1. Broader Impacts Professional Competencies Self-Assessment Survey

For each of 67 items, participants will be asked to rate their level of competence on a five point scale ranging from 1 (no knowledge/novice) to 5 (expert) and the level of importance of competence on a five point scale ranging from 1 (not at all important) to 5 (critically important). All 67 items appear below.

In addition, participants will be asked to indicate their professional role (i.e., administrator, researcher, Broader Impacts professional, other), their job title, the number of years they have been doing BI work, their level of involvement with BI professional development (e.g., participation in ARIS workshops), and their job satisfaction.

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| Report the cumulative impact of BI activities across office, department, or institution. |
| Identify and engage with key individuals and programs that contribute to the research impacts infrastructure across the institution. |
| Communicate across the hierarchy of an institution to garner support. |
| Understand the history and rationales for emphasizing research impacts on society. |
| Assist researchers in identifying their discipline's specific language, traditions, and strategic choices for their BI work. |
| Make clear distinctions among education, outreach, engagement, science communications, and other broader impact activities. |
| Understand institutional and community resources that can be leveraged for BI activities |
| Use literature that supports specific BI approaches to guide and inform all aspects (e.g., conceptualization, implementation, and evaluation) of BI work [Revised]. |
| Disseminate BI work to contribute to and expand the field. |
| Foster, facilitate, and negotiate partnerships between professionals, organizations, and sectors (e.g., decision makers, government, non-academic organizations, etc.) that are mutually beneficial and recognize the needs of stakeholders. |
| Understand and use frameworks and strategies relevant to fostering, facilitating and maintaining partnerships. |
| Identify and bring together individuals or organizations on the basis of shared interests [Revised]. |
| Be known as a connector who can link university and community partners [Revised]. |
| Connect prospective on and off campus partners with researchers. |
| Utilize effective practices for fostering collaboration. |
| Understand the conditions for and dynamics of enduring partnerships |
| Coordinate regular communications to link groups with information relevant to their interests. |
| Build teams and trust across networks (e.g., communications and accountability in community networks). |
| Collaborate with partners to create a system of shared measurement for collective impact. |
| Strategically use resources (internal and external to the university) to achieve long-term research impact goals & outcomes [Revised] |
| Build the capacity of partners to plan and conduct BI activities [Revised]. |
| Contribute to the ongoing monitoring of reciprocity in campus-community partnerships [Revised]. |
| Understand the history of relationships between universities and communities. |
| Understand and actively promote diversity within and across partnering communities [Revised]. |
| Assist campus and community partners in their exploration and understanding of cultural differences [Revised]. |
| Understand learning interests, preferences and styles across diverse audiences. |
| Engage stakeholders who promote inter-cultural awareness and sensitivity. |
| Use reciprocity as a guiding principle in engaging with community partners. |
| Understand how institutional procedures, habits, and policies may be culturally insensitive to communities. |
| Adjust BI activities (e.g., courses, curricula, and external activities) and services for more culturally sensitive approaches [Revised]. |
| Understand the context and importance of broadening the participation of underrepresented groups in STEM fields. |
| Support researchers and staff in creating inclusive environments for historically underrepresented groups in STEM fields [Revised]. |
| Understand that diverse groups produce better results |
| Encourage and support researchers’ engagement with communities while acknowledging the challenges and barriers. |
| Understand the institution's culture, norms, policies, and practices that influence researcher receptiveness to BI work. |
| Deliver customized trainings and resources to fit researchers' needs and interests. |
| Understand curriculum development, learning objectives, and assessment for BI workshops and training materials. |
| Develop researchers' skills in incorporating BI activities into their teaching, scholarship, research, mentoring. |
| Support researchers in designing BI activities with community partners. |
| Assist researchers and partners in learning from one another's experiences and improving BI practices over time [Revised]. |
| Construct a BI statement that aligns with NSF values. |
| Communicate with researchers what is important to include in a BI statement for proposals. |
| Understand the need for the evaluation of BI activities [Revised] |
| Assist researchers in developing their research impact identities. |
| Facilitate researchers' critical reflections on their BI activities. |
| Assist researchers in understanding the value of utilizing community knowledge and expertise. |
| Help researchers understand how to communicate their research in plain language [Revised]. |
| Help researchers identify multiple tools and outlets for the communication of their research [Revised]. |
| Assist researchers in strategizing how to represent their BI work in their annual review and promotion process [Revised]. |
| Understand the variety of different types of BI activities (e.g., K-12 outreach, science communication, citizen science, etc.) |
| Identify and engage stakeholders for broader impacts |
| Assess the needs of researchers, partners, and audiences [Revised]. |
| Understand how to budget resources to carry out various types of BI activities at different scales [Revised]. |
| Use a variety of engagement techniques to involve stakeholders in designing programs. |
| Collaboratively contribute to innovative BI grant proposals that are responsive to funder priorities, audience/population preferences, timelines, and budgets [Revised]. |
| Write BI progress reports for funders and partners. |
| Understand basic evaluation concepts, approaches and methods. |
| Engage project stakeholders in the development of evaluation plans. |
| Obtain knowledge of institutional assessment and evaluation efforts related to research impacts [Revised]. |
| Describe project resources and intended outputs, outcomes and impacts (e.g., a logic model). |
| Identify indicators of research impacts. |
| Identify sources of research impact data. |
| Find qualified evaluators to consult on evaluation of BI activities. |
| Articulate the connections between BI work and the institution's strategic priorities to administrators and fundraising professionals. |
| Secure sustained funding to support a BI office and infrastructure. |

2. Broader Impacts Rubric Survey

As part of their training, participants will be asked to evaluate four Broader Impacts plans using a 12-item scoring rubric.

In addition, participants will be asked to indicate their professional role (i.e., administrator, researcher, Broader Impacts professional, other) and the number of years they have been doing BI work, and to provide general feedback on the rubric.

The survey can be found here:

<https://carleton.co1.qualtrics.com/jfe/form/SV_8hQgXdaOKDQX9Ay>

3. Training Survey

At the end of the training, participants will be asked to complete a survey to provide their evaluation of the training and suggestions for improvement.

The survey can be found here:

<https://carleton.co1.qualtrics.com/jfe/form/SV_0IgSAaE3t72qUBg>

4. Consultation Survey

Prior to implementation, both BI professionals and researchers will be asked to complete brief end-of-consultation surveys that will include questions about the usefulness of the consultation and areas for improvement.

The pre-survey can be found here:

<https://carleton.co1.qualtrics.com/jfe/form/SV_bP1SmO5N0pbF2Cy>

The post-survey can be found here:

<https://carleton.co1.qualtrics.com/jfe/form/SV_ac4oQFTNYBDqZjo>

5. Retrospective Institutional Research Impacts Survey

At key milestones, participants will be asked to complete a survey to assess institution-level research impacts capacity, including having adequate resource to effectively support researchers as they plan, implement, and evaluate BI plans.

The survey can be found here:

<https://carleton.co1.qualtrics.com/jfe/form/SV_2moKMsU4NUBm5FQ>