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**Addressing Changing Professional Demands for Applied Economists:  
Multidisciplinary Research Participation and Rewards**

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# Addressing Changing Professional Demands for Applied Economists: Multidisciplinary Research Participation and Rewards

"We are not students of some subject matter, but students of problems. And problems may cut right across the borders of any subject matter or discipline" – Carl Popper

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## Background

There has been a significant increase in requests for proposals that support large multidisciplinary projects that include a social science research component e.g.,: USDA - Agriculture and Food Research (AFRI) Initiatives; and National Science Foundation - Science, Engineering and Education for Sustainability (SEES) initiatives. These requests have significantly increased the incentives for economists to work with other disciplines and *vice versa*. At the same time, there has been a significant push toward tackling large, complex, societal problems in mixed-discipline teams (National Academies of Sciences, 2004, 2007, 2009). We asked 1,205 applied economists in the US about their experiences with, and attitudes towards multidisciplinary research (MDR) and the rewards and barriers to such work. We received 309 completed surveys, a response rate of 26%. We also compare some results to a similar, 1993, survey to examine if the profession is changing to accommodate new demands.

## MDR Challenges & Rewards: Survey Questions

Our survey was conducted in 2011 using a web based survey software. Recipients were asked to provide responses to questions that covered the following broad areas.

### External Challenges of MDR

1. Lack of departmental and/or administrative support
2. Emphasis on disciplinary research for promotion and tenure (P&T)

### Personal Challenges of MDR

1. Reconciling differences in methodology and vocabulary
2. Shared authorship
3. Obtaining data in a timely manner

### Personal Involvement with MDR

1. How involved (grants, students, publication, other)?
2. Involved with who (physical, biological, engineering, other sciences)?

### Personal Outlook on MDR

1. Professional rewards to MDR over time
2. Effect on future employment prospects
3. Societal benefit
4. Personal rewards

## 2011 Survey Results

### Quick Statistics Regarding Respondents

- 53% professor, 21% associate; 21% assistant, 5% other
- 90% applied for funding with MD teams
- 92% agree economics provides an integrative framework for MDR
- 74% have published in an MDR journal article

	Disagree	Neither Agree nor Disagree	Agree
1. My department culture supports collaborations with scientists from other disciplines	10%	14%	76%
2. Collaborating with scientists from other disciplines can jeopardize promotion and tenure for junior faculty	40%	28%	32%
3. Success in obtaining external research funding increasingly depends on whether the research team is multidisciplinary	2%	9%	89%

## Respondent Comments

*"[A]t the departmental level we generally lack a culture of rewarding external funding and talking to scholars in other disciplines [For example] publishing in non-econ journals (which can easily have much higher impact factors), [...] is frowned upon at the departmental level."*

*"The biggest obstacle is the contradictory expectations, narrow disciplinary based evaluation within departments, but multidisciplinary expectations at the college/University level. You got to choose one, which can be done only after tenure. In any case you will be respected only by one group."*

*"I am close to the end of my career. During my career, MDR has been punished rather than rewarded. Maybe this is changing. It remains to be seen whether criteria for promotion and raises will adjust."*

*"It is the allocation of that scarce resource, time; to bridging methodological and vocabulary divides that is the obstacle. That, in itself, may be a disincentive for young tenure stream faculty."*

## MDR: Perceptions and Outlook

The table shows that there are conflicting views regarding the rewards to MDR. Most respondents agree that this work is rewarded by departments but suggest that it jeopardizes the chances for P&T. Almost 50% of comments were related to the impacts of MDR on P&T. Comments were least positive from full professors and most optimistic from assistant professors, suggesting that either rewards are changing or that mixed signals are being provided to junior faculty.

Comparisons with a survey reported by Young (1995) show that between 1993 and 2011, there has not been a dramatic change in perceived problems related to methodological and vocabulary differences, between disciplines obtaining data, or shared authorship. These factors are noted as issues but not significant issues. Some respondents commented that they were concerned that training over time has become less broad.

The perception that MDR will positively affect the employment prospects for economists in the future is uniformly high in 1993 and 2011.

## Conclusions and Recommendations

- Significant engagement in MDR by applied economists
- Internal and external incentives for MDR continue to be misaligned (risky P&T strategy)
- Majority perception that professional rewards are likely to increase
- Expectation that employment prospects are enhanced through involvement in MDR

Departments, institutions and professional societies need to reconsider the roles of disciplinary and MD research and balance between the two and work toward creating imaginative incentive structures that reward both – times are changing.

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