



Industry/University
Cooperative Research
Centers

Proposed P/O Questionnaire Revision: Quantifying Economic Impact

IUCRC Evaluator's Meeting

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Background

- Recommendation from “Measuring Economic Impacts of IUCRCs: Feasibility Study”
 - Recommendation 2:
 - *Modify the Process/Outcome Questionnaire to emphasize relatively proximate quantitative economic impacts.*
 - Study findings:
 - Members notice and report R&D efficiency benefits in the P/O but tend not to quantify these impacts: give open-ended answers
 - Some of these impacts could be quantified by making them forced choice
 - Constraints
 - Keep questionnaire short
 - Maintain questionnaire comparability to extent possible
 - Strategy for today
 - Share proposed changes
 - Get feedback
 - Implement by fall



Overview of Proposed Changes

- Modify Q1: what percentage and which two projects are you most interested in?
 - Ask for internal scientist months to do projects (2a)
 - Ask for projects that are relevant & they take active interest (1)
 - Research amplification: \$
 - Ask for projects they would have done themselves (2b)
 - Cost avoidance: \$
 - Drop which two projects most interested in
- Modified “Benefits” question
 - Leave Human Capital (4a, 4b) and Commercialization (7) unchanged
 - R&D
 - Accelerated R&D (5a)
 - Avoided R&D (5b)
 - Stimulated R&D (same variable) (5c)
 - Other (5d)
 - Replaces “how much impact” likert question



Calculation of Economic Impacts (\$)

- Research amplification (Q1 & Q2a)
 - *Percent Rel. x N of Center Proj. x Scien. Months x \$/Scien. Month (Gray & Steenhuis, 2003)*
- Cost Avoidance (Q2b & 2a)
 - *N of Proj. Avoid x Scien. Months x \$/Scien. Months (Gray & Steenhuis, 2003)*
- Accelerated R&D savings (5a):
 - *\$ saved by accelerated projects*
- Avoided R&D (5b):
 - *\$ avoided by not starting projects*
- Stimulated R&D (5c):
 - *\$ invested in new or revised R&D directions*



Example Estimates

- *Research Amplification:*
 - *Percent Rel. x N of Center Proj. x Scien. Months x \$/Scien. Month*
 - *50% x 10 projects x 18 months x \$30k = \$2.7 million*
- *Cost Avoidance:*
 - *N of Center Proj x Scien. Months x \$/Scien. Month*
 - *2 projects x 12 months x \$30k = \$720K*



Lingering Issues

- Questions/Suggestions
- Specific Issues:
 - Length of questionnaire ~ old version
 - Pro and con of changed questions
 - Potential redundancy among impacts
 - 5a-c: Do we give respondents a “do not know”/ “cannot provide this info” option
 - Format for forced choice \$ estimates.
- Other?
- Future Steps
 - Solicit suggestions; get buy-in; implement before fall 2012