Resource Economics

A department in the College of Social and Behavioral Sciences offering the B.S., M.S., and Ph.D. degree in Resource Economics.

The Review Process

This was a standard AQAD review. Reviewers were:

Catherine C. Eckel, Texas A&M University
Helen Jensen, Iowa State University
James Shortle, Pennsylvania State University

Main Issues

The external report described a “resilient and innovative” department that is both well-managed and committed to high quality teaching. Resource Economics has increased its research output as well as student enrollments since the previous AQAD review. The committee remarked on the “stability” provided by the department’s permanent move to the College of Social and Behavioral Sciences after many years in flux, calling SBS the “logical place” for Resource Economics “within the constellation of colleges at UMass.”

Resource Economics boasts a lean and efficient faculty supported by a “teaching-intensive graduate program.” While teaching loads are comparatively large compared to those typically found in economics departments at land grant universities, service teaching in general education courses (statistics and quantitative methods) forms a major component of the faculty’s responsibilities. Despite this potential barrier to effective growth, the number of majors has increased fourfold since 2003—from 60 to 240 undergraduate students—with continued high student satisfaction marks for teaching and faculty involvement. In terms of research output, both publications and ranking of journal outlets improved since the last period. Indeed, the reviewers commended the department for generating high value for SBS and the University overall, given its smaller size.

The department’s strengths are tied to its orthodox approach to classical and applied economics. This is primarily demonstrated by its advanced course offerings in econometrics and statistics. The focus on resource economics and industrial organization (particularly of the food industry) serves as a complement to the “heterodox” theoretical approaches found in the Department of Economics, also housed within SBS. The committee found that the relationship between the two departments is cooperative and “enhance[s] graduate training in both departments” owing to their “unique configurations, cultures, and capacities.”

The committee expressed some concern about the current balance of teaching commitments and research activity among Resource Economics faculty. The reviewers believe this has manifested in several ways:
- The administrative model appears indecisive, falling somewhere between a “more typical agricultural and resource economics” approach (fewer courses and a significant funded research component) and a “more typical social science” approach (a focus on teaching rather than research or outreach).
- While the model supports vibrant B.S. and M.S. programs, it is not tailored to meet the department’s stated goal of expanding recruitment to its Ph.D. program—especially given the current mismatch between its Ph.D. students’ and faculty advisors’ areas of interest.
- In some cases, there is a curricular misalignment between the field experience of junior faculty and Master’s-level course offerings, as well as a mismatch between student elective demand and regular offerings.
- External funding kept pace with metrics from the last AQAD cycle until 2013, when the department suddenly experienced a rapid drop in both active grants and submissions.
- A potential staffing shortage from a combination of retirements, administrative assignments and possible transfers may squeeze teaching resources and negatively impact productivity.

Nonetheless, the reviewers praised the work done since the last AQAD to “better align teaching resources with demand” vis-à-vis the growth in undergraduate course enrollment and majors. Resource Economics has reduced the number of niche and under-enrolled electives, improved technical support for larger courses, and utilized long-term lecturer positions effectively while continuing to satisfy service-oriented demand. The implementation of a centralized advising system is also seen as an enhancement to undergraduate student success.

The reviewers offered a number of recommendations:

- With two economics-based departments organized under the same college, there will be increasing overlap in service teaching and administrative responsibilities. The committee recommends that Resource Economics “carefully consider opportunities for expanded collaboration” as it more fully integrates its teaching and research activities into SBS.
- The department must address faculty commitment to Ph.D. training, recruitment, funding, resource allocation and student placement before moving ahead with its plans to expand this program. The development of a fifth-year accelerated Master’s degree and reallocation of TA positions to Ph.D. students could facilitate this growth, while more flexible teaching assignments should further optimize faculty responsibilities and curricular offerings.
- Looming personnel changes could significantly impact the department’s ability to staff graduate courses and provide intellectual leadership to junior faculty and Ph.D. students. Resource Economics must monitor these changes and respond accordingly.
- Given that research is already a strength of the department’s faculty, Resource Economics must develop and maintain strong research and external funding efforts in balance with teaching needs and expectations, including new strategies for competitive grants.
- Responding to undergraduate students’ needs for skill-based training and systematized research opportunities is a minor but critical step to improving the B.A. program, especially as regards relations the Isenberg School of Management.

Results of the Review

The Resource Economics department discussed the report prepared by the external reviewers and offered a number of responses to their recommendations:

- In response to the review team’s suggestion as well as the department’s ongoing strategic planning process, the development of a five-year B.S./M.S. is already underway. However, as Resource Economics students typically declare the major later in their careers, they may not be able to complete the accelerated degree in sufficient time and the pace would be
strenuous if they do; therefore, developing mechanisms to attract students early in their academic careers will be important.

- The department believes that the concern about funding for Ph.D. students can most simply be tackled by reducing the number of funded Master’s students bolstering their internship program.
- A curricular revision is underway in the graduate program, especially in connection to the Ph.D. microeconomic theory and methodology coursework issues raised by the reviewers. New faculty hires and a more flexible array of courses that satisfy the requirements should address these concerns adequately.
- The department asserts that its ongoing review of recruitment and admission practices for the Ph.D. program will be sufficient to address the committee’s concerns about research interest mismatches with applicants. It also contends that junior faculty participation in graduate-level advising is at 100%, in contrast to the reviewers’ findings.
- The department is examining various ways to engage undergraduate students in research and skill development opportunities. New faculty hires will improve student competency in computational and analytical skills that are prized in the workforce.
- A reorganization of staffing workload will improve research grant application numbers, and continued participation in the University-wide Computational Social Science Initiative will enhance opportunities for cross-cutting and multi-disciplinary research opportunities.
- The department faculty will continue to “explore synergies in research and teaching” in an effort to pool resources between itself and the Department of Economics. This should have an impact on teaching of courses in microeconomic theory and quantitative methods as well as research interests in environmental and experimental economics—identified in both the self-study and the external committee report as areas of commonality and complementarity.

Outcomes Assessment

The Department of Resource Economics has an established set of student learning objectives for the undergraduate major, which include developing a knowledge base within their concentration and a general overview of Resource Economics and Economics; defining, analyzing and solving problems practically; applying knowledge to formulate recommendations; and communicating effectively orally, visually and in writing. The department uses a series of measures to determine if these learning outcomes are being met including a junior-year survey and feedback from internship stakeholders; evaluation of learning outcomes in the integrated experience seminar; a course learning objectives mapping exercise; and assessment of capstone projects.

Student Retention and Graduation Rates

The Department has very few first year students who enter its program; eight is the highest number of declared freshmen during the last ten academic years. With such small numbers of freshman, first-year retention rates can be misleading as a single student joining or leaving the major will have a large impact on the calculation.

Trends for four- and six-year graduation rates for all graduates as well as the total number of graduates has seen tremendous growth since the last AQAD review. The six-year graduation rate exceeded 90% in all years with an average of 96.8% and an outstanding 100% in three separate years. The four-year rate has been trending upward since 2006 with an 84.7% rate for 2013.