

## **MEASURES AND MODELS OF HIGHER EDUCATION EFFECTIVENESS**

### **Editorial**

This 'special issue' is aimed at contributing to the literature devoted to research outcomes on indicators, statistical models and methods for measuring and analysing effectiveness of higher education programmes, institutions and systems.

The Journal's Board suggested that its editors augment their and other people's long-standing studies on the methods, models and indicators for higher education assessment by issuing a broad call for papers from other concerned scholars. We editors issued an international call, and 27 scholars sent initial scientific contributions; the papers contained in this issue are the outcome of the refereeing and revision process.

All papers presented in this volume can be considered case studies in which statistical methods, models and indicators are combined with evaluation of the educational activities of universities. One of the criteria for selection of papers was the pertinence of the method or model to the situation at hand.

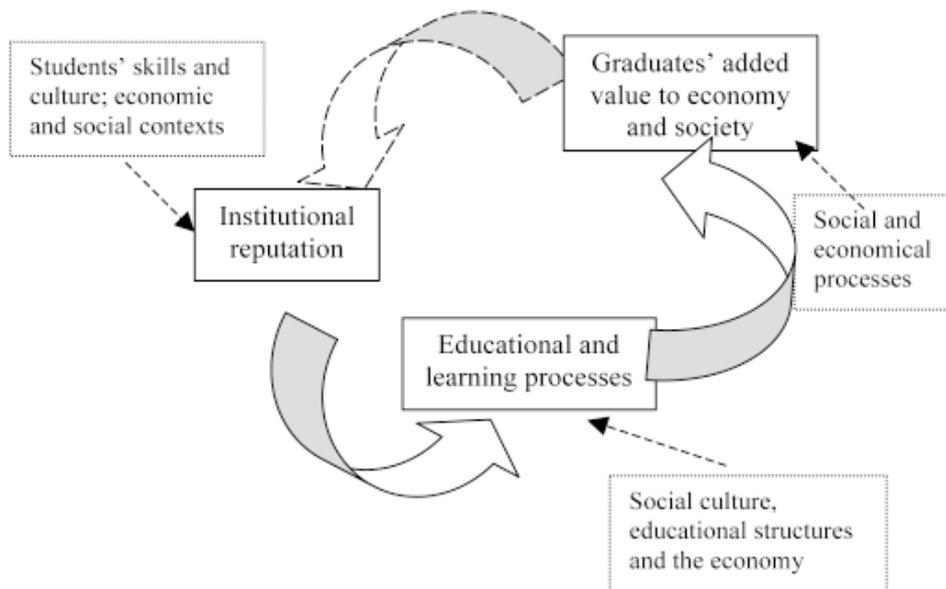
Of course, the cases described are just bricks added to the literature devoted to constructing a methodological framework for properly assessing, comparing, modelling and forecasting the effectiveness of higher education. Let us define the main concepts involved in this special issue and then get an idea of the possible relationships among them.

*Educational effectiveness* can be defined as the extent to which students' education is fit for its intended purposes. Or, put more succinctly, it can be defined as the personal and social efficacy of student learning.

Since learning is a continuous social process, its effectiveness could be assessed at any step in the process, and the assessment could then be used as input for the following step, which can likewise then be assessed for effectiveness, and so on, for each following step. For example, the effectiveness of an internship or an Erasmus study period can improve the learning of a student and his or her final grade. In turn, the degree earned can be effective in helping him or her find a job and/or in improving his or her career. In turn, the quality of the job itself can improve the graduate's life, and so on.

We can assess the educational process at any step. In the following figure, we represent three phases of the student's path toward, during and after university.

First, the reputation of the educational institution is linked inextricably to its presumed effectiveness at the time students make their initial choices. Next, the educational and learning processes are assessed for internal efficacy during the students' studies. Finally, what the graduates learned can be assessed again in the labour market and in the larger society. When graduates prove that they are able to add social value to the economy and the community, the institution's reputation is adjusted accordingly, either improving or worsening it. In a certain sense, effectiveness studies are the way for educational programmes, institutions or systems to confirm their *raison d'être*.



The tougher the times, the more relevant social effectiveness is to benefiting prospective students, their families and all other stakeholders of a higher education system. The paper presented by Zavarrone is concerned with indicators for reputational evaluation of an educational institution.

A system of higher education evolves in space and time according to the evolution of the 'small worlds' in which it is embedded. This is apparent in the figure above, in which people, the economy and society are involved in all phases of the educational process. For instance, the institution's reputation may be influenced by the education and culture of prospective students. Its educational processes may be influenced by the local culture and the presence of other educational and training

bodies. In addition, the learning that may be employed by its graduates depends on the local labour markets, while the social, demographic and economic situation affects the educational process at all phases. For our purposes, it is relevant that educational effectiveness is enough stable in time and can be assigned to an institution. The article of Bini, Grilli and Rampichini deals with this.

The last phase at which effectiveness is assessed is in the labour market. Possessing a certain degree may help in finding a job soon after graduation. That degree or another one may guarantee a ‘good’ job, that is, one adequate relatively to the student’s investment in learning. Moreover, a degree also may help in life, not merely in labour. The step in the graduates’ lives when learning is submitted to the judgement of the world of labour and the world at large is called *external effectiveness*. Articles by Lalla *et al.*, Civardi and Crippa, Fabbris *et al.*, and Martini and Fabbris are concerned with this phase. Moreover, Bini, Bertaccini and Masserini examine the external effectiveness of doctoral graduates.

Hence, this special issue may be considered an attempt to:

- Shift focus from the efficiency of education to its effectiveness and then from the internal effectiveness of higher education systems to the external, or social, effectiveness;
- Substitute, whenever possible and appropriate, the criteria for evaluating degree programmes from internally valued learning processes to socially relevant effects of learning;
- Add to short-term, post-graduation indicators of the effects of graduates’ learning (which would consist of employment rates) the medium-to-long-term effects, which could include effects on social life and strategic fulfilment of the graduates.

All the case studies presented in this volume pertain to the Italian higher education system. This is a limitation, because the cross-pollination between cultures can improve science. However, the editors—along with the Journal’s Board—intend this volume to be the first in a series of study reports about improving effectiveness of the higher education system and, in general, all socially relevant services.

In fact, in the future, the editors would be pleased to hear from other concerned scholars regarding the following methodological outcomes relevant to improving the learning capacity of a higher education system:

- Measurement criteria for the effectiveness of various types of higher education programmes, institutions and systems and, in particular, more holistic criteria for measuring effectiveness; that is, ‘is a system of measurement criteria viable?’

- Statistical criteria and psychometric tools for early detection of individuals or social groups at risk of learning difficulties, either because they have chosen the wrong track or because their lives progressed differently than initially expected; that is ‘how to forecast whom the system could leave back?’
- Statistical indicators that enable comparing the quality of sets of higher education programmes, institutions or national systems; that is, ‘which contextual variables are to be considered an agreed *ceteris paribus*?’
- Criteria for selecting, aggregating and weighing indicators of various aspects of learning for the purpose of defining a composite indicator of global effectiveness; that is, ‘which are the relevant aspects of effectiveness, and who is entitled to witness them?’

With these questions in mind, it is easy to understand that the studies described in this volume are merely a fragment of what is possible. But, a constructive fragment, we hope.

Luigi Fabbris and Giovanna Boccuzzo  
Co-editors of this issue