

Impacts of an Interdisciplinary Research Center on Participant Publication and Collaboration Activities

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Abstract

Because of the large amount of money invested in interdisciplinary research centers, a need exists to understand these centers from the perspective of what is working, and what is not. It is of major interest to funding agencies to know to what extent center participants are collaborating across disciplines to tackle research problems (Norman, Best, Mortimer, Huerta, & Buchan, 2011). This presentation will outline a study of the effects of an interdisciplinary research center (NIMBioS) on the publication and collaboration behaviors of faculty affiliated with the center. The multidimensional evaluation approach in the study relied on Web of Science publication data coupled with interview data designed to (a) assess the early effects of affiliation with an interdisciplinary research center on participant publication/collaboration activities, and (b) to determine what factors contributed to the changes in these activities. Analyses included science overlay mapping (Rafols, Porter, and Leydesdorff, 2009), regression analysis, and thematic analysis of interview data.

Results of the study indicate that affiliation with a NIMBioS working group has a significant positive effect on participant collaboration activities (i.e. number of co-authors, number of international co-authors, number of cross-institutional co-authors), and a moderate effect on publication activities (i.e. publishing in new fields). Qualitative analysis of interdisciplinarity showed a shift in publication WOS subject categories (SCs) toward mathematical fields. Factors contributing to success cited by interviewees included organized leadership, a positive atmosphere, breaking into sub-groups, and the ability to collaborate with researchers with whom they would not have interacted outside of the group.