IMPACT STATEMENT EXAMPLES PACKET

DISCLAIMER: Please do NOT use the following impact statements outside of training purposes. While these example impact statements are based on real cases, they have been modified and are NOT intended to provide information. The examples may include inaccuracies, confusing statements, made-up names, and broken links—this is intentional for training purposes.

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EXAMPLE 1: Recognizing findings versus impacts

Rumen-protected methionine (RPM) influences the inflammatory process by decreased expression of IL1 β , IL6, IL8, PTGES3, MUC1 and SOD1 in bovine cytological smear samples.

- This is a finding, not an impact. It does not explain "so what" or "who cares"
- Way too technical—jargon, abbreviations
- We don't know who's involved so we don't know where to turn to learn more.

EXAMPLE 2: NIDB Impact Statement (Research, Industry Impacts)

Title: Breeding novel corn lines to provide powerful antioxidants that help protect against intestinal disease

Relevance: Necrotic enteritis is a fatal intestinal disease that afflicts mostly young broiler chickens and costs \$6 billion per year worldwide. Antibiotics are traditionally used to prevent and treat the disease, but due to concern about the emergence of antibiotic-resistant pathogens, nearly 4 billion chickens in the U.S. (about half of the total) are raised without antibiotics.

Response: To provide poultry producers with effective alternatives to antibiotics, Penn State scientists looked into flavonoids as a way to reduce inflammation, boost immunity, and improve performance. Using these findings, Penn State maize geneticists developed a new high-flavonoid corn variety, PennHFD, that can be used in poultry feed. Poultry scientists then tested the effects of a PennHFD-based diet in a sample of 400 chickens.

Results: Poultry Science researchers found that chicks fed a PennHFD-based diet had a 48% lower incidence of intestinal lesions, higher body weight gain, and a 23% lower mortality rate than the chicks fed the control diet. These findings pave the way for a patent to develop a PennHFD-based therapy to prevent and treat necrotic enteritis. Researchers expect this treatment option will begin making a difference in the poultry industry in just a few years once research on dosage is completed.

Public Value Statement: Antioxidant-rich specialty corn, developed by Penn State researchers, reduces the fatal intestinal disease necrotic enteritis in chickens.

Funding: Hatch

Primary contact: John Smith (<u>johnsmith@psu.edu</u>)

Resource links: www.PennHFD-psu.edu; www.sciencedirect.com

Tags: livestock management, productivity, sustainability

Statement synopsis: The anti-inflammatory and antibacterial properties of flavonoids play a key role in the control of disease. Penn State plant and poultry researchers found evidence that high-flavonoid corn may serve as an effective alternative for improving health and performance in broiler chickens raised without antimicrobials.

CRITIQUE:

- This one does a pretty good job *except* that the public value statement does not get at public value. The public value statement should explain how this work will impact rural communities or consumers or the general public.
- This example keeps the response and results pretty simple—easy to see who did what and understand the basics of the different research and development components and only shares a few key results/findings.
- The Results section could be bolstered by providing estimates of how much money this new feed could save poultry producers.
- Provides links to learn more and a contact for follow-up questions.
- This example filled out the "statement synopsis" section of the submission form. This is a good example of how to provide a brief summary of the impact statement.

EXAMPLE 3: NIDB Impact Statement (Research, Public Value)

Relevance: Significant yield and quality losses can occur if farmers dig peanuts too early or too late. Existing tools and methods for determining when peanuts are at the right maturity to harvest can be inaccurate and difficult to use.

Response: University of Georgia scientists designed the Peanut Pod Blasting Method, a simple way to accurately determine peanut maturity and the best time to harvest.

Results: Using this method, farmers have saved an average of 300 pounds of peanuts per acre and increased gross returns by \$60 per acre (based on the 2015 contract price of peanuts).

Public value: By developing a new, more accurate method to determine optimal peanut harvest time, University of Georgia researchers have helped farmers meet growing consumer demand for high-quality peanuts. Georgia is a top producer of peanuts, and sustaining the industry also supports the state's economy. Statewide, the Peanut Pod Blasting Method is expected to generate an extra 173 million pounds of peanuts worth an estimated \$35 million.

Funding: Hatch/USDA-NIFA, Georgia Peanut Board

Contact: John Smith

- Know who did the work; Know who funded
- Explain the issue concisely in simple terms
- Very briefly says what was done and lists the key output (method)
 - o Doesn't assume everyone wants to know the specifics of the method
 - o Those who do can click to learn more
- Contact for follow up
- Uses numbers to show the magnitude—included insight into their calculations
- Focuses on change in economic condition, peanut farmers, peanut industry
- Could stop there for certain audiences—that's still an impact
- But they do suggest the potential public value.
- What audience might this one be good for?
 - o Reporting to funders, industry, could be used as a press release for an industry mag or local newspaper

EXAMPLE 4a: Recognizing program data versus impacts

In 2022, 25 West Virginia Cooperative Extension educators conducted EFNEP activities to address childhood obesity in 19 counties. They delivered over 50 events that reached 1,763 youths."

CRITIQUE:

- For me, this doesn't function as an impact statement. It only share the action and the outputs.
- It might work in an annual update of the program for internal purposes, but there is no clear message for a general audience—nothing that gets at the So what, Who cares.

EXAMPLE 4b: Recognizing program data versus impacts

Relevance: In West Virginia, youth obesity is higher than the national average, but many families lack access to knowledge about food and nutrition that can help them make healthy choices.

Response: As part of the Expanded Food and Nutrition Education Program (EFNEP), instructors led a six-week course to teach 600 high school students in West Virginia about nutrition, meal planning, and cooking skills.

Results: 85% of students showed improved knowledge and skills. For example, one year after the course, a mother reported that her son now helps plan grocery lists, cooks meals at home instead of eating fast food, and is training to be a chef. Over the past year, the family has saved money on food expenses, spent more time together as a family, and had better health reports at their check-ups. "I never dreamed a simple class could change my family's daily life and future so much and help my wallet at the same time," she said.

Funding: USDA/NIFA

Contact: Jane Doe (jdoe@wvu.edu)

Learn more: efnep.gov/westvirginia

- This version might work better for increasing participation, program buy in, and general interest/understanding among the public--lots of change-y language
- It starts by describing the issue that the work is addressing.
- Tells us the basic actions taken: six-week course teaching these topics
- They report a measured change in knowledge and skills
- And the anecdote here supports the impacts described

EXAMPLE 5: NIDB Impact Statement (Extension)

Title: Oregon State Extension Fire Program shares benefits of prescribed burning

Relevance: For thousands of years, fire supported environmental health in many parts of Oregon through both natural occurrences and cultural practices of Indigenous peoples. But after more than a century of fires being suppressed, Oregon's landscapes have accumulated heavy amounts of fuel that are feeding wildfires. Coupled with a warmer and drier climate, wildfires are becoming larger and more prolonged. These fires have led to loss of life, property, and valuable ecosystems. Fire-adapted landscapes that are managed with prescribed burning have been shown to be more resilient to wildfires, but reinstating prescribed burns, especially on private land (which accounts for 50% of Oregon's forested land) is challenging due to social and political resistance and inadequate resources.

Response: To raise awareness and capacity, the Oregon State University Extension Service Fire Program partnered with the Oregon Department of Forestry to provide National Resource Conservation Service (NRCS) personnel and private landowners with regionally specific training for implementing safe, effective prescribed fires. Fifteen NRCS personnel and 30 landowners representing diverse ecological settings across Oregon attended the three-day event.

Results: As a result of this event, landowners and NRCS personnel have the knowledge and tools to implement prescribed fires. Bringing landowners and conservation planners together also set the foundation for a support network that will foster further knowledge and resource sharing and facilitate prescribed burns. A month following the training, the number of planned prescribed burn acres has increased from a few hundred acres to nearly 10,000 acres.

Public Value Statement: Oregon State Extension's Fire Program facilitated partnerships and trainings for conservation planners and forest owners that are helping make forested landscapes more resilient to wildfire through prescribed burns. Controlling the amount of fuel through prescribed burns is a key way to reduce wildfire severity and minimize loss of property, life, and ecosystem services.

Primary Funding: State Appropriations

Primary Contact: Jane Doe (jane.doe@oregonstate.edu)

Tags: stewardship, climate change, community engagement in public issues, emergency preparedness/management/response

- This is a pretty long issue description, but it has a pretty good flow and uses plain language to spell out the complex layers of the issue
 - o Could have strengthened the issue statement by including a number about the magnitude of recent wildfire damage in Oregon, or a similar figure
- Says who did what (and who funded)
- Might want just a little more info on the training (alternatively, the inputter could add a resource link to the program website for more information)
- Alludes to changes in knowledge/awareness, behavior, and condition (number of acres)

EXAMPLE 6: Multistate Research Impact Statement

The specialty crop industry faces issues like worker injuries and poor crop yield. Automated devices can help address these issues, but crops like fruits and nuts require special equipment that individual institutions have not had the resources to focus on. Working together, researchers at land-grant universities designed automated devices that have reduced injuries and boosted crop yield. Below are examples of this work.

IMPROVED CROP YIELD:

- A harvest-assist device designed by Penn State scientists increases the number of apples harvested per second by 50%.
- Farmers said a new mechanized pruning method recommended by Cornell University increased yields by 40% for an additional \$400 per acre.

REDUCED WORKER INJURIES:

- 60% of the tomato processing industry has adopted machines designed by University of California to inspect tomato juice. During a single season, the machines eliminate more than 200,000 repetitive motion hazards for workers.
- Penn State researchers designed a harvest-assist device that eliminated ladder falls and reduced the time apple pickers spent in dangerous postures by 50%.

Funding: Hatch Multistate/USDA NIFA

Learn more: www.W3009.com

- Targets two issues
- "specialty crops" is jargon, but they give the example of fruits and nuts in the next line.
- Explains a bit why collaboration is important for this work.
- Uses an opening paragraph, then breaks out into two impact categories with examples
 - o It would be easy to swap these examples out for different uses/audiences.
 - For example, you could only include examples from one institution if you wanted to highlight their particular contributions.
 - o In these particular bullets, we see good use of numbers to indicate the magnitude of the change or impact.
- And down at the bottom we see the funding and a link to more info.

EXAMPLE 7: NIFA Reporting System Results Report

Result Title: Chickpea yields shown to be stable under modest water stress

Fiscal Year: 2021

In 2-3 sentences, briefly describe the issue or problem that your project addresses.

Chickpeas are an attractive crop option because they do not require nitrogen fertilizers, which can pollute bodies of water and contribute to greenhouse gas emissions. Chickpeas could present a new crop option for farmers in north-central Wyoming, but farmers have relatively little information about optimal management practices and which varieties are best for growing conditions in the region. Without this information, farmers may waste time and money on unsuccessful varieties and excess irrigation, nutrients, and other inputs.

Briefly describe in non-technical terms how your major activities helped you achieve, or make significant progress toward, the goals and objectives described in your non-technical summary.

During 2020 and 2021, Jim Heitholt (Powell Research and Extension Center) conducted chickpea trials of six different varieties to understand how factors such as phosphorous fertilization rate and irrigation level affect yield. When irrigation was reduced by 20%, the average yield across the six varieties (2,988 pounds per acre) was similar to the average yield under full irrigation (2,997 pounds per acre). In particular, two varieties, Frontier and Orion, had the highest yields under deficit irrigation and may prove to have good drought tolerance. During the trials, the level of phosphorous fertilization had no effect on chickpea yield.

Briefly describe how your target audience benefited from your project's activities.

These findings help confirm that chickpeas can be grown successfully with low inputs and provide farmers with specific guidance on how to successfully grow chickpeas in Wyoming. Information from these trials could encourage more farmers in Wyoming to grow chickpeas. Replacing resource-intensive crops with chickpeas could lower farmers' production costs.

Briefly describe how the broader public benefited from your project's activities.

Because chickpeas require less water and fertilizer, planting them could improve public and environmental health by reducing agriculture's impacts on soil, water, and global warming.