to provide them with their feedback and insight.

194 workers responded to this survey, which represents 26% of the compliers. Workers express great participation and satisfaction about the initiative, as shown in Figure V. The median score for the workshop engagement question is 4.4 out of a maximum score of 5.[8] Moreover, participants report having found a unifying group of words that inspire them, which still resonate with them now (the median is 5.5 out of a maximum score of 7).[9] Around 80% of participants share their purpose with family and friends, the team, and their line manager, and more than 80% of participants write down their purpose statement somewhere. Figure VI shows where workers write it down: most popular locations are the personal diary, the internal platform of the Company (Workday), and the phone and laptop screensaver.

Regarding the contents of the purpose statements, we include below some responses to the open text question "Can you give us a story of how you have used your purpose statement so far either in the context of your job or outside of work?":

- *I used my purpose statement at Company by proposing an environmental campaign project aside from launching new product.*
- *For 8 years, I had a monotonous lifestyle of work-home-work that I felt like a robot just trying to make ends meet that I came to forget and took for granted what is most important for me. Thanks to this workshop, it has reminded me of why I am doing this in the first place - for my family. So it has given me the drive to continue pursuing my career and to live life fully.*
- *My Purpose is related to telling stories and as a marketeer I learn how to get better at telling stories everyday.*
- *I use my purpose in my everyday life, with my family, as a father, much more than in the context of my job.*

Unfortunately, only 99 out of 194 workers answered this open-text question, limiting the scope of the statistical analysis we can do with these statements. However, we

[8] *Workshop Engagement* is measured by averaging these three questions: "Overall this workshop was a valuable investment of my time" (1-7); "I felt the facilitator was helpful engaging and prepared to run the session" (1-7);" Would you be interested in becoming a facilitator?" (0-1).

[9] *Purpose Discovery* is measured by averaging these two questions: "I managed to find a unifying purpose sentence or a group of words that inspired me" (1-7); "These words still resonate with me now" (1-7).

conducted a word frequency analysis to help convey how the workshop was broadly about "one's life" rather than solely about the current job at the company. Figure VII shows that the top 5 words are work, people, help, life, and new.

In addition, we report some anonymous quotes from the focus groups that we conducted about the usefulness of the workshop and the purpose statements:

- *Being conscious of my purpose and being able to clearly articulate it to others means that I can proactively use it to steer my decisions inside and outside of work.*
- *Since discovering my purpose I feel more recognition and empowerment to continue to do what I am best at. Your purpose should be something that you can action. daily.*
- *If I'm wondering, demotivated, or struggling, I can go read it and the meaningfulness of it and what sits behind it comes back to me.*
- *You will probably find that your purpose statement is something that you have known about yourself but never been encouraged to put it into words. Once verbalised, it will be very easy to remember.*
- *I read my purpose statement every morning to keep it in the back of my mind at all times, facilitate prioritization and allow it be a driving force on my actions and decisions.*
- *I keep a journal to reflect often on what you are doing both at work and outside of work and if it fits with your purpose.*

## 3.4 Estimation

Workers are observationally equivalent only at the time of workshop invitation, which they can choose to follow up on by signing up for a workshop. Because the workshop take-up is 65.3%, our preferred estimates are the Local Average Treatment Effects (LATE), but we also present Intention To Treat (ITT) estimates in the Appendix. We use the following specification for worker $i$ in country $c$ in month $t$:

$$y_{ict} = \theta \widehat{\text{DidPW}}_{ict} + \boldsymbol{X_{ict}\beta} + \boldsymbol{\psi}_c + \eta_{ict} \tag{1}$$

where $y_{ict}$ is the labor market outcome of interest, $\boldsymbol{\psi}_c$ is a vector of country fixed effects; and $\boldsymbol{X_{ict}}$ controls for a linear trend and whether workshop was held virtually.

The indicator for having done a purpose workshop, $\widehat{\text{DidPW}}_{ict}$, is instrumented with whether the worker received the invitation email, Invited $\text{PW}_{ict}$.

The parameter $\theta$ measures the causal effect of attending a purpose workshop provided that the workshop invitation (the treatment) is relevant, that is, it is highly correlated with DidPW (the F-stat is $> 10$), and exogenous or orthogonal to $\eta_{ict}$, which is ensured by the randomization. As randomization is at the worker level ($i$), we use clustered standard errors at the individual level.

For the surveys, we estimate a similar specification on the cross-section of workers that replied to the endline survey:

$$y_{ic} = \theta \widehat{\text{DidPW}}_{ic} + \boldsymbol{X_{ic}\beta} + \boldsymbol{\psi}_c + \eta_{ic}$$

where $y_{ict}$ is the survey outcome of interest, $\boldsymbol{\psi}_c$ is a vector of country fixed effects; and $\boldsymbol{X_{ic}}$ controls for whether workshop was held virtually. We standardize all survey outcomes using the baseline mean and standard deviation of the control group.

Table III shows how the compliers differ from the non-compliers using baseline characteristics. Compliers are more likely to be female, have less tenure, be younger, and have a higher performance score. They are also more likely to be in the R&D and Marketing functions while less likely to be working in the Supply Chain and Finance functions.

# 4 Conceptual framework

The purpose workshop is aimed at helping workers identify their personal purpose in life. While the workshop does not explicitly ask workers to compare their purpose with their job, this comparison is inevitable. Thus, to understand how this alignment plays a role in employees' productivity and job satisfaction, we build the simplest principal-agent model with the following two features i) the observed contract before the workshop is the optimal contract; ii) the alignment of personal purpose and job impacts performance.

With this goal in mind, we assume that the production function is a function of the number of hours spent at work (l) and the effort exerted by the workers e, in a

separable way. Amount of hours spent at work is observable and contractible, but it is capped by law at eight hours per day. The effort exerted is not observable, thus to motivate this effort, the firm will pay workers a bonus which is a function of the level of production sensitive to effort. Thus, production is given by

$$K(l) + f(e) \tag{2}$$

We assume that there is an individual-specific component of costs. Thus, the effort cost is $\frac{1}{2}(1 - pm_i)e^2$, where $e$ is the amount of effort exerted, $m_i$ is the extent to which effort at work contributes to the individual $i$ purpose, and $p$ is the extent to which an individual is made aware of this alignment or lack of thereof. If a worker discovers that his job is aligned with his personal purpose, then $m_i > 0$, and the marginal cost of effort is reduced, while if he finds that it is misaligned, then $m_i < 0$, and the marginal cost is increased. The workshop has the ability to turn on this awareness: $p$ goes from zero to 1. Thus, workers' utility is given by:

$$T - l - \frac{1}{2}(1 - pm_i)e^2 + w + bf(e) \tag{3}$$

The first two terms $T - l$ is the cost of showing up at work for eight hours, represented by the amount of leisure forgone. The third term is the cost of effort, described above. The last two terms represent the compensation, given by a fixed salary ($w$) and a variable component $bf(e)$ where $b$ is the fraction of production paid as a bonus. Thus, the firm maximizes profits given by:

$$K(l) + (1 - b)f(e) - w \tag{4}$$

s.t.

$$w \geq l$$

$$bf'(e) \geq (1 - pm_i)e$$

$$l \leq 8$$

It is easy to see that if $K'(8) > 1$, the firm will find it optimal to employ the workers for the maximum granted by the law, i.e., eight hours, and that would have to pay

the worker at least 8 to induce the worker to show up. If we further assume that $f(e) = 2\sqrt{e}$ , then the incentive compatibility (IC) constraints becomes:

$$b = (1 - pm_i)e^{\frac{3}{2}} \tag{5}$$

Thus, we can rewrite the objective function as:

$$[1 - (1 - pm_i)e^{\frac{3}{2}}]2e^{\frac{1}{2}} \tag{6}$$

That delivers

$$e = [\frac{1}{4(1 - pm_i)}]^{\frac{2}{3}} \tag{7}$$

Before the workshop $p = 0$, thus:

$$b^* = e^{\frac{3}{2}}$$

$$e^* = [\frac{1}{4}]^{\frac{2}{3}}$$

It is easy to see when $p = 1$, $\frac{de}{dm} > 0$. Thus, after the workshop workers with $m_i > 0$ become more productive, while workers with $m_i < 0$ realize that their effort is not adequately compensated and leave the firm. The work-life balance is the comparison between the utility obtained from work and the utility obtained from leisure, so it is the comparison between $T - l - \frac{1}{2}(1 - pm_i)e^2$ and $w + bf(e)$. When $p = 1$, the workers with $m_i > 0$ will experience an improvement in work-life balance, while the workers with $m_i < 0$ will leave.

# 5 Results

## 5.1 Worker performance

We begin to examine the impact of the purpose workshops on worker performance in Table IV.[10] In Columns 1-4 of Panel A, we look at the manager's assessment of their

[10]We report the ITT estimates in Appendix Tables A.2 and **??**.

workers' performance, the performance score, which is given annually and determines the workers' annual bonuses. It can range between 0 to 150, but practically, the firm uses it to divide workers into three main groups: bottom ($\leq$ 80), standard ($>$ 80 but $\leq$ 125), and top performers ($\geq$ 125). Column 1 shows that the performance score increases by 3.9 points (a 3.9% increase relative to the control group). The next columns help us understand where this increase in performance is coming from: the share of bottom performers decreases, and the share of the median performers increases by the corresponding magnitude. At the same time, there is no change in the share of top performers. Column 5 looks at workers' self-assessment of their own effort from the survey question "I am inspired to go the extra mile in my job" and shows that there is an increase of 0.23 S.D. six months after the workshop.

In Panel B of Table IV, we look at worker bonus and worker pay. In Column 1, we show that worker bonus significantly increases (an increase of 0.17S.D.). We take the inverse hyperbolic sine transformation of the bonus since workers can get zero bonus if their performance is particularly poor. Bonus pay represents 10% of fixed pay on average and is the way the firm rewards worker performance each year. In Columns 2-4, we look at the probability that the bonus is above different thresholds, such as above zero, the 25th percentile and the median of baseline bonus. Bonus increases in all cases. In Column 5, we look at worker fixed pay, which increases by roughly 4.4%.

In Table V, we draw on the subsample of field sales workers to provide evidence of whether such a performance increase is backed up by an increase in sales productivity, defined in all countries as achievement over target averaged over several product-specific KPIs. Some examples of sales targets include growth of sales, product placement, on-shelf availability, additional exhibitions, and the number of orders vs. total visits each month. We standardize this measure within the country and product group.[11] The IV estimate in the second column of Table V shows that the treatment increases sales productivity by 0.24S.D. (p-value <0.05), which, assuming a standard normal distribution, is equivalent to improving average worker productivity from the 50th percentile to the 60th percentile or by 15%.

[11]While most of the data come from the global personnel records, sales data is managed independently in each of the countries. The data needs to be separately collected on a country-by-country basis by liaising with the countries' local sales teams. A second data challenge is that the field sales teams are increasingly outsourced to contractors.

## 5.2 Decomposition of the worker performance effects

The increase in worker performance and pay can be achieved in two ways: via differential worker selection through worker exit and lateral moves and via a within-worker change in effort on the job. We turn to examine the relative role of each potential channel.

First, in Table VI we find that the workshop increases monthly exit by 0.7ppt (a 88% increase relative to the control group). It also increases the probability of the worker making at least one lateral move within the next two years in the firm by 6.8ppt. In contrast, there are no detectable effects on the probability of worker promotion. The evidence on the lack of effects of promotion is robust to splitting the sample by worker tenure years, indicating that low worker tenure at baseline cannot explain the null effect (see Appendix Table A.3).[12]

In Figure VIII, we assess the dynamics of the effects on exit and salary. Worker exits are swift and occur within 6 months of doing the workshop. The fact that there are no differences in exit rates after 6 months indicates that the workers who exit due to the workshop are individuals who would have never left the firm otherwise. Hence, the workshop does not merely accelerate the rate of exit; it actually prompts certain workers, employees who otherwise would not have considered leaving, to exit the firm. The increase in worker pay also manifests at the 6-month window and is sustained until two years after.

Figure IX tests for heterogeneous effects on exit and lateral moves based on baseline performance and shows that the exit rate among low performers is double that among medium performers. At the same time, there is no impact on exit among top performers. Albeit the effects are noisier, the plot for lateral moves conveys a similar story. These results are in line with the evidence on the performance score in Table IV, where the workshop decreases (increases) the share of the bottom (medium) performers.

We assess to what extent the performance effects are driven by worker exit using a worker fixed effects specification in the spirit of Lazear (2000). In particular, to disentangle selection from effort, we estimate the within worker-job change in worker

[12]We report the ITT estimates in Appendix Table A.4.

bonus by adding worker$*$job fixed effects to the model in equation 1.[13] Figure X illustrates the results of this decomposition: the higher orange bar indicates the bonus effect when estimating specification 1 and the blue bar denotes the coefficient estimate when adding worker*job fixed effects. When adding worker*job fixed effects, the bonus estimate drops to 0.3 or 50% of the main effect. Hence, worker selection accounts for 50% of the overall effect on bonus, with the remaining variation coming from changes in worker effort or behavior.

## 5.3 Worker meaning, happiness, and job priorities

We explore how the differences in worker performance are related to worker sense of meaning and happiness measured 6 months after the workshop. In Appendix Table B.1 we detail the survey questions and how they are aggregated into these indices. Because the higher worker exit occurs within 6 months of attending the workshop, the responses to the endline surveys are only available for the workers who remain in the firm.

Table VII presents the results. After the workshop, workers express higher meaning, job satisfaction, and life satisfaction. The results are unchanged when controlling for worker pay (see Appendix Table A.5). To formally analyze the role of meaning behind the increase in performance, we perform a mediation analysis following the method by Dippel, Gold, Heblich and Pinto (2019). The underlying intuition is that the treatment effect of the workshop on outcome $Y$ (performance score) can be decomposed as operating through the mediator $M$ (worker meaning):

$$\frac{dY}{d\text{Workshop}} = \frac{\partial Y}{\partial M}\frac{\partial M}{\partial \text{Workshop}} + R \tag{8}$$

where $R$ is the part of the treatment effect which cannot be attributed to the mediator. We take the performance score as the outcome, $Y$, and the worker meaning as the mediator, $M$, measured 6 months after the workshop. We find that worker meaning contributes to 52% of the total effect of the workshop on the performance increase. This links back to the discussion in subsection 3.3 of how the workshop, by equipping

[13] We run this fixed effects exercise on worker bonus rather than the performance score because, unlike pay, the performance score does not behave as a continuous variable and shows substantial bunching at the threshold levels of the three performance brackets in place at the firm.

workers with the heuristic of the purpose statement, helps them keep their own sense of meaning top of mind. As a by-product, worker performance increases.

Table VIII also shows that workers report higher alignment with colleagues and the company on several dimensions. There is higher self-reported team collaboration, closer relationship with the manager, and overlap with fellow colleagues and the company.[14] The last column looks at the overlap with community, which is included as a placebo question and shows no differential effects between treatment and control groups. These results are evidence against the workshop leading to a greater sense of individualism at the expense of social cohesion in the workplace.[15]

To understand further how the workshop affects workers' sense of meaning, we examine a survey question that asks workers to rank 12 job priorities. Figure XI presents the cumulative distribution functions for treatment and control groups separately. The answers are reverse-coded so that rank 12 is the highest and rank 1 is the bottom. The plots concretely convey that treatment and control groups state different job priorities. The treatment distribution first-order stochastically dominates the control one for the categories of helping others, being useful to society, growing and learning new skills, opportunities for advancement, high prestige, and interesting jobs (Panel a). Conversely, the control distribution first-order stochastically dominates the treatment one for work-life balance, flexible time, job security, independent work, personal contact with people, and high income (Panel b).

We continue the exploration by revisiting the well-known tradeoff within economics on balancing pay with a meaningful job.[16] Figure XII evaluates this tradeoff in our intervention by plotting meaning against pay for the cross-section of workers that replied to the endline survey, separately for treatment (dashed line) and control group (solid line). It shows that the workshop's treatment effect flattens the pay and meaning tradeoff (a formal test for the difference in the slope for treatment yields a coefficient estimate of 0.158 with s.e.=0.079 and p-value<0.05). Previous sub-sections document

[14]These results are unchanged when we control for pay, as shown in Appendix Table A.6. Please refer to Appendix B for more details about the overlap question.

[15]We report the ITT estimates in Appendix Tables A.7 and A.8.

[16]The assumption that monetary compensation is what mainly matters for motivation at work is at odds with many observations. For instance, Stern (2004) shows that scientists pay to be scientists. Moreover, a long tradition in organizational behavior and organizational psychology argues that individuals get meaning from their work that extends beyond financial compensation (for a review, see Rosso et al. (2010)).

that both pay and meaning increase following the workshop. Figure XII also shows that the workshop reduces the familiar tradeoff between financial compensation (pay) and the sense of purpose or fulfillment experienced in a job or activity (meaning).

These findings suggest that the workshop effectively weakens the conventional dichotomy between monetary gain and personal fulfillment. Individuals may often face a choice between higher-paying roles that might offer less intrinsic satisfaction and lower-paying positions that provide a greater sense of purpose or meaning. The workshop causes a leveling of this tradeoff. It appears to equip workers with a perspective or framing that allows them to attain a more satisfying balance between financial remuneration and pursuing work that feels inherently rewarding or meaningful.

## 5.4 Gender differences

We dig deeper into the idea that the workshop helps workers re-frame how they view their work and life and their role in it by examining whether there are gender differences in worker behavior. The evidence supports that the workshop prompts workers to re-envision work through their inherent preferences (their *inner child*'s eyes). Gender, a predominant example of social identity, may intersect with and potentially conflict with personal inclinations. Gendered norms, often deeply ingrained in societal expectations, can dictate specific behaviors and roles for women and men in the workplace.

Can the purpose workshops empower employees to transcend traditional gender norms? By spotlighting the individual's *unique* experiences and life stories, the workshops may offer a platform for workers to explore and embrace their authentic preferences, unencumbered by the constraints of conventional gender expectations. Under this lens, we expect the workshop to close gender gaps in job priorities. We also note that this exploration is not just about individual awareness but also about fostering a more inclusive and understanding work environment where individuals can perform and interact in ways that truly reflect their personal identities and preferences.

Figure XIII revisits the ranking of job priorities and plots the gender gap in each job priority separately for treatment and control groups. In 9 out of 12 dimensions, the gender gaps in priorities shrink for the treatment group. This suggests that the workshop effectively alters traditional gender-based priorities within the workplace.

A striking practical implication of this change is reflected in taking parental leave, a domain often riddled with gender stereotypes. In particular, Figure XIV suggests that men in the treatment group are more likely to take parental leave and the converse happens to women. The adjustment occurs at the intensive margin where men take 1.9 more months of parental leave while women take 1.4 fewer months; there is a shift in the duration of parental leave rather than the likelihood of taking any leave. This pattern hints at a meaningful shift in personal decision-making processes, challenging and reshaping potentially deeply entrenched gender norms and preferences within professional environments.

# 6 Additional analysis

## 6.1 Spillovers to the control group

We find no evidence of spillovers to the control group as shown in Appendix Table A.9. In particular, the share of colleagues who are in the treatment group does not correlate with own performance and salary. This underscores the fact that the workshop is fundamentally a personal experience, which one cannot fully understand until actually attending it. Moreover, the presence of negative spillovers due to "morale effects" of not being selected into treatment is highly improbable because of the way in which the company executed the roll-out, as detailed in Section 3.[17]

## 6.2 Cost-benefit analysis

We assess the costs and benefits of the purpose workshops and conduct a cost-benefit analysis from the shareholders' perspective. As we could not obtain measures of the revenues or costs directly from the Company, we base our calculations on public income statement data in 2019 from the Orbis database. All estimates are in USD currency. We define the average cost of the workshop as the cost required to cover one worker. The purpose workshop lasts for 8 hours, and each workshop facilitator can cover 4 people at the same time. We compute the implied benefits and costs of one

[17] In particular, we specifically emphasize that the workshop program had been established in all countries before prior to the beginning of the RCT, as well as its sequential roll-out which was required due to logistical reasons.

year that arise from one worker attending the workshop.

The workshop costs entail the one-day foregone production of the participants involved and the replacement costs of the workers who exit after the workshop. We use value added per employee for the foregone production costs, which is 80,301 in 2019. As we need an estimate for one working day only, we divide it by 250 working days per year. Moreover, because the workshop entails one facilitator for every 4 workers, we multiply it by 1.25. As replacement costs, we assume that, on average, a worker's exit costs to the firm 100% of the average annual worker salary. Given that HR gave us the range of replacement costs for 'work-level 1' workers to be between 1/3 and 2/3 of the average worker salary, we consider this to be an upper estimate. We use the costs of employees and the number of employees from Orbis to compute the replacement costs; the average employee costs $47,857 to the firm. From the estimates in Table VI, the treatment group has a 7.2ppt higher annual exit than the control group.[18] Hence:

$$Cost\ of\ Workshop = \underbrace{(80,301/250) * 1.25}_{daily\ cost} + \underbrace{(47,857 * 0.072)}_{replacement\ cost} = \$3,848$$

Regarding the benefits of the workshop, we use the increase in sales productivity of 15% as a benchmark for the increase in worker productivity. As a revenue measure of worker performance, we use again the employee value added from Orbis. Moreover, we subtract the 4% increase in worker wage. Finally, we account for the lower retention rate of the treatment group compared to the control group. Hence:

$$Benefit\ of\ Workshop = 0.928 * (\ \underbrace{(80,301 * 0.15)}_{increase\ in\ productivity} - \underbrace{(47,857 * 0.04)}_{increase\ in\ wages}) = \$9,401$$

We then compute the net benefit and return on investment (ROI) per employee for one year with a discount rate of $\delta = 0.1$ as:

$$Net\ Benefit\ of\ Workshop = (9,401/1.1) - (3,848) = \$4,699 \Rightarrow ROI = \frac{4,699}{3,848} > 122\%$$

The net rate of return is thus around 1.22 times the workshop cost.

The workshop costs are relatively low given it is run internally and does not in-

[18] Table VI reports monthly estimates, so we multiply the coefficient on exit by 12 months (0.007pp*12= 7.2pp).

volve external consulting firms. However, we can compare our estimates about the benefits of the workshop with the costs of some of the most reputable consulting firms (McKinsey & Company, KPMG, Deloitte Consulting, and Ernst & Young) as proxies for firms' willingness to pay for external consulting services. In particular, we use these well-known consulting firms' price lists as contractors to the government published on General Services Administration (GSA).[19] We use the higher range of figures to offset potential differences in the contract prices between government and private firms.

Table IX summarizes the costs among these consulting firms for a 1 Partner/Associate Partner equivalent and 5 consultants equivalent, which would cover an average workshop of 20 employees.[20] The average cost of bringing in external workshop specialists amounts to $797.53 per attending employee. Using the way we defined *Cost of Workshop* earlier, the estimated cost is given below:

$$Cost\ Workshop_{External} = \underbrace{80,301/250}_{daily\ cost} + \underbrace{797.53}_{external\ consulting} + \underbrace{(47,857 * 0.072)}_{replacement\ cost} = \$4,564$$

Note that we no longer use the 1.25 multiplier for the daily cost as the consultants now act as the workshop facilitators. Even when outsourcing the workshop to external consulting companies, the estimated cost is still well below the estimated benefits of $9,401. These estimates indicate that the benefits of the workshop outweigh these external costs, which can be interpreted as a proxy for firms' willingness to pay, by a considerable margin.

## 6.3 Comparison of causal to observational evidence

As previously noted, the firm had been running these purpose workshops since 2017, rolling them out initially to the managers in the highest ranks. Due to their wide

[19] They can be found on GSA eLibrary Contractor Listing. All the price lists are retrieved on January 16th, 2024. Where there is pricing for multiple years (e.g., 2023, 2024, and 2025), we always use the earliest year possible.

[20] We assume the partner will be responsible for creating the curriculum and supervising the workshop implementation, whereas the 5 consultants will be responsible for running the workshops. This implies the given team structure will only cover 20, instead of 24 employees. The assumption will only increase our estimated average cost and lower the estimated net benefit.

success, after the senior managers, they were introduced to middle managers and then to the entry-level workers. Our randomized intervention started in 2019 among the 14 "virgin countries" that had not yet completed their roll-out.

We can compare the effects from the observational evidence -the workers who self-selected to do the workshop- against the ones from the RCT who got invited randomly. Because the former sample is much larger, we take a bootstrap sample with 100 iterations and the same number of workers as the RCT. Figure XV compares the workshop effects between the RCT group and the non-RCT sample. It shows that the non-experimental evidence yields nearly opposite conclusions: doing the workshop decreases exit and lateral moves, decreases the share of bottom performers, and increases both the medium and top performers' share. The comparison between the experimental and observational estimates acts as a compelling argument for establishing causality rather than solely relying on observational data for researchers in social sciences and practitioners.

# 7 Conclusion

Karlsson et al. (2004) propose four possible interpretations of what meaning entails: (1) meaning as a resolution of preferences; (2), meaning as an extension of oneself either socially or temporally; (3) meaning as an act of making sense of one's life; and (4) meaning as an assertion of free will. We study a one-day workplace intervention that is an exercise mainly in sense-making but also has aspects of the other three interpretations of meaning. We randomize its roll-out among 3000 employees across 14 countries, and track job performance and progression over two years' time. We find significant economic effects on job performance, exits, transfers, and parental leave, mediated by a greater sense of meaning.

To more deeply grasp the impact of the workshop, it is useful to understand how it stands out from other forms of training that aim to instill the *corporate purpose* amongst employees.[21] By its very name, corporate purpose takes a top-down approach, with the company having the ultimate right to its definition. On the other hand, the purpose workshop is meant to create meaning and purpose out of one's own personal life

[21] For more on corporate purpose, see Bartlett and Ghoshal (1994) and Gartenberg et al. (2019).

experiences. It helps individuals to see connections between their true self and aspects of their life (including their professional one), that, once seen, cannot be unseen.[22] The "epiphany" that comes out of the workshop gives people a mental causal model that changes what their work means to them and, hence, how they approach their job.[23] The implications on workers are twofold. Workers who find that their job roles are connected with their personal values and purpose remain in the firm, and their performance improves due to a lower marginal cost of effort. Others who have limited opportunities to live their purpose in their current job, exit or make a lateral move to other positions with features that better allow them to put their purpose into action.

Acting in line with one's underlying preferences and goals, even once fully delineated and connected, often requires conscious, specific effort. One's own deeper sense of purpose may not always be top of mind. There are cognitive bandwidth limitations and attentional constraints (Mullainathan and Shafir, 2013; Simon, 1955), stress (Dean, Schilbach and Schofield, 2017), norms, and identity/career concerns (Cohn, Fehr, Herrmann and Schneider, 2014). Going through the purpose workshop and having to come up with a precise purpose statement makes one's individual purpose salient, putting it at the forefront of the mind when faced with choices and decisions.

Given the relevance of meaning at work to individual utility, this paper provides evidence on how greater meaning can be created and its impacts on worker performance and well-being.

[22] An intuitive way to envisage the workshop's mechanism can be the 'wooden vs metal chair' comparison in Castegnetti et al. (2021), where one would see the stark difference between the two chairs when prompted to consider their abilities to prevent hypothermia in a 'Cast Away' like scenario. In other words, the potential of a wooden chair to serve as a heat source does not appear out of a vacuum or perish based on one's thinking; the thought process helps to connect with this novel use.

[23] Drawing from a true anecdote shared by a manager in the firm, as a child, this person loved fireworks. After the workshop, he sees igniting the creativity in their team as akin to lighting fireworks and then putting on a show.

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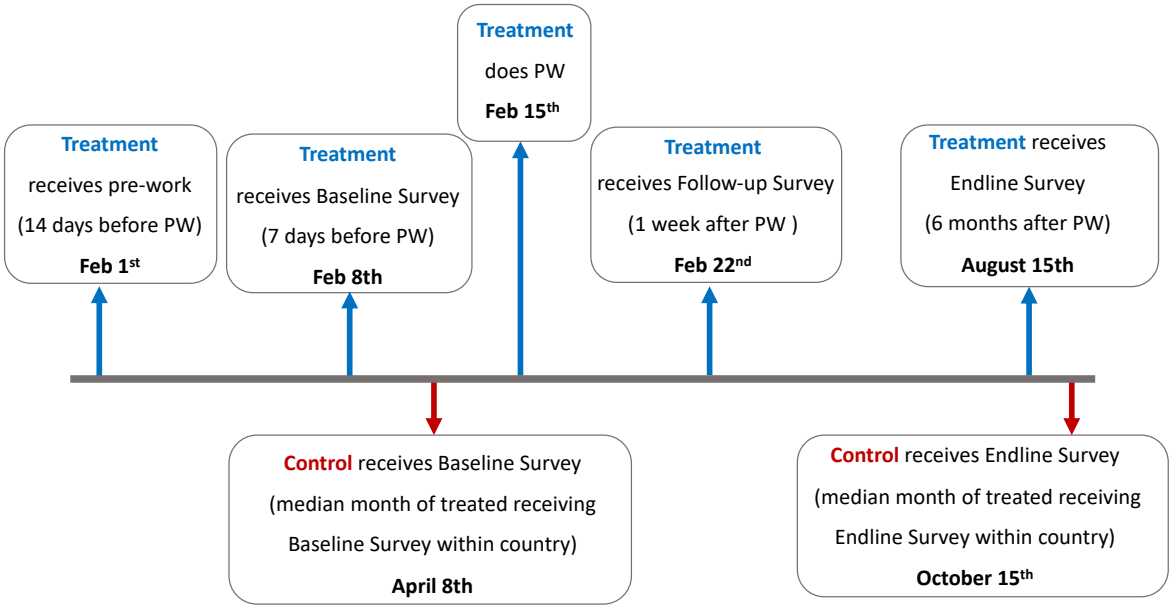
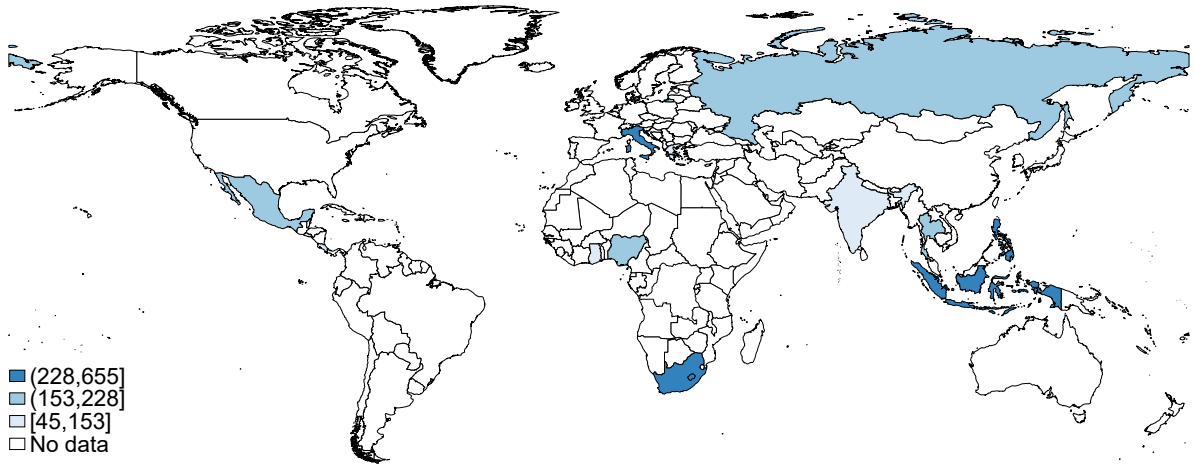
# 9 Figures



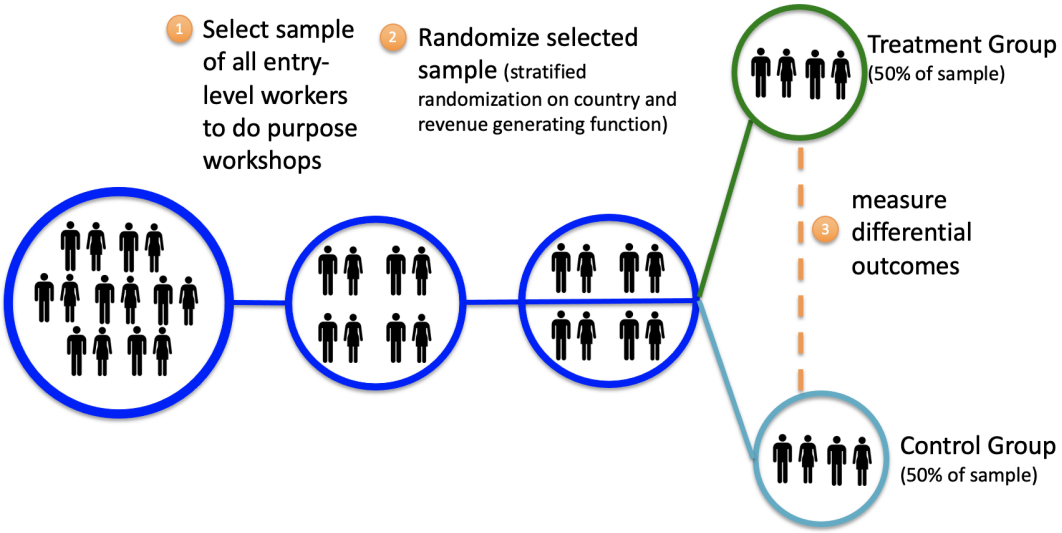

*Notes.* The median workshop date of the treatment group within each country is used to anchor the timing of the control group and non-compliers surveys.

**Figure I:** Timeline of the intervention




*Notes.* 14 countries participated in the RCT: Costa Rica, El Salvador, Ghana, Greece, India, Indonesia, Italy, Mexico, Nigeria, Philippines, Russia, Singapore, South Africa, and Thailand. The darker-colored countries are those with more workers in the experimental sample. For example, South Africa, the Philippines, and Indonesia have the most workers, while India and Ghana have the least workers.

**Figure II:** Sample: 3000 workers from 14 "virgin" countries

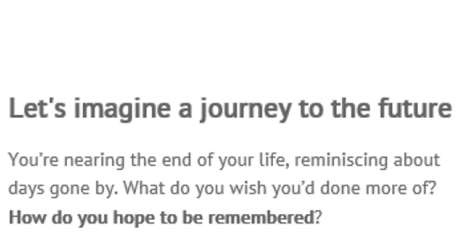



*Notes.* First, we select a sample of all entry-level workers to invite to sign up for the purpose workshops. Next, we randomize stratifying by country and revenue generating function, which indicates whether the worker operates in field sales. Finally, we randomly split 50-50 within each group into treatment and control groups.

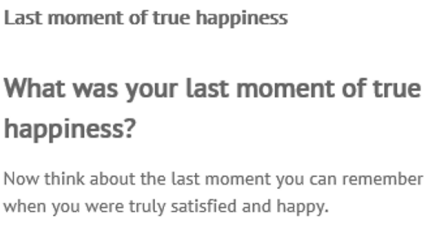
**Figure III:** Experimental design


**(a)** Inspirational readings


**(b)** Personal life experiences



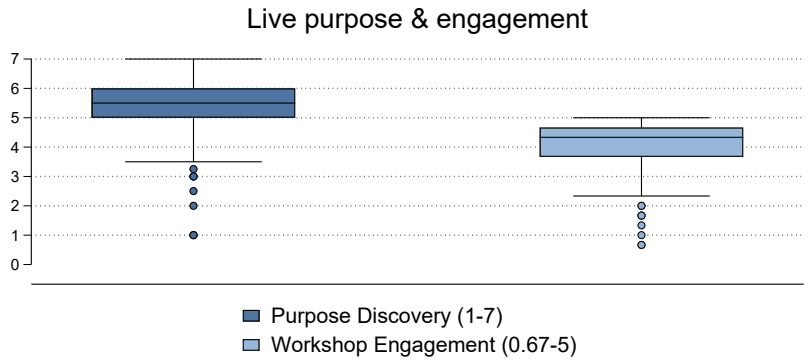

**(c)** Meet your 80 year old self




**(d)** Last moment of happiness

*Notes.* The workshop materials involve inspirational readings, videos, and self-reflection exercises.

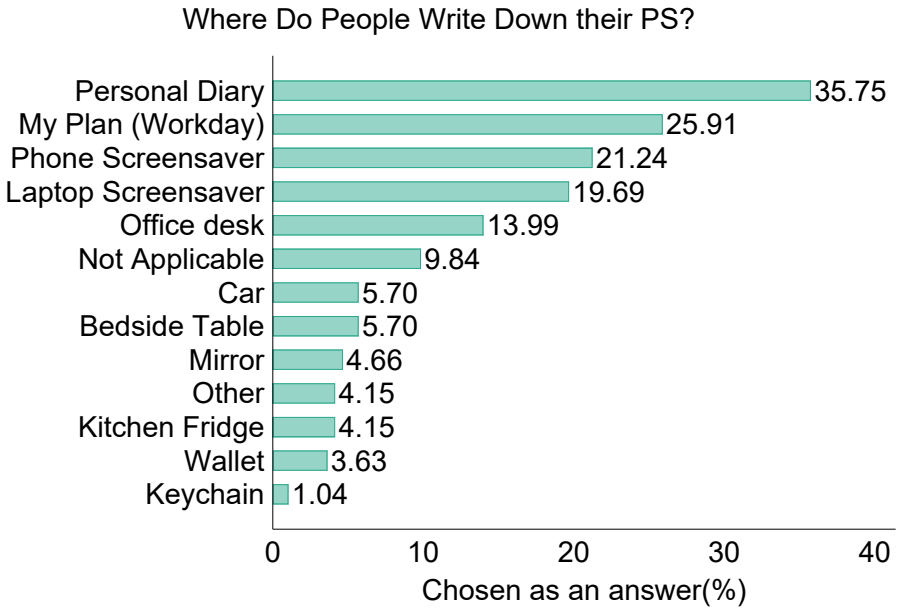
**Figure IV:** Purpose workshops: telling the stories that have shaped your life




**Purpose Discovery** questions:
*I managed to find a unifying purpose sentence or a group of words that inspired me. These words still resonate with me now.*
**Workshop Engagement** questions:
*Overall this workshop was a valuable investment of my time.* (1-7)
*I felt the facilitator was helpful engaging and prepared to run the session.* (1-7)
*Would you be interested in becoming a facilitator?* (0-1)

*Notes.* Box chart for the distribution of answers to the purpose discovery and workshop engagement questions. A score of 7 corresponds to "strongly agreeing" and a score of 1 corresponds to "strongly disagreeing". Dots are outliers. The upper and lower bound is the median plus 1.5 times the interquartile range. The box in the center contains the upper quartile, median, and lower quartile.

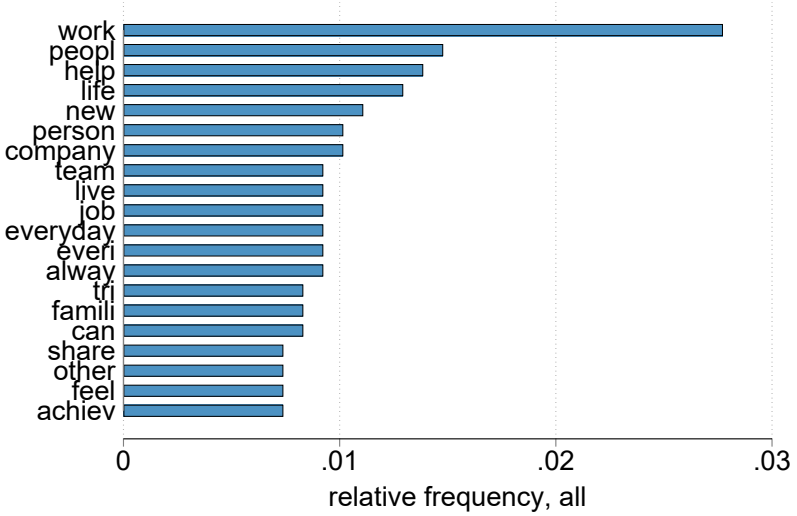
**Figure V:** Purpose workshops: what do participants say?




Based on responses to question: *Where did you write it down or where do you plan to write it down?*
More than 1 Answer Allowed.

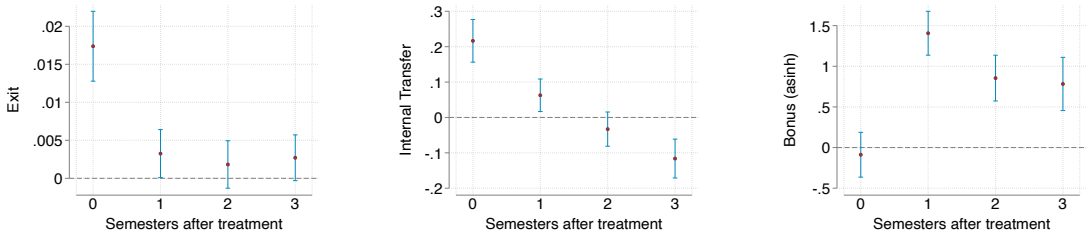
*Notes.* Average percentage share of where people write down their purpose statement at the individual level, multiple answers are allowed. For example, on average, 35.75% of employees who participated in the workshop wrote down their purpose statement in their personal diaries.

**Figure VI:** Purpose workshops: where do people write down their purpose statements?




*Notes.* We apply standard text-cleaning and parsing procedures, including removing numbers, symbols, punctuation, hyphens, symbols, url, and uppercases. We then utilize the "quanteda" package in R for quantitative textual analysis and remove stopwords in English. Next, we perform stemming on the words and remove "purpose", "workshop", "thing", "use", "statement" from the list. Finally, we replace "company" with "Unilever", generate word count, and rank the relative frequencies in descending order.

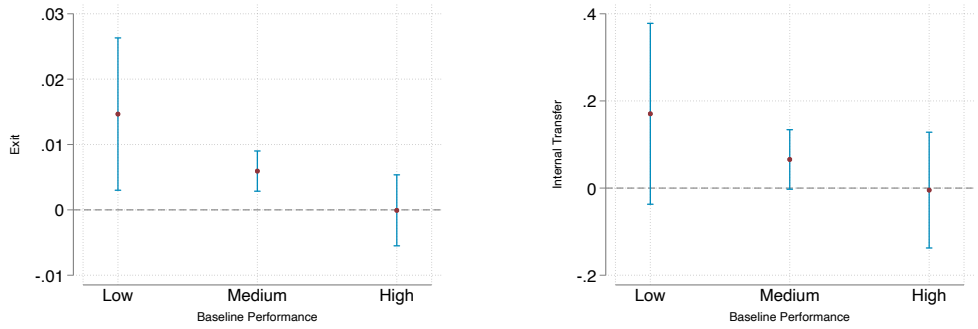
**Figure VII:** Purpose workshops: word frequencies of purpose use stories




**(a)** Exit **(b)** Internal Transfer **(c)** Bonus (asinh)

*Notes.* IV. Standard errors clustered on the employee level. *DidPW* interacted with months after treatment is instrumented with treatment invitation. All regressions include country FE and control for whether the workshop was held virtually and a time trend.

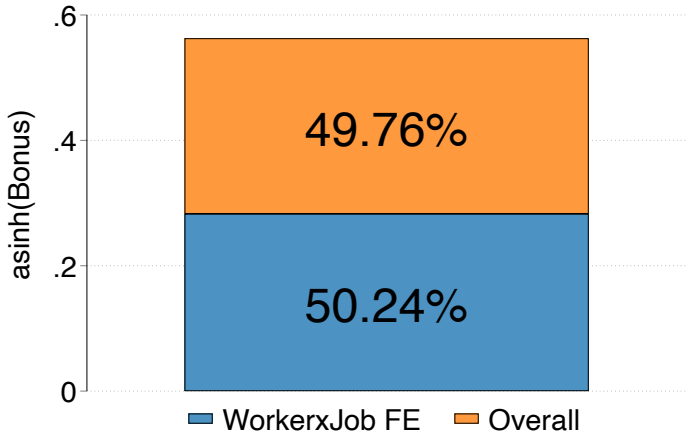
**Figure VIII:** Dynamics of the treatment effects




**(a)** Baseline performance: Exit **(b)** Baseline performance: Internal Transfer

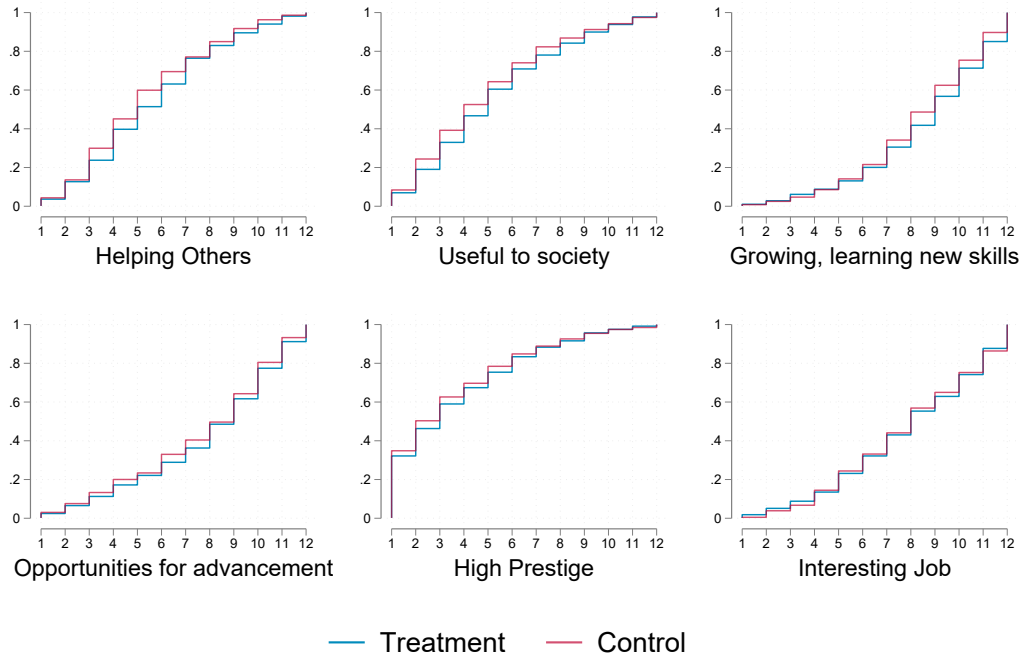
*Notes.* IV. Standard errors clustered on the employee level. *DidPW* interacted with performance score group is instrumented with treatment invitation interacted with performance score tertile. All regressions include country FE and control for whether the workshop was held virtually and a time trend.

**Figure IX:** Who exits of changes job? Heterogeneity by baseline performance

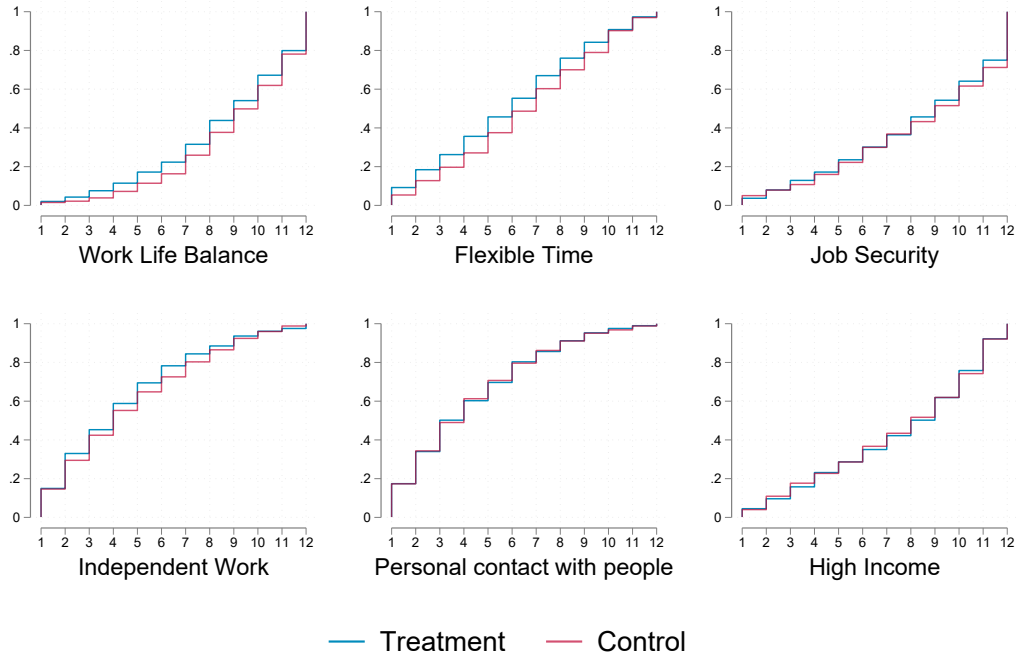



*Notes.* IV. Standard errors are clustered on the employee level. *DidPW* is instrumented with treatment invitation. The regression for the "overall" orange bar includes country FE and the regression for the blue bar includes worker*job FE. Both regressions include control for whether the workshop was held virtually and a time trend.

**Figure X:** Decomposition of bonus effect



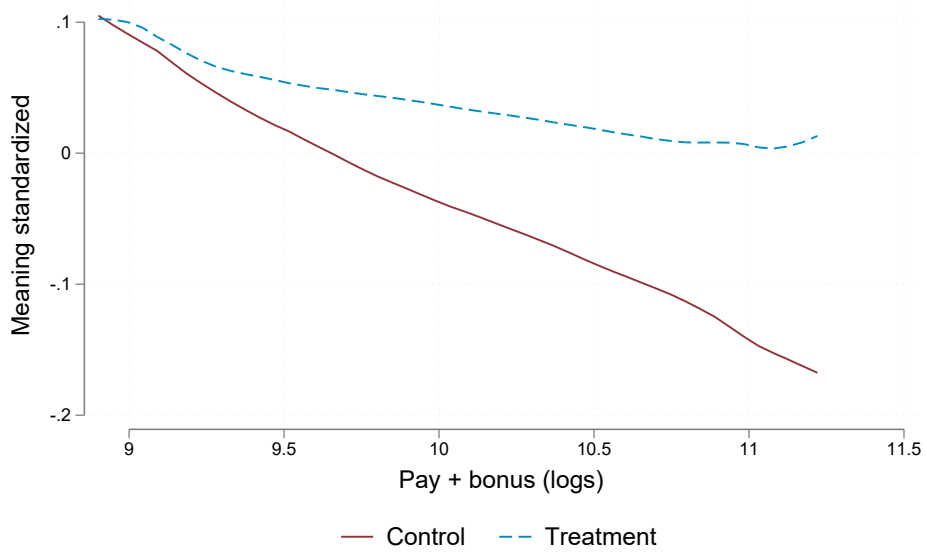

**(a)** Job priorities (I): society & growing and learning new skills




**(b)** Job priorities (II): work-life balance & job security

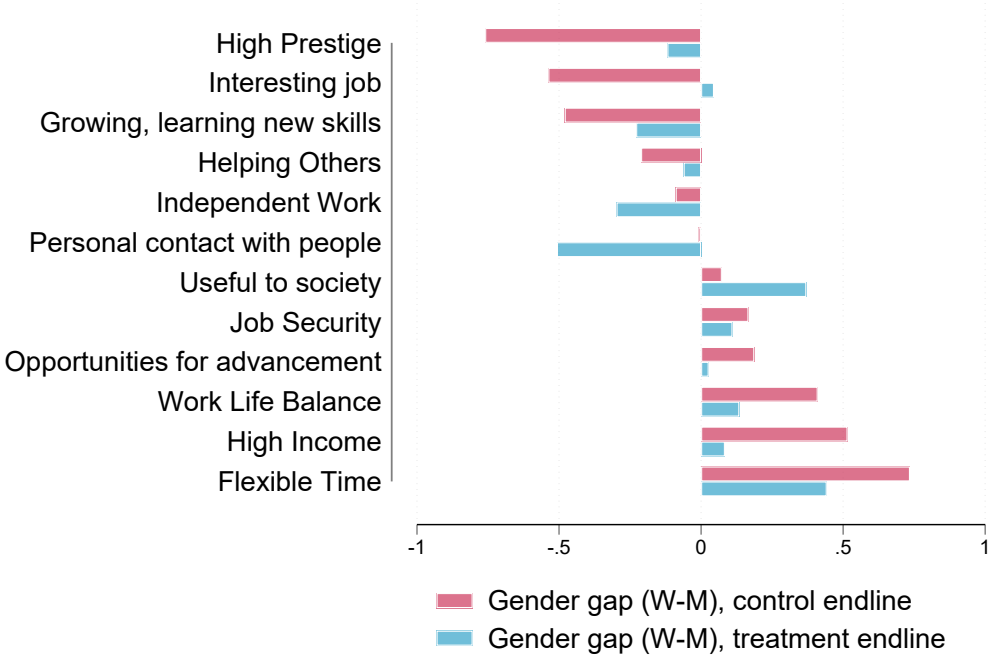
*Notes.* Cumulative distribution of ranking of the importance of 12 job priorities for the treatment and control group at the endline survey. The answers are reverse-coded so that rank 12 is the highest and rank 1 is the bottom.

**Figure XI:** Ranking of job priorities



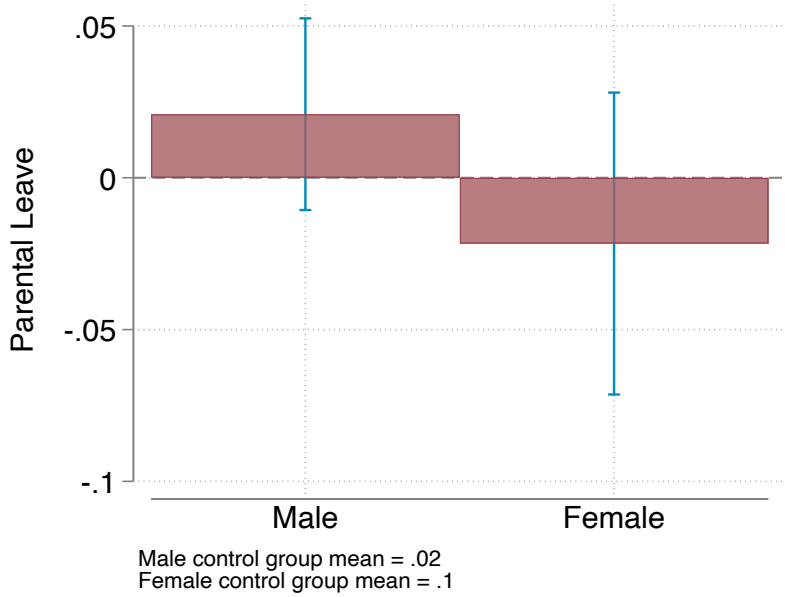

*Notes.* Local polynomial smooth plot for the trade-off between standardized meaning and contemporaneous income in logs. Kernel bandwidth is 0.5.

**Figure XII:** Pay and meaning



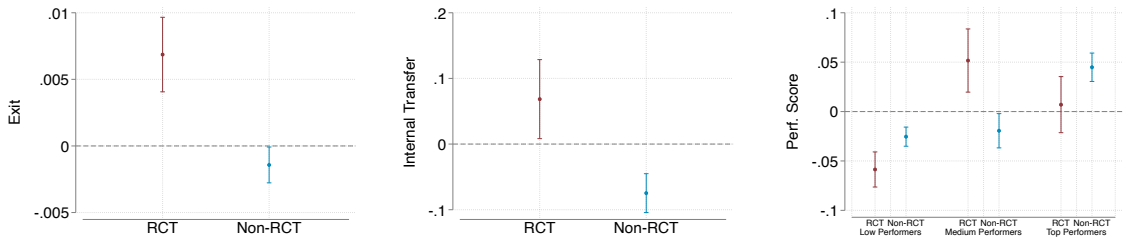

*Notes.* Gender gap in the average ranking of the job priorities sorted from low to high (more favored by men vs. more favored by women). For example, for the control group on average, women rank high prestige -0.76 lower than men and rank flexible time 0.74 higher than men.

**Figure XIII:** Gender gaps in job priorities




*Notes.* IV. Standard errors clustered on employee level. *DidPW* interacted with gender is instrumented with treatment invitation interacted with gender and country FE. All regressions include country FE and control for whether the workshop was held virtually and a time trend.

**Figure XIV:** Effects on parental leave, by gender




**(a)** Exit **(b)** Internal Transfer **(c)** Perf. Score

*Notes.* For the non-RCT sample, the bootstrap sample size is the same as the RCT sample size. Bootstrap repetition is 100 times with random seed 1532. OLS standard errors clustered on the employee level. All regressions include country FE and control for a time trend.
For RCT sample: IV. Standard errors clustered on the employee level. *DidPW* is instrumented with treatment invitation. All regressions include country FE and control for a time trend.

**Figure XV:** Workshop impacts: randomized into the workshop vs. own choice

# 10 Tables

**Table I:** Outcome variables

| *Variable* | *Source* |
|---|---|
| Performance score, pay | Global administrative data |
| Sales measures[24] | Local records from demand planning teams |
| Exit, lateral move, promotion | Global administrative data |
| Meaning, team collaboration, SWB | Our surveys |

*Notes.* This table summarizes the main data sources.

[24]Incentive payments, on shelf availability of products, number of cases sold, stock availability

**Table II:** Balance table

| Variable | (1) Control | (2) Treatment | (3) Difference |
|---|---|---|---|
| Female | 0.536 | 0.503 | -0.032* |
| | (0.499) | (0.500) | (0.018) |
| Tenure (years) | 7.320 | 7.584 | 0.304 |
| | (9.171) | (9.547) | (0.308) |
| Age | 35.406 | 35.823 | 0.418 |
| | (10.696) | (10.788) | (0.357) |
| Perf. Score | 97.324 | 98.175 | 0.889 |
| | (22.551) | (22.214) | (0.927) |
| Pay | 24,509.840 | 24,841.660 | 337.867 |
| | (13,071.404) | (13,072.136) | (319.170) |
| Bonus | 2,290.273 | 2,297.025 | 18.691 |
| | (2,171.437) | (2,218.692) | (57.370) |
| No. of Promotions | 0.812 | 0.870 | 0.055 |
| | (1.031) | (1.098) | (0.037) |
| No. of Job changes | 1.315 | 1.375 | 0.062 |
| | (1.476) | (1.477) | (0.052) |
| Team Share Treatment | 0.239 | 0.236 | -0.005 |
| | (0.248) | (0.246) | (0.008) |
| Function: Customer Development | 0.290 | 0.295 | 0.003 |
| | (0.454) | (0.456) | (0.016) |
| Function: Supply Chain | 0.376 | 0.365 | -0.009 |
| | (0.485) | (0.482) | (0.017) |
| Function: Finance | 0.092 | 0.113 | 0.019* |
| | (0.289) | (0.317) | (0.011) |
| Function: Research/Development | 0.074 | 0.058 | -0.016* |
| | (0.262) | (0.234) | (0.008) |
| Function: Marketing | 0.090 | 0.097 | 0.009 |
| | (0.286) | (0.297) | (0.010) |
| Function: Other | 0.078 | 0.071 | -0.006 |
| | (0.268) | (0.257) | (0.010) |
| Observations | 1,508 | 1,459 | 2,967 |

*Notes.* Showing mean and standard deviations (in parentheses). The difference in means is computed using robust standard errors and controlling for country fixed effects.

**Table III:** Balance table: compliers

| Variable | (1) Did not do PW | (2) Did PW | (3) Difference |
|---|---|---|---|
| Female | 0.436 | 0.537 | 0.105*** |
| | (0.496) | (0.499) | (0.029) |
| Tenure (years) | 8.794 | 6.970 | -1.889*** |
| | (10.195) | (9.145) | (0.522) |
| Age | 37.511 | 34.967 | -2.034*** |
| | (11.007) | (10.577) | (0.599) |
| Perf. Score | 95.578 | 99.538 | 3.165** |
| | (23.766) | (21.244) | (1.533) |
| Pay | 24,199.535 | 25,183.459 | 237.828 |
| | (12,667.279) | (13,277.416) | (517.967) |
| Bonus | 2,412.534 | 2,234.107 | 98.881 |
| | (2,221.344) | (2,216.021) | (88.457) |
| No. of Promotions | 0.963 | 0.823 | -0.192*** |
| | (1.171) | (1.057) | (0.065) |
| No. of Job changes | 1.505 | 1.309 | -0.152* |
| | (1.394) | (1.513) | (0.088) |
| Team Share Treatment | 0.288 | 0.209 | -0.026* |
| | (0.269) | (0.230) | (0.014) |
| Function: Customer Development | 0.279 | 0.303 | -0.005 |
| | (0.449) | (0.460) | (0.026) |
| Function: Supply Chain | 0.426 | 0.335 | -0.060** |
| | (0.495) | (0.472) | (0.027) |
| Function: Finance | 0.134 | 0.102 | -0.047** |
| | (0.341) | (0.303) | (0.019) |
| Function: Research/Development | 0.020 | 0.077 | 0.042*** |
| | (0.141) | (0.267) | (0.010) |
| Function: Marketing | 0.065 | 0.114 | 0.055*** |
| | (0.247) | (0.318) | (0.017) |
| Function: Other | 0.075 | 0.069 | 0.015 |
| | (0.264) | (0.254) | (0.015) |
| Observations | 491 | 968 | 1,459 |

*Notes.* Showing mean and standard deviations (in parentheses). The difference in means is computed using robust standard errors and controlling for country fixed effects.

## **Table IV:** Worker performance

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | **Panel A: Effort & Performance Score** | | | | |
| | Manager assessment of worker performance | | | | Self-assessed effort |
| | Perf. Score | Perf. Score $\geq$ 125 | 80 $\leq$ Perf. Score < 125 | Perf. Score < 80 | Extra Mile |
| Did PW | 3.863*** | 0.007 | 0.052*** | -0.059*** | 0.226*** |
| | (0.724) | (0.014) | (0.016) | (0.009) | (0.074) |
| Control mean | 101.149 | 0.116 | 0.820 | 0.063 | -0.087 |
| Control S.D. | 17.712 | 0.321 | 0.384 | 0.244 | |
| Number of obs. | 95318 | 95318 | 95318 | 95318 | 1264 |
| | **Panel B: Worker Bonus and Pay** | | | | |
| | (1) | (2) | (3) | (4) | (5) |
| | asinh(Bonus) | Bonus>0 | Bonus>p25 | Bonus>p50 | asinh(Pay) |
| Did PW | 0.565*** | 0.078*** | 0.075*** | 0.100*** | 0.044** |
| | (0.168) | (0.018) | (0.021) | (0.028) | (0.021) |
| Control mean | 6.829 | 0.780 | 0.739 | 0.466 | 10.706 |
| Control S.D. | 3.482 | 0.414 | 0.439 | 0.499 | 0.532 |
| Number of obs. | 115234 | 115234 | 115234 | 115234 | 115234 |

*Notes.* IV. Standard errors clustered on employee level. Did PW variables are instrumented with treatment invitation. All regressions include country FE and control for whether workshop was held virtually and a time trend.

## **Table V:** Sales performance

| | (1) ITT | (2) IV |
|---|---|---|
| Treated | 0.170** | |
| | (0.079) | |
| Did PW | | 0.300** |
| | | (0.117) |
| Adjusted R-squared | 0.040 | 0.038 |
| Control Mean | 0.052 | 0.052 |
| Number of obs. | 5464 | 5464 |
| Number of employees | 215 | 215 |

*Notes.* Standard errors clustered on employee level. Productivity is standardized within each country-product. Did PW is instrumented with treatment invitation. Regressions use monthly productivity data (2099 from 89 distinct employees), quarterly data (2563 from 105 distinct employees) and yearly data (802 from 44 distinct employees). All regressions include country FE and control for whether the workshop was held virtually.

**Table VI:** Worker exit and lateral moves

| | (1) | (2) | (3) |
|---|---|---|---|
| | Monthly exit | Moves within 2 yrs | |
| | Exit | Lateral move | Promotion to manager |
| Did PW | 0.007*** | 0.068** | 0.024 |
| | (0.001) | (0.031) | (0.027) |
| Control mean | 0.008 | 0.407 | 0.218 |
| Number of obs. | 115234 | 115234 | 115234 |

*Notes.* IV. Standard errors clustered on employee level. Did PW variables are instrumented with treatment invitation. All regressions include country FE and control for whether workshop was held virtually and a time trend.

**Table VII:** Meaning and happiness

| | (1) | (2) | (3) |
|---|---|---|---|
| | Meaning | Job satisfaction | Happiness |
| Did PW | 0.106** | 0.237*** | 0.143** |
| | (0.053) | (0.073) | (0.069) |
| Control mean | -0.049 | -0.035 | -0.064 |
| Number of obs. | 1264 | 1264 | 1264 |

*Notes.* IV. Standard errors clustered on employee level. Survey variables are standardized 0-1 using the baseline control mean and standard deviation. Did PW variables are instrumented with treatment invitation. All regressions include country FE and control for whether workshop was held virtually and a time trend.

**Table VIII:** Team collaboration and overlap with company

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | Team collab. | Rel. w. manager | Overlap with colleague | Overlap with company | Overlap with community |
| Did PW | 0.125* | 0.168** | 0.204*** | 0.252*** | 0.096 |
| | (0.073) | (0.074) | (0.075) | (0.072) | (0.079) |
| Control mean | 0.010 | -0.062 | 0.038 | 0.030 | -0.031 |
| Number of obs. | 1264 | 1264 | 1264 | 1264 | 1264 |

*Notes.* IV. Standard errors clustered on employee level. Survey variables are standardized 0-1 using the baseline control mean and standard deviation. Did PW variables are instrumented with treatment invitation. All regressions include country FE and control for whether workshop was held virtually and a time trend.

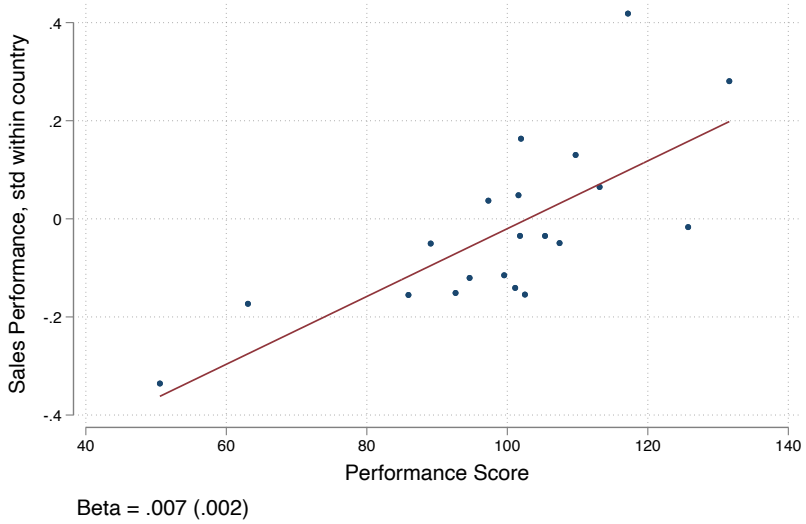
**Table IX:** Hourly rate comparison among consulting firms: 1 Partner/Associate Partner equivalent, 5 consultants equivalent

| **Consulting Company** | **Position/Category** | **Hourly Rate** |
|---|---|---|
| Ernst & Young | 1 Partner (522310)<br>5 Seniors (522310) | 1×$511.51<br>5×$223.62 |
| Deloitte Consulting | 1 HRC Advisory Executive III - (EPM)<br>5 HRT Operations Sr. Professional IV - (EPM) | 1×$413.66<br>5×$223.00 |
| KPMG | 1 Partner<br>5 Experienced Senior Consultant | 1×$382.73<br>5×$178.26 |
| McKinsey & Company | 1 Senior Partner - Executive/Strategy<br>5 Associate – Executive/ Strategy | 1×$1,147.66<br>5×$479.07 |
| **Average:** $1,993.83<br>**Average cost of one workshop participant:** $(\frac{\$1{,}993.83 * 8\ hours}{20\ workers}) = \$797.53$ | | |

*Notes.* We define the average workshop cost as the cost required to cover one worker. The purpose workshop lasts for 8 hours, and each workshop facilitator can cover 4 people simultaneously. The 1 Partner equivalent, 5 consultants equivalent team structure is based on a McKinsey proposal submitted to the New Jersey Office of Emergency Management in April 2020 (link). In particular, we build our estimation based on the first proposed team structure in section 4.0 PROFESSIONAL FEES, Exhibit 4.1. Note that we exclude the wider support team that is outlined as part of the proposed team structure in constructing the external cost estimates.

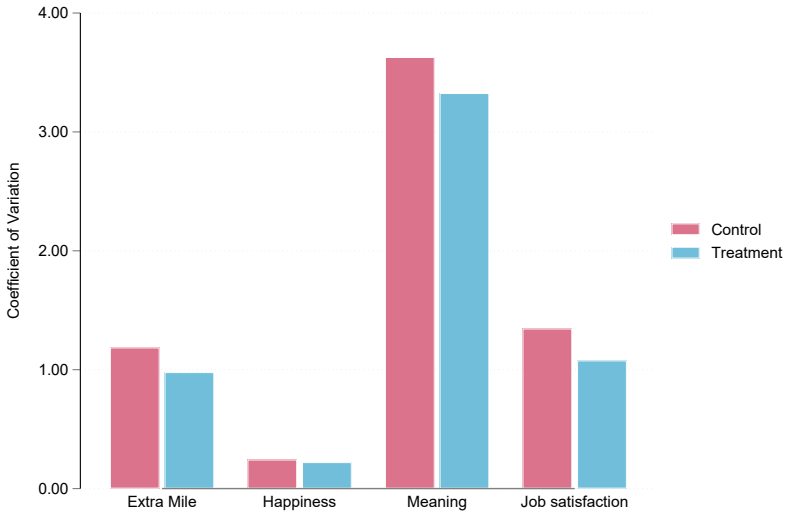
# A Appendix A: additional figures and tables

## A.1 Figures



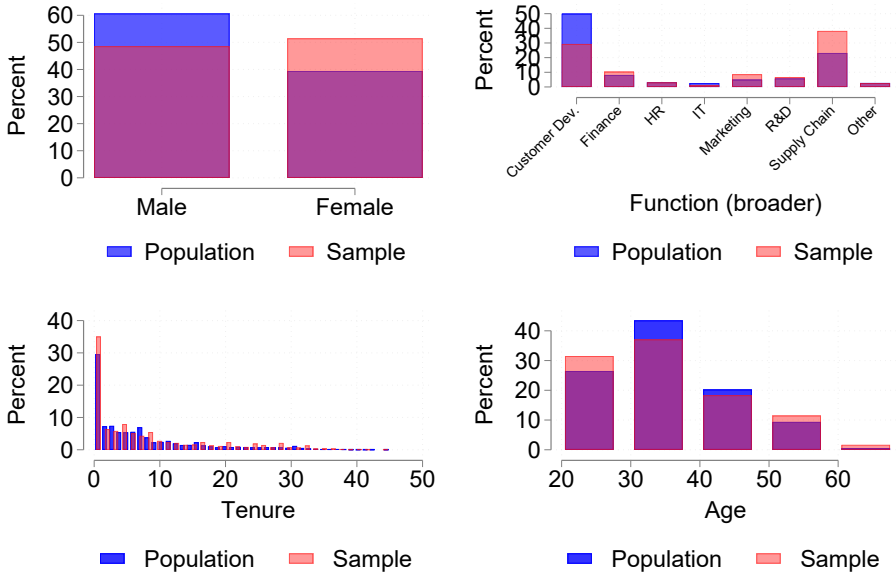

*Notes.* Standard errors clustered on the employee level. Regression includes country FE, product group FE, month and year FE.

**Figure A.1:** Sales bonus and performance score are very correlated




*Notes.* Coefficient of variation is calculated as the standard deviation divided by the mean of the survey questions at the endline, aggregated by treatment group. We didn't find systematic differences in survey outcomes between control and treatment groups.

**Figure A.2:** Coefficient of variation for survey questions: endline




*Notes.* Each graph displays the comparison between the distribution of the RCT sample and the non-RCT sample (population), across gender, functional group, tenure and age. The overlapping areas of sample vs. population in the box plot display a purple-like color.

**Figure A.3:** Sample characteristics

## A.2 Tables

**Table A.1:** Targeted invitation to workshop outside of the RCT

| | (1) Perf. Score $\geq$ 125 | (2) 80 $\leq$ Perf. Score < 125 | (3) Perf. Score < 80 |
|---|---|---|---|
| RCT sample compliers | -0.022 | 0.015 | 0.008 |
| | (0.021) | (0.025) | (0.016) |
| Number of obs. | 1762.000 | 1762.000 | 1762.000 |

*Note.* Sample restricted to compliers who do not exit the firm during the sample period. Standard errors clustered on employee level. The regression includes country FE. *RCT sample compliers* indicates whether the worker has done the workshop as part of the RCT or outside the RCT.

**Table A.2:** ITT: Work performance

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | **Panel A: Effort & Performance Score** | | | | |
| | Manager assessment of worker performance | | | | Self-assessed effort |
| | Perf. Score | Perf. Score $\geq$ 125 | 80 $\leq$ Perf. Score < 125 | Perf. Score < 80 | Extra Mile |
| Treated | 2.204*** | 0.004 | 0.029*** | -0.033*** | 0.164*** |
| | (0.410) | (0.008) | (0.009) | (0.005) | (0.053) |
| Control mean | 101.149 | 0.116 | 0.820 | 0.063 | 1.020 |
| Control S.D. | 17.712 | 0.321 | 0.384 | 0.244 | |
| Number of obs. | 95318 | 95318 | 95318 | 95318 | 1264 |
| | **Panel B: Worker Bonus and Pay** | | | | |
| | (1) | (2) | (3) | (4) | (5) |
| | asinh(Bonus) | Bonus>0 | Bonus>p25 | Bonus>p50 | asinh(Pay) |
| Treated | 0.291*** | 0.040*** | 0.038*** | 0.051*** | 0.023** |
| | (0.086) | (0.009) | (0.011) | (0.014) | (0.011) |
| Control mean | 6.829 | 0.780 | 0.739 | 0.466 | 10.706 |
| Control S.D. | 3.482 | 0.414 | 0.439 | 0.499 | 0.532 |
| Number of obs. | 115234 | 115234 | 115234 | 115234 | 115234 |

*Note.* ITT. Standard errors clustered on employee level. All regressions include country FE for whether workshop was held virtually and a time trend.

**Table A.3:** Promotion outcome: robustness by tenure

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Promotion to manager | | | |
| | Unrestricted sample | At least 2 years of tenure | At least 3 years of tenure | At least 5 years of tenure |
| Did PW | 0.025 | 0.037 | 0.047 | 0.040 |
| | (0.025) | (0.034) | (0.034) | (0.033) |
| Control mean | 0.218 | 0.226 | 0.194 | 0.157 |
| Number of obs. | 115234 | 77129 | 69700 | 59011 |

*Note.* IV. Standard errors clustered on employee level. Did PW variables are instrumented with treatment invitation. All regressions include country FE for whether workshop was held virtually and a time trend.

**Table A.4:** ITT: worker exit and lateral moves

| | (1) | (2) | (3) |
|---|---|---|---|
| | Monthly exit | Moves within 2 yrs | |
| | Exit | Lateral move | Promotion to manager |
| Treated | 0.004*** | 0.035** | 0.012 |
| | (0.001) | (0.016) | (0.014) |
| Control mean | 0.008 | 0.407 | 0.218 |
| Number of obs. | 115234 | 115234 | 115234 |

*Note.* ITT. Standard errors clustered on employee level. All regressions include country FE for whether workshop was held virtually and a time trend.

**Table A.5:** Meaning and happiness: controlling for pay

| | (1) Meaning | (2) Job satisfaction | (3) Happiness |
|---|---|---|---|
| Did PW | 0.101* | 0.233*** | 0.139** |
| | (0.052) | (0.073) | (0.069) |
| Pay + Bonus (log) | -0.171*** | -0.135 | -0.106 |
| | (0.061) | (0.087) | (0.076) |
| Control mean | -0.049 | -0.035 | -0.064 |
| Number of obs. | 1263 | 1263 | 1263 |

*Note.* IV. Standard errors clustered on employee level. Survey variables are standardized 0-1 using the baseline control mean and standardized deviation. Did PW variables are instrumented with treatment invitation. All regressions include country FE and control for whether workshop was held virtually.

**Table A.6:** Team collaboration and overlap with company: controlling for pay

| | (1) Team collab. | (2) Rel. w. manager | (3) Overlap with colleague | (4) Overlap with company | (5) Overlap with community |
|---|---|---|---|---|---|
| Did PW | 0.122* | 0.166** | 0.201*** | 0.249*** | 0.092 |
| | (0.073) | (0.074) | (0.075) | (0.073) | (0.079) |
| Pay + Bonus (log) | -0.113 | -0.011 | -0.123 | -0.037 | -0.222** |
| | (0.084) | (0.085) | (0.087) | (0.083) | (0.094) |
| Control mean | 0.010 | -0.062 | 0.038 | 0.030 | -0.031 |
| Number of obs. | 1263 | 1263 | 1263 | 1263 | 1263 |

*Note.* IV. Standard errors clustered on employee level. Survey variables are standardized 0-1 using the baseline control mean and standard deviation. Did PW variables are instrumented with treatment invitation. All regressions include country FE and control for whether workshop was held virtually.

**Table A.7:** ITT: meaning and happiness

| | (1) Meaning | (2) Job satisfaction | (3) Happiness |
|---|---|---|---|
| Treated | 0.077** | 0.172*** | 0.104** |
| | (0.038) | (0.053) | (0.051) |
| Control mean | -0.049 | -0.035 | -0.064 |
| Number of obs. | 1264 | 1264 | 1264 |

*Note.* Standard errors clustered on employee level. Survey variables are standardized 0-1 using the baseline control mean and standardized deviation. Did PW variables are instrumented with treatment invitation. All regressions include country FE and control for whether workshop was held virtually.

**Table A.8:** ITT: Team collaboration and overlap with company

| | (1) Team collab. | (2) Rel. w. manager | (3) Overlap with colleague | (4) Overlap with company | (5) Overlap with community |
|---|---|---|---|---|---|
| Treated | 0.091* | 0.122** | 0.148*** | 0.184*** | 0.070 |
| | (0.053) | (0.054) | (0.055) | (0.052) | (0.058) |
| Control mean | 0.010 | -0.062 | 0.038 | 0.030 | -0.031 |
| Number of obs. | 1264 | 1264 | 1264 | 1264 | 1264 |

*Note.* ITT. Standard errors clustered on employee level. Survey variables are standardized 0-1 using the baseline control mean and standard deviation. All regressions include country FE for whether workshop was held virtually.

**Table A.9:** Control group and treatment share: performance

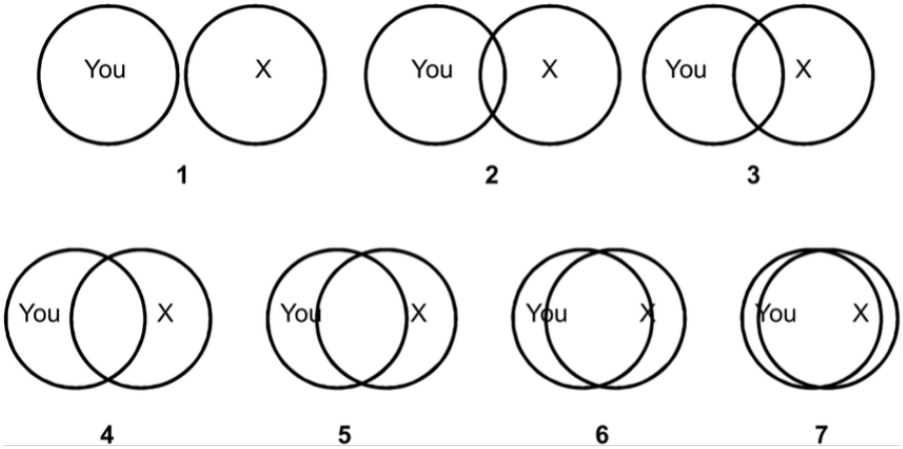
| | (1) Perf. Score | (2) Pay + Bonus (log) | (3) Pay (log) | (4) Prob. bonus >0 | (5) Bonus (log) | (6) asinh(Pay) |
|---|---|---|---|---|---|---|
| ShareTreatmentTime | 1.133 | 0.007 | -0.018 | -0.040* | -0.005 | 0.033 |
| | (1.301) | (0.222) | (0.021) | (0.023) | (0.031) | (0.025) |
| Baseline mean | 101.210 | 6.828 | 0.780 | 0.738 | 0.466 | 10.706 |
| Number of obs. | 47600 | 58549 | 58549 | 58549 | 58549 | 58549 |

*Note.* Standard errors clustered at employee level. Sample restricted to control group. All regressions include country FE.

# B Appendix B: field implementation

## B.1 Variable lists

*Overlap in interests with colleagues, company, and community*. Based on the "Adapted Inclusion of Others in Self (IOS) scale" (Aron, McLaughlin-Volpe, Mashek, Lewandowski, Wright and Aron, 2004), which measures the extent to which individuals perceive community- and self-interest as overlapping. IOS has been validated across a wide variety of contexts, and adapted versions are found to be strongly correlated with environmental behavior (Schultz, 2002) and connectedness to the community (Mashek, Cannaday and Tangney, 2007). We code the measure from 1 to 7, where 7 implies highest overlap. Workers are asked to choose between sets of pictures, each showing two circles (labeled "self" and "community") with varying degrees of overlap, from non-overlapping to almost completely overlapping.




*Notes.* The term "x" indicates colleagues, company, and community, respectively.

| *Variable* | *Components* | *Details* | *Possible answers* |
|---|---|---|---|
| **Panel A: Feedback from Purpose Workshops** | | | |
| Workshop expectations | I have high expectations about the workshop and I believe it will be a valuable experience. | Index formed by adding together responses. | 1 Strongly disagree - 7 Strongly agree |
| | The workshop will probably be a waste of time. | Reverse coded. | 1 Strongly disagree - 7 Strongly agree |
| Workshop engagement | Overall this workshop was a valuable investment of my time. | Index formed by adding together responses. | 1 Strongly disagree - 7 Strongly agree |
| | I felt the facilitator was helpful, engaging and prepared to run the session. | | 1 Strongly disagree - 7 Strongly agree |
| | Would you be interested in becoming a facilitator? | | 0 No - 1 Yes |
| Purpose discovery | I managed to find a unifying purpose sentence or a group of words that inspired me. | Index formed by adding together responses. | 1 Strongly disagree - 7 Strongly agree |
| | These words still resonate with me now. | | 1 Strongly disagree - 7 Strongly agree |
| Purpose use | Have you written your purpose down so that you could see it frequently? | Index formed by adding together responses. | 0 No - 1 Yes or not yet |
| | Have you shared your purpose with members of your family and/or friends? | | 0 No - 1 Yes or not yet |
| | Have you shared your purpose with members of your team at $< company >$ ? | | 0 No - 1 Yes or not yet |
| | Have you shared your purpose with your line manager? | | 0 No - 1 Yes or not yet |
| Alignment with job | I feel I am currently living my purpose in my everyday job. | | 1 Strongly disagree - 7 Strongly agree |
| Alignment with company | I feel I can live my purpose at $< company >$. | | 1 Strongly disagree - 7 Strongly agree |
| **Panel B: Motivation, job satisfaction and SWB** | | | |
| Meaningful work index | The work I do on this job is very important to me. | Index formed by adding together responses. | 1 Strongly disagree - 7 Strongly agree |
| | My job activities are personally meaningful to me. | From Psychological Meaningfulness Scale (PMS) (May et al., 2004). | 1 Strongly disagree - 7 Strongly agree |
| | The work I do on this job is worthwhile. | | 1 Strongly disagree - 7 Strongly agree |
| | My job activities are significant to me. | | 1 Strongly disagree - 7 Strongly agree |
| | The work I do on this job is meaningful to me. | | 1 Strongly disagree - 7 Strongly agree |
| | I feel that the work I do on my job is valuable. | | 1 Strongly disagree - 7 Strongly agree |
| Meaning at work | Currently, how often do you spend time working towards the things that matter to you at work? | | 1% of my time - 99% of my time (7 point) |
| Meaning outside of work | Currently, how often do you spend time working towards the things that matter to you in your personal life? | | 1% of my time - 99% of my time (7 point) |
| Perceives colleagues' interests and self-interest as overlapping | | Adaptation of Inclusion of Other in the Self scale (Aron et al., 1992). | 1 No overlap - 7 Highest overlap |
| Perceives company interests and self-interest as overlapping | | Adaptation of Inclusion of Other in the Self scale (Aron et al., 1992). | 1 No overlap - 7 Highest overlap |
| Perceives community interests and self-interest as overlapping | | Adaptation of Inclusion of Other in the Self scale (Aron et al., 1992). | 1 No overlap - 7 Highest overlap |
| Meaning and impact at work | My work has special meaning: this is not just a job. | Index formed by adding together responses. | 1 Strongly disagree - 7 Strongly agree |
| | When I look at what we accomplish, I feel a sense of pride. | From Great Places to Work Survey used in Gartenberg et al. (2019) | 1 Strongly disagree - 7 Strongly agree |
| | I feel good about the ways we contribute to the community. | | 1 Strongly disagree - 7 Strongly agree |
| | I'm proud to tell others I work here. | | 1 Strongly disagree - 7 Strongly agree |
| Intrinsic Motivation | I feel confident that I can do things well on my job. | Index formed by adding together responses. | 1 Strongly disagree - 7 Strongly agree |
| | I feel my choices on my job express who I really am. | Subset of questions from the BPNSF Scale | 1 Strongly disagree - 7 Strongly agree |
| | At work, I feel close and connected with other people who are important to me. | (Chen et al. (2015); Schultz et al. (2015)). | 1 Strongly disagree - 7 Strongly agree |
| | I feel insecure about my abilities on my job. | Reverse coded. | 1 Strongly disagree - 7 Strongly agree |
| | I feel the relationships I have at work are just superficial. | Reverse coded. | 1 Strongly disagree - 7 Strongly agree |
| | My daily activities at work feel like a chain of obligations. | Reverse coded. | 1 Strongly disagree - 7 Strongly agree |
| Team collaboration | I have been able to collaborate effectively with the members of the teams I am part of. | | 1 Strongly disagree - 7 Strongly agree |
| Relationship with manager | I have been able to be open with my line manager about my goals and priorities. | | 1 Strongly disagree - 7 Strongly agree |
| Commitment at work | I am inspired to go the extra mile in my job. | | 1 Strongly disagree - 7 Strongly agree |
| Job satisfaction | Overall, I am satisfied with my job. | Index formed by adding together responses. | 1 Strongly disagree - 7 Strongly agree |
| | I am inspired to go the extra mile in my job. | | 1 Strongly disagree - 7 Strongly agree |
| | I have been able to be open with my line manager about my goals and priorities. | | 1 Strongly disagree - 7 Strongly agree |
| | I have been able to collaborate effectively with the members of the teams I am part of. | | 1 Strongly disagree - 7 Strongly agree |
| Satisfaction with life scale | In most ways my life is close to my ideal. | Index formed by adding together responses. | 1 Strongly disagree - 7 Strongly agree |
| | The conditions of my life are excellent. | From the SWL (Diener et al., 1985). | 1 Strongly disagree - 7 Strongly agree |
| | I am satisfied with my life. | | 1 Strongly disagree - 7 Strongly agree |
| | So far I have got the important things I want in life. | | 1 Strongly disagree - 7 Strongly agree |
| | If I could live my life over, I would change almost nothing. | | 1 Strongly disagree - 7 Strongly agree |
| Life Satisfaction | All things considered, how satisfied are you with your life as a whole these days? | World Values Survey. | 1 Completely Dissatisfied - 7 Completely Satisfied |
| Subjective Happiness Scale | Compared to your peers, how would you describe your overall level of happiness and peace of mind? | Question adapted from SHS (Lyubomirsky and Lepper, 1999). | 1 Very Unhappy or Discontent - 7 Very Happy and Content |

**Table B.1:** Variable construction: survey measures