

# When work produces utility: challenging the work-for-wage hypothesis

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## Abstract

The first-year textbook version of microfounded labor supply assumes that work does not directly produce utility. Its unique role is that of yielding a wage which allows to buy consumption goods and leisure which positively contribute to utility. Econometric findings on the relationship between sense of work and life satisfaction strongly reject this hypothesis. They show that jobs that involve positive social and environmental impact, participation and sense of belonging to the organisation have a significantly higher impact on life satisfaction, net of income. On the contrary, 31 percent of survey respondents indicating that their job is only a mean to get a wage have an around 27 percent lower probability of declaring themselves very happy, net of the impact of standard controls. These results are robust to endogeneity concerns using a Generalized Structural Equation Model (GSEM), which allows for the simultaneous estimation of the relationship between job meaning and life satisfaction.

Keywords: job satisfaction, life satisfaction, participation, impact.

JEL numbers: **I31**: General Welfare, Well-Being; **J28**: Safety; Job Satisfaction; Related Public Policy; **J81**: Working Conditions; Job Characteristics

## 1. Introduction

Standard microeconomic textbooks model labor supply by extending the constrained utility maximisation approach of consumption theory, adding the time constraints and replacing the standard consumer choice between two consumption goods with a choice between a composite consumption good and leisure. The implication is that a job does not directly produce utility or happiness. Rather, its role is to provide income—thereby increasing our purchasing power and expanding our budget—which can then be used to acquire consumption goods and enjoy leisure. It is these two—consumption and leisure—that ultimately generate happiness. The closest and slightly more sophisticated alternative are models where things are even worse from the point of view of job satisfaction. Working is a disutility related to its effort intensity that needs to be compensated by the wage and employers need to design proper incentives to optimize workers' productivity, as it occurs for instance in models of efficiency wage with shirking (Stiglitz, 1976).

The idea that working (a condition in which we spend large part of our daily life when not too old or too young) can be a pleasure or positively contribute to our happiness is completely neglected. This

vision was clearly influenced by the times of the industrial revolution where the first idea of work coming in mind was that of assembly lines in manufacturing companies (or, in any case, manual work in agriculture without much support of technical advancements). In this specific contest working implied doing many times the same manual repetitive tasks under hierarchy, supervision and control and could conveniently be modelled as having a neutral or negative effect on happiness.

A straightforward policy implication of this vision is that wage ranking is the only criterion needed to select the best job offer. Factors such as quality of relationships on the job place, participation, sense of belonging, social and environmental impact of the job, opportunity to continue to learn are totally irrelevant in this respect.

The research hypothesis of our paper is that this hypothesis, that we can call the “work-for-wage” hypothesis, is wrong in several respects and its straightforward policy implications condemn those who follow them to unhappiness.

Despite the extensive literature on job satisfaction and intrinsic motivation (see the survey of the literature in section 2), our paper offers three key innovations. First, we directly challenge the foundational “work-for-wage” hypothesis embedded in standard labor supply models. Second, we use a novel survey design that isolates mutually exclusive dominant job characteristics, allowing a clear distinction between meaningful and wage-centric work perceptions. Third, we apply a recursive Generalized Structural Equation Model (GSEM) with an original Bartik-style instrument to address endogeneity and establish causality. This integrated approach—combining economic modeling, empirical rigor, and meaning-centered theory—offers a unique contribution to both labor economics and the broader understanding of well-being.

Our empirical findings on a representative sample of individuals strongly support these conclusions. First, amenable work characteristics are significantly and positively associated with life satisfaction. Second, those saying that a job is just a mean to get a wage (implying that what matters is only the wage) are significantly less happy thereby rejecting the standard textbook assumption of work-utility neutrality. The magnitude of this effect is remarkable since considering the job just a mean to get a wage leads to a 27 percent lower probability of declaring oneself very happy (life satisfaction above 6). Our findings are robust to the concurring effect of standard life satisfaction drivers. The identification problem is addressed with recursive simultaneous estimation where sense of work is instrumented with a Bartik-like instrument that is shown to be relevant and valid through falsification tests.

Our results have straightforward policy (and teaching) implications. First of all, they tell us that we must change our textbook models of labor supply. In a policy perspective, from labor supply side, they show that using wage as the only criterion of choice condemns to unhappiness, From labor demand side, considering the importance of job satisfaction and intrinsic motivations on job productivity, they emphasize the importance of amenable job characteristics (socio-environmental impact, participation, sense of belonging, learning, quality of relationships with colleagues) for corporate performance.

## **2. Survey of the literature**

A substantial body of empirical research rejects the notion that jobs are merely a source of wages, emphasizing the importance of intrinsic motivations, mission alignment, and job meaning in shaping worker behavior and satisfaction. Heyes (2005) highlights the “economics of vocation” by illustrating why individuals in sectors such as nursing often exhibit strong performance despite low pay, documenting how vocation and intrinsic motivation drive their work quality beyond monetary incentives. Cassar and Meier (2018) demonstrate that non-monetary incentives, such as mission alignment and the perception of work as a source of meaning, significantly enhance job satisfaction and labor supply. Borzaga and Tortia (2006) find that employees in public and nonprofit organizations prioritize mission and process-related motivations, with job satisfaction closely tied to a sense of purpose rather than wages alone.

Foundational theoretical work by Deci and Ryan (1985) on Self-Determination Theory shows that intrinsic motivations, autonomy, and competence are critical drivers of effort and satisfaction at work. Their findings even suggest that extrinsic rewards, such as wages, can sometimes undermine intrinsic motivations, further questioning the “work-for-wage” conception. Evidence from Leete (2000) complements this by showing that in nonprofit and for-profit organizations alike, perceptions of wage equity preserve intrinsic motivations, even when absolute wages are low. Grund and Sliwka (2007) extend this point by using reference-dependent preferences to demonstrate that wage increases alone do not sustain job satisfaction over time, as expectations rapidly adjust. Bruno and Fiorillo (2012) provide further evidence by showing that intrinsic motivations can drive individuals to engage in unpaid labor, highlighting that the utility derived from work often extends beyond financial compensation. Along the same line Freeman (1997), shows how many individuals “work for nothing” choosing to engage in volunteer or unpaid labor because of the value and purpose derived from the activity itself. By imagining a continuum from the highest motivation and lowest (no) pay of volunteers, up to the lowest motivation of quite quitters (poorly motivated workers doing the minimum not to lose the job), the corporate strategy implications of this literature are that employers can increase workers productivity by improving amenable job characteristics and increasing their intrinsic motivations.

Other contributions also emphasize the potential downsides of focusing solely on extrinsic incentives. Rebitzer and Taylor (2011) argue that an over-reliance on wages can crowd out intrinsic motivations, undermining long-term engagement and performance. De Bustillo and Fernández-Macías (2011) demonstrate that job quality factors, such as autonomy, social value, and mission, are central to job satisfaction, even more so than wages. Foundational work by Kalleberg (1977) established early on that work values and job rewards strongly affect satisfaction, with non-monetary attributes playing a significant role. Complementing this, García-Aracil and Van der Velden (2008) show that among European graduates, job satisfaction is highly sensitive to competency-job matches and the perception of work as meaningful, beyond wage effects. From an empirical point of view the recent phenomenon of Great Resignations after COVID-19 indicates that, without wage changes, a large number of workers wanted to quit for non pecuniary reasons. According to a 2021 report by McKinsey,<sup>1</sup> 40% of

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<sup>1</sup> <https://www.mckinsey.com/~media/mckinsey/email/shortlist/186/2022-07-15b.html>.

workers globally expressed a desire to change jobs, while a Pew Research Center<sup>2</sup> survey found that 64% of employees preferred not to return to the office. Similarly, a Harvard Business Review survey of over 10,000 Americans conducted in the summer of 2021 revealed that 36% would consider leaving their job if not offered remote or hybrid work options.<sup>3</sup> In a separate study covering the UK, Italy, France, Spain, and Germany, the second most cited reason for wanting to quit—after burnout—was poor work-life balance (Ypulse, 2022).

Collectively, these studies and facts, provide robust empirical evidence that job satisfaction and labor market decisions cannot be reduced to wage considerations. Instead, workers consistently value purpose, fairness, autonomy, and social contribution, supporting the idea that the conception of work as “just a wage” is overly simplistic and empirically flawed.

The other field of the literature involved by our research is that related to purpose and meaning. There is a long tradition of research and thought in social sciences about the deep nature of human beings as sense (purpose, meaning) searchers. In *Man's Search for Meaning*, Frankl (1946) argues that the primary motivational force of a person is to find meaning in life, even in suffering. Sen (1999) emphasized that well-being is not only about material wealth but about people's ability to live lives they have reason to value, Frey's (2008) work on happiness economics emphasizes that people are motivated by purpose, meaning, and self-determination, not just consumption while Shiller (2019) introduced narrative economics, arguing that people's economic decisions are strongly influenced by the stories they tell themselves and others. This frames humans as narrative-driven sense-makers, shaping markets and behaviors. economic research increasingly recognizes that human beings are not merely utility-maximizers but seek meaning, coherence, and understanding. Loewenstein's (1994) work on curiosity and information gaps shows that people derive utility from closing gaps in knowledge—not for practical gain, but to make sense of their world. Shiller's narrative economics and Akerlof and Kranton's (2010) identity economics similarly reveal that stories and social roles help individuals construct purpose and identity, suggesting that meaning-making is central to economic behavior.

When putting together these different strands of the literature we learn that amenable job characteristics are fundamental for workers satisfaction and productivity and that this depends on the fact that human beings are essentially sense (purpose, meaning) searchers. Jobs poor of sense therefore have a negative effect on their wellbeings.

### 3. Research hypothesis

If, as evidenced by the literature, jobs are not solely a means to obtain wages, and the standard "work-for-wage" hypothesis (that work only provides utility through the income it generates) is incorrect. Instead, the above discussed literature finds that various job characteristics—such as sense of belonging, social and environmental impact, opportunities for learning, quality of relationships, and

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<sup>2</sup> <https://www.pewresearch.org/social-trends/2020/12/09/how-the-coronavirus-outbreak-has-and-hasnt-changed-the-way-americans-work/>

<sup>3</sup> <https://hbr.org/2021/08/dont-force-people-to-come-back-to-the-office-full-time>

participation—are significantly and positively associated with life satisfaction. In addition to it, another important strand of the literature emphasizes that human beings are essentially sense (purpose, meaning) seekers and therefore jobs without amenable characteristics beyond wage are poorer of sense. These jobs negatively affect life satisfaction since a fundamental part of our life is spent working.

It is therefore reasonable to assume that individuals who view their job solely as a mean to earn a wage have a significantly lower probability of being highly satisfied with life, even after controlling for income and education levels.

This hypothesis is grounded in the idea that intrinsic job attributes and a sense of purpose contribute directly to individual well-being, challenging traditional labor economics models that treat work as utility-neutral or as a source of disutility.

Based on these considerations we formulate the following Null Hypothesis

*H<sub>0</sub>: there is no difference in life satisfaction between individuals who view their job solely as a means to earn a wage and those who attribute intrinsic value or meaning to their work. Job characteristics (e.g., sense of belonging, social impact, learning, participation, relationships) have no significant association with life satisfaction once income and education are controlled for.*

and the following Alternative Hypothesis

*H<sub>1</sub>: Individuals who view their job solely as a mean to earn a wage report significantly lower life satisfaction compared to those who attribute intrinsic value or meaning to their work, even after controlling for income and education. Job characteristics such as sense of belonging, social impact, learning opportunities, quality relationships, and participation are positively associated with life satisfaction.*

#### **4. Descriptive and econometric findings**

We test our research hypothesis on an Italian database of around 5361 individuals representative of the Italian population created with CATI (Computer-Assisted Telephone Interviewing). Stratification variables are gender, age class, job status and geographical location. Variable legend and descriptive statistics of the variables used in our empirical analysis are shown in Tables 1 and 2. The overall sample is of 5359 individuals, which almost halves to 2716 individuals when considering only respondents who work. The sense of work question asks to survey respondents "*My work is... (please choose the statement that best describes what your work means to you today, even if it's not the only one):*" The possible answers are *1: it is an organization that has a positive impact on society and the environment; 2: It is an organization to which I feel a strong sense of belonging; 3: It is a place where I continue to learn and grow; 4: It is a place where I enjoy good quality relationships with colleagues; 5: It is a place where I have opportunities for participation and to take the lead; 6: Doesn't know / does not respond; 7: it is just a mean to get a wage.*

The question therefore asks respondents to choose among key features affecting job satisfaction identified by the literature such as social/environmental impact, sense of belonging, learning, quality of relationships with colleagues and participation. The final option is for a situation where the respondent does not identify any of these dominant characteristics in her/his job and consider it just a mean to get a wage. The share of respondents providing this last answer is around 27.7 percent. (Figure 1). We call this group the “work-for-wage” group. Among answers identifying a prevailing amenable job characteristic we find learning (18.74 percent), followed by quality of relationships (14.99 percent), participation (11.3 percent). The lowest frequency responses are social/environmental impact (6.77 percent) and sense of belonging (3.53 percent). The share of those who say they do not know, or do not answer is around 16.93 percent. Note that the choice of one of the positive answers does not exclude coexistence with other positive features (ie. the respondent can choose participation because it is to her/him the most relevant aspect, but participation can, for instance, be associated to a strong sense of belonging for the same respondent/worker). On the contrary, the “work-for-wage” choice (*it is just a mean to get a wage*) excludes by construction the coexistence with the positive characteristics. For this reason we argue that this last answers clearly indicates a lower poverty of sense of the job.

Looking at socio-demographic characteristics associated with the different respondents we find that the “work-for-wage” group has a much higher share of respondents with primary education only (57.74 percent against 37.9 percent of the rest of the sample) and a much lower share of respondents with tertiary education (3.13 percent against 17.52 percent). The “work-for-wage” group has a female prevalence (59 percent) against 48 percent female preference in the complimentary group. Members of the “work-for-wage” group are slightly older (they are around 57-year hold against 50 of the complementary group).

From a descriptive point of view the difference in life satisfaction among the group of respondents having the same sense of work is stark (Figure 2). The highest level of life satisfaction is associated with sense of belonging and socio/environmental impact (8.07 and 7.87 respectively) as prevailing amenable features of the job place, followed by participation (7.83). Learning and quality of relationships are below (7.33 and 7.30 respectively), with 95 percent confidence intervals not overlapping with those of the first two highest life satisfaction choices, followed by the don’t know group (7.13). The group of respondents saying that the work is just a mean to get a wage is far below and last (6.72 and non-overlapping with those immediately above).

A significant challenge in our dataset is that nearly 50% of respondents chose not to disclose their income. This non-response pattern suggests the presence of a Missing Not at Random (MNAR) mechanism, as the likelihood of missing data appears to be linked to both observable characteristics (such as educational level) and unobservable factors (like actual income). It is plausible that lower-income individuals may avoid disclosure due to discomfort, while higher-income respondents might withhold information for privacy reasons, including tax-related concerns. As conventional methods such as multiple imputation or full information maximum likelihood (FIML) are generally insufficient to correct for the potential bias introduced by MNAR data, we adopt a more straightforward but robust approach by introducing an dummy variable to account for respondents with missing income information.

To test whether the observed differences in life satisfaction are significant after controlling for the role of concurring factors we estimate the following specification

$$\begin{aligned}
Life\_Satisfaction_i &= \alpha_0 + \alpha_1 Work\_just\_wage_i + \alpha_2 Belonging_i + \alpha_3 Learning_i \\
&+ \alpha_4 Relationship_i + \alpha_5 Participation_i + \alpha_6 Don't\_Know_i + \alpha_7 Female_i \\
&+ \alpha_8 Age_i + \alpha_9 Age^2_i + \sum_a \beta_a D\_Income_{a,i} + \sum_b \gamma_b D\_Education_{b,i} \\
&+ \alpha_{10} D\_Stable\_Rel_i + \sum_d \theta_d D\_Illness_{d,i} + \sum_f \lambda_f D\_SAH_{f,i} + \sum_h \xi_h Region_{h,i} \\
&+ \varepsilon_i
\end{aligned}$$

where the dependent variable (*Life\_Satisfaction*) is the standard cognitive measure of subjective wellbeing on a 0-10 scale (*Currently, how satisfied do you feel with your life overall? Please assign a value from 0 (not at all satisfied) to 10 (very satisfied)*). The first six right-hand-side regressors include the various declinations of the dominant labour characteristics (wage only, (sense of) belonging, learning, (quality of) relationships, participation, don't know/no answer) with socio/environmental impact being the omitted benchmark. Among controls we include a female gender dummy, age and age squared to account for its potentially nonlinear effect on subjective wellbeing (Blanchflower and Oswald, 2008), income class (including a dummy for those not declaring income) and education dummies, a variable measuring stability of relational life, dummies for diagnosed diseases and self-assessed health<sup>4</sup> plus regional dummies. The model is estimated with ordered logit and standard errors clustered at regional level.

Empirical findings on work variables show that only two dominant positive characteristics (participation and sense of belonging) have a non significantly different impact on life satisfaction vis-à-vis the omitted benchmark of socioenvironmental impact (Table 3). All the other (learning, quality of relationship, don't know) are associated with significantly lower levels of life satisfaction. The “work-for-wage” group has the highest negative and significant coefficient, almost double in size than learning and quality relationship coefficients. More specifically, and in terms of magnitude, the “work-for-wage” group has a 31 percent lower probability of declaring a level of life satisfaction of 7 vis-à-vis the omitted benchmark.

Results on the other regression controls are standard in the literature. Stable relationships are positive and significant, secondary and tertiary education as highest education degree are associated with higher subjective wellbeing vis-à-vis the omitted benchmark of primary education, while diagnosed diseases and poor self-assessed-health are as expected negative and significant.

To have more clearly interpretable results we create a new dependent “very happy” variable taking value one if the respondents declare a level of life satisfaction higher than 6 and zero otherwise. Statistical significance and sign of the sense of work coefficients are confirmed. In terms of magnitude

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<sup>4</sup> For the importance of self-assessed-health on life satisfaction beyond diagnoses pathologies see, among others Becchetti et al. (2018).

now the “work-for-wage” group almost reduces by 39 percent its probability to be very happy (Table 4).

In Table 5 we provide gender, income and education sample splits and find that our results hold in all of them, except for the above median income and tertiary education subgroups which have however a limited number of observations. The highest negative impact of the poor sense of work variable is among males and primary education respondents. In terms of magnitude the strongest effect is among males where poor sense of job is associated with an around 39 percent lower probability of declaring oneself very happy, respectively.

The classification of individuals choosing the “don’t know/no answer” option is ambiguous as their choice can depend on actual difficulty of choosing or to the unwillingness to reveal their choice. We therefore provide a robustness check by excluding them from the sample and using respectively the life satisfaction (Table 5) and the very happy (Table 6) dependent variables. Our main findings are robust to this change. The “work-for-wage” dummy is negative and significant and, in terms of magnitude, it is associated with a 37 percent lower probability of declaring oneself very happy.

As in almost all subjective wellbeing estimates we need an identification strategy to address the endogeneity problem. The statistically significant association between life satisfaction and sense of job can in fact be explained not only by direct but also by inverse causality (individuals who are less happy could be more likely to perceive their job as meaningless, rather than job sense directly affecting their happiness). In addition to it, a third omitted driver causing both dependent and independent variable and creating a spurious correlation among them.

We address the problem with recursive simultaneous estimation of a Generalized Structural Equation Model (GSEM). Given our main focus on the “work-for-wage” group we redefine for simplicity our main variable of interest as a (low sense of job) dummy taking value one when the individual belongs to this group and zero otherwise.

The GSEM specification jointly models two binary outcomes (*lowsensejob* and *veryhappy*) and estimating the structural relationship between them. By doing so, it explicitly accounts for the possibility that the endogenous variable *lowsensejob* is influenced by other observable and unobservable factors that also affect life satisfaction, yielding a cleaner estimate of its causal impact.

The selected instrument is the regional/education average of the low sense of job variable. The instrument is relevant since it significantly affects low sense of job in the regression where the latter is dependent variable. To test for its validity we perform a falsification test by estimating the benchmark specification in (1) for the subsample of individuals where low sense of job is zero replacing the instrumented variable (low sense of job) with its instrument (the regional/education average). We find that the latter is not significant thereby not rejecting the hypothesis that the effect of the instrument on the dependent variable passes only through the instrumented variable and is not significant when this pathway is closed (Table 6).

Our findings provide strong evidence that the perception of work as “just a wage” has a substantial negative effect on life satisfaction. The estimated coefficient for *lowsensejob* in the *veryhappy* equation is  $-2.160$  ( $p < 0.001$ ) (Table 7). This implies that the odds of being very happy are approximately 88.5% lower for respondents with a low sense of job compared to those who attribute intrinsic meaning to their work, holding all other variables constant.

The magnitude of this effect is considerable when expressed in terms of probabilities. Assuming average values for the other covariates, the predicted probability of being very happy is approximately 32% for those who report a richer sense of work, but drops to only 5.1% for individuals who view their job solely as a means to earn a wage. This represents a reduction in the likelihood of being very happy of about 26.9 percentage points, underscoring the critical role of job sense in shaping subjective well-being. It is interesting to know how, when controlling for endogeneity, the effect of poor sense of job remains significant and remarkable, even though it is slightly reduced with respect to what found in non-IV estimates. This implies that part of the effect in the latter can be due to endogeneity or reverse causality.

This finding is robust after controlling for a wide range of factors such as income, education, health status, relationship stability, and regional fixed effects. It highlights that the relationship between job meaning and life satisfaction is not merely a by-product of socio-economic conditions but rather reflects an independent and powerful source of happiness.

## **5. Discussion**

A likely interpretation of our findings is that working is such an important part of our life that, if not bringing sense per se, cannot have neutral effect on utility. If we conceive, as in the literature described in section 2, human beings as sense searchers spending most of our day in something which does not bring additional sense beyond the wage is something that per se contributes negatively to utility. This is confirmed by the fact that individuals of the “work-for-wage” group report significantly lower sense of life. More specifically, among those in the “work-for-wage” group only 1.86 percent of respondents declare they have a lot of sense of life (against enough or low), while the share is 10.34 percent among the complementary sample of workers

A clear-cut finding is the strong correlation between low education, low income and poor sense of job. In the “work -just-wage” group the share of respondents with primary education only is higher and that of respondents with tertiary education far lower. However, when we control for income and education in our econometric specifications, we find that the impact of poor sense of job is very strong and significant in both non-IV and IV estimates. This implies that, for a given common level of income and education, those with a poor sense of job (such as the “work-for-wage” group) have a significantly lower level of life satisfaction when compared with other respondents with the same income and education level but belonging to richer sense of work groups (ie. generativity, sense of belonging, quality of relationships, participation, learning).

In addition to it, our sample split estimates in the two different subsamples of below median income and primary/secondary education respondents show that the “work-for-wage” group is significantly less satisfied than all other groups (Table 5, columns 4 and 5). In these cases, we cannot say that “work-for-wage” respondents are less satisfied about their life because they have lower income or education than their counterparts in the sample.

A likely interpretation of our findings is that members of the “work-for-wage” group can be involuntarily locked in that group. They can acknowledge and desire jobs with the amenable

characteristics found by the other respondents of the survey but cannot get those jobs. This does not contradict our main point, that is being, voluntarily or involuntarily, in the textbook situation in which the work does not produce utility per se but is just a mean to get a wage, actually creates a disutility which contradicts the textbook model assumption. The policy implication of involuntary placement in the “work-for-wage” group is that policies increasing individual opportunities (i.e. education, skill training, higher information on job offers) can significantly improve wellbeing.

The critique to the textbook microeconomic model of labor supply can be said to be too strong since there is ample literature (even in mainstream economics) on compensating wage differentials and on job satisfaction. The literature on compensating wage differentials finds that unpleasant job characteristics are compensated by higher wages (ie. premia for working at night or on sea platforms). Again though, it is the negative side of the effect of job on utility that is considered and compensated and, even this field of the literature, even though with an old tradition, does not modify the base model assuming job utility neutrality. As well the job satisfaction literature starts from managerial or subjective wellbeing subfields and, despite a robust range of empirical findings, did not modify the standard textbook model even in the slightest direction of allowing for the possibility of a positive impact of job on utility.

## **6. Conclusions**

This paper has critically examined the traditional “work-for-wage” hypothesis, which assumes that jobs generate utility only through the wages they provide. Using survey data and a structural econometric model that explicitly addresses endogeneity, we show that this assumption is not supported by the evidence. Our findings demonstrate that individuals who view their job merely as a mean to earn a wage have a substantially lower probability of reporting high life satisfaction, after controlling for standard life-satisfaction drivers such as income, education, health status, relationship stability, and regional fixed effects. Specifically, the perception of work as “just a wage” reduces the likelihood of being very happy by approximately 27 percentage points, underscoring the crucial role of intrinsic job characteristics—such as a sense of belonging, opportunities for learning, quality of relationships, participation, and social and environmental impact—in shaping subjective well-being.

These results contribute to a growing body of literature that calls for a reassessment of standard labor supply models and their underlying assumptions. Beyond their theoretical implications, our findings have important policy and managerial relevance. Employment policies and workplace practices that foster job meaning and intrinsic motivation may significantly enhance not only life satisfaction but also productivity and employee retention.

Nevertheless, this study has several limitations. First, the data are cross-sectional and panel data with repeated observations in time would allow future research to better account for time dynamics and individual heterogeneity. Second, while we control for a wide range of socio-economic and health variables, unobserved factors—such as personality traits or cultural norms—may still bias the results. Third, our measure of “sense of work” is based on self-reported categories, which could be subject to interpretation differences or response biases. Finally, the analysis focuses on a single country context,

and the extent to which these findings generalize to other labor markets and institutional settings remains an open question.

Future research should address these limitations by employing longitudinal data, richer measures of job meaning, and comparative studies across countries. It would also be valuable to investigate the mechanisms through which intrinsic job characteristics influence life satisfaction, such as their effects on social capital, mental health, and work-life balance. Moreover, exploring the role of organizational culture and leadership in fostering a sense of purpose at work could provide actionable insights for both employers and policymakers.

In conclusion, our study strongly suggests that work is more than just a mean to earn a wage. Recognizing and enhancing the intrinsic value of work has the potential to significantly improve individual well-being and reshape the way we think (and teach at universities) labor markets and economic policy.

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**Table 1 Variable legend**

Libertarian	<i>Individual choosing the statement “a society is just if individual freedom is always guaranteed, even if this could go against the general interest”</i>
Utilitarian	<i>Individual choosing the statement “a society is just if individual freedom is guaranteed, provided it does not conflict with the general interest”</i>
Self-oriented civic	<i>Individual choosing the statement “a society is just if individual freedom is intentionally directed towards achieving the general interest”</i>
Communitarian	<i>Individual choosing the statement “a society is just if individual freedom is always subordinated to the general interest”</i>
Life Satisfaction	<i>Currently, how satisfied do you feel with your life overall? Please assign a value from 0 (not at all satisfied) to 10 (very satisfied)</i>
Life Sense	<i>Thinking about your life in general, how much do you feel it has meaning? 1 (not at all), 2 (a little), 3 (quite a bit), 4 (very much)</i>
Female	(0/1) dummy for female gender
Stable relationship	<i>How stable is the relationship with your partner ? 1: no partner; 2: not at all stable 3: quite stable 4: enough stable 5: very stable</i>
Income class	<i>What is the total annual income level of your household from all sources, after taxes and mandatory deductions? If you do not know the exact amount, please provide an estimate (with answers classified into country income deciles)</i>
Education	Highest level of education achieved
Diagnosed diseases	(0/1) dummies if the respondent says she/has was diagnosed health diseases, hypertension, lung diseases, cancer, arthritis, asthma, Alzheimer/dementia, fibrocistis, diabetes, osteoporosis, based on the question <i>Select one or more of the following illnesses for which you have received a current diagnosis.</i>
Self-Assessed-Health	<i>Currently, how would you describe your overall health? Please rate it on a scale from 1 (very poor), 2 (fair), 3 (good), 4 (very good), to 5 (excellent)</i>

**Table 2 Descriptive statistics**

	Obs	Mean	Std dev.	Min	Max
<i>Sense of work</i>					
Impact	2716	0.068	0.251	0	1
Sense of Belonging	2716	0.035	0.185	0	1
Learning	2716	0.187	0.390	0	1
Quality of relationship	2716	0.150	0.357	0	1
Participation	2716	0.113	0.317	0	1
Don't know, no answer	2716	0.169	0.375	0	1
Work just wage	2716	0.277	0.448	0	1
Life Satisfaction	2716	7.245	10.18	3	10
Life Sense	5359	2.997	0.343	1	4
Age	2716	39.96	13.31	18	65

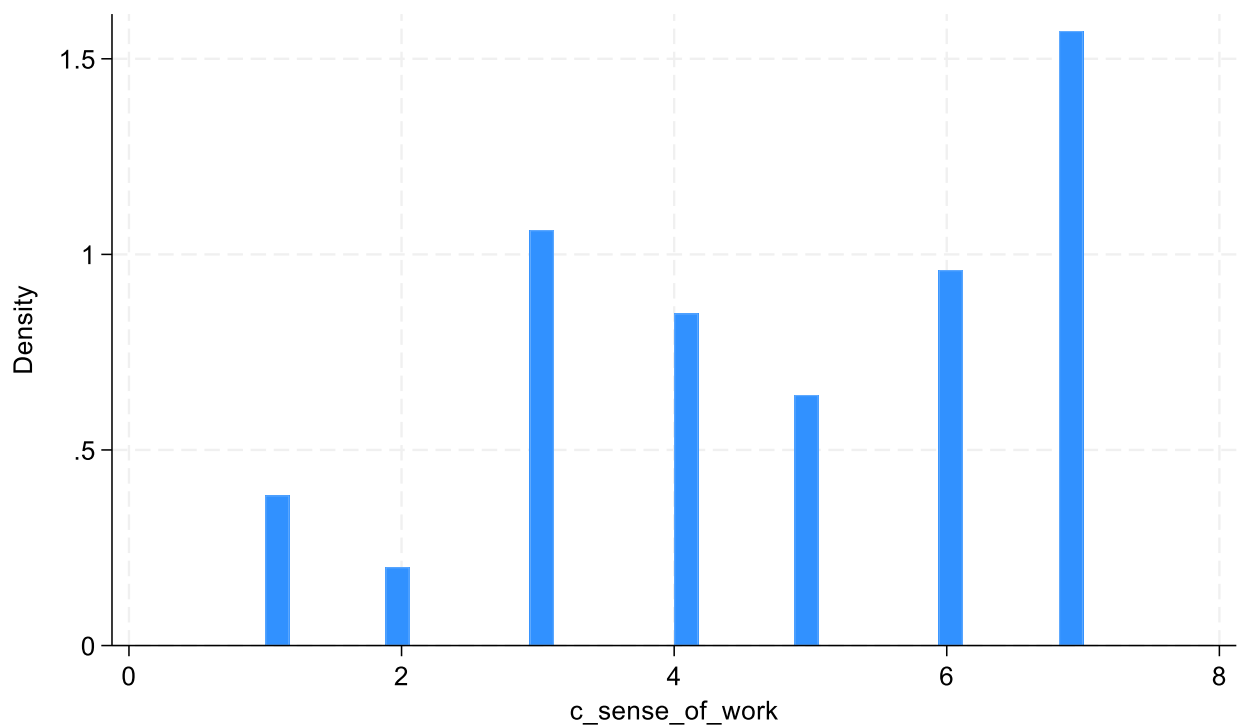
Female	2716	0.396	0.489	0	1
Male	2716	0.604	0.489	0	1
Stable relationship	2716	3.241	1.417	1	5
Income class 1	2716	0.036	0.187	0	1
Income class 2	2716	0.071	0.258	0	1
Income class 3	2716	0.096	0.295	0	1
Income class 4	2716	0.098	0.297	0	1
Income class 5	2716	0.119	0.324	0	1
Income class 6	2716	0.053	0.223	0	1
Income class 7	2716	0.022	0.147	0	1
Income class 8	2716	0.025	0.157	0	1
Income class 9	2716	0.000	0.019	0	1
Income class 10	2716	0.000	0.19	0	1
No Answer on income	2716	0.478	0.500	0	1
Primary education	2716	0.116	0.320	0	1
Secondary education	2716	0.640	0.480	0	1
Tertiary education	2716	0.244	0.429	0	1
<i>Italian regions</i>					
Abruzzo	2716	0.038	0.192	0	1
Basilicata	2716	0.014	0.117	0	1
Calabria	2716	0.059	0.235	0	1
Campania	2716	0.074	0.262	0	1
Emilia-Romagna	2716	0.067	0.251	0	1
Friuli-Venezia-Giulia	2716	0.031	0.173	0	1
Lazio	2716	0.063	0.242	0	1
Liguria	2716	0.041	0.197	0	1
Lombardia	2716	0.101	0.301	0	1
Marche	2716	0.018	0.133	0	1
Molise	2716	0.006	0.077	0	1
Piemonte	2716	0.059	0.235	0	1
Puglia	2716	0.067	0.251	0	1
Sardegna	2716	0.043	0.202	0	1
Sicilia	2716	0.062	0.242	0	1
Toscana	2716	0.080	0.272	0	1
Trentino-Alto-Adige	2716	0.044	0.205	0	1
Umbria	2716	0.020	0.138	0	1
Val d'Aosta	2716	0.018	0.133	0	1
Veneto	2716	0.096	0.295	0	1
<i>Diagnosed diseases</i>					
Heart diseases	2716	0.005	0.072	0	1
Hypertension	2716	0.059	0.235	0	1
Lung Diseases	2716	0.003	0.054	0	1
Cancer	2716	0.004	0.061	0	1
Arthritis	2716	0.023	0.149	0	1
Asthma	2716	0.018	0.134	0	1
Alzheimer/Dementia	2716	0.001	0.027	0	1
Fibrocistis	2716	0.002	0.043	0	1
Diabetes	2716	0.016	0.126	0	1
Osteoporosis	2716	0.017	0.129	0	1

*Self-Assessed-Health*

Very poor	2716	0.002	0.043	0	1
Discrete	2716	0.053	0.225	0	1
Good	2716	0.453	0.498	0	1
Very Good	2716	0.472	0.499	0	1
Excellent	2716	0.020	0.141	0	1

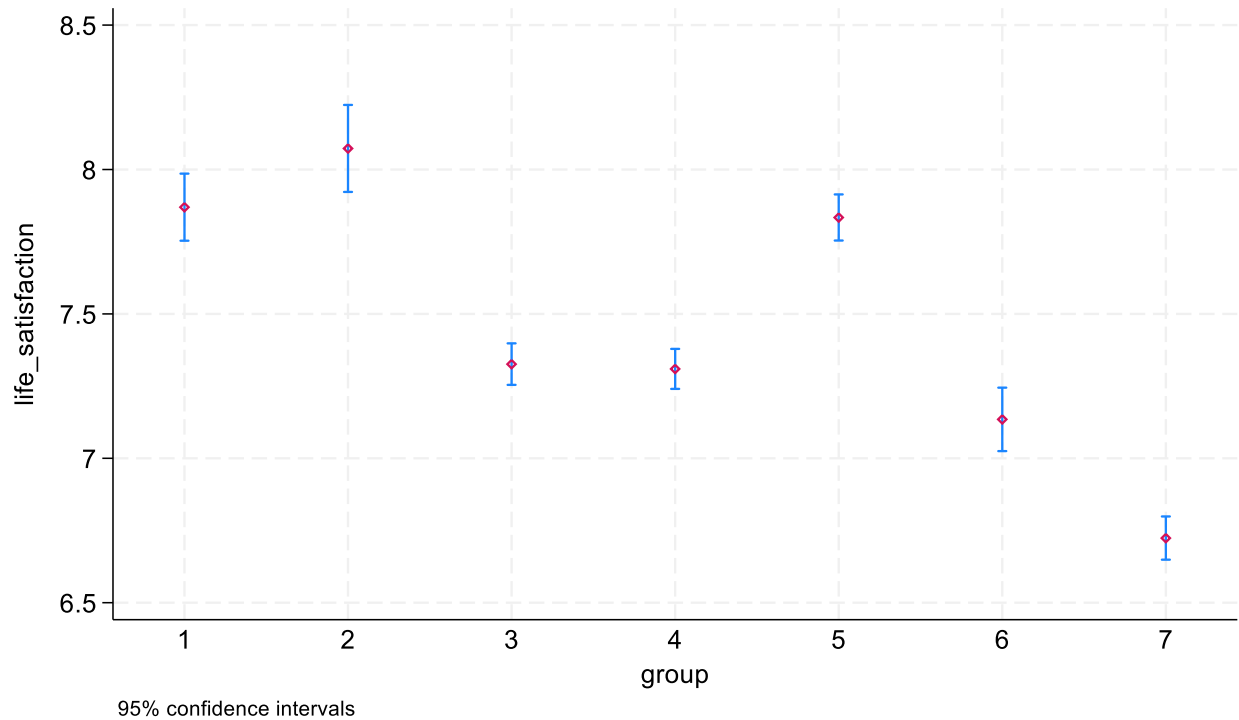
**Figure 1 Distribution of the sense of work variable**

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Legend: *my work is...* (please choose the statement that best describes what your work means to you today, even if it's not the only one) 1: it is in an organization that has a positive impact on society and the environment; 2: It is in an organization to which I feel a strong sense of belonging; 3: It is a place where I continue to learn and grow; 4: It is a place where I enjoy good quality relationships with colleagues; 5: It is a place where I have opportunities for participation and to take the lead; 6: Doesn't know / does not respond; 7: it is just a mean to get a wage.

**Figure 2 average life satisfaction and sense of work (95% confidence intervals)**



Legend: *my work is...* (please choose the statement that best describes what your work means to you today, even if it's not the only one) 1: it is in an organization that has a positive impact on society and the environment; 2: It is in an organization to which I feel a strong sense of belonging; 3: It is a place where I continue to learn and grow; 4: It is a place where I enjoy good quality relationships with colleagues; 5: It is a place where I have opportunities for participation and to take the lead; 6: Doesn't know / does not respond; 7: it is just a mean to get a wage.

**Table 3 Sense of work and life satisfaction**

	(1)	(2)	(3)
<b>VARIABLES</b>			
<i>Sense of work</i>			
Sense of belonging	0.639* (0.373)	0.575 (0.365)	0.553 (0.343)
Learning	-1.168*** (0.240)	-1.175*** (0.232)	-1.182*** (0.232)
Quality of relationship	-1.160*** (0.256)	-1.128*** (0.252)	-1.010*** (0.260)
Participation	0.0631 (0.319)	0.0561 (0.316)	0.0133 (0.300)
Doesn't know	-0.923*** (0.328)	-0.867*** (0.314)	-1.072*** (0.336)
Work-for-wage	-2.249*** (0.273)	-2.202*** (0.261)	-2.017*** (0.265)

*Controls*

Male	-0.167 (0.112)	-0.166 (0.115)	-0.222* (0.114)
Age	-0.00700 (0.0381)	-0.0223 (0.0383)	-0.0510 (0.0353)
[Age] <sup>2</sup>	9.18e-05 (0.000464)	0.000380 (0.000463)	0.000794* (0.000433)
Income decile 2	-1.380*** (0.228)	-1.288*** (0.217)	-1.472*** (0.226)
Income decile 3	-1.091*** (0.181)	-1.040*** (0.176)	-1.334*** (0.182)
Income decile 4	-1.224*** (0.223)	-1.101*** (0.206)	-1.417*** (0.207)
Income decile 5	-0.743*** (0.232)	-0.667*** (0.224)	-1.078*** (0.226)
Income decile 6	-0.836*** (0.251)	-0.645*** (0.248)	-1.078*** (0.244)
Income decile 7	-1.122*** (0.344)	-1.088*** (0.366)	-1.641*** (0.369)
Income decile 8	-0.613** (0.269)	-0.622** (0.265)	-1.051*** (0.267)
Income decile 9	0.198 (0.232)	0.134 (0.235)	0.398 (0.248)
Income decile 10	-1.149*** (0.245)	-1.316*** (0.252)	-0.942*** (0.241)
Income no answer	-1.227*** (0.198)	-1.139*** (0.204)	-1.452*** (0.202)
Secondary education	0.335*** (0.124)	0.251** (0.122)	0.298*** (0.108)
Tertiary education	0.942*** (0.202)	0.884*** (0.198)	0.949*** (0.191)
Stable relationship	0.146*** (0.0312)	0.130*** (0.0325)	0.117*** (0.0350)
Heart diseases		-0.803** (0.338)	-0.559 (0.376)
Hypertension		-0.651*** (0.122)	-0.301** (0.127)
Lung Diseases		-0.143 (0.936)	-0.00923 (0.885)
Cancer		-0.835 (0.847)	-0.212 (0.423)
Arthritis		-0.540** (0.220)	-0.535*** (0.206)
Asthma		-1.086*** (0.190)	-0.912*** (0.206)
Alzheimer/Dementia		4.919*** (1.312)	3.675*** (0.957)
Fibrocistis		-0.913 (0.817)	-1.358** (0.668)

Diabetes		-0.467 (0.296)	-0.308 (0.240)
Osteoporosis		0.00300 (0.385)	0.100 (0.414)
Self-Assessed-Health (fair)			-0.198 (0.177)
Self-Assessed-Health (good)			-0.237 (0.794)
Self-Assessed-Health (very good)			1.133*** (0.0942)
Self-Assessed-Health (excellent)			-2.803*** (0.604)
Basilicata	-0.0225 (0.0352)	-0.0701* (0.0367)	-0.0186 (0.0394)
Calabria	0.0772** (0.0329)	0.0706* (0.0373)	0.0248 (0.0428)
Campania	-0.199*** (0.0381)	-0.131*** (0.0382)	-0.0504 (0.0407)
Emilia-Romagna	-0.124*** (0.0391)	-0.103*** (0.0362)	-0.0507 (0.0410)
Friuli-Venezia-Giulia	0.0538* (0.0310)	0.0275 (0.0358)	-0.0733** (0.0338)
Lazio	-0.127*** (0.0148)	-0.149*** (0.0258)	-0.145*** (0.0274)
Liguria	-0.00464 (0.0365)	0.00868 (0.0366)	0.0189 (0.0340)
Lombardia	0.0301 (0.0273)	0.0287 (0.0258)	0.0485* (0.0272)
Marche	-0.216*** (0.0341)	-0.219*** (0.0417)	-0.222*** (0.0362)
Molise	0.461*** (0.0659)	0.394*** (0.0619)	0.384*** (0.0706)
Piemonte	0.0952*** (0.0230)	0.0926*** (0.0242)	0.0928*** (0.0201)
Puglia	0.0109 (0.0258)	-0.00825 (0.0307)	-0.101*** (0.0298)
Sardegna	0.00944 (0.0301)	0.000826 (0.0292)	-0.0764** (0.0341)
Sicilia	0.179*** (0.0347)	0.170*** (0.0379)	0.116*** (0.0373)
Toscana	0.0534** (0.0226)	0.0266 (0.0227)	-0.0133 (0.0237)
Trentino-Alto-Adige	-0.0555** (0.0225)	-0.0803*** (0.0275)	-0.150*** (0.0412)
Umbria	0.252*** (0.0468)	0.201*** (0.0387)	0.260*** (0.0492)
Valle d'Aosta	0.108*** (0.0351)	0.0434 (0.0428)	-0.0441 (0.0489)
Veneto	-0.0754*** (0.0239)	-0.0384 (0.0269)	-0.0852*** (0.0292)
/cut1	-8.122***	-8.423***	-8.832***

	(1.018)	(1.025)	(1.011)
/cut2	-6.110***	-6.412***	-6.796***
	(0.695)	(0.706)	(0.690)
/cut3	-4.888***	-5.172***	-5.529***
	(0.695)	(0.698)	(0.695)
/cut4	-3.179***	-3.411***	-3.710***
	(0.696)	(0.701)	(0.685)
/cut5	-1.280*	-1.475**	-1.672**
	(0.738)	(0.741)	(0.720)
/cut6	1.674**	1.498**	1.428*
	(0.732)	(0.738)	(0.734)
/cut7	4.989***	4.819***	4.793***
	(0.700)	(0.689)	(0.730)
Observations	2,716	2,716	2,716

Omitted benchmark: primary education, lowest income decile, female, poor self-assessed-health, living in Abbruzzo, work in an organization that has a positive impact on society and the environment. Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 4 Sense of work and probability of high life satisfaction**

	(1)	(2)	(3)
<b>VARIABLES</b>			
<i>Sense of work</i>			
Sense of belonging	0.292	0.182	0.0761
	(1.259)	(1.258)	(1.272)
Learning	-1.974***	-1.961***	-1.882***
	(0.595)	(0.574)	(0.600)
Quality of relationship	-1.917***	-1.846***	-1.693***
	(0.636)	(0.624)	(0.641)
Participation	-0.0522	-0.0408	-0.0543
	(0.376)	(0.362)	(0.374)
Doesn't know	-1.860***	-1.754***	-1.826***
	(0.596)	(0.559)	(0.613)
Work-for-wage	-3.882***	-3.813***	-3.670***
	(0.680)	(0.661)	(0.699)
<i>Controls</i>			
Male	0.245**	0.237**	0.195*
	(0.0997)	(0.116)	(0.116)
Age	0.00590	-0.0392	-0.0647
	(0.0594)	(0.0606)	(0.0596)
[Age] <sup>2</sup>	0.000792***	0.000668***	0.000674***
	(0.000165)	(0.000174)	(0.000178)
Income decile 2	-2.330***	-2.374***	-2.624***
	(0.447)	(0.438)	(0.506)

Income decile 3	-1.492*** (0.440)	-1.516*** (0.388)	-1.842*** (0.416)
Income decile 4	-2.063*** (0.456)	-2.033*** (0.385)	-2.483*** (0.412)
Income decile 5	-1.777*** (0.507)	-1.859*** (0.434)	-2.437*** (0.472)
Income decile 6	-1.805*** (0.500)	-1.715*** (0.441)	-2.135*** (0.509)
Income no answer	-2.279*** (0.383)	-2.330*** (0.330)	-2.746*** (0.409)
Secondary education	0.607*** (0.155)	0.551*** (0.170)	0.614*** (0.164)
Tertiary education	0.346 (0.211)	0.348 (0.240)	0.389 (0.252)
Basilicata	0.347*** (0.0518)	0.254*** (0.0634)	0.276*** (0.0747)
Calabria	0.241*** (0.0358)	0.215*** (0.0387)	0.223*** (0.0317)
Campania	-0.203*** (0.0405)	-0.144*** (0.0468)	-0.0931* (0.0529)
Emilia-Romagna	0.370*** (0.0372)	0.294*** (0.0540)	0.349*** (0.0563)
Friuli-Venezia-Giulia	0.237*** (0.0507)	0.163** (0.0777)	0.104 (0.0783)
Lazio	0.569*** (0.0461)	0.491*** (0.0695)	0.485*** (0.0507)
Liguria	0.633*** (0.0278)	0.661*** (0.0348)	0.746*** (0.0554)
Lombardia	0.377*** (0.0239)	0.322*** (0.0383)	0.360*** (0.0352)
Marche	0.0416 (0.0672)	-0.00889 (0.0744)	0.0254 (0.0754)
Molise	1.534*** (0.0768)	1.347*** (0.0685)	1.600*** (0.145)
Piemonte	0.748*** (0.0353)	0.705*** (0.0335)	0.744*** (0.0364)
Puglia	-0.0119 (0.0260)	-0.0570 (0.0432)	-0.160*** (0.0495)
Sardegna	0.438*** (0.0398)	0.386*** (0.0493)	0.295*** (0.0528)
Sicilia	0.208*** (0.0499)	0.138*** (0.0457)	0.0429 (0.0446)
Toscana	0.167*** (0.0306)	0.0766 (0.0497)	0.0226 (0.0430)
Trentino-Alto-Adige	0.0988** (0.0487)	0.0488 (0.0637)	0.0423 (0.0630)
Umbria	0.707*** (0.0516)	0.604*** (0.0960)	0.716*** (0.110)
Valle d'Aosta	0.00132 (0.0690)	-0.182* (0.0955)	-0.397*** (0.100)
Veneto	-0.0621* (0.0690)	-0.0630 (0.0955)	-0.197*** (0.100)

	(0.0322)	(0.0574)	(0.0419)
Stable Relationship	0.313***	0.298***	0.289***
	(0.0600)	(0.0576)	(0.0642)
Heart diseases		-0.759	-0.516
		(0.564)	(0.613)
Hypertension		-0.974***	-0.586***
		(0.204)	(0.216)
Lung Diseases		-0.433	0.0413
		(0.996)	(1.034)
Cancer		-0.0457	1.013
		(1.105)	(1.589)
Arthritis		-1.026**	-1.176**
		(0.520)	(0.509)
Asthma		-0.900***	-0.666*
		(0.339)	(0.365)
Alzheimer/Dementia		-	-
Fibrocistis		0.388	-0.0488
		(0.643)	(0.506)
Diabetes		-0.975***	-0.755**
		(0.347)	(0.334)
Osteoporosis		-0.491	-0.300
		(0.526)	(0.612)
Self-Assessed-Health (fair)			-0.394
			(0.345)
Self-Assessed-Health (good)			-0.916*
			(0.488)
Self-Assessed-Health (very good)			1.487***
			(0.152)
Self-Assessed-Health (excellent)	0.313***	0.298***	0.289***
	(0.0600)	(0.0576)	(0.0642)
Constant	3.855***	4.565***	4.719***
	(0.638)	(0.676)	(0.722)
Observations	2,585	2,583	2,578

Dependent variable: (0/1) dummy taking value one when life satisfaction is higher than 6 and zero otherwise. Omitted benchmark: primary education, lowest income decile, female, poor self-assessed-health. Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 5 Sense of work and probability of being very happy – gender, income and education sample splits**

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Female	Male	Higher income	Lower income	Primary/Secondary education	Tertiary education
<i>Sense of work</i>						
Sense of belonging		-0.819 (1.447)		-0.450 (1.491)	0.577 (1.242)	
Learning	-1.130** (0.542)	-2.515** (1.070)	0.399 (2.082)	-1.118 (1.072)	-1.193** (0.571)	2.863** (1.131)
Quality of relationship	-1.542** (0.659)	-1.943* (1.055)	-0.157 (1.907)	-1.085 (1.117)	-0.773 (0.570)	2.745** (1.373)
Participation	0.551 (0.403)	-1.077 (0.763)	-1.264 (1.486)	-1.186 (0.984)	-0.243 (0.492)	
Doesn't know	-1.705*** (0.535)	-1.945* (1.026)	0.722 (1.855)	0.758 (1.362)	-0.947* (0.539)	2.154** (0.869)
Work-for-wage	-3.191*** *(0.634)	-4.305*** (1.097)	-2.474 (1.832)	-2.779** (1.151)	-2.663*** (0.632)	
<i>Controls</i>						
Female			1.020** (0.419)	0.0941 (0.135)	0.530*** (0.161)	0.183 (0.454)
Age	-0.102 (0.0906)	-0.00548 (0.0580)	0.0874 (0.211)	-0.0429 (0.146)	-0.120* (0.0644)	0.137 (0.779)
[Age] <sup>2</sup>	0.00148 (0.00111)	0.000668 (0.000744)	0.000101 (0.00241)	0.00118 (0.00161)	0.00174** (0.000793)	0.00265 (0.0113)
Income decile 2	-1.930** (0.752)	-3.111*** (0.617)		-2.703*** (0.521)	-2.621*** (0.514)	
Income decile 3	-1.134* (0.660)	-2.427*** (0.543)		-2.145*** (0.371)	-1.796*** (0.422)	

Income decile 4	-1.744** (0.691)	-3.092*** (0.491)		-2.773*** (0.412)	-2.459*** (0.426)	-2.301 (1.723)
Income decile 5	-2.346*** (0.743)	-2.477*** (0.596)		-2.979*** (0.463)	-2.467*** (0.508)	-2.502** (1.233)
Income decile 6	-2.451*** (0.718)	-1.273 (0.842)	0.162 (0.420)		-2.882*** (0.570)	
Income decile 7	-	-	-		-	-
Income decile 8	-	-	-		-	-
Income no answer	-2.244*** (0.670)	-3.107*** (0.558)			-2.728*** (0.418)	
Income decile 10	-		-			-
Secondary education	0.524 (0.419)	0.730*** (0.185)	1.080** (0.514)	1.123*** (0.281)	0.611*** (0.171)	
Tertiary education	0.642 (0.488)	0.126 (0.341)	2.587*** (0.951)	2.183** (1.067)		
Basilicata	0.736*** (0.103)	0.223* (0.130)		1.813*** (0.186)	0.481*** (0.0781)	-6.798*** (1.311)
Calabria	-0.156 (0.112)	0.546*** (0.103)	-0.0696 (0.299)	0.328*** (0.0920)	0.375*** (0.0454)	-2.698*** (0.556)
Campania	-0.602*** (0.126)	0.315*** (0.0763)	-0.495* (0.270)	0.722*** (0.0980)	-0.0421 (0.0617)	-1.887*** (0.475)
Emilia-Romagna	-0.231** (0.118)	0.822*** (0.116)	-1.935*** (0.277)	0.501 (0.321)	0.243*** (0.0621)	
Friuli-Venezia-Giulia	-0.0882 (0.131)	0.285** (0.119)	-1.928*** (0.414)	0.526** (0.242)	0.180** (0.0835)	-1.609*** (0.568)
Lazio	0.0451 (0.114)	0.714*** (0.114)	-0.664** (0.295)	1.663*** (0.125)	0.706*** (0.0634)	-1.420*** (0.333)
Liguria	0.558*** (0.122)	0.919*** (0.160)	-2.645*** (0.490)	1.141*** (0.166)	1.021*** (0.0583)	-3.491*** (0.698)
Lombardia	-0.128 (0.108)	0.877*** (0.105)	-0.765*** (0.189)	0.859*** (0.114)	0.458*** (0.0427)	-1.407*** (0.238)

Marche	-0.851*** (0.152)	0.548*** (0.106)	0.363 (0.659)	0.455*** (0.121)	0.496*** (0.0985)	-9.236*** (1.923)
Molise	1.057*** (0.252)				1.583*** (0.156)	
Piemonte	-0.292*** (0.110)	1.736*** (0.117)	0.515* (0.263)	1.780*** (0.131)	0.859*** (0.0365)	-1.028** (0.440)
Puglia	-0.626*** (0.106)	0.205** (0.0854)	-1.411*** (0.286)	1.188*** (0.133)	-0.0143 (0.0611)	-2.516*** (0.449)
Sardegna	-0.385** (0.151)	0.967*** (0.123)		1.156*** (0.131)	0.248*** (0.0564)	-0.423 (0.655)
Sicilia	-0.612*** (0.110)	0.606*** (0.0929)	-0.927* (0.551)	1.134*** (0.127)	0.162*** (0.0564)	-3.009*** (0.621)
Toscana	-0.0249 (0.110)	0.325*** (0.0917)	-1.573*** (0.236)	0.545*** (0.154)	0.487*** (0.0529)	-3.641*** (0.514)
Trentino-Alto-Adige	0.316*** (0.116)	-0.193 (0.126)	-2.084*** (0.308)	0.178 (0.146)	0.0186 (0.0622)	-1.361*** (0.266)
Umbria	0.430** (0.172)	0.500*** (0.152)	-0.414 (0.289)		0.766*** (0.126)	-0.919*** (0.155)
Valle d'Aosta	-0.0841 (0.135)	-0.866*** (0.212)		0.717*** (0.169)	-0.299*** (0.109)	
Veneto	-0.903*** (0.117)	0.491*** (0.0950)	-1.735*** (0.260)	0.584*** (0.128)	-0.0172 (0.0536)	-2.790*** (0.572)
Stable relationship	0.420*** (0.0921)	0.191** (0.0781)	0.146 (0.128)	0.400*** (0.116)	0.349*** (0.0665)	0.522** (0.249)
Heart diseases	-		-			-
Hypertension	-1.125** (0.468)	-0.416 (0.274)	0.622 (0.594)	-0.664*** (0.204)	-0.650*** (0.224)	
Lung Diseases	-					-
Cancer	1.234 (2.023)				1.142 (1.547)	
Arthritis	-2.159*** (0.796)	-1.005* (0.545)	-3.058*** (1.127)	-1.363*** (0.315)	-1.002** (0.449)	

Asthma	-0.470 (0.845)	-0.835* (0.449)	-1.348 (1.035)	-0.908* (0.524)	-0.383 (0.408)	
Alzheimer/Dementia	-	-	-	-	-	-
Fibrocistis	-0.545 (0.862)				-0.0232 (0.495)	
Diabetes	-0.206 (0.804)	-0.610 (0.465)	0.427 (0.643)	-1.212*** (0.434)	-0.788** (0.344)	
Osteoporosis	0.0959 (0.775)	-0.827 (0.842)	-1.523*** (0.563)	-0.416 (0.924)	-0.237 (0.579)	
Self-Assessed-Health (fair)	0.587 (0.528)	-0.968** (0.426)	0.954 (0.873)	-0.628* (0.334)	-0.484 (0.335)	
Self-Assessed-Health (good)	-1.220* (0.688)	-0.823 (0.725)		2.310*** (0.789)	-1.175** (0.504)	-0.0623 (1.315)
Self-Assessed-Health (very good)	1.542*** (0.176)	1.462*** (0.196)	2.516*** (0.480)	2.072*** (0.248)	1.532*** (0.136)	2.444*** (0.866)
Self-Assessed-Health (excellent)	0.420*** (0.0921)	0.191** (0.0781)	0.146 (0.128)	0.400*** (0.116)	0.349*** (0.0665)	0.522** (0.249)
Constant	4.858*** (1.399)	4.352*** (1.358)	-3.017 (4.601)	1.738 (2.999)	4.737*** (0.836)	-7.130 (12.77)
Observations	1,027	1,521	415	1,109	2,031	221

Dependent variable: (0/1) dummy taking value one when life satisfaction is higher than 6 and zero otherwise. Omitted benchmark: primary education (excluded the education split), lowest income decile (excluded the income split), female (excluded the gender split), poor self-assessed-health. Robust standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 6 Sense of work and subjective wellbeing -falsification test**

	(1)	(2)	(3)
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VARIABLES			
Mean low sense of job	1.425 (3.722)	1.680 (3.747)	1.372 (3.624)
Age	-0.133 (0.103)	-0.178* (0.103)	-0.203* (0.116)
[Age] <sup>2</sup>	0.00195 (0.00124)	0.00270** (0.00125)	0.00305** (0.00139)
Female	-0.103 (0.191)	-0.0861 (0.212)	-0.0997 (0.225)
Income decile 2	0.233 (0.376)	0.288 (0.368)	0.490 (0.364)
Income decile 3	1.235*** (0.402)	1.216*** (0.422)	1.170*** (0.376)
Income decile 4	-0.0259 (0.258)	0.0316 (0.297)	0.161 (0.309)
Income decile 5	0.0855 (0.453)	0.0759 (0.464)	0.146 (0.502)
Income decile 6	1.944* (1.047)	2.428** (1.186)	2.346* (1.228)
2.c_istruzione	0.476 (0.373)	0.415 (0.299)	0.485* (0.257)
3.c_istruzione	1.456 (1.122)	1.513 (1.070)	1.468 (1.022)
Basilicata	-0.117 (0.218)	-0.0776 (0.233)	-0.381* (0.227)
Calabria	-0.739*** (0.176)	-0.640*** (0.178)	-0.837*** (0.183)
Campania	0.215 (0.265)	0.308 (0.287)	0.189 (0.299)
Emilia-Romagna	0.215 (0.277)	0.188 (0.261)	-0.0247 (0.236)
Friuli-Venezia-Giulia	0.392*** (0.0837)	0.392*** (0.0848)	0.188* (0.105)
Lazio	1.972*** (0.101)	2.138*** (0.141)	2.070*** (0.205)
Liguria	0.712*** (0.0582)	0.719*** (0.0766)	0.466*** (0.0952)
Lombardia	1.138*** (0.242)	1.189*** (0.192)	0.950*** (0.249)
Marche	-	-	-
Molise	1.553*** (0.124)	1.616*** (0.120)	1.380*** (0.119)
Piemonte	0.535*** (0.177)	0.503*** (0.190)	0.161 (0.219)

Puglia	0.275*** (0.0512)	0.207*** (0.0574)	0.0415 (0.0859)
Sardegna	0.114 (0.215)	0.174 (0.230)	-0.165 (0.252)
Sicilia	0.384*** (0.0901)	0.484*** (0.0983)	0.212* (0.126)
Toscana	-0.123* (0.0641)	0.000772 (0.0908)	-0.344*** (0.118)
Trentino-Alto-Adige	1.432*** (0.214)	1.435*** (0.230)	1.304*** (0.208)
Umbria	-0.268* (0.146)	-0.272* (0.155)	-0.625*** (0.156)
Valle d'Aosta	0.289** (0.130)	0.333** (0.151)	0.0523 (0.181)
5o.studia_lavora	-	-	-
Stable relationship	0.227*** (0.0854)	0.226*** (0.0812)	0.228** (0.0917)
o.cardiopatia_ischemica		-	-
iperten1one		-1.242*** (0.417)	-0.338 (0.583)
malattiep1omonari		-1.838 (1.268)	-1.212 (1.338)
o.cancro		-	-
artrite		-1.149* (0.696)	-1.013 (0.637)
asma		-0.990** (0.467)	-0.794* (0.475)
o.alzheimerdemenza		-	-
o.fibro1cistica		-	-
diabete		-0.721 (0.777)	-0.563 (0.660)
osteopor1		-1.671* (0.969)	-1.462 (0.933)
Secondary education			-0.922 (0.723)
Tertiary education			-
4.c_self_assessed_health			1.250*** (0.285)
Constant	2.110 (1.892)	2.651 (1.938)	2.785 (2.103)
Observations	1,333	1,325	1,310

Dependent variable: (0/1) dummy taking value one when life satisfaction is higher than 6 and zero otherwise.  
Mean low sense of job: average region/education value of the share of "work-for-wage" group. Omitted benchmark:

primary education, lowest income decile, female, poor self-assessed-health. Robust standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 7 Sense of work and subjective wellbeing - Generalized structural equation model (GSEM)**

VARIABLES	(1) Dep. Var. Low sense of job	(2) Dep. Var. Very happy
Mean low sense of job	7.144*** (1.428)	
Low sense of job		-2.160*** (0.146)
Age	0.413*** (0.0363)	-0.0643 (0.0403)
[Age] <sup>2</sup>	-0.00462*** (0.000441)	0.00125** (0.000504)
Female	-0.226** (0.110)	0.148 (0.123)
Income decile 2	-1.955*** (0.334)	-2.615*** (0.474)
Income decile 3	-2.588*** (0.328)	-1.857*** (0.491)
Income decile 4	-2.094*** (0.319)	-2.491*** (0.469)
Income decile 5	-1.206*** (0.312)	-2.468*** (0.461)
Income decile 6	-2.183*** (0.381)	-2.115*** (0.549)
Income decile 7	-18.98 (1,819)	13.15 (1,879)
Income decile 8	-18.58 (2,379)	13.20 (1,819)
Income decile 9	-19.04 (0)	14.03 (0)
Income decile 10	-19.01 (0)	13.56 (0)
Income no answer	-1.725*** (0.296)	-2.783*** (0.442)
Secondary education	-0.732*** (0.223)	0.526*** (0.183)
Tertiary education	-0.679 (0.492)	0.635*** (0.235)
Basilicata	-0.0669 (0.508)	0.272 (0.565)

Calabria	0.108 (0.333)	0.255 (0.360)
Campania	0.0538 (0.319)	-0.0678 (0.332)
Emilia-Romagna	-0.0936 (0.345)	0.356 (0.372)
Friuli-Venezia-Giulia	0.194 (0.407)	0.111 (0.417)
Lazio	-0.0497 (0.331)	0.460 (0.377)
Liguria	-0.217 (0.374)	0.728* (0.432)
Lombardia	-0.0177 (0.309)	0.337 (0.343)
Marche	0.258 (0.460)	-0.102 (0.487)
Molise	-0.363 (0.883)	1.563 (1.121)
Piemonte	-0.0414 (0.332)	0.680* (0.381)
Puglia	0.0312 (0.347)	-0.182 (0.355)
Sardegna	0.411 (0.364)	0.276 (0.396)
Sicilia	0.0440 (0.349)	0.00426 (0.361)
Toscana	0.111 (0.324)	0.00642 (0.349)
Trentino-Alto-Adige	-0.155 (0.379)	0.0396 (0.393)
Umbria	-0.280 (0.528)	0.744 (0.589)
Valle d'Aosta	0.133 (0.463)	-0.191 (0.515)
Veneto	0.213 (0.322)	-0.154 (0.338)
Stable relationship	-0.239*** (0.0502)	0.283*** (0.0523)
Heart diseases	-0.239 (0.711)	-0.635 (0.733)
Hypertension	0.552** (0.242)	-0.656** (0.262)
Lung Diseases	0.0234 (0.871)	-0.0888 (0.914)
Cancer	-1.936** (0.950)	0.815 (1.267)
Arthritis	-0.247 (0.344)	-1.075*** (0.375)
Asthma	-0.196 (0.399)	-0.695* (0.381)
Alzheimer/Dementia	1.298	20.88

	(3.498)	(0)
Fibrocistis	-0.930	-0.0545
	(1.599)	(1.577)
Diabetes	0.959**	-0.810*
	(0.408)	(0.427)
Osteoporosis	0.655	-0.355
	(0.429)	(0.436)
Self-Assessed-Health (fair)	0.278	-0.480*
	(0.251)	(0.266)
Self-Assessed-Health (good)	-0.937*	-1.027***
	(0.560)	(0.343)
Self-Assessed-Health (very good)	-0.948***	1.490***
	(0.114)	(0.141)
Self-Assessed-Health (excellent)	18.66	-18.92
	(4,328)	(0)
Constant	-7.659***	3.259***
	(0.963)	(0.865)
Observations	2,716	2,716

Dependent variable: (0/1) dummy taking value one when life satisfaction is higher than 6 and zero otherwise. Low sense of job: (0/1) dummy for workers belonging to the “work-for-wage” group. Mean low sense of job: average region/education value of the share of “work-for-wage” group. Omitted benchmark: primary education, lowest income decile, female, poor self-assessed-health. Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.