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Chapter 5

Income and Job Satisfaction

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Abstract

The link between income and happiness is often explained by the Easterlin paradox: income and happiness in a country are positively related *at a point in time* but unrelated, *over time*. So, at any point in time, money did buy happiness but, over time, the level of happiness in a country did not rise by much as it grew richer. This paradox was explained by the fact that higher income conferred two benefits to individuals: consumption benefits (in the sense of being able to afford more, and better, goods and services) and status benefits (in the sense of enjoying superior status relative to one's peers). But what is not clear is the identity of comparator group for the purpose of deriving status benefits. This chapter uses a novel set of data to define parents as the comparator group and defines the status a person derives from their income in relation their parents' income. Another issue in the amount of happiness that one can extract from income concerns the circumstances in which it is earned. Given that paid employment is central to the lives of many individuals, and that many persons spend a substantial part of their lives in paid employment, an understanding of people's feelings of well-being in the workplace or, equivalently, their levels of "job satisfaction", is of paramount importance to public policy. This chapter examines the strength of a variety of factors in determining the intensity of job satisfaction in 33 countries. The empirical foundation for the study is provided by data for nearly 22,000 employed respondents, pertaining to the year 2000, obtained from the World Values Survey.

5.1 Introduction

Chapter 2 discussed the “Easterlin paradox” (Easterlin, 1974, 1995, 1996, 2001; Easterlin and O’Connor, 2020) which pointed to an apparent contradiction: income and happiness in a country are positively related *at a point in time* but are unrelated *over time*. So, at any given point in time, money did buy happiness but, over time, the level of happiness in a country did not rise by much as it grew richer. This paradox was explained by the fact that higher income conferred two benefits to individuals: consumption benefits (in the sense of being able to afford more, and better, goods and services) and status benefits (in the sense of enjoying superior status relative to one’s peers).

At a point in time, along with the consumption benefits of higher income, well-off people in a country, by comparing themselves to poorer people, felt happier because they were manifestly better off, and thereby, also enjoyed status benefits. Over time, however, relative comparisons would remain unchanged: with a doubling of income in a country, say between 2012 and 2022, someone who was twice as rich as their peers in 2012 would continue to be so in 2022 and so the status effect would not operate. All that would remain would be the consumption effect and that could be trivial or could be offset by other factors like having to work longer hours for the additional income.

The existence of status benefits raises an important question of who the comparator might be – who do individuals compare themselves with to derive such benefits? Is it the overall population of a country? Or people in some geographical region of a country? Is it one’s work colleagues? One’s neighbours? These are important questions which have not been satisfactorily answered in the literature.

In the traditional formulation of the relative income hypothesis (RIH), Duesenberry (1949) argued that it was the income of one’s neighbours that mattered by drawing attention to the influence on consumers, when making consumption decisions, of the social context (“keeping up with the Joneses”) in which such decisions were made.¹ The RIH was instrumental in resolving Kuznets’ paradox (Kuznets, 1946) which predated Easterlin’s paradox by several years. Kuznets’ paradox drew attention to the fact that, at a point in time, the proportion of disposable income that was saved (the

¹ See also an earlier contribution by Veblen (1899).

savings ratio: SR) by richer households was greater than that of poorer households but that, over time, as countries got richer, their overall SR remained virtually constant.

The RIH, in an earlier incarnation of Easterlin's status hypothesis, held that consumption depended not just on one's own income but also on the income of others. At any point in time, poorer households would seek status by attempting to emulate the consumption habits of the rich and this would keep their SR low. Over time, however, these relative comparisons would not apply, and the SR would be stable: Kuznets (1946) showed that, except for the Depression years, the SR in the USA over the period 1869–1938 fluctuated narrowly between 11 and 16 per cent.²

The issue of relative comparisons – income and saving in the case of the Kuznets paradox, and income and happiness in the case of the Easterlin paradox – raises the issue of identifying the comparator group: who do people compare themselves with? With respect to the relation between income and happiness, what matters most is how much income a person has relative to their comparison group. As Easterlin (1996) suggested, “happiness varies directly with one's own income and inversely with the income of others” (p. 140). But the vexed question remains – who are these “others”?

Another issue around the “amount” of happiness that one can extract from income concerns the circumstances in which the income is earned. Within the context of happiness, there is a distinction between “context-free” and “context-specific” happiness. Context-free well-being covers feelings in *any* setting while context-specific well-being covers feelings within a *specific* setting. One such setting is the workplace. Given that paid employment is central to the lives of many individuals, and that many persons spend a substantial part of their lives in paid employment, an understanding of people's feelings of well-being in the workplace or, equivalently, their levels of “job satisfaction”, is of paramount importance to public policy.³

Warr (1999), Judge *et al.* (2017), and Judge *et al.* (2021) all provide comprehensive surveys of the issues surrounding job satisfaction. As Judge *et al.* (2021) observed, “the importance of job

² See Santos (2013) for a detailed discussion of Kuznets' paradox.

³ As Hammersh (2001, p. 2) wrote: “only one measure, the satisfaction that workers derive from their jobs, might be viewed as reflecting how they react to the entire panoply of job characteristics... it can be viewed as a single metric that allows the worker to compare the current job to other labour market opportunities”.

satisfaction is related to a variety of individually and organisationally relevant behaviours” (p. 207). Consequently, job satisfaction contains beliefs about the job, feelings that the job arouses, and the individual’s behaviour towards the job (Judge *et al.*, 2021).

More specifically, several studies have examined the role of factors such as gender, age, country, marital status, and education in affecting job satisfaction. For example, Redmond and McGuinness (2019) focused on gender and job satisfaction, Khalid *et al.* (2020) on age and job satisfaction, Kemunto *et al.* (2018) on marital status and job satisfaction, Solomon *et al.* (2022) on education and job satisfaction, and Kim and Cho (2016) on the retirement system and job satisfaction.

Against this background, this chapter examines the strength of a variety of factors in determining the intensity of job satisfaction in 33 countries. The empirical foundation for the study is provided by data for nearly 22,000 employed respondents, pertaining to the year 2000, obtained from the *1981–2022 Values Survey Integrated Data File* (hereafter referred to as the Integrated Values File).

The Integrated Values File (or IVF) is the result of collaboration between The European Value Study (EVS) and the World Value Survey (WVS) both of which are two large-scale, cross-national, and repeated cross-sectional longitudinal survey research programs. They include many questions, which have been replicated since the early eighties. The IVF, 1981-2022, contains the five waves of the EVS and the seven waves of the WVS.⁴

5.2 Relative Income Comparisons: Identifying the “Other”

Firebaugh and Schroeder (2009) noted that while there were over 100 studies on the topic of income and happiness, there were only a handful that focused on the groups with which people made income comparisons to derive status benefits. An obvious question for these studies was how to define the reference group. The implicit assumption in Easterlin (2001) was that the reference group comprised *all* the country’s citizens. Other studies took the reference group to be all the individuals living in the same region (McBride, 2001) or those who were one’s neighbours: for example, Luttner (2005)

⁴ <https://europeanvaluesstudy.eu/methodology-data-documentation/integrated-values-surveys/> (accessed 14 April 2023).

matched individual-level data for the USA to information about *local* average earnings and found that, after controlling for an individual's income, higher earnings of neighbours were associated with lower levels of self-reported happiness. Firebaugh and Schroeder (2009), using data from the American National Election Study, found that Americans tended to be happier when they lived in rich neighbourhoods (the *neighbourhood effect* discussed in chapter 2) in poor counties (the *relative status effect* discussed above).

Other possible criteria for establishing comparator groups could be education and/or age. Ferrer-i-Carbonell (2005), using data from the German Socio-Economic Panel, concluded that the income of the "reference" group was about as important as own income in shaping individual happiness where, in her formulation, the reference group comprised all individuals with similar education levels, inside the same age bracket, and living in the same region – the regional split in her study being West and East Germany.

A problem with making relative income comparisons is a lack of pay transparency. In many cases, people do not even know what their colleagues earn, much less the income of people in their reference group. As Lex (2023) reported, only about 15 per cent of UK workers are aware of the pay ranges within their companies, and half of private sector companies do not advertise available job roles with salary information; according to Totty (2023), only about a quarter of HR professionals in a 2019 LinkedIn survey said their companies shared salary information.

It is a moot point as to whether pay transparency is a good or a bad thing from the perspective of employers and employees. As Totty (2023) noted, the women's pay gap – with women in the USA making 83.1 per cent of men's pay – has led the demand for transparency, the argument being that, armed with such data, women (and others) who are underpaid can demand equal treatment. On the other hand, transparency in remuneration could lead to endless bickering – as Netflix found after giving its vice-presidents and directors access to each other's pay data, leading it to abandon transparency in favour of opacity (Lex, 2023).

It is true that while income of others may not be known, certain aspects of their consumption are visible. The fact that my car is bigger than my neighbour's, or that my children go to a more expensive school, are all ways of acquiring status. But this is subject to two caveats. First, only certain

prominent aspects of consumption are visible – cars, houses, schooling – and other aspects like the quality of food, or expenditure on books, theatre, films, or energy costs remain invisible. Second, consumption is an imperfect surrogate for income – it does not reveal, for example, that my high-income neighbour, with his smaller car, saves more than I do, or that my bigger car has been funded by a bank loan.

5.3 Intergenerational Comparisons of Standard of Living

One area, however, in which there is complete and unavoidable transparency is in income comparisons between parents and children. People usually have a clear idea as whether they are better off, the same as, or worse off than their parents when they were of a comparable age. But among the welter of criteria for defining the reference group for making income comparisons, outlined above, a significant omission is that of comparisons with one's parents. To remedy this, this section takes change in the parent–children economic situation as the basis for making relative income comparisons.

Isaacs (2007) observed that “doing better than one's parents has long been a key element of the American dream” (p. 1). It would be a safe generalisation to say that people in most countries of the world would share this aspiration. If this is so, then the happiness that a person obtains from a particular level of income would depend, in part, on how that income compared with that of their parents at a comparable age. Happiness from a *given* income would be *highest* if it exceeded parental income, *lower* if it was the same, and *lowest* if it fell short of parental income. In other words, relative income comparisons could still be an important determinant of happiness, but the comparison would be inter-generational rather than inter-peer.

The data in Wave 7 (2017–22) of the World Values Survey (WVS)⁵ allows inter-generational comparisons to be made. In this wave, the WVS asked its respondents if their standard of living (SoL) was higher, the same, or lower than that of their parents when they were of a comparable age. Of the 77,571 persons who answered this question, 54.6 per cent answered that it was higher, 27.8 per cent

⁵ See chapter 2 for details of the World Values Survey.

said it was the same, and 17.6 per cent regarded it as worse. So, nearly 55 per cent of the WVS respondents in 2017–22 could be described as “upwardly mobile”, 28 per cent as “static”, and 18 per cent as “downwardly mobile”.

<Figure 5.1>

As Figure 5.1 shows, these proportions varied by region. The largest proportion of *upwardly mobile* respondents were from Asia, where 67.4 per cent answered that their SoL was higher than that of their parents (at a comparable age), and the lowest proportion of *upwardly mobile* respondents were from Latin America, where less than half (45.5 per cent) said that their SoL was higher than that of their parents. The highest proportion of *downwardly mobile* respondents were from Africa, where 35.2 per cent said that their SoL was lower than that of their parents (at a comparable age) and the lowest proportion of *downwardly mobile* respondents were from Asia, where just 10.1 per cent answered that their SoL was lower than that of their parents. The following paragraphs discuss how these data can be used to arrive at probabilities of being happy.

Define the variable $V_i=1$, if respondent i ($i=1, \dots, 77,571$) regarded their SoL as higher than their parent, $V_i=2$, if respondent i regarded their SoL as the same as that of their parents, $V_i=3$, if respondent i regarded their SoL as lower than that of their parents.

As discussed in chapter 2, the WVS asked the respondents in each country to place their income in one of 10 steps with respect to their country’s income: lowest (step 1) to highest (step 10).⁶ From these answers, this chapter constructed three quantiles of income: low (steps 1, 2, and 3); middle (steps 4, 5, 6, and 7); high (steps 8, 9, and 10). Aggregating over all the countries, 76,911 persons answered the income question in WVS Wave 7 (2017–22); of these, 9.6 per cent had a “high” income, 65.6 per cent had “middle” income, and 24.8 per cent had “low” income. Define the variable $Z_i=1$, if respondent i ($i=1, \dots, 76,911$) had low income; $Z_i=2$, if respondent i had middle income; $Z_i=3$, if respondent i had high income.

⁶ The precise wording of this question was: “On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is. Please, specify the appropriate number, counting all wages, salaries, pensions, and other incomes that come in”.

The “happiness equation” specified in Table 2.2 of chapter 2 was re-specified to now include $W_i=V_i \times Z_i$ as an explanatory variable – instead of, as in Table 2.2, just Z_i – the other variables in the equation being unchanged from Table 2.2. Using this specification, the likelihood of being happy could be computed under the following scenarios:

1. Own income is high ($Z_i=3$), and SoL is higher than that of one’s parents ($V_i=1$).
2. Own income is high ($Z_i=3$), and SoL is the same as that of one’s parents ($V_i=2$).
3. Own income is high ($Z_i=3$), and SoL is lower than that of one’s parents ($V_i=3$).
4. Own income is medium ($Z_i=2$), and SoL is higher than that of one’s parents ($V_i=1$).
5. Own income is medium ($Z_i=2$), and SoL is the same as that of one’s parents ($V_i=2$).
6. Own income is medium ($Z_i=2$), and SoL is lower than that of one’s parents ($V_i=3$).
7. Own income is low ($Z_i=1$), and SoL is higher than that of one’s parents ($V_i=1$).
8. Own income is low ($Z_i=1$), and SoL is the same as that of one’s parents ($V_i=2$).
9. Own income is low ($Z_i=1$), and SoL is lower than that of one’s parents ($V_i=3$).

<Figures 5.2, 5.3, 5.4>

Figure 5.2 shows the probabilities of being happy under these different scenarios. Across all the regions, the probabilities of being happy with a high income were: 88.3 per cent if one’s standard of living was higher than that of one’s parents; 85.4 per cent if one’s standard of living was the same as that of one’s parents; and 78.3 per cent if one’s standard of living was lower than that of one’s parents. Similarly, Figures 5.3 and 5.4 show that the probabilities of being happy with a middle [low] income were: 88.3 [87.6] per cent if one’s standard of living was higher than that of one’s parents; 85.9 [84.4] per cent if one’s standard of living was the same as that of one’s parents; and 81.1 [79.6] per cent if one’s standard of living was lower than that of one’s parents.

Not only that, but the difference in the probabilities of being happy, at each of the three income levels, was significantly higher when comparing: (a) a higher SoL than one’s parents with the same parental SoL; and (b) the same SoL as one’s parents with a lower parental SoL. In other words, aggregating over all countries, the likelihood of being happy at a given income level (high/middle/low) was *significantly* higher when it was accompanied by having a higher SoL than one’s parents at a comparable age.

These results were broadly true when the happiness equation was estimated over the individual regions. Figure 5.2 shows that, when the respondents' incomes were high, their probability of being happy, in every region, was highest when their SoL was better than that of their parents (at a comparable age), next highest when their SoL was the same as that of their parents, and lowest when their SoL was worse than that of their parents. The estimates from the happiness equation showed that each of these differences was, except for Latin America, significantly different from zero.

Figure 5.3 confirms that for respondents with middle income, the probability of them being happy, in every region, was highest when their SoL was better than that of their parents (at a comparable age) and fell as the comparison of their SoL with that of their parents worsened. In some cases, however, these differences in the probability of being happy were not significantly different from zero. In particular, Figures 5.2 to 5.4 show:

- (i) The probability of being happy in Islamic countries, for *low-income* persons, was not significantly affected by whether their SoL exceeded (probability of being happy: 86.6 per cent) or was the same as that of their parents (87.1 per cent).
- (ii) The probability of being happy in African countries and in East European countries, for *middle-income* persons, was not significantly affected by whether their SoL exceeded (probability of being happy: 80.8 and 85.4 per cent, respectively) or was the same as that of their parents (81.7 and 83.0 per cent, respectively).
- (iii) The probability of being happy in East European countries, for *middle-income* persons, was not significantly affected by whether their SoL was the same as (probability of being happy: 83.0 per cent) or less than that of their parents (80.4 per cent).
- (iv) In Western countries, the fact that one's SoL was higher than, or the same as, that of one's parents, did not affect the probability of happiness for *middle-income* (89.2 and 88.1 per cent, respectively), and for *low-income* (89.2 and 90.8 per cent, respectively), persons.
- (v) In Latin American countries, the fact that one's SoL was higher than, or the same as, that of one's parents, did not significantly affect the probability of happiness for *high-*

income (87.0 and 85.7 per cent, respectively) persons, and the probability of happiness for *low-income* persons was not significantly affected by whether their SoL was the same as (84.7 per cent per cent) or less than that of their parents (84.5 per cent).

It was always the case that persons in all the regions were, for a given level of income, more likely to be happy when their SoL exceeded that of their parents at a comparable age. In that sense, persons in all the regions aspired to be upwardly mobile. The ambiguity occurred when one's SoL was the same as that of one's parents. Then, in several regions, noted above, the probability of being happy did not differ significantly between (i) those whose SoL was higher, and those whose SoL was the same, that that of their parents or (ii) those whose SoL was the same, and those whose SoL was lower, than that of their parents.

The only region where every improvement in one's SoL over that of one's parents (higher/lower; higher/same; same/lower) led to a significant increase in one's probability of happiness was Asia. There is, however, some debate as to what constitutes Asia and Asians. When Rishi Sunak became the UK's first non-white Prime Minister, an American TV programme commented that he was the first *Indian*, and not the first *Asian*, Prime Minister because "Indians are not Asians".⁷ The struggle to define what is Asia is the subject of Green's (2022) magisterial account of the struggle of the many countries that comprise the continent to find an "Asian" identity. Notwithstanding these difficulties, the analysis in this chapter shows a glimmer of what might be termed an "Asian value" – the desire for respondents from this region to better themselves over the generations, which perhaps burns more brightly in Asia than elsewhere.

5.4 Job Satisfaction in Europe

In the Integrated Values File (IVF), described earlier in this chapter, respondents *who were in a job* were asked to grade their level of satisfaction on a scale of 1–10 where scores of one and 10 indicated,

⁷ As quoted in the *Economist*, "One Word to Rule Them All, Who Gets to Define What Asia Means?", 19 January 2023, <https://www.economist.com/asia/2023/01/19/who-gets-to-define-what-asia-means> (accessed 21 January 2023).

respectively, complete dissatisfaction and complete satisfaction.⁸ A total of 21,410 persons, drawn from 33 countries, answered this question and all these answers pertained to the 1999–2000 wave of the IVF.

From these responses, this study constructed a job satisfaction variable, Y_i , whose values were defined for every respondent $i, i=1, \dots, N$ answering this question, such that: $Y_i=1$ for respondents who graded their job satisfaction as 1, 2, 3, or 4 (very dissatisfied); $Y_i=2$ for respondents who graded their job satisfaction as 5, 6, or 7 (moderately satisfied); $Y_i=3$ for respondents who graded their job satisfaction as 8, 9, or 10 (very satisfied). Of the total of 21,410 respondents, 11,041 (or 51.6 per cent) declared themselves very satisfied with their job; 7,915 (37 per cent) said they were moderately satisfied; and 2,454 (11.5 per cent) were very dissatisfied.

To restrict the analysis to countries of Europe, Turkey was excluded from the study. After this exclusion, the 32 countries from which job satisfaction responses were obtained were grouped into two broad regions as follows:

1. Western Europe (with 18 countries) comprising: Austria, Belgium, Denmark, Finland, France, Germany, Great Britain, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Northern Ireland, Portugal, Spain, Sweden.
2. Eastern Europe (with 14 countries) comprising: Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, Slovenia, Ukraine.

<Figure 5.5>

Figure 5.5 shows the difference between Western and Eastern European countries in their respective levels of job satisfaction. The proportion of those in employment who were highly satisfied with their jobs was much higher in the West European bloc of countries (58.4 per cent) than in the East European bloc (42.6 per cent) while, at the other extreme, 18.1 per cent of employees in Eastern Europe were highly dissatisfied with their jobs compared to only 6.4 per cent of employees in Western Europe.

⁸ The precise wording of the question was: “Overall, how satisfied or dissatisfied are you with your job?” (Inglehart *et al.*, 2004, p. 450), and it was asked only of those who answered the question “Are you yourself employed or not?” in the affirmative. Since 2000, this question has been discontinued.

<Table 5.1>

Table 5.1 disaggregates the broad picture presented in Figure 5.5 by examining job satisfaction by each of the 32 countries in the sample. Among the countries of Western Europe, Denmark had the highest proportion of “very satisfied” employees (72.5 per cent) while Spain and Portugal, at 52.1 and 54.3 per cent, respectively, had the lowest proportion of “very satisfied” employees. Among the countries of Eastern Europe, the Czech Republic had the highest proportion of “very satisfied” employees (56.3 per cent) while Russia and Ukraine, at 36.8 and 34.5 per cent, respectively, had the lowest proportion of “very satisfied” employees. Thus, the worst performing country in Western Europe in terms of job satisfaction – Spain, in which only 52.1 per cent of employees were very satisfied – was not far behind the best performing country in Eastern Europe – the Czech Republic, where 56.3 per cent of employees were very satisfied.

5.5 Inequality Analysis of Satisfaction Scores

Table 5.1 also shows in its penultimate column the *mean scores* by country, calculated as the mean of the satisfaction scores graded 1–10. The countries with the highest mean scores were Malta (8.5) and Denmark (8.1) while the countries with the lowest mean scores were Belarus (5.5), Ukraine (6.0), and Russia (6.2).

Comparing different countries based on their mean job satisfaction scores, however, ignores inequality in the distribution of scores between the countries’ individual respondents. Sen (1998) showed that if μ is the mean level of achievement, and I is the degree of inequality in its distribution, then the level of social welfare, W , may be represented as $W = \mu(1 - I)$: “this has the intuitive interpretation as the size of the pie (μ) corrected downwards by the extent of inequality ($I-I$)” (p. 129). Pursuing this line of reasoning, Anand and Sen (1997) argued that a country’s achievement with respect to a particular outcome should not be judged exclusively by its mean level of achievement (for example, by the average literacy rate for a country) but rather by the mean level *adjusted to take account of inter-group or inter-personal differences in achievements*.

If in the exposition of the previous paragraph, one measured inequality by the Gini coefficient, G , then Sen's measure of welfare becomes $W = \mu(1 - G)$. The last column of Table 5.1 shows these welfare values which, by construction, are "inequality adjusted". As Borooah (2009) has pointed out, the implications of this analysis for labour market economics are important. One might interpret a worker's level of job satisfaction as his/her "psychic income" which adds to, or subtracts from, his/her wage income. If one was only concerned with *average* levels of job satisfaction (that is, there was no aversion to inequality) then one might be unmoved by the fact that some people were very satisfied with their jobs, while others were highly dissatisfied, in much the same way that one might be indifferent towards inequality in the distribution of income. However, as one's aversion to inequality increased, one might want to see job satisfaction ("psychic income") more equally distributed in much the same way that one might desire greater equality in the distribution of wage income.

Inequality Decomposition

Table 5.1 was based on information for 20,866 individual scores for job satisfaction distinguished by 32 countries which could be grouped into countries of Western and Eastern Europe. With information on these individual scores, it is possible to estimate how much of the overall inequality in these scores can be explained by the fact that they are drawn from different countries and, indeed, from different parts of Europe.

To this end, this section uses the methodology of *inequality decomposition*. This decomposes overall inequality into "between-group" and "within-group" inequality. When the decomposition is *additive*, overall inequality can be written as the *sum* of within-group and between-group inequality:

$$\underbrace{I}_{\text{overall inequality}} = \underbrace{A}_{\text{within group inequality}} + \underbrace{B}_{\text{between group inequality}}$$

When inequality is additively decomposed then one can say that the basis on which the individuals were subdivided (say, region) contributed $[(B/I) \times 100]$ % to overall inequality, the remaining inequality, $[(A/I) \times 100]$ %, being due to inequality *within* the regions. So, inequality decomposition provides a way of analysing the extent to which inter-personal inequality (in this case,

in the probabilities of being at different job-satisfaction levels) is “explained” by a factor or a set of factors. If, indeed, inequality can be “additively decomposed”, then, as Cowell and Jenkins (1995) have shown, the proportionate contribution of the between-group component (**B**) to overall inequality is the income inequality literature’s analogue of the R^2 statistic used in regression analysis: the size of this contribution is a measure of the amount of inequality that can be “explained” by the factor (or factors) used to subdivide the sample.

To decompose inequality additively, however, it must be measured in a very specific way. Only inequality indices which belong to the family of *Generalised Entropy Indices* are additively decomposable (Shorrocks, 1980) and one of these indices is Theil’s (1967) Mean Logarithmic Deviation (MLD) Index which is used in the analysis in this section. The MLD index is defined over N persons as $\left(\sum_{i=1}^N \log(p_i / \bar{p}) \right) / N$ where p_i is the probability of worker i ($i=1 \dots N$) being at a particular job-satisfaction level (say, very satisfied) and $\bar{p} = \sum p_i / N$ is the mean probability.

<Table 5.2>

When the cleavage of the scores was by country, Table 5.2 shows that only 5.6 per cent of inequality in the individual scores was due to between-group inequality (that is, inequality *between* countries) and 94.4 per cent was due to within-group inequality (that is, inequality *within* countries). When the cleavage of the scores was by Western and Eastern Europe, Table 5.2 shows that only 2.9 per cent of inequality in the individual scores was due to between-group inequality (that is, inequality *between* Western and Eastern Europe) and 97.1 per cent was due to within-group inequality (that is, inequality *within* Western and Eastern Europe). With this analysis of inequality in job-satisfaction scores, the next section turns to understanding the shape and strength of the factors which led to these differences.

5.6 A Quantitative Analysis of Some Factors Influencing Job Satisfaction

The variable that was analysed was Y_i , which, as noted above, took the values 1, 2, or 3, depending on whether respondent i was “very dissatisfied”, “moderately satisfied”, or “very satisfied” with their

job. Since this variable took more than two values, an appropriate method of analysis was that of *multinomial logit*.

Mathematical Box: The Multinomial Logit Model

In a multinomial logit model with J (in this case, $J=3$) mutually exclusive possible outcomes, indexed, $j=1\dots J$, for each individual i , indexed $i=1\dots N$, the dependent variable Y_i is defined as taking the value j for individual i (that is, $Y_i = j$) if outcome j occurs for individual i .

If outcome J is taken as the base outcome, the multinomial logit represents, for every person i ($i=1\dots N$), the logarithm of the odds ratio of outcome j ($j=1\dots J-1$) – to the base outcome, J – as a linear function of K determining variables (indexed, $k=1\dots K$) with X_{ik} representing the value of variable k for individual i :

$$\log\left(\frac{p_{ij}}{p_{iJ}}\right) = \sum_{k=1}^K \beta_{jk} X_{ik}, \quad j=1\dots J-1 \quad (5.1)$$

where: $p_{ij} = \Pr(Y_i = j)$, $\sum_{j=1}^N p_{ij} = 1$ and β_{jk} are the coefficients associated with the j^{th} outcome for the k^{th} determining variable, with by definition, $\beta_{jk} = 0$ ($k=1\dots K$). The assumption is that these coefficients do not vary across the individuals in the sample.

The variables for explaining movements in the values of the dependent variable Y_i , over the $i=1,\dots,N$ respondents, could be grouped into four broad categories. The first category related to the respondents' socio-demographic characteristics: sex, age, marital status, education.⁹ The second category referred to the respondents' economic status: the nature of their employment – full-time or part-time employees or self-employed – and their perception of their *households'* income (classified as low, medium, high).¹⁰ The third group related to the characteristics of the respondents' jobs: the

⁹ The Values Survey recorded the highest educational attainment of respondents as “low” (inadequately completed elementary education/completed elementary education/inadequately completed secondary education), “medium” (completed secondary/university preparation), and “high” (some university without degree or university with degree).

¹⁰ The Values Survey recoded the raw income responses and presented these data to the user in terms of three categories in which respondents placed their households' income: “low”, “medium”, and “high”. The income data related to the respondent's household income, which may have little to do with the remuneration associated with the respondent's job, but it is not unreasonable to suppose that belonging to a rich/poor household might be

perceived degree of job security and the amount of freedom that the job offered to work, and to take decisions, independently. The Values Survey asked respondents to separately rate their satisfaction with the *security* and the *independence* their jobs offered on a scale of 1 (maximum dissatisfaction) to 10 (maximum satisfaction): from these scores, job security/independence was classed as: “low” (score 1–3); “medium” (4–7); and “high” (8–10).

<Table 5.3>

Table 5.3 shows the results of estimating the multinomial logit of equation (5.1) in terms of the explanatory variables noted above. The results are shown in terms of the “predicted probabilities” for two outcomes: very dissatisfied and very satisfied with one’s job. The numbers under the two columns of Table 5.3 headed “Probability”, show the predicted probabilities of being very dissatisfied/satisfied against the various variable outcomes shown in the first column. These probabilities were computed using the method of “recycled predictions”, as described in chapter 2. Thus, the probabilities of 15 per cent of men and 13.7 per cent of women being very dissatisfied with their jobs – and the probabilities of 49 per cent of men and 51.6 per cent of women being very satisfied with their jobs – were computed by assuming *ceteris paribus*, first, that the 8,526 persons in the sample were *all* men and second, that they were *all* women. Since the only factor that changed between the two calculations was gender, the difference in the two probabilities (1.2 and 2.6 percentage points) can be ascribed entirely to gender. This difference, computed as the difference between the probabilities of the outcome being considered (women) and the *reference* outcome (men), denoted by [R], is termed the *marginal probability* and is shown in the columns so headed. Asterisks shown against this value indicate that these differences were significantly different from zero, either at the 10 per cent (*) or at the 5 per cent (**) level.

The first feature of the results shown in Table 5.3 is that women were significantly *more* likely to be very satisfied in their jobs than men (51.6 versus 49 per cent) and were also significantly *less* likely to be very dissatisfied in their jobs (13.7 versus 15 per cent). In terms of the age of workers, the only significant feature was that workers above the age of 60 were significantly *more* likely to

positively/negatively correlated with job satisfaction, independently of whether the remuneration associated with the job was good/bad.

very satisfied in their jobs than those who were younger (61.1 versus 50.4 per cent for those in the 16–30 age bracket) and were also significantly *less* likely to very dissatisfied in their jobs (9.4 versus 15.3 per cent).

The results reported in Table 5.3 showed a very clear income effect to job satisfaction: workers whose household income was high were significantly *more* likely to be very satisfied in their jobs than those with low household income (53.3 versus 47.5 per cent) and significantly *less* likely to be very dissatisfied in their jobs (12.1 versus 17.9 per cent). Similarly, there was a clear effect of employment type on job satisfaction: those who were full-time employees were significantly *more* likely to be very satisfied in their jobs than those who were part-time (51 versus 46.5 per cent) and were also significantly *less* likely to be very dissatisfied in their jobs than either part-time or self-employed workers (13.5 versus 18 per cent for part-time workers and 16.5 per cent for the self-employed). Neither the marital status nor the education levels of workers exerted any significant influence on the probabilities of job satisfaction.

The most important influences on job satisfaction were the characteristics associated with the job – independence and security. The probability of being very satisfied with one’s job was 34.8 per cent when the job offered a low level of independence in decision making, *rising* significantly to 45.9 and 64.6 per cent when, respectively, the job embodied moderate and high levels of independence. Similarly, the probability of being very satisfied with one’s job was 33.8 per cent when the job offered a low level of security, *rising* significantly to 43.5 and 63 per cent when, respectively, the job embodied moderate and high levels of security. At the other end of the spectrum, the probability of being very dissatisfied with one’s job was 25.1 per cent when the job offered a low level of independence in decision making, *falling* significantly to 10 and 7.3 per cent when, respectively, the job embodied moderate and high levels of independence. Similarly, the probability of being very dissatisfied with one’s job was 25.4 per cent when the job offered a low level of security, *falling* significantly to 10.3 and 8.3 per cent when, respectively, the job embodied moderate and high levels of security.

There is, of course, the possibility that general happiness and high levels of job satisfaction are mutually related: happy people are satisfied in their jobs but satisfaction in one’s job could also

make a person happy. However, the evidence would appear to suggest that the impact of life satisfaction on job satisfaction was larger than the effect of job satisfaction on life satisfaction (Judge and Watanabe, 1993): a person's general well-being strongly affects their job well-being, though job well-being also affects general feelings (Warr, 1999).

5.7 Analysing Differences in Job Satisfaction between Western and Eastern Europe

This section turns to a comparison of job satisfaction between the two parts of Europe, in the context of a model in which the job satisfaction equation is estimated on data *pooled* across Western and Eastern Europe but, within this pooled dataset, the variable R is used to distinguish the respondents' regions: for N respondents, indexed $i=1 \dots N$, $R_i=1$ if respondent i was from Western Europe and $R_i=2$ if respondent i was from Eastern Europe.

Following this, every component of the vector of determining variables, \mathbf{x} , in the job satisfaction equation (specified in Table 5.3), was allowed to interact with the region variable, R :

$$Y_i = f(\mathbf{x} \times R_i) \quad (5.2)$$

If, for example, gender is a component of the vector \mathbf{x} then, in equation (5.2), the effect of gender on job satisfaction would be contingent on the respondent's region: being a female worker could affect job satisfaction differently depending on whether she was from Western or Eastern Europe. Within the context of this "interaction" model, it is possible to test whether the inter-country difference in the effect of a particular variable category (say, female) on job satisfaction was significantly different from zero.

<Tables 5.4 & 5.5>

Tables 5.4 and 5.5 compare, between Western and Eastern Europe, the predicted probabilities of being, respectively, very dissatisfied, and very satisfied with one's job for a selection of explanatory variables. The first row of Tables 5.4 and 5.5, labelled "Overall", shows the predicted probability of being, respectively, very dissatisfied, and very satisfied, computed over the 8,649 respondents in the pooled sample. This was 11.5 per cent and 16.5 per cent for Western and Eastern

Europe, respectively, for being very dissatisfied (Table 5.4); and 52.2 per cent and 47.3 per cent, respectively, for being very satisfied (Table 5.5).

As discussed earlier, these predicted probabilities were computed by, first, assuming that all the 8,649 respondents were from Western Europe and, second, by assuming they were all from Eastern Europe, the values of the other variables remaining unchanged at their observed sample values between these two scenarios. Thus, the two pairs of predicted probabilities, 11.5 and 16.5 per cent and 52.2 and 47.3 per cent, were entirely the product of regional differences since nothing else was altered between the two scenarios. The statistical significance of the difference between these two probabilities could be tested by dividing the difference by its standard error to arrive at the associated z-value: the z-value of 6.0 in Table 5.4 suggested that the predicted probability of being very dissatisfied was significantly *higher* in Eastern Europe than in Western Europe while the z-value of 4.7 in Table 5.5 suggested that the predicted probability of being very satisfied was significantly *lower* in Eastern Europe than in Western Europe.

For the most part, these aggregate results were also reflected in the values of the individual variables. Both men and women, considered separately, were predicted to be significantly *more* likely to be very dissatisfied in Eastern than in Western Europe (17.2 versus 11.2 per cent for men and 15.8 versus 11.8 per cent for women) and they were predicted to be significantly *less* likely to be very satisfied in Eastern than in Western Europe (45.4 versus 52.4 per cent for men and 49.4 versus 52.0 per cent for women).

Similarly, persons whose household income was low or middle were significantly *more* likely to be very dissatisfied in Eastern than in Western Europe (22.2 versus 11.7 per cent for low income and 16.7 versus 11.4 per cent for middle income) and significantly *less* likely to be very satisfied in Eastern than in Western Europe (42.7 versus 51.6 per cent for low income and 44.9 versus 51.4 per cent for middle income).

The differences in the effect of job characteristics – security, freedom – on job satisfaction between Western and Eastern Europe were particularly marked. Low job security was associated with 30.1 per cent and 22.5 per cent of respondents in, respectively, Eastern Europe and Western Europe, being very dissatisfied with their jobs and this difference of 7.6 points was significantly different from

zero. Similarly, low job freedom was associated with 28.5 per cent and 23.2 per cent of respondents in, respectively, Eastern Europe and Western Europe, being very dissatisfied with their jobs and this difference of 5.3 points was also significantly different from zero.

At the other end of the spectrum, high job security led 59.9 per cent and 65.5 per cent of respondents in, respectively, Eastern Europe and Western Europe to be very satisfied with their jobs and this difference of 5.6 points was significantly different from zero. Similarly, high job freedom led 59.3 per cent and 69.9 per cent of respondents in, respectively, Eastern Europe and Western Europe to be very satisfied with their jobs and this difference of 10.6 points was also significantly different from zero.

It would appear from this analysis, therefore, that “bad” job conditions – low security, low freedom – amplified job dissatisfaction in Eastern Europe significantly more than it did in Western Europe: employed persons in Eastern Europe were significantly more likely to be very dissatisfied with low-security and low-freedom jobs than their counterparts in Western Europe. But the obverse of this was that “good” job conditions – high security, high freedom – amplified job satisfaction in Western Europe significantly more than it did in Eastern Europe: the employed in Western Europe were significantly more likely to be very satisfied with high-security and high-freedom jobs than their counterparts in Eastern Europe.

5.8 Conclusions

This chapter was concerned with the plethora of issues that underpin the relation between income and happiness. Central to this relationship is the paradox that, at any point in time, there is a very clear positive relation between income and happiness – richer people profess to be happier than those who are poorer – but this relationship dissolves over time, so that economic growth and rising incomes in a country do not necessarily produce greater happiness. Known in the literature as the Easterlin paradox, this is an echo of the earlier Kuznets paradox, whereby at a point in time, the household savings rate rose as household income increased but, over time, a country’s savings rate did not change as it became richer.

Both paradoxes were resolved by appealing to relative incomes. In the case of Kuznets' paradox, Duesenberry (1949) argued that the savings rate of poor households was low because attempting to "keep up with the (richer) Joneses" kept their consumption high. In the case of the Easterlin paradox, the paradox was resolved through Easterlin's (1996) insight that, "happiness varies directly with one's own income and inversely with the income of others". In other words, higher income conferred two benefits to individuals: consumption benefits and status benefits.

At a point in time, along with the consumption benefits of higher income, well-off people in a country, by comparing themselves to poorer people, felt happier because they were manifestly better off, and thereby enjoyed status benefits. Over time, however, relative comparisons remained unchanged.

In practical terms, the contention of this chapter was that this resolution of the Easterlin paradox raised several ancillary questions. What was the comparator group, relative to which individuals either gained or lost status? Friends? Neighbours? The community? One's country of residence? People of a similar age, people with a comparable education? These are all questions which theory cannot answer, and which can only be addressed by empirical work. Yet, each empirical study adopts a different comparator group, the implicit assumption being that the group used by a specific study is the most appropriate for examining the Easterlin paradox.

Basing the theory on "knowing" the income of people in a comparator group raises the problem that, in many cases, there is a lack of transparency about incomes. A person may know his own income but may have little idea of the income of the person at the next desk. An innovative feature of the study reported in this chapter is that it finessed this issue by comparing standards of living between generations. Was the respondents' SoL higher, the same, or lower than that of their parents when they were of a comparable age? Through this comparison it was possible to show that, *for a given level of income*, people would be happier if their SoL was higher than that of their parents than if it was lower.

The second part of the chapter argued that happiness from income depended not just on amount but also on the way it was earned. Since a significant number of persons derived their income from employment, job satisfaction could, and would, be an important aspect of overall happiness.

Compared to East European countries, job-satisfaction levels were considerably higher in West European countries. Moreover, there was considerably greater inequality in the distribution of job satisfaction in East European, compared to West European, countries. When these facts were combined to construct a welfare measure of job satisfaction, the gap between West European and East European countries was even greater than suggested by a comparison of average satisfaction scores.

Estimating a multinomial logit model of job satisfaction suggested that two sets of factors were important for determining job satisfactions: socio-demographic characteristics and job characteristics. It was significant that women were less likely to be very dissatisfied, and more likely to be very satisfied, with their jobs than men and it is possible that this reflects the fact that women were more likely to be happy than men, as discussed in chapter 2 (see Graham and Chattopadhyaya, 2013). It was also significant that income – albeit, as in this study, household income – was an important determinant of job satisfaction, with employed persons from richer households being less likely to be very dissatisfied, and more likely to be very satisfied, with their jobs than those from poorer households.

The most important determinants of job satisfaction, however, were the characteristics of the job encapsulated in this chapter by two items: job security and job freedom. A lack of either dampened job satisfaction while their presence boosted it. Many managerial innovations may be missing the point about raising job satisfaction among workers. Attempts at raising productivity – through, for example, performance-related pay, accelerated promotion, greater monitoring – may reduce job satisfaction. This is because many such innovations are cast in a comparative framework: the pleasure derived from one's (otherwise good) remuneration is eroded when one learns that colleague(s) are even better paid; opportunities for promotion are to be welcomed but not when one's career stagnates while that of others flourishes. The results reported here suggest that workers are most satisfied when they work in a non-competitive, and perhaps even co-operative, work environment.

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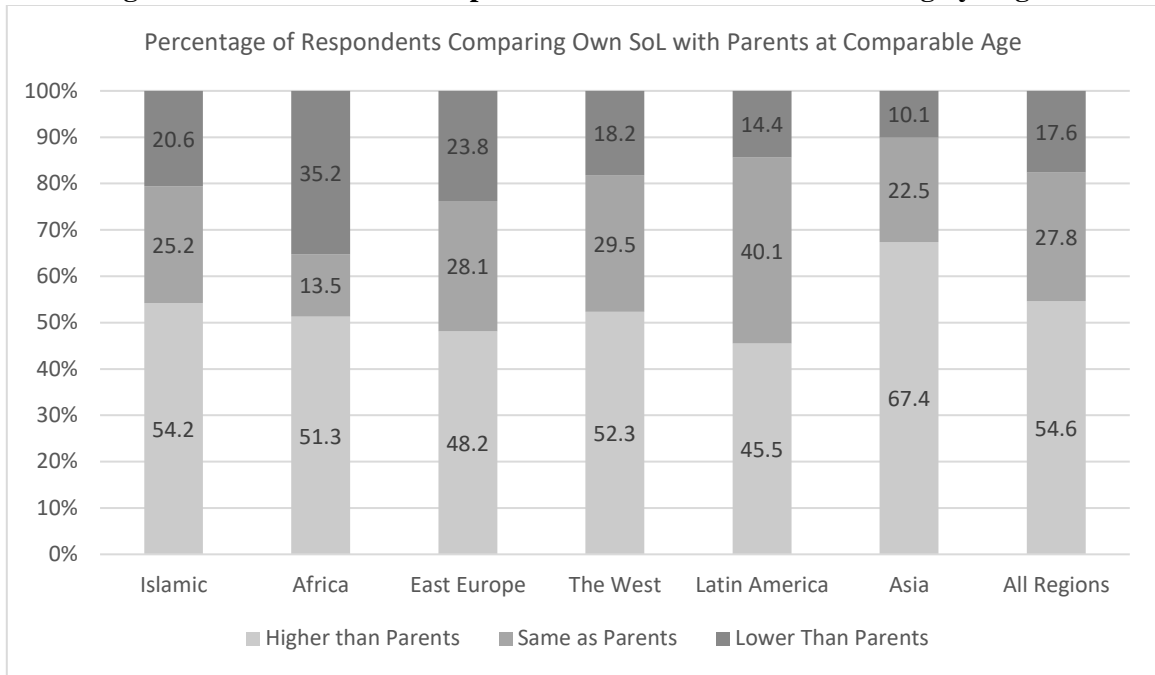
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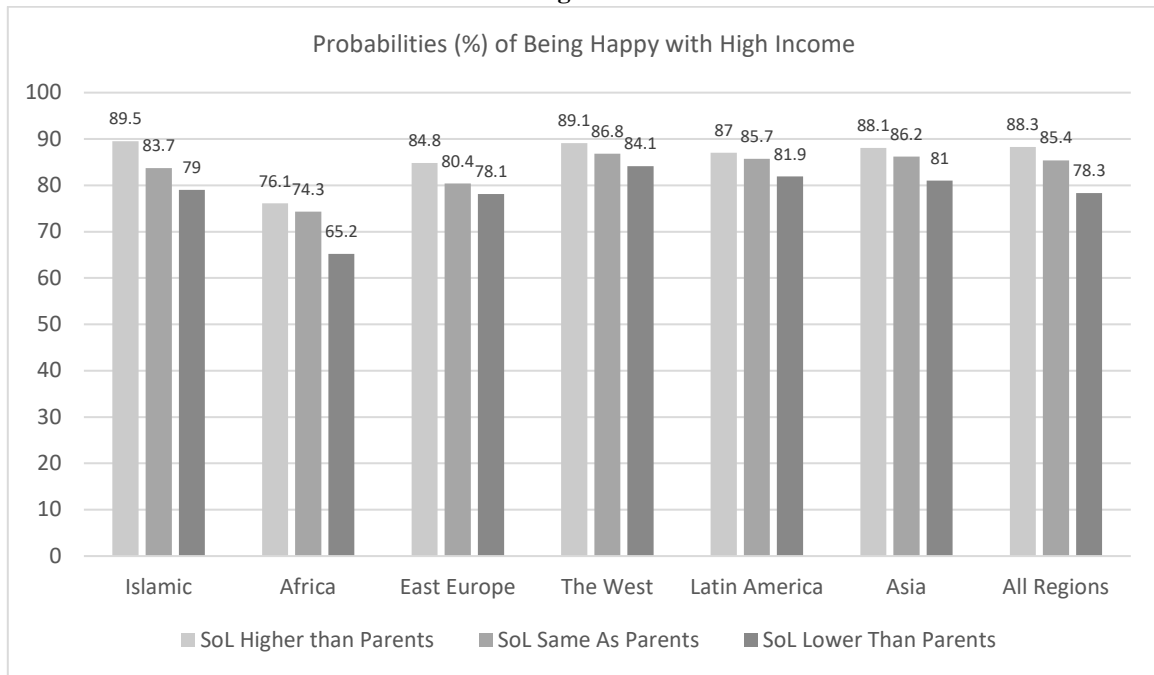
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Figure 5.1: Own Income Compared to Parental Standard of Living by Region



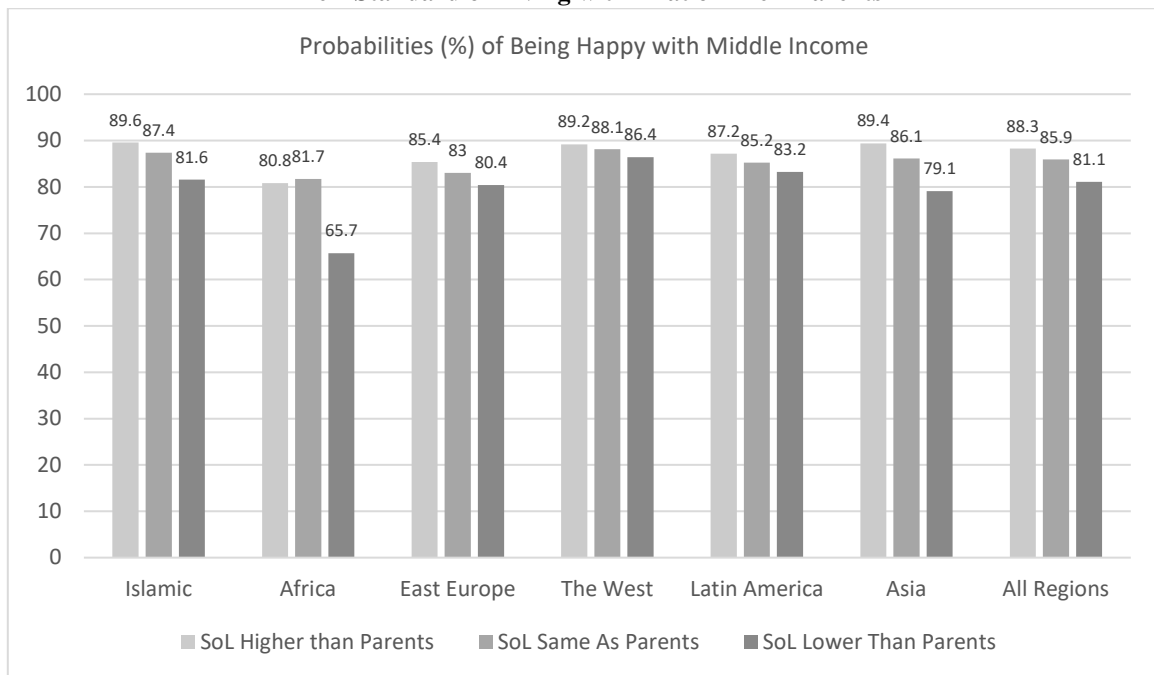
Source: WVS Wave 7

Figure 5.2: Probabilities of Being Happy for Persons in the Highest Income Quantile, After Comparing Their Standard of Living with That of Their Parents



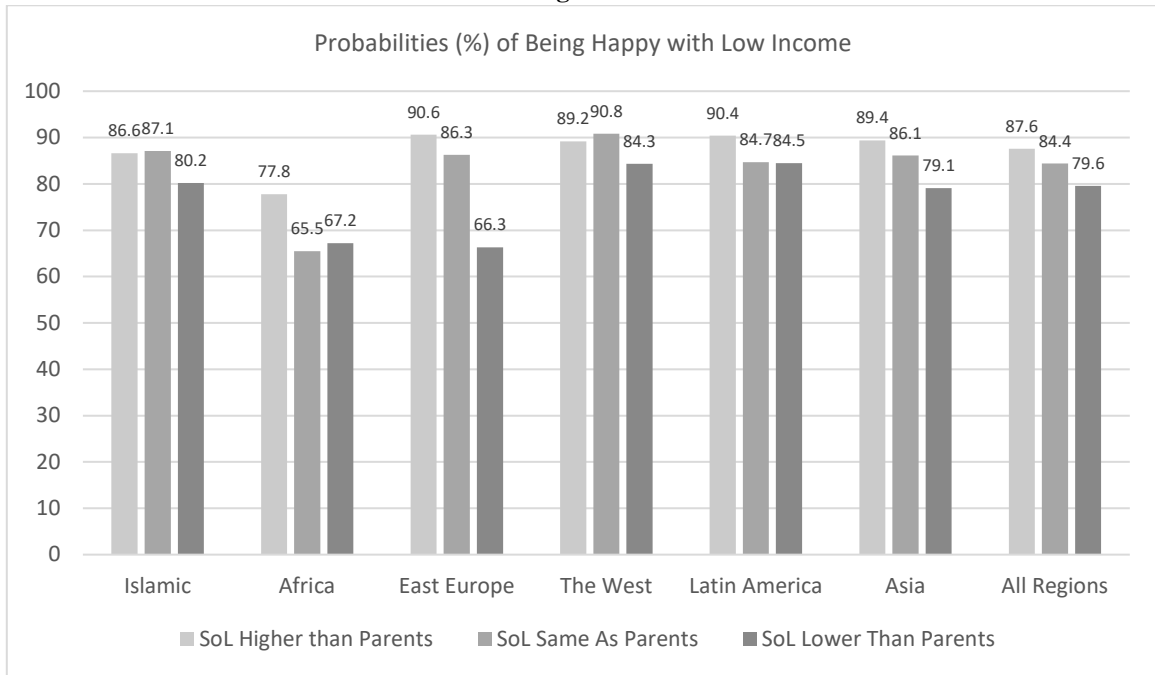
Source: WVS Wave 7

Figure 5.3: Probabilities of Being Happy for Persons in the Middle-Income Quantile, After Comparing Their Standard of Living with That of Their Parents



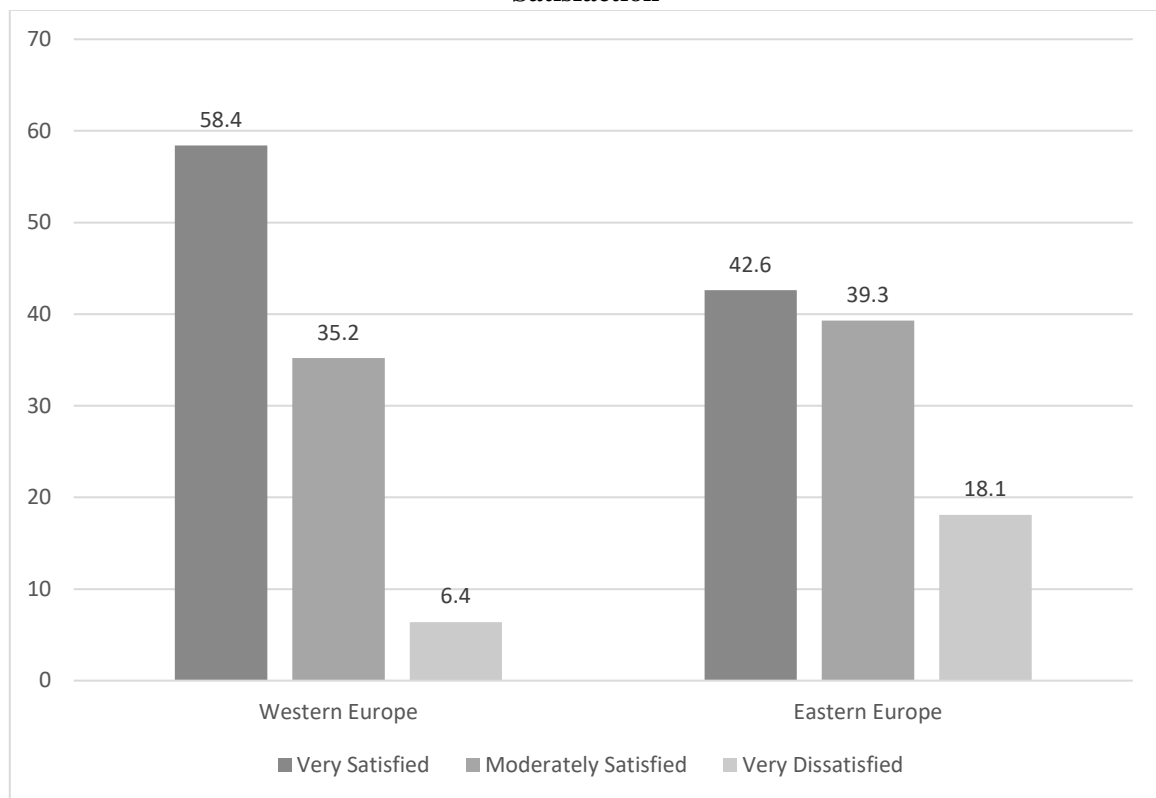
Source: WVS Wave 7

Figure 5.4: Probabilities of Being Happy for Persons in the Low-Income Quantile, After Comparing Their Standard of Living with That of Their Parents



Source: WVS Wave 7

Figure 5.5: Job Satisfaction by Region, Percentage of Respondents at Different Levels of Satisfaction



Notes: 12,154 and 9,256 respondents, respectively, in Western and Eastern Europe in 1999–2000.

Source: *World Values Integrated Data File*

Table 5.1: Job Satisfaction by Country, Numbers and Percentages at Different Levels of Satisfaction

Country	Very Dissatisfied	Moderately Dissatisfied	Very Satisfied	Total	Mean Score	Welfare = mean×(1-Gini)
Austria	44	232	488	764	7.8	6.7
	5.8	30.4	63.9	100		
Belgium	52	298	528	878	7.6	6.6
	5.9	33.9	60.1	100		
Denmark	27	149	464	640	8.1	7.1
	4.2	23.3	72.5	100		
Finland	26	174	356	556	7.7	6.9
	4.7	31.3	64.0	100		
France	63	349	381	793	7.1	6.1
	7.9	44.0	48.1	100		
Germany	39	317	569	925	7.7	6.8
	4.2	34.3	61.5	100		
Great Britain	41	212	263	516	7.3	6.2
	8.0	41.1	51.0	100		
Greece	85	324	311	720	6.9	5.8
	11.8	45.0	43.2	100		
Iceland	29	232	519	780	7.9	7.1
	3.7	29.7	66.5	100		
Ireland	30	188	352	570	7.8	6.7
	5.3	33.0	61.8	100		
Italy	101	412	596	1,109	7.3	6.2
	9.1	37.2	53.7	100		
Luxembourg	49	235	376	660	7.5	6.5
	7.42	35.61	56.97	100		
Malta	11	106	361	478	8.5	7.6
	2.3	22.18	75.52	100		
Netherlands	21	258	372	651	7.5	6.8
	3.2	39.6	57.1	100		
Northern Ireland	43	165	281	489	7.6	6.4
	8.8	33.7	57.5	100		
Portugal	23	183	245	451	7.5	6.4
	5.1	40.6	54.3	100		
Spain	37	208	266	511	7.3	6.3
	7.2	40.7	52.1	100		
Sweden	55	233	375	663	7.3	6.3
	8.3	35.1	56.6	100		
Bulgaria	62	141	231	434	7.2	5.9
	14.3	32.5	53.2	100		
Belarus	208	299	130	637	5.5	4.2
	32.7	46.9	20.4	100		
Croatia	72	213	238	523	6.9	5.6
	13.8	40.7	45.5	100		
Czech Republic	100	351	582	1,033	7.4	6.2

	9.7	34.0	56.3	100		
Estonia	93	257	244	594	6.7	5.5
	15.7	43.3	41.1	100		
Hungary	67	187	189	443	6.9	5.6
	15.1	42.2	42.7	100		
Latvia	71	199	207	477	6.8	5.4
	14.9	41.7	43.4	100		
Lithuania	86	173	265	524	6.9	5.6
	16.4	33.0	50.6	100		
Poland	81	209	219	509	6.6	5.3
	15.9	41.1	43.0	100		
Romania	85	160	192	437	6.7	5.3
	19.5	36.6	43.9	100		
Russia	327	503	484	1,314	6.2	4.7
	24.9	38.3	36.8	100		
Slovakia	97	360	315	772	6.7	5.6
	12.6	46.6	40.8	100		
Slovenia	47	226	282	555	7.2	6.1
	8.5	40.7	50.8	100		
Ukraine	173	226	210	609	6.0	4.5
	28.4	37.1	34.5	100		
Western Europe	738	4,120	6,913	11,771	7.6	6.6
	6.3	35.0	58.7	100		
Eastern Europe	1,652	3,572	3,871	9,095	6.6	5.3
	18.2	39.3	42.6	100		
All Countries*	2,390	7,692	10,784	20,866	7.2	6.0
	11.4	36.9	51.7	100		

Notes: The first line shows the sample numbers in a country for the different satisfaction levels; the line below shows the percentages of the total country sample for the different levels.

+ Excluding Turkey

Source: *Integrated Values File*

Table 5.2: Percentage Contribution by Country and Region to Inequality in Job Satisfaction Scores

By 32 Countries			
Overall Inequality: MLD (Gini)	Within-group Inequality as % of MLD	Between-group Inequality as % of MLD	Total
0.072 (0.167)	94.4	5.6	100
By Western and Eastern Europe			
0.072 (0.167)	97.1	2.9	100

MLD is Theil's Mean Logarithmic Deviation, as defined in the text.

Source: Own calculations from Integrated Values File.

Table 5.3: Determinants of Job Satisfaction in Western and Eastern Europe

	Very Dissatisfied				Very Satisfied			
	Probability	Marginal Probability	Standard error	z-value	Probability	Marginal Probability	Standard error	z-value
Gender								
Male [R]	0.150				0.490			
Female	0.137	-0.012*	0.007	-1.7	0.516	0.026**	0.010	2.6
Age Band (years)								
16–30 [R]	0.153				0.504			
30–45	0.145	-0.008	0.009	-0.8	0.483	-0.021	0.014	-1.5
45–60	0.139	-0.013	0.010	-1.3	0.514	0.010	0.015	0.7
60+	0.094	-0.059**	0.017	-3.5	0.611	0.107**	0.027	3.9
Income								
Low [R]	0.179				0.475			
Middle	0.144	-0.035**	0.010	-3.7	0.484	0.009	0.014	0.6
High	0.121	-0.058**	0.010	-5.9	0.533	0.058**	0.014	4.1
Economic Status								
Full-time Employee [R]	0.135				0.510			
Part-time Employee	0.180	0.044**	0.011	4.1	0.465	-0.045**	0.015	-3.0
Self-Employed	0.165	0.030**	0.014	2.2	0.491	-0.019	0.017	-1.2
Marital Status								
Married/living together [R]	0.142				0.516			
Divorced/separated/widowed	0.155	0.013	0.010	1.3	0.486	-0.030**	0.015	-2.0
Single never married	0.142	0.000	0.010	0.0	0.474	-0.042**	0.014	-3.0
Education								
Elementary [R]	0.133				0.521			
Secondary Vocational	0.141	0.008	0.011	0.7	0.513	-0.008	0.016	-0.5
Secondary University	0.155	0.022**	0.011	2.0	0.494	-0.027*	0.016	-1.7
University (partial/complete)	0.131	-0.002	0.012	-0.2	0.493	-0.028	0.017	-1.6
Freedom in Decision								
Low [R]	0.251				0.348			
Medium	0.100	-0.151**	0.010	-14.7	0.459	0.111**	0.014	7.9
High	0.073	-0.178**	0.011	-17.0	0.646	0.298**	0.014	20.7
Job Security								
Low [R]	0.254				0.338			
Medium	0.103	-0.151**	0.011	-14.1	0.435	0.098**	0.015	6.6
High	0.083	-0.171**	0.011	-15.8	0.630	0.293**	0.015	19.9
Region								
Western Europe [R]	0.105				0.536			
Eastern Europe	0.161	0.057**	0.008	7.0	0.479	-0.056**	0.011	-5.0

Multinomial Logit estimates based on 8,526 observations. [R] denotes reference category.

** Marginal probability significant at 5% level; * Marginal probability significant at 10% level.

Source: Own calculations from Integrated Values File

Table 5.4: Differences in the Predicted Probabilities Between Western and Eastern Europe of Being Very Dissatisfied with Jobs [†]

	Probability (Western Europe)	Probability (Eastern Europe)	Difference	SE of Difference	z value for H ₀ : Pr(West) = Pr(East)
Overall	0.115	0.165	-0.050**	0.008	-6.0
Gender					
Men	0.112	0.172	-0.060**	0.011	-5.4
Women	0.118	0.158	-0.040**	0.012	-3.4
Income					
Low	0.117	0.222	-0.105**	0.017	-6.3
Middle	0.114	0.167	-0.053**	0.012	-4.2
High	0.115	0.130	-0.015	0.013	-1.2
Employment					
Full-Time	0.120	0.149	-0.029**	0.009	-3.1
Part-Time	0.105	0.226	-0.121**	0.020	-6.1
Self-Employed	0.088	0.213	-0.125**	0.028	-4.5
Job Security					
Low	0.225	0.301	-0.076**	0.023	-3.3
Moderate	0.062	0.135	-0.073**	0.012	-6.2
High	0.065	0.094	-0.030**	0.010	-3.0
Freedom in Job					
Low	0.232	0.285	-0.052**	0.021	-2.5
Moderate	0.076	0.117	-0.041**	0.012	-3.5
High	0.034	0.103	-0.069**	0.01	-6.9

[†]Total of 8,649 observations of which 3,758 were from Western Europe and 4,891 were from Eastern Europe

** Significant at 5% level; * Significant at 10% level

Source: Own Calculations from Integrated Values File

Table 5.5: Differences in the Predicted Probabilities Between Western and Eastern Europe of Being Very Satisfied with Jobs ⁺

	Probability (Western Europe)	Probability (Eastern Europe)	Difference	SE of Difference	z value for H ₀ : Pr(West) = Pr(East)
Overall	0.522	0.473	0.049**	0.011	4.7
Gender					
Men	0.524	0.454	0.069**	0.014	4.9
Women	0.520	0.494	0.026*	0.015	1.7
Income					
Low	0.516	0.427	0.089**	0.023	3.9
Middle	0.514	0.449	0.065**	0.016	4.0
High	0.532	0.517	0.015	0.016	0.9
Employment					
Full-Time	0.523	0.486	0.037**	0.012	3.1
Part-Time	0.521	0.419	0.102**	0.028	3.6
Self-Employed	0.520	0.449	0.072**	0.033	2.2
Job Security					
Low	0.341	0.303	0.038	0.027	1.4
Moderate	0.460	0.406	0.055**	0.020	2.8
High	0.655	0.599	0.056**	0.016	3.5
Freedom in Job					
Low	0.319	0.335	-0.016	0.023	-0.7
Moderate	0.477	0.437	0.040**	0.019	2.2
High	0.699	0.593	0.105**	0.018	5.9

⁺Total of 8,649 observations of which 3,758 were from Western Europe and 4,891 were from Eastern Europe

** Significant at 5% level; * Significant at 10% level

Source: Own Calculations from Integrated Values File