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Relative-income effects on subjective well-being in the cross-section

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Abstract

Recent work suggests that a person's subjective well-being (SWB) depends to a large degree on relative-income. Focusing on the underlying identification, this paper makes four contributions to this literature: it describes the aggregation problem with past studies, implements an estimation strategy to overcome this problem, finds micro-level evidence in support of the hypothesis that relative-income does matter in individual assessments of SWB, and uses cross-section estimates to replicate the aggregate time-series. The evidence further indicates that relative-income effects may be smaller at low income levels. The results are obtained from ordered probit techniques and the general social survey (GSS). © 2001 Elsevier Science B.V. All rights reserved.

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1. Introduction

According to Abramovitz (1979, p. 5):

> I think one can sense a mood of disappointment in the achievement and, indeed, of increasing opposition to rapid growth in the future .... Let me give just one rather revealing illustration. At Stanford University, we arrange a gathering each year for our graduates. They spend several days at the University listening to lectures and taking part in seminars. For some years now one of the most popular seminars has been entitled "the rat race". Here, in the company of psychologists, sociologists, psychiatrists, etc. the graduates, young and old, conduct an inquest into their lives, and, as the title of the seminar suggests, the central question is why they find existence so frustrating, why they feel themselves on a treadmill.

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Economic growth is the main goal of most modern states because of the belief that an increase in incomes leads to an increase in welfare. Economists generally assume that having more goods leads directly to greater overall welfare, but recent empirical work has raised doubts about this simple assumption. In particular, this recent work has suggested that a person's subjective well-being (SWB) depends to a large degree on relative and not absolute income. As Easterlin (1995) suggests, "raising the incomes of all, does not increase the happiness of all, because the positive effect of higher income on SWB is offset by the negative effect of higher living level norms brought about by the growth in incomes generally" (p. 36).

If true, this conclusion raises serious questions concerning the relative importance of many of today's current policies. If economic growth only has minor effects on well-being then should other social goals receive more attention? Should equality of incomes be a more prominent social goal? Would a reduction in inequality increase dynamic efficiency? What is the proper way to index poverty? These questions and others have been posed in the literature. The answers, however, depend on our understanding of the influence of relative-income on well-being, yet our understanding is limited since past studies have focused on aggregated time-series trends that cannot identify the underlying dynamics of the relative-income effects. The structure of these effects is thus left undetermined. This study seeks to fill this gap in our understanding of relative-income effects.

The structure of this paper is as follows. In Section 2 the key ideas about SWB are discussed and the past empirical work is reviewed. The purpose of this section is to illustrate the need for an individual-level approach to test for relative-income effects. Section 3 presents the relevant econometrics. The past studies focused on aggregate time-series, but cannot exactly identify the underlying relative-income effects. A dynamic econometric model is presented which can be used to overcome these problems and test for relative-income effects using an ideal set of data, which is described. Section 4 then discusses the actual (and less-than-ideal) cross-section data used and discusses how to adapt our methodology from Section 3 to the cross-section. Section 5 discusses the results of the application of our econometric model using the data. Section 6 replicates time-series from the cross-section estimates to illustrate the path of well-being by age cohort. Section 7 summarizes and discusses the results.

This paper does not attempt a comprehensive treatment of the determinants of happiness. Instead, the focus of this paper is on the identification of what is driving the seemingly contradictory time-series. In this respect, this paper makes four important contributions. First, it describes how the aggregated nature of the past work leaves open the true nature of the relative-income effects. Second, it describes a simple estimation strategy that overcomes these problems, while being based on established research from psychology and sociology. The key point is that in investigating the relative-income effects on SWB this study focuses on the individual level and uses relevant concepts from the literature within and outside of the field of economics. Third, this study uses this micro-based approach to find evidence in support of the hypothesis that relative-income does matter in individual assessments of SWB, although, there is indication that these effects may be smaller at low income levels. Fourth, this paper shows that the time series trends can be obtained from the underlying structure estimated on the cross-section. These contributions mark a step towards