School of Geography and Development
Consolidating and Expanding Key Affiliations

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This paper describes the creation of a School Geography and Development and the expansion of linkages between that unit and the centers and schools that emerge from the current restructuring. These linkages are further reinforced and facilitated by the recent movement of the Planning Degree Program from the Department of Geography and Regional Development to the College of Architecture and Landscape Architecture. It is also greatly enabled by Geography’s impending move to the new ENRII building and the shared facilities this will provide with the School of Natural Resources, and the Institute for Environment and Society (and later the Office of Arid Lands Resource Research, and the department of Atmospheric Sciences).

Geography and Regional Development Program is a unit with 21 core faculty, 379 undergraduate majors and 78 graduate students. The program is interdisciplinary by nature, with 7 faculty holding joint appointments (% effort) in other units including The Center for Latin American Studies (SBS), Office of Arid Lands Resource Sciences (CALS), and the Udall Center for Studies in Public Policy (VPR), among others. In the last five years, the department has received or supported grants totaling $19,922,673 (GRD’s total share of Co-PI awards: $3,219,764) from a wide range of sources, including: NSF, ABOR, USDA, PIMA, NPS, NOAA, EPA, UKRF, NASA, AZ DEQ, IAI, USGS, AZ WATER INST, SWG, OMVS, SCI FND AZ, and BLM.

The program’s teaching and research focus is environmental change and sustainability; climate, vegetation, and water, with special emphasis on the US Southwest; policies impacting the social-physical nexus; urban and regional systems, economic development, population growth, and transportation; social and environmental justice; cultural and political aspects of globalization, area studies, fieldwork, critical social theory, and spatial and geographic information sciences.

The Center for Applied Spatial Analysis (CASA) supports and develops research projects and encourages the wider use of GIS and related techniques in the social sciences through collaboration on grants, demonstration, training, teaching and internships.

Remote Sensing and Spatial Analysis is a multidisciplinary Ph.D. minor degree in remote sensing and related fields in spatial analysis. The range of courses offered in these fields is unmatched by any other institution in terms of breadth and depth.

**Administrative Structure and Changes**

A School of Geography and Development would consist of the following Centers and programs:
- Geography (GEOG - undergraduate and graduate major and minor: BA, BS, MA, PhD)
- Regional Development (RD - undergraduate major: BS)
- Center for Applied Spatial Analysis (CASA: an enterprise initiative)
- Division of Remote Sensing and Spatial Analysis (RSSA - a graduate minor)

We propose to **expand curricular linkages** and **joint programs** with newly proposed units, to **decrease staffing** through co-location, and to **maintain ongoing linkages** with existing units.
Saved Costs

The specific administrative changes in such a transformation represent an elimination or diminution in commitment to GIDPs in RSSA (which are currently not large). We imagine that operating costs of the Center for Applied Spatial Analysis (already housed in Geography) can be diminished. These represent moderate immediate administrative reductions.

In addition, the formation of the school would further include a significant increase in shared teaching with the proposed School of the Environment, Ecology and Management (SEEM) and with the School of International Studies (SIS). We envision maintaining and expanding the unified curriculum in Geographic Information Science currently shared with School of Natural Resources. SGD faculty will continue and enhance their existing affiliations with the science units that form the proposed (and yet to be named) School of environmental sciences. Emerging programs in geographic epidemiology with the School of Public Health would remain ongoing.

The cost savings from these external linkages will come from curricular and lab space efficiencies as well as shared staff made possible by co-location. The new Environment and Natural Resources II (ENRII) building (slated for construction) will house the School of Geography and Development, the School of Natural Resources and the Institute for Environment and Society (formerly ISPE). Shared reception, business officer, and other staff represent an immediate cut to unit costs. By working now to make arrangements for teaching lab space in the new structure and by sharing arrangements between units, we can maximize introductory course sizes in GIS, freeing faculty resources in instruction for other activities in teaching and research.

The current arrangement of GIS teaching, for example, disallows the instruction of the cornerstone basic prerequisite GIS class (SNR/GEOG 417) more than once a year. This bottleneck increases time to graduation and limits enrollment in higher-level courses in the educational ladder. By reducing redundancy between current SNR and GRD courses in GIS, remote sensing, and spatial analysis, we can maximize faculty time, add new courses, and develop revenue-generating opportunities (see below). We see further opportunities for summer instruction across both units.

Similarly, our shared affiliations and commitments of some portion of current lines in other units (specifically in Latin American Studies and the proposed school of international and area studies).
studies) allow us to maintain our diversity of course offerings and synergistic research linkages (not to mention study abroad revenue). But by working more closely with the new school, we envision a more coherent curriculum, decreasing course redundancies between Geography and LAS (among others) and again freeing faculty teaching time to develop new courses, bring in more students, or focus on grant development and other key activities.

Similar gains, we believe, might occur with the proposed Consortium in Critical Analysis and Social change, given a number of currently overlapping courses. These would result in a unified focus area, formed in tandem with faculty and curriculum in related fields in the social sciences and humanities. Future hires in the focus area could be made jointly. Modest savings would be realized by sharing a number of existing functions and activities (e.g. lecture series) and so decreasing demands on operations and staff. More significantly, the reduced redundancy in course listings would allow larger/unified courses in shared areas and so free faculty time to both increase the service to students and maximize curricular diversity. For example, current instruction in qualitative methods occurs in at least four units in SBS. Unifying graduate instruction in this area would immediately result in released faculty time.

The School of Geography and Development will be positioned to also take a leadership role in the teaching of large sections of upper division undergraduate and beginning graduate courses in statistics across the social sciences, particularly in partnership with sociology, political science, psychology, and anthropology. This will result in parallel savings of faculty time. We therefore envision an intensified shared curriculum in these areas to yield savings in faculty time and increase the number of instructional seats using the same numbers of existing faculty.

New Revenues

The increased program capacity formed by uniting our curriculum in geographic information systems with SNR will allow the creation of a professional Masters degree in GIS: a fee-based, online system supported by adjunct appointments and overseen by senior faculty in both the SEEM and SGD. Any return revenue (beyond that to the University as a whole) to the two programs would be shared based on instructional and design effort. The potential for this unified professional Masters lies further in its intention to become the first-ever on-line educational GIS resource in Spanish language, with an enormous international audience and client-base. The prospects of this program are greatly enhanced by inter-school, interdisciplinary curriculum sharing and cooperation. The same is true of a proposed professional Masters degree in Water Policy, involving SNR, SWES, and WRRC, among others.

Potential College Locations

The School of Geography and Development would thrive within a range of possible colleges emerging from restructuring with little impairment to its mission (e.g. Liberal Arts, Sciences, Agriculture and Life Sciences, etc.). Given current curricular linkages and shared FTE across campus, a College of Social and Behavioral Sciences best affords a coherent and strong location from which to maintain and extend these linkages. Some configurations (e.g. within a professional college like Architecture) would likely undermine the academic integrity and strength of the school, however, and its ability to advance synergies.
Budget Page

Estimated annual saved costs from collocation at ENRII
  Reduction of entry level Administrative Associate $31,125
  Reduction of entry level Business Manager: $39,173

Estimated annual saved costs from freed FTE through unified curricular activities: $80,000

Total estimated annual saved costs $150,298

Potential annual revenue from Professional GIS Masters
  25 in-state students at conservative 6 credits/year ~$50,000