

## Report Undergraduate Research Grants Fall '09

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**Title:** *Student and Faculty Assessment of Acceptance of Evolution in Demographically Representative and Statistically Comparable New England College Populations*

**Project Description:** The purpose of this project was to assess patterns of acceptance of evolution by college students and faculty at statistically comparable colleges and universities in New England. Although acceptance of evolution among the general public, high schools, teachers and scientists had been documented in the United States, little was known about college students' and their instructors' views on evolution. Assessing college **students'** perception of science was relevant since this population transits from a high-school/parent-protective environment to an independent role in societal decisions; assessing their **instructors'** perception of evolution and science was crucial as well since this population is responsible for guiding the students' intellectual development, educating the public in matters of science literacy, reason and acceptance of empirical evidence, and challenging the current anti-intellectualism trends in society, particularly in the US. Acceptance of evolution correlates with acceptance of science as a process, a fundamental aspect of global development.

**Results:** We found interesting patterns of attitudes toward evolution and acceptance of evolution by college students and university professors in New England. Acceptance of evolution increases with student academic level, from the Freshman to the Senior years, but at graduation Biology Majors have significantly higher levels of acceptance of evolution (95 percent) than Non-Majors (54 percent). Interestingly, Biology Majors are comparable to the levels of acceptance of evolution by the PhD-holder university professors (97 percent). The recent re conceptualization of biology courses at UMass Dartmouth (initiated during academic year 2007-8 to present) is the determining factor in improving acceptance of evolution among the Biology Majors and suggests that the teaching of biology is essential to secure positive attitudes toward scientific rationalism and evidence.

**Significance of Project and Applicability:** Because this project was based on large-audience online assessments combined with in class re conceptualization of teaching materials, it offers a template from which similar projects can be developed in two essential areas: (1) longitudinal and geographic assessment of attitudes toward a phenomenon, in this case acceptance of evolution in a large area (New England) where academic institutions are numerous, and (2) improvement in content of traditional courses which re conceptualizations can lead to significant education impact .