

## Abstract

In this work some aspects of the university system in Italy have been examined. A normative analysis, highlighting a certain degree of autonomy given to universities (specifically educational, scientific, organizational and financial autonomy) and the introduction of a higher education institutions' evaluation system has been presented. Moreover an empirical analysis of students' performances using administrative data on post-reform students enrolled in the University of Salerno, has been carried out. The aim is to examine the different parameters and indicators that the Ministry has been using to evaluate the universities' performances.

The first part analyses, both historically and legislatively, the first steps towards a certain degree of autonomy given to universities and towards the introduction of the higher education institutions' evaluation system in Italy (in order to distribute part of the funding according to universities' performances and results). Among the different parameters the Ministry has been using in order to evaluate universities, the following have been considered: a) dropout rate, specifically between the first and the second year, b) the student's performances in terms of credits acquired and exams passed and c) the time to get the degree and the graduation rate. The analysis shows that the Ministry clearly considers a high dropout rate, particularly at the beginning of the career (between the first and the second year), as a signal of a system that does not work perfectly as well as considers the low graduation rate as a signal of higher education system inefficiency. Theoretically, through the above stated parameters the Ministry has been using to evaluate universities, there is the opportunity to objectively analyze the results achieved by Italian higher education institutions and to reward the best performing of them. The main issue is represented by the fact that the evaluation's objectivity can be at risk due the distorting effects that such indicators might have. The evaluation does not consider perfectly the fact the universities are located in different "markets" and it could suffer the difficulty in making the data of local higher education institutions comparable at national level. Moreover, a distorted allocation of the resources could be made due to the fact that universities, in order to receive more money, could forcedly reach the prearranged goals. In other words, some of the students' outcomes such as the transition between the first and the second year could be favoured, credits and exams might become easier, respectively, to acquire and to pass and the graduate inflation problem could increase.

The second part contains an overview of empirical and theoretical analysis of the investment choices in higher education. It presents, specifically, a review of some empirical studies that have attempted to prove the validity of the theories which, in order to justify the investment, both financial and psychological in tertiary education, underline the positive correlation between education and earnings. The analysis concludes that it is still widely discussed in the literature which the most relevant theory could be (screening, human capital, sheepskin effects).

The third part also proposes a review of some empirical studies that analyze the students' performances, specifically paying attention to the dropout phenomenon, to the academic progression and to the achievement of academic degree. The review covers mostly the Italian literature on these topics. It shows that the problem of the students' attrition in higher education institutions is not related to a single aspect

and economic, sociological and psychological factors have to be taken into account. Moreover, considering the policy issues, it is not clear whether, following the university reform introduced by the Decree n. 509/99, the students' performances improvement, in term of lower dropout rate and higher graduation rate, is the result of organizational progress made by the universities or instead is a result of a reduction in the quality of higher education institutions.

The fourth part presents an empirical analysis of students' performances in tertiary education (the probability of dropping out, the academic progression and the probability of getting the degree have been specifically analyzed) using administrative data on post-reform students enrolled in the University of Salerno in the academic years 2002/2003, 2003/2004, and 2004/2005 (respectively Cohort 2002, Cohort 2003 and Cohort 2004). The analysis has been focused more on personal students' characteristics rather than on institutional aspects of the university. Specifically three different dropout definitions have been taken into account, different times in which the decision to dropout could be made have been also considered and different estimators, dealing with the sample selection problem, have been used. Among the different parameters considered in the universities' evaluation process, attention has been specifically paid to the transition between the first and the second year, due to the important role that such indicator has in the higher education institutions' evaluation process and in the distribution of funding. Academic progression both on a quality (credits acquired) and a quantity (grade point average) level has been analyzed taking also into account the probability of getting the degree. Among the principal results, in line with the main literature, evidence that the educational background (type of secondary school attended, diploma score) strongly influence the students' performances has been found out, being specifically an important determinant of the dropping out decision. According to the results obtained, well trained students seem to be better integrated in the university system. In other words, the university system let the most skilled students persist and have better performances, even though there is a strong relationship between the secondary school choice and the parental background (educational, cultural and financial) to be taken into account. Secondary school track chosen also represents a channel through which the family environment (consolidating the intergenerational correlation in the educational attainment) influences the level of education completed. In spite of the limits due to the data constraints (parents' education cannot be taken into account), if dropout is due more to personal factors than to a real scarcity of education supplied, then evaluating universities on indicators such as the number of students who persist between the first and the second year might not guarantee objectivity in assessing the quality of the universities. Moreover evidence that students' non-selective entrance test scores appear to be positively related to the students' outcomes has been also found out. Students with a better entrance tests' performance have a lower probability of dropping out (both between the first and the second year and in the whole time), have a higher probability of getting the degree and have better performances in term of academic progression. Thus students' non-selective entrance test scores seem to be a good predictor of the students' performances suggesting their use to improve the matching between students and university. Either the university could make the test more selective, with a minimum entrance level, avoiding to receive less money from the State due to the high dropout rate or the Ministry could implement entrance tests at national level so that, in the evaluation process, universities with a high dropout rate, net of the entrance tests, could be penalized.