

# Subjective Well-Being and Selected Economic, Demographic, and Job Factors in OECD Countries

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## Abstract

This study compared 10 economic, demographic, and job factors between happier and less happy OECD countries based upon scores of subjective well-being (SWB), a concept commonly meaning happiness or life satisfaction. In 2009, the scores of residents in the happier OECD countries were significantly higher on three factors-health, income, and the self-reported physical difficulty of their jobs-than the scores of residents in the less happy OECD countries. Although interest continues for improving SWB scores, analyzing correlations between SWB and selected factors yields only correlates of happiness. The authors discuss the results in the light of other studies and identifies initiatives that may lead to the development of new measures of subjective-well being.

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## 1 Background

Interest by philosophers, economists, and politicians in subjective well-being, often colloquially called *happiness*, has a long history (White, 2007). Over 2,000 years ago, in the *Nicomachean Ethics*, the Greek philosopher Aristotle outlined principles for leading a happy life (Parry, 2009). By the late 18th century, the United States Declaration of Independence identified happiness, along with life and liberty, as an inalienable right of all citizens. More recently, psychologists have endorsed the implementation of government policies that facilitate subjective well-being and have endorsed measures of subjective well-being as tools for evaluating a society (Diener, 2000; Diener and Suh, 1997).

Subjective well-being (SWB) has usually been measured by asking persons a simple question such as, “How happy are you with your life these days?” or “All in all, are you very happy, happy, or not happy?” (Krueger and Schkade, 2008). Researchers have associated SWB, or life satisfaction, with a wide scope of factors. These include age (Rojas, 2007), affect (Fordyce, 1977), education (Glenn and Weaver, 1981), GDP (Inglehart, 1999), gender (Toseland and Rasch, 1979-1980), health (Cohen, Doyle, Turner, Alper, and Skoner, 2003), income (Diener and Biswas-Diener, 2002), race (Sauer, 1977), employment status (Campbell, Converse, and Rodgers, 1976), and self-esteem (Diener, 2009).

Diener and Chan (2011), having assessed the SWB of more than 13,000 persons in 31 countries, reported that approximately two-thirds of men and women recorded a positive score on measures of life satisfaction. Thus, Tov and Diener (2009) pointed out that humans as a whole are happy, at least to some extent, with the SWB of most countries falling above the midpoint of the scale being used to measure SWB. They urged future researchers to try to determine what factors account for the circumstance when the members of a society score below the midpoint on a measure of SWB.

The relation of SWB to a country’s economic development and the income of its citizens has been a matter of controversy. In cross-country comparisons, Easterlin (1974) found that SWB does not vary a great deal with national average income per person as long as citizens’ basic needs are being met. Furthermore, while average income rose in the United States between 1960 and 1970, self-reported SWB declined. Easterlin suggested that where income and SWB are found to be associated within a society, this may be partly attributable to dissatisfaction caused by individuals with lower incomes comparing their incomes to those of fellow citizens with higher incomes. Oswald (2006) supports the view that beyond a certain minimum level, addition to individual wealth does not result in a large increase in reported SWB. This is not to say that some economic or job-related circumstances do not have a substantive impact on happiness, for according to Blanchflower and Oswald (2002), the condition of being unemployed has a significant negative effect on life satisfaction.

Research by Stevenson and Wolfers (2008) calls into question the findings of Easterlin (1974). The researchers re-examined results from studies of SWB

collected from multiple large-scale surveys and cross-country datasets. Assessing “the relationship across countries between well-being and the log of GDP per capita” (p. 3), these researchers linked the happiness of a society, rich or poor, with economic growth and development. According to Stevenson and Wolfers, scores of SWB are higher among members of richer societies, and scores are higher among richer members of a society than those of its poorer members. Using data from the Gallup World Poll, Deaton (2008) found a correlation exceeding 0.8 between measures of subjective well-being and the log of GDP per capita. In short, increasing incomes was linked to increasing happiness: “Subjective well-being-income . . . is not only significant but also remarkably robust across countries, within countries, and over time” (p. 3).

A main approach to investigating SWB has been to compare particular economic and social factors to measures of happiness or life satisfaction among countries. In this study, the researcher compared differences of 10 health, economic, and job-related factors between countries belonging to the Organisation for Economic Co-operation and Development (OECD) that were lower and higher in their citizens’ self-reported SWB (OECD, 2009). Headquartered in Paris, the OECD consists of 34 democratic countries, describing itself as committed to sustaining economic growth, increasing employment and standards of living, maintaining financial stability, collaborating to achieve economic development, and increasing world trade (OECD, 2010). OECD members meet regularly to compare activities and policies, address common concerns, and share effective practices.

Members of the OECD were chosen for this study for several reasons. First, despite numerous considerable differences among the OECD’s members, they form a unitary group in which all member nations can be considered basically democratic, thereby reducing the possible influence of type of government (in particular, autocratic vs. nonautocratic) on SWB. Second, the standard of living of member nations is such that for the most part, the basic needs of its citizens are cared for. Thus, according to Easterlin (1974) and Blanchflower and Oswald (2002), average income should not play a large role in determining differences in cross-country SWB. Third, according to the SWB measure and SWB data used (Marks, Abdallah, Simms, and Thompson, 2006), there is a relatively wide range of self-reported life satisfaction in the OECD nations (177 to 273). Given this range of SWB scores, the objective of the study was to determine whether there were any significant differences between the OECD countries with lower SWB scores and those with higher scores in respect to their relation to health, economic, and employment indicators.

## 2 Procedures

In this study, scores of SWB were used to define two groups: the 15 OECD countries with the highest SWB scores and the 15 with the lowest SWB scores. Scores of only 30 OECD nations were used because these 30 countries were the only OECD members at the time of the study by Marks et al. (2006). These SWB scores, from lowest to highest, are shown in Table 1.

Table 1: Subjective Well-being for 30 OECD Nations

Nation	Subjective Well-being
<u>Fifteen OECD countries with the lowest SWB scores (177–240)</u>	
Turkey	177
Slovak Republic	180
Poland	187
Hungary	190
Korea	193
Portugal	203
Japan	207
Greece	210
Czech Republic	213
France	220
Italy	230
Mexico	230
Spain	233
United Kingdom	237
Germany	240
<u>Fifteen OECD countries with the highest SWB scores (243–273)</u>	
Australia	243
Belgium	243
New Zealand	247
Norway	247
United States	247
Netherlands	250
Canada	253
Ireland	253
Luxembourg	253
Finland	257
Sweden	257

Austria	260
Iceland	260
Denmark	273
Switzerland	273

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Ten countries for which sufficient data were available to perform the analysis were selected from each of these two sets of OECD countries. From the 15 lowest scoring OECD countries, these were the following: Hungary, Korea, Portugal, Japan, the Czech Republic, France, Mexico, Spain, the United Kingdom, and Germany. From the 15 OECD countries scoring highest on SWB, the following 10 had sufficient data for the analysis: Belgium, New Zealand, Norway, United States, Canada, Ireland, Finland, Sweden, Austria, and Denmark.

Ten health, economic, and job-related factors were chosen to be compared between the two sets of countries. These factors were, men's longevity, women's longevity, overall health, national unemployment rate, and workers' perceptions of six characteristics of their current employment: income, job security, opportunities for advancement, stressful working conditions, to what degree the job required hard physical work, and degree of coming home from work exhausted. These 10 indicators were chosen as representative of a range of potentially important factors that might be associated with the SWB measures. Data for all 10 measures were gathered from the OECD's publication *Society at a Glance 2009: OECD Social Indicators*.

### 3 Results

Overall, the mean SWB score of the sample (235.8) approximated the mean of the 30 OECD countries (232.2). Life expectancy scores of the sample (men = 76.01, women = 81.72) were nearly identical to the corresponding SWB means of all OECD countries (men = 76, women = 81.7). No paired difference was statistically significant at the 0.05 level of confidence.

Table 2 presents descriptive statistics for SWB in longevity and health in the 10 countries with the higher SWB scores and the 10 with the lower scores. Table 3 displays ranks and test statistics for longevity and health using the Mann-Whitney U. A statistically significant difference was found for health ( $p = 0.001$ ) but not for longevity (men:  $p = 0.052$ , women:  $p = 0.427$ ) between the happier and less happy OECD countries. Table 4 presents the ranks and test statistics using the Mann-Whitney U for unemployment and six job-related factors. A statistically significant difference was found for income ( $p = 0.005$ ) and respondents' perceptions of hard physical work in their current job ( $p = 0.019$ ) between the happier and less happy OECD countries.

Table 2: Descriptive Statistics for Longevity and Health

	<i>n</i>	Mean	Std Dev	Min	Max
SWB					
Higher	10	255.800	10.541	243	273
Lower	10	216.600	18.192	190	240
Combined	20	232.200	235.800	190	273
Life Expectancy					
Men	10	76.390	2.366	69.00	79.00
Women	10	82.025	2.048	77.40	85.80
Combined	20	78.853	2.326	73.20	82.40
Health	20	70.000	16.248	39.00	90.00

Table 3: Ranks and Test Statistics for Longevity and Health

	SWB Group	<i>n</i>	Mean Rank	Sum of Ranks	Mann-Whitney U
Longevity men	Higher	10	13.05	130.50	0.052 <sup>a</sup>
	Lower	10	7.95	79.50	
Longevity women	Higher	10	11.55	115.50	0.436 <sup>a</sup>
	Lower	10	9.45	94.50	
Health	Higher	10	15.00	150.00	0.001 <sup>a</sup>
	Lower	10	6.00	60.00	

<sup>a</sup> Not corrected for ties.

Table 4: Ranks and Test Statistics for Job Factors

	SWB Group	<i>n</i>	Mean Rank	Sum of Ranks	Mann-Whitney U
Job security	Higher	10	12.55	125.5	0.123 <sup>a</sup>
	Lower	10	8.45	84.5	
High income	Higher	10	14.10	141.0	0.005 <sup>a</sup>
	Lower	10	6.90	69.0	
Advancement	Higher	10	11.80	118.0	0.353 <sup>a</sup>
	Lower	10	9.20	92.0	
Exhausting	Higher	10	9.40	94.0	0.436 <sup>a</sup>
	Lower	10	11.60	116.0	
Hard	Higher	10	7.40	74.0	0.019 <sup>a</sup>
	Lower	10	13.60	136.0	
Stressful	Higher	10	11.95	119.5	0.280 <sup>a</sup>
	Lower	10	9.05	90.5	
Unemployment	Higher	10	8.80	88.0	0.218 <sup>a</sup>
	Lower	10	12.20	122.0	

<sup>a</sup> Not corrected for ties.

## 4 Discussion and Conclusions

The analysis provided several notable results. The first of these was the difference in the health of citizens of the two sets of nations (significant at the .001 level). Health and SWB have previously been found to be positively related (Diener and Chan, 2011), as it was in this study. It of course cannot be determined whether these results are indicative of good health tending to increase happiness, or higher degrees of happiness having health benefits to individuals. It may be that these two variables are mutually supporting, as it is generally assumed that one's health affects one's happiness and it is claimed by Diener and Chan (2011) that there are health benefits that accrue from increases in life satisfaction. It is evident that more research is needed to tease out just what are the relationships between SWB and health.

A second interesting result of the findings is that income was significantly lower in the countries with lower SWB, suggesting that income is a positive correlate of happiness. As previously noted, Stevenson and Wolfers (2008), appear to hold this view, while others (Easterlin, 1974; Blanchflower and Oswald, 2002) claim that in cross-country analyses, income above the level of being able to take care of basic needs has only a mild correlation with life satisfaction. The results of the present analysis support the Stevenson and Wolfers research. It should also be noted that Easterlin's research was published almost 40 years ago, and that during the ensuing years, the phenomenon of globalization and worldwide instantaneous communication may have led citizens in many countries to be more aware of incomes in other countries. If so, the kind of dissatisfaction thought by Easterlin to possibly affect lower income individuals when they compare their incomes to those of higher income individuals in-country, may now be taking place between countries. That is, individuals in lower average income countries may become dissatisfied when they compare their own incomes to higher average income countries, a comparison made possible through knowledge gained about other countries through communication media such as the Internet. Again, further research is needed in this area to better understand both the in-country and cross-country relation of income to happiness in today's increasingly globalized world.

Another notable result of the findings was that though the difference in men's longevity between the two sets of countries did not reach statistical significance, it almost did, whereas the difference in women's longevity did not approach statistical significance. This finding suggests that there is a possible difference between men and women in how degree of life satisfaction is related to their longevity. Unfortunately, the health variable was not broken out into men's and women's health, since it is possible that doing so would have shown a difference between the two genders in how SWB was related to their health. Further research is needed to determine if there are indeed differences between genders in how SWB relates to both longevity and health.

A fourth notable finding was a significant difference between the lower and higher SWB countries in respect to citizens' perceptions of their work at their

current job being physically hard. This finding suggests that SWB tends to decrease with the physical difficulty of citizens' employment. If so, this may be partly due to workers' comparing their lot with others in their society that do not have to work so physically hard. This possibility calls for research to determine if it is the difficulty of their work itself or their comparisons of their working tasks to easier ones had by others that has an apparent dampening effect on the SWB of workers who perceive their work to be physically hard.

One further notable result of the findings is that unemployment had no significant association with SWB when the two groups were compared. This finding appears to be in opposition to Campbell, Converse, and Rodgers' (1976) finding of an association between life satisfaction and employment status. Furthermore, Blanchflower and Oswald (2002) found unemployment status significantly associated with lower SWB. Why unemployment was not found to be associated with SWB in this study is unclear. However, it should be noted that this study's analysis was not a direct comparison of individuals' SWB scores with their unemployment status. The findings suggest that there may be economic or societal factors that affect the overall unemployment rate of a nation without affecting citizens' SWB.

Overall, this study's results supported some previous findings, though a much greater difference was found between SWB and longevity among men than among women than was found previously, and no association between SWB and unemployment status was found. Regarding the employment measures explored, the relationship between SWB and two factors, income and hard work, differed significantly between OECD countries that recorded the highest and lowest SWB scores. Job satisfaction can be expected to be related to life satisfaction, and researchers have found significant positive relationships between SWB and scores of health and job satisfaction. The majority of adults in OECD countries expressed satisfaction with their work hours and salaries (OECD, 2009), although a substantial number of persons wanted to work more hours to earn additional income, particularly in France and Mexico.

Many studies other than this one have analyzed possible correlations between SWB and selected demographic, economic, and employment factors. A major limitation of this approach is that outcomes generally yield only correlates of happiness, and deeper understandings about the predictors of happiness are needed. Though worldwide, two-thirds of humans tested have recorded positive scores on measures of happiness or life satisfaction (Diener and Chan, 2011), there are marked differences between countries as exhibited in this research. Accordingly, there is continued interest in understanding the factors that predict lower scores and interest in improving scores overall and within countries (Tov and Diener, 2009). This is perhaps related to the idea that a principal goal of government should be to create happiness. A survey conducted in the United Kingdom (Easton, 2006) found that this belief was held by the vast majority of respondents.



A different research basis for understanding human societies and, by extension, life satisfaction was implicitly identified by Smith (2006), who pointed to language and social aspects of culture as principal sources of differences among societies—sources or influences that he argues result from chance: “Who we are depends on the other persons we know throughout our lives, where we live, health, wealth, social status, education, television, books, music, films, technology, and language. .” (p. viii). Smith argues that the basis of language and learning is social: “We see (or read about) other people, and assume that we’re like them. . . . We don’t learn what we’re like from looking inside ourselves, but from looking at other people” (p. 8). This view suggests that subjective well-being may be learned and linked to cultural factors. If so, new insights about SWB may require that future research consider more fully what cultural factors may be associated with life satisfaction.

A different kind of initiative for exploring the nature of SWB was put forward by Kahneman and Krueger (2006), who pointed out that to measure individuals’ life satisfaction typically requires them to make a brief global retrospective judgment, which may be influenced by their mood and memory at that moment. Contextual factors, too, such as the current weather, whether dreary or sunny, may affect responses. They suggest measuring individuals’ evaluations of the satisfactoriness of their recent experiences, with those evaluations being collected real-time or by way of diary entries, as an alternative way of measuring SWB that has the advantages of minimizing the effects of the filter of memory and being tied to how people actually spend their time. They further suggest developing a U-index that measures what proportion of their time individuals spend in what they judge to be an unpleasant emotional state. Such an index, they claim, would be well suited for making cross-country comparisons that minimize the effects of language and cultural differences.

Smith’s (2006) and Kahneman and Krueger’s (2006) viewpoints make even clearer what is already evident, that investigations of subjective well being—happiness—are only in their infancy. New ways of measuring this central phenomenon of people’s lives are being developed. This is not to say that measuring SWB by simply asking individuals how they currently feel about their lives as a global evaluation will not continue to be important. Many extraneous variables that may affect such evaluations can be expected to cancel one another out. An additional task for future research is to learn which factors, such as current employment status and income, may not cancel out, and to determine whether the list of such factors should be enlarged.

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