Smart-working: Work Flexibility Without Constraints *

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April 2022

Abstract

Does removing the constraints of time and place of work increase the utility of workers and firms? We design a randomized experiment on a sample of workers in a large Italian company: workers are randomly divided into a treated group that engages in flexible space and time job (which we call "smart-working") one day per week for 9 months and a control group that continues to work traditionally. By comparing workers in the treated and control group, we find causal evidence that the flexibility of smart-working increases the productivity of workers. We estimate a decrease of days of leave by 0.2 standard deviation on average per month and a significant increase of monthly productivity equal to 0.22 standard deviations in specific months. We also find a sizeable improvement of well-being (satisfaction with life in general increases by 0.29 standard deviations) and work-life balance and we observe that also men increase the time dedicated to household and care activities.

JEL codes: J16, J22, J24, L2, M54

Keywords: Smart-work, wellbeing, work-life balance, productivity.

^{*}Corresponding author: paola.profeta@unibocconi.it. We thank Vittoria Dicandia, Annarita Macchioni and Giovanna Mazzeo Ortolani for research asbsistance. We are grateful to Massimo Anelli, Nicoletta Balbo, Francesco Billari, Marco Bonetti, Marina Brollo, Heejung Chung, Marilisa D'Amico, Daniela Del Boca, Giovanni Fattore, Vincenzo Galasso, Nicola Gennaioli, Giulia Giupponi, Anne-Marie Jeannet, Marco Manacorda, Monica Parrella, Joanna Rickne and Almudena Sevilla for their suggestions. We also thank participants of ELENA, AisP, Alp-Pop, EGEN-Stockholm conferences, the workhoop on gender and economics at the University of Luxembourg, seminars at Bocconi University, Dondena, Discont, University of Bologna, Ca' Foscari University of Venice, UCL Quantitative Social Science, Erasmus University-Tinbergen Institute. Part of the data was collected under the ELENA project of Italy's Department for Equal Opportunities and the Dondena Center of Bocconi University, financed by the Rights, Equality and Citizenship (REC) Programme of the European Union- JUST/2014/RGEN/AG/GEND/7803. This study is registered in the AEA RCT Registry and the unique identifying number is AEARCTR-0002979. All errors are ours.

1 Introduction

The outbreak of the 2019 novel coronavirus is threatening the growth of the economy worldwide. To contain the spread of the coronavirus and curb the contagion, workers have been allowed to work outside their workplace, thanks to the use of technology. The coronavirus induced home-office as the only way to continue working during the pandemic and avoid the collapse of the economy. Working from home is part of the more complex and general process of work flexibility. A new organizational model of work, which we call "smart-working", has been introduced as a prominent modern work practice: workers can work outside their workplace and with a flexible time schedule. Smart-working is a fully flexible work arrangement, with the capacity to adapt quickly and intelligently to different situations. Smart workers agree with their supervisors to perform their work activities for a defined period of the working week outside of the company's physical workplace (at home or in another place) and according to a personalized time schedule. During this period, there are no specific constraints on the time or location of work. Thanks to the use of technology, smartworkers may perform the same duties and activities as those of ordinary workers and achieve the same set targets and results while choosing a workplace and time schedule that are more convenient for both the activity to be performed and their personal needs. Time and space flexibility creates a new work organization, which is based upon results rather than workplace presence and work during particular hours.

Despite the massive interest in recent months, related to the spread of working from home in times of pandemic, we still know very little about the economic effects of smart-working in normal times. The available evidence, which consists only of case studies, management surveys on specific samples of workers and ex post descriptive analyses, does not allow us to appropriately identify the economic effects of smart-working. This paper fills this research gap and provides causal evidence that smart-working is economically desirable.¹

We design a randomized experiment to study the causal effects of the introduction of smart-working in a large traditional company in the multi-utility sector in Italy. The company has never used this

¹A growing number of papers is studying how the pandemic is affecting jobs, by studying how many workers are working from home (Brynjolfsson et al., 2020) and which jobs are done or can be done from home in different countries (Dingel and Neiman (2020); Hensvik et al. (2020); Boeri et al. (2020)). Their scope is to describe the changes in work arrangements produced by the pandemic, rather than to assess their causal impact on outcomes. Interesting insights on the changes in the nature of work are found by DeFilippis et al. (2020).

approach before. Following the methodology of randomized control trials (RCTs), we select a sample of 310 workers (containing both white- and blue-collar workers) and randomly divide it into two groups; the workers in the first group (the treated group) have the option to work "smart" (i.e., with no constraints on the place or time) one day per week for 9 months in agreement with their supervisors, while the workers in the second group (the control group) continue to work traditionally. We are interested in three major outcomes: productivity, well-being and work-life balance. We use objective measures of workers' performance calculated monthly by the firm (e.g., the number of dossiers processed during the month) and the number of days of leave of each worker. We complement this information with questionnaires administered to each worker and to his/her supervisor both before and after the treatment. The questions posed in the questionnaires capture several dimensions of self-assessed productivity, well-being and work-life balance. Given the randomization of the two groups, we are able to identify the causal effect of the treatment on our outcomes of interest.

Our results show that, for the same number of hours of work, workers involved in smart-working increase their productivity compared to that of workers who continue working traditionally; this outcome is true whether productivity is captured by an objective measure or if it is measured according to several specific productivity traits (e.g., the compliance with deadline) reported by the same worker or by the supervisor. The effects are sizeable: we estimate a decrease of days of leave by 0.2 standard deviation on average per month, a significant increase of monthly productivity in month seventh and eight which corresponds to about 0.22 standard deviations and an increase in meeting deadlines which corresponds to 0.4 standard deviations when self-reported and to 0.57 when reported by the supervisor. Smart-workers are also more satisfied with their social life, free time and life in general (the increase of satisfaction in the different dimensions corresponds to a range between 0.29 and 0.46 standard deviations). They claim to be more able to focus, make decisions, appreciate their daily activities, overcome problems and experience reduced stress and loss of sleep. Interestingly, when we consider work-life balance, we find that, against the stereotype that men use flexibility for performance purposes and women for work-family balance, men also increase the time engaged in household and care activities. Further analysis show that commuting time plays a limited or zero role, thus suggesting that smart-working differs from telecommuting.

Our results suggest that promoting smart-working is an effective way to increase productivity and

improve well-being and work-life balance. Moreover, we provide evidence that smart-working does not have heterogeneous effects by gender.

The high flexibility of smart-working (flexible time schedules, flexible places of work and flexible periods of flexible work to be used during the workweek) makes it a very appealing option for both employers and employees of a large category of jobs. Our results based on one day per week of smart-working (the standard use in normal times) are not directly comparable with the Coronavirus emergency which induced working from home for entire weeks, rarely with flexible time schedules. However they will be useful for the post-Covid, as the experience of working at distance is stimulating an increase of work flexible organizations for part of the workweek.

Work flexibility is not a new concept. Before Covid-19, the traditional practice of working from home under the same wage conditions and under the strict control of the employer, which is known as telecommuting, was used by approximately 17% of workers in Europe (Eurofound, 2017) and 13% of workers in the US (Frazis, 2020). During the pandemic, in July 2020, about 50% of workers in Europe report that they work from home at least part of the time and a third of them exclusively (Eurofound, 2020). Telecommuting is only one way and one dimension of work flexibility, which is mainly based on replacing the workplace with the home, but maintaining the rigid control of the employer on the location of the work and the precise hours. Telecommuting is compatible with a limited number of jobs, mainly routine jobs. New and more complex forms of flexibility have begun to spread, including flexible location and flexible work times, which are highly appreciated by workers. According to the Sixth European Survey on Working Conditions carried out by the European Foundation for the Improvement of Living and Working Conditions (Eurofound, 2017), workers appreciate having control and freedom over where and when to work, i.e., the possibility of working without the control of the employer at a place that is different from both the office and home, as well as a flexible time schedule. More than 20% of the workers (men and women) interviewed by the survey reported that their working hours do not fit with their family and social commitments. While working from home does not change this perception in a statistically significant way, having some freedom to set one's start and finish times and arrange breaks during the working day increases the perception that one's working hours fit in with their family and social commitments by approximately 20%²

After decades of experience with telecommuting, there is a growing consensus among major international organizations (OECD, 2016), that an effective improvement of work-life balance and productivity, which are the two major goals of work organizations, passes through more complex and different flexible work arrangements, based on the removal of the constraints on the location and scheduling of work.

Flexible work arrangements are introduced through individual or collective bargaining, which, in several countries, are regulated by laws (Hegewisch et al., 2009). In 2017, Law 81 introduced in Italy an appropriate regulatory framework for the implementation of smart-working, defined as a "new method of forming a subordinated employment relationship without precise constraints on time or location of work and with the use of technological tools in the workers' duties and activities". As smart-working was not regulated before in a structural way, Law 81 provides an important framework for the success of its implementation. Italy provides an interesting context for our analysis: while the country is characterized by a general low flexibility in work organization, firms started to show some level of interest in smart-working as early as ten years ago, well before Law 81, although this approach was limited to very small groups of workers (typically, fewer than ten).

Smart-working is associated with a trade-off. On the one hand, there are potential gains from the flexible work locations and hours, which go beyond those associated with telecommuting. By working from home, telecommuting allows workers to reduce their commuting costs and firms to optimize their costs. The reduction in costs is higher with smart-working than telecommuting, since the latter one requires inspections and a constant monitoring of the workers at distance.³ Moreover, home is only one possible alternative to the office, and not necessarily the more convenient alternative; the conflict between work and family may even become more visible when employees work from home for caring purposes. It may also be the case that, for the same reduction of commuting time,

²A report by Gallup (Gallup, 2017) based on interviews with more than 5,600 US employees confirms that the flexibility of hours is of growing importance and suggests that one's home is only one possible alternative to the workplace. Approximately 37% of the surveyed employees declared they would change their job for benefits related to a flexible working location (for part of their working week), and more than half of office workers (54%) said that they would leave their job for one that offers flexible work time (Gallup, 2017). Among the millennials, these reported percentages increased to 50% and 63%, respectively.

³Firms may reduce lighting costs, summer and winter climatization costs, corporate canteen costs, cleaning costs, etc. In some cases, the place of work itself becomes "smart" as offices become flexible spaces where workers perform part of their activities and have free access to all technologies; such spaces often have novel physical layouts, including mindfulness zones and areas for team-working and communicating. The extreme case is the "no fixed desk" office.

the double gain of improving work-life balance and increasing productivity may be better obtained when workers work at a library, at a park, at a difference place close to their residence, or at a location that may change without the control of the employer, instead of home, where their family duties may interfere with their job activity. Moreover, removing the fixed daily start and finish times gives employees the possibility of better managing their time according to their preferences; they can enjoy long or short breaks for personal or family reasons, and they can adapt their work hours to life changes without altering their compensation. This increases their satisfaction and work-life balance, which ultimately makes this arrangement desirable to workers. In parallel, firms may optimize by rewarding these employees based on effective productivity rather than on the particular hours worked. Firms may also gain from the retention of talent and the reduction of days of absence, thus increasing their competitiveness. Additionally, time flexibility in the labor market for all workers (men and women) contributes to reducing the rewards of long hours, work at particular hours and inflexible schedules, which are considered a major driver of gender pay gaps (Bertrand, 2018) and may thus represent a step towards the "last chapter of the grand gender convergence" (Goldin, 2014).

On the other hand, smart-working raises concerns about the organizational process, the productivity of workers and their well-being. Some of these concerns are shared with the telecommuting experience; for example, working outside the workplace may reduce the commitment of workers, who can then take advantage of the flexibility to take part in activities different from work. Moreover, by reducing interactions among workers and between workers and supervisors, there is a risk of isolation and of reduction in productivity, particularly in jobs with high interactions. Costs of coordinating members of teams who are no longer co-located may also be substantial. Finally, blurring the boundaries between work and home may increase the hours of overtime, the levels of employee stress and worsen work-life balance. These concerns are even stronger in the case of smart-working, when the location of work can be changed by the employee without the control of the employer. Moreover, the lack of rigid daily start and finish times can amplify the reduction of workers' commitment, reduce their regular activity (in absence of strict rules on time) and increase the risk of overworking.

How the introduction of smart-work addresses this trade-off is an open question that we address empirically. Our results are consistent with the idea that smart-working represents the removal of a constraint that is desirable for employees and useful for employers. In the presence of rigid work hours, when workers choose their amount of work hours, they face an implicit constraint on the hours of the day that can be dedicated to the work activity. This constraint may be binding for those workers who gain utility from taking a break to adapt to their personal and family needs; such workers have to choose whether to work part-time and hence decrease their wages, to not meet their needs or to be absent from work. Any option is costly. The removal of the time constraint increases the utility of these workers such that they can still work full-time and accommodate their needs by choosing a personalized time schedule. Their increased satisfaction and better time management may also increase their productivity during working hours. To the extent that employers value the output of the workers rather than the work at specific hours, smart-working represents a net gain. The paper is organized as follows. The next section presents a literature review, section three describes the experiment, section four presents the data, section five describes the empirical strategy, section six shows the results, section seven discusses the results, section eight presents additional analyses and and section nine concludes. A set of appendixes complements the analysis of the main text.

2 Literature Review

Previous research has studied how flexible work affects productivity, well-being and work-life balance. Productivity is the central dimensions in studies on different management practices (see literature reviews in Walker (1887), Leibenstein (1966), Syverson (2011), Gibbons and Henderson (2013), and Bloom and Sousa-Poza (2013)). Only few of them have performed randomized experiments that can identify the causal effects of managerial procedures on productivity. These papers mainly consider routine jobs in white collar occupations and they analyze the emergence of negative spillover effects for employees working in a team. More precisely, Dutcher (2012) performs lab-based experiments exploring routine and non-routine tasks with and without remote monitoring, and observes that the more routine ones are negatively affected by mimicking a home-based environment. The author conjectures that the effect depends on the lack of peer and manager effects, which have been shown to be important in low-level tasks in field environments by Falk and Ichino (2006), Bandiera et al. (2005), and Mas and Moretti (2009). Other papers use natural experiments in specific contexts to exploit the impact of work flexibility on productivity and the emergence of spillover effects: Choudhury et al. (2021) uses a natural experiment in the US States Patent and Trademark Office to show that a work-from-anywhere policy improved productivity. However, even in this case, negative spillover effects emerge on workers' absenteeism among those who remained in the office (Linos, 2018). Emanuel and Harrington (2020) study natural experiments in call-centers and find that the positive treatment effect of remote work is offset by adverse selection into remote jobs. Negative spillover effects are also identified by Battiston et al. (2017) in the context of emergency phone operators.⁴

An important contribution in this literature is Bloom et al. (2014), which considers the impact of working from home on productivity and sastisfaction of workers. The paper performs a randomized experiment on a sample of call center employees of a large Chinese travel agency, randomly assigned to two groups: telecommuters and office workers. The researchers find that telecommuters have higher productivity than do the other workers and have higher work satisfaction. After the experiment, when workers were allowed to choose whether to work at home or in the office, selection effects almost doubled the gains in performance. This paper considers a specific work environment, namely, call centers, where all workers perform similar and routine-based tasks. In this context, as observed by Mas and Pallais (2017), the majority of workers do not value scheduling flexibility, while many of them, especially women with young children, value working from home.⁵ However, as suggested by Dutcher (2012), work flexibility may affect the performance of routine and non-routine tasks differently. Non-routine jobs may take full advantage of flexibility, as they require a higher individual concentration than do routine tasks and are less exposed to isolation risks. Moreover, as we have already emphasized, current flexible work arrangements go beyond telecommuting, by including flexible time schedule, flexible place of work and a flexible period of flexible work to be

⁴Other attempts to measure the positive relationship of flexible work arrangements on productivity use an objective index such as absenteeism (Koopman et al., 2002) and output per hour (Golden, 2012). Self-declared productivity is also positively related to flexibility (see Riedmann et al. (2006)). However all these studies are not able to provide a causal analysis. The main reason is that they cannot control for other variables affecting productivity and cannot establish whether flexible working increases productivity, or whether companies with high productivity are more likely to introduce flexibility. The latter may also affect productivity through changes in workers' well-being and work-life balance, which are therefore important to analyze in parallel.

⁵For a review on workers' preferences over alternative arrangements see Mas and Pallais (2020). Interesting evidence on workers' preferences for flexibility is also reported by Chen et al. (2019) and Maestas et al. (2018). Psychological factors (Lee et al., 2016) may also contribute to the performance outcome: smart-working may increase performance if workers are "happy" to control their own work schedules and work more effectively, with fewer days of sickness and leave (Leslie et al., 2012).

used during the workweek, which we call smart-working. Yet, there exists no causal evidence on smart-workers. Similarly, randomized experiments in firms involving a variety of job types in a developed economy are very rare.

Another outcome which has been analyzed in relation to flexible work is work-life balance. Kelly et al. (2014) examines the impact of a work-life balance training program randomized across branches of a large firm, observing significant reductions in employees' work-family conflicts, and improved family time and schedule control. Labor sociologists (Schieman et al., 2009) have also studied the relationship between flexibility and work-life balance. As reviewed by Chung, the evidence on this relationship is mixed: on the one hand, flexibility may reduce work-family conflicts (Chung, 2011, Kelly et al., 2011), while, on the other hand, it can create spillovers from work to home, blurring the boundaries between the two and increasing overtime hours of workers with negative impact on work-life balance (Golden and Wiens-Tuers, 2006). The latter effect tends to be dominant for highskill workers in large companies, which also offer performance-related pay and other arrangements that motivate workers to work longer and harder. A gender divide emerges: while flexibility is used by women for family-friendly purposes, it is used by men for performance purposes. The evidence shows that women are more likely to stay employed after the birth of their first child and increase their capacity to work when family duties multiply and thus enjoy better work-life balance. Men instead increase their work intensity and performance-related payments with no changes in family arrangements, and earn incremental income. Thus, traditional gender roles risk being strengthened further by work flexibility. Chung (Chung, 2011) analyzes data for 28 European countries and shows that flexibility can have different impacts in different contexts: it is more beneficial for workers in job cultures with more hours worked (overtime), where men and women use it for family-friendly purposes, and the flexibility stigma is not strong. Other related outcomes, such as health and stress (Halbesleben and Buckley, 2004, Moen et al., 2016) outcomes, have been investigated, with results showing a positive relationship between schedule control and organization of work.⁶ These studies however do not provide causal relationships.

Bloom et al. (Bloom et al., 2011) is one of the few papers bridging the gap between family-friendly workplace practices (which they call a 'soft' policy) and firm productivity (a 'hard' outcome). For

⁶A large body of literature has studied nonstandard work schedules and their impact on well-being and family conflicts (Liu et al., 2011). Smart-working one day per week, however, is difficult to compare to a nonstandard schedule.

a large sample of European and US firms, they find that once they control for the quality of management, there is no relationship between family-friendly workplace practices and firm productivity.

3 The Experiment

We design and implement a randomized experiment to explore the effects of smart-working on productivity, well-being and work-life balance of workers. We focus on Italy, where smart-working is regulated by Law 81/2017 that includes specific provisions to encourage the use of smart-work as a way to promote work-life balance and to enhance competitiveness. The law includes protection of health and safety of workers and guarantees equal remuneration of workers. The organizational details are left to an agreement between the employer and the employee.⁷ According to the law, smart-work may be engaged in over continuous periods, on some days of the week or during some hours of the day, as agreed by the workers and the company. Personnel protection for both privateand public-sector employees is regulated by the National Institute for Insurance against Accidents at Work (INAIL).

We approached a large Italian company in the multi-utility sector and signed an agreement to design and implement smart-work as a pilot experiment. The company is listed on the Italian Stock Exchange and has 4131 workers engaged in various tasks. Workers are divided into blue- and white-collar types. Blue-collar workers perform tasks related to technical, electrical and mechanical installations and maintenance, while white-collar workers work at a desk and perform several types of procedures, write and conclude contracts, perform transactions, etc. While both time and space flexibility are available to white-collar workers, for blue-collar workers smart-work is mainly characterized by a flexible time schedule.

We designed the experiment in agreement with the firm's senior management, who assented to all of our requests and recommendations. We randomized the sample after data had been anonymized by the company. We had complete access to the data used for the analysis and direct access to the surveys administered for the experiment. We also had daily contacts with the managers in charge of the experiment at the company and the management team.

⁷During 2017 and 2018, smart-working was also one of the work-life balance measures that gave companies rights to a tax relief.

Figure 1 shows the Consolidated Standards of Reporting Trials flow (CONSORT) that summarizes the flows of the experiment.⁸ We adopt the intention-to-treat approach (ITT), which we now explain step by step.

First, we extract our sample of analysis from the population of 4131 workers. We choose to oversample women, workers younger than 46, workers with children under the age of three and workers with relatives who need special care, which gives them the right to reduce the number of hours worked, according to Italian Law 104/92 (Legislation on Support for the Disabled).⁹ In agreement with the firm, we decided to oversample these groups because survey evidence suggests that women and individuals with family care duties (caring for children, disabled relatives, etc.) are expected to need and benefit more from smart-working (see Giammatteo (2009)). The firms was particularly interested in improving working conditions of these categories, expecting this to reflect also into their productivity.

Using these criteria, we selected 345 workers and asked them about their willingness to join the program. All of them were informed that they were participating to a pilot project and that only a part of them, resulting from a random process implemented by external academic experts, was going to receive the treatment, i.e. the possibility to use smart-working. Consensus was required. The proportion of those who did not agree was 10%, which in experiments of this type is considered a reasonable number (Jacobsen et al., 2012). As a consequence, our final sample consists of 310 workers. Among them, 86% are white-collar workers and 14% are blue-collar workers.¹⁰ There are no seasonal workers. Table 1 summarizes the characteristics of our workers, and compares them with those of the total population of workers at the firm. Appendix F provides detailed information on the job description of each worker in our sample.¹¹

⁸Randomized controlled trials can be affected by two major complications: noncompliance and missing outcomes (Gupta, 2011). The more suitable approach is to perform an intention-to-treat (ITT) analysis, which includes all randomized subjects. It ignores noncompliance, protocol deviations, withdrawal, and anything that happens after randomization. The resulting estimate of the treatment effect is generally conservative because of dilution due to noncompliance. Full reporting of any deviations from random allocation and missing responses is essential in the assessment of the ITT approach, as emphasized in CONSORT (Moher et al., 2001).

 $^{^{9}}$ Law 104/92 allows workers with relatives who need special care to have a reduction of hours of work at the same wage. The reduction is valid as long as the condition of caregiver exists.

¹⁰The analysis is performed also on the two sub-samples of white collar and blue-collar separately. See Appendix G.

¹¹Table F.3 in Appendix F illustrates the responses of white- and blue-collar workers to questions in the preexperiment questionnaire related to dimensions considered crucial for flexible jobs using O*net characteristics (see Goldin (2014)): time pressure (proxied by the answer to the question "do you comply with the predetermined deadlines of your responsibilities at work?"), contact with others and interpersonal relationships (proxied by the answer to the question "do you feel like having a useful role in your work life?") and freedom to make decisions (proxied by the

Afterwards, we randomly split the above 310 workers into two subgroups, consisting of 200 and 110 workers, respectively: the first group was to engage in smart-working (the treated group) and the second continued to work according to the preexisting arrangements (the control group).¹²

Based on the experience of other companies that have already implemented smart-working and after an assessment of the company, we defined the treatment as one day of smart-working (flexible place and time of work, chosen by the worker) per week, not allowed to be subdivided, and to be planned in agreement with the company on a weekly basis for 9 months starting on October. Given their flexibile schedule during this day, workers' availability is guaranteed within the working day. The day of smart-work does not need to be the same for all workers and can change from one week to another. The total number of smart-work days amounts to 4595 days for 200 employees.

During the smart-working day, workers are available (by phone or mail), unless differently decided with the supervisor. However the important feature of the smart-working day is that the worker performs the task assigned to him/her, independently from the rigid control of the supervisor on the precise hours spent working. It is the nature of smart-working that there is no precisely defined rule on the time of working. Thus, it may be possible that he/she works less hours than the normal time or more (we define this a case of "overwork", see Section 7 for specific analyses on that). Smart-work also applies to workers who are in team. We are aware of the possible negative spillover effects that smart-work may have on workers in a team, and thus we will carefully assess whether they emerge during our experiment (see Section 6.5 and Appendix E). Note that team work means that there is a task to be performed by a team of workers rather than individually assigned, with allocation of sub-tasks and interactions among workers, which does not necessarily mean that workers have to spend all the working time in the same place at the same time.

Smart-workers use the same IT equipment, perform the same tasks, and are compensated under the same pay system as are workers belonging to the control group. The only difference between the two groups is the flexible arrangement of time and place for one day per week. Computer equipment was provided for the duration of the treatment to treated group's workers who did not have it. The respective workers knew that they would have the computer only for the duration of the experiment;

answer to the question "do you feel capable of making decisions?").

 $^{^{12}}$ As each treated worker had to be provided with a computer and a maximum of 200 computers were available due to budget constraints, we decided to maximize the number of treated workers. As a consequence, treated and control groups had different sizes.

thus, we do not expect this to affect their perceived status.

The randomization of workers, performed by us in agreement with the firm, is based on gender (male and female), age groups (27-45 and 46-68) and type of job (white-collar and blue-collar). The combinations of these characteristics result in 8 strata. For each stratum, we randomly assign 65% of the individuals to the treated group and the remaining 35% to the control group.

In Table 2, we compare treated and control groups' workers. The table confirms that the two groups are not significantly different in any of the observable characteristics, namely, gender, age, whether the worker benefits from Law 104 or has a relative who benefits from it, whether the worker has children and if he/she has children younger than 3 years old.

The firm communicated to each worker the results of the randomization. The Human Resources director informed workers and supervisors. Again, workers had the possibility to withdraw. Within the treatment group, 191 workers received the treatment, while 9 did not receive it, as they declined to participate. Within the control group, 2 workers left during the experiment. These small numbers do not pose a concern for the validity of the experiment. Instead, we have to take into account the attrition rate, i.e., the failure to follow up: 20% of our workers did not reply to the second questionnaire. Among them, 6% belong to the treated group and 14% to the control group. Attrition is common in field experiments and attrition rates between 20 and 40 percent appear to be the norm in social experiments (Ashenfelter and Plant (1990); Hausman and Wise (1979); Heckman and Smith (1995); Krueger (1999); Newhouse et al. (2008)). However attrition may raise concerns. We are aware that there may exist unobservable determinants of our outcomes which differ across the respondents in the two groups. To limit these concerns, 13 in Table 3, Panel a, we present balance tests for observable characteristics of respondents and non-respondents to the post-treatment questionnaire. There are no significant differences, apart from a small difference in gender. In Table 3, Panel b and c, we also show balance tests for the intention to treat, i.e. means of the same observable characteristics of workers respondent after the treatment and those who did not, separately for the treated and control groups. Again, we observe no significant differences. We also show balance tests for treated and control groups among the respondents (Table 3, Panel d). Multiple t-tests where observable variables are considered together confirm that groups in all panels

 $^{^{13}}$ In a comprehensive review of methodological issues related to presence of attrition rates, Akl et al. (2012) shows that balance tests of respondents and non respondents are appropriate to reduce estimation biases and minimize the lack to follow-up.

of Table 3 are balanced. In the next section, we will introduce our outcome variables and describe balance tests of pre-treatment outcomes for treated and control workers, including a comparison between respondents and non-respondents to the post-treatment questionnaire to exclude biases from the attrition. As an additional check, we also include correction for selection on observables using inverse probability weights, and we find the same sign, magnitude and significance of the coefficients of our main results.¹⁴

Each worker is matched with his/her supervisor. There are 130 supervisors because some of them supervise more than one worker. Ten supervisors also participate in the experiment, of which 8 in the treated group and 2 in the control group. Among supervisors, 75% are male, and the rest are female. For both male and female supervisors, we have an equal split between the two age groups: under 46 and 46 or above.¹⁵

Workers were informed about the experimental nature of the project. Interestingly, after the end of the experiment, given the positive results obtained, the company informed us of its decision to continue and gradually expand the implementation of smart-working. In this subsequent process, the firm decided to give priority to workers who did not participate in our experiment. This decision was made after and could not be anticipated by the workers during our experiment. Only 60 workers of our sample of 310 workers had the opportunity to apply for participation in the new round of smart-working, of which 80% belonged to our treatment group.

During the nine months, the experiment was constantly monitored through meetings with the company, weekly reporting on the use of smart-working and an internal meeting of the company every 3 months with the target population.

The protocol used has been registered in the American Economic Association's Randomized Control Trial registry. The registration happened during the experiment, before the analysis of the results. All stratifications (in particular by gender, which we will use in the heterogeneity analysis) are pre-registered. The experiment has been approved by the Ethics Committee at Bocconi University.

 $^{^{14}}$ In section 8 we will also discuss Lee bounds estimates for our results, which are presented in Appendix C. In section 8 we also provide evidence that the difference in the response rate to the second questionnnaire between treatment and control workers is not consistent to negative reciprocity of control workers who show their disappointment for not being selected.

¹⁵In appendix E we perform our analyses on the reduced sample which excludes reated supervisors and workers with a treated supervisor, with unchanged results.

4 Data collection

Data are obtained from both the firm and questionnaires administered to workers in both the treatment and control groups and their supervisors before and after the treatment. The firm provides some baseline information for each worker in our sample, as has already been mentioned, namely, gender, age, number and ages of children, whether the worker or a relative needs special care according to Law 104 and the type of work performed by the worker. We also know whether the individual works in a team with other coworkers and with a common supervisor.

4.1 Objective Productivity

Measuring productivity is a difficult task. We thus decide to rely on three different measures: objective productivity, self-reported and reported by supervisors. In this section, we describe the measures of objective productivity, while the other two will be introduced in the next section.

We use two measures of objective productivity, both provided by the firm. The first one is the number of days of leave per month. Days of leave are typically paid and depend on sickness or other special leave requested by the worker for their need, either in advance or on the same day. The second one is a monthly numeric index of objective productivity for each worker, based on the results of each worker in his/her own tasks. This monthly index is collected for the entire duration of the experiment from the month prior to testing (September) to the last full trial month (June).¹⁶ The index computed by the firm is unavailable for only 6% of workers in our sample. For the remaining workers, the index used is a specific number that represents the respective worker's level of performance. More specifically, for 84.5% of them, the index corresponds to an absolute number, while for the other 15.5%, it is measured as a numeric change with respect to the measurement of the previous period. The measurement is homogeneous over time for the same individual but varies across individuals, as it depends on the specific job of each worker. Both the absolute number and the change reflect the exact number of executed tasks (e.g., the number of procedures completed, the number of contracts concluded, transactions performed, etc.).

For each individual we measure objective productivity before the treatment (time 0) and from

¹⁶According to our knowledge of the operation of the firm and information received by the managers, September is an ordinary month in terms of productivity of workers. As the new working arrangements may take some time to fully stabilize, we also rerun the analysis, considering October as the month preceding testing. This adjustment does not change results.

month 1 to 9. We apply a logarithmic transformation, that smoothes out the excess variability of the different measurements. Table 4 shows that these value on average ranges from -6.908 to 7.857. Figure 2, on the left, compares the average numbers of days of leave requested by treated and control groups' workers per month over the period of the experiment. Interestingly, starting from the same point, after one month the total amount of days of leave of the treated group is consistently lower than that of the control group. On the right instead we report the index of objective productivity per month. Treated workers show a higher productivity than control ones, however this difference is not statistically significant for the initial period and it becomes statistically significant in months 6 to 8.

4.2 Questionnaires

We designed questionnaires to collect data on productivity, well-being and the work-life balance. Workers and supervisors in both the treated and control groups were asked to complete one questionnaire before the experiment (the pre-treatment questionnaire) and another one afterwards (the post-treatment questionnaire). The questionnaires include questions related to productivity, wellbeing and the work-life balance. In the post-treatment questionnaire, the treated group also answered questions related to their evaluation of the policy.

Productivity assessed by the questionnaires includes self-reported productivity and that reported by supervisors. Both are measured by 4 outcomes: a measure of output or production, i.e., the capacity to attain the assigned goals, efficiency at work, i.e., the capacity to attain the assigned goals within an appropriate time, proactivity at work, i.e., the capacity to take initiative appreciated by others; and the capacity to comply with predetermined deadlines. The respondents are asked to evaluate each outcome on a scale from 1 to 5, where 1 corresponds to "Very Low", and 5 corresponds to "Very High". Productivity reported by the supervisor includes the same four outcomes. They are consistent with measures used by existing case studies, reports, and toolkits focused on flexible work and productivity (see Golden (2012), Pruchno et al. (2000), Kossek and Michel (2011), etc.). Correlations between the variables self-assessed and reported by the supervisors are positive and significant and they range between 0.19 and 0.29.

The well-being assessment includes standard questions drawn from the British Household Panel Survey (Taylor et al. (1993)). These questions are widely used in the literature on economics of happiness (see reviews in Van Praag et al. (2003) and Luhmann et al. (2012)). Respondents are asked to indicate the extent of their satisfaction on a scale from 1 to 7, where 1 corresponds to "highly dissatisfied" and 7 corresponds to "highly satisfied" with the following 7 dimensions: income, health status, home, job, social life, free time, and life overall. Respondents also have to report on a scale from 1 (much less than usual) to 5 (much more than usual) their ability to deal with the following 7 aspects of their lives: staying focused (referred to as "Focus On" in the tables), losing sleep due to any concerns, feeling that they play a useful role in their work life, being able to make decisions, appreciating the daily activities in a regular day, feeling stressed, and feeling unable to overcome difficulties.

The work-life balance assessment asks about satisfaction with working hours and how working hours adapt to private life on a scale from 1 (highly dissatisfied) to 5 (highly satisfied), the feeling of being able to balance work with personal and family life on a scale from 1 (no ability) to 4 (high ability). Workers are also asked to quantify the time devoted to household activities per day (cleaning and housekeeping) and the time dedicated to taking care of others (children, elderly, or other family members) during the pre-questionnaire in two-hour ranges from "Less than 2 hours" up to "More than 6 hours". In the post questionnaire workers are asked to quantify any possible change on a scale from 1 (the time has decreased over the last 6 months) to 5 (the time has increased).

We provide first insights on the well-being and work-life balance indexes through a visual analysis. Figure 3 and Figure 4 display kernel density functions for the treated and control groups before and after the treatment with reference to two specific outcomes: satisfaction with social life and ability to deal as usual with stress.¹⁷ Interestingly, while the pre-treatment kernel densities of treated and control groups overlap almost completely, they diverge after treatment, which thus suggests the emergence of an effect of the intervention.

The questionnaires also ask for the home-to-work distance in kilometers. Finally, they contain questions about the commitment of workers to the company. The questions are: "How attached do you feel to the company?", "Do you believe your work is sufficiently recognized?" and "Do you have a sense of moral responsibility towards the company?".

Table A.1 in appendix A (Panel a) shows the results of the t-test for the difference between the means of treated and control groups for each outcome variable measured before the treatment (i.e.,

¹⁷We provide only these graphs for the sake of space. Graphs for the other outcomes are available upon request.

using data from the pre-treatment questionnaire). It confirms that the starting point is the same for treated and control groups, i.e., the two groups are balanced before the treatment, which confirms the validity of our randomization. The same result is obtained when we consider only respondents (in both treated and control group) to the post-treatment questionnaire (Panel b). To further limit the concerns related to the attrition rate, we also show balance tests of pre-treatment outcomes for respondents and non respondents (to the post-treatment questionnaire) within the treated group (Panel c) and the control group (Panel d).

Table 4 summarizes the outcome variables from the post-treatment questionnaires, related to the different dimensions of productivity, well-being, work-life balance and commitment to the company. Additionally, we check that the difference between the number of hours worked by treated and control groups' workers before and after the experiment is not statistically significant¹⁸, confirming that any possible effect of treatment on the outcome variables does not depend on a change in the number of hours worked (Table 19).

5 Empirical strategy

We estimate the effect of the treatment (i.e., of smart-working) on our variables which measure productivity, well-being and work-life balance.

For all the variables (different measures of objective productivity, self-reported productivity, productivity reported by the supervisor, well-being and work-life balance, as summarized in Table 4) we estimate the following equation at the individual level:

$$y_{i,POST} = \alpha + \beta TREATMENT_i + \delta X_i + \gamma y_{i,PRE} + \varepsilon_i \tag{1}$$

where $y_{i,POST}$ is the specific measured outcome for individual *i* post-treatment according to the dimensions of productivity, well-being and work-life balance (as summarized in Table 4), *TREATMENT*_i is a dummy variable that has the value of 1 if individual *i* has been assigned to the treatment group and is 0 if he/she belongs to the control group, $y_{i,PRE}$ is the specific outcome for individual *i* measured before treatment, X_i are individual control variables, and finally, ε_i is an error term.

¹⁸Time worked in minutes refers to overall time (normal plus eventual over-time) including lunch breaks.

Equation 1 is equivalent to a difference-in-differences model.¹⁹ Given the randomization, there should be no need to add control variables to measure the average treatment effects.²⁰ However control variables are included to improve the accuracy of estimates. They are: the age of respondent (AGE) and its square (AGESQUARED), gender, captured by a dummy variable MALE that has the value of 1 if the respondent is male and 0 if the respondent is female, two dummy variables (LAW104WORKER and LAW104RELATIVES) that capture the use of Law 104 for the worker or for a relative, respectively, two dummy variables related to children, namely, CHILD that has the value of 1 if the worker has at least one child and is 0 otherwise, and YOUNGCHILD that has the value of 1 if at least one of the children of the worker is aged 3 or below and is 0 otherwise, the distance between the worker's residence and the workplace in kilometers (KM) and the dummy variable WHITECOLLAR which is equal to 1 if the worker is a white collar and 0 if he/she is a blue collar. All variables are standardized as z-scores.

Since we are testing several outcomes, we report p-values adjusted for multiple hypothesis testing (Bonferroni correction). Since, as has already been mentioned, we oversample some characteristics of the population (female, people under the age of 46, subjects with children under the age of three and workers with a relative protected by Law 104), using weighting is recommended to make the analysis of the sample representative for the target population. We thus create a set of weights that is the inverse of the probability of inclusion of each stratum of the oversampled categories. In what follows, we report results using these weights.²¹

In addition to the baseline model, for our two variables of objective productivity (number of days of leave and index of objective productivity) which are measured every month, we pool observations for individuals in each month and provide Difference in Differences estimates as follows:

$$y_{it} = \alpha + \beta TREATMENT_i + \gamma POST_t + \eta TREATMENT_i * POST_t + \delta_i + \varepsilon_{it}$$
(2)

¹⁹Our results are unchanged if we regress the outcome variable on the "treatment" dummy, the "post" dummy and the interaction between treatment and post, together with the control variables.

²⁰We use the standard definition of "average treatment effects" altough we are aware of the limitations posed by the existence of potential dropouts and non compliance behaviour.

 $^{^{21}}$ To show the stability of our results and confirm that the extracted sample is representative of the firm's workers even though we have over- or under-sampled some characteristics, we also run the analysis without weights. Results, which are available upon request, are similar.

where y_{it} is the specific measure of productivity (days of leave or index of objective productivity) for individual *i* at time *t*, *TREATMENT_i* is a dummy variable that has the value of 1 if individual *i* has been assigned to the treatment group and is 0 if he/she belongs to the control group, $POST_t$ is a dummy variable equal to 1 if the observation refers to the time of treatment period and 0 otherwise, $TREATMENT_i * POST_t$ is the interaction term which measures the treatment effect of our interest, δ_i capture the individual fixed effects and ε_{it} is an error term. To assess the impact of the treatment in each specific month of intervention, alternatively to $POST_t$ we introduce dummies for each month of the treatment (from 1 to 9) and interact each of them with the treatment dummy.

6 Results

We present results according to the three dimensions we investigate: productivity, well-being and work-life balance.

6.1 Productivity

The first dimension we consider is productivity. Table 5 provides estimates of equation 1. For each outcome variable, the first column reports the average treatment effect and the second one includes control variables. The coefficients of the control variables are shown in Appendix B. Table 5 Panel a, columns 1-2 show a significant decrease of days of leave for the treated group after the treatment. Considering the average decrease per month in the entire post-treatment period, the treatment reduces the number of days of leave by 0.2 standard deviations on average each month. Given the standard deviation of 30.5 days per month and the 9 months period, this implies 0.67 fewer days of leave per month. If this decrease were solely driven by the smart-working days, which are 4 days per month, then 16.75% (0.67 of 4) of smart-working days would have otherwise been days of leave. Columns 3-4 show a significant increase of 0.0625 standard deviation per day of smart work (4 days per month). In case workers were allowed to use smart-work every day (20 days a month), in absence of other factors, the productivity would increase by 1.25 standard deviations. Obviously, this is a hypothetical situation, as many other variables influencing productivity may change in

parallel and the increase of productivity may not be the same when smart-working days increase. Panel b of Table 5 shows results of estimating equation 1 obtained by using as dependent variable the four measures of self-reported productivity described in section 4.2: output production, efficiency, proactivity, and compliance with deadlines. The average treatment effect is positive and significant for all measures except production, and remains significant for proactivity and meet deadlines if control variables are included. The effect is sizeable: the treatment increases by around 0.4 standard deviations the coefficient of self-assessed proactivity and respect of deadline.

Panel c of Table 5 provides estimates of equation 1 using as the dependent variable the same four outcomes while instead using the answers of the supervisor of each worker. Results confirm that smart-workers increase their compliance with deadlines compared to the control group; this finding also holds if workers are assessed by supervisors and the magnitude of the effect increases up to 0.57 standard deviations. We note that the number of observations in this analysis is smaller because supervisors did not always respond.

In Table 6 we estimate Equation 2. We measure the increase of objective productivity by exploiting the availability of monthly data and controlling for possible changes in the firm demand each month. We first run a panel data regression with pooled observations over the 9 months and we regress our objective productivity measures on the treatment dummy and the interaction between treatment and the post period (columns 1 and 4). We then add monthly time dummies and individual fixed effects (column 2 and 5). We finally interact the treatment dummy with a dummy for each month (columns 3 and 6). Results show that days of leave decrease significantly for the treated group after the treatment in 5 out of 9 months. While our index of objective productivity does not seem to be significantly affected by the treatment when we consider the treatment period together, column 6 shows a significant increase in months 7 and 8.

Figure 5 summarizes our results on productivity. It shows the estimated difference between treated and control workers per month. The figure visually shows the significant decrease of days of leave per month and the significant increase of the index of objective productivity in month 7 and 8. This higher productivity likely occurs because smart-workers can better organize their time than nonsmart-workers and are less in need of asking for leave due to sickness or other reasons (e.g., if they need to visit a doctor or have to pick up children from daycare centers or assist elderly parents, etc.).

6.2 Well-being

The second dimension we consider is well-being. We measure well-being in two ways. First, workers are asked to self-assess on a scale from 1 to 7 their personal satisfaction with respect to seven variables: income, health status, home, work, social life, free time, and life in general. Second, they are asked whether they are able to deal as usual on a scale from 1 to 5 (where 1 corresponds to "much less than usual" and 5 to "much more than usual") with seven aspects of their life: staying focused, losing of sleep due to any concerns, feeling that they play a useful role in their work life, being able to make decisions, appreciating the daily activities in a regular day, feeling stressed, and feeling unable to overcome difficulties.

Panel a of Table 7 shows the results of estimating equation 1 using as the dependent variable seven different measures of satisfaction, while Panel b shows results for seven "satisfaction as usual" measures of well-being. Smart-working increases the individual satisfaction with social life, free time and life in general. When we include control variables, positive and significant effects are also observed for satisfaction with health and home. The size of the effects ranges between an increase by 29% (satisfaction with life in general) to 46% (satisfaction with free time).

Moreover, smart-workers are more capable than usual of dealing with all aspects of their lives (apart from playing a useful role): in Panel b of Table 7, the coefficients of treatment are positive and significant and sizeable.

6.3 Work-life balance

The third dimension we consider is the work-life balance, measured by four variables that correspond to satisfaction with four aspects: working hours, balance between working life and personal/family life, the amount of household activities (cleaning and housekeeping) per day and the amount of time dedicated to taking care of others (children, elderly, or other family members).

Panel c of Table 7 reports estimates of equation 1, where for each column the dependent variable is one of the above 4 measures of work-life balance. The table shows that treatment is associated with more time being dedicated to household and care activities. When we include control variables, positive and significant effects are also observed for the balance between working life and personal/family life.

6.4 Heterogeneous effects by gender

A possible consequence of the introduction of flexible work is the reduction of gender gaps (Goldin, 2014), which follows two main channels. First, although smart-working does not target women, it may be particularly promising for women's employment because it promotes work-family balance, which is a major concern for employed women, who typically bear the double burden of work and family/care responsibilities. This is particularly true in Italy, where, according to the most recent data of the Italian National Institute of Statistics (Istat, 2018), women spend 3 hours per day more than men in domestic and unpaid care work, and more than 4 hours if we consider couples with children. The country exhibits the highest asymmetry in time use within couples across all European countries. Second, by promoting work-life balance and a more efficient allocation of time, smart-working may increase the participation of men in housework and childcare.

In this section we examine heterogeneous effects for men and women in our sample. Gender was registered as a critical variable for our experiment. Our balance tests for the covariates by gender, presented in Table 8, confirm that the subsamples of men and women are randomly divided, and thus our analysis by gender is expected to be informative.

Table 9 shows that our measures of objective productivity are not differently affected by the treatment according to the gender of the worker (panel a)²². However men self-report significantly higher increase of proactivity than women (panel b) and supervisors, who are mostly men, report a higher capacity to meet the deadlines for men than for women (panel c).

Table 11 shows that treated women have a higher satisfaction with life in general with respect to men. Considering the self-assessed comparison with the usual conditions, there is an additional effect for treated women to the perception of having a useful role (table 11, Panel b). Interestingly, considering the indices of work-life balance (table 11, Panel c), we observe that the treatment significantly increases the time all workers spend in housework and care activities, without a significant difference by gender. In other words, against the stereotype that men may use job flexibility for performance purposes and women for work-family balance, we find causal evidence that smartworking increases participation also of men in household and care activities. There is no evidence

 $^{^{22}}$ In parallel with Table 6 we also estimate equation 2 in Table 10 and find no significant heterogeneous effects by gender. Note that in column 2 and 4 we capture heterogeneous effects by using a triple interaction between post, treatment and gender. No significant effects are detected. By introducing a triple interaction for each month - not reported in the Table- we also do not identify significant result in any month

of a reduction of gender gaps in household and care activities, but not even of an increase of them. This result suggests that smart-working should be particularly appealing to workers with children. As the treated and control groups are balanced with respect to the number of children (see Table D.1 in Appendix D) in addition to other factors, we investigate heterogeneity between workers with and without children. We observe no heterogeneous effects in productivity. The results seem to suggest that smart-working significantly increases household and care activities of workers (see Table D.4 in Appendix D).²³

6.5 Heterogeneous effects by team

Since smart-working changes not only the interaction of workers with their supervisors, but also the interaction between workers in a team, the increase of productivity may be driven by workers not in team. As already explained, our regressions include a dummy which captures whether the worker works in team or not. However this does not exclude a potential concern that smart-working creates negative spillover effects from treated workers to control coworkers in the same team. The literature, though focused mainly on low-skill jobs, suggests that workers who observe their peers increase their efforts and productivity (Mas and Moretti, 2009). Thus, smart-working, by introducing one day of remote and flexible working, may produce a negative effect on productivity of control group's workers of the same team. This negative spillover effect emerged also in research on telecommuting. Given that smart-working is used only one day per week, we expect these negative spillover effects to be limited. However we need to better investigate.

We first consider working in a team as a dimension of heterogeneity. We know whether each worker – both in the treated group and in the control group – works in a team and are able to identify the coworkers in the same team. Approximately 70% of workers work in teams. The characteristics of workers in the two subgroups – of those working in teams and of those not working in a team – are balanced across the treated and control groups (see Table 12). Working in a team does not seem to be significantly related to productivity measures. However, we are interested in possible differential effects of smart-working for workers in teams and workers not in a team. In Table 13, we add the interaction between team and treatment, which turns out to be significant for the days

 $^{^{23}}$ We also performed heterogeneous effects by age, although we do not have clear expectations on them. Results are available upon request.

of leave (although the effect has a limited magnitude) and non significant for the index of objective productivity, nor for the self-reported productivity or the productivity reported by the supervisor. To better understand this effect, Table 14 uses the panel data dimension of our observations with individual and month fixed effects and introduce a triple interaction of team, treatment and post. Smart-working does not seem to affect differently our measures of productivity of workers in teams and workers not in a team, showing that there are no significant spillover effects of productivity on team workers.²⁴ We also do not identify heterogeneous effects by team in the dimension of well-being and work life-balance (Table 15). In Appendix E we report additional analyses which confirm that spillover effects by team can be excluded.

7 What drives the increase of productivity? Into the mechanism

Our results suggest that smart-working is associated with an increase of productivity under several dimensions and ensure that none of them register a decrease. Similarly, well-being of workers increases, as well as work-life balance. Differently from the results on telecommuting, our findings are established in a sample of non-routine workers, who appreciate the additional flexibility associated with smart-working. What drives these effects? Can we identify specific effects of the flexibility introduced by smart-working, different from the traditional telecommuting?

Our first interpretation of the results is that workers simply value the new work environment and enjoy the flexibility they have.

A possible interpretation is that the increase of productivity of smart-workers and the increase of their well-being can be related to the time saved in commuting, which could allow workers to be less tired and more focused during the day. The longer the commuting time, the stronger this effect, which works equally for telecommuting and smart-working. We first note that the distance from the workplace in kilometers is included as a control variable in our analyses, without affecting their significance. Commuting time was playing a very important role in Bloom et al. (2014). We argue that, if the commuting costs is what explains the results, the difference between telecommuting and smart-working is limited. If instead the reduction in commuting costs is not the key driver of our results, then we should expect smart-working and telecommuting to be different, and the

²⁴In parallel with columns 3 and 6 of Table 6, we also introduce monthly dummies and the triple interactions between month, treatment and team. Results, which are available upon request, show no significant effects.

flexibility of hours and flexibility of changing the place of work, i.e. the intrinsic characteristics of smart-working, to matter independently from home-working. In order to gain evidence on this argument, in table 16 we interact the treatment dummy with the distance to the workplace in km, which is a measure of the commuting cost. Table 16 show that the interaction term between treatment and distance to the workplace is generally not significant for productivity measures, a part from a small effect on days of leave and proactivity reported by the supervisor. The result on days of leave is however not confirmed by our usual panel data specification reported in Table 17. The interaction between treatment and kilometers is significant for a few outcomes of well-being, but not for measures of satisfaction as usual, nor for work-life balance (Table 18). These results overall suggest that smart-working and telecommuting do differ.

Additional insights into differences between flexible place and flexible time can be gained by looking at the sub-sample of blue-collar, which used only flexible time. We are aware that the validity of the analysis on this sub-sample is challanged by the limited number of blue-collar workers in our sample. However, with the due caution, we still notice that the productivity increases also within the blue-collar sub-sample, and that blue-collar smart-workers are more satisfied with free time, social life and life in general (Table G.3, Appendix G). The other dimensions are not significantly affected by the treatment.

We then explore whether the increased productivity is related to over-working (Table 19). We first observe that the number of hours worked does not change with the treatment (Panel a). We then consider the availability to answer emails beyond the working time reported by workers and supervisors as a possible index of over-working. In our questionnaire, we ask workers and their supervisors to assess their availability to answer emails beyond the working time on a scale with value 1 if the worker does not answer to emails beyond the working time, 2 if "Yes, sometimes" and 3 for "Yes often". We do not identify a difference between treated and control workers when the question is answered by workers nor by supervisors (Panel b).²⁵ This result is particularly interesting, given the current debate on the risk that flexible work produces over-working and the need to guarantee the right of disconnection of workers. All together the evidence reported in Table 19 suggests that

 $^{^{25}}$ We also check that when we estimate the availability to answer emails beyond the working time using equation 1, the treatment does not have a significant effect.

our form of smart-working is not associated with over-working.²⁶

The observed increase in productivity of smart-workers may be related to their higher effort into the job, for the same pay. Smart-workers are more focused and more active. It might be that smart-workers are more productive because they spend less time at lunch or on coffee breaks or bathroom breaks, as it has also been observed for telecommuters. The more effective organization of time also includes a better use of time within the household, as captured by the work-life balance indices that show that smart-workers spend more time in household and care activities. We also note that the corresponding increase in well-being indices suggests that the increase in productivity goes beyond different and better time management. The fact that satisfaction increases even if workers apply more effort means that smart-workers have a positive perception of the new form of work organization and suggests that they may be ready to exchange more effort for more flexibility to maintain or even increase their satisfaction.

Another interesting possibility in explaining the increase of productivity is that, when workers are observed, they increase productivity. This may differ between treated and control if, due to smart-working, workers become more attached to the company, and thus are also more productive. According to this type of "Hawthorne effect", treated workers have a positive feeling toward the firm, which allows them to use smart-working and reciprocate by working harder (see Falk and Kosfeld (2006)). In other words, they work more efficiently because they feel an obligation to the company. To test the existence of this positive reciprocity effect, we rely on the information on workers' commitment to the company. Workers are asked the following three questions: "How attached do you feel to the company?", "Do you believe your work is sufficiently recognized?" and "Do you have a sense of moral responsibility towards the company?". Table 20 shows that there is no significant difference between treatment and control workers along the first and second dimension, while treated workers feel more responsible.

 $^{^{26}}$ Smart-workers claim to be more satisfied with their free time and social life. To exclude that this depends on a reduction of extra paid work hours (and thus earnings), in absence of direct data on earnings, we note that smart-workers also claim to be more satisfied with their incomes, suggesting that there is no negative effect of smart-work on earnings.

8 Additional analysis

We perform several robustness checks to address potential concerns as to the interpretation of our results. A typical concern in research using questionnaires relates to the reliability of answers when questionnaires are quite long, as in our case. Scholars of survey methods have underscored that when individuals answer a long questionnaire, at a certain point they often start answering automatically (see Pintrich et al. (1991)). For this reason, we introduced several questions about a similar topic but using a reverse scale. The obtained results reassure against this concern: respondents answered carefully, as questions with a positive meaning but asked in a negative way were correctly answered negatively.

Since our dataset is very rich and allows us to include a large number of control variables that could potentially influence the dependent variables, we use the method of stepwise selection of covariates to select the best model to estimate. Results, available upon request, are very similar to what we presented in our main tables.

We also check that the significant effects that we measure respect the minimum detectable effect of our sample size. Considering different possible correlations between pre-treatment and posttreatment values of our outcome variables, we estimate a minimum detectable effect size between 0.07 and 0.29. These values confirm the validity of our results.

Another typical concern with a randomized experiment of this type is that it is difficult to identify whether the significant effects observed for the treatment group depend on the improvement of the treated group or a worsening performance of the control workers who are dissatisfied with having being excluded from the treatment, though randomly.

In table 21 we consider various features of the control group and compare for each feature its average performance before and after treatment even if control group's workers had not been subject to it. The t-tests show that there are no statistically significant differences in the outcomes of the control group before and after treatment, apart from four outcomes (days of leave, compliance with deadlines, household activities and care activities). Yet, for these outcomes the direction of the change is positive, i.e., workers in the control group increase rather than decrease their performance after the policy's implementation. Thus, the increased productivity of the treated group's workers cannot be confounded by a worsening performance of the control group. In other words, we can exclude the existence of negative reciprocity.

Finally, to confirm our results, and exclude that the estimated impact of the treatment is driven by differential attrition, we produce bounds for the estimates of several outcome variables affected by the treatment, as proposed by Lee (2009) (Appendix C). We consider the outcomes on which smart-working has a strong significant impact. Figure 1 of Appendix C shows the upper and lower bounds of the effects of differential selection across treated and control groups on the outcomes, together with the difference between treatment and control performance. Attrition seems to be present for six out of the fifteen outcomes considered, for which the upper and lower bound have not the same sign. However, we notice that even for these six outcomes, the lower bound barely cross the zero. Moreover, the lower bound is less plausible than the upper bound, since we expect workers in the control group to be less motivated and more likely to quit. This suggests that the actual treatment effect is even underestimated.

9 Conclusion

We have established a causal link between the introduction and use of smart-working and several economic outcomes that capture workers' productivity, well-being and work-life balance. The three sets of outcomes together suggest a positive assessment of the introduction of smart-working. Our study will have substantial policy implications. Smart-working is a recent approach that is rapidly spreading and is now regulated in several countries. Removing the constraints of space and time of work looks to be a promising way for a more efficient organization of working, without negative effects on gender gaps.

Smart-working also appears to be a promising way to promote work-life balance, which is becoming a significant issue in modern societies. Interestingly, this result was not obvious, as previous analyses have warned about the risk of over-working related to flexible work arrangements, with all the possible negative consequences (involving stress, well-being, health, etc.). Ex-post evaluations such as those performed by previous studies are, however, unconvincing, as they may hardly infer causality. Random assignment as in the approach we used in our study is a way to guarantee the direction of causality and unbiased estimates. In other words, having based our analysis on a randomized experiment, we can ensure that we have established a valid identification of the effects of smart-working.

The spread of coronavirus is accelerating the use of smart-working as a way for firms to respond to this disruptive event. This will also be an opportunity to reimagine work organization after the crisis. In this case, our results will have useful applications. The spread of COVID-19 has also increased the interest of firms in how to implement smart-working (Barrero et al., 2021). Unfortunately, given our small sample, our experimental design suffers from the limitation that it is based only on one treatment and cannot draw implications about the impact of different types of treatment (for example, two days of smart-working, three days, or the entire week). This is left for future research.

Our results cannot be interpreted as long-run effects. Further analysis will assess the long-run implications of introducing smart-working. As in any randomized experiment, we have evaluated marginal effects. This does not exclude the existence of general equilibrium effects, which could be appropriately evaluated in future studies. A randomized trial in a real context is the perfect way to assess the causal impact of work flexibility on outcomes. However, as any randomized field trial in economic and policy research, our exercise is challenged by concerns of external validity. To limit these concerns, as recommended (List, 2020), we have carefully discussed the selection of our sample and the attrition issues. Moreover, we point out that our treatment does not alter the natural choices of subjects and can be easily scaled (as in fact it happened during the pandemic emergency). We have also assessed our treatment effects across heterogeneous groups of workers. Finally, our experiment was performed in a developed country, for a large set of jobs, and in a context quite representative of the current conditions in many other countries.

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10 Figures



Figure 1: Flowchart of participants' progress through the phases of the trial

Figure 2: Measures of Average Objective Productivity



Figure 3: Kernel density plots for work-life balance



Figure 4: Kernel density plots for satisfaction with social life and for stress status



Figure 5: Estimated objective Productivity: Difference between treated and control per month

(b) Objective productivity (index) per



Note: The figure shows differences between treated and control workers for our two measures of objective productivity per month: number of days of leave (panel a) and objective productivity index (panel b). The point estimates and corresponding 95% CIs are obtained from a panel data regression with OLS specifications regressing the outcome variable on the treated dummy and the interaction between treated and each month. Observations for individuals in each month are pooled. We control for individual and month fixed effect.

11 Tables

Variable		Popul	ation	Sample	
		Obs.	%	Obs.	%
Gender	Male	3146	76	174	56
	Female	985	24	136	44
Age group	Under 46	1686	41	186	60
	46 or above	2445	59	124	40
Young Child	Yes	338	8	108	35
	No	3793	92	202	65
Law104Relatives	Yes	525	13	88	28
	No	3606	87	222	72

Table 1: Comparison between the sample and the population

Note: A proportion test rejects the hypothesis that the proportion of each variable is the same in our sample and in the firm's population.

Table 2: Balance tests -	Treatment and	Control groups	(means of observable	e characteristics)

Variable	Treatment	Control	Test Statistic	p-value
Obs.	191	110		
Age	43.27	43.51	-0.2602	0.7949
Male	0.555	0.564	-0.1453	0.8846
Law104Worker	0.0367	0.0182	0.9041	0.3667
Law104Relatives	0.283	0.264	0.3557	0.7223
Child	0.754	0.773	-0.3671	0.7138
Young Child	0.298	0.291	0.1372	0.8909
Km	30.06	33.25	-0.6955	0.4874
White collar	0.86	0.86	0.2242	0.8228

Notes: Two-sample t-test for a comparison between means. Significance: * indicates p<0.05.

Table 3: Balance tests for the attrition rate: means of observable characteristics of respondents and non-respondents to the post-treatment questionnaire

		Panel a. Sample		
	Respondents (240)	Non-Respondents (61)		
	Mean	Mean	Test Statistic	p-value
Age	43.3	43.59	-0.2661	0.7903
Male	0.525	0.6885	-2.309	0.02162 *
Law104Worker	0.0375	0	1.536	0.1255
Law104Relatives	0.2708	0.2951	-0.3773	0.7063
Child	0.7625	0.7541	0.1369	0.8912
Young Child	0.2708	0.3934	-1.879	0.06128
km	31	19.4	0.3631	0.7168
White Collar	0.8958	0.7213	3.575	0.0004083^{***}
	Pan	el b. Treatment Group		
	Respondents(173)	Non-Respondents(18)		
	Mean	Mean	Test Statistic	p-value
Age	43.29	43.06	0.1241	0.9014
Male	0.5376	0.7222	-1.501	0.135
Law104Worker	0.04046	0	0.8667	0.3872
Law104Relatives	0.2775	0.3333	-0.4987	0.6186
Child	0.7514	0.7778	-0.2456	0.8063
Young Child	0.2832	0.4444	-1.423	0.1565
km	30.12	19.4	0.3447	0.7307
White Collar	0.8844	0.6667	2.595	0.01019^{*}
	Pa	nel c. Control Group		
	Respondents(67)	Non-Respondents(43)		
	Mean	Mean	Test Statistic	p-value
Age	43.31	43.81	-0.3485	0.7282
Male	0.4925	0.6744	-1.89	0.0614
Law104Worker	0.02985	0	1.14	0.2569
Law104Relatives	0.2537	0.2791	-0.2917	0.771
Child	0.791	0.7442	0.5679	0.5713
Young Child	0.2388	0.3721	-1.504	0.1356
White Collar	0.9254	0.7442	2.692	0.008232**
	Pane	el d. Respondent Group		
	Treatment(173)	Control(67)		
	Mean	Mean	Test Statistic	p-value
Age	43.31	43.29	0.01738	0.9861
Male	0.4925	0.5376	-0.6246	0.5328
Law104Worker	0.02985	0.04046	-0.3867	0.6993
Law104Relatives	0.2537	0.2775	-0.3696	0.712
Child	0.791	0.7514	0.6445	0.5198
Young Child	0.2388	0.2832	-0.6926	0.4892
km	30.12	33.25	-0.6801	0.4971
White Collar	0.8844	0.9254	-0.9301	0.3533

Notes: Two-sample t-test for a comparison between means. Significance: * indicates p<0.05.

Statistic	Obs.	Mean	St. Dev.	Min	Max
	Outco	me variab	les (post-exp	eriment)	
	Ce	ommitmen	t to the com	pany	
Attachment	240	4 273	0.830	2	5
Work recognized	240 240	1.853	0.740	1	3
Responsibility	240	1.059	0.339	1	3
itesponsionity	210	Objectiv	e nroductivity	1	0
				9	
Average Monthly Productivity	232	3.032	2.099	-6.908	7.857
Average Monthly Days of leave	252	4.298	2.415	0.786	11.11
		Self-report	ted productiv	ity	
Production	240	3.971	0.699	2	5
Efficiency	240	3.942	0.718	3	5
Proactivity	240	3.892	0.752	2	5
Deadlines	240	5.129	1.126	3	5
	Produ	uctivity rep	ported by sup	ervisors	
Production	240	3 623	0.840	1	5
Efficiency	240	3 615	0.831	1	5
Proactivity	240	3 468	0.864	1	5
Deadlines	240	4 351	0.765	1	5
Deadmines	We	ll-beina: s	atisfaction w	nith.	
	2.10	1 200	1 504	-	
Income	240	4.296	1.504	1	7
Health	240	4.970	1.604	1	7
Home	240	5.359	1.608	1	7
Work	240	5.034	1.408	1	7
SocialLife	240	5.094	1.488	1	7
FreeTime	240	3.637	1.794	1	7
LifeInGeneral	240	5.246	1.202	1	1
—	Wel	<i>l-being: sa</i>	itisfaction as	usual	
FocusOn	240	3.483	0.825	1	5
LoseSleep	240	2.950	1.005	1	5
UsefulRole	240	3.332	0.920	1	5
MakeDecisions	240	3.399	0.744	1	5
AppreciateDailyActivities	240	3.471	0.767	1	5
UnderStress	240	3.059	0.935	1	5
NotOvercome	240	2.047	0.803	1	9
		WOTK-	uje valance		
WorkingHours	240	2.840	0.989	1	5
Balance	240	2.584	0.795	1	4
HouseholdActivity	240	3.592	1.352	1	5
CareActivity	240	4.471	1.595	1	5
		Observable	characterist	ics	
Age	301	43.36	7.59	24	62
Female	301	0.44	0.497	0	1
Law104Worker	301	0.0299	0.17	0	1
Law104Relatives	301	0.275	0.448	0	1
Child	301	0.761	0.427	0	1
Young child	301	0.296	0.457	0	1
km	240	30.95	31.83	0	186
WhiteCollar	301	0.86	0.347	0	1

Table 4: Summary statistics of variables

			P	Panel a: Obj	iective Prod	uctivity		
			Days of L	eave	Index of	objective	productivity	_
		(1	L)	(2)	(3)		(4)	_
	Treatment	$\begin{array}{c} \text{reatment} & -0.29\\ (0.11\\ \text{Observations} & 252\\ 2 & 0.026 \end{array}$		-0.200^{*} (0.098)	$0.263 \\ (0.128)$	*	0.252^{**} (0.093)	_
	$\begin{array}{c} \text{Observations} \\ \text{R}^2 \end{array}$			$252 \\ 0.518$	$\begin{array}{c} 232\\ 0.018\end{array}$		$232 \\ 0.689$	
			Panel b. Self-reported productivity					
	Producti (1)	on (2)	Efficie (3)	ency (4)	Proacti (5)	vity (6)	Deadl (7)	lines (8)
Treatment Controls	$\begin{array}{c} 0.203 \\ (0.149) \end{array}$	0.152 (0.130) \checkmark	0.346^{*} (0.143)	0.246 (0.128)	$\begin{array}{c} 0.460^{**} \\ (0.144) \end{array}$	0.408^{**} (0.135) \checkmark	$\begin{array}{c} 0.459^{**} \\ (0.168) \end{array}$	0.398^{*} (0.163) \checkmark
Observations R ²	240 0.008	240 0.283	240 0.024	240 0.280	240 0.041	240 0.202	240 0.034	240 0.200
			Panel	c. Productivity	reported by su	pervisors		
	Product (1)	ion (2)	Effic (3)	iency (4)	Proactiv (5)	vity (6)	Deadli (7)	nes (8)
Treatment Controls	$0.185 \\ (0.166)$	0.108 (0.158) ✓	$\begin{array}{c} 0.033\\ (0.153) \end{array}$	-0.034 (0.160)	-0.243 (0.153)	-0.104 (0.155)	0.296 (0.159)	0.568^{***} (0.164)
Observations \mathbb{R}^2	s 173 0.007	$173 \\ 0.421$	$173 \\ 0.0003$	173 0.336	173 0.015	173 0.388	173 0.020	$173 \\ 0.367$

Table 5: Productivity

Note: Panel a shows results of estimates of Equation 1 where the dependent variables are the number of days of leave (columns 1-2) and the log of the index of objective productivity (columns 3-4), average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are four measures of productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group. The regressions include (the respective coefficients are not shown in the table) individual controls for: age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

			Objective pr	oductivity		
-	Days	of leave per mor	nth	Index of obje	ective productiv	vity per month
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.471			0.184		
	(0.687)			(0.125)		
post	0.766			-0.203^{*}		
	(0.577)			(0.106)		
Treatment*post	-1.224^{*}	-1.344^{**}		0.120	0.110	
	(0.721)	(0.584)		(0.132)	(0.085)	
${\it Treatment}^*{\it Month1}$			-1.589^{**}			0.043
			(0.759)			(0.114)
${\rm Treatment}^*{\rm Month2}$			-0.949			0.099
			(0.790)			(0.114)
Treatment*Month3			-1.263^{*}			0.056
			(0.764)			(0.114)
Treatment*Month4			-1.228			-0.064
			(0.767)			(0.115)
Treatment*Month5			-1.654^{**}			0.120
			(0.772)			(0.115)
${\it Treatment}^*{\it Month6}$			-0.973			0.183
			(0.767)			(0.115)
Treatment*Month7			-1.296^{*}			0.228^{*}
			(0.758)			(0.116)
Treatment*Month8			-0.851			0.220^{*}
			(0.784)			(0.116)
Treatment*Month9			-2.214^{***}			0.129
			(0.766)			(0.117)
Individual Fixed Effect		\checkmark	\checkmark		\checkmark	\checkmark
Month Fixed Effect		\checkmark	\checkmark		\checkmark	\checkmark
Constant	4.015***	2.440	2.389	-0.006	-0.322	-0.320
	(0.550)	(1.650)	(1.653)	(0.101)	(0.210)	(0.210)
Observations	2,336	2,336	2,336	2,634	2,634	2,634
\mathbb{R}^2	0.005	0.431	0.432	0.021	0.640	0.642

Table 6: Objective productivity: Panel Data Analysis

Note: The table shows results of estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-3) and the log of the index of objective productivity per month (columns 4-6). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. Month (1 to 9) are dummy variables that have value of 1 if the observation refers to the specific month and 0 otherwise. In columns 2 and 5 of panel a, the coefficients of "Treatment" and "Post" are omitted because of collinearity. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

							Panel a.	Satisfaction u	nith					
	Incon	Income Health		h	Home	e -	Wo	rk	SocialLife		FreeT	lime	LifeInGeneral	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Treatment	0.039	0.213	0.166	0.271^{*}	0.176	0.310**	-0.102	0.129	0.420**	0.375***	0.423**	0.465***	0.336^{*}	0.296^{*}
	(0.142)	(0.112)	(0.145)	(0.112)	(0.133)	(0.112)	(0.143)	(0.137)	(0.141)	(0.114)	(0.140)	(0.119)	(0.134)	(0.117)
Controls		\checkmark		\checkmark		\checkmark		\checkmark		\checkmark		\checkmark		\checkmark
Observations	240	240	240	240	240	240	240	240	240	240	240	240	240	240
\mathbb{R}^2	0.0003	0.390	0.006	0.434	0.007	0.340	0.002	0.182	0.037	0.422	0.038	0.349	0.026	0.303
							Panel b. S	atisfaction as	usual					
-	Focu	IsOn	Lose	LessSleep	Usefi	ulRole	MakeDecisions AppreciateDailyActivities		lyActivities	LessStress		Overcome		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Treatment	0.542***	0.533***	0.354^{*}	0.368**	0.044	0.160	0.283	0.325^{*}	0.665***	0.649***	0.682***	0.691***	0.401**	0.435**
	(0.147)	(0.148)	(0.142)	(0.140)	(0.150)	(0.148)	(0.146)	(0.146)	(0.139)	(0.140)	(0.137)	(0.130)	(0.151)	(0.149)
Controls		\checkmark		√		~		\checkmark		\checkmark		\checkmark		~
Observations	240	240	240	240	240	240	240	240	240	240	240	240	240	240
\mathbb{R}^2	0.054	0.104	0.026	0.110	0.0004	0.133	0.016	0.086	0.088	0.132	0.095	0.227	0.029	0.122

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Table '	$7 \cdot$	Well-heing	and	work-life	halance
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				Panel c	. Work-life baland	ce		
	WorkingHours		Balance		HouseholdActivity		CareActivity	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.113	0.206	0.173	0.313*	0.580***	0.573***	1.169***	1.220***
	(0.146)	(0.130)	(0.148)	(0.125)	(0.135)	(0.139)	(0.124)	(0.124)
Controls		\checkmark		\checkmark		\checkmark		\checkmark
Observations	240	240	240	240	240	240	240	240
\mathbb{R}^2	0.003	0.259	0.006	0.351	0.072	0.084	0.272	0.328

Notes: The table shows results of estimates of Equation 1. The dependent variables in Panel a measure satisfaction with 7 dimension of life on a scale from 1 (highly dissatisfied) to 7 (highly satisfied); the dependent variables in Panel b indicate if respondents have been able to deal with 7 aspects of their life on the scale from 1 (much less than usual) to 5 (much more than usual); the dependent variables in Panel c measure work-life balance: satisfaction with working hours on a scale from 1 (highly dissatisfied) to 5 (highly satisfied), ability to balance work with personal and family life on a scale from 1 (no ability) to 4 (high ability), time dedicated to household activities per day and to taking care of others on a scale from 1 (the time has decreased over the last 6 months) to 5 (the time has increased)."Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group. The regression includes (the respective coefficients are not shown in the table) individual controls for age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction).Significance: *p < 0.01:

Table 8: Balance Test by gender - Treatment and Control groups (means of observable characteristics)

		Ι	Male		Female				
Variables	Treatment	Control	Test Statistic	p-value	Treatment	Control	Test Statistic	p-value	
Obs.	107	63			85	48			
Age	43.19	43.17	0.01047	0.9917	43.28	44.25	-0.6724	0.5025	
Law104Worker	0.009346	0.03175	-1.069	0.2868	0.07059	0	1.895	0.06031	
Law104Relatives	0.2897	0.2381	0.7286	0.4673	0.2824	0.2917	-0.1133	0.9099	
Child	0.785	0.8254	-0.6322	0.5281	0.7176	0.6875	0.3642	0.7163	
Young Child	0.3084	0.3333	-0.3352	0.7379	0.2824	0.2292	0.665	0.5072	
km	29.55	35.51	-0.9386	0.3498	30.66	31.06	-0.05946	0.9527	
White coller	0.7547	0.7410	0.1825	0.8546					

Note: Two-sample t-test for a comparison between means. Significance: * indicates p<0.05. We do not have Female Blu Collar.

			Pa	nel a: Obje	ective Produc	ctivity			
			Days of Lea	we Inde	x of objectiv	e productiv	rity		
			(1)	(1) (2)					
	Treatme	nt	-0.097		0.2	270*			
			(0.114))	(0.1	.11)			
	Female		0.261		-0.0)70			
			(0.195))	(0.1	.78)			
	Treatme	nt * Female	-0.402		-0.0)64			
			(0.229))	(0.212)				
	Constan	t	-0.033	-0.033 -0.159					
			(0.106)	(0.106)		(0.103)			
	Observat	tions	252		232	2			
	\mathbb{R}^2		0.526	0.526 0.689					
	Pa	nel b: Self-report	ted Productivity		Panel	c: Productivit	y reported by Si	orted by Supervisors	
	Production	Efficiency	Proactivity	Deadlines	Production	Efficiency	Proactivity	Deadlines	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Treatment	0.063	0.378^{*}	0.678***	0.299	0.169	0.081	-0.088	0.775***	
	(0.074)	(0.153)	(0.159)	(0.204)	(0.182)	(0.184)	(0.178)	(0.185)	
Female	0.174	0.513^{*}	0.687^{**}	-0.301	0.407	0.673	0.176	0.961^{**}	
	(0.115)	(0.235)	(0.249)	(0.314)	(0.341)	(0.344)	(0.334)	(0.346)	
Treatment*Female	-0.096	-0.418	-0.910^{**}	0.118	-0.259	-0.481	-0.065	-0.883^{*}	
	(0.138)	(0.283)	(0.300)	(0.355)	(0.379)	(0.382)	(0.371)	(0.385)	
Constant	0.373^{***}	-0.359^{**}	-0.492^{***}	-0.137	-0.198	-0.150	0.029	-0.631^{***}	
	(0.067)	(0.138)	(0.145)	(0.197)	(0.170)	(0.171)	(0.166)	(0.172)	
Observations	240	240	240	240	150	150	150	150	
\mathbb{R}^2	0.366	0.277	0.230	0.142	0.423	0.343	0.388	0.391	

Table 9: Productivity by gender

n 0.300 0.211 0.230 0.142 0.423 0.343 0.388 0.391 Note: Panel a shows results of estimates of Equation 1 where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures of productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group, "Female" is a dummy variable that has the value of 1 if the individual is a female. "Treatment*Female" is the interaction term of our interest. The regressions include (the respective coefficients are not shown in the table) individual controls for: age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

	Days of leave p	er month	Index of objective productivity per month		
	(1)	(2)	(3)	(4)	
Treatment	0.912		0.168		
	(0.892)		(0.167)		
Female	2.195^{*}		-0.484		
	(1.121)		(0.511)		
post	0.898		-0.541		
	(0.736)		(0.355)		
Treatment * Female	-1.279		0.111		
	(1.390)		(0.636)		
Treatment * post	-1.094	-1.015	0.350	0.306	
	(0.937)	(0.763)	(0.445)	(0.287)	
Female * post	-0.456	0.014	0.059	0.048	
	(1.176)	(0.957)	(0.540)	(0.348)	
Treatment * Female * post	-0.092	-0.729	-0.094	-0.063	
	(1.459)	(1.187)	(0.672)	(0.434)	
Individual Fixed Effect		\checkmark		\checkmark	
Month Fixed Effect		\checkmark		\checkmark	
Constant	3.160^{***}	2.446	3.214^{***}	2.226^{***}	
	(0.700)	(1.692)	(0.336)	(0.548)	
Observations	2,336	2,336	2,634	2,634	
\mathbb{R}^2	0.018	0.431	0.028	0.640	

Table 10: Objective productivity by gender: Panel Data Analysis

Note: The table shows results of estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per month (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group; "Female" is a dummy variable that has the value of 1 if the individual is a female. "Treatment*Female" is the interaction term of our interest; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. In columns 2 and 4 of panel a, the coefficients of "Treatment", "Female", "Treatment*Female" and "Post" are omitted because of collinearity.

				Panel a. Sa	tisfaction with:		
	Incom	e Health	Hon	ne Wor	k SocialLife	FreeTime	LifeInGeneral
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	0.13	36 0.214	0.3	329* -0.0	010 0.311*	0.482***	0.128
	(0.13)	32) (0.135) (0.1	(0.1	.60) (0.133)	(0.142)	(0.138)
Female	0.00	67 -0.078	0.2	219 -0.2	236 -0.220	0.118	-0.362
	(0.2)	10) (0.209) (0.2	209) (0.2	(0.224)	(0.234)	(0.217)
Treatment*Female	0.2	76 0.191	-0.0	066 0.5	0.243	-0.061	0.583^{*}
	(0.25)	54) (0.251) (0.2	251) (0.3	(0.264)	(0.274)	(0.260)
Constant	-0.2	16 -0.168	-0.3	347** -0.0	-0.145	-0.296^{*}	-0.109
	(0.15	21) (0.122)) (0.1	20) (0.1	44) (0.122)	(0.129)	(0.126)
Observations	240	240	240) 240	240	240	240
B ²	0.303	240	0.34	0 0.10	2 0 424	0.340	0.318
<u> </u>	0.395 0.455 0.340 0.192 0.424 0.349					0.318	
-	P 0			Panel b. Satisfe	iction as usual:		
	FocusOn	LoseLessSleep	UsefulRole	MakeDecisions	AppreciateDailyActi	vities LessStress	overcome
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	0.337	0.214	-0.069	0.280	0.590^{***}	0.711*	•** 0.501**
	(0.174)	(0.165)	(0.174)	(0.173)	(0.166)	(0.166) (0.155)	
Female	-0.563^{*}	-0.162	-0.558^{*}	-0.399	-0.014	0.254	0.329
	(0.274)	(0.261)	(0.269)	(0.273)	(0.261)	(0.245)	(0.278)
Treatment*Female	0.690*	0.539	0.792^{*}	0.160	0.206	-0.073	-0.233
	(0.330)	(0.313)	(0.323)	(0.329)	(0.314)	(0.293)	(0.334)
Constant	-0.256	-0.173	0.037	-0.039	-0.452^{**}	-0.574^{*}	-0.385*
	(0.158)	(0.150)	(0.158)	(0.158)	(0.151)	(0.141)	(0.161)
Observations	240	240	240	240	240	240	240
\mathbb{R}^2	0.122	0.121	0.156	0.087	0.133	0.227	0.124

Table 11:	Well-being	and	work-life	balance	by	gender
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		Panel c. Work-life balance						
	WorkingHours	Balance	HouseholdActivity	CareActivity				
	(1)	(2)	(3)	(4)				
Treatment	0.049	0.181	0.513**	1.180***				
	(0.155)	(0.149)	(0.165)	(0.150)				
Female	-0.483	-0.391	-0.288	-0.057				
	(0.246)	(0.236)	(0.260)	(0.233)				
Treatment*Female	0.544	0.454	0.210	0.136				
	(0.292)	(0.281)	(0.313)	(0.286)				
Constant	-0.023	-0.116	-0.365^{*}	-0.957^{***}				
	(0.141)	(0.136)	(0.150)	(0.134)				
Observations	240	240	240	240				
\mathbb{R}^2	0.271	0.358	0.086	0.320				

	Team				No Team				
Variables	Treatment	Control	Test Statistic	p-value	Treatment	Control	Test Statistic	p-value	
Obs.	135	75			Obs.	56	35		
Age	43.3	42.89	0.3813	0.7034	43.2	44.83	-0.9561	0.3416	
Male	0.563	0.64	-1.086	0.2789	0.5357	0.4	1.257	0.2119	
Law104Worker	0.02963	0.01333	0.7397	0.4603	0.05357	0.02857	0.5607	0.5764	
Law104Relatives	0.2815	0.2267	0.8631	0.3891	0.2857	0.3429	-0.5693	0.5706	
Child	0.7481	0.7867	-0.6255	0.5323	0.7679	0.7429	0.2681	0.7892	
Young Child	0.2889	0.3067	-0.2694	0.7879	0.3214	0.2571	0.6474	0.519	
km	30.4	31.61	-0.2139	0.8309	29.29	37.1	-0.9956	0.3228	
White Collar	0.8519	0.8267	0.4785	0.6328	0.8929	0.9143	-0.3296	0.7424	

Table 12: Balance Tests by team - Treatment and Control groups (means of observable characteristics)

Note: Two-sample t-test for a comparison between means. Significance: * indicates $p{<}0.05.$

Table 13:	Productivity	by	team
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				Pa	anel a: Obj	ective Pro	ductivity	-	
			_	Days of Le	ave Inde	ex of object	tive productivity	-	
		(1)		(1)					
	Tr	eatment		-0.662	***	_	0.013	-	
				(0.187)	·)	((0.196)		
	Te	am		-0.361		_	0.258		
				(0.185)	5)	((0.197)		
	Tr	eatment $*$	Team	0.629	**		0.348		
				(0.219))	((0.225)		
	Co	onstant		0.316			0.020		
				(0.163)		(0.178)			
	Observations		252	252 232		232	-		
	\mathbb{R}^2			0.540	0.540 0.691		.691		
	Par	nel b: Self-rep	orted Product	ivity Panel c: Productivity reported by			y supervisors		
	Production	Efficiency	Proactivity	Deadlines	Production	Efficiency	Proactivity	Deadlines	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Treatment	0.275	0.454	0.414	0.455	0.378	-0.159	-0.371	0.444	
	(0.245)	(0.238)	(0.256)	(0.357)	(0.266)	(0.272)	(0.256)	(0.277)	
Team	0.047	0.038	-0.169	0.098	0.241	-0.311	-0.399	-0.298	
	(0.248)	(0.241)	(0.259)	(0.371)	(0.294)	(0.301)	(0.284)	(0.309)	
${\rm Treatment}^{*}{\rm Team}$	-0.177	-0.283	-0.006	-0.152	-0.395	0.221	0.416	0.210	
	(0.291)	(0.283)	(0.305)	(0.401)	(0.329)	(0.336)	(0.317)	(0.342)	
Constant	-0.133	-0.209	-0.166	-0.340	-0.239	0.252	0.355	-0.195	
	(0.210)	(0.225)	(0.334)	(0.239)	(0.245)	(0.230)	(0.251)		
Observations	240	240	240	240	173	173	173	173	
\mathbb{R}^2	0.284	0.278	0.204	0.142	0.440	0.338	0.412	0.368	

R² 0.28 0.278 0.204 0.142 0.440 0.38 0.412 0.420 0.432 0.420 0.38 0.412 0.458 0.412 0.508 Note: Panel a shows results of estimates of Equation 1 where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are four measures of productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group, "Team" is a dummy variable that has the value of 1 if the individual works in team and 0 otherwise. "Treatment "Team" is the interaction term of our interest. The regressions include (the respective coefficients are not shown in the table) individual controls for: age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: "p<0.1; **p<0.05; ***p<0.05; ***p<0.01.Significance: _*p<0.1; **p<0.05; ***p<0.05; ***p<0.01.

	Days of leave	per month	Index of objective productivity per month		
	(1)	(2)	(3)	(4)	
Treatment	-0.689		0.195		
	(1.378)		(0.234)		
Team	-2.376^{*}		0.907		
	(1.272)		(0.556)		
post	-0.065		-0.385		
	(1.155)		(0.495)		
Treatment * Team	1.539		-0.025		
	(1.588)		(0.277)		
Treatment * post	-1.002	-1.361	0.109	0.112	
	(1.442)	(1.174)	(0.248)	(0.161)	
Team * post	1.062	0.670	-0.071	-0.072	
	(1.332)	(1.082)	(0.232)	(0.151)	
Treatment * Team * post	-0.253	0.022	0.017	-0.001	
	(1.664)	(1.353)	(0.292)	(0.190)	
Individual Fixed Effect		\checkmark		\checkmark	
Month Fixed Effect		\checkmark		\checkmark	
Constant	5.805^{***}	12.294^{***}	-0.262	-0.421	
	(1.104)	(2.516)	(0.186)	(0.370)	
Observations	2,336	2,336	2,634	2,634	
\mathbb{R}^2	0.012	0.431	0.038	0.640	

Table 14: Objective productivity by team: Panel Data Analysis

It0.0120.4510.0300.040Note: The table shows results of estimates of Equation 1 for a panel regression where observations for individuals in each month are pooled and
where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per
month (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and
is 0 if he/she belongs to the control group; "Team" is a dummy variable that has the value of 1 if the individual is in team. "Treatment*Team"
is the interaction term of our interest; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment
and 0 otherwise. In columns 2 and 4 of panel a, the coefficients of "Treatment", "Team", "Treatment*Team" and "Post" are omitted because
of collinearity.

		Panel a. Satisfaction with:							
	Income	Health	Home	Work	SocialLife	FreeTime	LifeInGeneral		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Treatment	0.105	0.159	0.248	-0.374	0.358	0.480^{*}	0.263		
	(0.213)	(0.208)	(0.209)	(0.252)	(0.218)	(0.227)	(0.220)		
Team	-0.039	-0.061	0.071	-0.501^{*}	-0.064	-0.007	-0.0003		
	(0.216)	(0.213)	(0.212)	(0.253)	(0.222)	(0.231)	(0.224)		
$Treatment^*Team$	0.154	0.160	0.090	0.707^{*}	0.023	-0.022	0.046		
	(0.254)	(0.251)	(0.249)	(0.298)	(0.259)	(0.270)	(0.263)		
Constant	-0.124	-0.136	-0.303	0.292	-0.165	-0.247	-0.206		
	(0.188)	(0.183)	(0.184)	(0.220)	(0.194)	(0.200)	(0.194)		
Observations	240	240	240	240	240	240	240		
\mathbb{R}^2	0.392	0.435	0.345	0.203	0.422	0.349	0.303		

Table 15: Well-being and work-life balance by team

	Panel b. Satisfaction as usual:								
	FocusOn	LoseLessSleep	UsefulRole	MakeDecisions	AppreciateDailyActivities	LessStress	Overcome		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Treatment	0.381	0.826**	-0.283	0.588^{*}	0.503	0.766^{**}	0.061		
	(0.279)	(0.267)	(0.272)	(0.275)	(0.264)	(0.245)	(0.277)		
Team	0.112	0.472	-0.470	0.389	-0.210	0.255	-0.056		
	(0.282)	(0.271)	(0.276)	(0.278)	(0.267)	(0.248)	(0.280)		
${\rm Treatment}^*{\rm Team}$	0.214	-0.692^{*}	0.630	-0.368	0.204	-0.103	0.530		
	(0.332)	(0.318)	(0.325)	(0.327)	(0.314)	(0.291)	(0.328)		
Constant	-0.497^{*}	-0.546^{*}	0.213	-0.475^{*}	-0.285	-0.646^{**}	-0.208		
	(0.244)	(0.235)	(0.240)	(0.241)	(0.232)	(0.215)	(0.243)		
Observations	240	240	240	240	240	240	240		
\mathbb{R}^2	0.119	0.076	0.148	0.094	0.134	0.234	0.151		

		Panel c.	Work-life balance	
	WorkingHours	Balance	HouseholdActivity	CareActivity
	(1)	(2)	(3)	(4)
Treatment	0.554^{*}	0.472^{*}	0.605^{*}	1.342**
	(0.245)	(0.234)	(0.262)	(0.233)
Team	0.250	-0.078	-0.080	-0.112
	(0.248)	(0.236)	(0.267)	(0.238)
Treatment*Team	-0.489	-0.221	-0.046	-0.170
	(0.291)	(0.278)	(0.313)	(0.277)
Constant	-0.366	-0.197	-0.416	-0.897^{**}
	(0.215)	(0.205)	(0.231)	(0.205)
Observations	240	240	240	240
\mathbb{R}^2	0.271	0.363	0.087	0.339

Note: The table shows results of estimates of Equation 1. The dependent variables in Panel a measure satisfaction with 7 dimension of life on a scale from 1 (highly dissatisfied) to 7 (highly satisfied); the dependent variables in Panel b indicate if respondents have been able to deal with 7 aspects of their life on the scale from 1 (much less than usual) to 5 (much more than usual); the dependent variables in Panel c measure work-life balance: satisfaction with working hours on a scale from 1 (highly dissatisfied) to 5 (highly satisfied), ability to balance work with personal and family life on a scale from 1 (no ability) to 4 (high ability), time dedicated to household activities per day and to taking care of others on a scale from 1 (the time has decreased over the last 6 months) to 5 (the time has increased)."Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group. All the regressions include (coefficients are not shown in the table) individual controls for: age, squared age, gender, law 104 worker, law 104 relatives, child, young child, and km. Variables are standardized as z-scores, p-values adjusted for multiple testing hypothesis (Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

				Par	nel a: Obje	ective Pro	ductivity	
			Ι	Days of Leav	ve Inde	x of objec	tive productivi	ty
				(1)			(2)	
	Trea	tment		0.111			0.394**	
				(0.138)		((0.135)	
	km			0.010^{**}	**		0.003	
				(0.003)		((0.002)	
	Trea	tment * 1	km	-0.010^{**}	ĸ	_	0.004	
				(0.003)		((0.003)	
	Con	stant		-0.276^{*}		-0.300^{*}		
				(0.127)		((0.122)	
	Obs	Observations		252		:	232	
	\mathbb{R}^2			0.542		0	.690	
	Pan	el b: Self-repo	rted Produc	tivity		Panel c:	Productivity reported b	by supervisors
	Production	Efficiency	Proactivi	ity Deadlines	Production	Efficiency	Proactivity	Deadlines
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.086	0.230	0.45	2* 0.304	0.316	0.301	0.487^{*}	0.794**
	(0.088)	(0.185)	(0.19)	2) (0.228)	(0.247)	(0.249)	(0.236)	(0.255)

 $\rm km$

 \mathbf{R}^2

Treatment*km

Constant

Observations

0.0001

(0.001)

(0.002)

(0.080)

240

0.367

0.429***

-0.001

0.001

(0.003)

0.001

(0.004)

-0.210

(0.167)

240

0.270

0.001

(0.003)

-0.001

(0.004)

-0.324

(0.174)

240

0.199

-0.001

(0.004)

0.001

(0.005)

-0.215

(0.216)

240

0.142

0.005

(0.004)

-0.005

(0.005)

-0.277

(0.234)

173

0.426

 R^2 0.367 0.270 0.199 0.142 0.426 0.350 0.431 0.373 Note: Panel a shows results of estimates of Equation 1 where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are four measures of productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group; "Kun" is the home to work distance. "Treatment"tem" is in interaction between the two previous variables; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. In columns 2 and 5 of panel a, we omit the coefficients of variables dropped for collinearity. The regressions in panel b and c include (the respective coefficients are not shown in the table) individual controls for: age, squared age, gender, law 104 worker, law 104 relatives, child, white collar and dependent variables: "p<0.1; **p<0.05; ***p<0.01.

0.006

(0.004)

(0.005)

-0.217

(0.236)

173

0.350

-0.008

0.007

(0.004)

-0.015***

(0.005)

-0.248

(0.222)

173

0.431

0.006

(0.005)

-0.006

(0.005)

 -0.602^{*}

(0.241)

173

0.373

Table 16: Productivity by home to work distance (Km)

51

	Days of leave p	per month	Index of objective productivity per month		
	(1)	(2)	(3)	(4)	
Treatment	-0.408		0.292		
	(0.955)		(0.217)		
km	-0.021		-0.002		
	(0.019)		(0.010)		
post	-0.689		-0.694		
	(0.865)		(0.497)		
Treatment * km	0.025		-0.005		
	(0.021)		(0.012)		
Treatment * post	0.146	-0.202	0.409	0.431	
	(1.000)	(0.764)	(0.578)	(0.370)	
$\rm km^*$ post	0.032	0.026^{*}	0.006	0.007	
	(0.019)	(0.015)	(0.011)	(0.007)	
Treatment * km * post	-0.034	-0.029^{*}	-0.004	-0.005	
	(0.022)	(0.017)	(0.013)	(0.008)	
Individual Fixed Effect		\checkmark		\checkmark	
Month Fixed Effect		\checkmark		\checkmark	
Constant	4.847***	0.663	2.983***	2.425***	
	(0.826)	(2.194)	(0.471)	(0.606)	
Observations	1,872	1,872	2,110	2,110	
\mathbb{R}^2	0.007	0.496	0.026	0.645	

Table 17: Objective productivity by km: Panel Data Analysis

Note: The table shows results of a estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per month (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group; "km" is the home to work distance. "Treatment*km" is the interaction term of our interest; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. In columns 2 and 4 of panel a, the coefficients of "Treatment", "km", "Treatment*km" and "Post" are omitted because of collinearity.

	Panel a. Satisfaction with:									
	Income	Health	Home	Work	SocialLife	FreeTime	LifeInGeneral			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)			
Treatment	0.003	0.292	0.253	0.079	0.090	0.110	0.040			
	(0.159)	(0.159)	(0.158)	(0.192)	(0.160)	(0.167)	(0.165)			
km	-0.006^{*}	0.002	0.003	0.003	-0.006^{*}	-0.007^{**}	-0.003			
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)			
Treatment*km	0.006	-0.001	0.002	0.001	0.008^{*}	0.010^{**}	0.007^{*}			
	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)			
Constant	0.079	-0.243	-0.327^{*}	-0.147	0.011	0.027	-0.075			
	(0.144)	(0.145)	(0.143)	(0.174)	(0.146)	(0.151)	(0.150)			
Observations	240	240	240	240	240	240	240			
\mathbb{R}^2	0.400	0.434	0.340	0.183	0.438	0.375	0.317			

Table 18: Well-being and	work-life balance b	by home to work distance (I	Xm)
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	Panel b. Satisfaction as usual:									
	FocusOn	LoseLessSleep	UsefulRole	MakeDecisions	AppreciateDailyActivities	LessStress	Overcome			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)			
Treatment	0.332	0.059	0.035	0.195	0.450^{*}	0.494^{**}	0.529^{*}			
	(0.209)	(0.197)	(0.212)	(0.207)	(0.198)	(0.185)	(0.212)			
km	-0.004	-0.006	-0.001	0.002	-0.001	0.0003	0.001			
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)			
Treatment*km	0.006	0.009^{*}	0.003	0.004	0.006	0.005	-0.003			
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)			
Constant	-0.288	0.036	-0.082	-0.247	-0.380^{*}	-0.449^{**}	-0.308			
	(0.190)	(0.178)	(0.190)	(0.188)	(0.179)	(0.167)	(0.191)			
Observations	240	240	240	240	240	240	240			
\mathbb{R}^2	0.112	0.128	0.136	0.089	0.139	0.234	0.123			

		Panel c.	Work-life balance	
	WorkingHours	Balance	HouseholdActivity	CareActivity
	(1)	(2)	(3)	(4)
Treatment	-0.273	0.391^{*}	0.905***	1.307***
	(0.179)	(0.180)	(0.196)	(0.177)
km	-0.008^{**}	0.002	0.007^{*}	0.005
	(0.003)	(0.003)	(0.003)	(0.003)
Treatment*km	0.013***	-0.002	-0.009^{*}	-0.002
	(0.004)	(0.004)	(0.004)	(0.004)
Constant	0.151	-0.302	-0.745^{***}	-1.146^{**}
	(0.163)	(0.162)	(0.178)	(0.160)
Observations	240	240	240	240
\mathbb{R}^2	0.304	0.352	0.107	0.329

Note: The table shows results of estimates of Equation 1. The dependent variables in Panel a measure satisfaction with 7 dimension of life on a scale from 1 (highly dissatisfied) to 7 (highly satisfied); the dependent variables in Panel b indicate if respondents have been able to deal with 7 aspects of their life on the scale from 1 (much less than usual) to 5 (much more than usual); the dependent variables in Panel c measure work-life balance: satisfaction with working hours on a scale from 1 (highly dissatisfied) to 5 (highly satisfied), ability to balance work with personal and family life on a scale from 1 (no ability) to 4 (high ability), time dedicated to household activities per day and to taking care of others on a scale from 1 (the time has decreased over the last 6 months) to 5 (the time has increased)."Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment the two previous variables All the regressions include (coefficients are not shown in the table) individual controls for: age, squared age, gender, law 104 worker, law 104 relatives, child, young child. Variables are standardized as z-scores, p-values adjusted for multiple testing hypothesis (Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

		Pane	l a. Time wa	orked (in minutes	3)				
Variable	Trea	tment	С	ontrol	Test Statistic	p-value			
	Obs.	Mean	Obs.	Mean					
Minutes-Pre	190	525.911	109	521.615	0.652	0.515			
Minutes-Post	173	524.087	67	526.127	-0.286	0.776			
			Panel b. (DLS model					
	Minut	es Post	Availabil	ity to answer em	ails beyond the w	orking time			
			(Reported	by the worker)	(Reported by th	e supervisor)			
	(1)	(2)	(3)	(4)	(5)	(6)			
Treatment	-0.200	0.097	-0.010	0.018	0.049	0.358			
	(0.144)	(0.109)	(0.134)	(0.111)	(0.176)	(0.182)			
Controls		\checkmark		\checkmark		\checkmark			
Observations	240	240	240	240	173	150			
\mathbb{R}^2	0.008	0.443	0.00003	0.00003 0.359 0.0004					

Table 19: Overwork

Note: Panel a shows a Two-sample t-test for comparison between means. Significance: * indicates p<0.05. Panle b shows estimates of Equation 1. "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group. All regressions include (coefficients are not shown in the table) individual controls for age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

Table 20: Commitment to the company

	Attachment to the company		Work rec	ognized	Responsibility toward the company	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.194 (0.147)	-0.049 (0.121)	0.219 (0.137)	0.145 (0.122)	0.485^{*} (0.218)	0.465^{*} (0.218)
Controls	. ,	\checkmark		 ✓ 	. ,	✓
Observations R ²	$240 \\ 0.007$	240 0.385	240 0.011	240 0.263	$240 \\ 0.021$	240 0.116

Note: The table shows results of estimates of Equation 1. "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group. All regressions include (coefficients are not shown in the table) individual controls for age, squared age, law 104 worker, law 104 relatives, child, young child, km,white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

Variables	Be	efore	А	fter	Test Statistic	p-value
	Obs	Mean	Obs	Mean		
Objective productivity						
Days of leave	110	2.811	88	4.509	3.226	0.00147*
Index Objective Productivity	97	3.005	82	2.472	-1.822	0.070
			Self-1	reported	productivity	
Production	108	3.769	67	3.925	-1.415	0.1587
Efficiency	108	3.722	67	3.91	-1.632	0.1045
Proactivity	108	3.741	67	3.806	-0.5841	0.5599
Deadlines	108	4.556	40	4.95	-4.657	7.138e-06
				Well-b	eing	
Income	106	4.16	65	4.154	0.02886	0.977
Health	108	4.843	63	4.635	0.7915	0.4298
Home	106	5.283	65	5.046	1.002	0.3177
Work	106	5.038	65	4.985	0.247	0.8052
SocialLife	105	4.752	64	4.422	1.203	0.2307
FreeTime	107	3.178	64	2.984	0.6749	0.5007
LifeInGeneral	107	5.019	66	4.818	1.035	0.3019
			Sat	tisfaction	ı as usual	
FocusOn	108	3.204	66	3.136	0.5264	0.5993
LoseSleep	108	2.685	66	2.682	0.02031	0.9838
UsefulRole	108	3.222	66	3.182	0.2729	0.7853
MakeDecisions	108	3.324	66	3.288	0.2694	0.7879
AppreciateDailyActivities	108	3.13	66	3.136	-0.06097	0.9515
LessStress	108	2.343	66	2.545	-1.478	0.1412
Overcome	108	3.037	66	3.227	-1.362	0.175
		Work-life balance				
WorkingHours	108	2.62	66	2.591	0.1959	0.8449
Balance	108	2.417	66	2.576	-1.283	0.2013
HouseholdActivity	108	1.481	66	3.136	-8.381	1.808e-14
CareActivity	108	2.12	66	3.288	-5.522	1.218e-07

Table 21: Difference of the means before/after Control group

Notes: Two-sample t-test for a comparison between means. Significance: * indicates p < 0.05.

Online Appendixes to the paper "Smart-working: Work Flexibility Without Constraints"

April 2022

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1 Appendix A: Balance tests

		Par	nel a.			
Variable	Tre	eated	Co	ntrol	Test Statistic	p-value
	Obs.	Mean	Obs.	Mean		1
	Oi	bjective p	product	ivity		
Monthly productivity	175	3.470	97	3.005	1.826	0.069
Days of leave	191	4.776	109	4.070	0.9862	0.3253
	Self	-reported	l produ	ctivity		
Production	191	3.874	110	3.773	1.125	0.2615
Efficiency	191	3.905	110	3.727	2.066	0.03971 *
Proactivity	191	3.821	110	3.736	0.9669	0.3344
Deadlines	191	4.611	110	4.545	1.059	0.2907
		Well-	being			
Income	191	4.117	108	4.148	-0.1797	0.8575
Health	191	4.653	110	4.818	-0.8062	0.4208
Home	191	5.121	110	5.25	-0.7047	0.4816
Work	191	4.831	110	5.037	-1.252	0.2114
SocialLife	191	4.856	110	4.738	0.5786	0.5633
FreeTime	191	3.107	110	3.174	-0.3214	0.7482
LifeInGeneral	191	4.989	110	5.009	-0.1252	0.9004
	Sc	atis factic	on as u	sual		
FocusOn	191	2.958	110	3.209	-2.398	0.01711 *
LoseLessSleep	191	2.579	110	2.682	-0.7876	0.4316
UsefulRole	191	3.047	110	3.218	-1.489	0.1376
MakeDecisions	191	3.2	110	3.327	-1.208	0.2282
AppreciateDailyActivities	191	3.011	110	3.127	-1.239	0.2162
LessStress	191	2.579	110	2.682	-0.7876	0.4316
NotOvercome	191	2.211	110	2.355	-1.326	0.1857
		Work-lif	e balan	ce		
WorkingHours	191	2.637	110	2.627	0.08019	0.9361
Balance	191	2.463	110	2.418	0.456	0.6488
HouseholdActivity	191	1.489	110	1.473	0.1977	0.8434
CareActivity	191	2.079	110	2.118	-0.3371	0.7363

Table A.1: Balance tests of pre-treatment outcomes

Panel b. 1	Responde	nts to the	e post-tr	reatment of	questionnaire	
Variable	Tre	eated	Сс	ontrol	Test Statistic	p-value
	Obs.	Mean	Obs.	Mean		
	C	bjective p	oroducti	vity		
Monthly productivity	160	3.514	57	2.924	1.842	0.0669
Days of leave	173	4.892	67	4.197	0.7438	0.4581
	Sel	f-reported	l produc	ctivity		
Production	173	3.879	67	3.776	0.9634	0.3363
Efficiency	173	3.895	67	3.687	2.05	0.04147 *
Proactivity	173	3.808	67	3.746	0.5861	0.5584
Deadlines	173	4.610	67	4.552	0.7939	0.428
		Well	-being			
Income	173	4.112	67	4.328	-1.083	0.2799
Health	173	4.657	67	4.836	-0.7106	0.4781
Home	173	5.116	67	5.358	-1.108	0.2691
Work	173	4.789	67	5.061	-1.367	0.1729
SocialLife	173	4.829	67	4.500	1.308	0.1921
FreeTime	173	3.071	67	2.803	1.076	0.2829
LifeInGeneral	173	4.959	67	4.833	0.6476	0.5179
	S	Satisfactio	on as us	sual		
FocusOn	173	2.988	67	3.164	-1.436	0.1522
LoseLessSleep	173	2.570	67	2.597	-0.1785	0.8585
UsefulRole	173	3.052	67	3.343	-2.159	0.03189^{*}
MakeDecisions	173	3.233	67	3.299	-0.5273	0.5985
AppreciateDailyActivities	173	3.035	67	3.239	-1.804	0.07245
LessStress	173	2.570	67	2.597	-0.1785	0.8585
NotOvercome	173	2.186	67	2.328	-1.079	0.2817
		Work-lif	e baland	ce		
WorkingHours	173	2.640	67	2.552	0.6098	0.5426
Balance	173	2.465	67	2.418	0.3927	0.6949
HouseholdActivity	173	1.506	67	1.448	0.5724	0.5676
CareActivity	173	2.128	67	2.134	-0.04639	0.963

		Panel c.	Treated	group		
Variable	Respo	ondents	Non-re	espondents	Test Statistic	p-value
	Obs.	Mean	Obs.	Mean		
		Objective	product	ivity		
Monthly productivity	160	3.514	15	2.998	0.8927	0.3733
Days of leave	173	4.892	18	3.606	0.8236	0.4118
	S	elf-report	ed produ	ctivity		
Production	173	3.879	18	3.833	0.2344	0.8149
Efficiency	173	3.895	18	4.000	-0.5971	0.5512
Proactivity	173	3.808	18	3.944	-0.7272	0.468
Deadlines	173	4.610	18	4.611	-0.005098	0.9959
		We	ll-being			
Income	173	4.112	18	4.167	-0.1531	0.8785
Health	173	4.657	18	4.611	0.1037	0.9175
Home	173	5.116	18	5.167	-0.13065	0.8963
Work	173	4.789	18	5.222	-1.263	0.2082
SocialLife	173	4.829	18	5.111	-0.6919	0.4899
FreeTime	173	3.071	17	3.471	-0.9629	0.3369
LifeInGeneral	173	4.959	18	5.278	-0.9391	0.3489
		Satisfact	ion as u	sual		
FocusOn	173	2.988	18	2.667	1.494	0.1368
LoseLessSleep	173	3.430	18	3.333	0.3682	0.7131
UsefulRole	173	3.052	18	3.000	0.2144	0.8305
MakeDecisions	173	3.233	18	2.889	1.551	0.1227
AppreciateDailyActivities	173	3.035	18	2.778	1.273	0.2045
LessStress	173	2.570	18	2.667	-0.3682	0.7131
NotOvercome	173	2.186	18	2.444	-1.143	0.2544
		Work-l	ife balan	ice		
WorkingHours	173	2.640	18	2.611	0.1154	0.9083
Balance	173	2.465	18	2.444	0.1006	0.9199
HouseholdActivity	173	1.506	18	1.333	0.99	0.3235
CareActivity	173	2.128	18	1.611	2.184	0.03017 *

		Panel d.	Control	group		
Variable	Respo Obs.	ondents Mean	Non-re Obs.	espondents Mean	Test Statistic	p-value
		Objective	e product	ivity		
Monthly productivity	57	2.924	40	3.120	-0.5405	0.5901
Days of leave	67	4.197	43	3.883	0.2782	0.7816
	S	elf-report	ed produ	ctivity		
Production	67	3.776	43	3.767	0.06205	0.9506
Efficiency	67	3.687	43	3.791	-0.7178	0.4745
Proactivity	67	3.746	43	3.721	0.1881	0.8512
Deadlines	67	4.552	43	4.535	0.1706	0.8648
		We	ll-being			
Income	67	4.328	43	3.854	1.701	0.09182
Health	67	4.836	43	4.791	0.1444	0.8855
Home	67	5.358	43	5.073	0.9885	0.3252
Work	67	5.061	43	5.000	0.2295	0.8189
SocialLife	67	4.500	43	5.093	-1.724	0.08769
FreeTime	67	2.803	43	3.744	-2.58	0.01123 *
LifeInGeneral	67	4.833	43	5.279	-1.922	0.05725
		Satisfact	tion as u	sual		
FocusOn	67	3.164	43	3.279	-0.6673	0.506
LoseLessSleep	67	3.403	43	3.186	0.9729	0.3328
UsefulRole	67	3.343	43	3.023	1.814	0.07252
MakeDecisions	67	3.299	43	3.372	-0.4429	0.6587
AppreciateDailyActivities	67	3.239	43	2.953	2.026	0.04521 *
LessStress	67	2.597	43	2.814	-0.9729	0.3328
NotOvercome	67	2.328	43	2.395	-0.3819	0.7033
		Work-l	life balan	ece		
WorkingHours	67	2.552	43	2.744	-0.9789	0.3298
Balance	67	2.418	43	2.419	-0.004328	0.9966
HouseholdActivity	67	1.448	43	1.512	-0.4567	0.6488
CareActivity	67	2.134	43	2.093	0.214	0.831

Notes: Two-sample t-test for a comparison between means. Significance: * indicates p<0.05.

2 Appendix B: The covariates

			Dependen	et variable:
	Days o	f Leave	Inde	ex of objective productivity
	(1)	(2)	(3)	(4)
Treatment	-0.296**	-0.200*	0.263^{*}	0.252**
	(0.113)	(0.098)	(0.128)	(0.093)
Age		0.399		-0.007
		(0.472)		(0.414)
AgeSquared		-0.326		-0.013
		(0.455)		(0.404)
Female		-0.013		-0.058
		(0.053)		(0.048)
Law104Worker		0.218***		0.022
		(0.042)		(0.041)
Law104Relatives		0.197**		-0.008
		(0.069)		(0.062)
Child		-0.073		0.004
		(0.059)		(0.054)
Young Child		-0.005		-0.026
		(0.069)		(0.068)
km		0.056		0.010
		(0.042)		(0.037)
WhiteCollar		-0.082		-0.048
		(0.060)		(0.059)
Ypre		0.460***		0.820***
		(0.054)		(0.046)
Constant	0.039	0.030	-0.172	-0.197*
	(0.091)	(0.095)	(0.102)	(0.088)
Observations	252	252	232	232
\mathbb{R}^2	0.026	0.518	0.018	0.689

Table B.1: Objective productivity

Notes: The table shows results of estimates of Equation 1. The dependent variables are the number of days of leave (columns 1-2) and the log of the index of objective productivity (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the treated group and is 0 if he/she belongs to the control group. All individual controls are explained in section 5.Variables are standardized as z-scores, p-values adjusted for multiple testing hypothesis (Bonferroni correction). Significance: p < 0.1; **p < 0.05; ***p < 0.01.

					De	pendent variable	:	
	Produ	uction	Effic	iency	Proact	ivity –		Deadlines
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.203	0.152	0.346^{*}	0.246	0.460**	0.408**	0.459**	0.398*
	(0.149)	(0.130)	(0.143)	(0.128)	(0.144)	(0.135)	(0.168)	(0.163)
Age		1.286		1.822**		0.415		-0.165
		(0.656)		(0.637)		(0.687)		(0.745)
AgeSquared		-1.244		-1.895^{**}		1.869***		0.161
		(0.650)		(0.631)		(0.680)		(0.732)
Female		0.084		0.091		0.014		-0.057
		(0.067)		(0.065)		(0.071)		(0.074)
Law104Worker		-0.079		-0.098		0.021		-0.030
		(0.064)		(0.062)		(0.067)		(0.081)
Law104Relatives		-0.143		-0.059		0.055		-0.076
		(0.087)		(0.085)		(0.091)		(0.093)
Child		-0.029		0.074		0.020		-0.069
		(0.076)		(0.074)		(0.079)		(0.082)
YoungChild		0.001		-0.019		0.079		0.016
		(0.087)		(0.085)		(0.092)		(0.098)
km		-0.057		0.048		0.007		0.001
		(0.054)		(0.052)		(0.056)		(0.060)
WhiteCollar		-0.040		0.131		0.079		-0.289^{***}
		(0.073)		(0.071)		(0.077)		(0.076)
Ypre		0.514^{***}		0.392***		0.396***		-0.269^{***}
		(0.064)		(0.058)		(0.064)		(0.067)
Constant	-0.145	-0.078	-0.277^{*}	-0.166	-0.310^{*}	-0.288^{*}	-0.402^{**}	-0.311*
	(0.127)	(0.120)	(0.122)	(0.117)	(0.123)	(0.125)	(0.152)	(0.157)
Observations	240	240	240	240	240	240	240	240
\mathbb{R}^2	0.008	0.283	0.024	0.280	0.041	0.202	0.034	0.200

Table B.2: Self-reported productivity

Notes: The table shows results of estimates of Equation 1. The dependent variables are 4 measures of self-reported productivity. "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the treated group and is 0 if he/she belongs to the control group. All individual controls are explained in section 5. Variables are standardized as z-scores, p-values adjusted for multiple testing hypothesis (Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

					i	Dependent varia	ble:	
	Produ	iction	Effic	iency	Proac	tivity		Deadlines
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.185	0.108	0.033	-0.034	-0.243	-0.104	0.296	0.568***
	(0.166)	(0.158)	(0.153)	(0.160)	(0.153)	(0.155)	(0.159)	(0.164)
Age		-0.120		-0.568		1.095		-0.387
		(0.605)		(0.619)		(0.593)		(0.625)
AgeSquared		-0.100		0.365		-1.268^{*}		0.246
		(0.586)		(0.606)		(0.573)		(0.607)
Female		0.098		0.140		0.061		0.121
		(0.073)		(0.074)		(0.072)		(0.075)
Law104Worker		-0.033		-0.043		-0.025		-0.102
		(0.065)		(0.065)		(0.063)		(0.066)
Law104Relatives		-0.113		-0.025		-0.001		-0.145
		(0.094)		(0.095)		(0.092)		(0.097)
Child		0.267***		0.303***		0.287^{***}		0.191*
		(0.081)		(0.082)		(0.082)		(0.084)
YoungChild		-0.316^{***}		-0.246^{**}		-0.207^{*}		-0.030
		(0.092)		(0.093)		(0.092)		(0.095)
km		0.027		-0.018		-0.181^{**}		0.041
		(0.060)		(0.061)		(0.059)		(0.062)
Ypre		0.459***		0.350***		0.393***		0.392***
-		(0.075)		(0.076)		(0.079)		(0.064)
Constant	-0.064	-0.066	0.021	0.061	0.252^{*}	0.093	-0.142	-0.362^{*}
	(0.138)	(0.151)	(0.127)	(0.152)	(0.126)	(0.147)	(0.131)	(0.156)
Observations	173	173	173	173	173	173	173	173
\mathbb{R}^2	0.007	0.421	0.0003	0.336	0.015	0.388	0.020	0.367

Table B.3: Productivity reported by supervisors

Notes: The table shows results of estimates of Equation 1. The dependent variables measure the productivity reported by supervisors. "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the treated group and is 0 if he/she belongs to the control group. All individual controls are explained in section 5. Variables are standardized as z-scores, p-values adjusted for multiple testing hypothesis (Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

							Depende	ent variable:						
	Inc	ome	Hea	alth	Ho	me	W	ork	Social	lLife	FreeT	lime	LifeInO	General
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Treatment	0.039	0.213	0.166	0.271*	0.176	0.310**	-0.102	0.129	0.420**	0.375***	0.423**	0.465***	0.336^{*}	0.296*
Age	(0.142)	-0.002	(0.145)	-0.290	(0.155)	0.054	(0.145)	0.272	(0.141)	-0.129	(0.140)	0.643	(0.134)	(0.117) 0.973 (0.604)
AgeSquared		-0.167		0.143		-0.042		-0.304		0.256		-0.792		-0.936
Female		0.128*		0.028		0.086		0.059		-0.023		0.037		0.020
Law104Worker		-0.100*		-0.166***		-0.065		-0.009		-0.100*		(0.004) -0.096 (0.052)		(0.001) -0.114^{*}
Law104Relatives		(0.049) 0.007		(0.049) -0.096 (0.072)		0.076		(0.060)		(0.050) -0.130		0.025		(0.051) -0.176^{*}
Child		0.168*		0.158*		0.100		0.030		0.034		0.073		(0.079) -0.007 (0.069)
YoungChild		(0.070) -0.137		(0.064)		(0.065) -0.079		(0.079)		(0.067) -0.067		(0.070) -0.114		(0.069) -0.094
km		(0.077) -0.077 (0.045)		(0.076) 0.045 (0.044)		(0.077) 0.116* (0.045)		(0.092) 0.116* (0.054)		(0.078) -0.006 (0.047)		(0.083) -0.011 (0.040)		(0.080) 0.064 (0.048)
YPre		0.645***		0.484*** (0.047)		0.520***		0.389***		0.549***		(0.043) 0.515*** (0.054)		(0.043) 0.417*** (0.052)
Constant	0.029 (0.121)	-0.155 (0.105)	-0.047 (0.125)	(0.047) -0.183 (0.104)	-0.102 (0.114)	-0.257^{*} (0.104)	0.116 (0.123)	(0.001) -0.072 (0.126)	-0.091 (0.120)	(0.000) (0.108)	-0.163 (0.120)	-0.251^{*} (0.112)	-0.114 (0.114)	-0.207 (0.110)
Observations	240	240	240	240	240	240	240	240	240	240	240	240	240	240
R ²	0.0003	0.390	0.006	0.434	0.007	0.340	0.002	0.182	0.037	0.422	0.038	0.349	0.026	0.303

Table B.4: Satisfaction with...

Note: The table shows results of estimates of Equation 1. The dependent variables measure satisfaction with 7 dimensions of life on a scale from 1 (highly dissatisfied) to 7 (highly satisfied). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the treated group and is 0 if he/she belongs to the control group. All individual controls are explained in section 5. Variables are standardized as z-scores, p-values adjusted for multiple testing hypothesis (Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

							Depende	ent variable:						
	Focus	On	LoseLe	ssSleep	Usefi	ılRole	MakeDe	cisions	AppreciateDai	lyActivities	LessSt	ress	Overc	ome
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Treatment	0.542***	0.533***	0.354^{*}	0.368**	0.044	0.160	0.283	0.325^{*}	0.665***	0.649***	0.682***	0.691***	0.401**	0.435**
	(0.147)	(0.148)	(0.142)	(0.140)	(0.150)	(0.148)	(0.146)	(0.146)	(0.139)	(0.140)	(0.137)	(0.130)	(0.151)	(0.149)
Age		0.578		-1.057		-0.174		0.669		0.285		-0.436		-1.022
		(0.772)		(0.719)		(0.753)		(0.756)		(0.717)		(0.669)		(0.761)
AgeSquared		-0.538		1.030		0.398		-0.577		-0.110		0.660		1.162
		(0.765)		(0.712)		(0.746)		(0.748)		(0.711)		(0.663)		(0.754)
Female		-0.042		0.106		-0.004		-0.143		0.064		0.101		0.084
		(0.076)		(0.072)		(0.074)		(0.075)		(0.071)		(0.067)		(0.076)
Law104Worker		-0.041		-0.023		-0.112		-0.012		-0.003		0.062		-0.023
		(0.065)		(0.062)		(0.064)		(0.065)		(0.062)		(0.058)		(0.066)
Law104Relatives		-0.227^{*}		0.053		0.006		0.021		-0.165		-0.177^{*}		-0.025
		(0.098)		(0.093)		(0.097)		(0.097)		(0.093)		(0.087)		(0.098)
Child		-0.142		0.020		0.101		-0.146		-0.135		-0.235^{**}		-0.071
		(0.087)		(0.082)		(0.085)		(0.085)		(0.082)		(0.076)		(0.087)
YoungChild		-0.139		0.175		-0.001		0.051		0.083		0.123		0.245*
		(0.103)		(0.097)		(0.100)		(0.103)		(0.097)		(0.090)		(0.103)
km		0.012		0.010		0.053		0.151*		0.097		0.130*		-0.028
		(0.061)		(0.057)		(0.059)		(0.059)		(0.057)		(0.053)		(0.060)
YPre		-0.098		0.246***		0.269***		0.133		-0.054		0.214***		0.236***
		(0.073)		(0.067)		(0.070)		(0.070)		(0.064)		(0.063)		(0.066)
Constant	-0.291^{*}	-0.429**	-0.295^{*}	-0.185	0.036	-0.126	-0.143	-0.198	-0.411^{***}	-0.436***	-0.434^{***}	-0.469***	-0.338^{**}	-0.265
	(0.126)	(0.137)	(0.121)	(0.130)	(0.128)	(0.138)	(0.125)	(0.136)	(0.119)	(0.130)	(0.117)	(0.121)	(0.129)	(0.138)
Observations	240	240	240	240	240	240	240	240	240	240	240	240	240	240
\mathbb{R}^2	0.054	0.104	0.026	0.110	0.0004	0.133	0.016	0.086	0.088	0.132	0.095	0.227	0.029	0.122

Table B.5: Satisfaction as usual

Notes: The table shows results of estimates of Equation 1. The dependent variable indicates the extent to which respondents have been able to deal with 7 aspects of their life on the scale from 1 (much less than usual) to 5 (much more than usual). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the treated group and is 0 if he/she belongs to the control group. All individual controls are explained in section 5. Variables are standardized as z-scores, p-values adjusted for multiple testing hypothesis (Bonferroni correction).Significance: "p<0.0;; "*p<0.0; "*p<0.01."

					Dependent v	ariable:		
	Workin	ngHours	Bala	ance	Household	Activity		CareActivity
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.113	0.206	0.173	0.313^{*}	0.580***	0.573***	1.169***	1.220***
	(0.146)	(0.130)	(0.148)	(0.125)	(0.135)	(0.139)	(0.124)	(0.124)
Age		0.041		0.387		0.059		-0.013
		(0.674)		(0.640)		(0.713)		(0.638)
AgeSquared		-0.062		-0.363		-0.012		0.019
		(0.667)		(0.635)		(0.707)		(0.632)
Female		-0.051		-0.036		-0.071		0.017
		(0.068)		(0.065)		(0.072)		(0.065)
Law104Worker		-0.015		-0.028		0.047		0.074
		(0.057)		(0.055)		(0.061)		(0.055)
Law104Relatives		-0.031		-0.058		0.018		-0.079
		(0.087)		(0.083)		(0.092)		(0.083)
Child		-0.085		0.029		-0.091		-0.164^{*}
		(0.077)		(0.073)		(0.082)		(0.073)
YoungChild		-0.060		-0.085		0.009		0.075
		(0.091)		(0.086)		(0.096)		(0.086)
km		0.034		0.002		0.024		0.116^{*}
		(0.053)		(0.051)		(0.057)		(0.051)
YPre		0.486***		-0.577^{***}		-0.034		0.086
		(0.059)		(0.057)		(0.065)		(0.061)
Constant	-0.058	-0.178	-0.039	-0.241^{*}	-0.452^{***}	-0.469^{***}	-0.975^{***}	-0.967^{***}
	(0.124)	(0.121)	(0.127)	(0.116)	(0.115)	(0.129)	(0.106)	(0.116)
Observations	240	240	240	240	240	240	240	240
\mathbb{R}^2	0.003	0.259	0.006	0.351	0.072	0.084	0.272	0.328

Table B.6: Work-life balance

Notes: The table shows results of estimates of Equation 1. The dependent variables measure work-life balance: satisfaction with working hours on a scale from 1 (highly dissatisfied) to 5 (highly satisfied), ability to balance work with personal and family life on a scale from 1 (no ability) to 4 (high ability), time dedicated to household activities per day and to taking care of others on a scale from 1 (the time has decreased over the last 6 months) to 5 (the time has increased). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the treated group and is 0 if he/she belongs to the control group. All individual controls are explained in section 5. Variables are standardized as z-scores, p-values adjusted for multiple testing hypothesis (Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

3 Appendix C: Lee Bounds

Figure 1: Lee Bound (2008)



Notes: We computed lee bounds, at 95% level of confidence, tight by gender, age class and having any child

4 Appendix D: Heterogeneity by Having Children

Table D.1: Balance Test for having children - Treated and Control groups (means of observable characteristics)

	Worke	rs with chil	dren	
Variables	Treated	Control	Test Statistic	p-value
Obs.	144	85		
Age	42.93	42.51	0.4423	0.6587
Male	0.5793	0.6118	-0.4814	0.6307
Law104Worker	0.03448	0.02353	0.465	0.6424
Law104Relatives	0.1793	0.1882	-0.1684	0.8664
	Workers	without ch	vildren	
Variables	Treated	Control	Test Statistic	p-value
Obs.	47	25		
Age	44.15	47.35	-1.452	0.1508
Male	0.4894	0.4231	0.5373	0.5928
Law104Worker	0.04255	0	1.06	0.2927
Law104Relatives	0.617	0.5	0.9615	0.3396

Note: Two-sample t-test for a comparison between means. Significance: * indicates p<0.05.

			Panel	a: Objective I	Productivity			
		-	Days of Leave	Index of ob	jective product	ivity		
			(1)		(2)			
	Treatmen	nt	-0.283		0.096			
			(0.243)		(0.214)			
	Child		-0.237		-0.119			
			(0.236)		(0.210)			
	Treatmen	nt * Child	0.099		0.203			
			(0.267)		(0.240)			
	Constant	,	0.220		-0.086			
			(0.214)		(0.187)			
	Observat	ions	252		232			
	\mathbb{R}^2		0.519		0.690			
	Pane	Panel b: Self-repo		ty	Prod	luctivity repor	ted by supervis	ors
	Production	Efficiency	Proactivity	Deadlines	Production	Efficiency	Proactivity	Deadlines
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.048	-0.133	-0.113	-0.363	-0.412	-0.317	0.356	
	(0.146)	(0.296)	(0.316)	(0.433)	(0.487)	(0.494)	(0.478)	(0.500)
Child	-0.163	-0.020	-0.441	0.221	0.188	0.363	0.486	0.253
	(0.146)	(0.297)	(0.316)	(0.439)	(0.489)	(0.496)	(0.478)	(0.504)
Treatment*Child	0.075	0.256	0.673	-0.454	0.528	0.424	0.240	0.239
	(0.164)	(0.329)	(0.353)	(0.468)	(0.517)	(0.524)	(0.508)	(0.531)
Constant	0.567^{***}	-0.151	0.077	-0.460	-0.158	-0.180	-0.262	-0.536
	(0.129)	(0.263)	(0.280)	(0.403)	(0.458)	(0.465)	(0.448)	(0.471)
Observations	240	240	240	240	150	150	150	150
\mathbb{R}^2	0.366	0.272	0.211	0.146	0.425	0.339	0.389	0.368

Table D.2: Productivity by having children

Note: Panel a shows results of estimates of Equation 1, where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1, where the dependent variables are four measures of productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group, "Child" is a dummy variable equal to 1 if the individual has at least 1 child and 0 otherwise. "Treatment*Child" is the interaction term of our interest. The regressions include (the respective coefficients are not shown in the table) individual controls for: age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

	Days of leave	per month	Index of objective p	productivity per month
	(1)	(2)	(3)	(4)
Treatment	0.169		0.981	
	(1.413)		(0.642)	
Child	-3.411^{***}		0.712	
	(1.313)		(0.588)	
post	-1.136		-0.071	
	(1.213)		(0.538)	
Treatment * Child	0.247		-0.686	
	(1.613)		(0.738)	
Treatment * post	-0.648	-0.873	-0.347	-0.301
	(1.480)	(1.206)	(0.677)	(0.437)
Child*post	2.414^{*}		-0.584	
	(1.375)		(0.620)	
Treatment * Child * post	-0.628	-0.530	0.858	0.766
	(1.690)	(1.378)	(0.778)	(0.502)
Individual Fixed Effect		\checkmark		\checkmark
Month Fixed Effect		\checkmark		\checkmark
Constant	6.673***	4.148**	2.469***	1.817***
	(1.159)	(1.864)	(0.510)	(0.595)
Observations	2,336	2,336	2,634	2,634
\mathbb{R}^2	0.024	0.433	0.023	0.641

Table D.3: Objective productivity by having children: Panel data analysis

Note: The table shows results of estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per month (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group; "Child" is a dummy variable equal to 1 if the individual has a least 1 child and 0 otherwise. "Treatment*Child" is the interaction term of our interest; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. In columns 2 and 4 of panel a, the coefficients of "Treatment", "Child", "Treatment*Child" and "Post" are omitted because of collinearity.

			Panel a	n. Satisfactio	on with:		
	Income	Health	Home	Work	SocialLife	FreeTime	LifeInGeneral
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	0.467	0.207	0.619^{*}	0.398	0.248	0.419	0.268
	(0.272)	(0.258)	(0.262)	(0.326)	(0.268)	(0.283)	(0.285)
Child	0.607^{*}	0.312	0.512	0.315	-0.034	0.130	-0.042
	(0.263)	(0.259)	(0.262)	(0.327)	(0.269)	(0.282)	(0.284)
Treatment*Child	-0.308	0.079	-0.378	-0.326	0.157	0.056	0.035
	(0.300)	(0.288)	(0.291)	(0.359)	(0.298)	(0.314)	(0.315)
Constant	-0.629^{**}	-0.417	-0.663^{**}	-0.327	-0.179	-0.348	-0.174
	(0.235)	(0.230)	(0.234)	(0.293)	(0.238)	(0.250)	(0.256)
Observations	240	240	240	240	240	240	240
\mathbb{R}^2	0.393	0.434	0.345	0.185	0.422	0.349	0.303

Table D.4:	Well-being a	d work-life	balance by	having (children
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	FocusOn	LoseLessSleep	UsefulRole	MakeDecisions	AppreciateDailyActivities	LessStress	Overcome
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	0.709*	0.373	0.327	-0.405	0.778*	1.048***	0.852^{*}
	(0.350)	(0.331)	(0.344)	(0.341)	(0.331)	(0.307)	(0.350)
Child	-0.175	0.053	0.388	-0.999^{**}	-0.199	-0.229	0.210
	(0.350)	(0.331)	(0.344)	(0.341)	(0.330)	(0.307)	(0.350)
Treatment*Child	-0.215	-0.007	-0.205	0.896^{*}	-0.159	-0.437	-0.510
	(0.388)	(0.367)	(0.381)	(0.379)	(0.366)	(0.340)	(0.388)
Constant	-0.305	-0.225	-0.429	0.600	-0.291	-0.313	-0.446
	(0.312)	(0.295)	(0.307)	(0.305)	(0.295)	(0.274)	(0.313)
Observations	240	240	240	240	240	240	240
\mathbb{R}^2	0.106	0.110	0.134	0.108	0.132	0.232	0.128

Panel b. Satisfaction as usual:

	Panel c. Work-life balance						
	WorkingHours	Balance	HouseholdActivity	CareActivity			
	(1)	(2)	(3)	(4)			
Treatment	0.434	0.106	-0.353	0.441			
	(0.308)	(0.296)	(0.325)	(0.288)			
Child	0.007	-0.118	-1.060^{***}	-1.084^{**}			
	(0.308)	(0.295)	(0.329)	(0.289)			
Treatment*Child	-0.279	0.252	1.135**	0.954^{**}			
	(0.341)	(0.327)	(0.361)	(0.320)			
Constant	-0.195	-0.140	0.387	-0.102			
	(0.275)	(0.264)	(0.293)	(0.257)			
Observations	240	240	240	240			
\mathbb{R}^2	0.262	0.352	0.123	0.354			

5 Appendix E: Spillover effects by team

In this appendix, we consider the possible spillover effects from treated group's workers to control group's workers of the same team. In table E1 we calculate the percentage of other treated workers on team and added as an independent variable in our regressions. We run the same regressions that are used in the baseline scenario in the main text (Equations 1 and 2). Results show that this percentage does not have a significant impact on outcomes.

Table E2 considers workers in the control group and compares the productivity of those with treated teammate and those in teams without treated teammates or not in teams. Again, there are no significant spillover effects.

We then perform additional analyses on a reduced sample where we exclude the treated supervisors and workers with a treated supervisor, since they are potentially subject to acute spillovers across workers. Table E3 shows our baseline differencein-difference analysis on productivity by team on this reduced sample, including all core measures (it corresponds to Table 13 in the main text for the reduced sample). Results are in line with those reported in the main sample. Table E4 compares workers in the control group with at least one treated worker in the same team to workers in the control group with no treated coworkers. Table E5 compares workers in the control group with more than 40% of treated workers in the same team to workers. The tables show that there are no significant spillover effects.

		Panel a: Objective Productivity					_			
				Days of leave	Index of objective productivity		У			
				(1)		(2)				
	Treatment			-0.205*		0.267*				
				(0.098)		(0.093)				
	Percentage of other treated teammates			0.245		0.249				
		eatment rcentage of other treated teammates servations Panel b: Self-report Production Efficiency F (1) (2)		(0.172)	(0.176)		_			
	Observatio	ons		252		232				
	\mathbb{R}^2			0.507		0.676				
		Pa	el b: Self-reported productivity			Panel c:	Productivit	Productivity reported by supervisors		
		Production	Efficiency	Proactivity	Deadlines	Production	Efficiency	Proactivity	Deadlines	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Treatment		0.155	0.247	0.407**	0.395^{*}	0.136	-0.016	-0.105	0.557***	
		(0.130)	(0.128)	(0.136)	(0.164)	(0.159)	(0.162)	(0.157)	(0.165)	
Percentage of other treated te	ammates	0.095	0.041	-0.037	-0.057	-0.335	-0.214	0.013	0.179	
		(0.233)	(0.226)	(0.245)	(0.258)	(0.263)	(0.267)	(0.259)	(0.282)	
Observations		238	237	237	209	150	150	150	150	
B^2		0.283	0.280	0.202	0.200	0.428	0.339	0.388	0.369	

Table E.1: Productivity by Team. The role of treated teammates

 $\frac{R^2}{Note: Panel a shows results of estimates of Equation 1, where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1, where the dependent variables are four measure of productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group, "Percentage of other treated teammates" is a variable which measures the percentage of other treated workers on the team of each worker. The regressions include (the respective coefficients are not shown in the table) pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: <math>*p<0.1$; **p<0.05; ***p<0.01.

	Objective Productivity: Panel Data Analysis					
	Days of leave per month		Index of objective productivity per mo-			
	(1)	(2)	(3)	(4)		
Treatment	-0.683		0.143			
	(1.134)		(0.196)			
Percentage of other treated teammates	-3.402		0.527			
	(2.097)		(0.370)			
post	0.194		-0.247			
	(0.977)		(0.168)			
Treatment *Percentage of other treated teammates	3.190		0.200			
-	(2.657)		(0.474)			
Treatment * post	-0.649	-0.821	0.253	0.230^{*}		
	(1.189)	(0.966)	(0.207)	(0.135)		
Percentage of other treated teammates * post	1.573	1.467	0.127	0.084		
	(2.202)	(1.785)	(0.391)	(0.254)		
Treatment * Percentage of other treated teammates * post	-1.574	-1.457	-0.428	-0.391		
	(2.787)	(2.262)	(0.500)	(0.325)		
Individual Fixed Effect		¥		\checkmark		
Month Fixed Effect		\checkmark		\checkmark		
Constant	5.234***	2.530	-0.182	-0.338		
	(0.931)	(4.251)	(0.159)	(1.009)		
Observations	2,336	2,336	2,634	2,634		
\mathbb{R}^2	0.010	0.431	0.041	0.641		

Note: The table shows results of estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per month (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group, "Percentage of other treated teammates" is a variable which measures the percentage of other treated workers on the team of each worker; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. In columns 2 and 5 of panel a, the coefficients of "Treatment" and "Post" are omitted because of collinearity. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.
			<i>F</i>	Panel a: Obje					
			Days of le	eave Index	of objective p				
			(1)		(2)				
	Treat	ed teammates	s -0.09 (0.19	-0.096 (0.191)		0.759^{**} (0.257)			
	Obser	rvations	54	,	50				
	\mathbb{R}^2		0.668		0.599				
	Par	nel b: Self-repo	orted production	vity	Panel c:	Productivity	reported by supervisors		
	Production	Efficiency	Proactivity	Deadlines	Production	Efficiency	Proactivity	Deadlines	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Treated Teamates	0.133	0.157	-0.033	0.118	0.357	0.468	0.452	0.680	
	(0.280)	(0.244)	(0.231)	(0.263)	(0.311)	(0.239)	(0.230)	(0.367)	
Observations	67	67	67	40	28	28	28	28	
\mathbb{R}^2	0.243	0.306	0.367	0.743	0.640	0.683	0.574	0.620	

Table E.2: Productivity by Team. Sub-sample of workers in the control group. The role of treated teammates.

Note: Panel a shows results of estimates of Equation 1, where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are four measures of productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treated Teamates" is a dummy variable that has the value of 1 if the individual has at least a Treated teamate, 0 otherwise. The regressions include (the respective coefficients are not shown in the table) individual controls for: age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

	Objective productivity: Panel Data Analysis								
	Days of leave p	per month	Index of objective productivity per month						
	(1)	(2)	(3)	(4)					
Treated teammates	-1.765		0.329						
	(1.504)		(0.207)						
post	0.384		-0.212						
	(1.297)		(0.174)						
Treated teammates * post	0.555	0.448	0.026	0.002					
	(1.579)	(1.274)	(0.219)	(0.156)					
Individual Fixed Effect	· · · ·	√ Í	· /	\checkmark					
Month Fixed Effect		\checkmark		\checkmark					
Constant	5.208***	2.017	-0.033	-0.788^{***}					
	(1.236)	(1.976)	(0.164)	(0.249)					
Observations	824	824	939	939					
\mathbb{R}^2	0.011	0.439	0.032	0.564					

Note: The table shows results of estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per month (columns 3-4). "Treated Teamates" is a dummy variable that has the value of 1 if the individual has at least a Treated teamate, 0 otherwise; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. In columns 2 and 5 of panel a, the coefficients of "Treated Teamates" and "Post" are omitted because of collinearity. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

			Panel	a: Objective	productivity			
			Days of leave	Index of o	bjective produ	ctivity		
			(1)		(2)			
	Treatm	ent	-0.748^{***}		0.011			
			(0.203)		(0.194)			
	Team		-0.462^{*}		-0.222			
			(0.197)		(0.194)			
	Treatm	ent * Team	0.740^{**}		0.263			
			(0.235)		(0.222)			
	Consta	nt	0.397^{*}		-0.010			
			(0.176)		(0.177)			
	Observ	ations	187		179			
	\mathbb{R}^2		0.536		0.720			
	Par	nel b: Self-rep	ported productive	ity	Panel c:	Productivity	reported by sup	pervisors
	Production	Efficiency	Proactivity	Deadlines	Production	Efficiency	Proactivity	Deadlines
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.097	0.330	0.413	0.482	0.269	-0.223	-0.475	0.487
	(0.257)	(0.246)	(0.271)	(0.359)	(0.279)	(0.278)	(0.274)	(0.292)
Team	0.068	0.086	-0.093	0.096	0.162	-0.320	-0.543	-0.291
	(0.252)	(0.242)	(0.267)	(0.370)	(0.303)	(0.303)	(0.299)	(0.320)
Treatment*Team	-0.014	-0.220	0.036	-0.164	-0.346	0.222	0.513	0.156
	(0.301)	(0.289)	(0.320)	(0.400)	(0.338)	(0.338)	(0.334)	(0.354)
Observations	220	220	220	220	143	143	143	143
\mathbb{R}^2	0.323	0.334	0.211	0.216	0.434	0.347	0.410	0.371

Table E.3: Productivity by Team - Reduced dataset (no treated supervisors and workers with treated supervisors)

Note: Panel a shows results of estimates of Equation 1, where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are to productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group, "Team" is a dummy variable that has the value of 1 if the individual controls for: age, squared 0 otherwise. The regressions include (the respective coefficients are not shown in the table) individual controls for: age, squared standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

	Objective productivity: Panel Data Analysis									
	Days of leave p	per month	Index of objective productivity per month							
	(1)	(2)	(3)	(4)						
Treatment	-0.526		0.122							
	(1.409)		(0.240)							
Team	-2.370^{*}		0.339							
	(1.294)		(0.225)							
post	0.278		-0.164							
-	(1.172)		(0.199)							
Treatment *Team	1.271		0.048							
	(1.633)		(0.284)							
Treatment * post	-1.370^{-1}	-1.467	0.180	0.184						
	(1.479)	(1.187)	(0.253)	(0.150)						
Team * post	0.893	0.768	-0.020	-0.022						
-	(1.360)	(1.089)	(0.238)	(0.141)						
Treatment * Team * post	0.032	0.048	-0.055	-0.079						
-	(1.715)	(1.376)	(0.300)	(0.177)						
Individual Fixed Effect		√ ´	()	\checkmark						
Month Fixed Effect		\checkmark		\checkmark						
Constant	5.805^{***}	2.986	-0.265	0.571^{*}						
	(1.116)	(1.972)	(0.189)	(0.339)						
Observations	2,116	2,116	2,450	2,450						
\mathbb{R}^2	0.016	0.445	0.041	0.702						

Note: The table shows results of estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per month (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. In columns 2 and 5 of panel a, the coefficients of "Treatment" and "Post" are omitted because of collinearity. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

Table E.4: Productivity by Team. Sub-sample of workers in the control group
The role of at least one treated teammate - Reduced dataset (no treated su
pervisors and workers with treated supervisors)

			Р	Panel a: Objective productivity					
			Days of le	ave Index	of objective pro	oductivity			
			(1)		(2)				
	At least one tre	ated teammate	0.013	3 0)	1.581^{**} (0.365)	*			
	Observations R ²		39 0.415		36 0.683				
	Pa	nel b: Self-repo	rted productivity		Panel c:	Productivity	reported by supervisors		
	Production	Efficiency	Proactivity	Deadlines	Production	Efficiency	Proactivity	Deadlines	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
At least one treated teammate	e 0.571 (0.426)	0.504 (0.317)	$\begin{array}{c} 0.377 \\ (0.311) \end{array}$	0.009 (0.372)	0.616) (0.841)	$\begin{array}{c} 0.340 \\ (0.713) \end{array}$	0.855 (0.493)	1.166 (0.806)	
Observations ²	43 0.392	43 0.628	43 0.620	26 0.832	14 0.850	14 0.919	14 0.845	14 0.840	

Note: Panel a shows results of estimates of Equation 1 where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures of productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group, "At least one treated teammate" is a dummy variable which has the value of 1 if the individual has at least one treated teammate and 0 otherwise. The regressions include (the respective coefficients are not shown in the table) individual controls for: age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

	Objective productivity: Panel Data Analysis							
	Days of leave	e per month	Index of objective productivity per m					
	(1)	(2)	(3)	(4)				
At least one treated teammate	-0.380		0.263					
	(3.131)		(0.394)					
Post	1.586		-0.501					
	(3.171)		(0.394)					
At least one treated teammate * Post	-0.445		0.371					
	(3.323)		(0.417)					
Individual Fixed Effect	· · · ·	\checkmark		\checkmark				
Month Fixed Effect		\checkmark		\checkmark				
Constant	3.780	2.007	-0.085	0.416				
	(2.985)	(2.080)	(0.372)	(0.260)				
Observations	554	554	621	621				
\mathbb{R}^2	0.004	0.394	0.036	0.571				

Note: The table shows results of estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per month (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group, "At least one treated teammate" is a dummy variable which has the value of 1 if the individual has at least one treated teammate and 0 otherwise; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. In columns 2 and 5 of panel a, the coefficients of "Treatment" and "Post" are omitted because of collinearity. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

Table E.5: Productivity by Team. Sub-sample of workers in the control group. The role of more than 40% treated teammates - Reduced dataset (no treated supervisors and workers with treated supervisors)

-				_					
				Pane	l a: Objective productivity				
				Days of leave	Index of a	bjective produ	ictivity		
				(1)		(2)			
1	More t	han 40% of treat	ted teammates	0.113		0.724			
				(0.275)		(0.418)			
	Observ	vations		39		36			
1	\mathbb{R}^2			0.419 ted productivity		0.510 Panel c : Production			
		Par	nel b: Self-report					ivity reported by supervisors	
		Production	Efficiency	Proactivity	Deadlines	Production	Efficiency	Proactivity	Deadlines
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
More than 40% of treated teamma	ates	1.415***	0.946***	0.658^{*}	-0.253	0.773	0.213	0.522	4.865
		(0.286)	(0.249)	(0.247)	(0.404)	(1.197)	(0.853)	(1.165)	(2.790)
Observations		43	43	43	26	14	14	14	14
\mathbb{R}^2		0.641	0.725	0.676	0.837	0.844	0.915	0.709	0.865

Note: Panel a shows results of estimates of Equation 1, where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are the number of days of leave and the log of (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Creatment group and is 0 if he/she belongs to the control group, "More than 40% of treated teammates" is a dummy variable which has the value of 1 if the individual has more than 40% treated teamates and 0 otherwis The regressions include (the respective coefficients are not shown in the table) individual controls for: age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

	Objective productivity: Panel Data Analysis						
	Days of leave	per month	Index of objective productivity per month				
	(1)	(2)	(3)	(4)			
More than 40% of treated teammates	-0.662		0.128				
	(2.251)		(0.294)				
post	0.452		-0.261				
	(2.113)		(0.271)				
More than 40% of treated teammatest *post	0.903		0.124				
	(2.365)		(0.310)				
Individual Fixed Effect		\checkmark		\checkmark			
Month Fixed Effect		\checkmark		\checkmark			
Constant	3.964^{**}	2.007	0.052	0.416			
	(2.013)	(2.080)	(0.257)	(0.260)			
Observations	554	554	621	621			
\mathbb{R}^2	0.003	0.394	0.013	0.571			

Note: The table shows results of estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per month (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. Month (1 to 9) are dummy variables that have value of 1 if the observation refers to the specific month and 0 otherwise. In columns 2 and 5 of panel a, the coefficients of "Treatment" and "Post" are omitted because of collinearity. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

6 Appendix F: Job descriptions

Table F.1: White-collar workers: Job descriptions and frequencies

Job description	Frequency	Job description	Frequency
Acceptance and opening of estimates	1	Management of a technical sponsorship	1
Accounting & Fronting	1	Management plant transformation operations	1
Acquisition of collections from Sap-Isu system	1	Mapping and processing analysis	1
Active cycle officer: invoice registration	1	Market & Pricing Models Analyst	4
Administrative Assistant	10	Monitoring of Service Contracts	2
Billing Specialist	6	Monthly control reports	3
Budget and accounting	2	Network Optimization & Improvement Operator	1
Car management for managers	1	New Activations / Opening estimates	2
Claims Specialist	11	ODV internal cashier	1
Collection, control, compilation FIR	1	Operations & Maintenance Assistant	15
Commercial practices required by top clients	1	Operative Director	6
Communication manager	1	Passive cycle officer: payment	1
Contract Commissioning Assistant	3	Pay-roll Assistant	3
Contractual revisions	1	Planner	1
Credit & Collection Specialist	6	Preparation of accounting reporting	1
Credit Analyst	1	Procurement Supply and license management	1
Customer Facing Operator	13	QHSE Specialist	2
Data & Reporting Analyst	17	Quality Safety Environment Assistant	3
Design & Works Engineer	3	Refunds Assistant	2
Digital manager	1	Regulatory Specialist	1
Discipline Engineer	5	Reporting, performance analysis, data model, KPI measurement	1
Disconnection operator	2	Requirements analysis & carrying out case studies	1
Dispatching supervision	11	Responsible	1
Drafts Man	3	Sales Effectiveness & Rep	2
Energy Balance & Transport specialist	1	Scheduling Analyst	4
Energy Metering Assistant	2	Security Officer	1
Facility & Property Assistant	1	Service Failure Assistant	1
Facility Management	1	Site inspector	1
Field Planner	23	Sorting job requests via SIMEC	2
Fire officer	1	Specialist Dispatcher Service	1
Goods receipts	2	Street Lighting and Monumental Lighting Design Activities	2
Helpdesk assistant	1	Study of purification areas	1
Human Resources & Organization Assistant	7	Supply chain supervision and coordination	2
Information and Communications Technology Analyst	6	Tax payments and contributions	1
Legal & Corporate Affair	2	Team Leader	7
Lock / unlock SC/OPS/OAL/ODA EM	1	Technical assistant	11
Logistics Assistant	2	Tenders Specialist	6
Management application and exercise procedures water companies	1	Territory Manager	1
Management Application Electric Gas	1	Treasury Officer	2
Management of funds	1	Works & Permission Specialist	3

Table F.2: Blue-collar workers: Job descriptions and frequencies

Job description	Frequency
Data & Reporting Operator	2
Operations & Maintenance Operator	12
Dispatcher Maintenance operator	3
Dispatcher Operator	20
Information and Communications Technology Operator	1
Technical Offering Operator	4

Variables	White	-Collar	Blue-Collar		Test Statistic	p-value
	Obs.	Mean	Obs.	Mean		
Deadlines	188	1.213	24	1.542	3.501	0.0005662***
Useful Role	213	3.362	25	3.080	-1.45	0.1484
Make Decisions	213	3.408	25	3.320	-0.5618	0.5748

Table F.3: Pre-treatment balance test for the answers of White- and Blue-Collar workers to questions related to their jobs

Note: Two-sample t-test for a comparison between means. Significance: * indicates p < 0.05.

The questions are the following:

- Do you comply with the predetermined deadlines of your responsibilities at work? Possible answers: Never=1, Rarely=2, Sometimes=3, Usually=4, and Always=5.
- In the last six months, did you feel like having a useful role in your work life? Possible answers: Much less than usual=1, Less than usual=2, As usual=3, More than usual=4, and Much more than usual=5.
- In the last six months, did you feel capable of making decisions? Possible answers: Much less than usual=1, Less than usual=2, As usual=3, More than usual=4, and Much more than usual=5.

7 Appendix G: White Collars and Blue Collars

			Pane	l a. Objectiv				
		Days of leave Index of objective productivity				luctivity		
			(1)		(2)			
	Trea	atment	-0.169		0.267**			
			(0.106)		(0.099)			
	Obs	Observations			168			
	\mathbb{R}^2		0.477		0.686			
			Pa	nel b. Self-r	eported product	tivity		
=	Produ	ction	Effici	ency	Proa	Proactivity		ines
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.688***	0.016	0.305^{*}	0.229	0.426**	0.408**	0.584^{***}	0.429^{*}
	(0.131)	(0.070)	(0.154)	(0.136)	(0.152)	(0.143)	(0.179)	(0.182)
Controls		\checkmark		\checkmark		\checkmark		\checkmark
Observations	259	214	215	212	215	212	188	185
\mathbb{R}^2	0.097	0.355	0.018	0.278	0.036	0.188	0.054	0.150
			supervisors					
	Produc	tion	Efficiency		Proactivity		Deadlines	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.360	0.150	0.174	0.005	-0.002	-0.041	0.576^{***}	0.657***
	(0.186)	(0.174)	(0.169)	(0.175)	(0.169)	(0.169)	(0.179)	(0.183)
Controls		\checkmark		\checkmark		\checkmark		\checkmark
Observations	142	130	142	130	142	130	142	130
\mathbb{R}^2	0.026	0.418	0.008	0.333	0.00000	0.398	0.069	0.340

Table G.1: Productivity (White Collars)

Note: Panel a shows results of estimates of Equation 1, where the dependent variables are the number of days of leave and the log of the index of objective productivity, average measures over the 9 months of the treatment. Panel b and c show results of estimates of Equation 1 where the dependent variables are four measures of productivity, self-reported (panel b) and reported by the supervisor (panel c). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group. The regressions include (the respective coefficients are not shown in the table) individual controls for: age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

	Objective productivity: Panel Data Analysis									
	Days	of leave per mo	nth	Index of objective productivity per month						
	(1)	(2)	(3)	(4)	(5)	(6)				
Treatment	0.184			0.219						
	(0.783)			(0.135)						
post	0.662			-0.537^{*}						
	(0.661)			(0.299)						
Treatment*post	-1.132	-1.355^{**}		0.321	0.300					
	(0.821)	(0.660)		(0.370)	(0.236)					
Treatment*Month1			-1.418^{*}			0.002				
			(0.855)			(0.315)				
Treatment*Month2			-0.924			0.191				
			(0.888)			(0.317)				
Treatment*Month3			-1.107			0.138				
			(0.861)			(0.317)				
Treatment*Month4			-1.545^{*}			-0.029				
			(0.864)			(0.320)				
Treatment*Month5			-1.427			0.391				
			(0.872)			(0.320)				
Treatment*Month6			-0.900			0.562^{*}				
			(0.863)			(0.319)				
Treatment*Month7			-1.376			0.565*				
			(0.853)			(0.324)				
Treatment*Month8			-0.826			0.538^{*}				
			(0.883)			(0.323)				
Treatment*Month9			-2.576^{***}			0.428				
			(0.859)			(0.324)				
Individual Fixed Effect		\checkmark	 ✓ 		\checkmark	✓				
Month Fixed Effect		\checkmark	\checkmark		\checkmark	\checkmark				
Constant	4.173***	2.465	2.399	2.875***	2.225***	2.232***				
	(0.631)	(1.691)	(1.695)	(0.283)	(0.544)	(0.544)				
Observations	1,932	1,932	1,932	2,278	2,278	2,278				
\mathbb{R}^2	0.008	0.441	0.443	0.026	0.648	0.649				

Note: The table shows results of estimates of Equation 2 for a panel regression where observations for individuals in each month are pooled and where the dependent variables are the number of days of leave per month (columns 1-2) and the log of the index of objective productivity per month (columns 3-4). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the Treatment group and is 0 if he/she belongs to the control group; "Post" is a dummy variable that has value 1 if the observation refers to the period of the experiment and 0 otherwise. Month (1 to 9) are dummy variables that have value of 1 if the observation refers to the specific month and 0 otherwise. In columns 2 and 5 of panel a, the coefficients of "Treatment" and "Post" are omitted because of collinearity. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.

							Panel a. S	atisfaction wi	th					
	Income		Health		Home		Work		SocialLife		FreeTime		LifeInGeneral	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Treatment	0.055	0.235^{*}	0.154	0.246^{*}	0.177	0.295^{*}	-0.040	0.167	0.389**	0.372**	0.398**	0.476***	0.311*	0.302^{*}
	(0.151)	(0.119)	(0.155)	(0.121)	(0.140)	(0.118)	(0.157)	(0.151)	(0.149)	(0.121)	(0.149)	(0.128)	(0.142)	(0.125)
Controls		1		✓	. ,	✓		 ✓ 	. ,	1		1		 ✓
Observations	205	200	208	205	212	209	210	205	209	202	209	204	211	208
\mathbb{R}^2	0.001	0.394	0.005	0.425	0.008	0.336	0.0003	0.159	0.032	0.428	0.033	0.346	0.022	0.290
							Panel b. Sat	isfaction as us	ıal					
-	FocusOn		LoseLessSleep		UsefulRole		MakeDecisions		AppreciateDailyActivities		LessStress		Overcome	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Treatment	0.597***	0.572***	0.494***	0.491***	0.103	0.188	0.379^{*}	0.405**	0.724***	0.697***	0.747***	0.742***	0.480**	0.529***
	(0.151)	(0.149)	(0.146)	(0.144)	(0.158)	(0.157)	(0.149)	(0.150)	(0.149)	(0.150)	(0.143)	(0.135)	(0.157)	(0.153)
Controls		✓		~		~		√		~		1		~
Observations	213	210	213	210	213	210	213	210	213	210	213	210	213	210
R ²	0.069	0.154	0.052	0.128	0.002	0.130	0.030	0.088	0.101	0.146	0.115	0.247	0.042	0.165
							Panel c. 1	Work-life bala	nce					
				WorkingHours		Balance		Househo	ldActivity	C	areActivity			
			(1	1) (9) (2)	(4)	(5)	(6)	(7)	(0)			

Table G.2: Well-being and work-life balance (White Collars)

(1)(2)(3)(4)(5)(6)(7) (8) 0.687*** 0.686*** 1.286*** 1.339*** Treatment 0.1600.2490.239 0.362^{**} (0.154)(0.136)(0.156)(0.128)(0.142)(0.146)(0.122)(0.120)Controls √ \checkmark \checkmark \checkmark Observations 213 210213210 213 210 213 210 \mathbb{R}^2 0.005 0.011 0.384 0.100 0.347 0.2840.110 0.408

Notes: The table shows results of estimates of Equation 1. The dependent variables in Panel a measure satisfaction with 7 dimension of life on a scale from 1 (highly dissatisfied) to 7 (highly satisfied); the dependent variables in Panel b indicate if respondents have been able to deal with 7 aspects of their life on the scale from 1 (much less than usual) to 5 (much more than usual), and the dependent variables in Panel c measure work-life balance: satisfaction with working hours on a scale from 1 (highly dissatisfied) to 5 (highly satisfied) , ability to balance work with personal and family life on a scale from 1 (no ability) to 4 (high ability), time dedicated to household activities per day and to taking care of others on a scale from 1 (the time has decreased over the last 6 months) to 5 (the time has increased). "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the treated group and is 0 if he/she belongs to the control group. The regression includes (the respective coefficients are not shown in the table) individual controls for age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction).Significance: *p<0.1; **p<0.05; **p<0.01.

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	Dependent variable:									
	Production	Efficiency	Proactivity	SocialLife	FreeTime	LifeInGeneral				
	(1)	(2)	(3)	(4)	(5)	(6)				
Treatment	1.350***	0.912**	1.203***	0.866***	0.793**	0.746**				
	(0.460)	(0.392)	(0.370)	(0.259)	(0.349)	(0.267)				
Observations	25	25	25	25	25	25				
\mathbb{R}^2	0.425	0.314	0.583	0.785	0.434	0.774				

Table G.3: Sub-sample of Blue Collars

Note: The table shows results of estimates of Equation 1. The dependent variables are 3 measures of productivity and 3 measures of well-being. "Treatment" is a dummy variable that has the value of 1 if the individual has been assigned to the treated group and is 0 if he/she belongs to the control group. The regression includes (coefficients are not shown in the table) individual controls for: age, squared age, law 104 worker, law 104 relatives, child, young child, km, white collar and dependent variable pre-treatment. Variables are standardized as z-scores. Standard Errors (in parentheses). P-values adjusted for multiple hypothesis testing(Bonferroni correction). Significance: *p<0.1; **p<0.05; ***p<0.01.