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ABSTRACT

The Impact of Job Quality on Wellbeing: Evidence from Kyrgyzstan*

Income and hours worked are insufficient to measure job quality yet these domains dominate literature aimed at understanding its relationship with wellbeing. More so, literature considering job quality in any manner has an overwhelming tendency to look at advanced economies, despite "decent work" being a key policy aim of many agencies and organisations working in emerging countries. This article tests the validity of the concept of job quality as a determinant of welfare in the developing world by generating four six-component indices of job quality using bespoke and unique data collected in Kyrgyzstan. Cross-sectional analysis of the performance of these indices against ones comprising only income and hours worked show no relationship between job quality and wellbeing in the latter case but a strong and positive relationship in the former. Jointly, this shows both the importance of more suitably measuring job quality in all contexts and the importance of policy aims that aim to stimulate better, as well as more, jobs in the developing world.

JEL Classification:
I31, J01, J81, O17

Keywords:
job quality, decent jobs, multidimensional indices, weighting, subjective wellbeing, development economics, labour economics, Kyrgyzstan

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1 Introduction

The typical model of labour market supply defines utility as a trade-off between consumption and leisure time, such that $U_i = f(C_i, L_i)$. The impact of work on wellbeing in these models, therefore, boils down to income (which drives consumption) and leisure time (which is enjoyable but comes at the price of foregone consumption). Recent work (A. Clark 2010; A. E. Clark 2005; Davoine and Erhel 2006) argues that these two domains, alone, are insufficient to measure job quality. It follows, therefore, that they are also insufficient to measure the relationship between work and wellbeing. Despite this observation, scholarship has tended to focus on measuring job quality (Boccuzzo and Gianecchini 2015; Dahl et al. 2009; Leschke et al. 2008; Muñoz de Bustillo et al. 2011; Schokkaert et al. 2009) instead of on its implications for welfare. This knowledge gap is particularly stark in developing and transition countries, which are rarely studied in any type of job quality analysis and are entirely missing from those using broader definitions of the concept (Goos and Manning 2007; Houseman 1995; Yogo 2011). As well as implying an important academic knowledge gap, the creation of "decent jobs" (as well as "more jobs") is a key aim of multiple development agencies and international organisations (Ritter and Anker 2002; World Bank 2012) suggesting a subsequent policy gap.

In this article, we test the relevance of the concept in developing countries by developing a series of differently weighted indices of job quality from bespoke and unique data collected in Kyrgyzstan. Subsequently, we test the performance of these indices against sub-indices comprised of hours worked and income. Using cross-sectional OLS and ordered probits we show no significant relationship between the sub-indices and self-reported wellbeing. For the full indices we find a positive and significant relationship such that higher job quality is associated with greater subjective wellbeing.

These results are of general interest as they show the limitations that can arise when analyses of job quality are based only on simple indicators of income and hours worked. These findings are relevant to studies focussing on the developed, as well as the developing world lending support to the notion that suitable definition and measurement of job quality is required. They also make an important contribution to the development and transition economics literatures as they show that job quality is just as important a component of welfare in these economies as in advanced ones. Finally, we also make a major contribution to the so-called "happiness literature), which hitherto as failed to measure the impact of job quality through anything other than single domains (Cummins 2000; Ed Diener and Biswas-Diener 2002; Edward Diener and Oishi 2000; Ferrer-i-Carbonell 2005; McBride 2001; Meier and Stutzer 2006; Schoon et al. 2005; Wooden et al. 2009).

The rest of this article is structured as follows: in Section 2, we discuss our data and methods; in Section 3 our results; and in Section 4, our conclusions.

2 Data and Methods

All data used in this study comes from the fourth wave of the Life in Kyrgyzstan Study (LiK) (Brück et al. 2014), which includes a significantly enhanced jobs module, which was

inserted, in part, at the request of the authors.[1] From the survey we generate a sample of n = 2,469 individuals who are engaged in work for monetary remuneration, either as wageworkers or self-employed. We show summary statistics for these individuals in Table 1, splitting by wager workers and the self-employed. In our sample, wageworkers are younger than the self-employed, are more likely to be women (although the workforce as a whole is mostly men) and are more likely to be of Kyrgyz ethnicity. Wageworkers are more likely to live in urban areas and display a higher level of risk aversion (Cramer et al. 2002; Ekelund et al. 2005). Finally, wageworkers exhibit higher job satisfaction but lower wellbeing.

Table 1: Means of the Working Population, Wageworkers and Non-Wageworkers

	(1)	(2)	(3)	(4)
VARIABLES	Employed	Selfemployed	Wageworkers	Difference
Age	38.15	39.44	37.20	2.24***
Female	0.62	0.72	0.54	0.18***
Kyrgyz	0.73	0.76	0.70	0.06***
Urban	0.40	0.24	0.52	-0.28***
Risk	5.19	5.50	4.96	0.54***
Wellbeing	7.07	7.20	6.97	0.23***
Job satisfaction	6.95	6.71	7.11	0.40***

Note: *** p<0.01, ** p<0.05, * p<0.1

For each individual, we generate four indices of job quality that build on Clarke (2005, 2010). In addition to the five domains suggested by Clarke (income; hours worked; job security; interestingness of work; and autonomy) we add job formality in order to account for one of the major contextual differences in the labour markets between developed and developing economies (Yamada 1996). We proxy job formality for wageworkers by presence of a written contract or "workbook"[2] and for the self-employed by whether or not their business is registered. Following the literature (Addison and Grosso 1996; Baum-Snow and Neal 2009; Edmonds and Pavcnik 2005; Farber 1998, 1999; Leete and Schor 1994; Presser 1999), hours worked is derived as standard from time spent working in the previous week and job security from the time a person has held his or her current position. Questions on income, interestingness of work and job autonomy are asked directly in the survey. In addition to these questions, the survey also asks individuals how important each feature is in determining a "good job".[3] Following Decancq and Lugo (2013), we index these six domains as follows:

$$JQ_j = w_1(i_1.Y_j) + w_2(i_2.H_j) + w_3(i_3.S_j) + w_4(i_4.F_j) + w_5(i_5.I_j) + w_6(i_6.A_j) \quad (1)$$

where: w_i is the weight of each domain; i_i is the normalisation identifier; j identifies the individual; and Y, H, S, F, I, and A respectively refer to: income, hours worked, security,

[1] At the time, this expanded job section was only available in a single way of the LiK Study, precluding panel data analysis.

[2] The Kyrgyz workbook stems from the country's time as a Soviet Republic and is a record of employment, holding information on the current employment status and place of employment of an individual, which in effect acts as a written contract.

[3] This question asks: "Thinking about a good job for yourself, how important would … be for that job?", where the ellipses are a list of options covering 17 different (potentially) relevant domains, of which we use the six most directly linked to our indicators. Questions are answered on a Likert scale going from 1 ("not at all important") to 5 ("absolutely essential").

formality, interestingness and autonomy. Thus, a quality of a person's job is a function of the weights and normalisations of our six domains of interest. It follows that any arbitrary change in the weights, or the construction of the weights themselves, could have significant impacts on the measure of job quality and its associated impact on wellbeing. This matches longstanding critiques of the impact of weighting (Boccuzzo and Gianecchini 2015; Schokkaert et al. 2009). We explore this possibility by producing four alternative versions of our index, each using a different weighting mechanism, which we normalise to a hypothetical maximum of one to ensure comparability across the indices.

First, we take the most common and easiest mechanism used in the literature (Decancq and Lugo 2013) and assume that each domain is equally important. As such, the weight of each domain is set equal to that of the others. As we have six domains and normalise to one, each domain is then weighting with the value of 0.167. We denote this Index 1. For Indices 2, 3 and 4, we make sue of the questions asking how important different features of a job are in determining whether or not it is "good". In Index 2, we generate the weights based on the relative proportion of people who indicated that a given indicator was "somewhat important" (4 on the Likert scale) or "absolutely essential" by garnering the percentage of respondents who answer "4" or "5" and normalising these percentages to 1. Thus, the relatively greater the number of individuals who think a domain is important, the heavier the weighting it is given. Index 3 works on a similar principle but aims to be slightly more nuanced by accounting for the full distribution of responses. Thus, we sum preference over all responses before normalising as before.

Noting that Indices 1-3 impose preference dominance[4] we develop a fourth that makes use of variation in perceptions about which features are important for a good job at the individual level to generate a "subjectively weighted index". This approach allows two individuals with the same observable job attributes to have a different level of job quality due to the configuration of his or her perceptions on what constitutes a good job. Normalising these heterogeneous weights, however, is more complicated as it is not logically consistent for every individual's weights to sum to 1.[5] We therefore define a hypothetical maximum of 1 that all weights could add up to, with each domain having a potential weight of 0.167. As perceptions are garnered on a Likert scale of 1-5, each marginal decrease in the reported importance of a domain corresponds with a reduction in this potential weight of 0.033.[6]

We normalise each of our six indicators onto the interval $i \in [-1, 1]$, as they are otherwise incomparable in scale and units. We choose the interval $i \in [-1, 1]$ as it is the only style of interval that remains logically consistent with the weighting mechanism of Index 4. Index 4 requires that an individual who believes that income is an essential component of a good job but who has an incredibly low income is worse off than an individual with the same income

[4] Preference dominance occurs when weights are equal for all individuals in a society, thus implying that the preferences of some (hypothetical) individual whose real preferences match these weights dominates the preferences of everyone in society who does not share those preferences.

[5] *Ceteris paribus*, this implies that someone who thinks all six domains are "not at all important" would have the same job quality as someone who thinks all six domains are "absolutely essential".

[6] Another approach used in the literature is to regress each domain of interest on self-reported job satisfaction and to generate weights based on the relative explanatory power of each (Kalleberg et al. 2000). We generate this fifth index, the results from which do not deviate from those presented in this article. As none of our domains of interest is a statistically significant determinant of job satisfaction in these regressions, however, concerns arise about the usefulness and accuracy of the approach. As such, we do not to present this approach. Results are available from the authors.

but who does not think income is important at all. At the other end of this scale an individual with a very high income and who thinks income is essential should be better off than one with a high income who thinks it is unimportant. Although the latter of these restrictions holds in other identification methods, such as on an interval $i \in [0, 1]$, it does not for the bottom end. We discuss how we implement this normalisation for each domain below:

Identifying Income:

Our distribution of income runs from 0 to 80,000 Soms/month, with a mean of 8,669 Soms/month. While we can safely assume, *ceteris paribus*, that higher income should be 'better', it is unclear whether or not an individual an income twice the mean is doubly better off as one with a mean income. To avoid strong statements on marginal effects, we take deciles of income from the distribution and map them, at even spaces, onto the interval with the top income decile having a value of 1 and the lowest a value of -1.

Identifying Hours Worked:

Underemployment is likely as indicative of a "bad job" than overwork. Thus, we look at the deviation of hours worked from some optimal, which we take to be the monthly mean of hours worked across the sample.[7] Thus, an individual who works the monthly mean number of hours takes an outcome of 1. All individuals who work two standard deviations more or less than this mean take a value of -1. The remainder are distributed across the interval, based on their exact hours worked.

Identifying Job Security:

As with income, whilst we assume that a longer tenure is associated with higher job quality but wish to avoid making strong statements at the margin. Accordingly, we split the duration of employment into deciles, with each decile spaced evenly across the interval.

Identifying Job Formality:

Both questions that constitute our indicator of job formality are binary variables, taking the value of 1 if a person's position is formal and 0 if not. We simply transpose these outcomes onto the extremes of the interval, taking a value of -1 if a job is informal and 1 if it is formal.

Identifying Interestingness of a Job

Interestingness of a job is reported directly on a Likert scale going from 1 ("uninteresting") to 3 ("very interesting"), which we space at equal intervals across the interval.[8]

[7] To account for potential seasonality, particularly for agricultural workers, we use the mean from the month in which the data was collected, rather than across the whole sample, as a base.

[8] This implies that an individual reporting "somewhat interesting" (2 on the Likert scale) has a normalised value of 0, meaning that a person who thinks interestingness is essential and has a somewhat interesting job will have the same weighted value as one who has a somewhat interesting job but who thinks interestingness is unimportant. We argue that, since it is unclear here who should be better off in this scenario that this, although potentially undesirable, is not problematic. This still allows all people with "very interesting" jobs to be better off than those with "somewhat interesting" jobs", who in turn are better off than those with "uninteresting" jobs.

Identifying Job Autonomy

Autonomy is, again, asked directly but is reported on a Likert scale running from 1 ("no autonomy") to 4 ("high autonomy"). These responses are spaced at even intervals across the interval.

In a final stage, to ensure manageability of the coefficients, each index is then transposed onto the interval $JQ_j \in [0, 100]$. Summary statistics and group comparisons are shown in Table 2. Across all indices, wageworkers have significantly better jobs than the self-employed but in general, job quality is in the medium range. We show the distribution of Indices 1 and 4 in Figure 1.[9] We repeat each step using corresponding weighting mechanisms for indices comprised only of hours worked and income.

Table 2: Summary Statistics of Job Quality Indices

	(1)	(2)	(3)	(4)
VARIABLES	Employed	Selfemployed	Wageworkers	Difference
Index 1	55.54	52.41	57.88	-5.47***
Index 2	56.54	53.67	58.67	-5.01***
Index 3	56.24	53.09	58.58	-5.49***
Index 4	48.28	45.82	50.12	-4.30***
Observations	2,585	1,044	1,425	

Note: *** p<0.01, ** p<0.05, * p<0.1

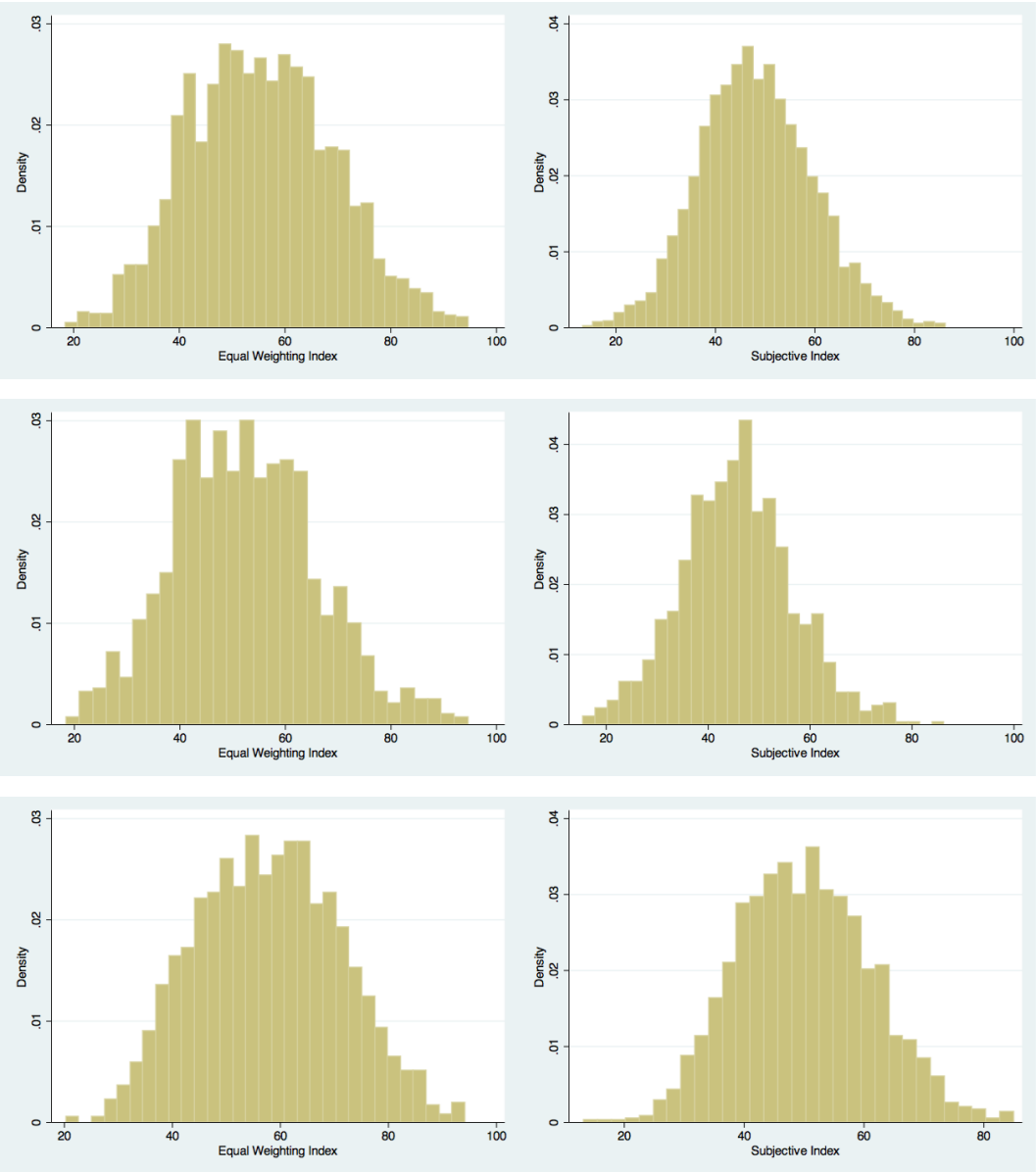
We match each index from self-reported wellbeing, derived from a question that asks, "How satisfied are you with your life, all things considered?" Responses are given on a 11-point Likert scale running from 0 ("completely dissatisfied") to 10 ("completed satisfied"). We show the distribution of this variable in Figure 2. We control for robust determinants of subjective wellbeing (see: Dolan et al., 2008, for a review), including: age, gender and ethnicity; educational background; participation in religious or community groups; health; regional controls; and personality and attitudes to risk and other circumstances. We define all included controls in Table A1.

Previous research shows the suitability of the LiK data for the research of subjective wellbeing (Bertram-Hümmer and Baliki 2015). The use of self-reported wellbeing is not uncontroversial (Andrews and McKennell 1980; Pavot and Diener 1993) as a number of features of an individual's psyche may influence the response. Should these traits also correlate with those that affect labour market performance (Borghans et al. 2008; Brunello and Schlotter 2011; Groves 2005; Heckman et al. 2006) biases may arise in OLS models. To overcome this, we include two sets of personality controls. The first are "attitudinal" indicators, comprising risk profiles and response to circumstances. The second uses data reduction techniques on a 21-question personality test.[10]

[9] Noting that some of these indicators may inherently be "worse" for young people, we generate an age-weighted version of each index. These indices multiply the final index by the inverse of age. Thus, *ceteris paribus*, the younger of two people with the same preferences and job features are better off in this index.

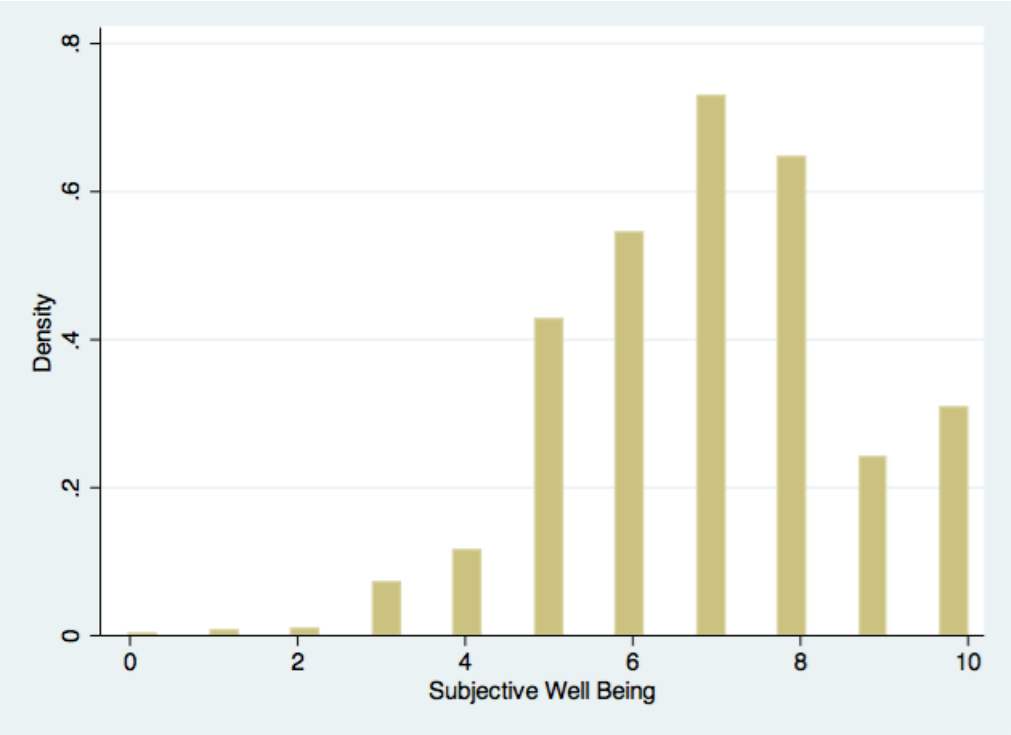
[10] To generate these variables, we conduct a factor analysis on the full set of 21 questions, and focus on the factors that explain most of the variation. In this particular case, we include each factor that

Figure 1: Histograms showing the distribution of Index 1 (left hand side) and Index 4 (right hand side) for all workers (top row), the self-employed (middle row) and wageworkers (bottom row)



explains more than 10% of the variation. In the second step, we include in the regressions the question that is most highly correlated with each of these factors.

Figure 2: Histogram showing the distribution of subjective wellbeing



In combination, these variables overcome typical sources of bias, particularly because subjective wellbeing does not influence job quality directly. In turn, this suggests that OLS and probit modelling are sufficient. We thus estimate:

$$SWB_j = \alpha + \beta_i JQ_{ij} + \gamma X_j + \rho PERS_j + \delta OBLAST_k + u_j \qquad (2)$$

where; SWB_j is subjective wellbeing for individual j; JQ_{ij} is job quality for individual j measured by index i; X_j is an $(h \times 1)$ vector of h control variables; $PERS_j$ is an $(l \times 1)$ vector of l personality controls; $OBLAST_k$ is a regional fixed effect for location k; u_j is an idiosyncratic error term; and β_i, γ, ρ and δ_k are vectors of regression coefficients.

As SWB_j is implicitly ordinal, we repeat the analysis using ordered probits. We thus implement:

$$SWB_j^* = \beta_i JobQuality_{ij} + \gamma_h X_{hj} + \rho_h personality_{hj} + \delta_k oblast_k + u_j \qquad (3)$$

where; SWB_j^* is a latent variable measuring individual j's self-reported welfare; and the other components of Equation (3) are as previously described. For any given individual, it is likely that a high level of job quality will translate into a high level of welfare and that low job quality will translate into low welfare. Therefore, the observed and coded discrete subjective wellbeing, SWB_j^* is determined from the model as follows:

$$SWB_j = \begin{cases} 0 \; if \; -\infty \leq SWB_j^* \leq \mu_1 \; ("completely \; dissatisfied") \\ \vdots \\ m \; if \; \mu_{n+1} \leq SWB_j^* \leq \mu_m \\ \vdots \\ 10 \; if \; \mu_{10} \leq SWB_j^* \leq \infty \; ("completely \; satisfied") \end{cases} \quad (4)$$

3 Results

Results are presented in Tables 3 and 4 for the OLS analyses and in Tables 4 and 6 for the ordered probits. Results from the sub-indices of hours worked and income are shown in Tables 3 and 5 and for the full indices in Tables 4 and 6. Each table comprises four columns, with each corresponding to the weighting mechanisms in Footnote 4. As can be seen in Tables 3-6, the sub-indices are a statistically insignificant correlate of subjective wellbeing, yet all four versions of the full index are a positive and significant determinant. Thus, whilst we show that higher job quality increases subjective wellbeing, sub-indices are insufficient to explain this relationship. This jointly reinforces the need for more sophisticated measures of job quality in all scenarios and the importance of incorporating such measures into welfare analyses. That these findings are derived in a developing and transition scenario, however, is also important as it confirms the need for "decent jobs" as well as employment, more generally, in these countries.

Table 3: OLS analysis of income and hours worked sub-indices on self-reported wellbeing

	(1)	(2)	(3)	(4)
VARIABLES	wh1	wh2	wh3	wh4
wh1	0.00191			
	(0.00146)			
wh2		0.00177		
		(0.00142)		
wh3			0.00177	
			(0.00147)	
wh4				0.00164
				(0.00163)
Demographic	YES	YES	YES	YES
Regional	YES	YES	YES	YES
Health	YES	YES	YES	YES
Participation	YES	YES	YES	YES
Personality	YES	YES	YES	YES
Attitudes	YES	YES	YES	YES
Observations	2,460	2,460	2,460	2,460
R-squared	0.356	0.356	0.456	0.356

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Demographic, Regional, Health, Participation, Personality and Attitudes refer to broad groupings of control variables.

Table 3 shows that a 1% increase in job quality corresponds to an increase of approximately 0.007% in life satisfaction. Although superficially this marginal effect appears to be small, an average individual who moves from the bottom of the first quintile of Index 1 to the top of the second quintile will see his or her life satisfaction increase by about 0.2 points, all other things considered. Given the tight distribution of subjective wellbeing as shown in Figure 2, such an increase is not necessarily insubstantial. Similarly, an individual who reports the

highest possible subjective wellbeing and whose Index 4 value exogenously declines by two standard deviations can expect a reduction in life satisfaction of three quarters of a point.

Table 4: OLS analysis of full job quality indices on self-reported wellbeing

VARIABLES	(1) index1	(2) Index2	(3) index3	(4) index4
index1	0.00768*** (0.00246)			
index2		0.00744*** (0.00252)		
index3			0.00683*** (0.00256)	
index4				0.00760*** (0.00294)
Demographic	YES	YES	YES	YES
Regional	YES	YES	YES	YES
Health	YES	YES	YES	YES
Participation	YES	YES	YES	YES
Personality	YES	YES	YES	YES
Attitudes	YES	YES	YES	YES
Observations	2,460	2,460	2,460	2,460
R-squared	0.358	0.358	0.358	0.358

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Demographic, Regional, Health, Participation, Personality and Attitudes refer to broad groupings of control variables.

Full results from these analyses can be seen in Tables A2-A5. In all regressions, we robustly find age is negative correlated with subjective wellbeing in Kyrgyzstan but that age squared is positive, implying that whilst older people in Kyrgyzstan have poorer subjective wellbeing than younger people that this effect get smaller. Those with higher education, alternatively, are also those with higher wellbeing, whilst we find that wageworkers display lower subjective wellbeing than the self-employed. We find that personality features are correlated with subjective wellbeing. Particularly the variable "personality1", which measures individuals' self-reported ingenuity. Those with low risk aversion exhibit higher wellbeing as do those who report that they adapt well to changing circumstances. Finally, we find significant evidence that wellbeing is linked to the oblast in which an individual is resident.

Results are robust across all four weighting regimes and both econometric specifications. In addition, they are also robust to the inclusion or exclusion of groups of control variables and to the alternate indices that allow job quality to vary by age.

Table 5: Ordered probit analysis of income and hours worked sub-indices on self-reported wellbeing

VARIABLES	(1) wh1	(2) wh2	(3) wh3	(4) wh4
wh1	0.00142 (0.00108)			
wh1		0.00132 (0.00105)		
wh3			0.00133 (0.00108)	

wh4				0.00125
				(0.00120)
Demographic	YES	YES	YES	YES
Regional	YES	YES	YES	YES
Health	YES	YES	YES	YES
Participation	YES	YES	YES	YES
Personality	YES	YES	YES	YES
Attitudes	YES	YES	YES	YES
Observations	2,460	2,460	2,460	2,460

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Demographic, Regional, Health, Participation, Personality and Attitudes refer to broad groupings of control variables.

Table 6: Ordered probit analysis of full job quality indices on self-reported wellbeing

	(1)	(2)	(3)	(4)
VARIABLES	index1	index2	index3	index4
index1	0.00584***			
	(0.00182)			
index2		0.00565***		
		(0.00187)		
index3			0.00521***	
			(0.00190)	
index4				0.00575***
				(0.00218)
Demographic	YES	YES	YES	YES
Regional	YES	YES	YES	YES
Health	YES	YES	YES	YES
Participation	YES	YES	YES	YES
Personality	YES	YES	YES	YES
Attitudes	YES	YES	YES	YES
Observations	2,460	2,460	2,460	2,460

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Demographic, Regional, Health, Participation, Personality and Attitudes refer to broad groupings of control variables.

4 Conclusion

Despite a long line of literature focussing on how to measure job quality, little has been studied about the impacts of these wider measures on wellbeing. Although the absence of such research questions is general to the literature, the problem is particularly stark in the developing world. Consequently, general questions remain. These include whether or not sub-indices of job quality are sufficient to measure the relationship between work and wellbeing; whether or not the idea of job quality is relevant in the developing world at all; and whether or not current measurement methodologies apply there. In this article, we overcome these issues by setting our analysis in Kyrgyzstan, a post-Soviet lower middle income country, and by developing two competing indices of job quality: a broad index and one based only on hours worked and income.

We show that hours worked and income, alone, is insufficient to derive a relationship between job quality and welfare but that the full indices exhibit a positive and significant

relationship. These results provide important information on measuring job quality in labour markets generally and for those in the developing world specifically, implying further need to develop broader job quality measures in all contexts. We also show that job quality is just as important in developing contexts as they are in advanced economies, adding credence to interventions focussed on “decent jobs”. As such outcomes are dependent on the mechanism used to define job quality, however, the potential impact of poorly defined or conceptualised measures of job quality should not be underestimated.

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Appendix:

Table A1: Description of Control Variables

Control	Variable Name	Description
age	age*	Respondent's age reported in the survey.
	age2*	Respondent's age squared.
female	female*	Respondent's gender is female.
kyrgyz	kyrgyz*	Respondent's ethnicity is Kyrgyz
urban	urban*	Variable accounting for whether an individual lives in an urban or rural area.
education	education*	Ordinal variable listing individual's highest level of educational attainment.
illness	illness1*	Variables indicating whether or not an individual as suffered a serious illness in the year before the survey was taken. "illness1" counts the number of illnesses an individual experienced and "illness2" a binary variable taking the value of one if one or more serious illnesses were suffered.
	illness2*	
health condition	condition1*	Variables indicating whether or not an individual is suffering from a chronic health condition. As above, condition1 is a count variable of the number of conditions and condition2 a binary variable.
	condition2*	
community	community1*	Variables indicating individual's involvement in community groups. community1 is a binary variable of involvement and community2 a count variable of the number of groups in which an individual participates.
	community2	
religion	religion*	Binary variable indicating whether or not an individual belongs to a religious group.
personality	personality1*	Set of variables based on a factor analysis of a 21-question personality test. All factors that explained at least 10% of the variation in personality are included and the individual response that is most highly (positively) correlated with the factor included. Only the first four factors satisfied this criterion. The individual variables correlated with these factors reflect, respectively: ingenuity; sociability; depressedness; and nervousness.
	personality2*	
	personality3*	
	personality4*	
attitudes	risk*	Set of indicators based directly on questions asked in the survey, with individuals reporting their attitudes on Likert scales. As trust is highly collinear with subjective wellbeing, we exclude it from our final analyses. Risk reflects risk averseness and circumstances how adaptable individuals believe they are to a chance in circumstances.
	circumstances*	
	trust	

Table A2: Full results from OLS analysis of hours worked and wage sub-indices

VARIABLES	(1) wh1	(2) wh2	(3) wh3	(4) wh4
wh	0.00191	0.00177	0.00177	0.00164
	(0.00146)	(0.00142)	(0.00147)	(0.00163)
age	-0.0414**	-0.0414**	-0.0414**	-0.0413**
	(0.0189)	(0.0189)	(0.0189)	(0.0189)
age2	0.0440*	0.0441*	0.0441*	0.0439*
	(0.0239)	(0.0239)	(0.0239)	(0.0239)
female	-0.0491	-0.0488	-0.0486	-0.0459
	(0.0645)	(0.0645)	(0.0646)	(0.0645)
kyrgyz	0.0559	0.0557	0.0555	0.0550
	(0.0692)	(0.0692)	(0.0692)	(0.0692)
urban	-0.0759	-0.0758	-0.0757	-0.0736
	(0.0887)	(0.0887)	(0.0888)	(0.0887)
education	0.0525**	0.0527**	0.0528**	0.0533**
	(0.0237)	(0.0237)	(0.0237)	(0.0238)
employer	0.0148	0.0155	0.0159	0.0216
	(0.296)	(0.296)	(0.296)	(0.296)
wageworker	-0.157**	-0.156**	-0.156**	-0.157**
	(0.0700)	(0.0700)	(0.0700)	(0.0700)
family	0.0436	0.0429	0.0425	0.0378
	(0.118)	(0.118)	(0.118)	(0.118)
illness2	-0.0240	-0.0239	-0.0238	-0.0234
	(0.0648)	(0.0648)	(0.0648)	(0.0648)
condition2	-0.121	-0.121	-0.121	-0.122
	(0.0802)	(0.0802)	(0.0802)	(0.0802)
community1	0.0594	0.0596	0.0598	0.0598
	(0.0575)	(0.0575)	(0.0575)	(0.0575)
religion	-0.262	-0.263	-0.263	-0.265
	(0.256)	(0.256)	(0.256)	(0.256)
personality1	0.0994***	0.0995***	0.0996***	0.100***
	(0.0312)	(0.0312)	(0.0312)	(0.0312)
personality2	-0.0370*	-0.0370*	-0.0370*	-0.0369*
	(0.0220)	(0.0220)	(0.0220)	(0.0220)
personality3	-0.0472*	-0.0471*	-0.0470*	-0.0468
	(0.0285)	(0.0285)	(0.0285)	(0.0285)
personality4	0.0308	0.0309	0.0310	0.0312
	(0.0286)	(0.0286)	(0.0286)	(0.0286)
risk	0.0632***	0.0632***	0.0633***	0.0635***
	(0.0112)	(0.0112)	(0.0112)	(0.0112)
circumstances	0.489***	0.489***	0.489***	0.490***
	(0.0177)	(0.0177)	(0.0177)	(0.0177)
oblast1	0.823***	0.824***	0.824***	0.823***
	(0.171)	(0.171)	(0.171)	(0.171)
oblast2	0.397**	0.397**	0.397**	0.396**
	(0.180)	(0.180)	(0.180)	(0.180)
oblast3	-0.418**	-0.417**	-0.417**	-0.414**
	(0.200)	(0.200)	(0.200)	(0.200)
oblast4	1.119***	1.120***	1.121***	1.122***
	(0.177)	(0.177)	(0.177)	(0.177)
oblast5	0.299*	0.300*	0.300*	0.302*
	(0.180)	(0.180)	(0.180)	(0.180)
oblast6	0.861***	0.863***	0.863***	0.866***
	(0.191)	(0.191)	(0.191)	(0.191)
oblast7	0.709***	0.710***	0.711***	0.714***

	(0.169)	(0.169)	(0.169)	(0.169)
oblast8	0.447***	0.449***	0.449***	0.452***
	(0.153)	(0.153)	(0.153)	(0.153)
Constant	3.540***	3.545***	3.544***	3.538***
	(0.447)	(0.447)	(0.447)	(0.447)
Observations	2,460	2,460	2,460	2,460
R-squared	0.356	0.356	0.356	0.356

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A3: Full results from OLS analysis of full indices

VARIABLES	(1) index1	(2) index2	(3) index3	(4) index4
index	0.00768***	0.00744***	0.00683***	0.00760***
	(0.00246)	(0.00252)	(0.00256)	(0.00294)
age	-0.0443**	-0.0447**	-0.0431**	-0.0438**
	(0.0189)	(0.0189)	(0.0189)	(0.0189)
age2	0.0460*	0.0464*	0.0449*	0.0456*
	(0.0239)	(0.0239)	(0.0239)	(0.0239)
female	-0.0424	-0.0457	-0.0435	-0.0432
	(0.0635)	(0.0636)	(0.0636)	(0.0636)
kyrgyz	0.0563	0.0563	0.0557	0.0574
	(0.0691)	(0.0691)	(0.0691)	(0.0691)
urban	-0.0797	-0.0793	-0.0804	-0.0759
	(0.0884)	(0.0884)	(0.0885)	(0.0884)
education	0.0348	0.0365	0.0382	0.0391
	(0.0245)	(0.0245)	(0.0245)	(0.0245)
employer	-0.0252	-0.0216	-0.0198	-0.00986
	(0.295)	(0.295)	(0.296)	(0.295)
wageworker	-0.166**	-0.163**	-0.164**	-0.163**
	(0.0699)	(0.0699)	(0.0699)	(0.0699)
family	0.0765	0.0756	0.0717	0.0651
	(0.118)	(0.118)	(0.118)	(0.118)
illness2	-0.0234	-0.0228	-0.0241	-0.0228
	(0.0647)	(0.0647)	(0.0647)	(0.0648)
condition2	-0.119	-0.119	-0.120	-0.121
	(0.0801)	(0.0801)	(0.0801)	(0.0801)
community1	0.0410	0.0431	0.0443	0.0457
	(0.0577)	(0.0577)	(0.0578)	(0.0577)
religion	-0.256	-0.257	-0.257	-0.261
	(0.256)	(0.256)	(0.256)	(0.256)
personality1	0.0970***	0.0969***	0.0978***	0.0990***
	(0.0311)	(0.0311)	(0.0311)	(0.0311)
personality2	-0.0370*	-0.0370*	-0.0370*	-0.0370*
	(0.0220)	(0.0220)	(0.0220)	(0.0220)
personality3	-0.0499*	-0.0495*	-0.0497*	-0.0494*
	(0.0285)	(0.0285)	(0.0285)	(0.0285)
personality4	0.0285	0.0284	0.0293	0.0290
	(0.0285)	(0.0285)	(0.0285)	(0.0285)
risk	0.0631***	0.0630***	0.0631***	0.0631***
	(0.0112)	(0.0112)	(0.0112)	(0.0112)
circumstances	0.486***	0.486***	0.487***	0.487***
	(0.0176)	(0.0177)	(0.0177)	(0.0176)
oblast1	0.824***	0.827***	0.827***	0.836***
	(0.171)	(0.171)	(0.171)	(0.171)
oblast2	0.363**	0.367**	0.371**	0.377**
	(0.180)	(0.180)	(0.180)	(0.180)
oblast3	-0.424**	-0.424**	-0.425**	-0.422**
	(0.200)	(0.200)	(0.200)	(0.200)
oblast4	1.108***	1.112***	1.114***	1.122***
	(0.177)	(0.177)	(0.177)	(0.177)
oblast5	0.290	0.294	0.291	0.305*
	(0.180)	(0.180)	(0.180)	(0.180)
oblast6	0.819***	0.823***	0.832***	0.845***

	(0.191)	(0.191)	(0.191)	(0.191)
oblast7	0.706***	0.708***	0.708***	0.719***
	(0.169)	(0.169)	(0.169)	(0.169)
oblast8	0.427***	0.429***	0.434***	0.441***
	(0.153)	(0.153)	(0.153)	(0.153)
Constant	3.441***	3.440***	3.427***	3.433***
	(0.447)	(0.448)	(0.449)	(0.449)
Observations	2,460	2,460	2,460	2,460
R-squared	0.358	0.358	0.358	0.358

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A4: Full results from ordered probit analysis of wage and hours-worked sub-indices

VARIABLES	(1) wh1	(2) wh2	(3) wh3	(4) wh4
wh	0.00142	0.00132	0.00133	0.00125
	(0.00108)	(0.00105)	(0.00108)	(0.00120)
age	-0.0303**	-0.0304**	-0.0304**	-0.0303**
	(0.0140)	(0.0140)	(0.0140)	(0.0140)
age2	0.0323*	0.0324*	0.0324*	0.0323*
	(0.0177)	(0.0177)	(0.0177)	(0.0177)
female	-0.0376	-0.0374	-0.0373	-0.0354
	(0.0476)	(0.0476)	(0.0476)	(0.0476)
kyrgyz	0.0441	0.0439	0.0438	0.0434
	(0.0510)	(0.0510)	(0.0510)	(0.0510)
urban	-0.0650	-0.0649	-0.0648	-0.0633
	(0.0656)	(0.0656)	(0.0656)	(0.0656)
education	0.0394**	0.0395**	0.0396**	0.0400**
	(0.0175)	(0.0175)	(0.0175)	(0.0175)
employer	0.0353	0.0358	0.0361	0.0403
	(0.222)	(0.222)	(0.222)	(0.222)
wageworker	-0.113**	-0.113**	-0.113**	-0.114**
	(0.0516)	(0.0516)	(0.0516)	(0.0516)
family	0.0223	0.0218	0.0215	0.0183
	(0.0874)	(0.0874)	(0.0874)	(0.0874)
illness2	-0.0277	-0.0276	-0.0276	-0.0272
	(0.0479)	(0.0479)	(0.0479)	(0.0479)
condition2	-0.0854	-0.0855	-0.0855	-0.0864
	(0.0591)	(0.0591)	(0.0591)	(0.0591)
community1	0.0433	0.0435	0.0436	0.0435
	(0.0426)	(0.0426)	(0.0426)	(0.0426)
religion	-0.180	-0.180	-0.180	-0.182
	(0.190)	(0.190)	(0.190)	(0.190)
personality1	0.0764***	0.0765***	0.0765***	0.0768***
	(0.0230)	(0.0230)	(0.0230)	(0.0230)
personality2	-0.0292*	-0.0292*	-0.0292*	-0.0292*
	(0.0163)	(0.0163)	(0.0163)	(0.0163)
personality3	-0.0332	-0.0331	-0.0331	-0.0330
	(0.0210)	(0.0210)	(0.0210)	(0.0210)
personality4	0.0248	0.0249	0.0250	0.0251
	(0.0211)	(0.0211)	(0.0211)	(0.0211)
risk	0.0484***	0.0484***	0.0484***	0.0485***
	(0.00840)	(0.00840)	(0.00840)	(0.00840)
circumstances	0.361***	0.361***	0.361***	0.361***
	(0.0141)	(0.0141)	(0.0141)	(0.0141)
oblast1	0.606***	0.606***	0.607***	0.606***
	(0.126)	(0.126)	(0.126)	(0.126)
oblast2	0.292**	0.292**	0.292**	0.291**
	(0.132)	(0.132)	(0.132)	(0.132)
oblast3	-0.308**	-0.307**	-0.307**	-0.305**
	(0.147)	(0.147)	(0.147)	(0.147)
oblast4	0.875***	0.876***	0.876***	0.877***
	(0.131)	(0.131)	(0.131)	(0.131)
oblast5	0.205	0.205	0.206	0.207
	(0.132)	(0.132)	(0.132)	(0.132)
oblast6	0.622***	0.623***	0.623***	0.625***

	(0.140)	(0.140)	(0.140)	(0.140)
oblast7	0.519***	0.520***	0.520***	0.523***
	(0.124)	(0.124)	(0.124)	(0.124)
oblast8	0.343***	0.344***	0.345***	0.346***
	(0.112)	(0.112)	(0.112)	(0.112)
Constant cut1	-1.626***	-1.629***	-1.628***	-1.624***
	(0.461)	(0.461)	(0.461)	(0.461)
Constant cut2	-0.906**	-0.910**	-0.909**	-0.905**
	(0.356)	(0.356)	(0.356)	(0.356)
Constant cut3	-0.674*	-0.678**	-0.677**	-0.673*
	(0.345)	(0.345)	(0.345)	(0.346)
Constant cut4	0.102	0.0975	0.0984	0.103
	(0.332)	(0.332)	(0.332)	(0.333)
Constant cut5	0.675**	0.671**	0.672**	0.676**
	(0.331)	(0.331)	(0.331)	(0.331)
Constant cut6	1.518***	1.513***	1.514***	1.518***
	(0.331)	(0.331)	(0.331)	(0.331)
Constant cut7	2.210***	2.206***	2.206***	2.210***
	(0.332)	(0.331)	(0.331)	(0.332)
Constant cut8	2.932***	2.928***	2.929***	2.933***
	(0.333)	(0.333)	(0.333)	(0.333)
Constant cut9	3.692***	3.688***	3.689***	3.693***
	(0.334)	(0.334)	(0.334)	(0.334)
Constant cut10	4.185***	4.181***	4.182***	4.186***
	(0.336)	(0.336)	(0.336)	(0.336)
Observations	2,460	2,460	2,460	2,460

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A5: Full results from ordered probit analyses of full indices

VARIABLES	(1) index1	(2) index2	(3) index3	(4) index4
index	0.00584***	0.00565***	0.00521***	0.00575***
	(0.00182)	(0.00187)	(0.00190)	(0.00218)
age	-0.0326**	-0.0329**	-0.0317**	-0.0322**
	(0.0140)	(0.0140)	(0.0140)	(0.0140)
age2	0.0339*	0.0342*	0.0331*	0.0336*
	(0.0177)	(0.0177)	(0.0177)	(0.0177)
female	-0.0324	-0.0350	-0.0333	-0.0329
	(0.0469)	(0.0470)	(0.0469)	(0.0469)
kyrgyz	0.0443	0.0443	0.0438	0.0451
	(0.0510)	(0.0510)	(0.0510)	(0.0510)
urban	-0.0682	-0.0679	-0.0687	-0.0651
	(0.0655)	(0.0655)	(0.0655)	(0.0655)
education	0.0260	0.0273	0.0285	0.0293
	(0.0181)	(0.0181)	(0.0181)	(0.0181)
employer	0.00545	0.00803	0.00947	0.0172
	(0.223)	(0.223)	(0.223)	(0.223)
wageworker	-0.120**	-0.118**	-0.119**	-0.117**
	(0.0517)	(0.0516)	(0.0517)	(0.0516)
family	0.0476	0.0469	0.0441	0.0391
	(0.0872)	(0.0873)	(0.0874)	(0.0872)
illness2	-0.0269	-0.0265	-0.0275	-0.0264
	(0.0479)	(0.0479)	(0.0479)	(0.0479)
condition2	-0.0841	-0.0841	-0.0846	-0.0854
	(0.0591)	(0.0591)	(0.0591)	(0.0591)
community1	0.0297	0.0313	0.0322	0.0333
	(0.0428)	(0.0428)	(0.0428)	(0.0428)
religion	-0.176	-0.176	-0.176	-0.179
	(0.190)	(0.190)	(0.190)	(0.190)
personality1	0.0746***	0.0745***	0.0751***	0.0761***
	(0.0230)	(0.0230)	(0.0230)	(0.0230)
personality2	-0.0293*	-0.0293*	-0.0293*	-0.0293*
	(0.0163)	(0.0163)	(0.0163)	(0.0163)
personality3	-0.0353*	-0.0351*	-0.0352*	-0.0350*
	(0.0210)	(0.0210)	(0.0210)	(0.0210)
personality4	0.0232	0.0231	0.0238	0.0236
	(0.0211)	(0.0211)	(0.0211)	(0.0211)
risk	0.0484***	0.0484***	0.0484***	0.0483***
	(0.00839)	(0.00839)	(0.00839)	(0.00839)
circumstances	0.360***	0.360***	0.359***	0.360***
	(0.0141)	(0.0141)	(0.0141)	(0.0141)
oblast1	0.608***	0.610***	0.610***	0.616***
	(0.126)	(0.126)	(0.126)	(0.127)
oblast2	0.267**	0.270**	0.273**	0.278**
	(0.133)	(0.133)	(0.132)	(0.132)
oblast3	-0.314**	-0.313**	-0.314**	-0.311**
	(0.147)	(0.147)	(0.147)	(0.147)
oblast4	0.869***	0.871***	0.872***	0.878***
	(0.131)	(0.131)	(0.131)	(0.131)
oblast5	0.198	0.201	0.199	0.209
	(0.132)	(0.132)	(0.132)	(0.132)
oblast6	0.591***	0.594***	0.600***	0.610***

	(0.141)	(0.141)	(0.140)	(0.140)
oblast7	0.519***	0.520***	0.519***	0.528***
	(0.124)	(0.124)	(0.124)	(0.124)
oblast8	0.328***	0.330***	0.333***	0.339***
	(0.112)	(0.112)	(0.112)	(0.112)
Constant cut1	-1.545***	-1.545***	-1.534***	-1.543***
	(0.461)	(0.461)	(0.462)	(0.462)
Constant cut2	-0.829**	-0.829**	-0.818**	-0.826**
	(0.357)	(0.357)	(0.358)	(0.358)
Constant cut3	-0.597*	-0.597*	-0.586*	-0.593*
	(0.347)	(0.347)	(0.347)	(0.347)
Constant cut4	0.179	0.180	0.190	0.184
	(0.334)	(0.334)	(0.334)	(0.334)
Constant cut5	0.753**	0.753**	0.763**	0.757**
	(0.332)	(0.332)	(0.333)	(0.333)
Constant cut6	1.598***	1.598***	1.607***	1.601***
	(0.332)	(0.332)	(0.333)	(0.333)
Constant cut7	2.292***	2.291***	2.300***	2.294***
	(0.333)	(0.333)	(0.334)	(0.333)
Constant cut8	3.016***	3.015***	3.024***	3.018***
	(0.334)	(0.334)	(0.335)	(0.335)
Constant cut9	3.777***	3.776***	3.785***	3.778***
	(0.336)	(0.336)	(0.336)	(0.336)
Constant cut10	4.270***	4.270***	4.278***	4.272***
	(0.337)	(0.337)	(0.338)	(0.338)
Observations	2,460	2,460	2,460	2,460

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A6: Full results from OLS analyses of age-weighted wage and hours worked sub-indices

VARIABLES	(1) awh1	(2) awh2	(3) awh3	(4) awh4
awh	0.000881	0.000770	0.000744	0.000639
	(0.00130)	(0.00126)	(0.00130)	(0.00146)
age	-0.0369*	-0.0374*	-0.0375*	-0.0379*
	(0.0197)	(0.0197)	(0.0197)	(0.0199)
age2	0.0400	0.0405*	0.0406*	0.0409*
	(0.0244)	(0.0243)	(0.0243)	(0.0244)
female	-0.0414	-0.0410	-0.0407	-0.0392
	(0.0643)	(0.0643)	(0.0643)	(0.0643)
kyrgyz	0.0538	0.0536	0.0535	0.0533
	(0.0692)	(0.0692)	(0.0692)	(0.0692)
urban	-0.0718	-0.0715	-0.0713	-0.0700
	(0.0888)	(0.0888)	(0.0888)	(0.0887)
education	0.0550**	0.0552**	0.0553**	0.0556**
	(0.0236)	(0.0237)	(0.0237)	(0.0237)
employer	0.0297	0.0304	0.0308	0.0329
	(0.296)	(0.296)	(0.296)	(0.296)
wageworker	-0.157**	-0.156**	-0.156**	-0.157**
	(0.0700)	(0.0700)	(0.0700)	(0.0700)
family	0.0315	0.0304	0.0297	0.0269
	(0.118)	(0.119)	(0.119)	(0.119)
illness2	-0.0246	-0.0245	-0.0245	-0.0243
	(0.0648)	(0.0648)	(0.0648)	(0.0648)
condition2	-0.122	-0.122	-0.122	-0.123
	(0.0803)	(0.0803)	(0.0803)	(0.0802)
community1	0.0611	0.0613	0.0614	0.0615
	(0.0575)	(0.0575)	(0.0575)	(0.0575)
religion	-0.267	-0.268	-0.268	-0.269
	(0.257)	(0.257)	(0.257)	(0.257)
personality1	0.101***	0.101***	0.101***	0.101***
	(0.0312)	(0.0312)	(0.0312)	(0.0312)
personality2	-0.0364*	-0.0364*	-0.0364*	-0.0364*
	(0.0220)	(0.0220)	(0.0220)	(0.0220)
personality3	-0.0464	-0.0463	-0.0463	-0.0461
	(0.0285)	(0.0285)	(0.0285)	(0.0285)
personality4	0.0321	0.0323	0.0324	0.0325
	(0.0286)	(0.0286)	(0.0286)	(0.0286)
risk	0.0636***	0.0636***	0.0636***	0.0637***
	(0.0112)	(0.0112)	(0.0112)	(0.0112)
circumstances	0.490***	0.490***	0.490***	0.490***
	(0.0177)	(0.0177)	(0.0177)	(0.0177)
oblast1	0.820***	0.821***	0.821***	0.820***
	(0.171)	(0.171)	(0.171)	(0.171)
oblast2	0.397**	0.397**	0.397**	0.397**
	(0.180)	(0.180)	(0.180)	(0.180)
oblast3	-0.413**	-0.413**	-0.413**	-0.411**
	(0.200)	(0.200)	(0.200)	(0.200)
oblast4	1.127***	1.128***	1.128***	1.129***
	(0.177)	(0.177)	(0.177)	(0.177)
oblast5	0.303*	0.303*	0.304*	0.305*
	(0.180)	(0.180)	(0.180)	(0.180)
oblast6	0.872***	0.873***	0.874***	0.876***

	(0.191)	(0.191)	(0.191)	(0.191)
oblast7	0.717***	0.718***	0.719***	0.721***
	(0.170)	(0.170)	(0.170)	(0.169)
oblast8	0.458***	0.459***	0.460***	0.462***
	(0.153)	(0.153)	(0.153)	(0.153)
Constant	3.441***	3.458***	3.461***	3.471***
	(0.477)	(0.474)	(0.475)	(0.485)
Observations	2,460	2,460	2,460	2,460
R-squared	0.356	0.356	0.356	0.356

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A7: Full result from OLS analyses of age-weighted full indices

VARIABLES	(1) aindex1	(2) aindex2	(3) aindex3	(4) aindex4
aindex	0.00612***	0.00579**	0.00515**	0.00590**
	(0.00222)	(0.00228)	(0.00230)	(0.00266)
age	-0.0173	-0.0184	-0.0195	-0.0210
	(0.0207)	(0.0208)	(0.0211)	(0.0209)
age2	0.0243	0.0253	0.0257	0.0271
	(0.0248)	(0.0249)	(0.0251)	(0.0250)
female	-0.0378	-0.0407	-0.0390	-0.0390
	(0.0635)	(0.0635)	(0.0636)	(0.0636)
kyrgyz	0.0513	0.0517	0.0512	0.0525
	(0.0691)	(0.0691)	(0.0691)	(0.0691)
Urban	-0.0785	-0.0781	-0.0783	-0.0749
	(0.0885)	(0.0885)	(0.0886)	(0.0885)
education	0.0397	0.0415*	0.0433*	0.0436*
	(0.0243)	(0.0242)	(0.0243)	(0.0242)
employer	-0.00420	-0.000612	0.00154	0.00713
	(0.295)	(0.295)	(0.295)	(0.295)
wageworker	-0.164**	-0.162**	-0.163**	-0.161**
	(0.0699)	(0.0699)	(0.0700)	(0.0699)
family	0.0716	0.0693	0.0650	0.0611
	(0.118)	(0.118)	(0.118)	(0.118)
illness2	-0.0237	-0.0232	-0.0242	-0.0228
	(0.0647)	(0.0648)	(0.0648)	(0.0648)
condition2	-0.121	-0.121	-0.121	-0.123
	(0.0801)	(0.0801)	(0.0802)	(0.0802)
community1	0.0475	0.0492	0.0507	0.0511
	(0.0576)	(0.0576)	(0.0576)	(0.0576)
religion	-0.254	-0.255	-0.257	-0.258
	(0.256)	(0.256)	(0.256)	(0.256)
personality1	0.0974***	0.0974***	0.0982***	0.0990***
	(0.0311)	(0.0312)	(0.0312)	(0.0312)
personality2	-0.0369*	-0.0368*	-0.0369*	-0.0369*
	(0.0220)	(0.0220)	(0.0220)	(0.0220)
personality3	-0.0506*	-0.0500*	-0.0501*	-0.0499*
	(0.0285)	(0.0285)	(0.0285)	(0.0285)
personality4	0.0295	0.0295	0.0303	0.0301
	(0.0285)	(0.0285)	(0.0285)	(0.0285)
risk	0.0632***	0.0632***	0.0633***	0.0632***
	(0.0112)	(0.0112)	(0.0112)	(0.0112)
circumstances	0.487***	0.487***	0.487***	0.488***
	(0.0177)	(0.0177)	(0.0177)	(0.0177)
oblast1	0.824***	0.826***	0.826***	0.834***
	(0.171)	(0.171)	(0.171)	(0.171)
oblast2	0.371**	0.374**	0.378**	0.383**
	(0.180)	(0.180)	(0.181)	(0.180)
oblast3	-0.419**	-0.419**	-0.420**	-0.417**
	(0.200)	(0.200)	(0.200)	(0.200)
oblast4	1.117***	1.119***	1.122***	1.128***
	(0.177)	(0.177)	(0.177)	(0.177)
oblast5	0.289	0.292	0.291	0.302*
	(0.180)	(0.180)	(0.180)	(0.180)
oblast6	0.834***	0.838***	0.846***	0.855***

	(0.191)	(0.191)	(0.191)	(0.190)
oblast7	0.710***	0.712***	0.712***	0.720***
	(0.169)	(0.169)	(0.169)	(0.169)
oblast8	0.434***	0.437***	0.441***	0.446***
	(0.153)	(0.153)	(0.153)	(0.153)
Constant	2.777***	2.803***	2.861***	2.881***
	(0.527)	(0.535)	(0.543)	(0.540)
Observations	2,460	2,460	2,460	2,460
R-squared	0.358	0.357	0.357	0.357

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A8: Full results from ordered probit analyses of age-weighted wages and hours worked sub-indices

VARIABLES	(1) awh1	(2) awh2	(3) awh3	(4) awh4
awh	0.000673	0.000592	0.000574	0.000521
	(0.000959)	(0.000933)	(0.000961)	(0.00108)
age	-0.0269*	-0.0273*	-0.0274*	-0.0276*
	(0.0146)	(0.0145)	(0.0145)	(0.0147)
age2	0.0293	0.0297*	0.0297*	0.0299*
	(0.0180)	(0.0179)	(0.0179)	(0.0180)
female	-0.0320	-0.0317	-0.0315	-0.0305
	(0.0474)	(0.0474)	(0.0474)	(0.0474)
kyrgyz	0.0425	0.0424	0.0423	0.0422
	(0.0510)	(0.0510)	(0.0510)	(0.0510)
urban	-0.0619	-0.0616	-0.0615	-0.0606
	(0.0656)	(0.0656)	(0.0657)	(0.0656)
education	0.0412**	0.0414**	0.0414**	0.0416**
	(0.0175)	(0.0175)	(0.0175)	(0.0175)
employer	0.0465	0.0471	0.0474	0.0488
	(0.222)	(0.222)	(0.222)	(0.222)
wageworker	-0.113**	-0.113**	-0.113**	-0.113**
	(0.0516)	(0.0516)	(0.0516)	(0.0516)
family	0.0135	0.0128	0.0123	0.0105
	(0.0874)	(0.0875)	(0.0875)	(0.0874)
illness2	-0.0281	-0.0280	-0.0280	-0.0278
	(0.0479)	(0.0479)	(0.0479)	(0.0479)
condition2	-0.0863	-0.0863	-0.0864	-0.0868
	(0.0591)	(0.0591)	(0.0591)	(0.0591)
community1	0.0444	0.0446	0.0447	0.0446
	(0.0426)	(0.0426)	(0.0426)	(0.0426)
religion	-0.183	-0.183	-0.183	-0.184
	(0.190)	(0.190)	(0.190)	(0.190)
personality1	0.0774***	0.0775***	0.0776***	0.0777***
	(0.0230)	(0.0230)	(0.0230)	(0.0230)
personality2	-0.0288*	-0.0288*	-0.0288*	-0.0288*
	(0.0163)	(0.0163)	(0.0163)	(0.0163)
personality3	-0.0326	-0.0326	-0.0325	-0.0325
	(0.0210)	(0.0210)	(0.0210)	(0.0210)
personality4	0.0259	0.0260	0.0260	0.0261
	(0.0211)	(0.0211)	(0.0211)	(0.0211)
risk	0.0486***	0.0486***	0.0487***	0.0487***
	(0.00840)	(0.00840)	(0.00840)	(0.00839)
circumstances	0.362***	0.362***	0.362***	0.362***
	(0.0141)	(0.0141)	(0.0141)	(0.0141)
oblast1	0.603***	0.604***	0.604***	0.603***
	(0.126)	(0.126)	(0.126)	(0.126)
oblast2	0.292**	0.292**	0.292**	0.292**
	(0.132)	(0.132)	(0.132)	(0.132)
oblast3	-0.304**	-0.304**	-0.304**	-0.302**
	(0.147)	(0.147)	(0.147)	(0.147)
oblast4	0.880***	0.880***	0.881***	0.881***
	(0.131)	(0.131)	(0.131)	(0.131)
oblast5	0.207	0.208	0.208	0.209
	(0.132)	(0.132)	(0.132)	(0.132)

oblast6	0.630***	0.631***	0.631***	0.632***
	(0.140)	(0.140)	(0.140)	(0.140)
oblast7	0.525***	0.526***	0.526***	0.528***
	(0.124)	(0.124)	(0.124)	(0.124)
oblast8	0.351***	0.352***	0.352***	0.353***
	(0.112)	(0.112)	(0.112)	(0.112)
Constant cut1	-1.549***	-1.561***	-1.563***	-1.568***
	(0.477)	(0.476)	(0.477)	(0.482)
Constant cut2	-0.830**	-0.842**	-0.844**	-0.848**
	(0.376)	(0.374)	(0.375)	(0.382)
Constant cut3	-0.598	-0.610*	-0.612*	-0.617*
	(0.366)	(0.364)	(0.365)	(0.372)
Constant cut4	0.177	0.164	0.162	0.158
	(0.354)	(0.352)	(0.353)	(0.360)
Constant cut5	0.750**	0.737**	0.735**	0.731**
	(0.353)	(0.351)	(0.352)	(0.359)
Constant cut6	1.592***	1.580***	1.578***	1.573***
	(0.353)	(0.351)	(0.352)	(0.359)
Constant cut7	2.285***	2.272***	2.270***	2.266***
	(0.354)	(0.351)	(0.353)	(0.360)
Constant cut8	3.007***	2.995***	2.993***	2.988***
	(0.355)	(0.352)	(0.354)	(0.361)
Constant cut9	3.767***	3.754***	3.752***	3.748***
	(0.356)	(0.354)	(0.355)	(0.362)
Constant cut10	4.259***	4.247***	4.245***	4.240***
	(0.358)	(0.355)	(0.357)	(0.364)
Observations	2,460	2,460	2,460	2,460

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A9: Full results from ordered probit analyses of age-weighted full indices

VARIABLES	(1) aindex1	(2) aindex2	(3) aindex3	(4) aindex4
aindex	0.00462***	0.00437***	0.00390**	0.00441**
	(0.00164)	(0.00169)	(0.00170)	(0.00197)
age	-0.0122	-0.0130	-0.0138	-0.0151
	(0.0153)	(0.0154)	(0.0156)	(0.0154)
age2	0.0174	0.0182	0.0185	0.0197
	(0.0184)	(0.0184)	(0.0186)	(0.0184)
female	-0.0290	-0.0312	-0.0299	-0.0298
	(0.0469)	(0.0469)	(0.0469)	(0.0469)
kyrgyz	0.0404	0.0408	0.0404	0.0414
	(0.0510)	(0.0510)	(0.0510)	(0.0509)
urban	-0.0672	-0.0669	-0.0670	-0.0642
	(0.0655)	(0.0655)	(0.0655)	(0.0655)
education	0.0298*	0.0311*	0.0324*	0.0328*
	(0.0180)	(0.0179)	(0.0179)	(0.0179)
employer	0.0210	0.0236	0.0254	0.0298
	(0.222)	(0.222)	(0.222)	(0.222)
wageworker	-0.119**	-0.117**	-0.118**	-0.116**
	(0.0517)	(0.0516)	(0.0516)	(0.0516)
family	0.0434	0.0417	0.0385	0.0355
	(0.0873)	(0.0874)	(0.0875)	(0.0873)
illness2	-0.0272	-0.0269	-0.0276	-0.0265
	(0.0479)	(0.0479)	(0.0479)	(0.0479)
condition2	-0.0852	-0.0853	-0.0856	-0.0866
	(0.0591)	(0.0591)	(0.0591)	(0.0591)
community1	0.0345	0.0358	0.0368	0.0373
	(0.0427)	(0.0427)	(0.0427)	(0.0427)
religion	-0.174	-0.175	-0.176	-0.177
	(0.190)	(0.190)	(0.190)	(0.190)
personality1	0.0749***	0.0749***	0.0755***	0.0761***
	(0.0230)	(0.0230)	(0.0230)	(0.0230)
personality2	-0.0292*	-0.0291*	-0.0292*	-0.0292*
	(0.0163)	(0.0163)	(0.0163)	(0.0163)
personality3	-0.0359*	-0.0354*	-0.0355*	-0.0353*
	(0.0210)	(0.0210)	(0.0210)	(0.0210)
personality4	0.0239	0.0239	0.0246	0.0244
	(0.0211)	(0.0211)	(0.0211)	(0.0211)
risk	0.0484***	0.0484***	0.0484***	0.0484***
	(0.00839)	(0.00839)	(0.00839)	(0.00839)
circumstances	0.360***	0.360***	0.360***	0.360***
	(0.0141)	(0.0141)	(0.0141)	(0.0141)
oblast1	0.608***	0.609***	0.609***	0.614***
	(0.126)	(0.126)	(0.126)	(0.127)
oblast2	0.273**	0.275**	0.278**	0.282**
	(0.132)	(0.132)	(0.132)	(0.132)
oblast3	-0.309**	-0.309**	-0.310**	-0.308**
	(0.147)	(0.147)	(0.147)	(0.147)
oblast4	0.875***	0.876***	0.878***	0.882***
	(0.131)	(0.131)	(0.131)	(0.131)
oblast5	0.197	0.200	0.199	0.207
	(0.132)	(0.132)	(0.132)	(0.132)
oblast6	0.602***	0.605***	0.610***	0.618***

	(0.140)	(0.140)	(0.140)	(0.140)
oblast7	0.521***	0.522***	0.522***	0.528***
	(0.124)	(0.124)	(0.124)	(0.124)
oblast8	0.334***	0.336***	0.339***	0.343***
	(0.112)	(0.112)	(0.112)	(0.112)
Constant cut1	-1.042**	-1.061**	-1.104**	-1.128**
	(0.505)	(0.510)	(0.515)	(0.512)
Constant cut2	-0.329	-0.348	-0.390	-0.414
	(0.413)	(0.418)	(0.424)	(0.421)
Constant cut3	-0.0971	-0.116	-0.159	-0.182
	(0.403)	(0.409)	(0.415)	(0.412)
Constant cut4	0.679*	0.659*	0.617	0.595
	(0.393)	(0.398)	(0.404)	(0.401)
Constant cut5	1.252***	1.233***	1.190***	1.168***
	(0.392)	(0.397)	(0.403)	(0.400)
Constant cut6	2.096***	2.077***	2.033***	2.011***
	(0.392)	(0.397)	(0.403)	(0.401)
Constant cut7	2.790***	2.770***	2.727***	2.704***
	(0.393)	(0.398)	(0.404)	(0.401)
Constant cut8	3.514***	3.494***	3.450***	3.428***
	(0.394)	(0.399)	(0.405)	(0.402)
Constant cut9	4.275***	4.254***	4.210***	4.188***
	(0.395)	(0.401)	(0.407)	(0.404)
Constant cut10	4.768***	4.747***	4.703***	4.681***
	(0.397)	(0.402)	(0.408)	(0.405)
Observations	2,460	2,460	2,460	2,460