

# **Spatial Perspectives on Analysis for Curriculum Enhancement (*SPACE*)**

NSF Proposal 0231263: NSF 02-043 CCLI National Dissemination

Submitted 6 June 2002; Revised 29 April 2003

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## **Project Summary**

*SPACE* is a proposed three-year program to achieve systemic change within undergraduate education in the social sciences, with extension to the environmental sciences. Our approach is based on the value of spatial thinking, and associated technologies (geographic information systems, tools for spatial analysis), as the basis for greater integration among the social science disciplines, greater motivation for students, greater relevance to societal problems, greater integration of technology into undergraduate instruction, and greater employment prospects for graduates.

The program will be centered on a series of professional development workshops, with extensive follow-on activities; and will feature additional programs designed to leverage these workshops, to achieve high rates of participation among traditionally under-represented groups, and to bridge the gap between research and teaching in the social sciences. It will be organized by a consortium led by the University of California, Santa Barbara, and will include The Ohio State University (PI, Mei-Po Kwan), and the University Consortium for Geographic Information Science (PI, Arthur Getis), a consortium of over 60 institutions with strong commitments to the principles on which *SPACE* is based.

The program will build on the successful experience of the Center for Spatially Integrated Social Science (CSISS), a project funded by NSF since 1999 under its program of support for research infrastructure in the social sciences. CSISS organizes workshops for graduate students and young faculty, to introduce them to GIS and spatial analysis as research tools. We believe the time is ripe for a major new initiative that will teach the teachers, and move the focus from research to undergraduate learning.

The proposed Spatial Perspectives on Analysis for Curriculum Enhancement (*SPACE*) will focus primarily on National Education Workshops to provide undergraduate instructors with basic skills in GIS and spatial analysis, and introduce them to the latest techniques, software, and learning resources. *SPACE* will also organize sessions at major conferences to provide instructors with basic introductions to using spatial technologies in the classroom, to maintain engagement with participants in the national workshops, and to reach wider audiences than the workshops. A program of dissemination will ensure that learning materials and innovative approaches to undergraduate learning become widely available. Finally, the project will develop an extensive set of Web resources to facilitate the sharing of materials and assessment instruments among undergraduate instructors.