

Chapter 5

Work and Well-being: A Global Perspective

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1. Introduction

Work and employment play a central role in most people's lives. In OECD countries, for example, people spend around a third of their waking hours engaging in paid work.¹ We not only spend considerable amounts of our time at work, employment and workplace quality also rank among the most important drivers of happiness. It presents our research on the ways in which work and workplace quality influence people's well-being around the world. It also highlights a number of best practices that may inspire policy-makers and business leaders in putting well-being at the heart of their policies.

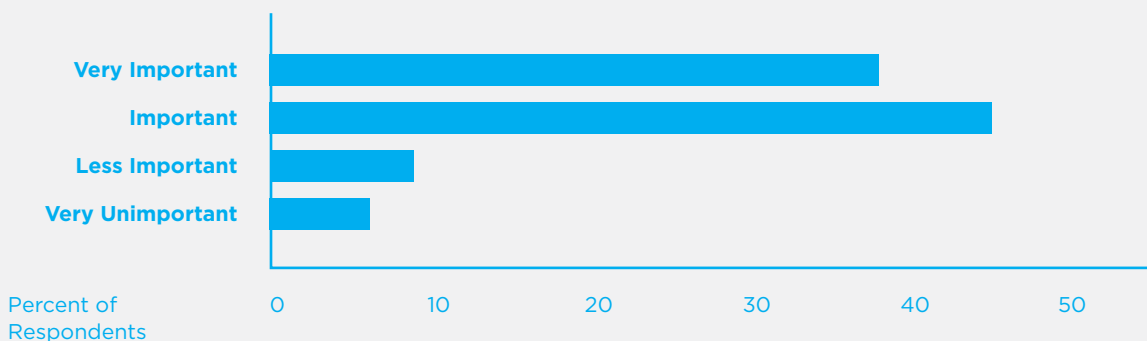
Figure 1 illustrates the significance of work: it reports data from a German survey that asked people about the importance of different aspects of their lives for their overall sense of well-being and satisfaction. 83% of respondents rate work as either "very important" or "important" for their well-being, as opposed to 10% and 7% rating it as less important or even unimportant, respectively. Further evidence of the significance of work comes from van Praag et al. (2003), who use data from the German Socio-Economic Panel—a nationally representative survey of more than 11,000 households in Germany that has been asking respondents about their well-being since as early as 1984—to study the relative importance of satisfaction with various life domains for overall life satisfaction. They find

that the three most important determinants of life satisfaction are satisfaction with finance (an area closely related to work), health, and work, followed by leisure and other life domains.²

Despite the importance of work for people's happiness, most do not perceive work as a particularly enjoyable activity, unfortunately. A recent study that asked respondents to record their well-being via a smartphone at random points in time on a given day found that paid work is ranked lower than any other of the 39 activities sampled, with the exception of being sick in bed (Bryson and MacKerron, 2016). In fact, the worst time of all seems to be when people are with their boss (Kahneman et al., 2004). Not surprisingly then, costs of absenteeism and presenteeism are high: in a recent report for the UK, it was estimated that absenteeism costs UK businesses about GBP 29 billion per year, with the average worker taking 6.6 days off due to sickness (PwC Research, 2013). Costs of presenteeism due to, for example, mental health problems are estimated to be almost twice as high as those of absenteeism (Sainsbury Centre for Mental Health, 2007).

What exactly is it about work, and workplace quality, that makes some jobs less enjoyable while others more? Answering this question is not only important because work plays such a significant role for people's well-being, but also because people's well-being has been found to be

Figure 1: Importance of Work for Wellbeing
(German Socio-Economic Panel, Year 1999)



an important predictor of labor market outcomes themselves (De Neve and Oswald, 2012), including job finding and future job prospects when being out of work (Krause, 2013; Gielen and van Ours, 2014), as well as productivity when being in work and, ultimately, firm performance (Harter et al., 2002; Edmans, 2011, 2012; Bockerman and Ilmakunnas, 2012; Tay and Harter, 2013; Oswald et al., 2015).³ Being happier also brings with it objective benefits such as increased health and longevity, which contribute positively to work (De Neve et al., 2013; Graham, 2017). Likewise, well-being has been shown to be positively associated with intrinsic motivation and creativity (Amabile, 1996; Amabile and Kramer, 2011; Yuan, 2015). For policy-making, which often boils down to prioritising attention and resources, it is important to know which characteristics of work, and workplace quality, drive people’s well-being, and should thus be focused upon.

This chapter looks at these characteristics in a systematic way. We first study the overall importance of employment itself for self-reported life evaluation and daily emotions. We then study how domain-specific measures—job satisfaction and employee engagement—vary around the world. Next, in the third and main part of this chapter, we zoom into workplace quality: here,

we try to find an answer to the question of exactly which characteristics of work are conducive, or detrimental, to employees’ well-being. We conclude by laying out a future research agenda and putting forward a call for more causal research on the determinants and benefits of well-being in the workplace.⁴

Conclusions are drawn from two datasets, the Gallup World Poll and the International Social Survey Program, both of which include the most important measures of well-being and allow for international comparisons of working conditions. Our own analyses are further complemented by findings from the relevant literature.

2. The Overall Importance of Employment⁵

Employment is one of the most important determinants of our well-being. We can illustrate this by tabulating the average life evaluation—measured in terms of the Cantril ladder—for different employment statuses recorded in the Gallup World Poll, a survey that is regularly conducted in more than 160 countries covering 99% of the world’s adult population. The Cantril ladder asks respondents to imagine themselves

Figure 2a: Importance of Employment Status for Life Evaluation
 (Gallup World Poll, Years 2014 to 2016, Weighted by Country;
 Confidence Intervals 95%; FT: Full-Time, PT: Part-Time)

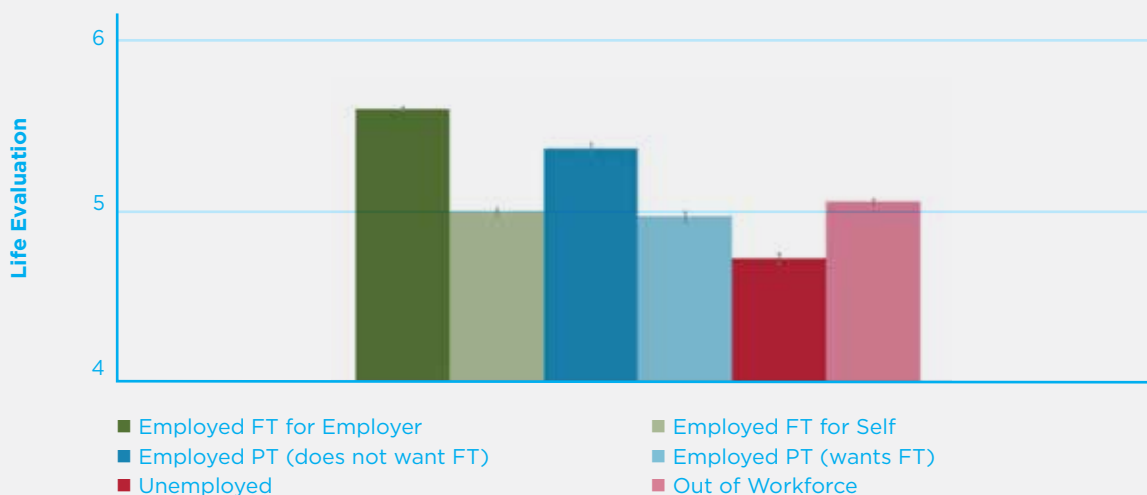
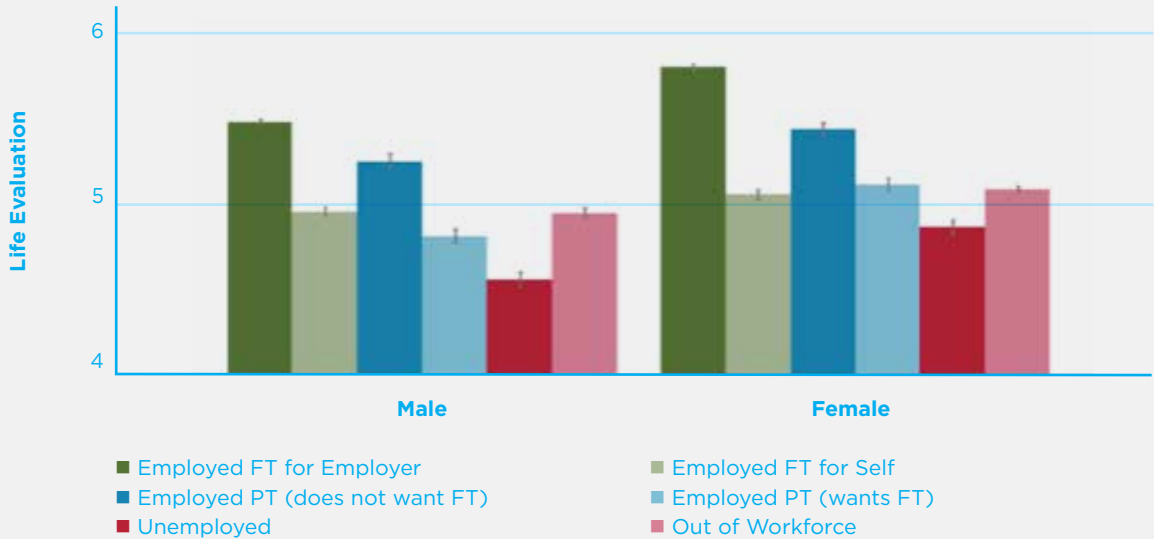


Figure 2b: Importance of Employment Status for Life Evaluation, by Gender (Gallup World Poll, Years 2014 to 2016, Weighted by Country; Confidence Intervals 95%; FT: Full-Time, PT: Part-Time)



on a ladder with steps numbered from zero at the bottom to ten at the top: zero represents the worst possible life, ten the best.

Figure 2a shows the result of this exercise for working-age adults: respondents who are employed and who are working either full-time for an employer or part-time are most satisfied with their lives. Respondents who are out of the labor force are next, but sit clearly below the former two groups in terms of average life evaluation. In turn, they are followed by those who are self-employed full-time and those who are underemployed—respondents in the latter category work part-time but would like to work full-time.⁶ The least happy are the unemployed: they are almost one whole life evaluation point below respondents who are employed and who are working full-time for an employer—a very large gap.

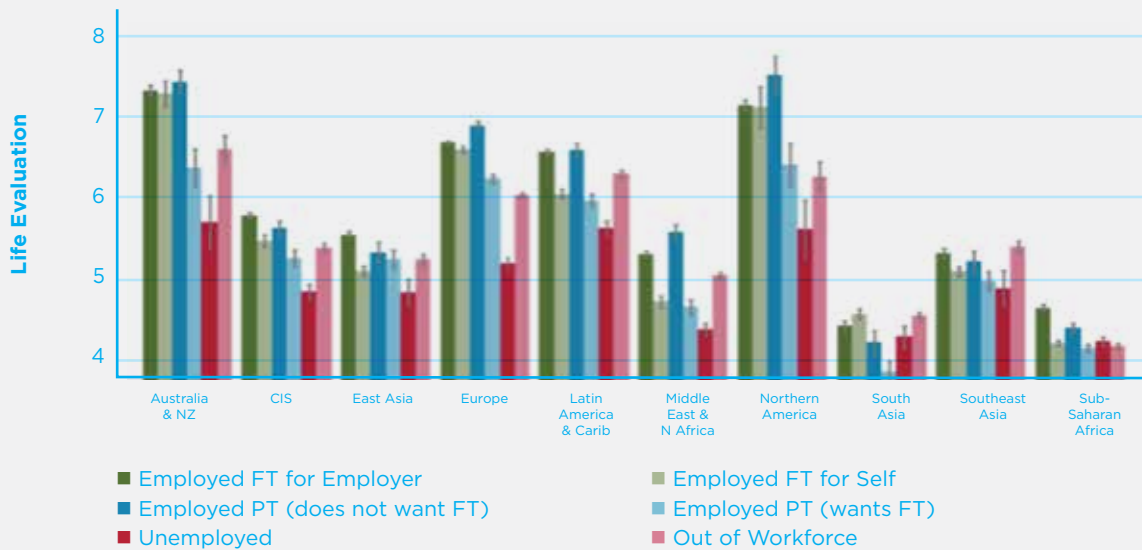
The devastating effect of unemployment on people’s well-being is one of the most established findings in the economic literature on happiness (see Clark and Oswald (1994) and Winkelmann and Winkelmann (1998), for example). We know that life satisfaction does not adapt to being unemployed (Clark et al., 2008; Clark and Georgellis, 2013), and that unemployment

leaves a permanent scar even after one regains employment, in the sense that people who have been unemployed typically do not return to the happiness level they had before their unemployment episode (Clark et al., 2001).⁷ There are few social norm effects for unemployment: high unemployment around the unemployed provides only weak consolation, and does not become less painful in a social context with high unemployment (Clark, 2003); for the employed, it may signal general job insecurity, which in itself is detrimental to happiness (Luechinger et al., 2010). Importantly, unemployment is not only a personal affair: its negative spillovers on other household members (see Clark (2003), for example) as well as on society more generally (see Tay and Harter (2013) or Kunze and Suppa (2017), for example) are well established.

How does average life evaluation for different employment statuses differ by gender? As seen in Figure 2b, women are generally more satisfied with their lives in every category of employment, and the relative importance of the different categories for life evaluation is preserved. A difference, however, exists for underemployment: women working part-time but wanting to work full-time reach about the same happiness level as those

Figure 2c: Importance of Employment Status for Life Evaluation, by Region

(Gallup World Poll, Years 2014 to 2016, Weighted by Country; Confidence Intervals 95%; FT: Full-Time, PT: Part-Time, NZ: New Zealand, CIS: Commonwealth of Independent States)



being out of the labor force; men, on the other hand, are less happy when they work part-time but want to work full-time. Gender norms and lifestyles may be responsible for such differences.⁸

Figure 2c plots average life evaluation for different employment statuses by geographic region. Needless to say, countries differ greatly in their political, economic, and cultural institutions, and aggregate regions may thus be quite heterogeneous in terms of countries they include. To the extent that such differences in institutional settings pertain to labor markets, for example, due to differences in active labor market policies or social safety nets, it may not come as a surprise that average life evaluation levels differ for different employment statuses by region. Yet, with few exceptions, our previous finding holds across most regions in the world: there exists a clear-cut importance of being in stable employment—be it full-time or part-time work—for people’s well-being over being underemployed, out of the labor force, or unemployed.

Life evaluation measures such as the Cantril Ladder make up one element of people’s subjective well-being. An important further element of

people’s overall happiness is how they experience their lives day-to-day (Dolan, 2014). The Gallup World Poll also provides items on positive and negative affect, constructed from batteries of yes-no questions that ask respondents about their emotional experiences the previous day. For positive affect, these include whether respondents felt well-rested, whether they were treated with respect, smiled or laughed a lot, learned something or did something interesting, and whether they often felt enjoyment. For negative affect, these include whether respondents often experienced physical pain, worries, sadness, stress, and anger. Indices are then created by averaging across items, and are bound between 0 and 100.

Figures 3a to 5a replicate our analyses of life evaluation for the index of positive affect, Figures 3b to 5b for that of negative affect.

Turning first to positive affect, Figure 3a, we can see that the basic insight from our analysis of life evaluation also holds for how people feel on a day-to-day basis: respondents who are employed and who are working full-time for an employer show the highest positive affect, followed by

Figure 3a: Importance of Employment Status for Positive Affect

(Gallup World Poll, Years 2014 to 2016, Weighted by Country; Confidence Intervals 95%; FT: Full-Time, PT: Part-Time)

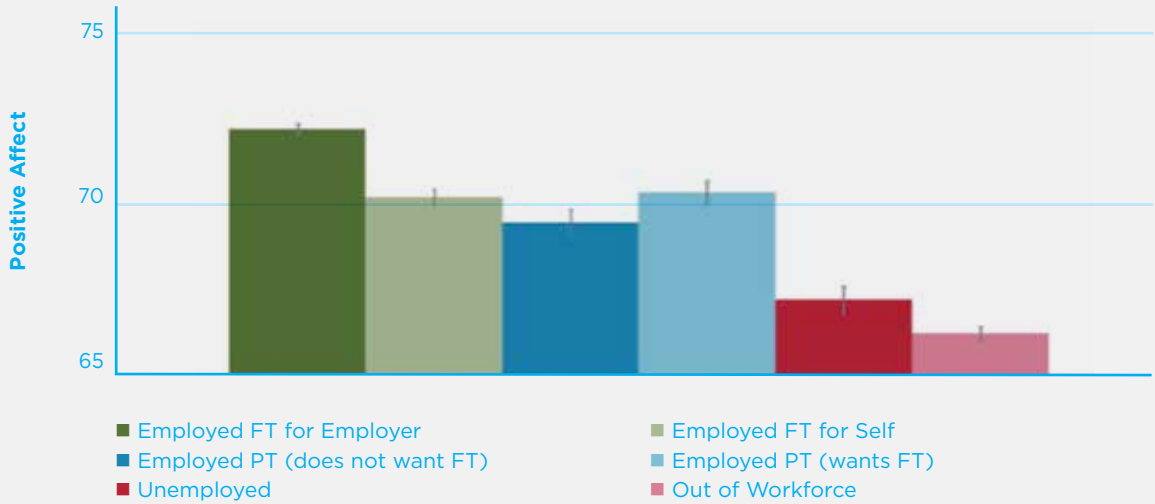


Figure 3b: Importance of Employment Status for Negative Affect

(Gallup World Poll, Years 2014 to 2016, Weighted by Country; Confidence Intervals 95%; FT: Full-Time, PT: Part-Time)

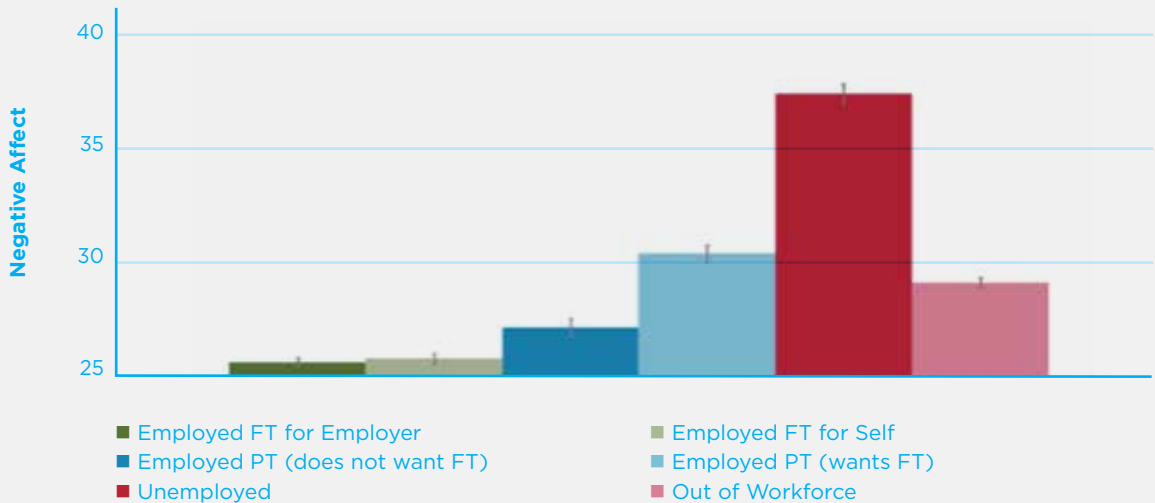


Figure 4a: Importance of Employment Status for Positive Affect, by Gender (Gallup World Poll, Years 2014 to 2016, Weighted by Country; Confidence Intervals 95%; FT: Full-Time, PT: Part-Time)

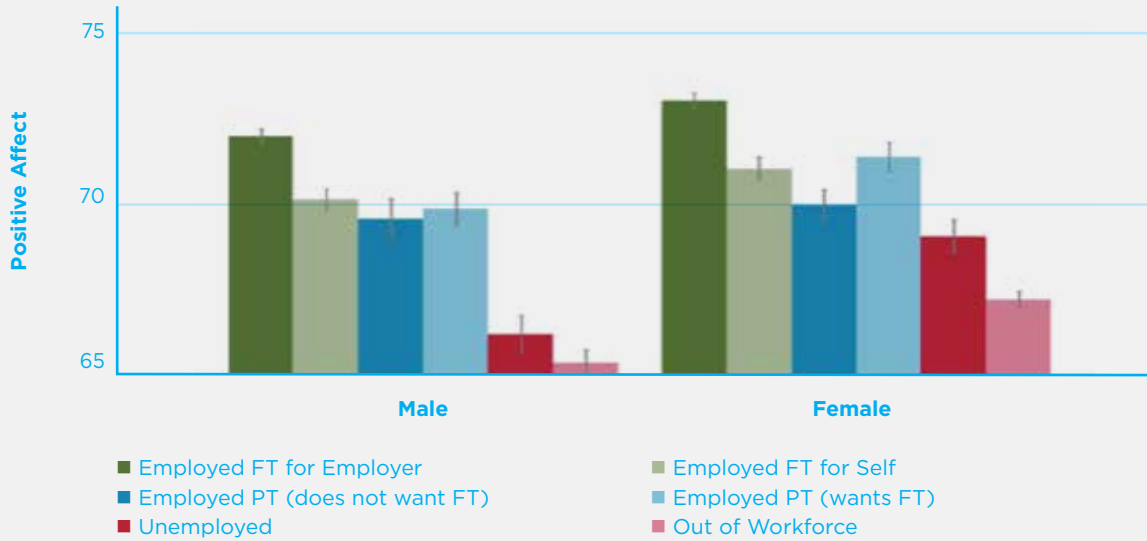


Figure 4b: Importance of Employment Status for Negative Affect, by Gender (Gallup World Poll, Years 2014 to 2016, Weighted by Country; Confidence Intervals 95%; FT: Full-Time, PT: Part-Time)

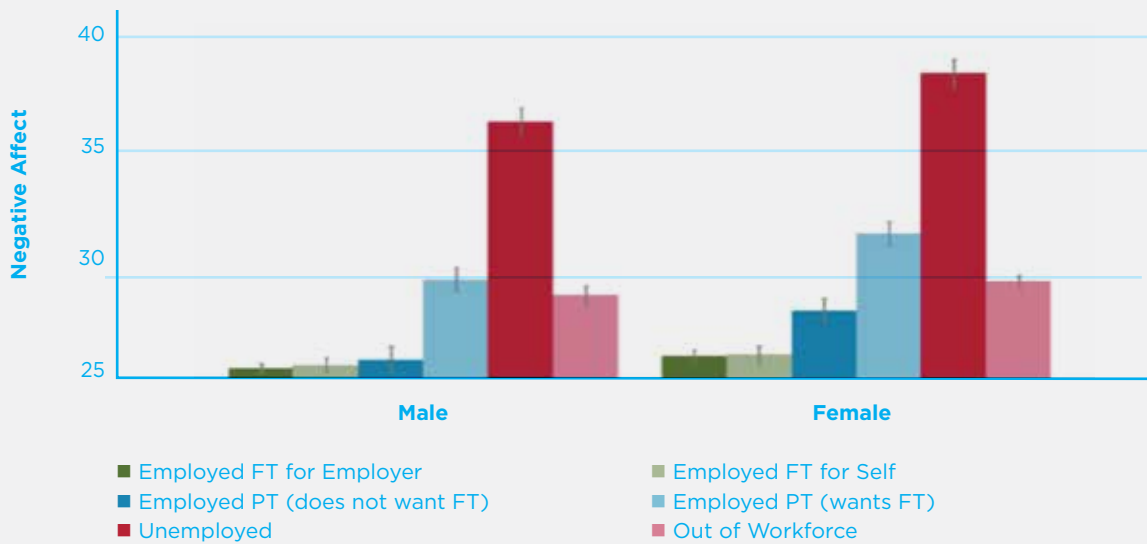


Figure 5a: Importance of Employment Status for Positive Affect, by Region (Gallup World Poll, Years 2014 to 2016, Weighted by Country; Confidence Intervals 95%; FT: Full-Time, PT: Part-Time, NZ: New Zealand, CIS: Commonwealth of Independent States)

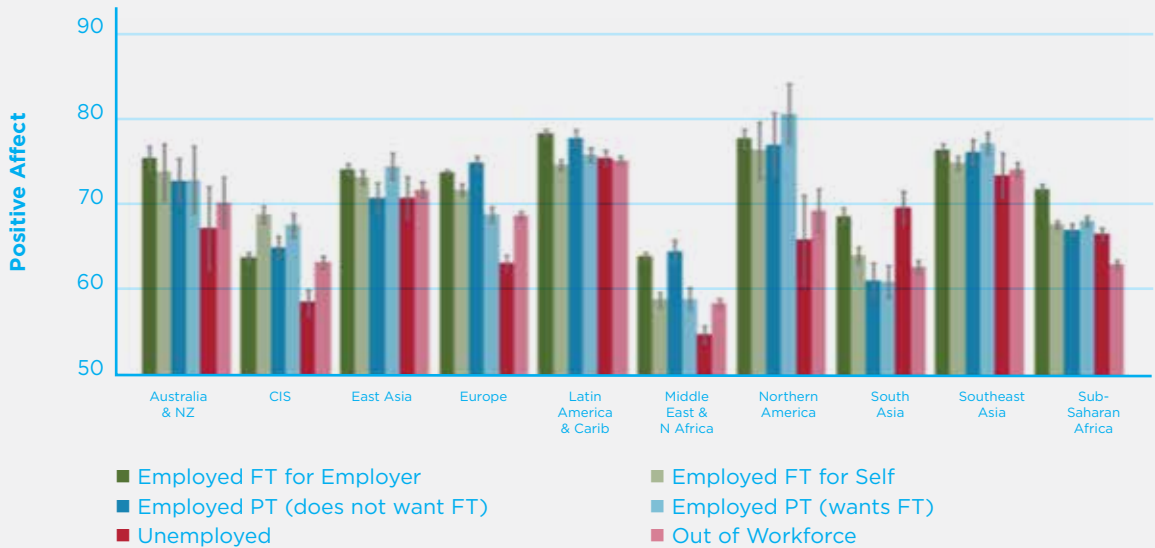
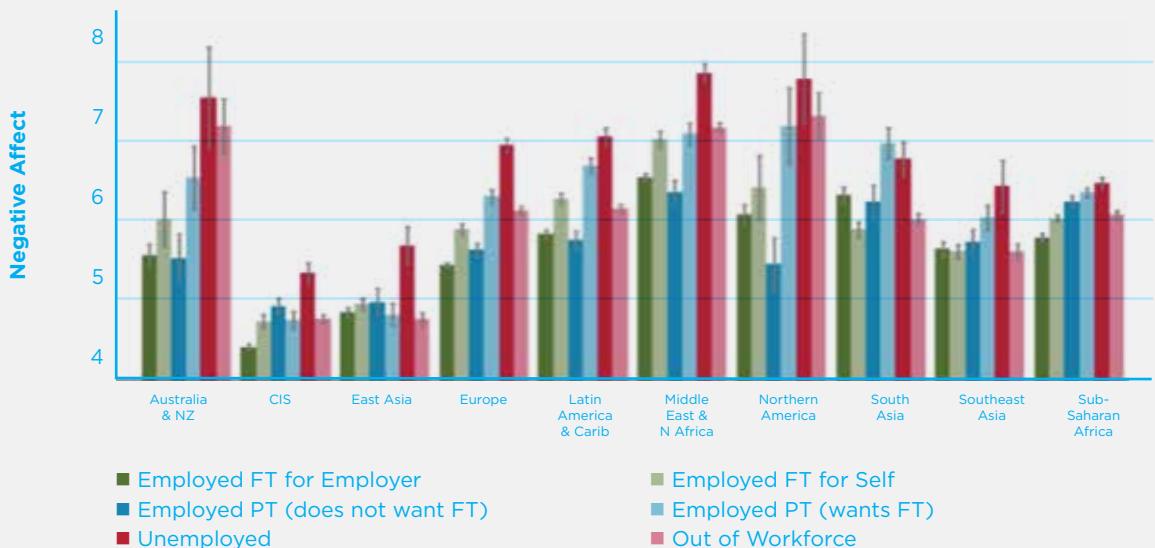


Figure 5b: Importance of Employment Status for Negative Affect, by Region (Gallup World Poll, Years 2014 to 2016, Weighted by Country; Confidence Intervals 95%; FT: Full-Time, PT: Part-Time, NZ: New Zealand, CIS: Commonwealth of Independent States)



those who are self-employed full-time and those who are working part-time, both intentionally and unintentionally (differences between these three groups are barely statistically significant at a conventional level). The lowest positive affect is again reported by respondents who are unemployed and who are out of the labor force.

As seen in Figure 3b, a near mirror image is found for negative affect—the main difference being that respondents who are unemployed show the highest negative affect. This “emotional toll” of unemployment, namely that the unemployed are sadder than the employed even when engaging in similar leisure activities, is also documented in studies using time-use data and day-reconstruction methods (Knabe et al., 2010; Krueger and Mueller, 2012). In terms of negative affect, respondents who are unemployed are followed by those who are working part-time but want to work more hours and those who are out of the labor force.

In line with our findings for life evaluation, Figures 4a and 4b illustrate that women generally show more positive and negative affect in every category of employment; the relative importance of the different categories for both positive and negative affect is again preserved. And Figures 5a and 5b illustrate that there are, once again, large differences in both types of affect across regions in the world.

So far, we have only looked at descriptive evidence on the overall importance of employment for people’s well-being, on average. Needless to say, average effects may conceal potentially important effect heterogeneities. More importantly, however, we cannot make causal statements from descriptive evidence alone: important observable characteristics of respondents (for example, their health) or unobservables (for example, preferences or personality traits) may explain both their employment status and their happiness at the same time. Such omitted characteristics would inevitably lead to reverse causality and an overestimation of the true effect of employment on people’s well-being. Note, however, that our basic insights continue to hold even if we control for a rich set of such potentially confounding characteristics by holding them constant in a multivariate regression.⁹ Finally, there is an established quasi-experimental literature that exploits plant closures as a source of exogenous

variation to estimate the causal effect of unemployment on people’s well-being, underlining its detrimental impact (see Kassenboehmer and Haisken-DeNew (2008) or Marcus (2013), for example).

Being in a stable employment relationship, be it full-time or part-time, provides a sense of purpose and belonging, social relations, social status, and a daily structure and routine. This is positively reflected in how people evaluate their lives globally, as well as how they feel on a day-to-day basis. Achieving the desired number of working hours, for example, by reducing underemployment, is associated with a well-being premium. People who are unemployed are worst off: it is difficult to reconcile this finding with the notion of voluntary unemployment.

From these basic insights, we can already derive some important policy implications. In particular, there is a clear case for active labor market policies and making job creation a key policy priority. This could be aided through apprenticeship schemes which help younger people to attain their first job, for example. Potentially subsidised temporary work schemes could help the structurally unemployed find their way back into employment. Temporary work arrangements, however, should not become entrenched: job security, as we show below, is an important predictor of well-being at work. Policies that would offer (otherwise healthy) firms temporary financial assistance with the specific aim to avoid layoffs could be a means to smoothen out cyclical unemployment in times of economic crises in order to avoid the heavy psychological toll on those made redundant as well as to avoid anxiety for those that remain employed. Such policies remain to be properly evaluated but could be found to be highly cost-effective as they would likely save on unemployment benefits and on mental health spending.

3. The Global State of Job Satisfaction and Employee Engagement

We have already seen that average life evaluation for different employment statuses differs greatly by region in the world. Different political, economic, and cultural institutions, especially those pertaining to the functioning of labor markets, are most likely driving such differences

Figure 6a: Job Satisfaction, by Region

(Gallup World Poll, Years 2010 to 2012, Weighted by Country; NZ: New Zealand, CIS: Commonwealth of Independent States)



in overall outcomes. It can be expected that, if we go one step further, we will also find large differences in how people from different regions answer questions that are more specific to their well-being at work.

We are particularly interested in two items that are sampled in the Gallup World Poll, and that are more work-specific than overall life evaluation; these are job satisfaction and employee engagement.¹⁰ The former comes from a simple yes-no question that asks respondents whether they are “satisfied” as opposed to “dissatisfied” with their job, while the latter is derived from a set of formative workplace conditions (such as opportunity to do what you do best, someone encouraging your development, and opinions counting) that are related to a wide range of business outcomes across organizations. Employee engagement has three categories: employees can be “engaged,” “not engaged,” or “actively disengaged” with their jobs. It is a construct that goes well beyond job satisfaction: being engaged with a job requires employees to be positively absorbed by what they do, and to be committed to advancing their firm’s interests; employees who are engaged identify with the firm and represent it even outside formal

working hours. From a policy perspective, raising employee engagement therefore represents a more difficult hurdle to clear than raising job satisfaction. Needless to say, when looking at these items, we are confining our analysis to people who are in work, and who can thus provide meaningful answers.

Figure 6a shows average job satisfaction levels by region in the world. We can see that people who are in work are predominantly satisfied with their job: the lowest average job satisfaction can be found in Sub-Saharan Africa; however, even in this region, about 60% of respondents state satisfaction as opposed to dissatisfaction with their job. Sub-Saharan Africa is followed closely by East Asia (which is dominated by China), South Asia (which is dominated by India), and Middle East and North Africa, where average job satisfaction levels are between 72% and 73%. In the Commonwealth of Independent States (which is dominated by Russia) and in Latin America and the Caribbean, average job satisfaction is slightly higher, at 75% and 82%, respectively. The front runners are North America (86%), Europe (86%), and Australia and New Zealand (87%). Interestingly, these patterns do not vary significantly when we consider men and women separately in the analysis.

Figure 6b: Employee Engagement Levels, by Region

(Gallup World Poll, Years 2010 to 2012, Weighted by Country;
 NZ: New Zealand, CIS: Commonwealth of Independent States)

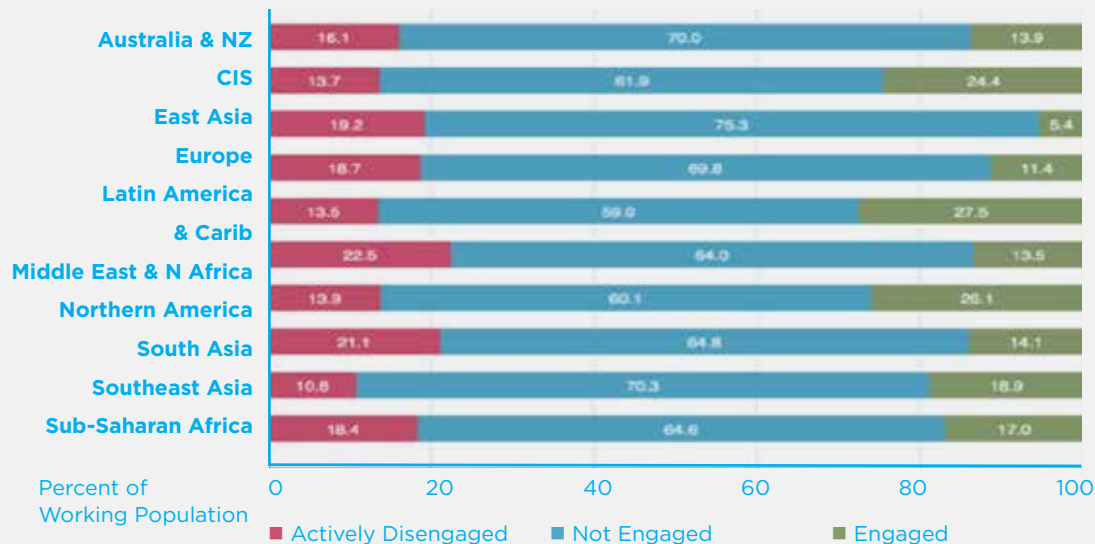


Figure 6b replicates Figure 6a for average employee engagement levels. As noted above, this indicator is more demanding than job satisfaction and is a non-binary measure that allows for increased variation. By and large, the majority of employees state that they are not engaged with their job (ranging between 59% and 75%, on average, depending on region). The regions with the highest disengagement are East Asia, Europe, the Middle East and North Africa, and South Asia. As expected, these regions also count the lowest shares of engaged employees and the highest shares of actively disengaged employees. Where do people fare better? In North America, Latin America and the Caribbean, and the Commonwealth of Independent States, about a quarter of the workforce states engagement with work. The shares of non-engaged or even actively disengaged employees are, as expected, comparably low. Again, we find very few systematic differences when we split the sample by gender.

The seemingly diverging results between job satisfaction and employee engagement for the Commonwealth of Independent States highlight once again that job satisfaction and employee engagement are very different constructs, measuring different aspects of well-being at work. While job satisfaction measures basic

contentment, employee engagement measures involvement and enthusiasm. The fact that we find simultaneously high job satisfaction and low employee engagement levels tells us that, while most people are content with having a job, a much lower percentage is emotionally connected with their work and unlikely to put in discretionary effort. This also highlights that for a complete account of well-being in the workplace, a cockpit of indicators, including additional items such as purpose or trust rather than a single instrument, may paint a more nuanced and balanced picture. Often, however, available data are limited. We return to this issue in our call for action when looking ahead at the end of this chapter.

4. Workplace Quality

We have seen the significance of employment in how people evaluate their lives globally and how they feel on a day-to-day basis. And we have seen that there are large differences in these assessments across regions in the world: not only does the overall importance of employment for well-being differ greatly between countries, so too do satisfaction and engagements levels.

But exactly which job characteristics make certain jobs less satisfying and others more? To answer

this question, we now turn our focus to the workplace itself and use the latest module on work orientations of the International Social Survey Program (ISSP)—a comprehensive, internationally comparable survey that reports on a wide array of working conditions alongside well-being for 37 countries across all geographic regions.

Here, we look at job satisfaction as our outcome of interest. Not only does this measure offer a distinctively democratic way of asking people what exactly makes a good job, but it is also highly correlated with employee retention, an outcome that is itself highly important to firm performance. In fact, if we correlate job satisfaction with the willingness of employees to turn down a competing job offer, which is also reported in this survey, we obtain a sizeable correlation coefficient of about 0.4, suggesting that employees who are more satisfied with their jobs are also, to a large extent, more likely to remain in their jobs. Unlike the previous section, the ISSP job satisfaction measure is not recorded by asking employees a simple yes-no question, but instead offers them more refined answer possibilities, including “completely satisfied,” “very satisfied,” “fairly satisfied,” “neither satisfied nor dissatisfied,” “fairly dissatisfied,” and “very dissatisfied.” We assign numerical values to these categories, and use the indicator as a cardinal measure. To make this measure comparable across countries, we standardize it such that it has mean zero and standard deviation one.

Our goal now is to ascertain which specific elements of workplace quality explain job satisfaction, our outcome of interest. We set up a multivariate regression in which we relate job satisfaction to different domains of workplace quality as explanatory variables. Building on Clark (2009), we define 12 of these domains:

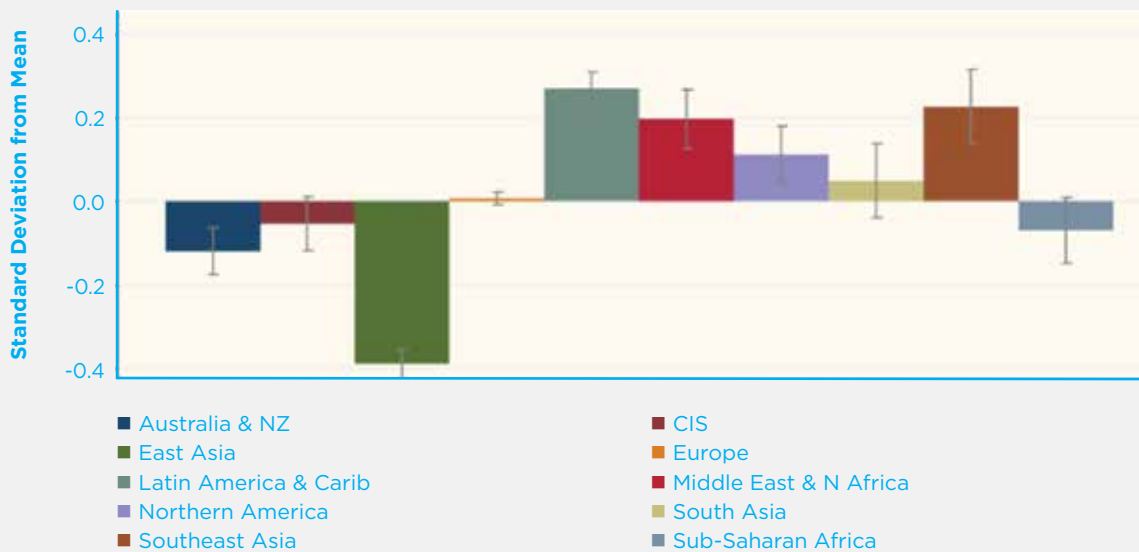
1. *Pay*
2. *Working Hours*
3. *Working Hours Mismatch*
4. *Work-Life Imbalance*
5. *Skills Match*
6. *Job Security*
7. *Difficulty, Stress, Danger*
8. *Opportunities for Advancement*
9. *Independence*
10. *Interesting Job*
11. *Interpersonal Relationships*
12. *Usefulness*

At times, a domain includes a single element, as in the case of working hours (it simply includes the actual working hours of the respondent), while at others a domain includes several elements: for example, *Pay* includes both the actual income of the respondent and her subjective assessment of whether that income is high. In such cases, we conduct a principle component analysis to extract a single, latent explanatory factor from these elements, and then relate job satisfaction to this factor. In other words, we first establish which broad domains of workplace quality are relatively more important for job satisfaction than others. We then go on to look at the different elements within these domains in order to measure their specific contribution to job satisfaction. We standardize our explanatory variables such that they have mean zero and standard deviation one in order to make them comparable across countries. This also makes interpretation easier: the coefficient estimate of an explanatory variable, when squared, now indicates the variation in job satisfaction that this variable explains.

To account for potentially confounding individual characteristics of respondents that may drive both working conditions and well-being, we control for a rich set of demographic variables by holding them constant in our regression. Besides demographics, differences in job satisfaction may exist between different occupations and industries. To be clear, we are not interested in explaining differences in job satisfaction between, for example, a manager in the pharmaceutical industry and a farmer; rather, we are interested in answering a more fundamental question: which broad domains of workplace quality are relatively more important for job satisfaction than others? (Of course, some of these domains are more prevalent in certain occupations and industries than in others). Thus, to isolate the effect of workplace quality on job satisfaction from any confounding characteristics, we also control for occupation and industry. Finally, we further control for the respective country in which the respondent lives.¹¹

Before turning to our regression results, we first look at descriptive evidence that shows the distribution of job satisfaction and workplace quality by region in the world.¹²

Figure 7: Job Satisfaction, by Region (International Social Survey Program, Module on Work Orientations, Year 2015, Weighted by Country; Confidence Intervals 95%; NZ: New Zealand, CIS: Commonwealth of Independent States)



Note: The variable is standardized with mean zero and standard deviation one. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero.

As can be seen in Figure 7, there are some regions that deviate significantly from the average: Latin America and the Caribbean, Southeast Asia, the Middle East and Northern Africa, and Northern America are positive outliers (differences between these regions are barely significant at a conventional level); East Asia (by far) and, to some extent, Australia and New Zealand are negative ones.

Figures 7a to 7l replicate Figure 7 for the different domains of workplace quality. As expected, workplace quality varies greatly across regions in the world. To get an initial sense of which particular domains of workplace quality are more strongly associated with job satisfaction than others, we pick the most significant outliers from above, and look into which domains are relatively more prevalent for them. We take Latin America and the Caribbean as the positive example and East Asia as the negative one.

We first look at Latin America and the Caribbean: the region does not significantly differ from the average in terms of pay, work-life imbalance, or independence at work. On the more positive

side, it scores higher in terms of job security, opportunities for advancement, interestingness of the job, interpersonal relationships, and usefulness of work, as well as lower in terms of working hours mismatch and difficulty, danger, and stress at work. On the more negative side, it scores higher in terms of working hours and lower in terms of skills match.

Interestingly, for East Asia some of these relationships are reversed. On the positive side, East Asia scores much higher in terms of pay. On the negative side, however, it scores higher in terms of working hours, working hours mismatch, work-life imbalance, difficulty, stress, and danger at work, and lower in terms of skills match, job security, opportunities for advancement, interpersonal relationships, independence at work, usefulness, and interestingness of the job.

We now turn to our regression results, and look more deeply into which of these domains of workplace quality are relatively more important for job satisfaction than others. Figure 8 plots the coefficient estimates obtained from our regression of job satisfaction on the different

Figures 7a-7l: Workplace Quality, by Region (International Social Survey Program, Module on Work Orientations, Year 2015, Weighted by Country; Confidence Intervals 95%; NZ: New Zealand, CIS: Commonwealth of Independent States). See Figure 7 for the Legend. *Note:* The variables are standardized with mean zero and standard deviation one. *Pay*, *Working Hours Mismatch*, *Work-Life Imbalance*, *Skills Match*, *Difficulty*, *Stress*, *Danger*, *Independence*, *Interpersonal Relationships*, and *Usefulness* are principle components obtained from separate principle component analyses that condense various variables in the respective domain of workplace quality into a single indicator; see Section 4 for a description of the procedure and Table W11 in the Web Appendix for summary statistics of the variables. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero.

Figure 7a: Pay, by Region

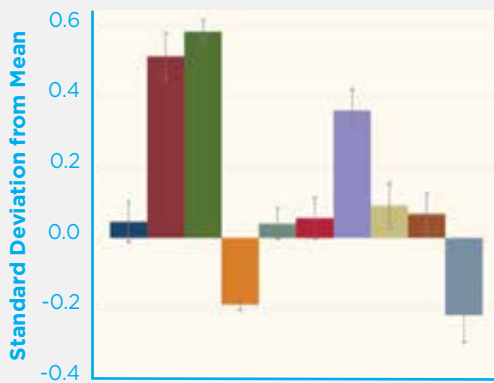


Figure 7b: Working Hours, by Region

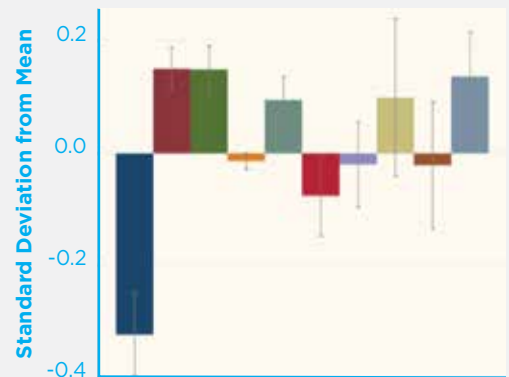


Figure 7c: Working Hours Mismatch, by Region

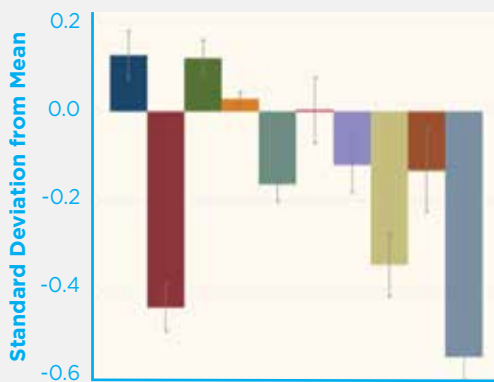


Figure 7d: Work-Life Imbalance, by Region

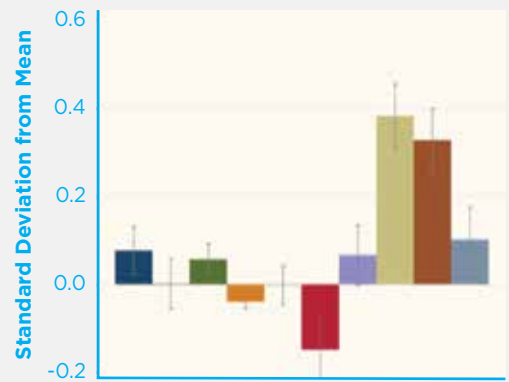


Figure 7e: Skills Match

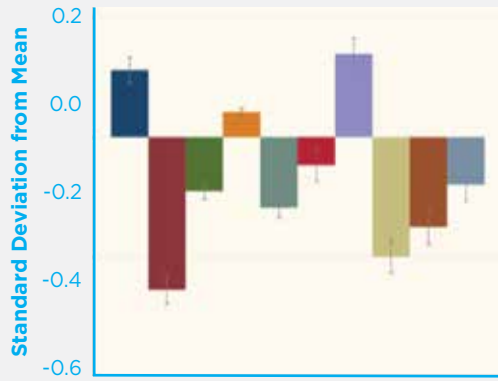


Figure 7f: Job Security

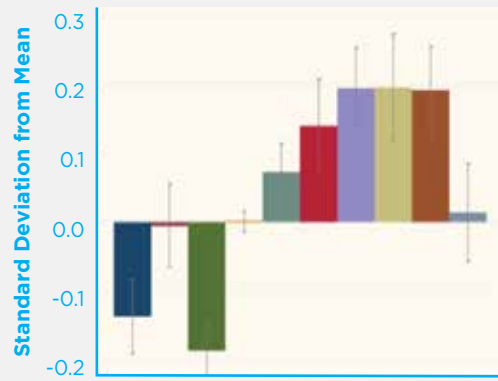


Figure 7g: Difficulty, Stress, Danger

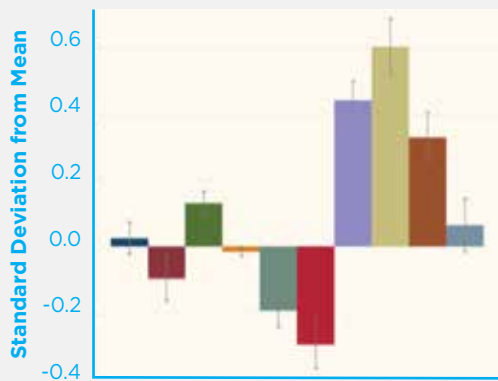


Figure 7h: Opportunities for Advancement

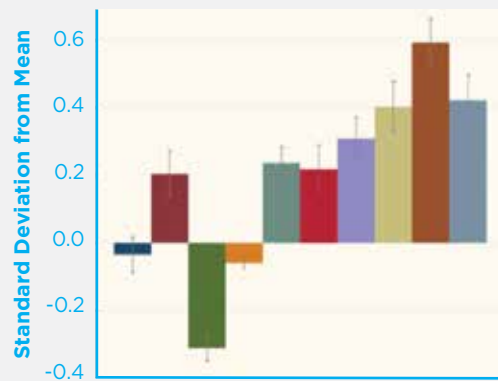


Figure 7i: Independence

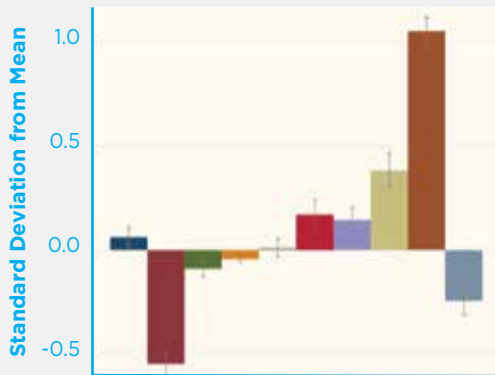


Figure 7j: Interesting Job

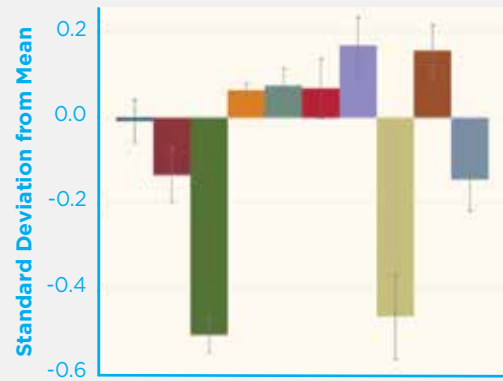


Figure 7k: Interpersonal Relationships

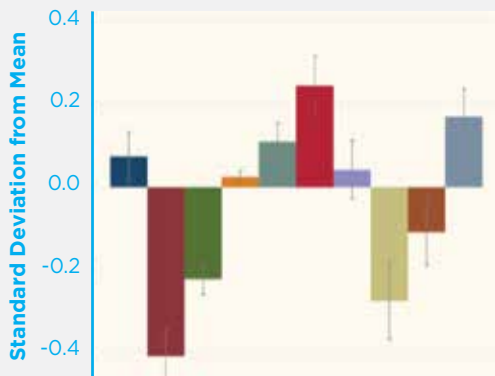


Figure 7l: Usefulness

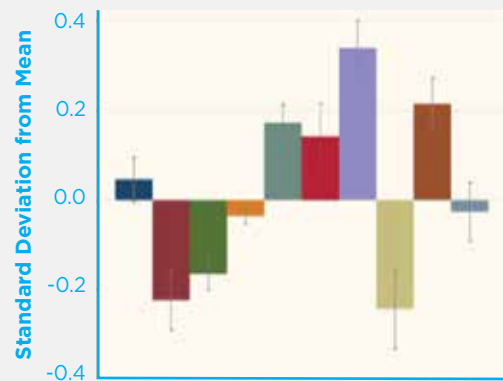
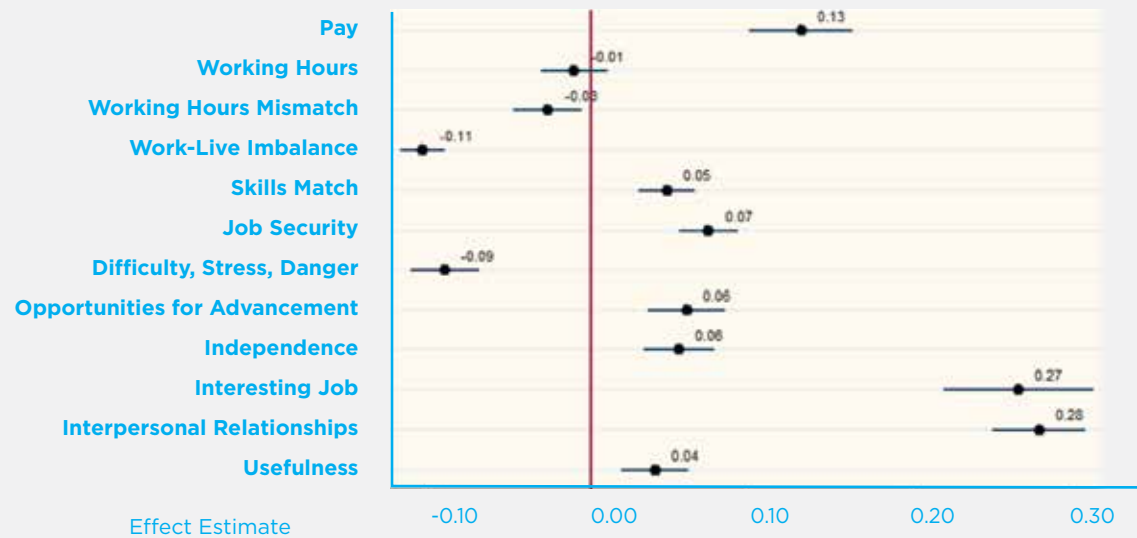


Figure 8: Effect of Workplace Quality on Job Satisfaction

(International Social Survey Program, Module on Work Orientations Year 2015; Confidence Intervals 95%)



Notes: The figure plots effect estimates obtained from regressing job satisfaction on different domains of workplace quality. All variables (both left-hand side and right-hand side) are standardized with mean zero and standard deviation one; regressors are thus beta coefficients. Squaring a regressor yields the respective share in the variation of job satisfaction that this regressor explains. *Pay*, *Working Hours Mismatch*, *Work-Life Imbalance*, *Skills Match*, *Difficulty, Stress, Danger*, *Independence*, *Interpersonal Relationships*, and *Usefulness* are principle components obtained from separate principle component analyses that condense various variables in the respective domain of workplace quality into a single indicator; see Section 4 for a description of the procedure and Table W11 in the Web Appendix for summary statistics of the variables. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero. See Table W3 in the Web Appendix for the corresponding table with the full set of controls.

domains. The corresponding, more detailed regression results are available in Table 1 below; Table 2 employs, instead of the broad domains of workplace quality, the different constituent elements within these domains.¹³

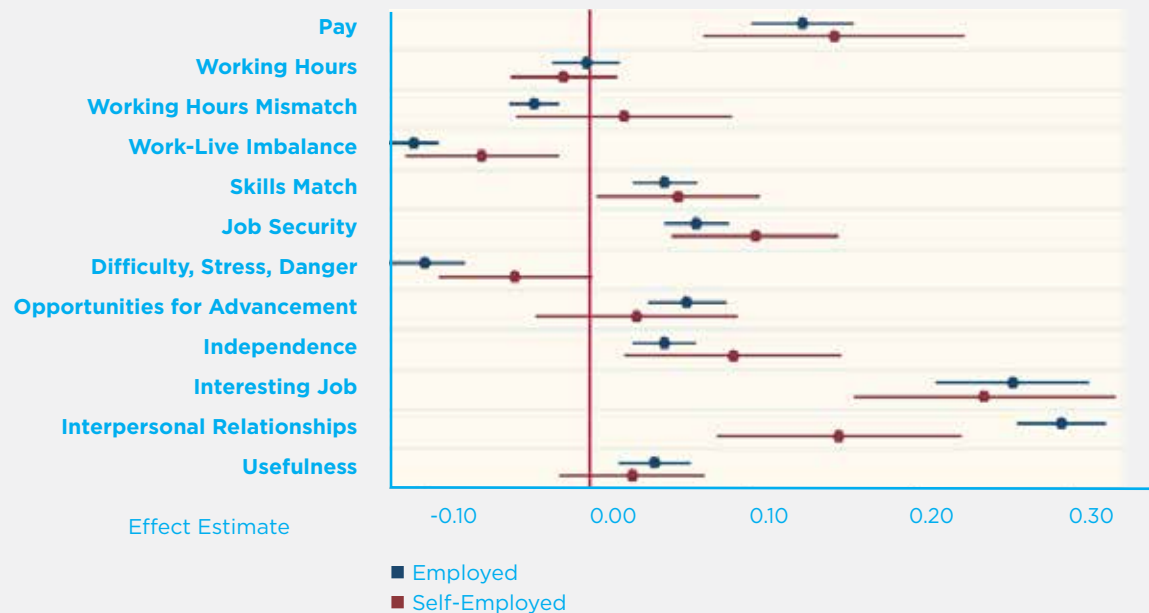
In what follows, we discuss the relative importance of the different domains of workplace quality for job satisfaction, including, where appropriate the different elements within these domains. We look mostly at their effect on the average employee, but where interesting, point toward effect heterogeneities between the employed and the self-employed (Figure 9a), full-time and part-time (Figure 9b), and between basic demographic characteristics such as gender (Figure 9c) and different levels of education (Figure 9d).

4.1. Pay

It may not come as a surprise that we find pay to be an important determinant of job satisfaction. In classic economic theory, labor enters the utility function negatively, and theory predicts that individuals are compensated by wages that equal the marginal product of labor. That said, pay is not only an important compensation for the hardship that individuals incur when working but also an important signal of their productivity. We thus expect job satisfaction to be higher the greater the wedge between compensation and hardship incurred, and the more socially relevant pay is in a given society.

The importance of pay for job satisfaction seems universal, with no statistically significant differences

Figure 9a: Effect of Workplace Quality on Job Satisfaction, by Employment Status (International Social Survey Program, Module on Work Orientations Year 2015; Confidence Intervals 95%)



Notes: See Figure 8. See Table W5 in the Web Appendix for the corresponding table with the full set of controls.

between respondents who are employed or self-employed and working full-time or part-time, or between gender and different levels of education. In our analysis, the domain *Pay* consists of two elements: the actual income of respondents and their subjective assessment of whether that income is high. Both elements are almost equally important, but objective income a little more.

Perhaps more surprising is that although pay is an important determinant of job satisfaction, it is not the most important one. In fact, it ranks third, behind interpersonal relationships at work and having an interesting job. We discuss these determinants in detail below.

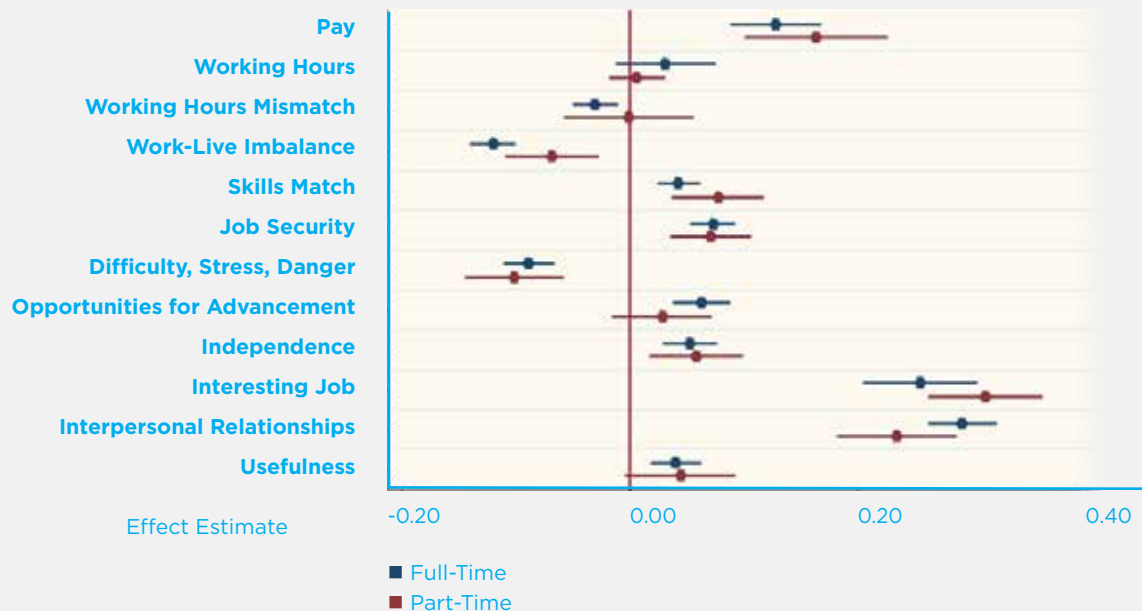
Most people, when asked why they are working, respond that they are working to earn money. This is, of course, true, but once working, other workplace characteristics become more salient, and thus potentially more important than previously considered. Experimental research has shown that intrinsic motivations gain in importance relative to extrinsic ones (such as income) once

individuals are engaged in an activity (Woolley and Fishbach, 2015). Particularly, purpose may be such a characteristic: Ariely et al. (2008) show, in a laboratory setting, that people who see purpose in what they do perform relatively better at work, even in the context of simple, repetitive effort tasks.¹⁴ Using both experimental and observational data, Hu and Hirsh (2017) find that employees report minimum acceptable salaries that are 32% lower for personally meaningful jobs compared to personally meaningless ones. The important role of purpose may be even more pronounced when in interplay with good management practices (Gartenberg et al., 2008), including employee recognition (Dur et al., 2016).

4.2. Working Hours

As labor enters the utility function negatively, classic economic theory predicts a negative relationship between the number of working hours and well-being. This is precisely what we find for job satisfaction.

Figure 9b: Effect of Workplace Quality on Job Satisfaction, by Working Time
(International Social Survey Program, Module on Work Orientations Year 2015;
Confidence Intervals 95%)



Notes: See Figure 8. See Table W6 in the Web Appendix for the corresponding table with the full set of controls.

Interestingly, however, when controlling for all other domains of workplace quality, the effect of working hours on job satisfaction is not only tiny (it ranks as the least important domain of workplace quality), but statistically insignificant altogether. This finding is again universal: there are no statistically significant differences between respondents who are employed or self-employed and working full-time or part-time, or between gender and different levels of education.

This seems odd at first, but as shown below, is in line with a growing evidence base that documents the negative impact of working hours mismatch and work-life imbalance on well-being.

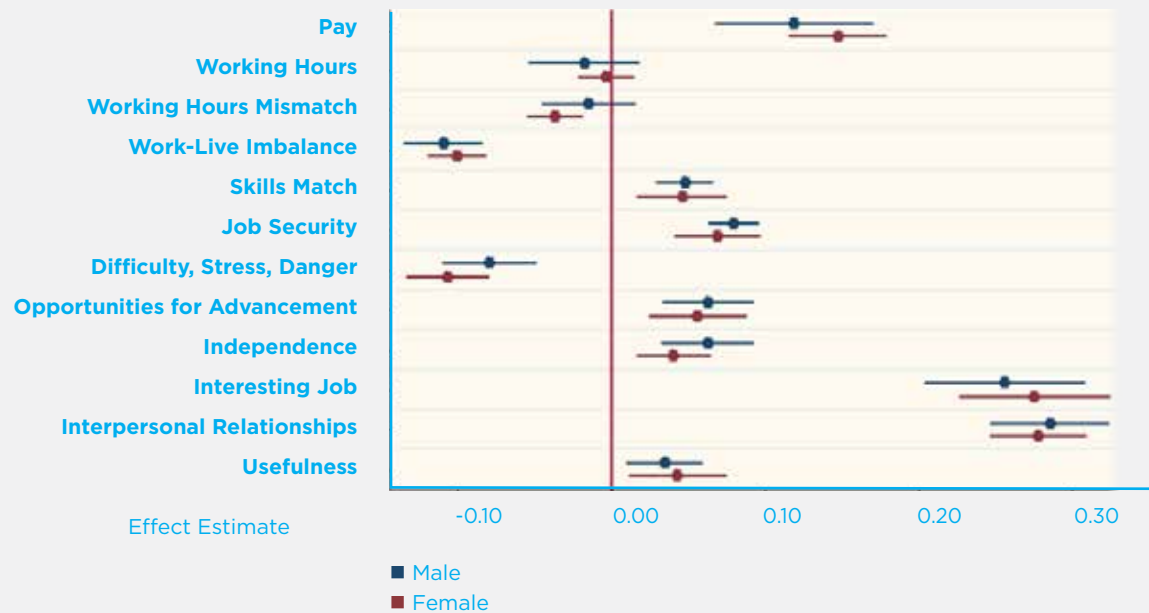
4.3. Working Hours Mismatch

Rather than the total number of working hours, what seems to matter more for job satisfaction is working hours mismatch, defined as the difference between the actual and the desired number of working hours.

Individuals differ in their preferences for how much they want to work, and classic economic theory assumes that they can freely choose their desired bundle of labor and leisure hours. Empirical evidence, however, suggests that this is often not the case: work contracts, labor market conditions, and social norms, among others, may affect choices, and may lead to a realized bundle that is different from the desired one. In Britain, for example, more than 40% of employees who work full-time report a preference of working fewer hours (Boeheim and Taylor, 2004). In such situations, theory predicts that individuals end up on a lower utility level.

We have already seen that employees who work part-time but prefer to work full-time evaluate their lives less favourably than those who intentionally work part-time. We can now generalize this result and replicate it for job satisfaction: working hours mismatch has a significant negative effect on how satisfied employees are, on average, with their jobs.

Figure 9c: Effect of Workplace Quality on Job Satisfaction, by Gender
 (International Social Survey Program, Module on Work Orientations Year 2015;
 Confidence Intervals 95%)



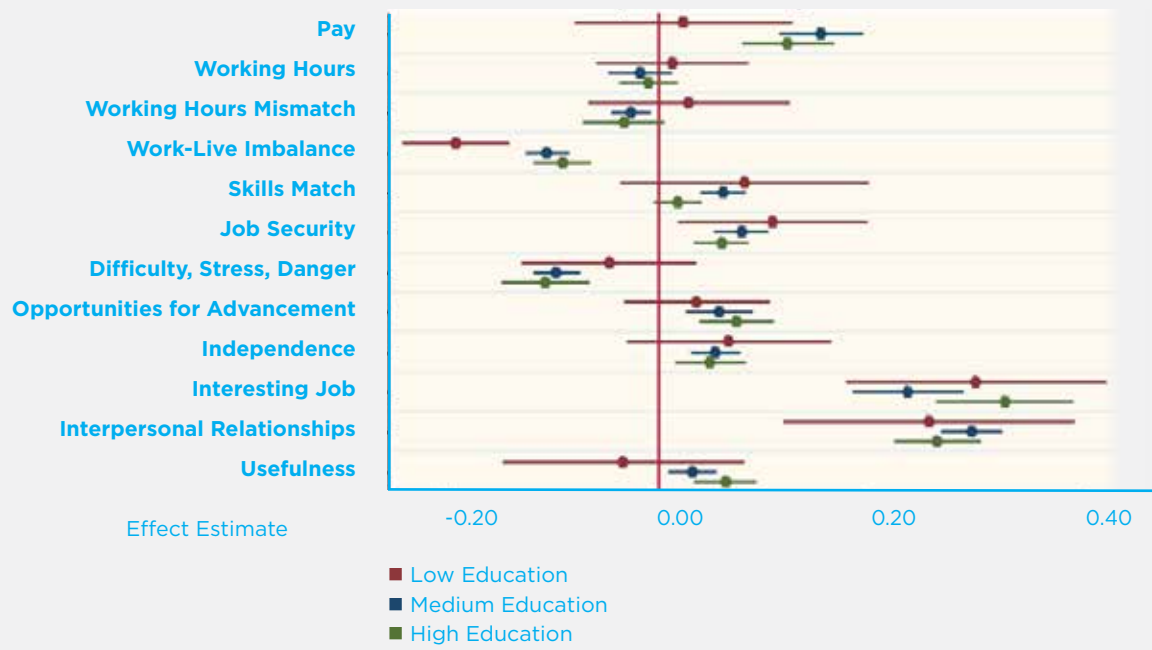
Notes: See Figure 8. See Table W7 in the Web Appendix for the corresponding table with the full set of controls.

It is still unsettled in the literature which is more detrimental to people's well-being: underemployment, as has been found in Germany (Wunder and Heineck, 2013), or overemployment, as has been found in Australia (Wooden et al., 2009) and Britain (Angrave and Charlwood, 2015). In our analysis, the domain *Working Hours Mismatch* consists of two elements: the desire to work more hours (for more pay) and the desire to work fewer hours (for less pay). We find that the latter drives the negative effect of working hours mismatch on job satisfaction, suggesting that overemployment is more of an issue than underemployment. Diverging results in the literature may point toward the importance of accounting for differences in institutional settings between countries, including, for example, differences in labor market regulations (especially regarding job security), social policy, social norms, and lifestyles. Note that working hours mismatch has also been found to have negative spillovers on other household members (Wunder and Heineck, 2013).

It turns out that the negative effect of working hours mismatch on job satisfaction is driven primarily by the employed over the self-employed (who probably have more control over their working hours) and, in line with our finding for overemployment, by employees working full-time as opposed to employees working part-time.

Importantly, there is a gender dimension to working hours mismatch: its negative effect on job satisfaction is driven primarily by women. Evidence shows that women spend considerably larger amounts of time caring for other household members (for example, they spend more than twice as much time on childcare) and doing routine household work than men, even in cases where actual working hours are equal between women and men (OECD, 2014). For women, achieving a better balance between the actual and the desired number of working hours would therefore be an effective means of reducing time crunches. The fact that working fewer hours may be detrimental to their long-term career

Figure 9d: Effect of Workplace Quality on Job Satisfaction, by Education Level
 (International Social Survey Program, Module on Work Orientations Year 2015;
 Confidence Intervals 95%)



Notes: See Figure 8. See Table W8 in the Web Appendix for the corresponding table with the full set of controls.

prospects presents a dilemma, and may—at least in part—explain the declining life satisfaction of mothers over the past decades (Stevenson and Wolfers, 2009).

In sum, we find that working hours mismatch, in particular overemployment, has a significant negative effect on job satisfaction. The size of this effect, however, is rather small: in fact, working hours mismatch is only ranked 11th out of the 12 domains of workplace quality in terms of importance for job satisfaction. If working hours mismatch is not so bad after all, then what is? The answer is work-life imbalance, as discussed below.

4.4. Work-Life Imbalance

Working hours mismatch may not be so detrimental as long as it does not seriously interfere with other important domains of life, especially family. If, however, work and private life threaten to lose balance, negative consequences for people’s well-being are large.

Although work-life imbalance ranks only fourth out of 12 domains of workplace quality in terms of power to explain variation in job satisfaction, it is the domain that has the strongest negative effect on job satisfaction among all negative workplace characteristics. It is highly significant, and statistically indistinguishable from exerting effort in a job that is difficult, stressful, or even dangerous. The negative effect of work-life imbalance on job satisfaction seems to be almost universal: there are no statistically significant differences between respondents who are employed or self-employed and between gender. Perhaps not surprisingly, employees working full-time are more heavily affected than those

working part-time, and there is some evidence that the negative consequences of work-life imbalance are stronger for workers with low levels of education.

In our analysis, the domain *Work-Life Imbalance* consists of three elements which have a clear ranking in terms of importance: work interfering with the family exerts by far the strongest negative effect on job satisfaction, followed by the difficulty of taking time off on short notice when needed. Working on weekends actually has a positive effect, but is negligible in terms of effect size.

From our findings on working hours mismatch and work-life imbalance, we can derive some important policy implications: policies that target more supportive and flexible working time

regulations have the potential to considerably increase people's well-being. This is especially true for people who experience disproportionately more time crunches, including, among others, women, parents (especially single parents), and caretakers of other household members such as elderly. The public policy mix that enables people to strike a better balance between their work and private lives can be quite diverse, ranging from specific labor market regulations on flexible working times to the provision of infrastructure such as public transportation in order to reduce commuting times or early childcare facilities in sufficient quantity and quality. At the same time, offering more flexible working times may be a promising strategy for firms to effectively attract and retain skilled workers.

Box 1: Work-Life Balance: Is There a Trade-Off Between Flexible Work Practices and Performance

To answer this question, Bloom et al. (2015) conducted an experiment at Ctrip, a NASDAQ-listed Chinese travel agency with more than 16,000 employees. The authors randomly allocated call center agents who volunteered to participate in the experiment to work either from home or in the office for nine months. They found that working from home led to a 13% performance increase, due to fewer breaks and sick days as well as a quieter and more convenient working environment. At the same time, job satisfaction rose and attrition halved. Conditional on their performance, however, participants in the experiment were less likely to get promoted.¹⁵ For employees, of course, this raises the question of whether flexible work practices are associated with a career penalty. This does not necessarily have to be the case: Leslie et al. (2012) show, in both a field study at a Fortune 500 company and a laboratory experiment, that flexible work practices result in a career penalty only if managers attribute their use as being motivated primarily by reasons related to personal lives. To the extent that

managers attribute their use to reasons related to organizational needs, however, flexible work practices can actually result in a career premium. The latter category includes reasons related to, for example, work performance and efficiency. Part of this attribution is communication, and training supervisors on the value of demonstrating support for employees' personal lives while prompting employees to reconsider when and where to work can help reduce work-family conflict (Kelly et al., 2014). Finally, Moen et al. (2011) studied the turnover effects of switching from standard time practices to a results-only working environment at Best Buy, a large US retailer that implemented the scheme sequentially in its corporate headquarters: eight months after implementation, turnover amongst employees exposed to the scheme fell by 45.5%. Evidence therefore suggests that carefully designed, implemented, and communicated flexible work schemes can actually have positive impacts on organizational performance.

4.5. Skills Match

A job that is asking too much from an employee can lead to frustration, as can a job that is asking too little. Matching the demand for and the supply of skills in a particular job, and enabling employees to effectively apply the skills they have or, if necessary, acquire new skills, should thus be reflected in higher job satisfaction.

This is precisely what we find. Achieving a skills match in a particular job has a significant positive effect on how satisfied employees are with that job. This is again an almost universal finding: there are no statistically significant differences between respondents who are employed or self-employed, between respondents who are working full-time or part-time, and between gender. Differences between levels of education are minor. The domain *Skills Match* includes two elements: whether respondents have participated in a skills training in the previous year and their subjective assessment of whether their skills generally match those required in their job. Both elements matter, but their subjective assessment a little more.¹⁶ Importantly, skills match is not only

directed toward the self but also toward others in the workplace. In fact, Artz et al. (2017) find that supervisor technical competence is amongst the strongest predictors of workers' job satisfaction. Willis Towers Watson, a leading human resources consultancy, estimates that in companies where leaders and managers are perceived as effective, 72% of employees are highly engaged (Willis Tower Watson, 2014). On a more abstract level, the concept of skills match may also be applied to matching individual character strengths, although there is as yet little evidence on the causality of this relationship in organizational settings.

Although skills match ranks only ninth out of the 12 domains of workplace quality in terms of power to explain variation in job satisfaction, places five to nine are close to each other, and thus constitute a category of medium importance for well-being at work.

4.6. Job Security

Slightly more important than skills match is job security: it ranks sixth out of 12 domains

Box 2: Essential Skills Training: Well-Being Returns and Success Factors

UPSKILL was a workplace literacy and essential skills training pilot in Canada (Social Research and Demonstration Corporation, 2014a). It was implemented as a randomized controlled trial, involving 88 firms (primarily in the accommodation and food services sector) and more than 800 workers who were randomly allocated to receiving 40 hours of literacy and skills training on site during working hours. The pilot was not only effective in increasing basic literacy scores and thus job performance and retention, but, importantly, also in increasing mental health: at follow-up, participants in the treatment group were 25 percentage points more likely than those in the control group to have reported a significant reduction in stress levels. Effects were particularly pronounced among participants with low baseline skills. These positive

impacts at the worker level also translated into positive impacts at the firm level: even though firms bore the full costs of training and release time for workers, they incurred a 23% return on investment, primarily through gains in revenue (customer satisfaction increased by 30 percentage points), cost savings from increased productivity (wastage and errors in both core tasks and administrative activities were significantly reduced), and reductions in hiring costs. Besides firms' commitment to learning and training, organizations that offered work environments with high levels of trust gained relatively more from the program (Social Research and Demonstration Corporation, 2014b). This is in line with a growing evidence base on the importance of trust in the workplace (Helliwell et al., 2009; Helliwell and Huang, 2012; Helliwell and Wang, 2015).

of workplace quality, and is thus also part of the category of medium importance for well-being at work.

Job security is universally important: we find no evidence of effect heterogeneities between respondents who are employed or self-employed and working full-time or part-time, or between gender and different levels of education.

The literature shows that the unemployment rate in a particular region has a significant negative effect on the life satisfaction of the employed in that region (Luechinger et al., 2010). This is often interpreted as a signal of general job insecurity, which is detrimental to happiness.

4.7. Difficulty, Stress, Danger

Not surprisingly, we find that jobs which are associated with difficulty, stress, or even danger are also associated with lower levels of job satisfaction. This holds true even when controlling for all other domains of workplace quality, including pay, working hours, and job security. This is an interesting finding in and of itself, as classic economic theory predicts that workers should be compensated, either monetarily or non-monetarily, for any job disamenities such that the net well-being effect is zero. Empirical evidence on so-called *compensating differentials*, however, is rather mixed. In our data, which are clearly limited, we cannot detect them.

In our analysis, the domain *Difficulty, Stress, Danger* consists of two elements: physically taxing work and stressful work. It turns out that the latter drives the negative effect of this domain on job satisfaction; the former, on the contrary, turns out statistically insignificant. The fact that stress at work is detrimental to health is well-established in the literature: for example, Chandola et al. (2006), in a large-scale prospective cohort study involving more than 10,000 men and women aged 35 to 55 who were employed in 20 London civil service departments, study the relationship between exposure to stressors at work and the risk of developing the metabolic syndrome, a cluster of at least three of five medical conditions including, among others, obesity, high blood pressure, and high blood sugar. They find that employees with chronic work stress were more than twice as likely to develop the syndrome 14 years into the study than those without.

Having a job that is difficult, stressful, or dangerous ranks fifth out of 12 domains of workplace quality in terms of power to explain variation in job satisfaction. It is the domain that has the second strongest negative effect on job satisfaction among all negative workplace characteristics, and ranks directly after work-life imbalance from which it is—at least in terms of effect size—statistically not distinguishable. We find little evidence that its negative impact varies for different people.

4.8. Opportunities for Advancement

We have already seen that being in a stable employment relationship, be it full-time or part-time, has positive effects on how people evaluate their lives globally, as well as how they feel on a daily basis. Part of why this is the case is that jobs provide opportunities for advancement, be it steps to climb up the career ladder, new challenges that give room for personal development, or others.

Our data do not discriminate between different types of opportunities for advancement, but simply ask respondents whether their current job provides them. This gives respondents the freedom to interpret the question in whatever way they themselves find most important.

We find that opportunities for advancement have a significant positive impact on the average respondent's job satisfaction. There is quite some effect heterogeneity, though: the effect is primarily driven by respondents who are employed as opposed to self-employed (probably because the self-employed are themselves more in control of which opportunities to create or not) and by respondents who work full-time as opposed to part-time. There also seems to be a gradient in education: opportunities for advancement become more important for job satisfaction the higher the level of education. They are, however, equally important to men and women.

Opportunities for advancement rank seventh out of the 12 domains of workplace quality in terms of power to explain variation in job satisfaction. Perceived progress through well-defined goal-setting and planning as well as measurable evaluations—based on clearly defined expectations and performance—and employee recognition may increase agency and make the path toward career advancement more transparent, thereby contributing positively to well-being at work.

4.9. Independence

Independence at work can have many facets. Our survey asks respondents to what extent they can work independently, whether they often work at home, and whether they have agency about the organization of their daily work, their working hours, and their usual working schedule.

We find that independence at work occupies the middle ground of importance for well-being: it has a significant positive effect on job satisfaction, with an effect size similar to skills match, job security, opportunities for advancement, and usefulness. It is ranked eighth out of the 12 domains of workplace quality in terms of power to explain variation in job satisfaction. Independence at work seems to be important to everybody: there are no statistically significant differences between respondents who are employed or self-employed and working full-time or part-time, or between gender and different levels of education.

In our analysis, the domain *Independence* includes eight elements: the subjective assessment of

respondents as to what extent they can work independently, how often they work at home during their usual working hours, and whether the organization of their daily work, their working hours, and their usual working schedule is entirely free for them to decide as opposed to fixed. Some of these elements are important while others are not. There also seems to be a ranking of importance: we find that the positive effect of independence at work on job satisfaction is driven primarily by whether respondents report that they can freely organize their daily work, followed by their subjective assessment as to what extent they can work independently. The nature of having discretion about the usual working schedule is more complex: we find that both full discretion and no discretion at all have a negative impact on job satisfaction. Here, it seems that the reference category—having limited discretion—yields a higher job satisfaction than both ends of the spectrum.

Independence at work is related to the concept of job crafting (Wrzesniewski and Dutton, 2001), and the question of whether organizations

Box 3: Does Autonomy over Working Schedules Raise Employee Well-Being?

STAR (“Support. Transform. Achieve. Results”) was a flexible working practices pilot developed by the interdisciplinary Work Family and Health Network (King et al., 2012). It aimed to (i) increase employees’ control over their working schedule, (ii) raise employee perceptions of supervisor support for their personal and family lives, and (iii) reorient the working culture from face time to results only. Eight hours of preparatory sessions encouraged managers and their teams to identify new, flexible work practices, for example, by communicating via instant messenger or planning ahead for periods of peak-demand more effectively. The pilot was implemented as a group-randomized controlled trial in a Fortune 500 company, involving 867 IT workers who were, including their entire team, allocated to either the intervention or business-as-usual and

followed for over a year. Moen et al. (2016) find that the intervention significantly reduced burnout by about 44% of a standard deviation while raising job satisfaction by about 30%. These large effect sizes were partially mediated by decreases in family-to-work conflict and, perhaps less surprisingly, increases in schedule control. There is also some evidence that the intervention decreased perceived stress and psychological distress. Although it has not been evaluated with respect to employee performance (possibly because it is difficult to measure performance in the given context), recent experimental evidence (see Bloom et al. (2015), for example) suggests that, in a very similar context, giving employees more autonomy over where and when to work can have strong, positive performance impacts.

should give their employees a certain freedom to design their jobs based on personal needs and resources. Studies have shown that enabling employees to craft their jobs in this way can have positive benefits in terms of increased employee engagement and job satisfaction as well as decreased likelihood of burnout (Tims et al., 2013). More generally, the concept of individual job crafting may be transferred to the level of the entire organization, in the sense of organizational design. It can also be applied to the physical environment: Knight and Haslam (2010) studied, in an experiment involving different office spaces, the effect of giving employees the opportunity to design their physical working environment. In line with the notion of social identity, they found that employees who were randomly allocated to the crafting condition showed higher organizational identification, job satisfaction, and productivity, measured in terms of task performance. Independence at work has also been identified as a contributing factor to creativity (Amabile et al., 1996). Evidence is thus rather positive about independence; its precise impact, however, is probably highly context-specific.

4.10. Interesting Job

It should not come as a big surprise that having an interesting job is positively associated with being more satisfied with it.

But it is astonishing just how important interestingness is. Amongst all positive workplace characteristics, it has the second strongest effect on job satisfaction, right after interpersonal relationships at work (from which it is, in terms of effect size, not statistically distinguishable), and thus ranks second out of the 12 domains of workplace quality in terms of power to explain variation in job satisfaction. There is little evidence that the impact of interestingness varies for different people: having an interesting job is important to everybody.

Note that interestingness is not the same as purposefulness. A job can score both high on being interesting and low on being purposeful. In contrast to interestingness, purposefulness is best described in terms of a long-term alignment between a job and an individual's own evolutionary purpose in the sense of doing something greater than self.

4.11. Interpersonal Relationships

In most jobs, employees interact, in one way or another, with supervisors, co-workers, or clients.¹⁷ The way in which these interactions occur, and interpersonal relationships are maintained, proves to be the most important determinant of employee job satisfaction.

Interpersonal relationships have a sizeable and significant positive effect on the job satisfaction of the average employee. They rank first out of our 12 domains of workplace quality in terms of power to explain variation in job satisfaction. The size of the effect, however, is statistically not different from that of having an interesting job, which ranks second. Interpersonal relationships are particularly important for the employed as opposed to the self-employed (probably because the self-employed can, if necessary, avoid interactions) and employees who are working full-time as opposed to those who are working part-time (probably because people become relatively more important the more time is spent with them). There is no gender dimension to interpersonal relationships—they are equally important to men and women—nor does their importance for job satisfaction vary by educational level.

In our analysis, the domain *Interpersonal Relationships* consists of three elements: contact with other people in general, the respondents' subjective assessment of their relationship with the management, and the equivalent subjective assessment of their relationship with co-workers. The driver behind the positive effect of interpersonal relationships on job satisfaction is, by far, the relationship with the management; the relationship with co-workers is, although important, only half as important. This is in line with evidence showing that about 50% of US adults who have left their job did so in order to get away from their manager (Gallup News, 2015). Contact with other people in general seems to matter less for job satisfaction.

4.12. Usefulness

How important is pro-sociality—doing something that is beneficial for other people or for society at large—when it comes to job satisfaction?

Pro-social behavior is behavior intended to benefit one or more individuals other than oneself (Eisenberg et al., 2013). This type of

Box 4: How the Relationship Between Managers and Employees Affects Well-Being at Work

Managers can have many functions: for employees, they may provide training, advice, and motivation (Lazear et al., 2015). To effectively fulfill these functions, managers should be competent. Artz et al. (2017) study the relationship between managers' technical competence and employees' job satisfaction using the Working in Britain Survey in the UK and the National Longitudinal Study of Youth in the US. They find that a manager's technical competence—measured in terms of whether the manager worked herself up the ranks, knows her job, or could even do the employee's job—is the single strongest predictor of an employee's job satisfaction. In terms of effect size, having a competent boss is even more important for job satisfaction than having friendly colleagues. In a study on the National Health Service in England, Ogbonnaya and Daniels (2017) find that trusts (the organizational entities that make up the National Health Service) which make the most use of people management practices are over twice as likely to have staff with the highest levels of job satisfaction as compared to those which make the least use of these practices. People management practices refer to training, performance appraisals, team working, clear definition of roles and responsibilities, provision of autonomy in own decision-making, and supportive management that involves staff in organizational decisions. Importantly, they are also three times more

likely to have the lowest levels of sickness absence, and four times more likely to have the most satisfied patients. White and Bryson (2013) confirm this finding for a wider range of organizations in Britain, using an index constructed from various domains of human resource management—participation, team working, development, selection, and incentives—and nationally representative, linked employee-employee data: firms with more human resource practices in place tend to score higher in terms of employees' job satisfaction and organizational commitment (although the relationship seems to be non-linear). Fairness and transparency in managerial decision-making seems to be an important factor: Heinz et al. (2017) conduct a field experiment in which the authors set up a call center to study the impact of treating some employees unfairly on the productivity of others. They set up two work shifts, and randomly lay off 20% of employees between shift one and two due to stated cost reductions (which, as confirmed by interviews with actual HR managers, is perceived as unfair). The productivity of the remaining, unaffected workers, which are notified by this decision at the beginning of the second shift, drops by about 12 percent. The effect size of the productivity decline is close to the upper bound of the direct effects of wage cuts.

behavior can cover a broad range of actions such as helping, sharing, and other forms of cooperation (Batson and Powell, 2003).¹⁸ It has been shown to have positive well-being benefits at the individual level (Meier and Stutzer, 2008). At the societal level, it can help build social capital through fostering cooperation and trust, and social capital is linked to higher levels of well-being in societies (Helliwell et al., 2016, 2017). Pro-sociality

is not the same as purpose (although they overlap to a very large extent): whereas pro-sociality is always directed toward others, purpose could, in the narrower sense, only be directed toward the self. That said, a job can score both high on individual purpose and low on pro-sociality. In reality, however, most jobs probably score either high or low on both constructs.

We can replicate this finding for well-being at work: doing something that is beneficial for other people or for society at large is associated with higher levels of job satisfaction, on average. However, in line with the notion of humans as *conditional* co-operators (Fehr and Fischbacher, 2003), the size of this effect is rather small. Usefulness ranks only tenth out of our 12 domains of workplace quality in terms of power to explain variation in job satisfaction. There is also quite some effect heterogeneity: doing something useful is more important for the job satisfaction of the employed as opposed to the self-employed (probably because the self-employed have, in the first place, more choice over which activities to engage in or not) and employees who are working full-time as opposed to those working part-time. Pro-sociality also becomes more important the higher the level of education. There are, however, no significant differences between gender.

In our analysis, the domain *Usefulness* consists of two elements: helping other people and being useful to society. Both are important, but being useful to society slightly more so.

There is growing literature on pro-sociality in the workplace. Anik et al. (2013) studied the impact of pro-social bonuses—a novel type of bonus spent on others rather than one-self—on well-being and performance. In a field experiment at a large Australian bank, the authors found that employees who were randomly allocated to receive bonuses in the form of (relatively small) financial donations to be made to local charities showed significant, immediate improvements in job satisfaction and happiness compared to employees who were not given these bonuses. In two follow-up experiments, one involving sports teams in Canada and another involving a sales team at a large pharmaceutical company in Belgium, they found that spending bonuses on team members rather than oneself led to better team performance in the longer term. The finding that spending money on others can buy you happiness has also been shown by Dunn et al. (2008): the authors find that pro-social spending in the form of gifts to others or financial donations to charities is positively correlated with general happiness; longitudinally, (arguably otherwise comparable) employees who unexpectedly received a profit-sharing bonus and spent more of it pro-socially experienced an

increase in general happiness, even after controlling for income and the amount of the bonus.

Two other intervention studies stand out: Gilchrist et al. (2014) studied the impact of pay raises—masked as gifts—on performance in a setting where there were no future employment possibilities. The authors hired one-time data entry assistants on an online platform for freelancers, and then randomly allocated them into different experimental conditions, one involving an unexpected, benevolent pay raise. They found that freelancers allocated to this condition entered 20% more data than those who were either initially offered the same pay or initially offered a lower pay, both of which performed equally. In other words, simply paying more at the outset did not elicit higher task performance, but an unexpected pay raise masked as a benevolent gift did. Grant (2008), in a randomised field experiment involving fundraisers at a university, found that bringing together fundraisers and beneficiaries to show the former the purpose of their work significantly increased their subsequent task performance.

How organizations can organize work to make it more fulfilling and connect people with the pro-social impact they may have, for example, by providing incentives to elicit behaviors that help accumulate altruistic capital (Ashraf and Bandiera, 2017), is a promising area of research.

Table 1: Effect of Workplace Quality on Job Satisfaction, Aggregated Domains

Workplace Quality	Effect on Job Satisfaction	Ranking of Importance for Job Satisfaction
Pay	0.131*** (0.0161)	3
Working Hours	-0.0107 (0.0104)	12
Working Hours Mismatch	-0.0271** (0.0106)	11
Work-Life Imbalance	-0.106*** (0.00681)	4
Skills Match	0.0474*** (0.00880)	9
Job Security	0.0734*** (0.00906)	6
Difficulty, Stress, Danger	-0.0918*** (0.0105)	5
Opportunities for Advancement	0.0598*** (0.0119)	7
Independence	0.0551*** (0.0109)	8
Interesting Job	0.267*** (0.0231)	2
Interpersonal Relationships	0.281*** (0.0145)	1
Usefulness	0.0399*** (0.0103)	10
Constant	Yes	
Controls	Yes	
Occupation Fixed Effects	Yes	
Industry Fixed Effects	Yes	
Country Fixed Effects	Yes	
Observations	16,326	
Adjusted R-Squared	0.422	

Robust standard errors clustered at country level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All variables (both left-hand side and right-hand side) are standardized with mean zero and standard deviation one; regressors are thus beta coefficients. Squaring a regressor yields the respective share in the variation of job satisfaction that this regressor explains. *Pay*, *Working Hours Mismatch*, *Work-Life Imbalance*, *Skills Match*, *Difficulty, Stress, Danger*, *Independence*, *Interpersonal Relationships*, and *Usefulness* are principle components obtained from separate principle component analyses that condense various variables in the respective domain of workplace quality into a single indicator; see Section 4 for a description of the procedure and Table W11 in the Web Appendix for summary statistics of the variables. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero. See Table W3 in the Web Appendix for the full set of controls.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table 2: Effect of Workplace Quality on Job Satisfaction, Disaggregated Domains

Workplace Quality	Effect on Job Satisfaction	
Pay		(0.0106)
High Income	0.0866*** (0.0122)	Working From Home -0.00996 (0.0105)
Individual Income (Natural Log)	0.105** (0.0506)	Daily Work Flexible Reference Category
Working Hours		Daily Work Fixed -0.0112 (0.00846)
Working Hours (Natural Log)	-0.0105 (0.00980)	Daily Work Free 0.0386*** (0.0100)
Working Hours Mismatch		Working Hours Flexible Reference Category
Wants to Work Same Hours	Reference Category	Working Hours Fixed -0.00195 (0.00742)
Wants to Work More Hours	-0.00979 (0.00697)	Working Hours Free -0.00270 (0.00835)
Wants to Work Less Hours	-0.0297*** (0.00996)	Working Schedule Flexible Reference Category
Work-Life Imbalance		Working Schedule Fixed -0.0212** (0.00798)
Working on Weekends	0.0169** (0.00699)	Working Schedule Free -0.0167** (0.00793)
Work Interfering With Family	-0.109*** (0.00935)	Interesting Job
Difficulty of Taking Time Off	-0.0385*** (0.00900)	Interesting Job 0.265*** (0.0221)
Skills Match		Interpersonal Relationships
Skills Match	0.0476*** (0.00920)	Contact With Other People 0.00561 (0.00891)
Skills Training	0.0190** (0.00878)	Relationship With Management 0.222*** (0.0114)
Job Security	0.0700*** (0.00847)	Relationship With Co-Workers 0.0906*** (0.0116)
Difficulty, Stress, Danger		Usefulness
Hard Physical Work	-0.00739 (0.0119)	Helping Other People 0.0256*** (0.00901)
Stressful Work	-0.0853*** (0.0113)	Being Useful to Society 0.0359*** (0.00853)
Opportunities for Advancement		Constant Yes
Opportunities for Advancement	0.0538*** (0.0114)	Controls Yes
Independence		Occupation Fixed Effects Yes
Independent Work	0.0275**	Industry Fixed Effects Yes
		Country Fixed Effects Yes
		Observations 16,326
		Adjusted R-Squared 0.438

Robust standard errors clustered at country level in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Notes: All variables (both left-hand side and right-hand side) are standardized with mean zero and standard deviation one; regressors are thus beta coefficients. Squaring a regressor yields the respective share in the variation of job satisfaction that this regressor explains. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero. See Table W4 in the Web Appendix for the full set of controls.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

5. Looking Ahead

Studying well-being at work is important, not only because work and workplace quality play such a significant role for people's well-being, but also because people's well-being is an important predictor of outcomes related to worker productivity and firm performance. Harter et al. (2010), using a large longitudinal dataset that includes 141,900 respondents within 2,178 business units of ten large organizations across industries, study the relationship between perceived working conditions of employees and firm-level outcomes. They find that working conditions—including overall satisfaction within the organization—are predictive of key outcomes such as employee retention and customer loyalty. Importantly, Harter et al. (2010) are able to show that the effect tends to run from working conditions to firm-level outcomes rather than the other way around—this is suggestive of a causal impact. The strength of the relationship is not trivial: in a previous meta-analysis, Harter et al. (2002) estimate that business units in the top quartile on employee engagement conditions realize between one and four percentage points higher profits and between 25% to 50% lower turnover than those in the bottom quartile.

These findings have direct implications for managerial practice: Frey (2017) argues that managers should create workplaces that are conducive to well-being, for example, by supporting workers' independence and creativity or by fostering interpersonal relationships at work. At the same time, work should not be so demanding and burdensome that workers are unable to enjoy their leisure time; providing more flexible working hours may be a means to striking a better balance between work and life. Income provided should be sufficient to lead a good life with respect to material standards. All of these factors have been found to be conducive to well-being at work, although to varying degrees, as presented here and reviewed elsewhere (see OECD (2017b), for example). At the same time, however, Frey (2017) argues that managers should not engage in directly trying to maximize the happiness of stakeholders (which can be subject to manipulation); rather, they should lay the foundations within organizations for stakeholders to achieve happiness in the way they themselves choose. The importance of autonomy

therefore applies to the question of how to achieve happiness itself.

The importance of work, and workplace quality, for well-being and, in turn, the importance of well-being for individual-level labor market outcomes as well as key firm-level outcomes makes a cautious case for active public policy intervention. Independent staff well-being audits may be a means to raising awareness for well-being at work. Awards for work environments that are conducive to well-being may also be bestowed on single managers or entire organizations (Gallus and Frey, 2016; Frey and Gallus, 2017). Systematic measurement of well-being within organizations may serve as a diagnostic tool, for example, to uncover well-being inequalities within organizations, which have been found to be a powerful driver of behavior at the community level and may be relevant to organizations just as well. It may also serve as a vehicle to pave the way towards interventions, directed at one or more domains of workplace quality. The evidence presented here and reviewed elsewhere (see Arends et al. (2017) or OECD (2017b), for example) suggests that workplace quality has rather positive impacts on productivity and performance, in line with recent experimental evidence in various contexts (Bloom et al., 2015; Oswald et al., 2015). Ultimately, however, more experimental evidence from the field is needed in order to be able to make strong causal claims about the relationship between workplace quality, well-being, and its objective benefits for both individuals and firms. In next year's chapter on work and well-being for the Global Happiness Policy Report, we aim to look more closely into these objective benefits, in order to evaluate and motivate the economic case for placing well-being at the core of business practices.

This chapter can only offer a cautious exploration into the nexus between work and well-being. Clearly, there are methodological issues: first, and foremost, the evidence presented here is mostly descriptive, and from descriptive evidence alone we cannot make causal statements. There may be observable characteristics of respondents or, more importantly, unobservable characteristics that explain both their work status and their well-being at the same time. Such omitted characteristics would inevitably lead to reverse causality. We need longitudinal data—repeated observations of the same individuals over time—

to get closer to causal effects, and ideally, some sort of randomized experimental intervention or policy change as an exogenous variation in order to reduce concerns about self-selection and omitted variables. We bypassed this issue by presenting, where available, supporting evidence from causal-design studies in the literature.

Our tools are also limited in other dimensions. Not only are available datasets typically limited in terms of types of outcomes they offer (most datasets do not include simultaneous evaluative, experiential, and eudemonic measures of well-being), but also in terms of country coverage (a distinctively Western focus). The latest module on work orientations of the International Social Survey Program, which we used to study the effect of workplace quality on well-being, includes only job satisfaction as a domain-specific, evaluative measure of well-being. It is quite possible, however, that some workplace qualities are more likely to strongly impact eudemonic measures of well-being such as purpose. We cannot verify this with our data, and importantly, cannot check which construct is relatively more important for which domain of workplace quality.

Ultimately, we need a cockpit of standardized measures of evaluative, experiential, and eudemonic measures—like the ONS-4—to lend a more complete picture of well-being at work.¹⁹ In terms of country coverage, the latest module on work orientations of the International Social Survey Program is clearly limited: for example, the only country included in the Sub-Saharan Africa region is South Africa. Obviously, this gives a biased picture of work-place quality in the region. Further, the informal sector, which by far comprises the largest part of the labor market in many least developed countries is completely ignored. Concerning variables on workplace quality, most datasets today focus on rather standard items, ignoring more modern elements of labor markets related to technology and the future of work such as aspects pertaining to the so-called “gig economy” or (fear of) automation and artificial intelligence. Items sampled in different surveys are also quite heterogeneous. The *OECD Guidelines on Measuring the Quality of the Working Environment* are therefore a right step toward establishing a unified framework for measuring workplace quality, focusing on objective job attributes and outcomes measured at the individual level

(OECD, 2017b). These guidelines divide job characteristics into six broad categories, including the physical and social environment of work, job tasks, organizational characteristics, working-time arrangements, job prospects, and intrinsic job aspects.

Finally, questions remain regarding external validity: while there are few datasets that are as comprehensive as the International Social Survey Program, country-score comparisons with other datasets show that some of its items have low convergent validity. Note, however, that similar findings on the relationship between workplace quality and job satisfaction have been identified by De Neve and Ward (2017) using the European Social Survey. Future research should be directed toward identifying similar patterns in other datasets. Importantly, this research should be seen as an ongoing endeavour: the composition of the labor supply changes continuously, for example, as more and more millennials with preferences different from previous generations enter the labor force.

In view of these limitations, we end this report by looking ahead, and putting out a call for action: we call upon people in academia, business, and government to work together in expanding the causal evidence base on work and well-being. Academics and businesses, for example, could cooperate and test how modifications to work processes and practices affect worker well-being, and ultimately, performance. Candidates for such modifications should be guided by theory, and tested in such a way as to be subject to rigorous impact evaluation through *randomized controlled trials*. This way, we can avoid issues of omitted characteristics and self-selection, and identify causal effects of work and workplace quality on well-being and performance. It will be important to establish a common set of measures, covering evaluative, experiential, and eudemonic measures of well-being, to be used across impact evaluations of trials. And it will be important to record and report the costs of these trials (less the costs of impact-evaluating them). This will allow for benchmarking interventions in terms of cost-effectiveness, and rank interventions according to those which buy more worker well-being and performance per dollar invested. Evidence from behavioral science suggests that seemingly small, low-cost (or even costless)

changes in daily work routines could produce large gains in well-being and performance.

Partly, our vision is already reflected in academic practice: in business schools throughout the world, experimental methods make their way into curricula, as is the case with A/B testing in marketing, for example. Knowledge generated by way of such trials should be shared openly as best practices, and doing so should be incentivised. Governments can also become active players by introducing well-being interventions within the civil service, which could also help to promote happiness more widely in society. After all, a happy and engaged civil service is an obvious starting point for being able to deliver on policies that aim to put well-being at the heart of policy-making.



Endnotes

- 1 See OECD (2017a) for data on daily time use in OECD countries.
- 2 See Table W1 in the Web Appendix for the respective table from van Praag et al. (2003).
- 3 See Tenney et al. (2016) for a review on the relationship between people's wellbeing and labor market outcomes, as well as Judge et al. (2001) and Harrison et al. (2006) for recent meta-analyses. See Whitman et al. (2010) for a recent meta-analysis on people's wellbeing and firm performance.
- 4 For the purpose of this chapter, we adopt a broad definition of wellbeing, colloquially referred to as happiness, covering evaluative measures such as overall life evaluation and domain-specific job satisfaction, experiential measures (both positive and negative affect), and eudemonic measures (employee engagement).
- 5 The present discussion on the overall importance of employment, as well as the state of job satisfaction and employee engagement worldwide, in this chapter builds to some extent on De Neve and Ward (2017).
- 6 The lower average life evaluation for the self-employed may come as a surprise, but is in line with an emerging strand of literature on the misprediction of wellbeing consequences when deciding to become self-employed (Odermatt et al., 2017). A possible mechanism may be that individuals who become self-employed underestimate the associated rise in workload. Moreover, as discussed in De Neve and Ward (2017), the relationship between life evaluation and being self-employed varies by world region.
- 7 A potential mechanism behind this finding is that the previously unemployed are scared of becoming unemployed again (Knabe and Raetzl, 2011).
- 8 For summaries of the work on the importance of being in employment (and of being out of unemployment), including differences by gender, for wellbeing, see also What Works Centre for Wellbeing (2017a, 2017b).
- 9 See Table 1 in the Web Appendix.
- 10 Studying job satisfaction has a history in business economics (see Spector (1997) or Cooper and Robertson (2003), for example). While being more domain-specific than overall life evaluation, this indicator is also more prone to framing effects, as the relationship between wellbeing and work is revealed to the respondent.
- 11 See Table W11 in the Web Appendix for summary statistics of job satisfaction, the different elements of workplace quality, and the demographic control variables, including their definitions.
- 12 Tables W9 and W10 in the Web Appendix show differences in average job satisfaction and workplace quality by region in numbers; Table W9 shows these values for the different domains, Table W10 for the different constituent elements within each domain. Table W11 provides definitions and summary statistics of the variable used. Table W12 gives an overview of the different countries covered within each region.
- 13 For a comprehensive summary of a systematic review on the relationship between job quality and wellbeing, see also What Works Centre for Wellbeing (2017c).
- 14 The important role of purpose for performance has also been studied in educational contexts: Yeager et al. (2014) show that promoting a pro-social, self-transcendent purpose improves academic self-regulation in students.
- 15 The company later offered the option to work from home to the whole firm, allowing formerly treated employees to re-select between working from home or working in the office: about half of them switched back, which almost doubled performance gains to 22%. This highlights the importance of accounting for self-selection and learning. In fact, in a recent discrete choice experiment, Mas and Pallais (2017) demonstrate that employee preferences for flexible work practices are quite heterogeneous: while most employees prefer a little extra income over flexibility, to a small number of employees, flexible work practices are very important.
- 16 On the importance of learning on the job for wellbeing, see also What Works Centre for Wellbeing (2017d).
- 17 On the importance of team work more generally for wellbeing, see What Works Centre for Wellbeing (2017e).
- 18 Note that pro-social behavior is distinct from altruism in that it is not purely motivated by increasing another individual's welfare, but can be motivated by, for example, empathy, reciprocity, or self-image (Evren and Minardi, 2017).
- 19 Following recommendations by Dolan and Metcalfe (2012), the Office for National Statistics (ONS) in the UK now routinely asks people how they think and feel about their lives, including four items on evaluative (life satisfaction), experiential (happiness, anxiousness), and eudemonic (worthwhileness) measures of subjective wellbeing in its surveys.

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Appendix

Table W1: Importance of Domain Satisfaction for Life Satisfaction

		Life Satisfaction					
Level Effects		Workers			Non-Workers		
Domain Satisfaction	Rank of Importance	All	West	East	All	West	East
Financial Satisfaction	1	0,7480	0,6370	0,8590	0,8280	0,7600	0,8960
Health Satisfaction	2	0,4730	0,5010	0,4450	0,6585	0,6580	0,6590
Job Satisfaction	3	0,3905	0,3520	0,4290	-	-	-
Leisure Satisfaction	4	0,2465	0,2240	0,2690	0,3585	0,1820	0,5350
House Satisfaction	5	0,1660	0,1480	0,1840	0,2635	0,2000	0,3270
Environment Satisfaction	6	0,1370	0,0500	0,2240	0,1885	0,0660	0,3110

Notes: Level effects obtained from ordered probit models with individual random effects, adapted from van Praag et al. (2003). The authors regress life satisfaction on different domain satisfactions of respondents, controlling for year dummies, mean domain satisfactions, age, gender, partnership status, years of education, household income, available leisure time, mean household income, and mean available leisure time. The respective level effect is calculated as the sum of the individual domain satisfaction and the mean of that domain satisfaction.

Source: German Socio-Economic Panel, Years 1992 to 1997

Table W2: Subjective Well-being and Employment Status
(Gallup World Poll, 2014-2016)

	Cantril Ladder	Positive Affect	Negative Affect
Employment (v. employed FT for employer)			
Employed FT for Self	-0.019** (0.008)	-0.008 (0.009)	0.019** (0.009)
Employed PT (does not want FT)	0.058*** (0.010)	0.010 (0.010)	-0.013 (0.010)
Employed PT (wants FT)	-0.087*** (0.009)	-0.006 (0.009)	0.093*** (0.011)
Unemployed	-0.221*** (0.011)	-0.120*** (0.012)	0.221*** (0.013)
Out of Workforce	-0.037*** (0.008)	-0.062*** (0.008)	0.021** (0.010)
Covariates			
Income	0.211*** (0.006)	0.121*** (0.005)	-0.132*** (0.005)
Education: Medium	0.158*** (0.008)	0.089*** (0.010)	-0.095*** (0.011)
Education: High	0.310*** (0.011)	0.199*** (0.013)	-0.136*** (0.014)
Marital Status: Married/Domestic Partner	0.051*** (0.007)	0.007 (0.006)	-0.024*** (0.007)
Marital Status: Divorced/Separated	-0.089*** (0.010)	-0.119*** (0.010)	0.131*** (0.010)
Marital Status: Widowed	-0.104*** (0.014)	-0.133*** (0.014)	0.158*** (0.014)
Female	0.084*** (0.006)	0.015*** (0.005)	0.079*** (0.007)
Age	-0.020*** (0.002)	-0.025*** (0.002)	0.021*** (0.002)
Age^2	0.000*** (0.000)	0.000*** (0.000)	-0.000*** (0.000)
Children in Household	-0.022*** (0.005)	-0.011** (0.006)	0.039*** (0.005)
Adults in Household	-0.009*** (0.002)	-0.005*** (0.002)	0.011*** (0.002)
Country + Year FEs	Yes	Yes	Yes
Observations	309263	288041	288041
R-squared	0.076	0.031	0.035
Countries	154	153	153
Country-Years	417	417	417

Standard errors clustered at country level in parantheses

* p<0.1 ** p<0.05

Table W3: Effect of Workplace Quality on Job Satisfaction, Aggregated Domains (Regression Equivalent to Figure 8)

Workplace Quality	Effect on Job Satisfaction
Pay	0.131*** (0.0161)
Working Hours	-0.0107 (0.0104)
Working Hours Mismatch	-0.0271** (0.0106)
Work-Life Imbalance	-0.106*** (0.00681)
Skills Match	0.0474*** (0.00880)
Job Security	0.0734*** (0.00906)
Difficulty, Stress, Danger	-0.0918*** (0.0105)
Opportunities for Advancement	0.0598*** (0.0119)
Independence	0.0551*** (0.0109)
Interesting Job	0.267*** (0.0231)
Interpersonal Relationships	0.281*** (0.0145)
Usefulness	0.0399*** (0.0103)
Union Member	-0.00322 (0.00569)
Age	-0.116** (0.0435)
Age Squared	0.147*** (0.0418)
Female	0.00505 (0.00731)
Partnered	0.0357*** (0.0100)
Separated	0.0145** (0.00591)
Divorced	0.0134** (0.00606)
Widowed	0.00639 (0.00701)
Years of Education	-0.0569*** (0.00831)
Number of Individuals in Household	-0.0126 (0.0111)
Number of Children in Household	0.00535 (0.0129)
Number of Toddlers in Household	0.00302 (0.00940)
Constant	-0.0439 (0.206)
Occupation Fixed Effects	Yes
Industry Fixed Effects	Yes
Country Fixed Effects	Yes
Observations	16,326
Adjusted R-Squared	0.422

Robust standard errors clustered at country level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All variables (both left-hand side and right-hand side) are standardized with mean zero and standard deviation one; regressors are thus beta coefficients. Squaring a regressor yields the respective share in the variation of job satisfaction that this regressor explains. *Pay*, *Working Hours Mismatch*, *Work-Life Imbalance*, *Skills Match*, *Difficulty, Stress, Danger*, *Independence*, *Interpersonal Relationships*, and *Usefulness* are principle components obtained from separate principle component analyses that condense various variables in the respective domain of workplace quality into a single indicator; see Section 4 for a description of the procedure and Table W11 in the Web Appendix for summary statistics of the variables. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table W4: Effect of Workplace Quality on Job Satisfaction, Disaggregated Domains

Workplace Quality	Effect on Job Satisfaction	
High Income	0.0866***	(0.00798)
	(0.0122)	-0.0167**
Individual Income (Natural Log)	0.105**	(0.00793)
	(0.0506)	0.265***
Working Hours (Natural Log)	-0.0105	(0.0221)
	(0.00980)	0.00561
Wants to Work Same Hours	Reference Category	(0.00891)
Wants to Work More Hours	-0.00979	Relationship With Management
	(0.00697)	0.222***
Wants to Work Less Hours	-0.0297***	(0.0114)
	(0.00996)	Relationship With Co-Workers
Working on Weekends	0.0169**	0.0906***
	(0.00699)	(0.0116)
Work Interfering With Family	-0.109***	Helping Other People
	(0.00935)	0.0256***
Difficulty of Taking Time Off	-0.0385***	(0.00901)
	(0.00900)	Being Useful to Society
Skills Match	0.0476***	0.0359***
	(0.00920)	(0.00853)
Skills Training	0.0190**	Union Member
	(0.00878)	-3.23e-05
Job Security	0.0700***	(0.00635)
	(0.00847)	Age
Hard Physical Work	-0.00739	-0.0938**
	(0.0119)	(0.0430)
Stressful Work	-0.0853***	Age Squared
	(0.0113)	0.121***
Opportunities for Advancement	0.0538***	(0.0401)
	(0.0114)	Female
Independent Work	0.0275**	0.0102
	(0.0106)	(0.00752)
Working From Home	-0.00996	Partnered
Daily Work Flexible	Reference Category	0.0375***
Daily Work Fixed	-0.0112	(0.00953)
	(0.00846)	Separated
Daily Work Free	0.0386***	0.0171***
	(0.0100)	(0.00600)
Working Hours Flexible	Reference Category	Divorced
Working Hours Fixed	-0.00195	0.0135**
	(0.00742)	(0.00604)
Working Hours Free	-0.00270	Widowed
	(0.00835)	0.00955
Working Schedule Flexible	Reference Category	(0.00693)
Working Schedule Fixed	-0.0212**	Years of Education
		-0.0445***
		(0.00880)
		Number of Individuals in Household
		-0.0120
		(0.0110)
		Number of Children in Household
		0.00896
		(0.0136)
		Number of Toddlers in Household
		0.00560
		(0.00953)
		Constant
		0.0461
		(0.209)
		Occupation Fixed Effects
		Yes
		Industry Fixed Effects
		Yes
		Country Fixed Effects
		Yes
		Observations
		16,326
		Adjusted R-Squared
		0.438

Robust standard errors clustered at country level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All variables (both left-hand side and right-hand side) are standardized with mean zero and standard deviation one; regressors are thus beta coefficients. Squaring a regressor yields the respective share in the variation of job satisfaction that this regressor explains. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table W5: Effect of Workplace Quality on Job Satisfaction, by Employment Status (Regression Equivalent to Figure 9a)

Workplace Quality	Effect on Job Satisfaction			
	Employed	Self-Employed		
Pay	0.134*** (0.0157)	0.153*** (0.0401)	Age	-0.137*** (0.0425) 0.130 (0.171)
Working Hours	-0.00159 (0.0104)	-0.0156 (0.0164)	Age Squared	0.165*** (0.0427) -0.0920 (0.150)
Working Hours Mismatch	-0.0343*** (0.00760)	0.0221 (0.0331)	Female	0.00534 (0.00721) 0.0276 (0.0273)
Work-Life Imbalance	-0.109*** (0.00786)	-0.0666*** (0.0237)	Partnered	0.0361*** (0.00972) 0.0364 (0.0362)
Skills Match	0.0474*** (0.0101)	0.0555** (0.0249)	Separated	0.0195*** (0.00664) -0.0203 (0.0188)
Job Security	0.0672*** (0.0101)	0.104*** (0.0257)	Divorced	0.0160** (0.00740) 0.0114 (0.0279)
Difficulty, Stress, Danger	-0.102*** (0.0119)	-0.0458* (0.0236)	Widowed	0.00709 (0.00716) 0.0209 (0.0226)
Opportunities for Advancement	0.0611*** (0.0122)	0.0297 (0.0310)	Years of Education	-0.0592*** (0.0105) -0.0202 (0.0237)
Independence	0.0469*** (0.00983)	0.0899** (0.0333)	Number of Individuals in Household	-0.0109 (0.0119) -0.00464 (0.0246)
Interesting Job	0.264*** (0.0236)	0.246*** (0.0401)	Number of Children in Household	0.00596 (0.0114) -0.0150 (0.0318)
Interpersonal Relationships	0.295*** (0.0135)	0.156*** (0.0376)	Number of Toddlers in Household	0.00118 (0.00824) 0.00632 (0.0296)
Usefulness	0.0407*** (0.0111)	0.0270 (0.0223)	Constant	-0.0223 (0.212) -1.228*** (0.216)
Union Member	0.00138 (0.00656)	-0.0197 (0.0241)	Occupation Fixed Effects	Yes Yes
			Industry Fixed Effects	Yes Yes
			Country Fixed Effects	Yes Yes
			Observations	14,113 2,059
			Adjusted R-Squared	0.437 0.291

Robust standard errors clustered at country level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All variables (both left-hand side and right-hand side) are standardized with mean zero and standard deviation one; regressors are thus beta coefficients. Squaring a regressor yields the respective share in the variation of job satisfaction that this regressor explains. Pay, Working Hours Mismatch, Work-Life Imbalance, Skills Match, Difficulty, Stress, Danger, Independence, Interpersonal Relationships, and Usefulness are principle components obtained from separate principle component analyses that condense various variables in the respective domain of workplace quality into a single indicator; see Section 4 for a description of the procedure and Table W11 in the Web Appendix for summary statistics of the variables. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table W6: Effect of Workplace Quality on Job Satisfaction, by Working Time
(Regression Equivalent to Figure 9b)

Workplace Quality	Effect on Job Satisfaction	
	Full-Time	Part-Time
Pay	0.128*** (0.0195)	0.164*** (0.0308)
Working Hours	0.0316 (0.0216)	0.00650 (0.0118)
Working Hours Mismatch	-0.0301*** (0.00977)	-0.000893 (0.0281)
Work-Life Imbalance	-0.120*** (0.00973)	-0.0682*** (0.0200)
Skills Match	0.0428*** (0.00924)	0.0773*** (0.0200)
Job Security	0.0730*** (0.00976)	0.0714*** (0.0174)
Difficulty, Stress, Danger	-0.0883*** (0.0110)	-0.101*** (0.0214)
Opportunities for Advancement	0.0628*** (0.0125)	0.0284 (0.0217)
Independence	0.0526*** (0.0117)	0.0588*** (0.0201)
Interesting Job	0.255*** (0.0247)	0.312*** (0.0247)
Interpersonal Relationships	0.291*** (0.0148)	0.234*** (0.0259)
Usefulness	0.0407*** (0.0112)	0.0444* (0.0239)
Union Member	-0.00166 (0.00617)	-0.00716 (0.0211)

Age	-0.0488 (0.0469)	-0.309** (0.125)
Age Squared	0.0832 (0.0500)	0.311** (0.119)
Female	0.00946 (0.00786)	-0.0123 (0.0150)
Partnered	0.0272*** (0.00970)	0.0757** (0.0281)
Separated	0.0111 (0.00666)	0.0229* (0.0128)
Divorced	0.00996 (0.00662)	0.0322 (0.0229)
Widowed	0.00630 (0.00727)	0.0230 (0.0206)
Years of Education	-0.0518*** (0.0102)	-0.0610** (0.0276)
Number of Individuals in Household	-0.00608 (0.0115)	-0.00405 (0.0271)
Number of Children in Household	0.00269 (0.0146)	-0.00480 (0.0202)
Number of Toddlers in Household	-0.00460 (0.00916)	0.00468 (0.0276)
Constant	-0.239 (0.214)	0.0832 (0.496)
Occupation Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
Country Fixed Effects	Yes	Yes
Observations	13,345	2,981
Adjusted R-Squared	0.430	0.392

Robust standard errors clustered at country level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All variables (both left-hand side and right-hand side) are standardized with mean zero and standard deviation one; regressors are thus beta coefficients. Squaring a regressor yields the respective share in the variation of job satisfaction that this regressor explains. *Pay*, *Working Hours Mismatch*, *Work-Life Imbalance*, *Skills Match*, *Difficulty*, *Stress*, *Danger*, *Independence*, *Interpersonal Relationships*, and *Usefulness* are principle components obtained from separate principle component analyses that condense various variables in the respective domain of workplace quality into a single indicator; see Section 4 for a description of the procedure and Table W11 in the Web Appendix for summary statistics of the variables. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero. *Full-Time*: working at least 35 hours per week, *Part-Time*: working less than 35 hours per week.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table W7: Effect of Workplace Quality on Job Satisfaction, by Gender
(Regression Equivalent to Figure 9c)

Workplace Quality	Effect on Job Satisfaction			
	Male	Female		
Pay	0.119*** (0.0254)	0.148*** (0.0157)	(0.00712)	(0.0124)
Working Hours	-0.0176 (0.0178)	-0.00334 (0.00905)	-0.149*** (0.0537)	-0.0907 (0.0735)
Working Hours Mismatch	-0.0149 (0.0151)	-0.0365*** (0.00914)	0.178*** (0.0525)	0.128* (0.0694)
Work-Life Imbalance	-0.109*** (0.0127)	-0.101*** (0.00941)	0.0250** (0.0118)	0.0466*** (0.0128)
Skills Match	0.0478*** (0.00937)	0.0462*** (0.0144)	0.0182** (0.00806)	0.0118 (0.00869)
Job Security	0.0794*** (0.00815)	0.0691*** (0.0139)	0.0140 (0.00965)	0.0141 (0.00930)
Difficulty, Stress, Danger	-0.0795*** (0.0150)	-0.107*** (0.0134)	0.00242 (0.0114)	0.0101 (0.00968)
Opportunities for Advancement	0.0629*** (0.0148)	0.0564*** (0.0156)	Years of Education	-0.0564*** (0.0113)
Independence	0.0626*** (0.0149)	0.0404*** (0.0119)	Number of Individuals in Household	-0.0158 (0.0202)
Interesting Job	0.256*** (0.0257)	0.276*** (0.0241)	Number of Children in Household	0.00531 (0.0174)
Interpersonal Relationships	0.286*** (0.0192)	0.278*** (0.0154)	Number of Toddlers in Household	0.000127 (0.0134)
Usefulness	0.0347*** (0.0122)	0.0431*** (0.0156)	Constant	0.0498 (0.215)
Union Member	-0.00579	0.00230	Occupation Fixed Effects	Yes
			Industry Fixed Effects	Yes
			Country Fixed Effects	Yes
			Observations	8,405
			Adjusted R-Squared	0.415
				0.426

Robust standard errors clustered at country level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All variables (both left-hand side and right-hand side) are standardized with mean zero and standard deviation one; regressors are thus beta coefficients. Squaring a regressor yields the respective share in the variation of job satisfaction that this regressor explains. Pay, Working Hours Mismatch, Work-Life Imbalance, Skills Match, Difficulty, Stress, Danger, Independence, Interpersonal Relationships, and Usefulness are principle components obtained from separate principle component analyses that condense various variables in the respective domain of workplace quality into a single indicator; see Section 4 for a description of the procedure and Table W11 in the Web Appendix for summary statistics of the variables. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table W8: Effect of Workplace Quality on Job Satisfaction, by Education Level
(Regression Equivalent to Figure 9d)

Workplace Quality	Effect on Job Satisfaction		
	Low Education	Medium Education	High Education
Pay	0.0232 (0.0493)	0.153*** (0.0196)	0.121*** (0.0211)
Working Hours	0.0127 (0.0343)	-0.0173 (0.0149)	-0.00963 (0.0135)
Working Hours Mismatch	0.0284 (0.0457)	-0.0253** (0.00928)	-0.0325* (0.0190)
Work-Life Imbalance	-0.190*** (0.0240)	-0.104*** (0.0101)	-0.0898*** (0.0132)
Skills Match	0.0806 (0.0561)	0.0606*** (0.0106)	0.0181 (0.0111)
Job Security	0.107** (0.0429)	0.0776*** (0.0126)	0.0588*** (0.0126)
Difficulty, Stress, Danger	-0.0461 (0.0395)	-0.0955*** (0.0108)	-0.106*** (0.0202)
Opportunities for Advancement	0.0361 (0.0331)	0.0570*** (0.0153)	0.0731*** (0.0170)
Independence	0.0660 (0.0463)	0.0536*** (0.0115)	0.0486*** (0.0164)
Interesting Job	0.298*** (0.0588)	0.234*** (0.0257)	0.324*** (0.0316)
Interpersonal Relationships	0.254*** (0.0657)	0.294*** (0.0141)	0.261*** (0.0201)
Usefulness	-0.0329 (0.0545)	0.0319*** (0.0110)	0.0625*** (0.0144)
Union Member	-0.0417 (0.0850)	-0.0103 (0.00975)	0.00143 (0.0110)
Age	0.0333 (0.261)	-0.138** (0.0610)	-0.0716 (0.0888)
Age Squared	0.0480 (0.249)	0.171** (0.0638)	0.0916 (0.0938)
Female	-0.0579 (0.0550)	0.00752 (0.0115)	0.0103 (0.0125)
Partnered	0.00673 (0.0582)	0.0449*** (0.0131)	0.0230* (0.0132)
Separated	-0.0450 (0.0432)	0.0147 (0.00902)	0.0185* (0.0100)
Divorced	-0.0157 (0.0482)	0.0146** (0.00665)	0.00621 (0.0118)
Widowed	-0.00566 (0.0305)	0.00587 (0.00846)	0.0150 (0.0135)
Years of Education	-0.0621 (0.0590)	-0.0498*** (0.0130)	-0.0348*** (0.0127)
Number of Individuals in Household	-0.0320 (0.0530)	-0.00587 (0.0131)	-0.0230* (0.0126)
Number of Children in Household	0.0309 (0.0434)	0.00440 (0.0127)	0.00273 (0.0180)
Number of Toddlers in Household	0.0521 (0.0579)	-0.00559 (0.0117)	0.00728 (0.0150)
Constant	0.791** (0.350)	0.0212 (0.397)	-0.0144 (0.195)

Table W8 continued

Workplace Quality	Effect on Job Satisfaction		
	Low Education	Medium Education	High Education
Occupation Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes
Observations	941	9,537	5,821
Adjusted R-Squared	0.314	0.425	0.442

Robust standard errors clustered at country level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: All variables (both left-hand side and right-hand side) are standardized with mean zero and standard deviation one; regressors are thus beta coefficients. Squaring a regressor yields the respective share in the variation of job satisfaction that this regressor explains. Pay, Working Hours Mismatch, Work-Life Imbalance, Skills Match, Difficulty, Stress, Danger, Independence, Interpersonal Relationships, and Usefulness are principle components obtained from separate principle component analyses that condense various variables in the respective domain of workplace quality into a single indicator; see Section 4 for a description of the procedure and Table W11 in the Web Appendix for summary statistics of the variables. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero. Low Education: highest degree lower than secondary degree, Medium Education: highest degree secondary degree or vocational training, High Education: highest degree at least lower tertiary degree.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table W9: Average Job Satisfaction and Average Workplace Quality, by Region

	AU + NZ	CIS	EA	E	LAC	MENA	NA	SA	SEA	SSA
Job Satisfaction	-0,1188	-0,0528	-0,3898	0,0079	0,2699	0,1978	0,1125	0,0502	0,2262	-0,0691
Workplace Quality										
Pay	0,0469	0,5131	0,5827	-0,1864	0,0420	0,0570	0,3608	0,0925	0,0687	-0,2175
Working Hours	-0,3226	0,1493	0,1481	-0,0145	0,0932	-0,0763	-0,0212	0,0978	-0,0223	0,1354
Working Hours Mismatch	0,1262	-0,4410	0,1188	0,0279	-0,1648	0,0023	-0,1209	-0,3452	-0,1336	-0,5507
Work-Life Imbalance	0,0768	0,0013	0,0568	-0,0389	-0,0021	-0,1474	0,0664	0,3821	0,3276	0,1021
Skills Match	0,2783	-0,6393	-0,2268	0,1046	-0,2969	-0,1168	0,3462	-0,5009	-0,3772	-0,2001
Job Security	-0,1380	-0,0051	-0,1868	0,0021	0,0740	0,1414	0,1963	0,1974	0,1940	0,0146
Difficulty, Stress, Danger	0,0263	-0,0962	0,1314	-0,0139	-0,1928	-0,2949	0,4442	0,6059	0,3322	0,0658
Opportunities for Advancement	-0,0355	0,2047	-0,3084	-0,0598	0,2372	0,2177	0,3072	0,4015	0,5904	0,4213
Independence	0,0622	-0,5509	-0,0920	-0,0479	0,0102	0,1687	0,1430	0,3851	1,0541	-0,2453
Interesting Job	-0,0079	-0,1335	-0,5035	0,0634	0,0741	0,0673	0,1664	-0,4613	0,1549	-0,1434
Interpersonal Relationships	0,0731	-0,4100	-0,2245	0,0239	0,1098	0,2435	0,0416	-0,2775	-0,1109	0,1693
Usefulness	0,0458	-0,2235	-0,1656	-0,0361	0,1727	0,1422	0,3396	-0,2425	0,2147	-0,0260

Notes: All variables are standardized with mean zero and standard deviation one; negative values (marked in shades of red) indicate negative deviations from the average value of the variable across countries, positive values (marked in shades of green) positive deviations. Observations are weighted using country weights. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero. AU + NZ: Australia + New Zealand, CIS: Commonwealth of Independent States, EA: East Asia, E: Europe, LAC: Latin America and Caribbean, MENA: Middle East and North Africa, NA: North America, SA: South Asia, SEA: South-East Asia, SSA: Sub-Saharan Africa.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table W10: Average Job Satisfaction and Average Workplace Quality, Disaggregated, by Region

	AU + NZ	CIS	EA	E	LAC	MENA	NA	SA	SEA	SSA
Job Satisfaction	-0.1188	-0.0528	-0.3898	0.0079	0.2699	0.1978	0.1125	0.0502	0.2262	-0.0691
Workplace Quality										
Pay										
High Income	-0.0211	0.3951	-0.2020	-0.0341	0.0100	0.2882	0.0016	0.2340	0.4419	0.0660
Individual Income (Natural Log)	0.0678	0.3580	1.0677	-0.2534	0.0646	-0.1358	0.4904	-0.0899	-0.3507	-0.3231
Working Hours										
Working Hours (Natural Log)	-0.3226	0.1493	0.1481	-0.0145	0.0932	-0.0763	-0.0212	0.0978	-0.0223	0.1354
Working Hours Mismatch										
Wants to Work Same Hours	0.1627	-0.3300	-0.0142	0.0841	-0.4123	0.0123	0.0701	-0.2590	-0.2936	-0.4503
Wants to Work More Hours	-0.1728	0.4860	-0.0199	-0.0618	0.1636	0.0387	0.0981	0.3808	0.3691	0.6614
Wants to Work Less Hours	0.0212	-0.1922	0.1627	-0.0189	-0.0899	0.0423	-0.0878	-0.1501	0.1637	-0.1854
Work-Life Imbalance										
Working on Weekends	0.0455	-0.1851	0.3347	-0.0792	0.1093	-0.2606	0.1296	0.2328	0.4221	0.0685
Work Interfering With Family	0.3016	-0.2337	-0.2183	0.0150	-0.1286	-0.0809	0.1908	0.4872	0.1090	0.0517
Difficulty of Taking Time Off	-0.2802	0.5383	0.0643	-0.0232	0.0227	0.0831	-0.2570	0.0132	0.1211	0.1069
Skills Match										
Skills Match	0.2032	-0.3883	-0.2257	0.0848	-0.2645	-0.0169	0.2284	-0.4239	-0.3829	-0.2518
Skills Training	0.2063	-0.5247	-0.1103	0.0760	-0.1843	-0.1500	0.3068	-0.3587	-0.1740	-0.0558
Job Security	-0.1380	-0.0051	-0.1868	0.0021	0.0740	0.1414	0.1963	0.1974	0.1940	0.0146
Difficulty, Stress, Danger										
Hard Physical Work	-0.0265	-0.2031	0.1309	-0.0369	-0.0348	-0.2860	0.6011	0.6788	0.4902	0.2202
Stressful Work	0.0697	0.0562	0.0683	0.0165	-0.2623	-0.1693	0.0789	0.2398	0.0181	-0.1176
Opportunities for Advancement										
Opportunities for Advancement	-0.0355	0.2047	-0.3084	-0.0598	0.2372	0.2177	0.3072	0.4015	0.5904	0.4213
Independence										
Independent Work	0.2337	-0.4169	-0.4156	0.0688	-0.0590	0.0113	0.2453	-0.2613	0.2347	-0.1349
Working From Home	-0.0756	-0.1259	-0.0748	-0.1181	0.1305	0.2148	-0.0100	0.9287	1.2560	0.1375
Daily Work Flexible	0.1280	-0.1832	-0.0541	0.0928	-0.3405	-0.1104	0.0991	-0.3108	-0.2932	-0.4651
Daily Work Fixed	-0.1179	0.6073	-0.0106	-0.0264	0.2011	0.1123	-0.2818	-0.0415	-0.3789	0.5060
Daily Work Free	-0.0098	-0.3662	-0.0104	-0.0662	0.1391	0.0192	0.2197	0.3151	0.7520	0.0176
Working Hours Flexible	0.2356	-0.2920	-0.2064	0.0782	-0.2497	0.0756	0.1472	-0.2896	-0.0920	-0.3727
Working Hours Fixed	-0.1261	0.4643	0.0231	-0.0100	0.1291	-0.1873	-0.0303	0.0025	-0.4687	0.4268
Working Hours Free	-0.1162	-0.2496	0.1144	-0.0733	0.1088	0.1713	-0.1161	0.3999	0.8420	-0.0862
Working Schedule Flexible	-0.0762	0.1464	-0.1103	-0.0068	0.0382	0.2062	0.0432	-0.0077	0.3422	-0.0291
Working Schedule Fixed	0.1070	0.0187	0.0837	0.0138	-0.0681	-0.2497	0.1336	-0.2133	-0.5071	-0.0051

Table W10 continued

	AU + NZ	CIS	EA	E	LAC	MENA	NA	SA	SEA	SSA
Working Schedule Free	-0.0519	-0.0388	-0.1137	-0.0183	0.0831	0.0313	-0.0478	0.2587	0.4254	0.1158
Interesting Job										
Interesting Job	-0.0079	-0.1335	-0.5035	0.0634	0.0741	0.0673	0.1664	-0.4613	0.1549	-0.1434
Interpersonal Relationships										
Contact With Other People	0.1540	-0.3919	-0.1674	0.0595	0.0173	-0.0536	0.2553	-0.8281	-0.1678	-0.3284
Relationship With Management	0.0060	-0.2032	-0.1031	-0.0311	0.1460	0.2665	0.0532	0.0987	0.0913	0.2633
Relationship With Co-Workers	0.0580	-0.3813	-0.2724	0.0525	0.0583	0.2435	-0.0844	-0.2394	-0.2224	0.2284
Usefulness										
Helping Other People	0.1575	-0.3394	-0.1683	-0.0384	0.1419	0.2406	0.4172	-0.2626	0.2819	-0.0508
Being Useful to Society	-0.0672	-0.0692	-0.1257	-0.0231	0.1671	0.0137	0.1882	-0.1840	0.1030	0.0061

Notes: All variables are standardized with mean zero and standard deviation one; negative values (marked in shades of red) indicate negative deviations from the average value of the variable across countries, positive values (marked in shades of green) positive deviations. Observations are weighted using country weights. The sample is restricted to all individuals who state that they are working and who report working hours greater than zero. AU + NZ: Australia + New Zealand, CIS: Commonwealth of Independent States, EA: East Asia, E: Europe, LAC: Latin America and Caribbean, MENA: Middle East and North Africa, NA: North America, SA: South Asia, SEA: South-East Asia, SSA: Sub-Saharan Africa.

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table W11: Summary Statistics of Variables in Section 4

Variable	Mean	Standard Deviation	Minimum	Maximum	Number of Observations	Remarks
Outcome						
Job Satisfaction	5.314	1.167	1	7	27,732	"How satisfied are you in your main job?" (1/8)
Controls						
Age	43.225	12.897	15	95	27,732	-
Female	0.491	0.500	0	1	27,732	-
Partnered	0.584	0.493	0	1	27,732	-
Separated	0.020	0.139	0	1	27,732	-
Divorced	0.088	0.284	0	1	27,732	-
Widowed	0.025	0.157	0	1	27,732	-
Years of Education	13.315	3.943	0	58	27,732	-
Number of Individuals in Household	3.234	1.735	1	25	27,732	-
Number of Children in Household	0.562	0.913	0	17	27,732	Number of children between school age and 17 years of age
Number of Toddlers in Household	0.273	0.604	0	6	27,732	-
Union Member	0.237	0.426	0	1	27,732	-
Workplace Quality						
Pay						
High Income	2.822	1.101	1	5	27,732	"[...] how much [do] you agree or disagree that [...] your income is high?": (1) "Strongly disagree" to (5) "Strongly agree", =4+5
Individual Income (Natural Log)	9.214	2.389	2	18	27,732	-
Working Hours						
Working Hours (Natural Log)	3.636	0.452	0	5	27,732	-
Working Hours Mismatch						
Wants to Work More Hours	0.329	0.470	0	1	27,732	And earn more money
Wants to Work Same Hours	0.536	0.499	0	1	27,732	And earn the same money
Wants to Work Less Hours	0.063	0.244	0	1	27,732	And earn less money
Work-Life Imbalance						
Working on Weekends	2.858	1.365	1	5	27,732	"[...] how often does your job involve working on weekends?": (1) "Never" to (5) "Always", =4+5
Work Interfering With Family	2.344	1.102	1	5	27,732	"[...] how often do you work at home during your usual working hours?": (1) "Never" to (5) "Always", =4+5
Difficulty of Taking Time Off	2.250	1.064	1	4	27,732	"How difficult would it be for you to take an hour or two off during working hours [...]?" (1) "Not at all difficult" to (4) "Very difficult", =3+4
Skills Match						
Skills Match	2.800	1.016	1	4	27,732	"How much of your past work experience and/or job skills can you make use of in your present job?" (1) "Almost none" to (4) "Almost all", =3+4
Skills Training	0.434	0.496	0	1	27,732	"Over the past 12 months, have you had any training to improve your job skills either at the workplace or somewhere else?" (0) "No" and (1) "Yes", =1

Table W11 continued

Job Security						
Job Security	3.776	1.105	1	5	27,732	"[...] how much [do] you agree or disagree that [...] your] job is secure?": (1) "Strongly disagree" to (5) "Strongly agree", =4+5
Difficulty, Stress, Danger						
Hard Physical Work	2.698	1.335	1	5	27,732	"How often do you have to do hard physical work?": (1) "Never" to (5) "Always", =4+5
Stressful Work	3.176	1.069	1	5	27,732	"How often do you find your work stressful?": (1) "Never" to (5) "Always", =4+5
Opportunities for Advancement						
Opportunities for Advancement	2.776	1.137	1	5	27,732	"[...] how much [do] you agree or disagree that [...] your] opportunities for advancement are high?": (1) "Strongly disagree" to (5) "Strongly agree", =4+5
Independence						
Independent Work	3.815	1.097	1	5	27,732	"[...] how much [do] you agree or disagree that [...] you] can work independently?": (1) "Strongly disagree" to (5) "Strongly agree", =4+5
Working From Home	1.990	1.290	1	5	27,732	"[...] how often do you work at home during your usual working hours?": (1) "Never" to (5) "Always", =4+5
Daily Work Fixed	0.264	0.441	0	1	27,732	"I am not free to decide how my daily work is organized.": (1) "Yes" and (0) "No"
Daily Work Flexible	0.426	0.494	0	1	27,732	"I can decide how my daily work is organized, with certain limits.": (1) "Yes" and (0) "No"
Daily Work Free	0.280	0.449	0	1	27,732	"I am free to decide how my daily work is organized.": (1) "Yes" and (0) "No"
Working Hours Fixed	0.514	0.500	0	1	27,732	"Starting and finishing times are decided by my employer and I cannot change them on my own.": (1) "Yes" and (0) "No"
Working Hours Flexible	0.326	0.469	0	1	27,732	"I can decide the time I start and finish work, with certain limits.": (1) "Yes" and (0) "No"
Working Hours Free	0.143	0.350	0	1	27,732	"I am entirely free to decide when I start and finish work.": (1) "Yes" and (0) "No"
Working Schedule Fixed	0.692	0.462	0	1	27,732	"I have a regular schedule or shift (daytime, evening, or night).": (1) "Yes" and (0) "No"
Working Schedule Flexible	0.153	0.360	0	1	27,732	"I have a schedule or shift which regularly changes (for example, from days to evening or to nights).": (1) "Yes" and (0) "No"
Working Schedule Free	0.079	0.270	0	1	27,732	"I have a schedule where daily working times are decided at short notice by my employer.": (1) "Yes" and (0) "No"
Interestingness						
Interesting Job	3.834	1.000	1	5	27,732	"[...] how much [do] you agree or disagree that [...] your] job is interesting?": (1) "Strongly disagree" to (5) "Strongly agree", =4+5
Interpersonal Relationships						
Contact With Other People	4.233	0.852	1	5	27,732	"[...] how much [do] you agree or disagree that [...] in your job, you] have personal contact with other people?": (1) "Strongly disagree" to (5) "Strongly agree", =4+5

Table W11 continued

Relationship With Management	3.910	0.902	1	5	27,732	"[...] how would you describe relations at your workplace between management and employees?": (1) "Very bad" to (5) "Very good", =4+5
Relationship With Co-Workers	4.187	0.757	1	5	27,732	"[...] how would you describe relations at your workplace between workmates/colleagues?": (1) "Very bad" to (5) "Very good", =4+5
Usefulness						
Helping Other People	3.884	1.003	1	5	27,732	"[...] how much [do] you agree or disagree that [..., in your job, you] can help other people?": (1) "Strongly disagree" to (5) "Strongly agree", =4+5
Being Useful to Society	3.947	0.947	1	5	27,732	"[...] how much [do] you agree or disagree that [... your] job is useful to society?": (1) "Strongly disagree" to (5) "Strongly agree", =4+5

Source: International Social Survey Program, Module on Work Orientations, Year 2015

Table W12: List of Countries Covered in Section 4

Australia & NZ
Australia
New Zealand
CIS
Russian Federation
East Asia
China
Japan
Taiwan
Europe
Austria
Belgium
Croatia
Czech Republic
Denmark
Estonia
Finland
France
Georgia
Germany
Great Britain
Hungary
Iceland
Latvia
Lithuania
Norway
Poland
Slovakia
Slovenia
Spain
Sweden
Switzerland
Latin America & Carib
Chile
Mexico
Suriname
Venezuela
Northern America
United States
South Asia
India
Southeast Asia
Philippines
Sub-Saharan Africa
South Africa

Source: International Social Survey Program, Module on Work Orientations, Year 2015