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1. <b>Title of Paper</b>	The impact of a Higher Education Institution on Socioeconomic Development – the study case of the Polytechnic Institute of Beja.  O Impacto de uma Instituição de Ensino Superior no Desenvolvimento Socioeconómico – O estudo de caso do Instituto Politécnico de Beja
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6. <b>Three (3) Keyword Descriptors</b>	Higher Education, Regional Development, Socioeconomic Impacts
a. MSC	
b. JEL	I230, I250, R110
7. <b>THE ABSTRACT</b>	
a. Introduction, Background, and Objectives	It is widely recognized that the investment in human capital, innovation, and knowledge transfer is essential to sustainable

	<p>development and growth. Within this context, the role and action of Higher Education Institutions (HEIs) are vital. Being, by nature, knowledge and learning centers, the HEIs were confirmed in the 90's, in the context of the so-called Knowledge Society, as strategic agents of innovation, crucial to support the socioeconomic competitiveness of countries and regions.</p> <p>The debate over the role of the HEI in society, however, has often been characterized by misunderstanding, oversimplification, and/or inadequate support of clear empirical evidence. In fact, there has been a tendency to restrict the analysis of the role of HEIs to their contribution to the development of science and the provision of skilled human resources, often ignoring their direct impact on the economic activity or on the social dynamics of the territory.</p> <p>As a result, and in the context of the economic and financial crisis that Portugal is now facing, it seems particularly relevant to analyze the socioeconomic impact of the HEIs. This paper aims to reflect on the role and impact of higher education on regional development, based on the reality of public higher education in Portugal and, more specifically, the case study of the Polytechnic Institute of Beja (IPBeja). This institution belongs to the subsystem of polytechnic higher education and is located in a region that has one of the lowest economic ratios and population density in Europe</p>
b. Theoretical or Conceptual Framework (if applicable)	<p>The history of socioeconomic impact studies reveals two different yet complementary stages, in what methodological approaches are concerned.</p> <p>In a first stage, particularly between the 1970s and the 1990s, predominated studies based on models that determine the demand-side impact and the dynamics generated by expenditure. Among these, you can find the so-called ACE model, developed by Caffrey and Isaacs.</p> <p>From the 1990s onwards, and complementary to this demand-side approach, many other studies and models have been introduced, now focusing on the assessment of the impact provoked by the outputs produced by HEIs, i.e., on supply-side impact analysis. Within this framework, these studies analyze the impact of HEIs resulting not only from the education provided and the qualification of human resources but also from applied research and innovation and technological transfer.</p> <p>From a standpoint of combined logic in impact analysis, the approach centered on the I-O (Input-Output) model gained particular relevance. It was the most commonly applied in studies conducted in the 90s, especially in the USA. Still within this second stage in the development of impact studies, it seems relevant to stress the greater interest in exploring and demonstrating the relationship between HEIs and regional development. Studies developed within this framework include:</p> <ul style="list-style-type: none"><li>• Karlsson and Zhang (2001): which aims to demonstrate the interdependence between knowledge, human and social capital, regional dynamics of the labor market, competitiveness and productivity.</li><li>• Ehrenberg (2004): which explores and compares the</li></ul>

	<p>diverse econometric models applied/applicable to higher education result indicators such as: the return on investment rates, the dynamics and behavior of the labor market, the behavior of industry.</p> <ul style="list-style-type: none"> <li>• Siegfried et al. (2007): which, from the analysis of major weaknesses in the economic impact studies conducted before, offers suggestions as to the procedures that must be taken into account when exploring the impact induced by supply, with particular emphasis on the effects related to medium and long-term impacts of the knowledge produced.</li> </ul> <p>Both the studies focusing exclusively on the estimation of economic impact and those which attempt to explain the relationship between HEIs and regional development, or even the ones that seek to combine demand-side and supply-side analyses, all conclude that the impact and vital boost of HEIs on local and regional economy are undeniable. Regardless of the methodology applied, this is a consensual conclusion, common to the different “schools” of impact studies, whether in the USA (the pioneers and greatest supporters of such studies), or in Australia, New Zealand, and even Europe.</p>
<p>c. Research Methods, Samples or Data Sources</p>	<p>To estimate the local impact of the IPBeja, we decided to adopt a demand-side approach, aiming to measure the direct and indirect effects of the Institute on the economic and social activities of the municipality of Beja during 2011. We developed an approach which allowed us to “isolate” the effect of the IPBeja, by identifying “what it added to the economic, cultural and scientific dynamics” and “the added value generated.” We applied five different models:</p> <ol style="list-style-type: none"> <li>1) The ACE model</li> <li>2) The simplified version of the ACE model (proposed by Leslie and Lewis, 2001)</li> <li>3) A simplification of the ACE model, focusing on the spending of staff and students of the IPBeja residing or studying in the municipality and also of those residing outside Beja but spending there because they work or study at the IPBeja</li> <li>4) The Keynesian Local Multiplier</li> <li>5) The Ryan Short-Cut model</li> </ol> <p>We used documentary and non-documentary sources, depending on the indicators. The collection of information about students and staff was obtained by questionnaire survey. The design of the questionnaire followed the guidelines of instruments validated in previous research of a similar nature. Besides, a pilot test was applied to samples of these universes (students and staff). In order to guarantee the representativeness of the sample, in terms of statistical significance, we assumed as reference the distribution of the following parameters: age, gender, year of the course (students) and years of service (staff). This allowed us to estimate the results for the universe.</p>
<p>d. Method of Analysis</p>	<p>The analysis of the information collected was made using the SPSS software, following then the calculation assumptions of</p>

	the 5 methods in application.
e. Findings	<p>Based on the application of five (5) different methods of calculation (the most consensual in this type of studies worldwide) and a time span limited to 2011, the results of this study demonstrate very impacts on:</p> <ol style="list-style-type: none"> <li>1) the population dynamics;</li> <li>2) economic activity;</li> <li>3) employment and qualification;</li> <li>4) scientific, cultural, and social dynamics;</li> </ol> <p>besides other benefits.</p>
f. Conclusions, Scholarly or Scientific Significance, and Implications	<p>These conclusions and findings must be considered as a first approach to the socioeconomic impact the Polytechnic Institute of Beja generates on its local surroundings. However, we may conclude that these effects are really important and contribute to the growth of local economy and, to a larger extent, to the economic development of the whole region, namely of the District of Beja.</p> <p>Surely, the estimated economic impact of the institute is a conservative estimation of global impact, since other dimensions have to be taken into account, such as the generated long-term effects. These consequences or qualitative type effects (impact of the institute on the citizens' quality of life, or as a determinant factor influencing company location, etc.) are important to acknowledge, even though it may be complex to undertake the analysis of these impacts. The study of the socioeconomic impact of the IPBeja certainly becomes a valuable asset to maintain and to improve the profile and reputation of the institute, contributing to highlight the role the academic community plays in the development of local economy and to increase the knowledge upon the multiplying effects of the institute's activity within its immediate surroundings.</p>
8. References	<p>Arbo, P. e Benneworth, P. (2007). Understanding the regional contribution of higher education institutions: a literature review. Education Working Paper, 9. OECD Publishing, disponível em <a href="http://www.oecd-ilibrary.org/docserver/download/51411n9dg538.pdf?expires=1381157994&amp;id=id&amp;accname=guest&amp;checksum=C5948B875D083E9ACBBFD3B3D4ED3581">http://www.oecd-ilibrary.org/docserver/download/51411n9dg538.pdf?expires=1381157994&amp;id=id&amp;accname=guest&amp;checksum=C5948B875D083E9ACBBFD3B3D4ED3581</a></p> <p>Blackwell, M., Cobb, S. e Weinberg, D.(2002). "The economic impact of educational institutions: Issues and methodology", Economic Development Quarterly, vol. 16 n<sup>o</sup>. 1, February, pp. 88-95.</p> <p>Elliot, D., Levin, S. e Meisel, J. (1988). "Measuring the economic impact of institutions of higher education", Research in Higher Education, vol. 28, n<sup>o</sup>1, pp.17-33.</p> <p>Jabalameli, F. , Ahrari, M. e Khandan, M. (2010). "The economic impact of University of Tehran on the Tehran district economy", European Journal of Social Sciences, vol. 13, n<sup>o</sup> 4, pp. 643 – 652.</p>

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