ASSESSMENT METHODOLOGIES
ENERGY, MOBILITY AND OTHER REAL WORLD APPLICATION

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ASSESSING THE EFFECT OF EDUCATION ON SUBJECTIVE
WELL-BEING IN PORTUGAL: A STUDY OF MEDIATING EFFECTS

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Abstract
Research on happiness has shown that individuals derive utility from material as well as from non-material factors, from which some useful policy implications have been derived. Since education has not received the attention we believe it deserves within this literature, we aim at contributing to fill in this gap by assessing the effects of education on subjective well-being, thus raising awareness for the importance of investing in education. Accordingly, in this study we conduct an analysis of the mechanisms that transmit the effect of education into subjective well-being, focusing on Portugal, to take into account country specificities, and using data from the European Social Survey. In order to test such mechanisms, we add to a baseline regression, which includes the education level, a large set of potential mediating variables to test whether education affects SWB through the following channels: 1. Higher lifetime earnings; 2. Higher professional status; 3. Less risk of unemployment; 4. Higher social capital, and 5. Better health. The analysis shows that most of the considered variables contribute to carry the effects of education into subjective well-being. This is evidenced by a reduction of the coefficients of the education variables following the introduction of each mediator in the regression, thus confirming the hypothesized channels of transmission. Moreover, we find that education does not exert a direct effect on well-being, that secondary education provides a wider range of benefits than higher education, and that the human capital theory is not enough to account

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http://dx.doi.org/10.14195/978-989-26-1039-9_10
for all the mechanisms transmitting the effect of education into subjective well-being in Portugal.

**Keywords:** Education, Subjective well-being, Happiness, Life satisfaction, Portugal

1. Introduction

Several authors have argued that results of research on the economics of happiness should be used to support public policy (e.g. Diener and Seligman, 2004; Frey, 2008; Helliwell, 2003; Layard, 2005). Some go as far as to call for a national system of well-being indicators. For instance, Diener and Seligman (2004: 2) wrote that such a system “would supplement and enhance [economic or other current social indicators'] value by placing them within an over-arching framework of well-being, underscoring the shortcomings of economic indicators. [...] The purpose of the production of goods and services and of policies in areas such as education, health, the environment, and welfare is to increase well-being. Therefore, well-being is the common desired outcome, and it follows directly that society should measure this outcome to provide a common metric for evaluating policies”.

In fact, emphasis on well-being is important because there seems to be a pronounced gap between the information contained in traditional indicators of economic performance like GDP, and what matters for common people’s well-being (Stiglitz *et al.*, 2009). The economics of happiness challenges the traditional economic thinking by relying on the principle that the best way to find out what is really important for individuals is to ask them, thus using survey-based indicators of subjective well-being (hereafter SWB). These indicators reveal peoples’ affective (pleasant and unpleasant feelings) and cognitive (satisfaction with life) evaluations of their lives. In so doing, this research has been able to foster the debate on the determinants of individual’s well-being, showing that individuals derive utility from material and non-material factors, including volunteering (e.g. Meier and Stutzer, 2006), social relations (e.g. Pugno, 2007; Powdthavee,
2008), religion (e.g. Clark and Lelkes, 2009), good governance (e.g. Frey and Stutzer, 2000) and the environment (e.g. Brereton et al., 2008). These insights suggest a broader notion of utility than conventional economics, thereby raising awareness for the need to pursue various goals, beyond those typically related to economic performance, and reshaping individuals and policy makers’ preferences towards welfare enhancing choices.

The economics of happiness research has been producing valuable contributions to help derive policy implications in several domains. For instance, Di Tella et al. (2001) have shown that a 1-percentage point increase in the unemployment rate is compensated for, in terms of well-being, by a 1.7-percentage-point decrease in the inflation rate, implying that the misery index wrongly ascribes the same importance to the two causes of economic discomfort. Since unemployment has a more devastating effect on SWB, this result suggests that, in the trade-off between unemployment and inflation, more emphasis should be put on unemployment reduction policies. Another interesting example of a policy insight obtained from happiness research results from finding that the costs of unemployment go well beyond the loss of income (Winkelmann and Winkelmann, 1998). This suggests that policies meant to help individuals find a job would provide advantages beyond the traditional unemployment benefit, which does not compensate unemployed individuals for the psychological costs of unemployment, such as the loss of self-esteem (cf. Frey et al., 2002). Still another example, meaningful for our study, was provided by Oreopoulos (2005), showing how compulsory school laws increase lifetime wealth, health and happiness. Other findings with relevance for policy making are reviewed in Diener and Seligman (2004).

Education is one of the determinants usually included in happiness regressions\(^3\). However, there is no consensus about its net effect. This puts the economics of happiness in a fragile position in terms of policy inferences concerning investment in education. Some studies find a

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\(^3\) Dolan et al. (2008) and Diener et al. (1999) provide extended surveys concerning the determinants of SWB, including education. Others, like Frey and Stutzer (2002), Myers and Diener (1995) and Diener and Seligman (2004) do not cover education as a main determinant of SWB.