NORDP
National Organization of Research Development Professionals
Employing Tactical and Strategic Approaches to Help Faculty Maximize Broader Impacts

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Setting The Stage

• Explore how different types of institutions support Broader Impacts

• Share ways to help individuals conceptualize and develop compelling Broader Impacts plans

• Consider how institutional capacity and structure yields different resource offerings
What are Broader Impacts?

Activities associated with sponsored research that benefit society, our nation, and our world.

- Full participation of women, persons with disabilities, and underrepresented minorities in STEM
- Improved well-being of individuals in society
- Enhanced infrastructure for research and education
How to Accomplish Broader Impacts

Through:

• The research/project itself

• Activities directly related to the research/project

• Activities complementary to the research/project
Describing Impact

National Leadership Grants: Does the project address current needs of the museum field and/or have the potential to advance practice in the profession?

Institute of Museum and Library Services

R25 Education Projects: Used in a wide variety of ways to promote an appreciation for and interest in biomedical research, provide additional training in specific areas, and/or to develop ways to disseminate scientific discovery into public health and community applications.

NIFA: The integration of research, education, and extension speeds up the process of generating, translating, and transferring new technology and knowledge into practical applications for adoption by a wide range of producers and the general public.

US Department of Agriculture

National Institutes for Health

US Department of Agriculture

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Making Intra-Institutional Connections to Maximize Broader Impacts
Organizational Overview

- 150 years old
- 5 million annual visitors
- 200+ scientists
- 34+ million specimens in collections
- Confers Master in Arts of Teaching and PhD
- $36m in scientific research expenditures

Supported Programs Administration

- Grants, Institutional Advancement, Government Relations, Finance, and Budget
Mission-Driven Work

To discover, interpret, and disseminate -- through scientific research and education -- knowledge about human cultures, the natural world, and the universe.
Intra-Institution Connections Maximize Broader Impacts

MISSION

LIBRARY & ARCHIVES

YOUTH PROGRAMS

EXHIBITIONS

CYBER INFRASTRUCTURE

GRAD STUDENTS

RESEARCH
Case Study

PI in Earth and Planetary Sciences

New MAT Graduates

NYC Students
Takeaways and Lessons Learned

• Create and support interdisciplinary partnerships

• Leverage other departmental efforts to support new Broader Impact activities

• Develop Broader Impact activities that are replicable and scalable
Creating a Center to address Broader Impacts
Organizational overview

University of Michigan
#1 in research volume among U.S. public universities for NSF
$1.55B in annual research expenditures overall
No central research development office...yet!

School of Education
One of 19 Schools and Colleges at U-M
Ranked #14 by U.S. News & World Report
Research Development Manager, Foundation Relations representative

CEDER
Seven full time staff and two faculty

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The Center for Education Design, Evaluation, and Research (CEDER) advances equity and excellence in education by providing access to high quality design, evaluation, and research services through collaborations with university, school, and community partners.
CEDER Services

**DESIGN SERVICES**
- Curriculum development and alignment consultation
- Develop teacher training programs
- Provide professional development programs for teachers

**EVALUATION SERVICES**
- Qualitative & quantitative data analysis
- Logic modeling and theory development
- Survey and interview protocol design

**RESEARCH DEVELOPMENT**
- Strategic research advancement
- Facilitation of collaborations between investigators
- Communication of research and research opportunities

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CEDER’s Approach

Proposal Stage
Available to think through and consult about broader impacts that are possible in the K-12 environment

Project Stage
Provide curriculum and instructional resource development services
Consult on teacher training programs
Create professional development programs for teachers

Dissemination Stage
Building online learning opportunities like Massive Open Online Courses (MOOCs)

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PIs realize that a lot goes into thinking about Broader Impacts, regardless of K-12 involvement.

CEDER consultation introduces thinking of the how, when, and the what can be taught.

Broader Impact becomes the impact on teachers and students who now have access to high-quality, research-based resources on a high-demand topic.

Evaluation services are available for Broader Impacts and other portions of proposals.
CEDER was founded with support from the provost but expenses have shifted to sponsored projects, outside contracts, and other internal sources.

Received hundreds of inquiries since 2014.


Next challenge is communicating our services to campus community.
All-N on Broader Impacts:
Supporting faculty success through local to global approaches

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University of Nebraska-Lincoln

Organizational Overview

Comprehensive Research, Land-Grant University

- Student Body: 26,079
- Faculty and Staff: 6,513
- Total Research Expenditures: $308M
- Carnegie Classification: R1 Doctoral Universities, Highest Research Activity
- Affiliations: Association of Public and Land-grant Universities, Big Ten Academic Alliance, Big Ten Conference, EPSCoR

Research Development (RD) at Nebraska

- Centralized within the Office of Research and Economic Development (ORED)
- Team of seven RD professionals
University of Nebraska-Lincoln

A matrix approach toward Broader Impacts support provides something for nearly everyone: Pre-K to gray, formal and informal, local to global.

The literature illustrates that single free-choice science education activities...have few significant effects. But recognizing that individuals select from these resources as if they were a smorgasbord and tailor their menus to their own interests and needs provides an important analytic and programming insight into free-choice science education.

– J.D. Miller, 2001
Purpose: Provide focused networking around Broader Impacts partnership opportunities

Audience: Community organizations, UNL faculty and staff

Format: Case study and panel presentations, breakout sessions, structured and unstructured networking

Partners: >40 local non-profits, Lincoln Public Schools, ORED
Purpose: Provide focused networking around Broader Impacts partnership opportunities

Audience: UNL faculty and staff

Format: Full- and half-day interactive training workshops, faculty panels

Partners: National Alliance for Broader Impacts, ORED
International Proposal Writing Workshops

Purpose: Share proven strategies to conceptualize project concepts and write winning proposals

Audience: Faculty and graduate students from Sub-Saharan Africa, Argentina

Format: Half-day to multi-day workshops

Partners: Fogarty International Center, National Cancer Institute, Nebraska Center for Virology, Ocean Road Cancer Institute, University of Zambia, ORED
Lessons Learned

• There are no cookie-cutter approaches that guarantee success
• Leverage existing partnerships and infrastructure
• Help faculty explore opportunities in their field, focus on their passion(s), and develop Broader Impact plans accordingly
• Budget for Broader Impact activities (including evaluation) or explain extremely well why such costs are not included
• Make activities evidence-based
Questions?