

Interactive comment on “International collaboration, mobility and team diversity in the life sciences: impact on research performance” by F. Barjak and S. Robinson

Anonymous Referee #3

Received and published: 8 October 2007

This paper analyses the impact of (1) team diversity resulting from researchers with different countries of origin and (2) international collaboration leading to joint publications on the research productivity and citations of research teams in the life sciences. The study is based on Internet-based research and an electronic survey among 1,773 team leaders in ten European countries that was conducted by the authors, presumably in the year 2003 (this would need clarification). The paper is well structured, presenting a short introduction, a brief literature review, the research methodology, two sections on the empirical findings and a conclusion. While the paper presents new empirical insights into international academic mobility and collaboration, it is characterised by the following four shortcomings:

S156

- a) A conceptual framework and discussion of why the life sciences, the ten European countries and the quantitative approach were chosen for this study (3.1 just explains why the research team is the unit of analysis). And why is cultural diversity analysed instead of disciplinary diversity? Could it be that cultural diversity in fact mirrors different schools of thought and thus indicates different approaches to a certain topic?
- b) Key research questions and hypothesis derived from the literature review in sections 2.1 and 2.2 (these could be presented at the end of the second section).
- c) A language check by a native speaker, particularly in sections one and two, and also a rethinking of core terms such as “origin diversity”. My suggestion would be to use the term “cultural diversity” instead and explain it as team diversity resulting from researchers with different countries of origin.
- d) The empirical results are mainly presented but not interpreted in the wider literature context. Therefore, the reader is often left wondering how the empirical results in sections four and five might be explained. For example, why do “teams with high or low origin diversity of post-docs attract more citations per publication than teams with average origin diversity of post-docs.” (Barjak and Robinson, 2007, 134)? And how could one explain this finding: “We see in both cases that team productivity is higher for teams with collaboration compared to teams without. It also appears that teams collaborating internationally achieve a higher quality of publications, measured by MOCR, than teams with no international collaboration. However, only in the specific case of collaboration with the USA is the difference in research output quality statistically significant” (Barjak and Robinson, 2007, 135). Furthermore, does it matter from which country the team members and the collaborators come from?

In my opinion, these shortcomings would need to be eliminated in a revised version of

S157

the paper. Furthermore, I would like to suggest the following changes to the paper (see Barjak and Robinson, 2007):

p. 122, 5-8, replace sentence

We distinguish between international collaboration of researchers from different countries and team diversity resulting from researchers with different countries of origin.

p. 122, 9, replace sentence and clarify to what extent they engage in collaboration

... and engage in collaborations leading to leading to joint publications ...

p. 122, 25, meaning?

... some kind of global "matching" of scientific excellence

p. 123, 2-4: Who says this? References needed or clarification that these are hypotheses

p. 123, 15, replace

policy, empirical studies have pointed out how geographical mobility helps to generate a productive...

p. 123, 21-22: no new paragraph

p. 123, 22-23, rethink phrase

"with the diversity of teams by origin it causes" : cultural diversity?

p. 124, 3: Why were the life sciences chosen?

p. 124, 4, rethink phrase

Pooling knowledge for research

p. 124, 5, replace?

2.1 Team diversity through researchers from different countries of origin

S158

p. 125, 16, replace?

2.2 International collaboration leading to joint publications

p. 130, 4 and p. 133, 10: rethink "Origin diversity" and perhaps replace with "Cultural diversity" or "Diversity through different countries of origin"

p. 135-136, first paragraph: Could some of this information go into a footnote?

Interactive comment on Soc. Geogr. Discuss., 3, 121, 2007.