Post-Project Evaluation Final Report

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Prepared for

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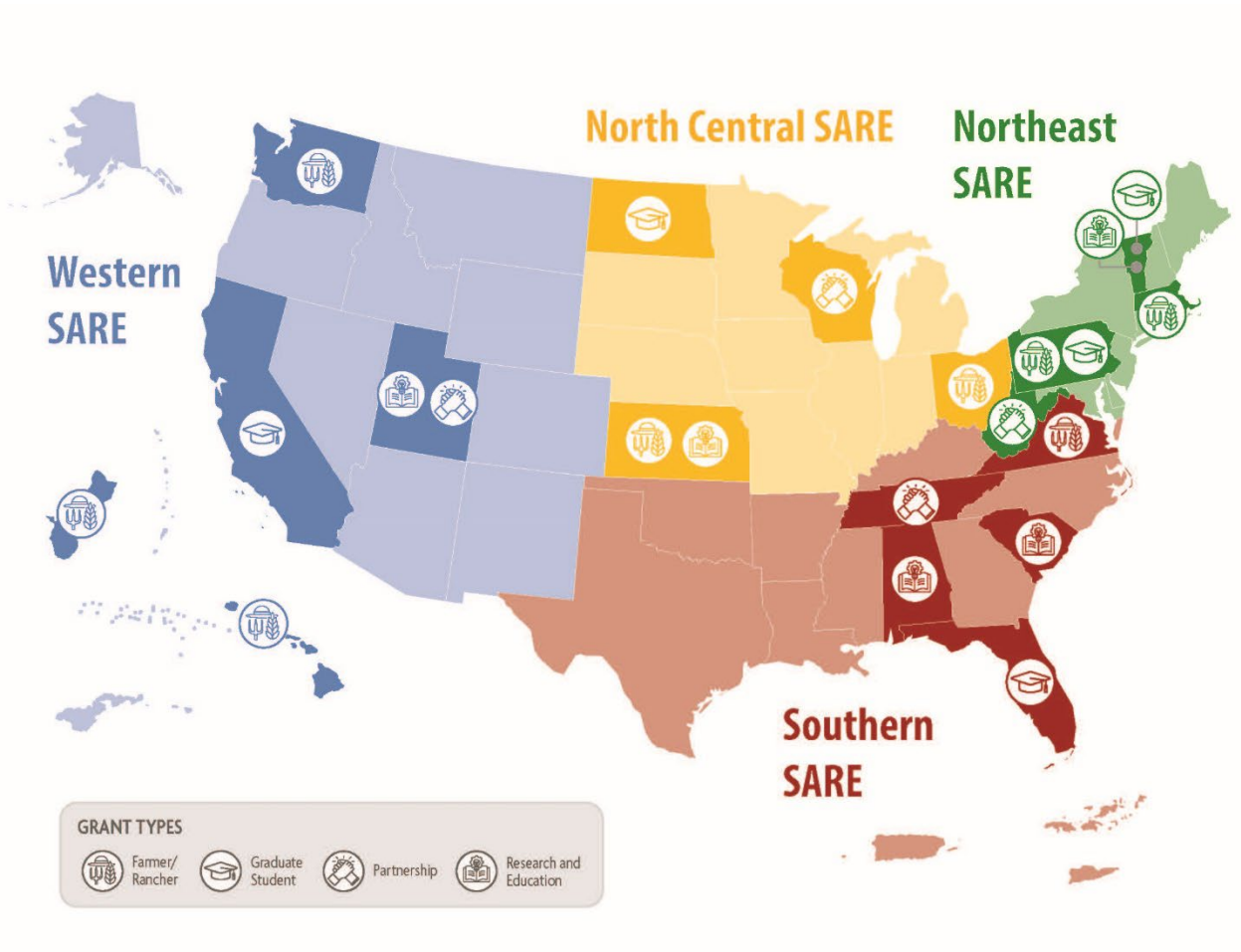
Table of Contents

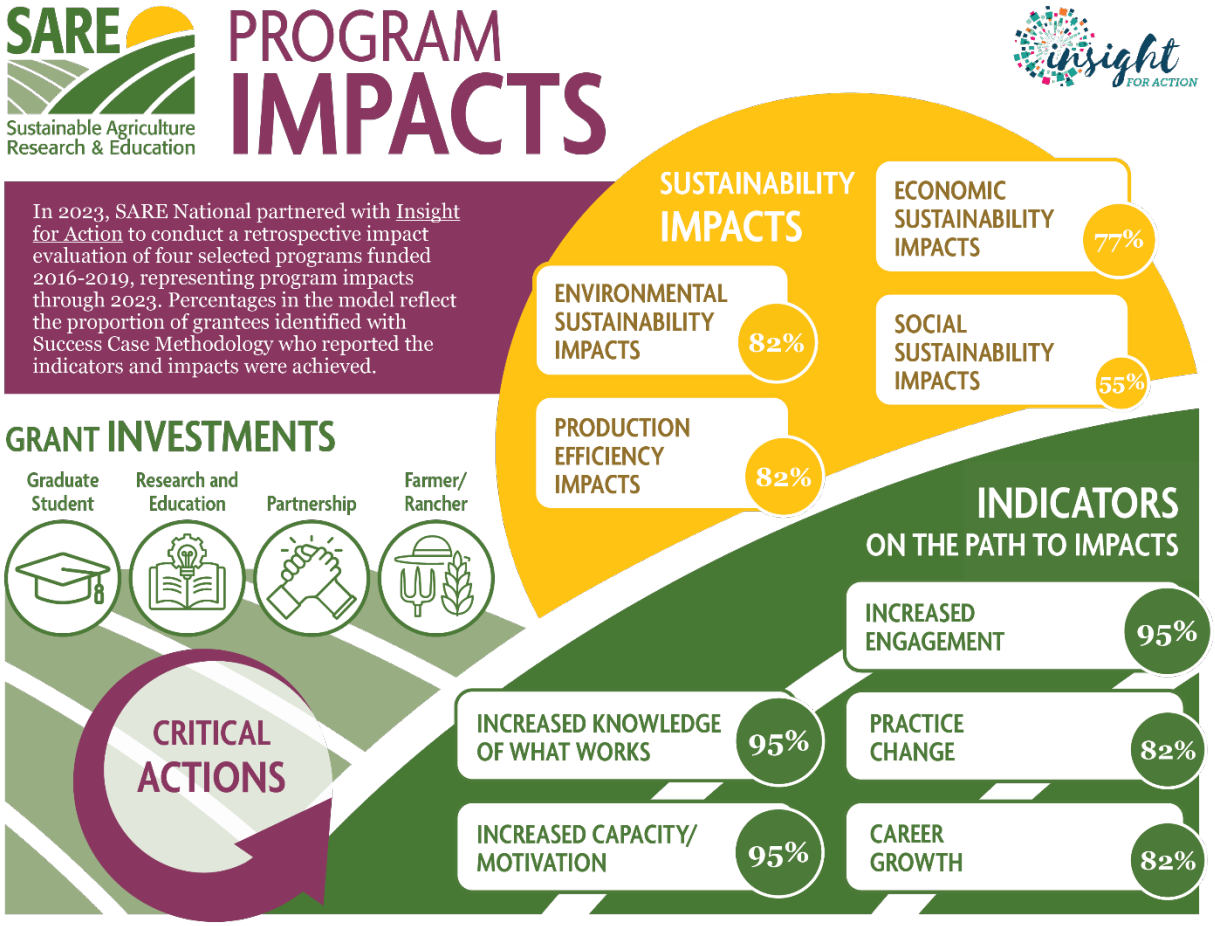
Executive Summary

In 2023, the SARE National Reporting, Coordination, and Communications Office (NRCCO) contracted with Insight for Action to conduct a post-project evaluation of four SARE grant programs across its four regions (North Central, Northeast, Western, and Southern). **The purpose of the evaluation was to characterize key impacts made by SARE's grantmaking from 2016 through 2023**. The evaluation employed the Success Case Method (SCM) to identify program impacts grounded in a theory- and practice-informed impact model.

For the post-project evaluation, the SCM entailed: 1) Developing an initial impact model based on a scan of web-based resources and SARE background materials, 17 Subject Matter Expert (SME) interviews, review of a balanced sample of 120 grantee final reports, 2) a self-report survey to identify potential success cases, and 3) in-depth interviews to explore how SARE funded activities **contributed to** longer-term achievements and impacts. The final case study corpus included 22 success cases:



The case-specific data were synthesized in a cross-case analysis which demonstrated that the initial impact model was indeed reflective of the change process from grant receipt to sustainability impacts among the cases collectively. **The evaluation demonstrated that when projects are successfully implemented, SARE's investments contribute to environmental, production, economic, and social sustainability impacts**. Grantees achieve these impacts through increases in knowledge, capacity/motivation, and engagement, by evolving practices, and growing professionally. By collaborating with others to implement their projects and conducting outreach to share learnings, grantees promote similar increases and improvements among producers, educators, service providers, and students throughout the nation's agriculture system. The final impact model is below. Percentages in the model reflect the proportion of grantees identified with the Success Case Method who reported the indicators and impacts were achieved.



Background

Funded by the USDA National Institute of Food and Agriculture (NIFA), Sustainable Agriculture Research and Education (SARE) is a competitive grant program operating in every US state and island protectorate supporting research, education, training, partnerships, and growers and producers directly. In 2023, the SARE National Reporting, Coordination, and Communications Office (NRCCO) contracted with Insight for Action to conduct a post-project evaluation of four SARE grant programs across its four regions (North Central, Northeast, Western, and Southern) for grants awarded from 2016 to 2019. The grant programs included:

- **Farmer/Rancher:** grants for producers to explore sustainable solutions to problems
- **Research and Education:** grants for researchers and educators
- **Partnership**: grants for cooperative projects between agriculture professionals and small groups of farmers and ranchers
- **Graduate Student:** grants to fund graduate student projects.

The purpose of the evaluation was to characterize key impacts made by SARE's grantmaking from 2016 through 2023.

Methods

The evaluation employed the Success Case Method (SCM) to identify program impacts grounded in a theory- and practice-informed impact model.[1] Success cases are detailed and objective stories about actions and behaviors that relate specific results achieved and the specific factors that enabled or interfered with achieving outcomes. For the post-project evaluation, the SCM entailed:

1. Impact Model Development

An impact model is a projection of what success looks like when an initiative is functioning as intended. It describes the intervention and portrays the successful behaviors and results that should occur. In essence, an impact model answers the question: *If things were working well, what would be happening?* In the context of the SCM, the impact model serves as the basis for a survey to identify potential success cases. These activities informed impact model development for the post-project evaluation:

- **Scan of web-based resources and SARE background materials**: The purpose of the scan was to orient the evaluation team to the intended outcomes of SARE during the study period. Additionally, the scan identified key concepts in the

[1] Brinkerhoff, R. O. (2003). *The success case method: Find out quickly what's working and what's not*. San Francisco: Berrett-Koehler Publishers, Inc.

sustainable agriculture literature that are not represented or underrepresented in SARE documents but potentially important to consider for the evaluation. Sources included peer-reviewed articles related to sustainable agriculture published between 2018 and 2023; materials available on public websites of national agriculture organizations; the SARE public website; a sample of SARE outreach library resources and select internal documents provided by SARE staff. The evaluation team also reviewed materials that describe how SARE is theorized to function, and which offer evidence of its implementation. A copy of the scan is included as **Appendix A**.

- **Expert elicitation**: We conducted 17 Subject Matter Expert (SME) interviews with regional staff and affiliates who served as SARE regional leaders and/or Administrative Council members during the evaluation's 2016-2019 grantmaking period. The purpose of the interviews was to understand more about how leaders in each region approached grantmaking including overall goals and objectives in relation to the national SARE mission; administrative approaches, successes, and challenges in grantmaking; critical actions taken and activities, both administratively and programmatically, that led to progress and key successes; indicators used by these leaders to identify success; and key challenges along the way. A memo summarizing key SME interview findings is included in **Appendix B**.
- **Report sample review**: Informed by the scan and expert elicitation, we reviewed a balanced sample of final reports submitted by SARE grantees upon completion of their projects. Combined, we reviewed 120 of 1091 final reports (11%).[2] The report review process enabled the evaluation team to better understand how grantees were reporting sustainability impacts, disaggregated by region and grant type. Further, we used the report review to identify convergence points in terms of SARE impact between what grantees were reporting at the project level and what surfaced in the SME interviews at the regional level. A summary of the grantee final report review process and results in in **Appendix C**.
- **Benefits and impacts by region**: SARE's web-based grant reporting process includes grantees selecting intended "Benefits and Impacts" from a list that they expect their project to "lead to or influence over the long-term." The evaluation team utilized SARE these benefits and impacts data to generate the balanced sample of grantee reports for the report review process. We also used the benefits and impacts data to build charts (**Appendix D**) which served as an ongoing reference point for impact model development. The charts highlight which benefits and

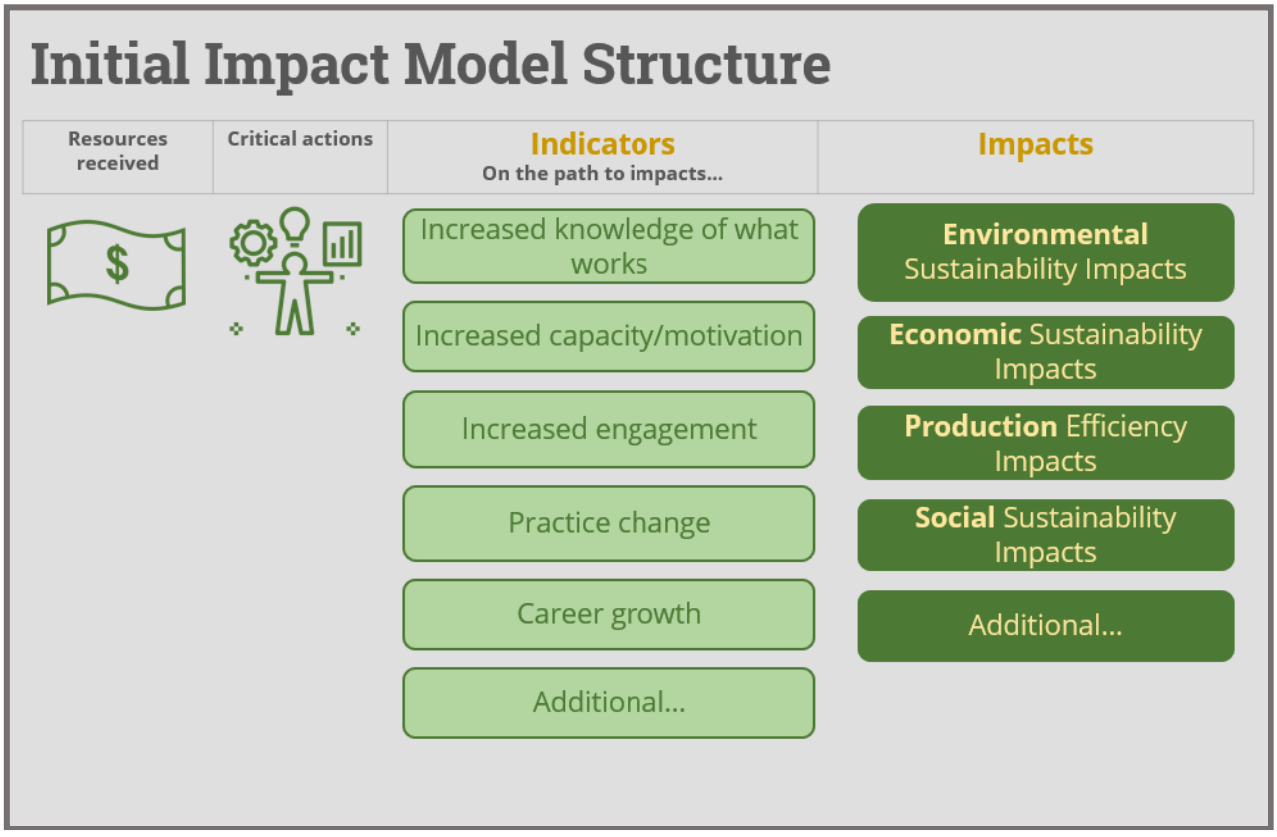
[2] This count includes reports from SARE's Professional Development Program, a fifth program originally slated for inclusion in the impact evaluation, but which was determined to follow a different theory of change from the four grants included in this report. As such, the count is larger than the sample reported for the survey, which is described in a subsequent section.

impacts were most and least selected by grantees during the study's focal period and provided one among multiple sources of information about how grantees were thinking about the impact of their projects.

The resulting initial impact model employed the high-level structure shown in **Figure 1**. Each of the indicators and impacts in the model were further operationalized with one or more examples drawn from the impact model development activities. For example, "increased knowledge of what works" was further defined as knowledge of tools/ methods for production, marketing/communications, enterprise/staff management, what could contribute to increased profitability, (natural) resource management, and lived experience.

The primary evaluation users were SARE staff members responsible for national and regional strategy and communications. During a series of interactive sessions, members reviewed and offered feedback on the draft impact model, identifying priority areas for SARE's grantmaking and social sustainability impacts from regional and national perspectives. The complete draft impact model with indicator and impact examples is provided in **Appendix E**.

Figure 1. Initial Impact Model



2. Search for Potential Success Cases

To identify potential success cases, we developed a self-report survey in which grantees were asked to identify the indicators and impacts they believed they had achieved from grant receipt through present day in order to capture not only outcomes achieved during the grant period but any related or follow on outcomes that grantees could reasonably attribute to their SARE grant funding. For each selected indicator and impact, the survey requested a rating of the extent to which the project had contributed the indicator/outcome being achieved for the grantee, project partners, or others. The 10-point rating scale ranged from "not at all" to "greatly".

All grant recipients who were awarded a SARE grant from one of the four focal programs between 2016 and 2019 received the survey electronically through SARE's web-based reporting system. The survey items are provided in **Appendix F**. Response rates are summarized in **Table 1** below. As shown, from among 898 grantees, the survey achieved a notably high 48% response rate overall. Response rates by SARE region and grant type ranged from 43-62%.

Table 1. Survey Response Rate

OVERALL	Number of Invitees	Number of Responses	Response Rate
All Regions	898	428	47.7%
BY REGION	**Number of Invitees**	**Number of Responses**	**Response Rate**
North Central	298	146	49.0%
Northeast	276	133	48.2%
Southern	168	74	44.0%
Western	156	75	48.1%
BY GRANT TYPE	**Number of Invitees**	**Number of Responses**	**Response Rate**
Farmer/Rancher	320	137	42.8%
Graduate Student	250	107	42.8%
Partnership	177	90	50.8%
Research and Education	151	94	62.3%

As shown in **Tables 2 and 3**, respondents selected 21 of 23 possible indicators and 6 of 12 impacts, on average. This suggests that the indicators and impacts in the impact model were well-aligned with the work grantees carried out in the context of their projects and their perceptions of related progress and achievements. Mean ratings of the extent of progress were high (7 on a 10-point scale) for indicators and impacts. Ratings were similar across regions and grant types.

Table 2. Indicator Counts and Ratings

INDICATORS	Minimum	Maximum	Mean	Standard Deviation
COUNTS (0-23)	3.00	23.00	20.65	3.31
RATINGS (1-10)	1.13	10.00	7.26	1.64

Table 3. Impact Counts and Ratings

IMPACTS	Minimum	Maximum	Mean	Standard Deviation
COUNTS (1-12)	1.00	12.00	5.95	2.51
RATINGS (1-10)	1.00	10.00	7.06	1.65

To ensure a diverse sample, the survey invited respondents to report various aspects of their identity. Survey respondents included various identities historically underrepresented in agriculture (**Table 4**). Notably, 17% identified as Black, Indigenous, or People of Color (BIPOC), and 5% identified as LGBTQIA2S+. Among the sample, 75% reported having 10 or more years of agriculture experience, and overall ages ranged from 27-83. Half of participants identified as male, 42% identified as female, and 8% selected "another gender" or did not answer.

Table 4. Survey Respondent Identities (n=402-412)

IDENTITY	Number	Percent
BIPOC	68	16.9%
First generation college student	59	14.7%
Immigrant or refugee	27	6.7%
Primary language other than English	26	6.5%
Low income	19	4.7%
LGBTQIA2S+	18	4.5%
Military experience	14	3.4%
Living with a disability	11	2.7%

3. Interview Potential Success Cases

The evaluation team identified sixty-one potential success cases from among the survey respondents' funded projects based on a criterion of an average rating of progress towards selected outcomes between 8.5 and 9.8 on a 10-point scale.[3] The team then reviewed these

[3] Those with an average rating above 9.8 were excluded to avoid interviewing respondents prone to positive response bias.

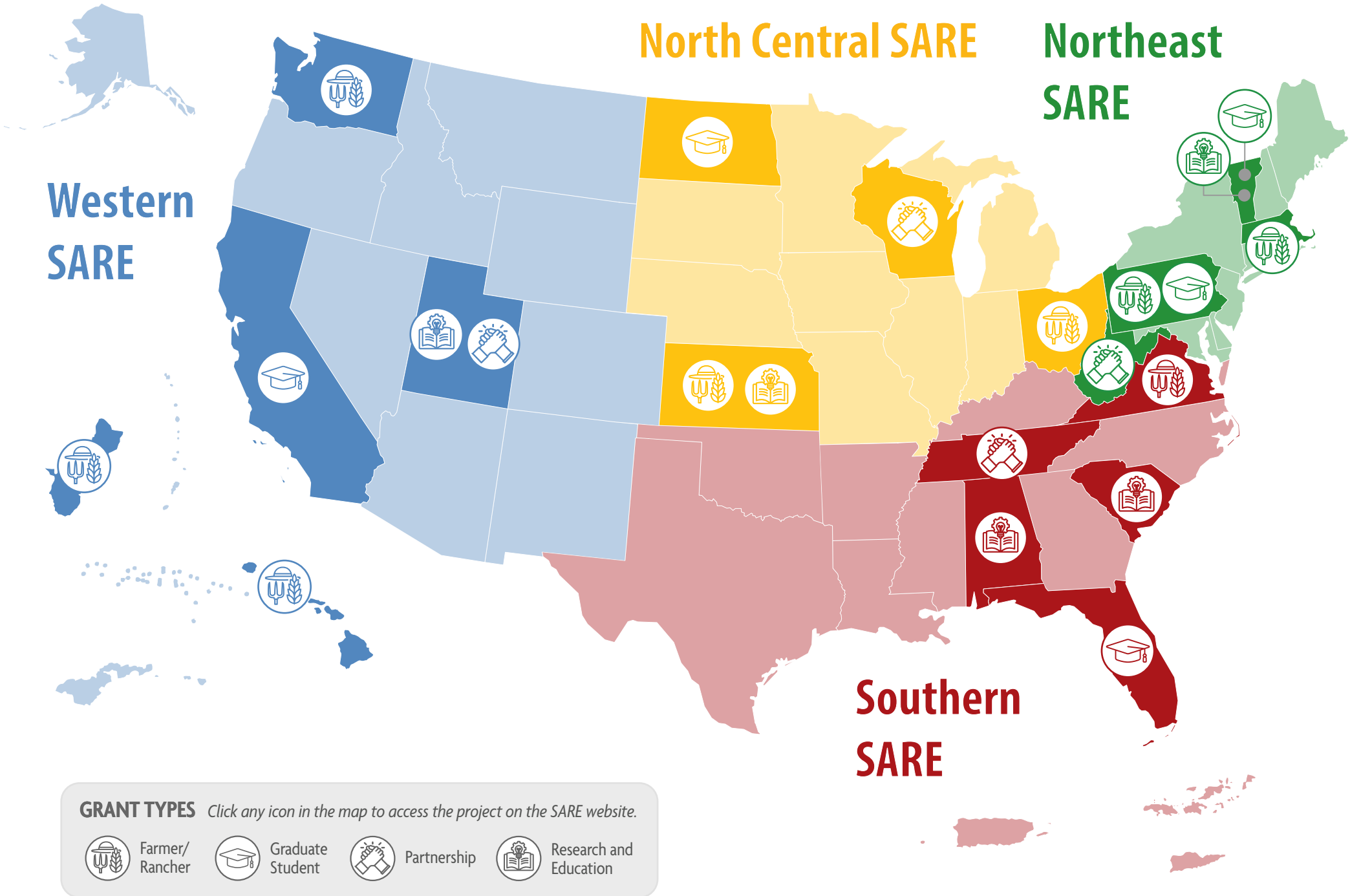
projects case-by-case to select a sample (n=24) reflecting the characteristics below, ordered in rank priority of importance for inclusion in more in-depth case study development.

- Four SARE regions across the U.S.
- Four SARE grant types
- Diverse project content
- Projects that were simple/narrow AND broad (based on fewer and more indicators and outcomes selected).
- Identities under-represented in agriculture (i.e., BIPOC and LGBTQIA2S+)
- A mix of grant years (grants awarded 2016-2019)
- A mix of gender identities and ages

In interviews, grantees were encouraged to describe, with specific examples, their project successes. Recognizing that SARE grantees may receive grants alongside other funding sources and that they bring key skills and networks to their work that increase the success of their SARE projects, an emphasis in interview questions was placed on how SARE funded activities **contributed to** longer-term achievements and impacts (rather than attributing success directly to SARE grants). The case studies draw upon the interview data to provide a succinct summary of the success story of each grantee, followed by grantee highlights and other stakeholder highlights sections that detail which specific indicators were at play during the grant term and beyond. Further, the case studies provide an overview of sustainability impacts described by grantees, and where applicable, identify barriers and contributors to achieving those impacts.

Among the 24 grantees originally selected for the interviews, one was excluded as a non-success case. This grantee had hoped to discuss a different SARE-funded project that occurred after the focal study period. Six of the original grantees could not be reached for an interview and were replaced with alternates meeting the success case criteria. The final case study corpus included 22 success cases (**Figure 2**).

Figure 2. Success Case Method Case Studies



Findings

Final Impact Model

During the success case interviews, the evaluation team explored the indicators and impacts each grantee reported in the survey to support the subsequent development of rich and wholistic narrative descriptions of the processes, facilitators, and barriers through which impacts and related milestones were achieved. Grantees were also asked to provide tangible evidence to support their statements such as program artifacts, reports, blogs, evaluation data, etc. The interview protocol is contained in **Appendix G.** The resulting success case stories, organized by grant type, are included in **Appendix H**. The aspects of the initial impact model that were reflected in case-specific data are identified on the first page of each story. See **Figure 3** for an example.

Figure 3. Case-Specific Impact Model Example

The case-specific data were synthesized in a cross-case analysis which demonstrated that the initial impact model was indeed reflective of the change process from grant receipt to sustainability impacts among the cases collectively. **Figure 4** on the following page presents the final impact model. Percentages in the model reflect the proportion of grantees identified with the Success Case Method who reported those indicators and impacts were achieved. In summary, the evaluation demonstrated that when projects are successfully implemented, SARE's investments contribute to environmental, production, economic, and social sustainability impacts. Grantees achieve these impacts through increases in knowledge, capacity/motivation, and engagement, by evolving practices, and growing professionally. By collaborating with others to implement their projects and conducting outreach to share learnings, grantees promote similar increases and improvements among producers, educators, service providers, and students throughout the nation's agriculture system.

SARE
Sustainable Agriculture Research & Education

PROGRAM IMPACTS

insight FOR ACTION

In 2023, SARE National partnered with Insight for Action to conduct a retrospective impact evaluation of four selected programs funded 2016-2019, representing program impacts through 2023. Percentages in the model reflect the proportion of grantees identified with Success Case Methodology who reported the indicators and impacts were achieved.

GRANT INVESTMENTS

Graduate Student | Research and Education | Partnership | Farmer/ Rancher

CRITICAL ACTIONS

SUSTAINABILITY IMPACTS

- ECONOMIC SUSTAINABILITY IMPACTS — 77%
- ENVIRONMENTAL SUSTAINABILITY IMPACTS — 82%
- SOCIAL SUSTAINABILITY IMPACTS — 55%
- PRODUCTION EFFICIENCY IMPACTS — 82%

INDICATORS ON THE PATH TO IMPACTS

- INCREASED ENGAGEMENT — 95%
- INCREASED KNOWLEDGE OF WHAT WORKS — 95%
- PRACTICE CHANGE — 82%
- INCREASED CAPACITY/ MOTIVATION — 95%
- CAREER GROWTH — 82%

Cross-Case Themes

As discussed in the methods section of this report (pg. 3), the evaluation employed the Success Case Method (SCM) to identify program impacts grounded in a theory- and practice-informed impact model. The evaluation identified 22 success cases – grantees who were able to provide credible evidence that their actions and behaviors had contributed to sustainability impacts. Rich narrative descriptions of each case are provided in **Appendix H**. Each success case story also includes photographs from the project, direct quotes from the grantee, links to the materials that constituted credible evidence, and discussion of specific factors that enabled or interfered with achieving success.

The final phase of the post-project evaluation was a thematic analysis of the cases as a collective corpus to identify cross-cutting themes. The evaluation team members who developed the success case stories collaborated on the cross-case synthesis over the course of the evaluation. They began with a preliminary coding scheme that parsed funding benefits and challenges by grant type and overall. As members worked through the cases, they collated evidence of the preliminary themes and evidentiary quotes from the interviews, refining the original themes and adding new ones as they surfaced and were repeated in the data. This inductive and iterative thematic analysis was accompanied by team meetings at a regular cadence throughout the evaluation to discuss and further refine the themes, draw linkages to previous phases of the evaluation such as the web-based scan and impact model development process, and identify areas which SARE may wish to consider for its future grantmaking and evaluative inquiry. The cross-cutting themes are summarized below. Success case stories relevant to the themes are noted. Each theme also includes one or more direct quotes from grantees who contributed to the interviews.

The Utility of a Complex Systems Orientation. SARE grantees can be usefully conceptualized as a highly entangled network of producers, researchers, students, community members, and service providers engaging in a diverse array of activities which produce ripple effects that continuously interact and unfold over long periods of time and across social and ecological systems. Some grantees explicitly named or described their projects with a complex systems orientation: FW18-030, LNE19-375, LS16-273, and LS18-41.

- ***"My dissertation was focused on sustainable agriculture. When I came down to South Carolina, the farms here are very different from farms in Nebraska… There aren't big cornfields here. It's a forest, it's pasture, maybe there's a five-acre row crop or vegetable, so it's a much more complex system. This grant really helped me understand that system, ask subsequent questions and get to know more farmers, which then allowed us to build out that network and understand the challenges farmers in this region were facing. I'd say 70% of the research we've been doing since then has been this idea of a multifunctional farm landscape."*** **— Dr. John Quinn, Research and Education Grantee**

While it is helpful to explore individual cases in this way, it is through the collective effects of SARE's investments regionally and nationally that the full scope of its impact is being realized. Future study could explore the interactive ripple effects occurring at different scales (i.e., locally, regionally, nationally) through methods appropriate for this purpose such as contribution analysis, outcome harvesting, or ripple effect mapping. This analysis could also explore the influence of national and global drivers of agriculture system behavior grantees discussed in the interviews including climate change, fluctuations in input costs, governmental policymaking, and insurance coverage requirements. See the following cases for examples: FNE17-865, FW19-348, GNC19-288, LNC18-411, and SW18-058.

- ***"This storm had winds above 100 and it stayed on top of the island for so long. That's what created most of the damage. It destroyed the farm."*** **— Glenn Takai, Farmer/Rancher Grantee**

- ***"The challenge in getting people to adopt this practice is not research, but crop insurance… I hear from producers that if you plant a cover crop, it is perceived as though you are doing a continuous crop… The insurance adjustors take that into consideration, expecting increased risk of crop failure. Something needs to be worked out so those who adopt cover crops have the same premium incentives or benefits as those who practice summer fallow."*** **— Dr. Augustine Obour, Research and Education Grantee**

Funding Benefits. Overall, the grantees interviewed emphasized that SARE's investments fund innovative projects for which no or few other funding sources exist, and SARE's regional grant administrators' responsiveness and flexibility enable grantees to adapt and succeed, even in the face of unexpected setbacks. Producer grants are particularly accessible to farmers and ranchers who are new to grant seeking. These modest grants have reasonable application and progress reporting requirements, and by successfully completing a SARE grant, producers gain legitimacy as researchers and grant managers that enables them to secure additional funding. Partnership and graduate student grants provide a launchpad for early career researchers who sometimes have trouble obtaining funding from other sources due to their limited experience. Faculty commonly use research and education grants to fund student researchers, making them more competitive masters' and doctoral program applicants. Partnership grants enable university-based researchers to do farmer-driven and farmer-engaged research that increases the likelihood that the findings are practically feasible and useful. For examples see: FN16-86, FNE17-865, FW19-344, FW19-348, GN19-288, GW18-062, and OW19-346.

- ***"I think that we often have more difficulty in getting funding for some of our projects, outside of grants, because everybody growing beans is working on such a tight margin that it's harder for them to spare money for breeding work."*** **— Travis Parker, Graduate Student Grantee**

- ***"SARE is very helpful. Trying to manage a federal grant is so daunting. The paperwork that goes into it and the amount of recording, it gets to the point where you don't have time to be a farmer because you're too busy doing the paperwork… Having smaller grants available helps new farmers, and farmers who have never had a business, to manage those funds as well."*** **— Nicole Correa, Farmer/Rancher Grantee**

- ***"This was my first significant grant [for cut flowers] and it propelled my program significantly. Sometimes it's a vicious cycle where you need to show your expertise and publication history, but you can't really develop that until you start getting grants and having projects. I so appreciate that Western SARE trusted me and was open minded, not just about me being an early career PI, but also, I am studying cut flowers, a non-traditional agricultural crop that is brand new in the state."*** **— Dr. Melanie Stock, Partnership Grantee**

Funding Challenges. While grantees consistently expressed their appreciation for SARE's grantmaking, they also discussed challenges. The costs to implement a meaningful and rigorous project can be greater than the value of funds received. Producers sometimes fill this gap with their own funds and university researchers obtain multiple grants to execute projects on larger scales and over time. There is also a critical need for sustained funding to do long-term research, as the three-to-five-year grant cycle impedes the stability of lines of inquiry. Moreover, each study generates new research questions that would be useful to build upon, but without sustained funding, lines of inquiry stall. One notable example discussed in the interviews was the need for funding to conduct economic analysis of production and environmental sustainability data generated through research and education projects. For partnership grants, once on-farm research funding ends and researchers can no longer compensate producers for access to their land and time to collaborate, land is commonly then used for a different purpose and data collection ceases, making it much more difficult to track long-term sustainability impacts. Without stable funding, stellar junior researchers are forced to move on to new labs, locations, or research programs to maintain professional momentum and support their livelihoods. These challenges are not specific to SARE but were discussed in the context of the interviews and therefore warrant further consideration in relation to SARE's purpose and strategy. For examples see: FN16-861, LNC18-411, LS16-273, OS18-112, and OW19-346.

- ***"We are seeing the impact on the disease severity, but many questions come with that. Growers see the efficacy but are questioning me about the economic cost and compatibility with their production practices. Perhaps with future funding I can address those portions."*** **— Dr. Fulya Baysal-Gurel, Partnership Grantee**

Social Sustainability. SARE emphasizes that advancing social sustainability contributes to the environmental and economic resilience of agricultural systems, conceptualizing it as comprised of multiple webs of interconnected social relationships.[4] In the final impact model, social sustainability impacts included Diversity, Equity, Inclusion, and Justice (DEIJ), robust local food systems, and producer and community wellbeing. Social sustainability was the least commonly reported impact achieved in the

[4] USDA Sustainable Agriculture Research and Education, & Guptill, A. (2021). *Understanding and Measuring Social Sustainability.* https://www.sare.org/resources/understanding-and-measuring-social-sustainability/

context of SARE's grantmaking in both the survey and the interviews. This may be more reflective of the nascent understanding some grantees have of this complex concept, how to design projects that address it, and how to measure progress along the way. This finding is not surprising as the web-based scan revealed that the social dimension of sustainable agriculture is growing in recent years, but still remains underdeveloped in theory and practice compared to economic and environmental sustainability. Grantees that did focus on social sustainability emphasized the importance of nurturing relationships and belonging within their research teams, reclaiming ancestral and intergenerational knowledge of agriculture and food systems and sharing this with wider communities, improved well-being and strong community support for producers to innovate, shifting mainstream narratives about farming methods and foods towards more inclusive ecologies, and producer-led research and education. For examples see: FNC19-1161, FS18-308, GNE19-205, LNE19-375, ONC19-063, ONE19-347.

- ***"All the growers we've worked with were not only partners, but true collaborators in knowledge creation and sharing. I get invited to speak at conferences and grower meetings. What's been nice is saying, 'I could come and speak, but you should actually ask to hear this grower's story from them directly.' Most people don't get into farming to speak in public, so sometimes there's hesitation, but I've found that by helping them document their project as a case study in a variety of formats enables them to tell their own story more easily and become educators."* — Christopher Callahan, Research and Education Grantee**

- ***"Growing lesser-known Mexica food products such as maize, pipiche, papalotl, jicama, and mexican mint marigold has created a deeper sense of community between myself and local Latino/a communities here in Kansas, too. Latino/a farmers market customers, restaurant owners, cooks, and grocers have seen more of what ancestral crops are possible to produce here in Northeast Kansas through this research and through my operation, Maseualkualli Farms. The rewarding feeling of nurturing culture away from its ancestral points of origin goes beyond description and is personally one of the biggest positive outcomes of this study."* — Pantaleon Florez III, Farmer/Rancher Grantee**

More work is needed to build a common understanding of this important social aspect of sustainable agriculture within SARE, and a more in-depth study could examine what it looks like to embed social sustainability more explicitly into the grantmaking, implementation, reporting, and evaluation processes. Further, there may be opportunities for shared learning among SARE grantees who have successfully achieved social sustainability

impacts. Of particular importance is greater exploration of social sustainability among populations historically underrepresented in agriculture including women, Black, Indigenous, and People of Color (BIPOC), LGBTQ2S+, young/beginner producers, and producers with disabilities.

Conclusions and Recommendations

The Success Case Method is a useful approach to post-project evaluation in that it explores the question: *If things were working well, what would be happening?* The evaluation demonstrated that SARE's investments are contributing to sustainability impacts. However, by nature of the methodology used, the cases included in the analysis focused on grantees who self-identified as accomplishing theory- and practice-informed indicators and impacts of success. Among producers, many held post-secondary and graduate degrees in agricultural or other sciences, and in the context of their education, had received formal training in research methods. While it was not feasible in the context of the current study, it would be worthwhile to examine the factors that assist or hinder producers without such training to obtain and execute research and education projects. Similarly, many of the graduate student and university-based researchers who contributed success cases were highly productive as indicated by their having received multiple SARE and non-SARE-funded grants and generating a multitude of peer-reviewed and informal publications, instructional videos, and print materials. Similar to producers, it would be worthwhile to explore how to best support less prolific researchers to leverage SARE's investments to achieve a more sustainable agriculture system.

Appendices

Appendix A. Web-based Scan

Web-based Scan 3.3.2023

Background: Funded by the USDA National Institute of Food and Agriculture (NIFA), Sustainable Agriculture Research and Education (SARE) is a competitive grant program operating in every US state and island protectorate. Insight for Action is partnering with the SARE National Reporting, Coordination, and Communications Office (NRCCO) to conduct a retrospective impact evaluation of five SARE grant types across the four regions (North Central, Northeast, Western, and Southern) for grants awarded from 2016 to 2019. The evaluation results will be used to identify longer-term impacts nationally and to shape stories about successful projects. A preparatory stage of this work included a web-based scan of academic and practice-based literature that discuss and/or characterize sustainable agriculture definitions and outcomes.

Purpose and Method: The purpose of the scan was to orient the evaluation team to the intended outcomes of SARE during the study period (2016 to 2019). Additionally, the scan identified key concepts in the sustainable agriculture literature that are not represented or underrepresented in SARE documents but may be important to consider for the evaluation. The findings will inform the development of impact models that will undergird the evaluation. Sources included peer-reviewed articles related to sustainable agriculture definitions/outcomes published between 2018 and 2023, materials available on public websites of national agriculture organizations, the SARE public website, a sample of SARE outreach library resources, and select internal documents provided by SARE staff (see **Appendix A** for a complete list).

WEB-BASED SCAN: KEY TAKEAWAYS

1. **Defining sustainable agriculture and its outcomes:** SARE's definition of sustainable agriculture practices as economically viable, environmentally sound, and socially responsible – and the three corresponding 'pillars' of sustainability including profit, stewardship, and quality of life – generally align with definitions and categorizations found in the academic and practice-based literature. There is notable variety, however, in how sustainable agriculture scholars, practitioners, and organizations discuss sustainability indicators, outcomes, and measurement.
2. **Advancing social sustainability:** The sustainable agriculture literature offers key ideas for how to advance social sustainability for underrepresented populations, and recently published SARE materials provide some promising discussions of what advancing social sustainability looks like in practice. There appears to be a need, however, for SARE to capture this recent shift in its internal grant documents - such as the SARE theory of change, logic models, and grantmaking materials - to further develop its own social sustainability outcomes.
3. **Connecting environmental sustainability:** Web-based scan findings suggest SARE might aim to link environmental sustainability outcomes more explicitly to the interrelated issues of land development and conservation to bring additional urgency and nuance to conversations about keeping farmers and ranchers on their land.
4. **Aligning with the international context:** The international sustainable agriculture context is largely missing from SARE's framing of goals and impacts. This gap presents an opportunity for SARE to better align and connect its funded efforts with wider efforts to transform global agriculture. The international landscape may offer important new insights into best practices, lessons learned, and shared problem-solving that could guide SARE in helping its grantees to address barriers and overcome challenges at project, regional, and national levels, including climate change.

WEB-BASED SCAN: KEY FINDINGS

KEY FINDING #1. Defining sustainable agriculture and its outcomes: SARE's definition of sustainable agriculture practices as economically viable, environmentally sound, and socially responsible – and the three corresponding 'pillars' of sustainability including profit, stewardship, and quality of life – generally align with definitions and categorizations found in the academic and practice-based literature. There is notable variety, however, in how sustainable agriculture scholars, practitioners, and organizations discuss sustainability indicators, outcomes, and measurement**.**

SARE defines sustainable agriculture as practices that are "economically viable", "environmentally sound", and "socially responsible,"[1,2] with long-term profit, stewardship of land, air and water, and quality of life for farmers, ranchers, and their communities described as SARE's three pillars of sustainability[3]. The SARE program's mission statement directly references these three pillars of sustainability as characteristic of the types of innovations SARE wants to advance through groundbreaking research and education[4]. SARE repeatedly references the interrelated nature of the three facets of sustainability as "success in one area of sustainability reinforces success in others"[5]. Further, **SARE references the U.S. Code in its definition of sustainable agriculture as an integrated system with economic, environmental, and social factors[4].**

> Sustainable agriculture is an integrated system of plant and animal production practices that will, over the long-term, (1) satisfy human food and fiber needs; (2) enhance environmental quality and the natural resource base upon which the economy depends; (3) make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls; (4) sustain the economic viability of farm operations; and (5) enhance the quality of life for farmers and society as a whole (7 USC 3103(19)).

SARE's broad grouping of sustainable agriculture outcomes into the three categories of economic, environmental, and social sustainability generally aligns with elements found in the academic and practice-based literature. There is notable variation, however, with how sustainable agriculture scholars, practitioners, and organizations break down each of the three sustainability types further into sub-categories.

One of the ways that SARE further articulates each of the types of sustainability is through a list of intended benefits and impacts provided to grantees for interim and final reporting. Grantees are invited to self-select as many benefits and impacts as they choose that apply to their SARE-funded project and may alter their selection throughout the course of their grant. The following benefits and impacts table provides the list of top-level sustainability types with the response options listed below. This is one example of how SARE categorizes economic, environmental, and social impacts, with production and production efficiency pulled out as a separate type of impact. It is notable that the unit of analysis of SARE benefits and impacts (e.g., individual producer, community, landscape, etc.) varies. The following table does not represent a consistent set of impacts

articulated across SARE documents - how and to what extent intended impacts are discussed in SARE materials varies notably (for example, air quality is not included under SARE benefits and impacts but is discussed in SARE outreach materials). Part of the complexity in defining impacts is due to how sustainable agriculture impacts cross several facets of sustainability at once. Improved income, for example, is arguably a part of both social sustainability and economic sustainability.

Table 1. SARE Benefits and Impacts

Economic sustainability • Improved income or profitability • Improved market opportunities • Increased business/enterprise opportunities • Increased employment & labor opportunities	**Environmental sustainability** • Improved soil quality/health • Improved water quality • Improved landscape diversity/ecological services
Production and production efficiency • Improved crop production and/or production efficiency • Improved livestock production and/or production efficiency	**Social sustainability** • Improved agriculture and food system Infrastructure • Improved food accessibility • Improved quality of life

In comparison, one academic study that aligns closely with SARE's definition of sustainable agriculture defines environmental sustainability in terms of environmental degradation, social sustainability in terms of economic viability and social support for communities, and economic sustainability in terms of the efficiency of agricultural production[6]. In contrast, other studies highlight the saliency of novel agricultural practices, such as climate-smart agriculture, precision agriculture, organic farming, integrated nutrient management, and integrated pest management, to move the needle on sustainability[7]. While scientists tend to focus on sustainable agriculture in terms of environmental management, political actors tend to situate sustainable agriculture within larger conversations about sustainable (economic) development[8].

The discussion of the economic dimension of sustainability is multi-faceted in the literature. Some of the discourse around economic sustainability concerns agricultural models, including intensive agriculture models (high yields, and major pollution resource depletion) and alternative models (low yields and less pollution). Scholars introduce more complexity and move beyond these two models to identify innovative approaches and argue there are multiple transition pathways to achieve sustainability from an economic and social standpoint[9]. Indeed, the diversity of approaches to sustainable agriculture is discussed as a strength because it is adaptable to local contexts and specific priorities[10].

Economic sustainability is also discussed in terms of resilience. **The resilience of agriculture at a systems level is essential for the long-term economic resilience and farm viability at individual producer and community levels.** Rural communities are particularly vulnerable to

the global, systemic issue of climate change[11]. Agricultural systems are taxed with overpopulation and overburdened agriculture supply chains can lead to food insecurity[12]. Both the academic and practice-based literature discuss the economic precarity of farming and ranching work and emphasize the economic risks, which often outweigh the economic rewards of agricultural professions. This precarity impacts youth, who increasingly are leaving family farming businesses in search of more stable, lucrative careers, and would-be farmers who cannot afford to enter the field[13]. A key solution to these problems, according to the literature, lies in data-driven decision making and technology, such as the data analytics capabilities of machine learning that can increase productivity and other modern biotechnological and digital solutions that have the potential to transform agro-food systems (e.g., biofuels, integrated pest management, nanotechnology and pesticides)[12,14].

Overall, the academic and practice-based literature has attempted to categorize sustainable agriculture into distinct sets of approaches, models, and transition pathways[15,16]. While some definitions of sustainable agriculture are based more on processes (e.g., cover crops, reducing or eliminating tillage), others are more outcome-based (e.g., improved soil health, increased biodiversity)[17]. **What scholars and practitioners generally agree upon is that there is no universal or standardized way to measure sustainability in agriculture** [18].

Topical areas that national sustainable agricultural organizations use to group resources on their public websites can, in part, tell us more about how they are thinking about sustainable agriculture indicators (i.e., how we know we are on our way to achieving the goals and impacts) and outcomes (i.e., short-term, intermediate, and long-term goals/impacts). SARE's online outreach library categorizes its resources by animal production, audiences, commodities, crop production, education and training, energy, farm business management, natural resources/environment, pest management, production systems, soil management, and sustainable communities[19]. The National Centre for Appropriate Technology ATTRA – a sustainable agriculture program and extensive resource collection - categorizes sustainable agriculture into the following topics: Business and marketing, climate solutions, crops, equipment, farm energy, farm start-up, farmer well-being, livestock, local food production, organic farming, pest management and soil[20]. American Farmland Trust, on the other hand, groups its approach to regenerative agriculture into three overarching mission areas including keeping farmers on the land, protecting farmland, and promoting sound farming practices with topical areas such as women, local food, farmers markets, state and federal policy, farm viability, land transfer and access, water, dairy, climate change, soil health, land-use planning, and farmland protection tools[21]. In sum, **the three dimensions of sustainability give way to myriad practices, approaches, models, and indicators of sustainable agriculture, which, in turn, lead to a multitude of ways that sustainability in agriculture is measured in the field.**

KEY FINDING #2. Advancing social sustainability: The sustainable agriculture literature offers key ideas for how to advance social sustainability for underrepresented populations, and recently published SARE materials provide some promising discussions of what advancing social sustainability looks like in practice. There appears to be a need, however, for SARE to capture this recent shift in its internal grant documents - such as the SARE theory of change, logic models, and grantmaking materials - to further develop its own social sustainability outcomes.

The definition of the social dimension of sustainability in agriculture varies greatly in the academic and practice-based literature. In part, experts claim the variation in definitions is a result of the considerable variety of production systems across the U.S. and around the globe, which makes it challenging to operationalize social sustainability. Some of the social sustainability tools in the literature converge around human rights or workers' rights, and others focus more on farmer perceptions of quality of life[22].

Across the academic and practice-based literature, **social sustainability is repeatedly discussed as deeply interconnected with both economic and environmental sustainability**. SARE likewise emphasizes that advancing social sustainability contributes to the environmental and economic resilience of agricultural systems. Social sustainability is defined by SARE as "the extent to which social relationships promote equity, justice, and quality of life"[5] and the "people side of agriculture"[23]. Social sustainability is further described as multiple webs of interconnected social relationships, organized into the following groups: personal and household, farm or ranch, local community, agrifood network, and society at large. Figure 1 provides more detail for how SARE articulates impacts within each of these social relationship groups[5].

Figure 1. SARE Social Sustainability

SARE's definition and categorization of social sustainability speaks to the complexity of social relationships and identifies general themes related to equity and justice such as food security, farm succession, health and safety, autonomy, access, belonging, respect, and cultural values and practices. **A review of select SARE outreach publications suggests that in the last three years SARE**

has embarked on efforts to specify how and why particular underrepresented/underserved populations experience inequities in the agri-food system and how the system can change to advance equity, justice, and quality of life for these populations.

One example of SARE starting to identify specific underrepresented/underserved populations in agriculture includes the SARE outreach library's audience search filter for beginning farmers, underserved/minority audiences, veterans, Spanish-speaking populations, and youth[19]. Additionally, based on USDA definitions, some SARE documents reference socially disadvantaged groups (based on race, ethnicity, and gender), limited resource producers, and military veterans[2]. In a 2023 SARE bulletin, SARE discusses social sustainability in terms of resilient farmers, ranchers, and communities, and elaborates on five interrelated themes: social justice, equity, and inclusion, pathways for the next generation, health and well-being, community connections, and entrepreneurship as an engine for innovation and adaption[23]. The intended audience for this publication includes farmers and agricultural service providers, and authors touch upon topics related to diversity, equity, inclusion, and justice (DEIJ) such as the past and current dispossession of land from Black and Indigenous peoples, democratizing the food system, and structural racism's effect on agriculture.

While SARE's recent outreach publications are beginning to explore social sustainability with a DEIJ lens, a nuanced discussion of what a socially sustainable agricultural system looks like for underrepresented/underserved groups is not reflected in critical internal documents that speak to SARE program outcomes, such as 2019 SARE regional grantmaking materials, 2019 logic models, or the most recent 2021 SARE theory of change. This issue is not unique to SARE as the literature emphasizes that the social dimension of sustainable agriculture remained underdeveloped in both theory and practice as of 2019[24]. Further, it is unclear whether regional DEIJ efforts and calls to action around racial equity, such as the 2020 Young Farmers Racial Equity Toolkit produced by the National Young Farmers Coalition[25] and funded by Northeast SARE, have yet entered SARE's national conversations around social sustainability.

The following section outlines social sustainability goals that emerged in the literature which speak to underrepresented populations in the agri-food system. This list is not exhaustive and is meant to inform further discussion about sustainability goals for specific underserved groups based on their histories, experiences, knowledges, and contributions to sustainable agriculture. The intersections between these groups add further nuance and complexity to crafting social sustainability goals.

- **Women Farmers, Ranchers, and Agricultural Workers**

Women farmers, ranchers, and agricultural workers face pay gaps and additional gender-related barriers to land management/ownership. Women are underrepresented as beneficiaries of state and federal funding for conservation and climate-smart solutions in agriculture[26]. Examples of social sustainability goals addressing these gaps may include acknowledgement of women's historical and current role in farm and ranch success, women's access to leadership roles as farm managers and farm owners, equitable income for agricultural work, safe working conditions for

pregnant women (i.e., not exposed to chemical or physical hazards), and access to affordable child care[26].

- **Black, Indigenous and People of Color Farmers, Ranchers, and Agricultural Workers***

The racial and ethnic diversity of the U.S. population is not represented in positions of power and influence in the agri-food system. An estimated ninety-five percent of producers (i.e., decision-makers for farms and ranches) in the U.S. are white[27, 28]. A shift towards making space for Black, Indigenous, people of color (BIPOC) farmers, ranchers, and agricultural workers involves moving away from systems, practices, and technologies rooted in masculine, white, Western knowledge[29]. Social sustainability goals may include centering the historic and current contributions of BIPOC farmers, ranchers, and agricultural workers that have shaped the agri-food system[29]. Additional examples of goals may include equitable access for BIPOC producers to state and federal funding to practice sustainable agriculture, safe and dignified working conditions, and community access to culturally appropriate foods (especially for immigrant and refugee communities)[30].

Zooming in further on the experiences of specific underrepresented groups in the agri-food system, **social sustainability goals can be situated within the context of the land dispossession, oppression, and exclusion of Native American/First Nations/Indigenous peoples and their ways of being.** Related actions may include acknowledging the traditional inhabitants of the land accompanied by building relationships with local indigenous organizations and decolonizing alternative agricultural practices, such as organic farming, which have appropriated indigenous traditional knowledge[29]. Regenerative agriculture practices that honor indigenous traditional knowledge may include, for example, seed banks run by/for indigenous people to promote the strength and diversity of crops or removing invasive species to bring back native plants[31]. These practices are an example of social sustainability practices that tie into broader community health and are directly related to environmental sustainability outcomes.

Black and African American communities have also deeply shaped agriculture in the United States. The history of slavery, labor exploitation, and agricultural knowledge passed down through generations by African descendants is a key part of this story[29]. Black and African American communities continue to face notable barriers to accessing land, federal and state sustainable agriculture funding, and experience what has been termed 'food apartheid' or limited access to healthy, nourishing food[25]. Social sustainability goals may respond to ongoing systemic racism that erases Black and African American agricultural knowledges, practices, and technologies. Related practices may include, for example, recognizing and uplifting the contributions of Black and African American entrepreneurs in agriculture, partnering with BIPOC-led organizations, supporting and promoting Black and African American-owned farms and ranches, equitable resourcing via reparations and voluntary taxation, and building strong connections between farms and ranches and Black and African American communities (e.g., by way of agricultural experiences and education)[25, 31].

Social sustainability goals related to communities who identify as Hispanic, Chicano/a, and/or Latino/a are deeply tied to the experiences of migrant and seasonal farmworkers. It

is estimated that more than half of migrant and seasonal workers in the U.S. are undocumented[32], which creates unique challenges for agricultural workers in terms of access to health care and fear of speaking out against dangerous or precarious working conditions. Related goals may include safe, inclusive, and dignified living and working conditions. Additional community-level goals may include equitable access to healthcare and fair wages[32], which are both examples of a social sustainability goal that is interrelated with the economic realm of sustainability.

*While it did not surface in the scan, the evaluation team is aware of the exclusion of the Asian and Pacific Islander communities from this synthesis. These communities have shaped the agri-food system in important ways and have experienced oppression and dispossession of agricultural lands (e.g., Japanese internment during World War II).

- **Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual Farmers, Ranchers, and Agricultural Workers**

Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual (LBTQIA+) populations are often rendered invisible within the farmworker community, and may experience shaming, assault, and isolation from their families, agricultural employers, and communities[33]. Social sustainability goals may include access to safe and dignified working conditions and access to inclusive healthcare.

- **Farmers, Ranchers, and Agricultural Workers with Disabilities**

Many farmers, ranchers, and agricultural workers with disabilities face discrimination, exclusion, and a lack of access to resources (funding, adaptive equipment, etc.). Social sustainability goals specific to farmers, ranchers, and additional agricultural workers with disabilities may involve gainful employment in production agriculture or a related occupation, access to appropriate assistive technology needed for work and daily living activities, access to evidence-based information related to the treatment and rehabilitation of disabling conditions, and family caregivers receiving targeted support [34].

- **Young/Beginner Farmers and Thriving Rural Communities**

A key component of thriving rural communities includes intergenerational farming and land access for young/beginner farmers through leasing, purchasing, and receiving land[35]. Social sustainability goals related to young/beginner farmers may include support for heritage operations and family farms to keep farmers on their land, as well as supports for new producers to achieve a successful farm start-up process and to build thriving farms and ranches (e.g., by way of training and education opportunities that strengthen business planning, financial management, marketing, and production skills)[36].

KEY FINDING #3. Connecting environmental sustainability: Web-based scan findings suggest SARE might aim to link environmental sustainability outcomes more explicitly to the interrelated issues of land development and conservation to bring additional urgency and nuance to conversations about keeping farmers and ranchers on their land.

SARE documents speak generally to environmental stewardship and conservation in terms of soil health, surface water quality, the protection of natural resources, animal wellbeing, reduced use of toxic chemicals, and the integration of natural biological cycles and controls[2,37,38]. **The issue of land development as a threat to farm and ranch land, however, did not surface as a central theme in SARE's documents, nor is it reflected in SARE goals/impacts.** National agricultural organizations, such as American Farmland Trust (AFT), center land development as a critical issue to achieve long-term sustainable agriculture systems. To respond to the pressures of land development, AFT provides producers with technical assistance, conducts research, and engages in advocacy for agricultural conservation easements, agricultural land trusts, and other federal and state funding[39].

Directly related to land development is biodiversity and protecting wildlife habitat on agricultural lands. Several approaches to sustainable agriculture emerged repeatedly in the literature that address both land development and conservation[7]. Sustainable intensification, for example, avoids the cultivation of more land, thereby preventing the loss of unfarmed habitats, while also increasing production and advancing environmental outcomes. Examples of sustainable intensification include practices like maximizing biodiversity by means of integrated pest management, pasture and forage management, the incorporation of trees into agriculture, and irrigation management[40]. Linking environmental sustainability outcomes more explicitly to the interrelated issues of land development and conservation brings urgency and nuance to conversations about keeping farmers and ranchers on their land.

Examples of goals related to land development, per AFT's 2023 Farm Bill Policy Agenda[41], include:

- America's agricultural land base is secure.
- Farmers and landowners have the resources they need to permanently protect their land from development.
- Producers operate thriving, viable businesses while feeding their communities nutritious food.
- Farmers and ranchers are recognized and rewarded not just for the food, feed, fiber, and fuel they produce, but also for the environmental benefits they provide.
- A diverse new generation can afford to purchase farmland, build wealth, and contribute to a productive food system.
- Producers and service providers benefit from easier access to government programs and technical assistance.

KEY FINDING #4. Aligning with the international context: The international sustainable agriculture context is largely missing from SARE's framing of goals and impacts. This gap presents an opportunity for SARE to better align and connect its funded efforts with wider efforts to transform global agriculture. The international landscape may offer important new insights into best practices, lessons learned, and shared problem-solving that could guide SARE in helping its grantees to address barriers and overcome challenges at project, regional, and national levels, including climate change.

The fourth key takeaway from the web-based scan includes the focus in the literature on connecting local sustainability initiatives in agriculture to broader efforts to transform globally-connected agricultural systems. **There is repeated discussion about the importance of global initiatives including the United Nations (UN) Sustainable Development Goals (SDGs) and the Food and Agriculture Organization's (FAO) 10 Elements of Agro-Ecology**[8,15,42]. The SDGs were developed as part of the 2030 Agenda for Sustainable Development, adopted by all UN member states in 2015, and include a call to action with 17 goals. Of note, one of the SDGs is to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture"[43]. The FAO's 10 elements of Agro-Ecology were developed between 2015 and 2019 and include five central ecological features - diversity, co-creation and sharing of knowledge, synergies, efficiency, and recycling - and five additional social and political elements including resilience, human and social values, culture and food traditions, responsible governance, and circular and solidarity economy[44] . Global milestones like the SDGs and 10 Elements of Agro-Ecology speak to the complexity of identifying cross-cutting indicators of success across a wide variety of local contexts. Existing frameworks developed by scholars and practitioners are helping advance development of global measurement tools. For example, the Tool for Agroecology Performance Evaluation (TAPE) brings together the expertise of 70 agro-ecology related organizations to offer the "assessment of performances of various criteria that move beyond classic indicators to begin to build a global evidence base for agroecology and support transformation to sustainable agricultural production and food systems" [45].

Underlying all efforts, **the global issue of climate change exists as a problem of great urgency and import to agricultural producers, educators, researchers, and other agricultural actors**[14]**. While acknowledged in SARE outreach materials, climate change is not addressed explicitly in SARE's existing sustainable agriculture goals/impacts.** This gap represents another important opportunity for better aligning SARE's desired impacts with wider efforts to address the climate emergency while aiming to strengthen the resilience of global agriculture in response.

APPENDIX A. Organizations and Internal SARE Documents Referenced

National agriculture organizations referenced for this scan are listed below and were identified based on SARE staff recommendations, evaluation team knowledge of active entities in the sustainable agriculture field, and key word search terms for organizations with expertise in underrepresented populations in the agri-food system (e.g., young or beginning farmers, farmers with disabilities, migrant and seasonal agricultural workers).

- Agrability
- American Farmland Trust
- Farmworker Justice
- National Center for Appropriate Technology (NCAT ATTRA) Sustainable Agriculture
- National Young Farmers Coalition

Insight for Action also reviewed the following internal SARE documents provided by SARE national and regional staff that begin to articulate goals and intended impacts of the SARE program.

- 2019 regional grantmaking materials.
- 2019 SARE Research and Education Grant Logic Model and 2019 Professional Development (PDP) Grant Logic Model.
- 2021 SARE Theory of Change.
- Other evaluation-related documents (e.g., 2005 Evaluation of North Central SARE; 2022 Request for Proposals for Project Impact Evaluator).

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Appendix B. Expert Elicitation Interview Key Findings

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TO: Kristy Borelli, SARE Program Associate Director
John Dorner, IT Coordinator
FROM: Heather Dantzker, PhD and Katie Winters, PhD
RE: SARE Post-program Impact Evaluation: Expert Elicitation Interview Highlights
DATE: April 13, 2023

This memo provides information that emerged from interviews conducted in April 2023 with 17 SARE regional staff and affiliates who served as SARE regional leaders and/or Administrative Council members during the evaluation's 2016-2019 focal study period. The purpose of these interviews was to understand more about how leaders in each region approached grantmaking during this period, focusing on each region's overall goals and objectives in relation to the national SARE mission; administrative approaches, successes, and challenges in grantmaking; critical actions taken and activities, both administratively and programmatically, that led to progress and key successes; indicators used by these leaders to identify success; and key challenges along the way. These findings are being integrated with analysis of extant data across the four regions and across focal programs of interest to build preliminary, conceptual level impact models for the study period. These models will form the structural basis for additional evaluation methods to identify, and ultimately characterize, key successes and SARE impact during this timeframe.

Key take-away #1: Across all four SARE regions, awareness and action to address DEIJ (diversity, equity, inclusion, justice) concerns and values grew substantially and formed the basis for even more growth during the pandemic era.

Administrative Councils and other regional SARE leaders reported the dawn of DEIJ awareness as occurring just prior to the 2016-2019 study period, with first actions taking place in the 2015-2017 period. Actions included 'early conversations,' followed by activities such as the formation of ad hoc committees, integration of new DEIJ-oriented language into RFPs, hiring outside consultants to advise on DEIJ questions, and incorporation of DEIJ considerations into regional strategic planning. All regions cited the further diversification of Administrative Council membership as an important step in this evolution. Interviewees cited tangible administrative outcomes of these early actions including increases in the number of proposals received from more diverse grant applicants, as well as new funding allocated for partnerships proposing to strengthen relationships with Hispanic serving, 1890, and 1994 institutions, NGOs, and BIPOC individuals and communities.

Notably, Southern SARE, uniquely comprising 1862 and 1890 Land Grant institutions, experienced significant new growth in DEIJ learning during this period. The region brought on an 1890 Land Grant liaison and a Southeast Outreach Coordinator, accelerating its growth in understanding the capacity, strengths, needs, and challenges of underrepresented groups. Key outcomes of this learning included: 1) new support for diverse NGOs working in outreach capacities. 2) new relationship-building, trust-building, and financial support to address gaps in proposal development capacity, and 3) serving as a catalyst for new awareness- and relationship-building across historically isolated and marginalized communities. Northeast SARE interviewees cited an explicit goal of becoming an anti-racist organization as an outgrowth of its DEIJ-related activities during the study period.

Key Take-away #2: Strategies implemented by SARE regions during the 2016-2019 study period facilitated other important outcome achievement such as new forms of knowledge, learning, and relationship-building within and across SARE regions, and new approaches to address social sustainability and quality of life issues.

Interviewees cited new knowledge, learning, and relationship-building, in general, and a new focus on social sustainability and quality of life issues, in particular, as important outcomes during the study period.

They described the importance of new knowledge, not only in the form of robust scientific research outputs, but also in the form of *practicality* (research answering real questions impacting agriculture and farmers) and *diversity* (knowledge gained from the lived experience of diverse farmers), and the value of this knowledge when coupled with diverse experiences across the landscape in different contexts.

Interviewees also cited relationship-building among diverse SARE grantees, staff, and partners as: 1) facilitating learning about successes and non-successes via outreach products, engagement events, and professional development, 2) leading to important outcomes such as sustained learning communities and new 'professional security and legitimacy' in the sustainable agriculture space, and 3) strengthening of the field of sustainable agriculture itself as more and more practitioners become aligned with regard to evolving and emerging sustainable ag-related topics, concepts, and vocabulary.

Together, interviewees described these functions as positioning SARE as a multiplier for the field. As the many SARE-supported resources and networks grow, strengthen, and integrate over space and time, interviewees expressed high confidence in SARE's ability to positively impact the growth and sustainment of sustainable agriculture in the U.S.

Appendix C. Grantee Report Review

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Appendix C. SARE Grantee Final Report Review

Insight for Action reviewed a sample of final reports submitted by SARE grantees upon completion of their project. The report review process enabled the evaluator team to gain a better understanding of how grantees were reporting the impact of their completed projects. Further, the evaluator team utilized the report review to identify convergence points in terms of SARE impact between what grantees were reporting at the project level and what surfaced in the expert elicitation expert elicitation interviews at the regional level. The report review was ultimately one source of information - alongside the web-based scan, the document review of regional grantmaking materials, and the expert interviews - that informed the first phase of impact model development.

Sampling Plan

Insight for Action utilized the following sampling plan to complete a systematic review of final reports for each of the five grantmaking programs included in the evaluation: Producer (i.e., Farmer/Rancher), Research & Education (R&E), Partnership, Professional Development (PDP), and Graduate Student. The North Central region is highlighted below to outline the detailed sampling process, which was repeated across all four regions. Following discussion of North Central SARE, grantee report sample numbers and percentages are presented for Northeast, Southern, and Western SARE Regions. Combined, evaluators reviewed **120** of 1091 final reports (**11%**).

North Central SARE

During the study period (grants awarded between 2016 and 2019), North Central SARE funded **352 completed projects** (i.e., considered 'complete' in that grantees submitted a final report). The number of completed projects by grant type is included in Table 1 below. Final reports were submitted by grantees to a national, public SARE database, with reporting fields curated to each region and grant type.

Table 1. North Central: Number of Completed Projects by Grant Type (2016-2019)

Grant Type	Number of Projects Completed	Proportion of Grants Given	Percentage for Sample Review	Number of Reports to Review
Farmer/Rancher	160	45%	6%	10
Graduate Student	72	20%	11%	8

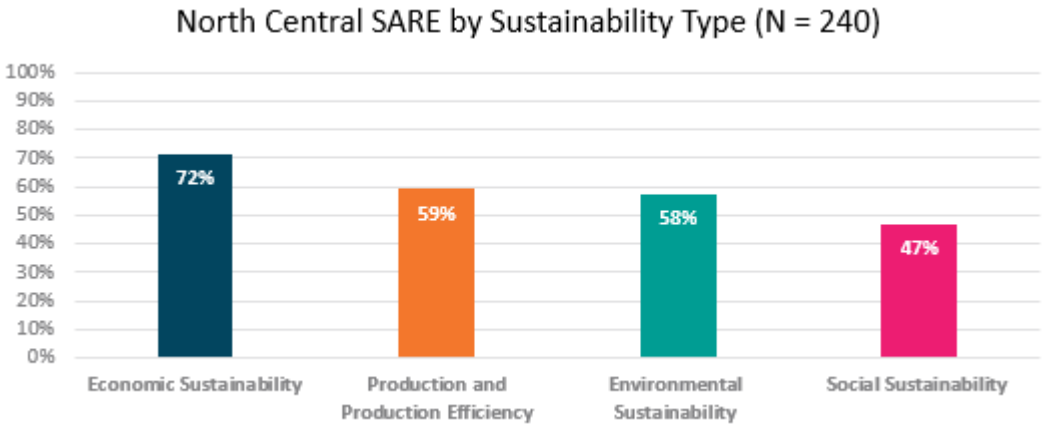
Grant Type	Number of Projects Completed	Proportion of Grants Given	Percentage for Sample Review	Number of Reports to Review
Partnership	51	14%	12%	6
Professional Development	31	9%	16%	5
Research and Education	38	11%	16%	6
TOTAL:	***352***			***35***

Close to half (45%) of grants in the North Central region were for Farmer/Rancher grants, the grant type with the lowest funding mean. Consistently sampling 10% across each grant type will produce over-representation of Farmer/Rancher grants and few projects that received larger grants.

→ Sampling strategy: To generate a balanced sample, evaluators adjusted the percentage for sample review by grant type, with 5-10 reports by grant type.

In North Central SARE, four of five grant types include grantee report responses to "Benefits and Impacts" – a database entry in which grantees select the benefits and impacts they expect their project to "lead to or influence over the long term". Benefits and impacts are clustered within four types of sustainability. Figure 1 presents the number of grantees who selected benefits and impacts within each cluster in their final reports.

Figure 1. Proportion of Grantees Selecting Benefits and Impacts by Sustainability Type

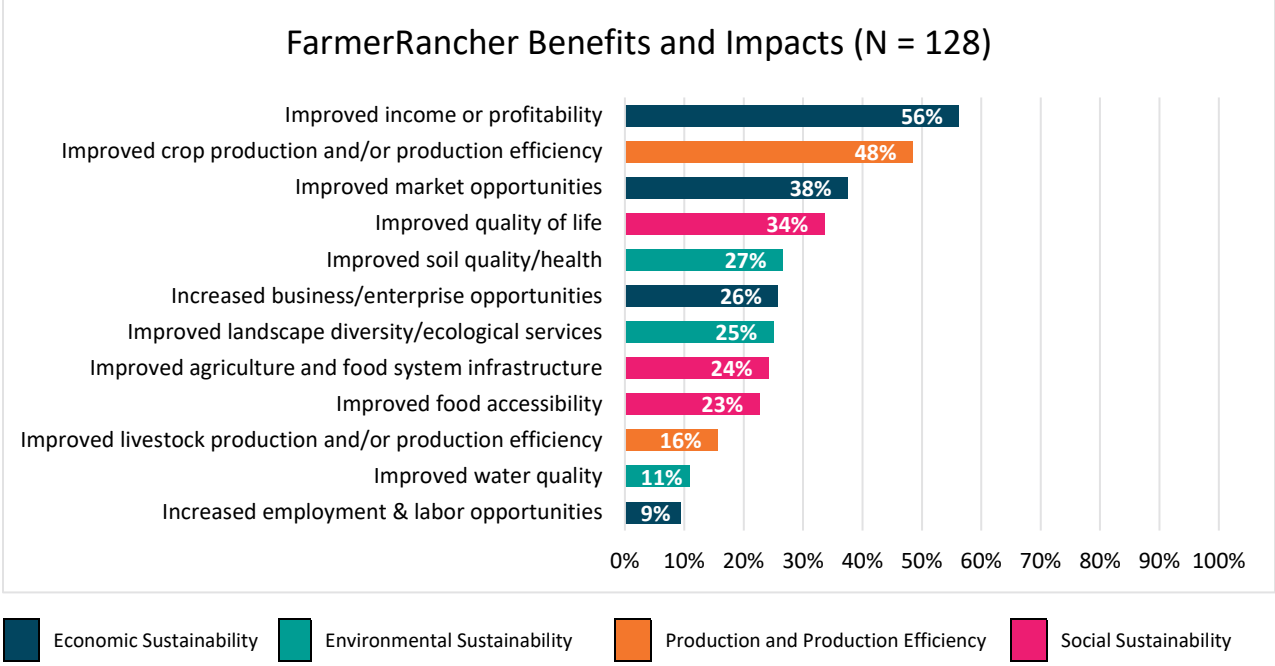


Approximately half or more of grantees selected benefits and impacts within each sustainability type when submitting their final reports.

→ Sampling strategy: Sustainability type is not a useful stratification variable given representation across types.

Digging deeper, within each grant, benefit and impact subtypes nested within the broader sustainability types demonstrate greater variance. For example, as shown in Figure 2, among Farmer/Rancher grants with Benefits and Impacts data in the SARE database, less than 25% of grantees identified two of three social sustainability impacts, and just 9% identified increased employment & labor opportunities (a subtype of Economic Sustainability).

Figure 2. Proportion of Grantees Selecting Benefit and Impact SUBTYPES by Sustainability Type



→ Sampling Strategy: Within each grant type, among the reports sampled for review, evaluators balanced the sample by beginning selection with grants reporting benefit and impact subtypes with low frequencies and then adding grants with more commonly reported benefits and impacts to achieve diversity across all benefit and impact subtypes[1].

Once the sample was selected, evaluators reviewed a set of qualitative data from each report that were determined to be most relevant to the evaluation. There are an extensive number of variables included within grantee reports that vary by region and grant type. Evaluators examined all variables, and any additional instructions included in the database to guide grantee responses, to prioritize qualitative variables identified as most likely to describe outcomes and impacts achieved during the grant period. For North Central SARE, variables included in the sample are summarized in Table 2, with five to six variables reviewed per grant type.

[1]Once evaluators filtered reports by benefit and impact subtypes that were least to most represented, evaluators used random sampling to select reports for the sample. If the random sampling resulted in reports which did not include data for key qualitative variables, these reports were excluded from the sample and another report was selected in its place.

Table 2. North Central Region: Variables for Inclusion in Sample Report Review

Variable	North Central Farmer/ Rancher	North Central Graduate Student	North Central Partnership	North Central PDP	North Central R&E
Abstract				1	
Additional outcomes narrative				1	
Benefits and impacts	1		1	1	1
Key areas in which farmers reported changes in knowledge, attitude, skills and/or awareness			1		
Key practices changed by farmers/ranchers					1
Knowledge gained		1			
Learning and action outcomes and impact				1	
Lessons learned	1				
Project outcomes		1	1		
Results and discussion	1	1	1		1
Success stories	1	1	1	1	1
Summary	1	1	1		1
TOTAL NUMBER OF VARIABLES	***5***	***5***	***6***	***5***	***5***

Evaluators followed the same sampling strategies for Northeastern, Southern, and Western regions to systematically build a report sample. A total of **120** of 1091 final reports (**11%**) were reviewed. The following page includes sample summary tables for the whole sample overall and by region.

Sample Summary Tables Combined and By Region

Table 3. Number of Completed Projects by Grant Type (2016-2019) – **All Regions Combined**

Grant Type	Number of Projects Completed	Proportion of Grants Given	Percentage for Sample Review	Number of Reports to Review
Farmer/ Rancher	339	31%	8%	28
Graduate Student	291	27%	9%	27
Partnership	222	20%	11%	24
Professional Development	109	10%	18%	20
Research and Education	130	12%	16%	21
TOTAL:	***1091***			***120***

Table 4. **Northeast** Region: Number of Completed Projects by Grant Type (2016-2019)

Grant Type	Number of Projects Completed	Proportion of Grants Given	Percentage for Sample Review	Number of Reports to Review
Farmer/ Rancher	103	29%	8%	8
Graduate Student	106	30%	8%	9
Partnership	99	28%	8%	8
Professional Development	16	5%	31%	5
Research and Education	28	8%	18%	5
TOTAL:	***352***			***35***

Table 5. **Southern** Region: Number of Completed Projects by Grant Type (2016-2019)

Grant Type	Number of Projects Completed	Proportion of Grants Given	Percentage for Sample Review	Number of Reports to Review
Farmer/ Rancher	25	13%	20%	5

Grant Type	Number of Projects Completed	Proportion of Grants Given	Percentage for Sample Review	Number of Reports to Review
Graduate Student	63	33%	8%	5
Partnership	38	20%	13%	5
Professional Development	26	14%	19%	5
Research and Education	38	20%	13%	5
TOTAL:	***190***			***25***

Table 6. Western Region: Number of Completed Projects by Grant Type (2016-2019)

Grant Type	Number of Projects Completed	Proportion of Grants Given	Percentage for Sample Review	Number of Reports to Review
Farmer/ Rancher	51	26%	10%	5
Graduate Student	50	25%	10%	5
Partnership	34	17%	15%	5
Professional Development	36	18%	14%	5
Research and Education	26	13%	19%	5
TOTAL:	***197***			***25***

Table 1 DUPLICATED. North Central Region: Number of Completed Projects by Grant Type (2016-2019)

Grant Type	Number of Projects Completed	Proportion of Grants Given	Percentage for Sample Review	Number of Reports to Review
Farmer/Rancher	160	45%	6%	10
Graduate Student	72	20%	11%	8
Partnership	51	14%	12%	6

Grant Type	Number of Projects Completed	Proportion of Grants Given	Percentage for Sample Review	Number of Reports to Review
Professional Development	31	9%	16%	5
Research and Education	38	11%	16%	6
TOTAL:	***352***			***35***

Identifying Themes in Report Sample

Once the sample was selected, evaluators generated an indicators and key word search list based on three sources: (1) The guidance and examples provided to grantees for the selection of SARE's Benefits and Impacts, (2) the impact and outcomes-related language that emerged in the web-based scan, and (3) the findings from the expert elicitation interviews. The indicators and key word search list is included below in **Table 7.**

While these key concepts limited above are not limited to one sustainability type and may be relevant to several, for the purposes of this exercise, terms were categorized under production efficiency, or economic, social, or environmental sustainability. Additionally, evaluators listened for impacts related to learning, outreach, and education, and any recurring challenges that surfaced in the grantee reports.

This list of key terms provided a *starting point* for evaluators to code the qualitative data for themes emerging across grantee reports. Evaluators were not limited to this initial list, and instead more themes emerged as the coding progressed and as evaluators were attentive to listening for the language grantees were using to talk about the impact of their project. Examples of key words and indicators that grantees utilized often include terms like crop diversification, shared equipment and/or facilities between producers, cost-sharing between producers, and value-added products,

Table 7. Indicators and Key Word Search List for Report Review

Sustainability Type	Key Words Related to Outcomes, Successes, Impacts, Indicators
Economic Sustainability	Bottom line
Economic Sustainability	Business growth
Economic Sustainability	Business model
Economic Sustainability	Business opportunity
Economic Sustainability	Data-driven decision making
Economic Sustainability	Economy

Sustainability Type	Key Words Related to Outcomes, Successes, Impacts, Indicators
Economic Sustainability	Entry
Economic Sustainability	Expanded or new market
Economic Sustainability	Farmer's market
Economic Sustainability	Financing
Economic Sustainability	Funds
Economic Sustainability	Gain
Economic Sustainability	Improved business acumen
Economic Sustainability	Improved marketing
Economic Sustainability	Improved operations
Economic Sustainability	Improved return
Economic Sustainability	Increased entrepreneurship
Economic Sustainability	Increased income
Economic Sustainability	Increased profit
Economic Sustainability	Increased revenue
Economic Sustainability	Increased sales
Economic Sustainability	Insurance
Economic Sustainability	Investment
Economic Sustainability	Job
Economic Sustainability	Labor costs
Economic Sustainability	Money
Economic Sustainability	More and/or new customers
Economic Sustainability	New or expanded business
Economic Sustainability	New or increased employment
Economic Sustainability	New or strengthened skills
Economic Sustainability	Position
Economic Sustainability	Price
Economic Sustainability	Reduced economic precarity
Economic Sustainability	Reduced risk
Economic Sustainability	Role
Economic Sustainability	Start-up
Economic Sustainability	Viable
Economic Sustainability	Whole-farm planning
Economic Sustainability	Wholesale
Economic Sustainability	Costs and benefits
Economic Sustainability	Risk management
Environmental Sustainability	Agritourism
Environmental Sustainability	Agroforestry
Environmental Sustainability	Biofuels
Environmental Sustainability	Carbon capture

Sustainability Type	Key Words Related to Outcomes, Successes, Impacts, Indicators
Environmental Sustainability	Climate disruptions
Environmental Sustainability	Climate smart agriculture
Environmental Sustainability	Cover crops
Environmental Sustainability	Decreased land cultivation
Environmental Sustainability	Ecology
Environmental Sustainability	Ecosystem
Environmental Sustainability	Efficient use of natural resources
Environmental Sustainability	Efficient use of non-renewables
Environmental Sustainability	Efficient use of on-farm resources
Environmental Sustainability	Environment
Environmental Sustainability	Expanded or new wildlife habitat
Environmental Sustainability	Improved air quality
Environmental Sustainability	Improved environmental stewardship
Environmental Sustainability	Improved irrigation management
Environmental Sustainability	Improved soil health
Environmental Sustainability	Increased animal well-being
Environmental Sustainability	Increased biodiversity
Environmental Sustainability	Increased biotechnological and digital solutions
Environmental Sustainability	Increased farmland protection
Environmental Sustainability	Increased holding capacity
Environmental Sustainability	Increased recreational access
Environmental Sustainability	Integrated biological controls
Environmental Sustainability	Integrated pest management / nutrient management / farming systems
Environmental Sustainability	Natural cycles
Environmental Sustainability	Nature conservation
Environmental Sustainability	Nutrient levels
Environmental Sustainability	Organic certification
Environmental Sustainability	Organic farming
Environmental Sustainability	Oxygen
Environmental Sustainability	Pollinators and Insects
Environmental Sustainability	Precision agriculture
Environmental Sustainability	Predator control
Environmental Sustainability	Preserved unfarmed habitats
Environmental Sustainability	Reduced contaminants
Environmental Sustainability	Reduced erosion
Environmental Sustainability	Reduced invasive species
Environmental Sustainability	Reduced land development
Environmental Sustainability	Reduced pesticides
Environmental Sustainability	Reduced tillage

Sustainability Type	Key Words Related to Outcomes, Successes, Impacts, Indicators
Environmental Sustainability	Reduced use of toxic chemicals
Environmental Sustainability	Reduced weeds
Environmental Sustainability	Regenerative agriculture
Environmental Sustainability	Salinity
Environmental Sustainability	Season extension
Environmental Sustainability	Sediment
Environmental Sustainability	Soil structure
Environmental Sustainability	Sustainable intensification
Environmental Sustainability	Temperature
Environmental Sustainability	Water efficiency
Environmental Sustainability	Water infiltration
Environmental Sustainability	Water levels
Environmental Sustainability	Weed control
Environmental Sustainability	Wetlands
Learning, Outreach and Education	Adoption of new or expanded sustainable agriculture practice
Learning, Outreach and Education	Improved communication and problem-solving
Learning, Outreach and Education	Increased capacity/willingness to innovate
Learning, Outreach and Education	Increased capacity to apply/build from research learnings
Learning, Outreach and Education	Increased collaboration
Learning, Outreach and Education	Increased grant seeking capacity
Learning, Outreach and Education	Increased influence on community
Learning, Outreach and Education	Increased knowledge of what could contribute to increased profit
Learning, Outreach and Education	Increased knowledge of what works in context: Tools/methods for production, enterprise/staff management, marketing/communications, (natural) resource management
Learning, Outreach and Education	Increased leadership capacity
Learning, Outreach and Education	Increased motivation to share innovations/learnings
Learning, Outreach and Education	Increased outreach/communications capacity
Learning, Outreach and Education	Increased research capacity (incl. capacity to fail)
Learning Outreach and Education	Shared learning (between producers, producers and researchers, researchers and ag professionals, ag professionals and researchers)
Learning, Outreach and Education	Strengthened/more diverse networks
Learning, Outreach and Education	Sustained practice change
Production and Production Efficiency	Crop quality
Production and Production Efficiency	Efficiency
Production and Production Efficiency	Equipment and increased production efficiency
Production and Production Efficiency	Farm/Ranch friendly policies
Production and Production Efficiency	Fertilizer
Production and Production Efficiency	Fuel
Production and Production Efficiency	Higher yield
Production and Production Efficiency	Improved infrastructure

Sustainability Type	Key Words Related to Outcomes, Successes, Impacts, Indicators
Production and Production Efficiency	Improved livestock feed
Production and Production Efficiency	Improved livestock health
Production and Production Efficiency	Improved system
Production and Production Efficiency	Increased production
Production and Production Efficiency	Livestock medications
Production and Production Efficiency	Livestock reproduction
Production and Production Efficiency	New or expanded distribution
Production and Production Efficiency	Parasite
Production and Production Efficiency	Reduced energy inputs
Production and Production Efficiency	Reduced labor
Production and Production Efficiency	Reduced livestock disease
Production and Production Efficiency	Reduced pests
Production and Production Efficiency	Technology and increased production efficiency
Production and Production Efficiency	Veterinarian
Social Sustainability	Agro-ecology practices
Social Sustainability	Alternative food networks
Social Sustainability	Asian and Pacific Islander farmers, ranchers, and agricultural workers
Social Sustainability	Better quality of life (for farmers, ranchers, for communities)
Social Sustainability	BIPOC-led farms and ranchers
Social Sustainability	Black and African American farmers, ranchers, and agricultural workers
Social Sustainability	Community gardening
Social Sustainability	Cooperation
Social Sustainability	Culturally appropriate food
Social Sustainability	Decolonization of alternative agriculture
Social Sustainability	Diverse stakeholder participation (scientific research, sustainability efforts, etc)
Social Sustainability	Engaged apprentices and interns
Social Sustainability	Equitable access to agricultural services
Social Sustainability	Equitable access to technical assistance
Social Sustainability	Equitable pay
Social Sustainability	Equitable resourcing (voluntary taxation, reparations)
Social Sustainability	Fair and transparent negotiations among supplies, lenders, contractors, and buyers
Social Sustainability	Farm or ranch succession
Social Sustainability	Farm to school
Social Sustainability	Farmer/rancher and household basic needs met
Social Sustainability	Farmers, ranchers, and agricultural workers with disabilities
Social Sustainability	Farming career trajectories
Social Sustainability	Heritage farm

Sustainability Type	Key Words Related to Outcomes, Successes, Impacts, Indicators
Social Sustainability	Hispanic / Latine / Chicano/a farmers, ranchers, and agricultural workers
Social Sustainability	Improved access for farmers and ranchers to public resources
Social Sustainability	Improved autonomy
Social Sustainability	Improved awareness of farmer and rancher contributions
Social Sustainability	Improved nutrition
Social Sustainability	Improved reach for groups underrepresented in traditional sustainable agriculture research and education
Social Sustainability	Improved safe and comfortable working conditions
Social Sustainability	Improved satisfaction
Social Sustainability	Improved ties between producers and local communities
Social Sustainability	Improved work conditions
Social Sustainability	Improved worker's rights
Social Sustainability	Improved work-life balance
Social Sustainability	Inclusive healthcare for agricultural workers
Social Sustainability	Increased access to affordable food
Social Sustainability	Increased access to healthy food
Social Sustainability	Increased access to locally grown food
Social Sustainability	Increased access to worker benefits
Social Sustainability	Increased food access
Social Sustainability	Increased food security
Social Sustainability	Increased land access for new farmers
Social Sustainability	Increased local food chains
Social Sustainability	Increased resilience of farmers and ranchers
Social Sustainability	Increased sense of belonging
Social Sustainability	Increased solidarity with global sustainable development goals
Social Sustainability	Increased targeted policy interventions
Social Sustainability	Increased well-being of agricultural workers
Social Sustainability	Indigenous practices
Social Sustainability	Inherit
Social Sustainability	Intergenerational farming
Social Sustainability	LGBTQIA+ farmers, ranchers, and agricultural workers
Social Sustainability	Migrant and seasonal farm workers
Social Sustainability	More consideration for agrifood issues in public-sector decision-making
Social Sustainability	More leisure time
Social Sustainability	Mutually-beneficial relationships among farms and ranchers.
Social Sustainability	Mutually-supportive relationships between farms and their customers
Social Sustainability	Native American / Alaska Native / Indigenous / First Nations farmers, ranchers, and agricultural workers
Social Sustainability	New generation

Sustainability Type	Key Words Related to Outcomes, Successes, Impacts, Indicators
Social Sustainability	New or improved agreement
Social Sustainability	New/young/beginning farmer or rancher
Social Sustainability	Permanent infrastructure
Social Sustainability	Personal fulfillment
Social Sustainability	Racial equity
Social Sustainability	Reduced food waste
Social Sustainability	Reduced worker exposure to chemical and physical hazards
Social Sustainability	Resilient communities
Social Sustainability	Respectful treatment of employees
Social Sustainability	Rural community
Social Sustainability	Shared reward
Social Sustainability	Social supports
Social Sustainability	Socioemotional health
Social Sustainability	Strengthened community
Social Sustainability	Sustained cultural values and practices
Social Sustainability	Underserved communities
Social Sustainability	Urban community
Social Sustainability	Urban farming
Social Sustainability	Veteran farmers, ranchers, and agricultural workers
Social Sustainability	Women operators and farm-owners
Social Sustainability	Worker
Social Sustainability	Youth and sustainable agriculture practices

Key Take-Aways

Evaluators analyzed the qualitative data from grantee reports to identify top themes and outliers. The five top key takeaways from the whole report review are included in Table 8.

Table 8. Five Key Takeaways from Report Review

Shared learning is the top reported theme 	SARE grantees across all five grant types benefitted from the shared learning that their projects facilitated. Shared learning occurred between various groups, primarily including producers, researchers, and agricultural professionals.

Sustained practice change is unclear 	It is unclear how often sustained practice change (i.e., beyond the grant cycle) occurred because grantees were not asked to report future implementation plans directly in their final reports. Some grantees noted they intended to continue sustainable agriculture practices established during their project.
Challenges included COVID-19 and weather conditions 	Limitations, delays, and pivoting proposed grant activities due to COVID-19 came up repeatedly in the final reports. Several grantees noted they were limited by weather conditions that impacted their grant activities and sometimes resulted in inconclusive findings.
Regional differences 	No stark differences between SARE regions emerged from the review of grantee reports in terms of project indicators and outcomes. There are some differences, however, in focus areas at the regional level, in terms of how and to what extent grantees approached social sustainability.
Unique aspects of Western SARE region 	Western SARE includes notable variability in project focus areas due to the wide geographic distribution of grantees, creating unique opportunities for shared learning across the region. Further, increased student learning (K-12) emerged as a unique learning, outreach, and education indicator for Western SARE.

Several grantees across the four regions reported limitations with capturing long-term impact in the final reporting process and made note of the need for more longitudinal studies and grower-led research. Some bigger projects struggled to articulate the impact of SARE funding when they had multiple funding sources and/or SARE funds contributed towards a long-term project that extended before/after the SARE grant period. Multiple grantees across regions mentioned the need for longitudinal studies and/or additional research to back up and further develop their findings. A couple projects referenced learnings from previous SARE grants (e.g., LNC16-381) and/or indicated they received another SARE grant to continue their research. Further, a few outlier grantees included grower-led, qualitative research that surfaced in-depth input from producers about their experience with agriculture.

For each of SARE's four regions, the top themes are presented by sustainability type in Tables 9 – 27, along with a brief discussion including examples and outliers.

NORTHEAST SARE TOP THEMES

The themes in **Table 9** are listed in order of frequency of occurrence, with a gradient with darker shading indicating they occurred most frequently, and lighter gradients indicating these themes occurred somewhat less frequently.

Table 9. NORTHEAST Report Review Top Themes **– Learning, Outreach and Education**

Top Learning, Outreach, and Education Key Words and Indicators
Shared learning • **Between producers** • **Between researchers and producers** • **Between ag professionals and producers** • **Between researchers and ag professionals**
Increased knowledge of what works in context • Tools and methods for production • Staff/enterprise management • Marketing/communications
Grantee increased knowledge of sustainable agriculture practices
Sustained practice change
Strengthened/diverse network
Adoption or expansion of sustainable agriculture practice
Wider contribution to sustainable agriculture knowledge base
Increased collaboration
Increased grant seeking capacity
Increased outreach/communications capacity
Increased research capacity
Increase capacity/willingness to innovate
Increased training of agricultural professionals

- **Innovation.** A few grantees noted their projects led to producers' increased capacity/willingness to innovate on their farms (i.e., producers were skeptical or unwilling going in, but they expressed an interest in implementing sustainable agriculture practices on their farms after participating in grant activities).

- **Shared learning.** Northeast SARE grantees across all five grant types benefitted from the shared learning that their projects facilitated. Shared learning occurred between various groups, including producers, researchers, and agricultural professionals. The ripple effect of shared learning occurred as farmers and ranchers shared their findings with other producers (e.g., inviting neighbor and regional farmers to on-site demos, speaking at conferences, presenting to agriculture member organizations), as researchers involved producers in their projects and benefitted from mutual knowledge exchange, and as agricultural professionals received training in topics like farm law or pest management and shared these learnings as a part of their extension services.
- **What Works in Context.** Grantees across grant types also generally increased their knowledge of sustainable agriculture practices as a result of completing their SARE-funded project. Further, they increased their knowledge of what works in context, most often noting that they learned new tools and methods for production that were most effective in their area (i.e., gaining localized expertise in light of the specific soil, water, climate and other environmental factors in their region).
- **Adopting New Sustainable Agriculture Practices.** Some but not all grantees adopted a new sustainable agriculture practice, either by taking it on directly as a part of their SARE-funded project (e.g., a farmer trying out a new method of cover crops) or by facilitating grant activities that led to additional producers adopting a practice (e.g., agricultural professionals teaching producers in their region about integrated pest management and following up to find out if they implemented the change).
- **Strengthened/Diverse Networks.** Several grantees enjoyed strengthened/diverse networks (e.g., more connections/supports between producers in niche markets like oyster farmers, or grad students connecting with a wide net of sustainable agriculture practitioners and researchers as a result of their project) and increased outreach and communications capacity (e.g., presentations, webinars, media attention, conferences, on-site demonstrations).
- **Increased Research Capacity.** Increased research capacity was primarily noted by grad students. Increased leadership capacity was rarely mentioned across grant types.
- **Weather Limitations.** Several grantees noted they were limited by weather conditions that impacted their grant activities and sometimes resulted in inconclusive findings.
- **COVID-19 Challenges.** Limitations, delays, and pivoting proposed grant activities due to COVID-19 came up repeatedly in the final reports. While some grantees noted the benefits of virtual outreach methods that provided increased reach, other grantees indicated it was a challenge to measure change across grant years when COVID-19 changed conditions considerably or when in-person outreach was central to their work (e.g., ONE19-349 community food ambassadors experiencing some outreach barriers).

Table 10. **NORTHEAST** Report Review Top Themes – **Economic Sustainability**

Top Economic Sustainability Key Words and Indicators
Increased market opportunities
Responsive to consumer demand
Improved business models/management/opportunities
Increased (knowledge of what could contribute to) profitability

- **Crop Diversification.** Crop diversification was mentioned a couple times by grad student and R&E grantees.
- **Consumer Demand.** Attention to being responsive to consumer demand emerged in Northeast more than in other regions.
- **Employment and Labor Opportunities.** ONE17-290 is an outlier - it is one of very few grantees that increased employment and labor opportunities by focusing on educating farmers and agricultural professionals on the legalities of apprenticeships and internships (to the benefit of aspiring farmers seeking work and to producers' staff/enterprise management).

Table 11. NORTHEAST Report Review Top Themes – **Production and Production Efficiency**

Top Production and Production Efficiency Key Words and Indicators
Increased production efficiency (e.g., new equipment, shorter crop cycle, reduced energy inputs, reduced labor, on-farm resources, season extension etc.)
Higher yield

- **Data-Driven Decision Making.** LNE16-346 is an outlier in that it revealed that a sustainable agriculture practice perceived as beneficial and widely adopted (kelp supplementation for dairy cows) may not have the intended results in terms of animal well-being and milk components. There may be other benefits to human health, but this grantee highlighted the importance of farmers weighing to costs and benefits and using data-driven decision making to better understand sustainable production practices.

Table 12. NORTHEAST Report Review Top Themes – **Environmental Sustainability**

Top Environmental Sustainability Key Words and Indicators
Cover crops
Integrated pest management
Increased soil health / nutrient management
Conservation

- **Cover Crops and Integrated Pest Management.** Cover crops and integrated pest management (IPM) were the most common environmental sustainability practices implemented in the Northeast region. While improved soil health is associated with these practices - and is often selected as a project level benefit and impact - not all grantees actively measured changes in soil health in their projects.
- **Long-term Impact.** One grantee (ONE16-282c) called out that environmental sustainability associated with long-term soil health is not within the timeline/scope of their project. This raises an Important question of what is feasible in terms of impact within the project timeline.

Table 13. NORTHEAST Report Review Top Themes – **Social Sustainability**

Top Social Sustainability Key Words and Indicators
Underserved communities (refugees and immigrants, women urban farmers and growers, low-income consumers, queer producers)
Equipped Young/Beginning/New/Aspiring Farmers

- **Underserved Groups in Agriculture**. There appears to be somewhat more of a focus on underserved groups in agriculture (both growers and consumers) in the Northeast region compared to other regions. Elevating underserved groups is a focus area

NORTH CENTRAL SARE TOP THEMES

Table 14. NORTH CENTRAL Report Review Top Themes – Learning, Outreach and Education

Top Learning, Outreach, and Education Key Words and Indicators
Shared learning • **Between producers** • **Between researchers and producers** • **Between agricultural professionals and producers** • **Between researchers and ag professionals**
Grantee increased knowledge of sustainable agriculture practices

Wider contribution towards sustainable agriculture knowledge base
Adoption or expansion of sustainable agriculture practice
Increased knowledge of what works in context • Tools/methods for production • Marketing/communications • Natural resource management
Increased outreach and communications capacity
Increased partnerships (e.g., Government agency, NCRS, National Park service)
Strengthened/diverse networks
Increased capacity/willingness to innovate
Increased training of ag professionals
Increased collaboration

*The themes above are listed in order of frequency of occurrence, with a gradient with darker shading indicating they occurred most frequently, and lighter gradients indicating these themes occurred somewhat less frequently.

- **Shared learning**. Most grantees benefitted from shared learning between producers, agricultural professionals, and researchers. A couple North Central grantees noted global connections made during the course of their project with researchers and producers with similar lines of inquiry (e.g., FNC17-1086 - an agricultural worker from Ethiopia reached out after hearing about the SARE-funded project online to learn more information about a farmer rancher grant involving sorghum processing).
- **Unclear sustained practice change**. It is unclear how often sustained practice change (i.e., beyond the grant cycle) occurred because grantees were not asked to report future implementation plans directly in their final reports. A handful of grantees noted they intended to continue to practices established during their project.
- **Challenges and Limitations.** Several farmers struggled with unpredictable weather conditions which limited their grant activities and impacted the results of their studies. A few grantees mentioned limitations, delays, and pivoting proposed grant activities due to COVID-19.
- **Research Networks and Publications.** Wider contribution towards the sustainable agriculture knowledge base refers to R&E and grad student grantees who shared findings between researchers through their networks and publications.

Table 15. NORTH CENTRAL Report Review Top Themes – **Economic Sustainability**

Top Economic Sustainability Key Words and Indicators
Improved business models/management/opportunities
Shared equipment/facilities and cost sharing between producers

- **Crop Diversification**. Crop diversification was mentioned in several graduate student, PDP, and R&E grantee reports.
- **Cost-sharing.** Several farmer/rancher grantees in the North Central region participated in or expressed interest in cost-sharing with other producers for specialized equipment or facilities (e.g., having one producer build a specialized hop drying facility rather than each farmer having to build their own).
- **Demonstrating Economic Impact.** While many grantees selected economic sustainability benefits and impacts, and specifically improved income and profitability, few demonstrated actual income or profit change.
- **Increased Profitability Knowledge.** A few grantees reported increased knowledge of what could lead to profitability and identified effective marketing/communications strategies. They shared this knowledge with other producers considering new business models and opportunities. Part of these projects, such as FNC19-1177, involved a better understanding of models that did not work in terms of economic viability.

Table 16. NORTH CENTRAL Report Review Top Themes – **Production and Production Efficiency**

Top Production and Production Efficiency Key Words and Indicators
Increased production efficiency (e.g., new equipment, reduced crop disease, reduced labor, reduced weeds, season extension, reduced energy inputs etc.)
Higher yield

- **Maintaining Yield.** While several grantees indicated they experienced higher yields as a result of grant activities, some indicated they maintained yield. Maintaining yield while implementing a sustainable agriculture practice (e.g., reducing fertilizers and increasing nutrient management) is also a positive contribution towards long-term sustainability, especially as some producers may perceive sustainable agriculture necessarily involves reductions in yield.

Table 17. NORTH CENTRAL Report Review Top Themes – **Environmental Sustainability**

Top Environmental Sustainability Key Words and Indicators
Integrated pest and/or weed management (reduced fertilizers or pesticides)
Cover crops
Increased soil health / nutrient management
Improved water management / water quality
Increased conservation / expanded wildlife and nature habitats

- **Maintaining Environmental Factors**. Of note, while some projects reported increases and improvement to the environment, like improved water infiltration and reduced soil erosion, other projects like LNC18-411 demonstrated that adopting a sustainable agriculture practice maintained soil health and improved livestock feed. Sustainable agricultural practices may not involve active or immediate improvement. Instead, the benefit may be in maintaining environmental factors when shifting from a traditional to a sustainable model.
- **Additional Sustainable Agriculture Practices.** A couple North Central projects mentioned environmental sustainability practices like no tillage, native pollinators and beneficial organisms, and organic farming.
- **Air Quality.** Improved air quality was not reported by any grantees in North Central (or in any of the other regions).

Table 18. NORTH CENTRAL Report Review Top Themes – **Social Sustainability**

Top Social Sustainability Key Words and Indicators
Young or beginning farmers
Healthy / locally grown food
Food security (within communities, with farmer families)
Underserved communities (women landowners/producers, resource-limited farmers, non-traditional producers)

- **Women Producers.** An outlier R&E grant (LNC17-396) focused on women beekeepers and creating strengthened/diverse networks to support women producers. This project increased employment and labor opportunities (a participant became an extension agent as a result of their participation) and increased leadership capacity – both of these benefits and impacts were rarely reported by grantees.

- **Landowner-Tenant Relationships.** An outlier Partnership project (ONC19-052) improved landowner-tenant relationships and specifically focused on conservation collaborative planning. This project stood out as relationship-building is central to SARE's model of social sustainability.

SOUTHERN SARE TOP THEMES

Table 19. SOUTHERN Report Review Top Themes – Learning, Outreach and Education

Top Learning, Outreach, and Education Key Words and Indicators
Shared learning • **Between researchers and producers** • **Between researchers and ag professionals** • **Between ag professionals and producers** • **Between producers**
Grantee increased knowledge of sustainable agriculture practices
Wider contribution to sustainable agriculture knowledge base
Increased knowledge of what works in context • Tools and methods for production • Marketing/communications
Increase capacity/willingness to innovate
Adoption or expansion of sustainable agriculture practice
Increased outreach/communications capacity
Increased capacity to apply/build on research learning
Sustained practice change
Strengthened/diverse network
Increased leadership capacity
Increased training of agricultural professionals
Increased grant seeking capacity
Increased partnerships

*The themes above are listed in order of frequency of occurrence, with a gradient with darker shading indicating they occurred most frequently, and lighter gradients indicating these themes occurred somewhat less frequently.

- **Learning, Outreach and Education**. Across grant types and regions, successes/outcomes/impacts related to learning, outreach and education were by far reported most frequently. PDP grants are almost entirely categorized within the learning, outreach, and education bucket.
- **Increased Research Capacity.** Several Southern grantees noted increased research capacity in terms of research skills gained and degrees conferred. This is especially the case for Graduate Student grants. A few grantees also increased their grant seeking capacity, indicating that their SARE project findings led to additional funding awarded for future research.
- **Challenges.** Several grantees reported environmental conditions that negatively affected research findings (e.g., feral hogs, extreme weather events, unanticipated variability between control and experiment fields).
- **Increased Producer Buy-In.** Several grantees increased buy-in among producers, convincing farmers that were skeptical of sustainable agriculture practices to consider making a change on their farm once they had seen demonstrated positive results.
- **Increased Partnerships.** A couple grantees noted increased partnerships and collaboration as a result of SARE-funded activities. For example, ES17-133 focused on working relationships and improved communication and problem-solving between extension agents and the USDA Natural Resources Conservation Service (NRCS).
- **Increased Leadership Capacity.** Some projects that focused on training agricultural professionals demonstrated increased leadership capacity in terms of extension agents reporting they were more knowledgeable and confident in their ability to educate producers in sustainable agriculture practices as a result of SARE-funded activities.

Table 20. SOUTHERN Report Review Top Themes – **Economic Sustainability**

Top Economic Sustainability Key Words and Indicators
Increased market opportunities
Increased (knowledge of what could contribute to) profitability

- **Crop Diversification**. Crop diversification was mentioned by several farmer/rancher and R&E grantees.
- **Small-Scale Farmers.** A couple grantees noted there are practices that may not be economically viable for small-scale farmers, such as animal grazing of cover crops.

Table 21. SOUTHERN Report Review Top Themes – **Production and Production Efficiency**

Top Production and Production Efficiency Key Words and Indicators
Higher yield
Increased production efficiency (e.g., reduced labor, reduced water costs, technology, livestock productivity, etc.)

- **Marketable Yield.** A couple grantees made an important distinction between regular yield being unchanged when implementing a sustainable agriculture practice but having higher marketable yield.

Table 22. SOUTHERN Report Review Top Themes – **Environmental Sustainability**

Top Environmental Sustainability Key Words and Indicators
Integrated pest / weed management (reduced herbicides, pesticides, fertilizers)
Cover crops
Organic farming
Improved soil health / nutrient management

- **Environmental Stewardship.** A couple Southern projects mentioned general improved environmental stewardship.

No top-reported themes emerged for social sustainability in the Southern region. Some of the themes grouped under Learning, Outreach, and Education Impacts, however, are relevant to advancing social sustainability, such as the relationship-building and improved communication associated with increased partnerships. A couple Southern grantees referenced social sustainability in terms of local food systems, reduced food waste from unharvested produce, and farmer-friendly policies.

WESTERN TOP REPORTED THEMES

Table 23. WESTERN Report Review Top Themes **– Learning, Outreach, Education**

Top Learning, Outreach, and Education Key Words and Indicators
Shared learning • **Between researchers and producers** • **Between producers** • **Between agricultural professionals and producers** • **Between researchers and agricultural professionals**

Increased knowledge of what works in context • Tools and methods for production • Natural resource management
Grantee increased knowledge of sustainable agriculture practices
Wider contribution to sustainable agriculture knowledge base
Increase capacity/willingness to innovate
Increased partnerships
Increased training of agricultural professionals
Increased student learning (K-12)
Adoption or expansion of sustainable agriculture practice
Sustained practice change
Increased collaboration
Increased outreach/communications capacity
Increased research capacity
Strengthened/diverse networks

*The themes above are listed in order of frequency of occurrence, with a gradient with darker shading indicating they occurred most frequently, and lighter gradients indicating these themes occurred somewhat less frequently.

Table 24. WESTERN Report Review Top Themes – **Economic Sustainability**

Top Economic Sustainability Key Words and Indicators
Improved business models/management/opportunities
New market opportunities

- **Crop diversification**. A couple PDP and R&E grantees mentioned crop diversification.
- **Increased Profitability Knowledge.** While many grantees selected economic sustainability benefits and impacts, and specifically improved income and profitability, few demonstrated actual income or profit change. A couple grantees increased knowledge of what could contribute towards profitability.
- **Challenges with Economic Sustainability.** GW18-02 is an outlier in that it focused on vineyard sustainability. Grantees tested different pruning techniques with the intent to reduce labor and maintain yield and noted a need for training for vineyard crews in new, more sustainable techniques. This example is part of a wider theme reported by several grantees that, while not mutually exclusive, economic sustainability can be harder to realize than environmental sustainability

Table 25. WESTERN Report Review Top Themes – **Production and Production Efficiency**

Top Production and Production Efficiency Key Words and Indicators
Increased production efficiency (e.g., reduced labor, reduced pest, increased threat management, crop quality)

- **Reduced Labor.** Increased production efficiency was noted most often in terms of reduced labor. Unlike other regions, fewer grantees in Western SARE noted higher yield.

Table 26. WESTERN Report Review Top Themes – **Environmental Sustainability**

Top Environmental Sustainability Key Words and Indicators
Increased conservation / biodiversity
Native species / Improved wildlife habitat
Integrated pest management

- **Project Variety.** Standout themes related to environmental impact did not emerge as strongly for Western SARE because of the notable variability in project focus areas. Grantees focused on everything from agroforestry, to aquaculture, to superfruit production, to livestock herding, to high tunneling, to cover crops and livestock rotations.
- **Reducing Invasive Species.** Several grantees focused on reducing invasive species and increasing the conservation of native species to manage pests and increase biodiversity. For example, OW19-350 improved forest health by removing non-native scotch broom and preserving forest seedlings.
- **Pollinators and Beneficial Insects**. Several projects addressed pollinator and insect populations, noting the importance of pollinators for reducing (hand pollination) labor and increasing biodiversity, and the utility of insects for waste management.
- **Agritourism.** EW17-012 is an outlier PDP grant in terms of its focus on increasing agritourism in California communities.

Table 27. WESTERN Report Review Top Themes – **Social Sustainability**

Top Social Sustainability Key Words and Indicators
Valuing cultural knowledge and agricultural practices
Young / beginning / new / aspiring / emerging farmers
Healthy food / nutrition / public health

- **Indigenous Agricultural Knowledge and Practice**. Several Western SARE projects focused on indigenous agricultural knowledge and practice. GW17-06 included oral history interviews with elders from several tribal communities to gather data related to Navajo spinach. This project also included the researcher sharing back findings with research participants and Native American communities. OW18-01, based in Hawai'i, included the increased conservation of Pueo owls, an endemic predator, and reported that some producers refer to this species as kin and ancestral guardians.

Appendix D. Benefits and Impacts Charts

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Appendix D. SARE Benefits and Impacts by Region

The reporting process for SARE includes grantees selecting intended "Benefits and Impacts" from a list that they expect their project to "lead to or influence over the long-term". Evaluators utilized SARE benefits and impacts data to generate a balanced sample of grantee reports for the report review process (for more information about the report review process, please see **Appendix C)**. Additionally, evaluators utilized the benefits and impacts data to build charts – which are included on the following pages – as an ongoing reference point for impact model development. The charts highlight which benefits and impacts were most and least selected by grantees during the study period (grants awarded between 2016 and 2019) and provide one among multiple sources of information about how grantees were thinking about the impact of their projects. The benefits and impacts least and most represented in the data vary by SARE region and grant type.

SARE's benefits and impacts are clustered within four types of sustainability: Economic Sustainability, Production and Production Efficiency, Environmental Sustainability, and Social Sustainability. As seen in **Table 1**, within each of the sustainability types, grantees could select as many benefits and impacts subtypes that apply to their project. Some grantees opted to not select any of the options.

Table 1. SARE Benefits and Impacts Response Options (Select All That Apply)

Type	Subtype
Economic Sustainability	Improved income or profitability Improved market opportunities Increased business/enterprise opportunities Increased employment & labor opportunities
Environmental Sustainability	Improved soil quality/health Improved water quality Improved landscape diversity/ecological services
Production and Production Efficiency	Improved crop production and/or production efficiency Improved livestock production and/or production efficiency
Social Sustainability	Improved agriculture and food system infrastructure Improved food accessibility Improved quality of life

Most SARE projects included in this evaluation were prompted to select benefits and impacts for their project, except for graduate student grantees in the North Central and Southern SARE regions.

NORTH CENTRAL SARE BENEFITS AND IMPACTS

The percentage of North Central grantees who selected each of the benefits and impacts subtypes are presented in **Figures 1 to 4** below, by grant type.

Figure 1. North Central Benefits and Impacts - **Farmer/Rancher** (2016-2019) (N = 128)

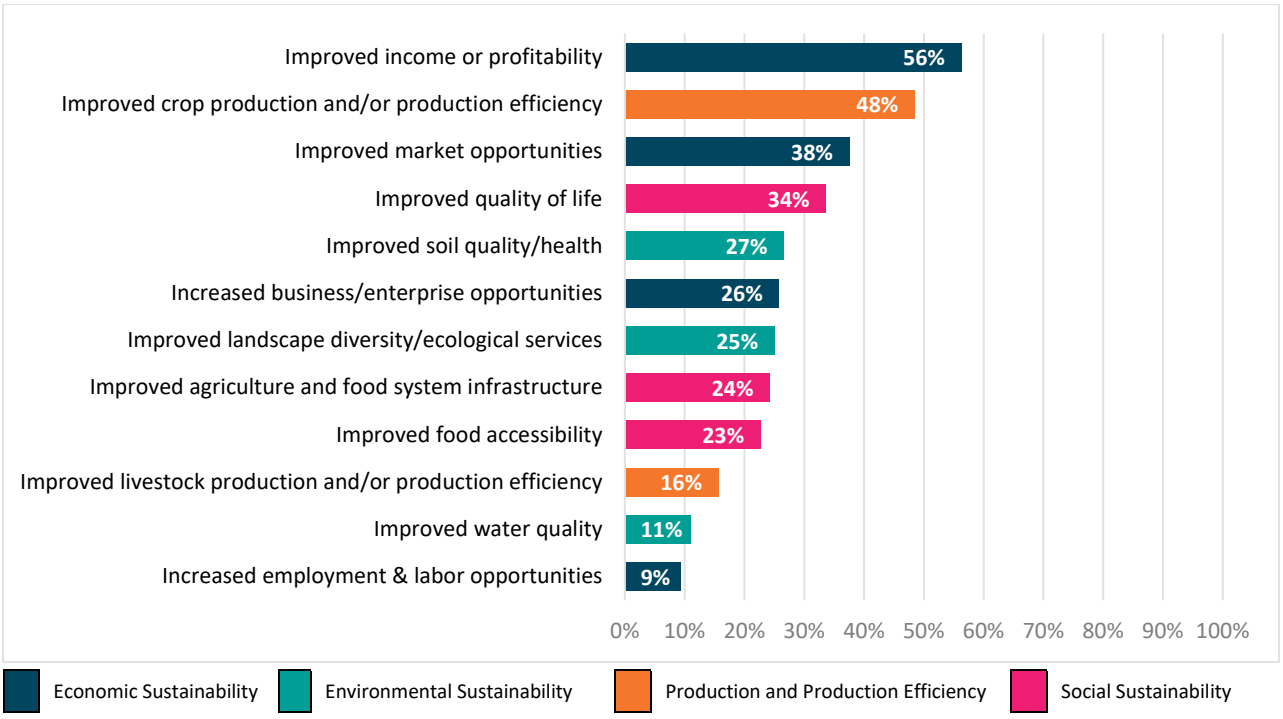


Figure 2. North Central Benefits and Impacts – **Partnership** (2016-2019) (N = 45)

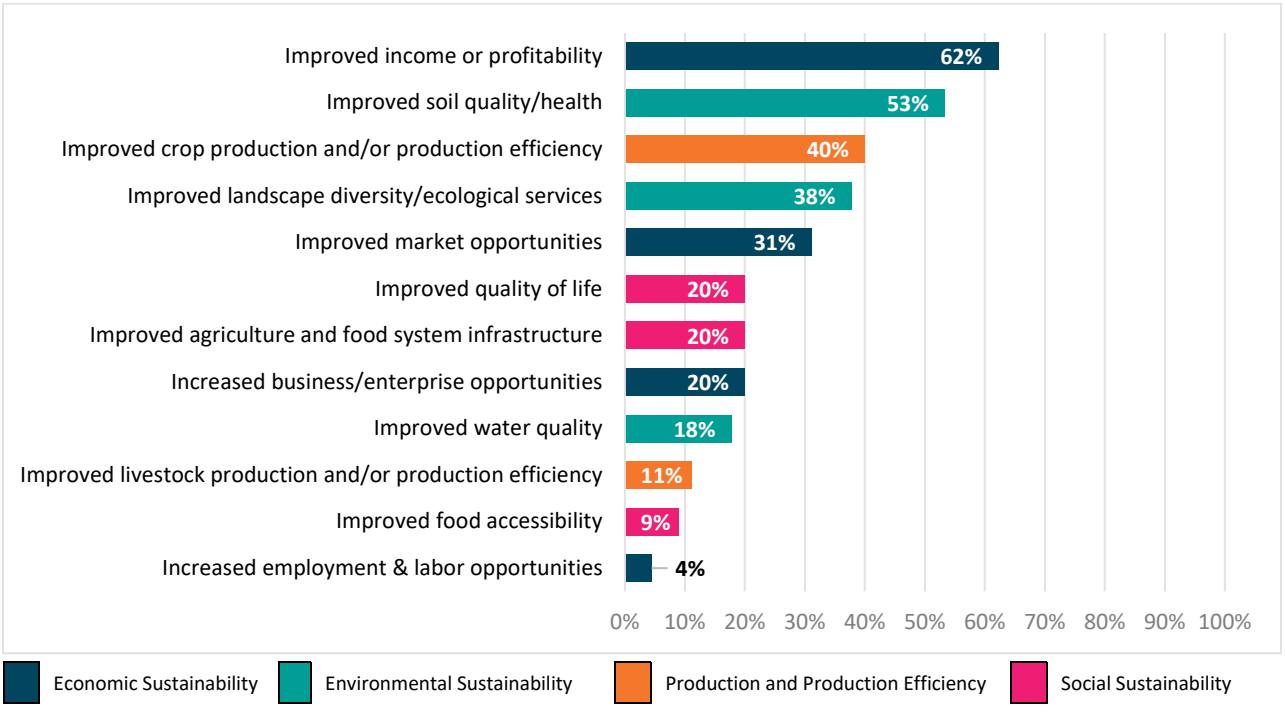


Figure 3. North Central Benefits and Impacts – **Professional Development** (2016-2019) (N = 29)

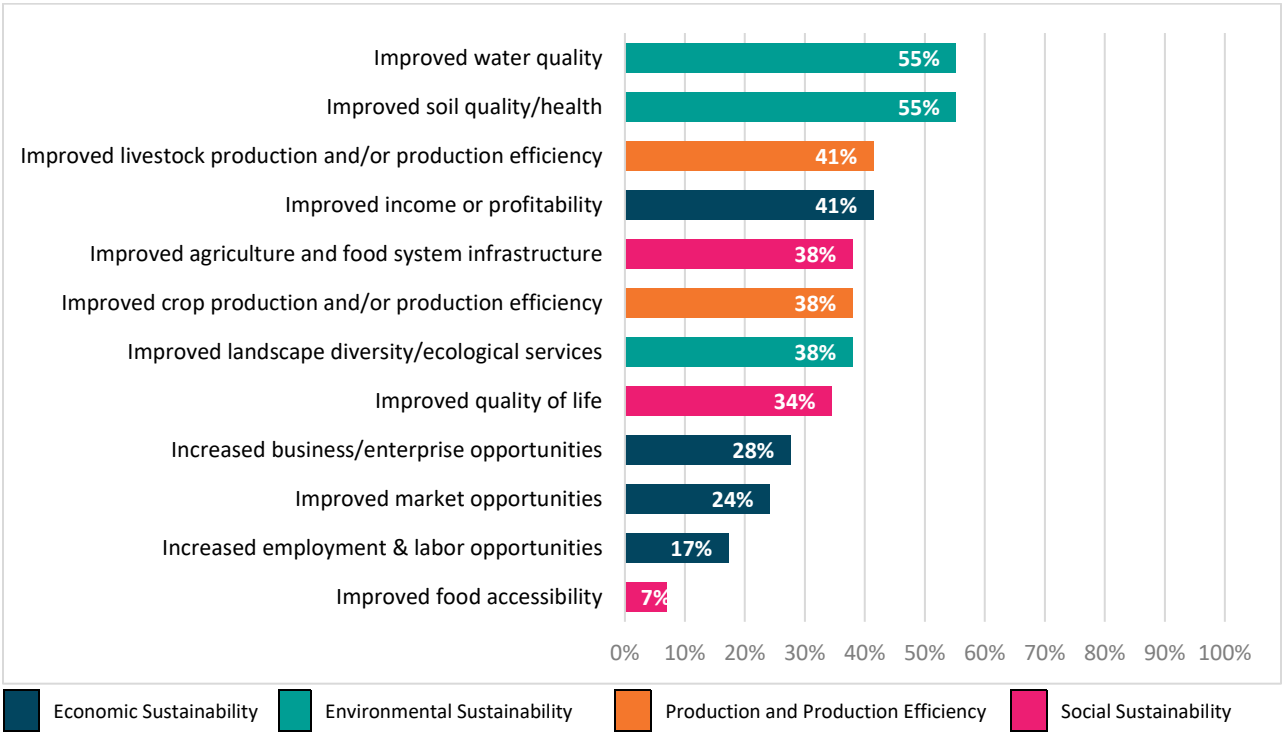
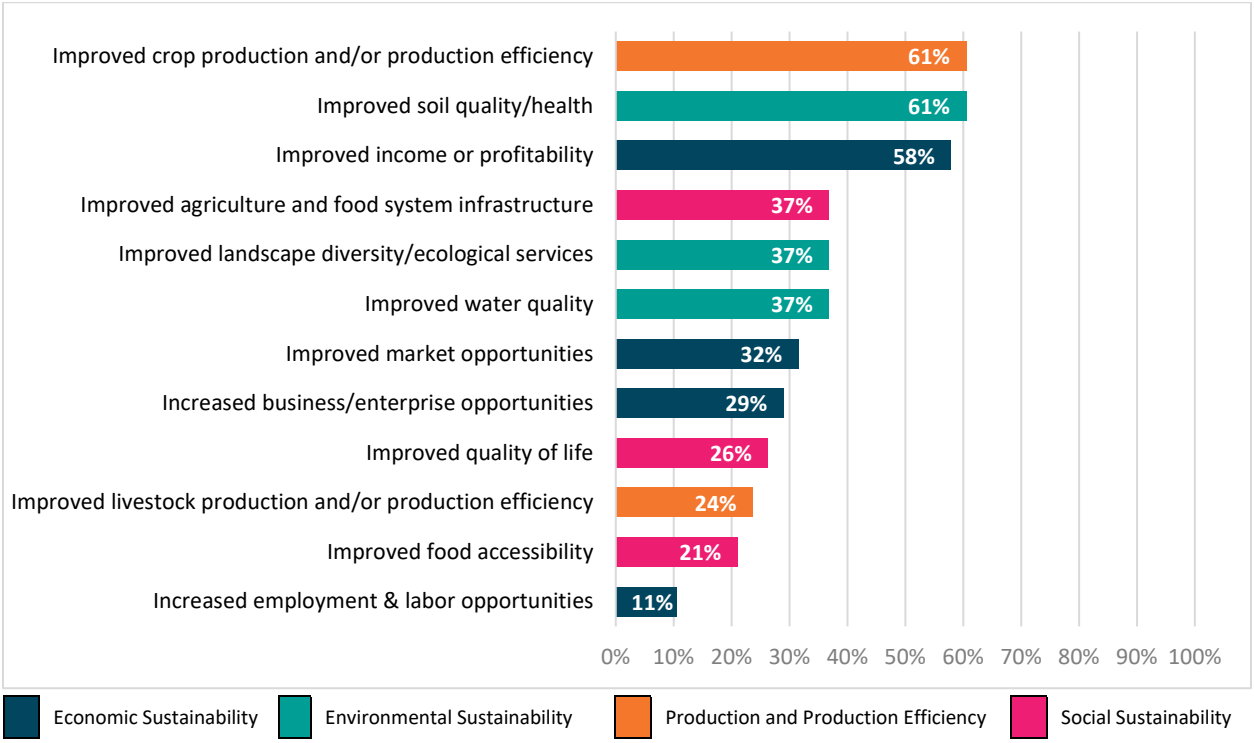
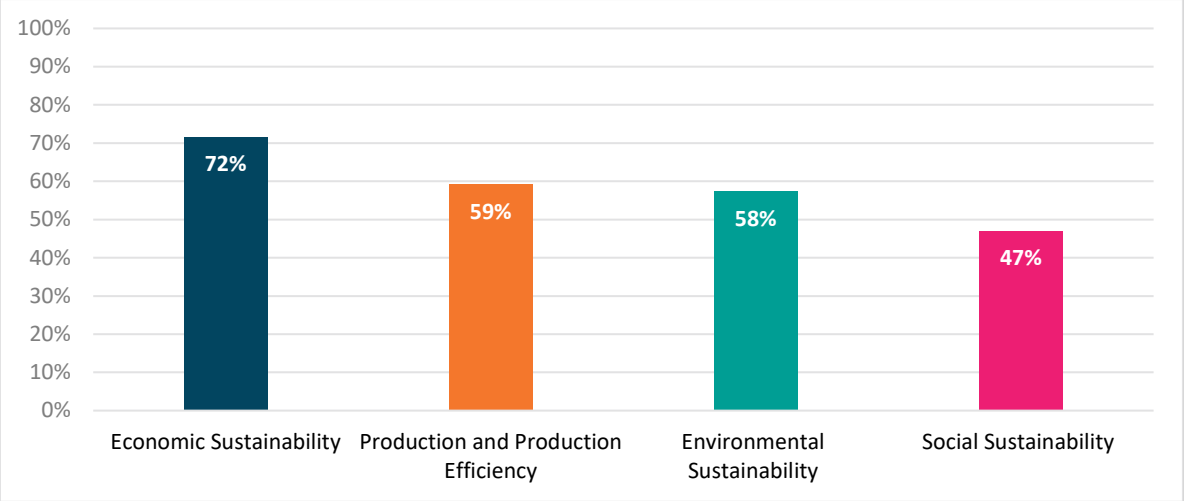


Figure 4. North Central Benefits and Impacts – **Research and Education** (2016-2019) (N = 38)



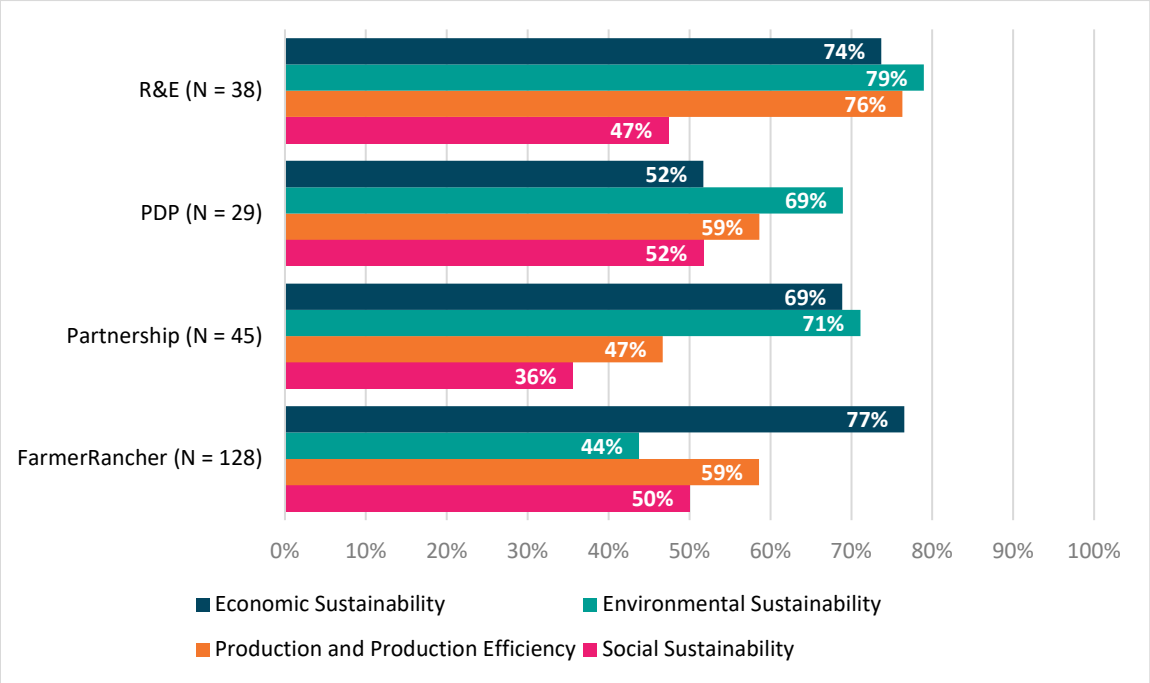
As seen below, **Figure 5** presents the percentage of grantees who selected benefits and impacts within each of the four sustainability clusters in their final reports.

Figure 5. North Central SARE by Sustainability Type (2016-2019) (N = 240)



The percentage of North Central grantees who selected at least one of the benefits and impacts options within the four sustainability clusters are presented by grant type in **Figure 6.**

Figure 6. North Central SARE by Sustainability Type and Grant Type



NORTHEAST SARE BENEFITS AND IMPACTS

The percentage of Northeast grantees who selected each of the benefits and impacts subtypes are presented in **Figures 5 to 8** below, by grant type.

Figure 5. Northeast Benefits and Impacts - **Farmer/Rancher** (2016-2019) (N = 89)

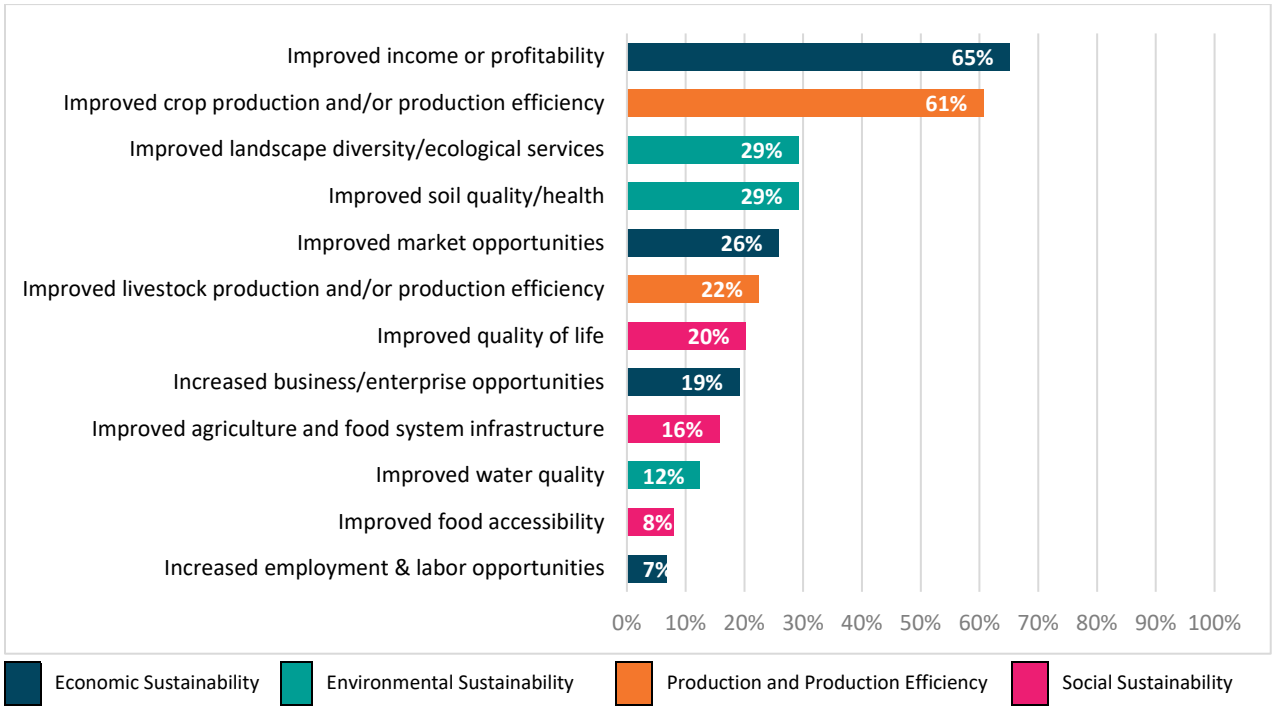


Figure 6. Northeast Benefits and Impacts – **Graduate Student** (2016-2019) (N = 93)

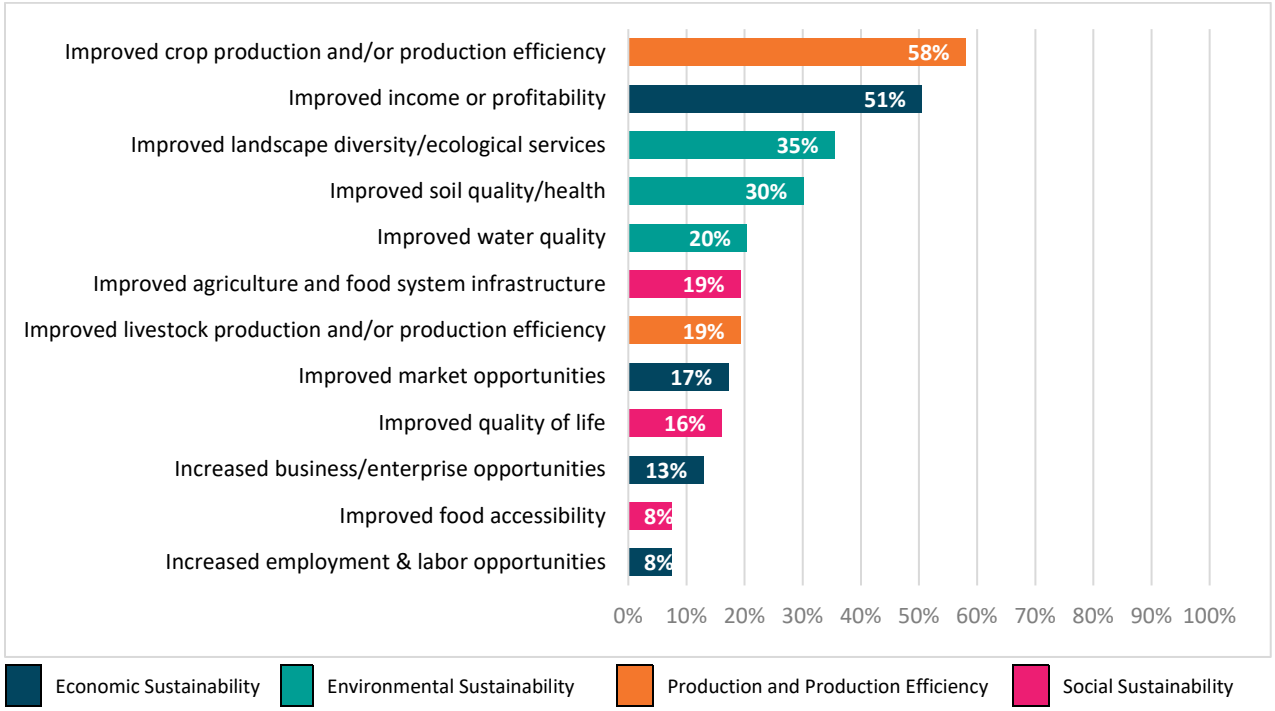


Figure 7. Northeast Benefits and Impacts – **Partnership** (2016-2019) (N = 84)

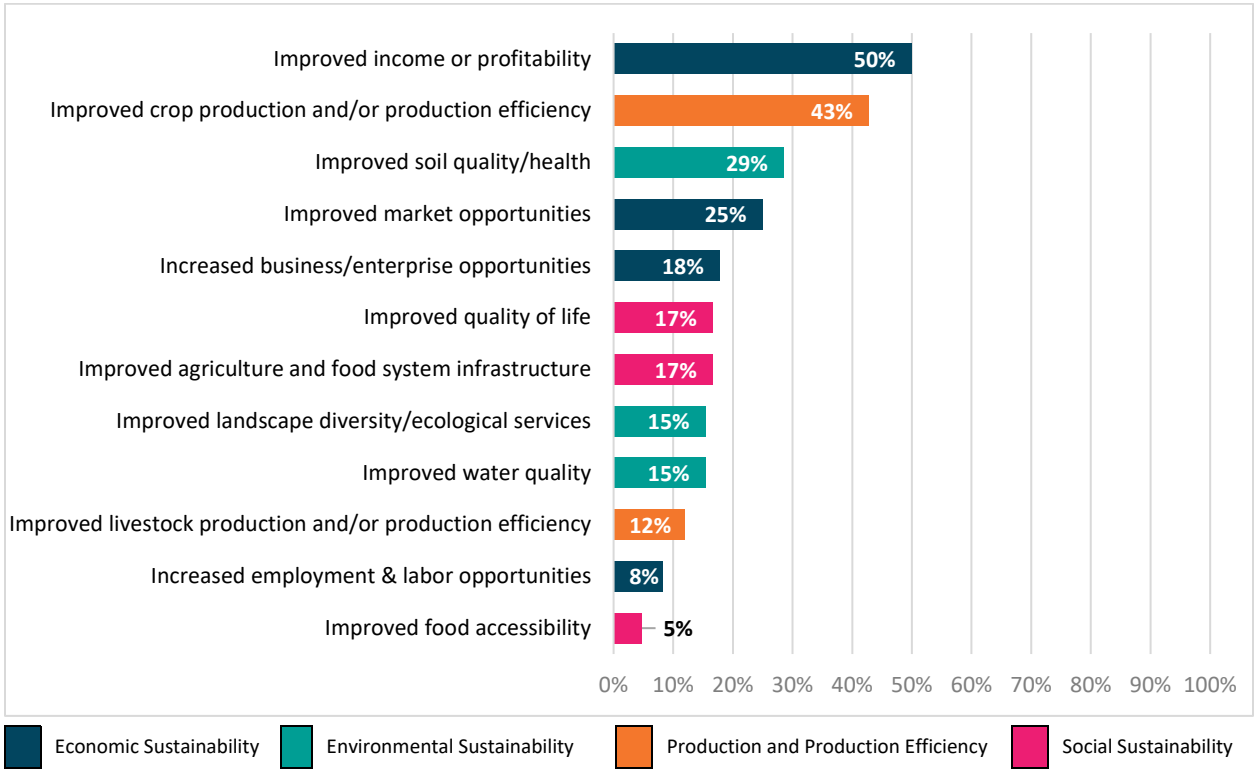


Figure 8. Northeast Benefits and Impacts – **Professional Development** (2016-2019) (N = 14)

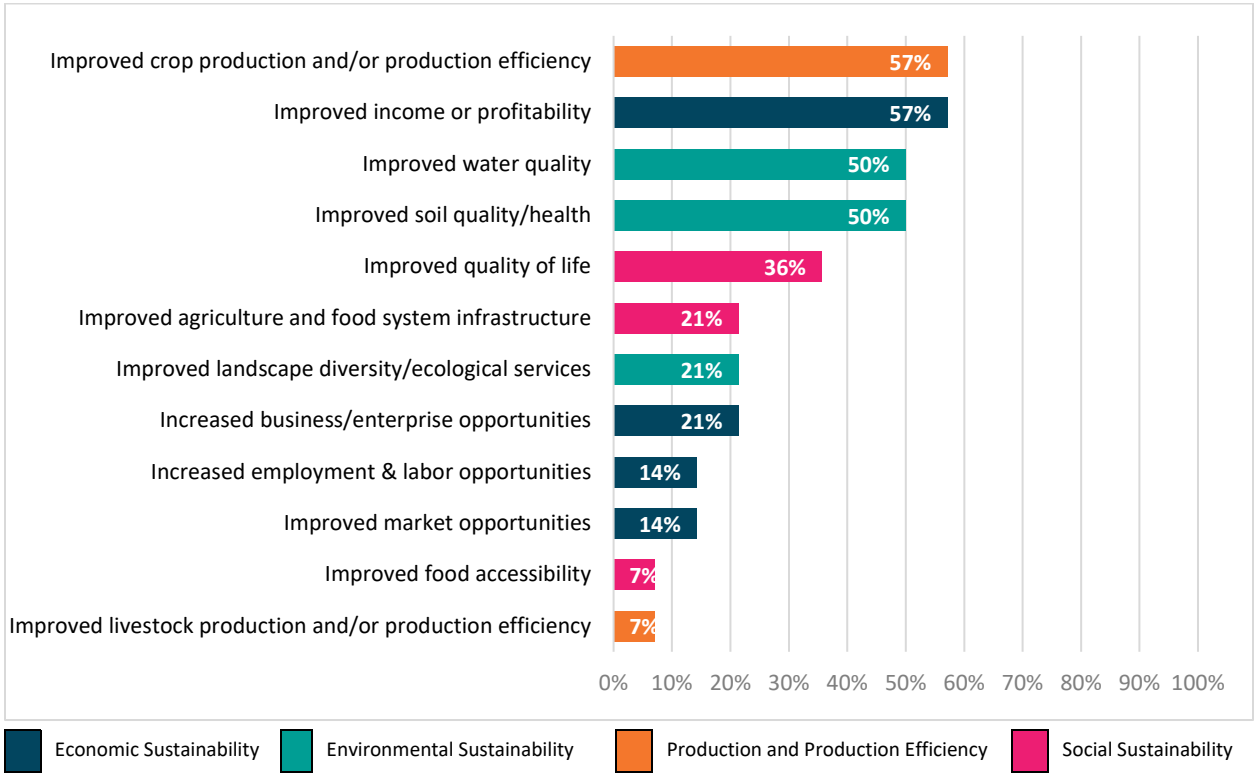
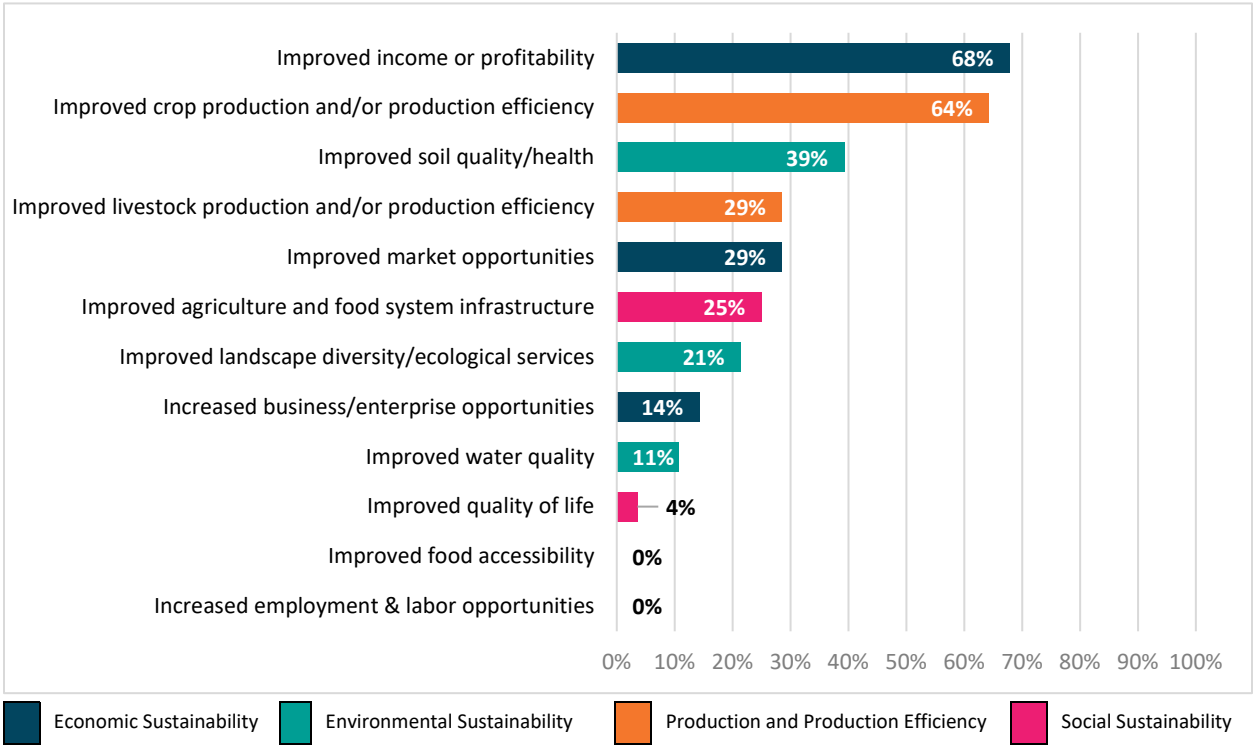
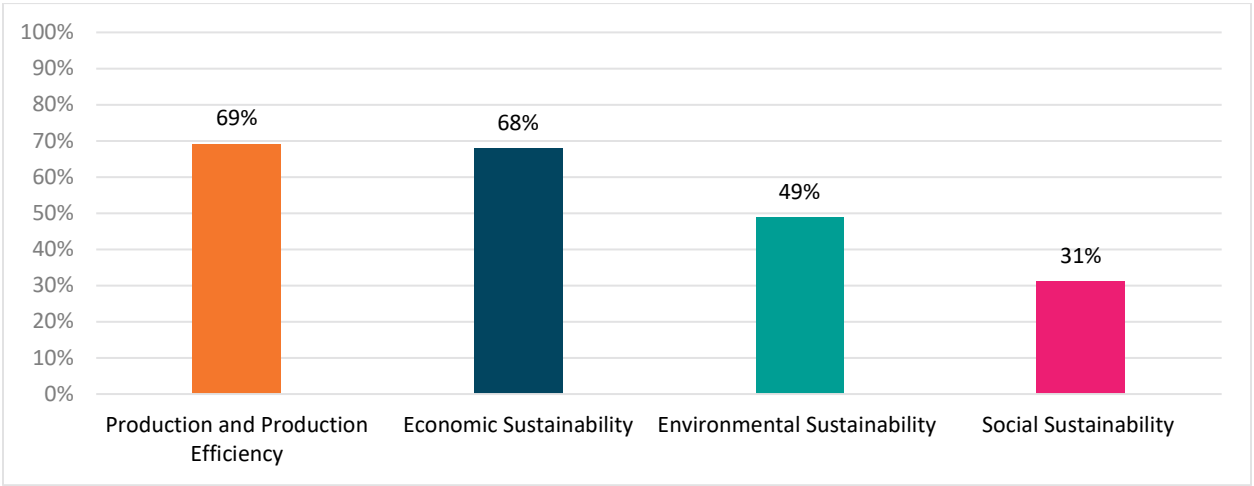


Figure 9. Northeast Benefits and Impacts – **Research and Education** (2016-2019) (N = 28)



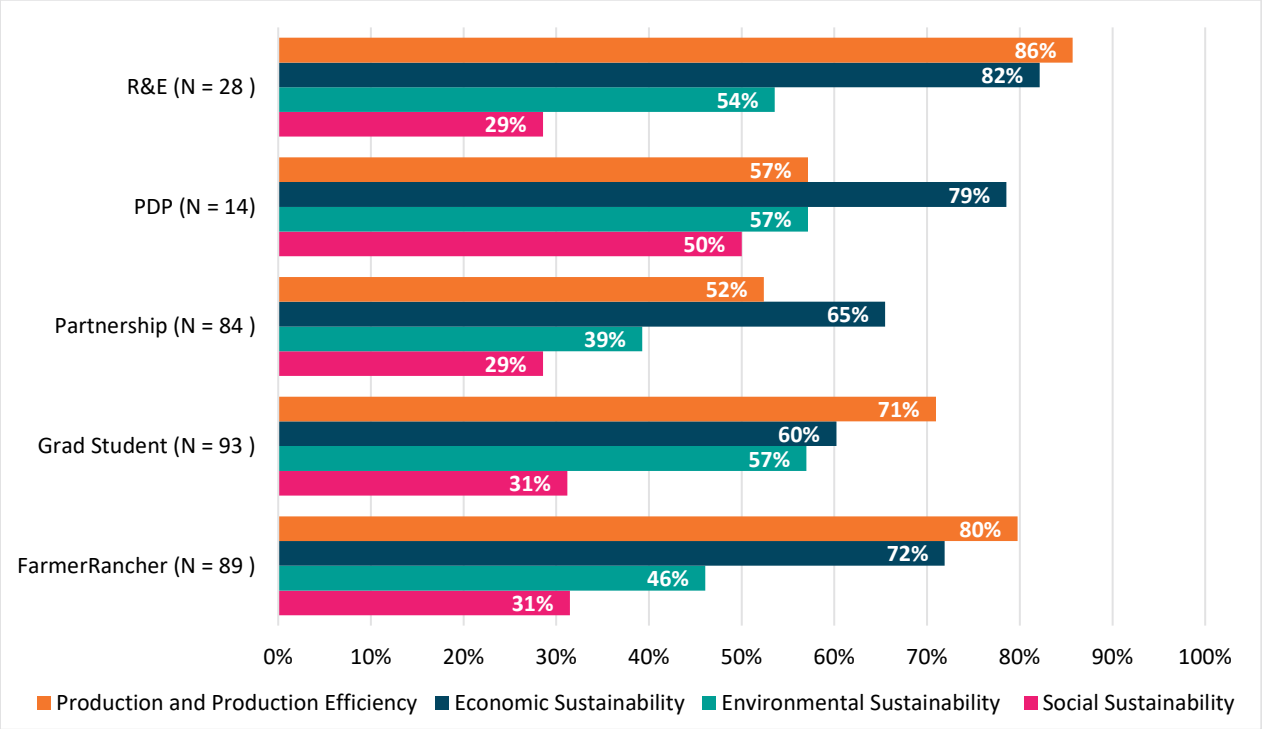
As seen below, **Figure 10** presents the percentage of grantees who selected benefits and impacts within each of the four sustainability clusters in their final reports.

Figure 10. Northeast SARE by Sustainability Type (2016-2019) (N = 308)



The percentage of Northeast grantees who selected at least one of the benefits and impacts options within the four sustainability clusters are presented by grant type in **Figure 11** on the following page.

Figure 11. Northeast SARE by Sustainability Type and Grant Type



SOUTHERN SARE BENEFITS AND IMPACTS

The percentage of Southern grantees who selected each of the benefits and impacts subtypes are presented in Figures **12 to 15** below, by grant type.

Figure 12. Southern Benefits and Impacts - **Farmer/Rancher** (2016-2019) (N = 21)

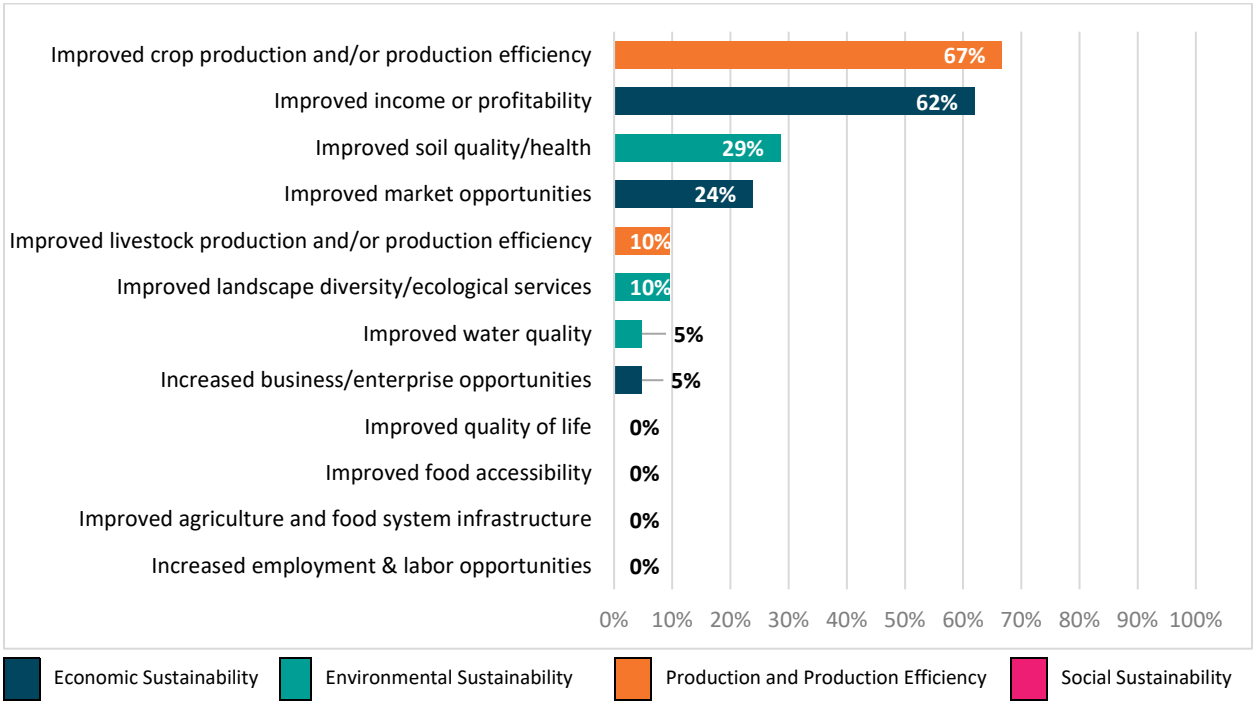


Figure 13. Southern Benefits and Impacts – **Partnership** (2016-2019) (N = 33)

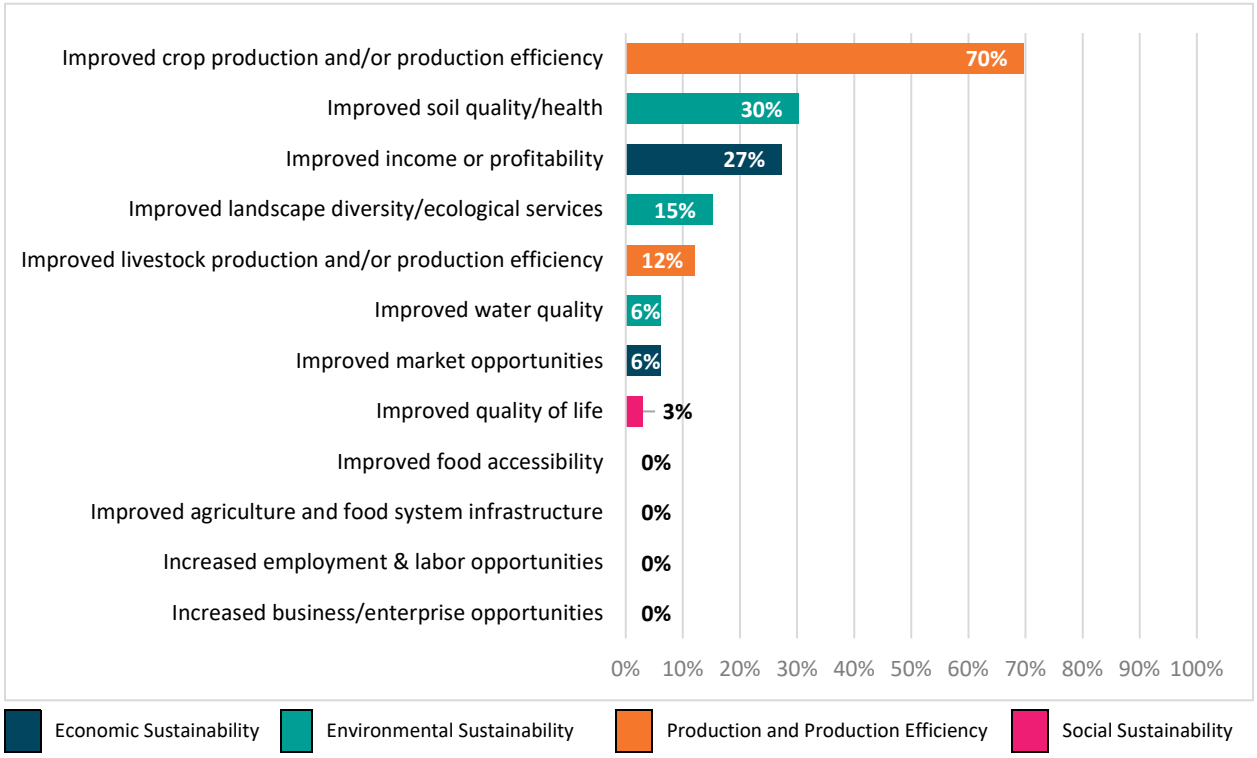


Figure 14. Southern Benefits and Impacts – **Professional Development** (2016-2019) (N = 25)

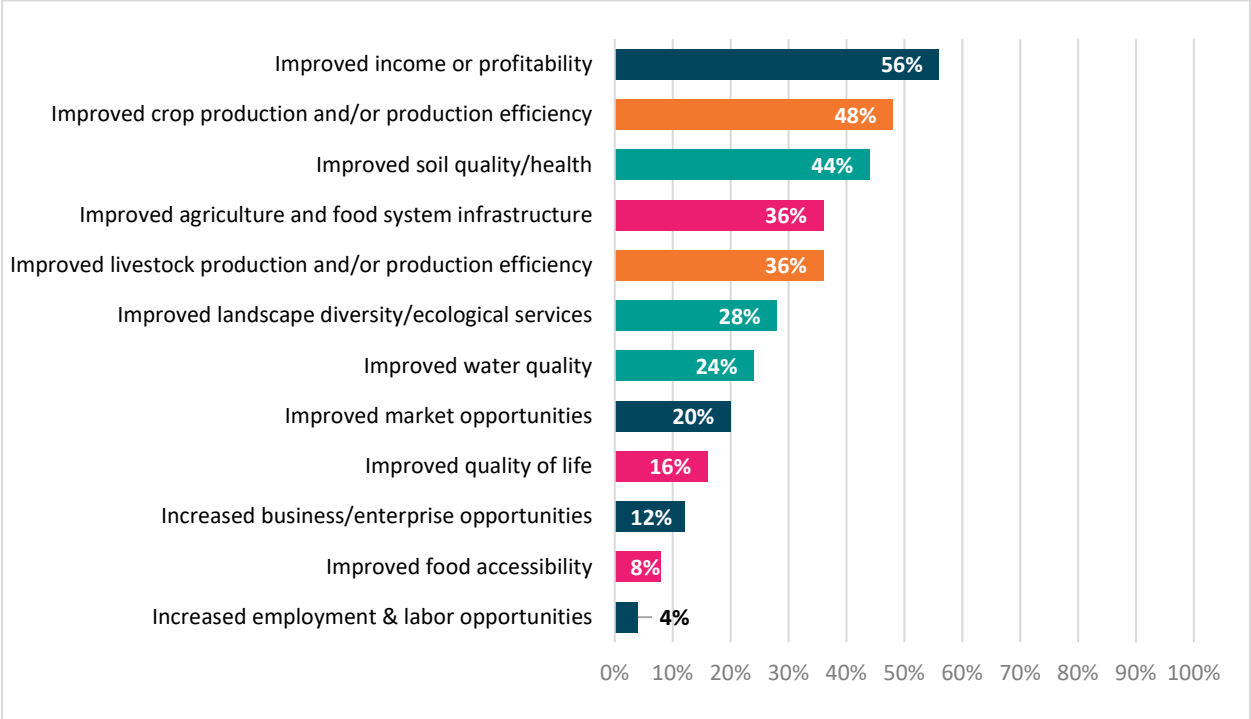
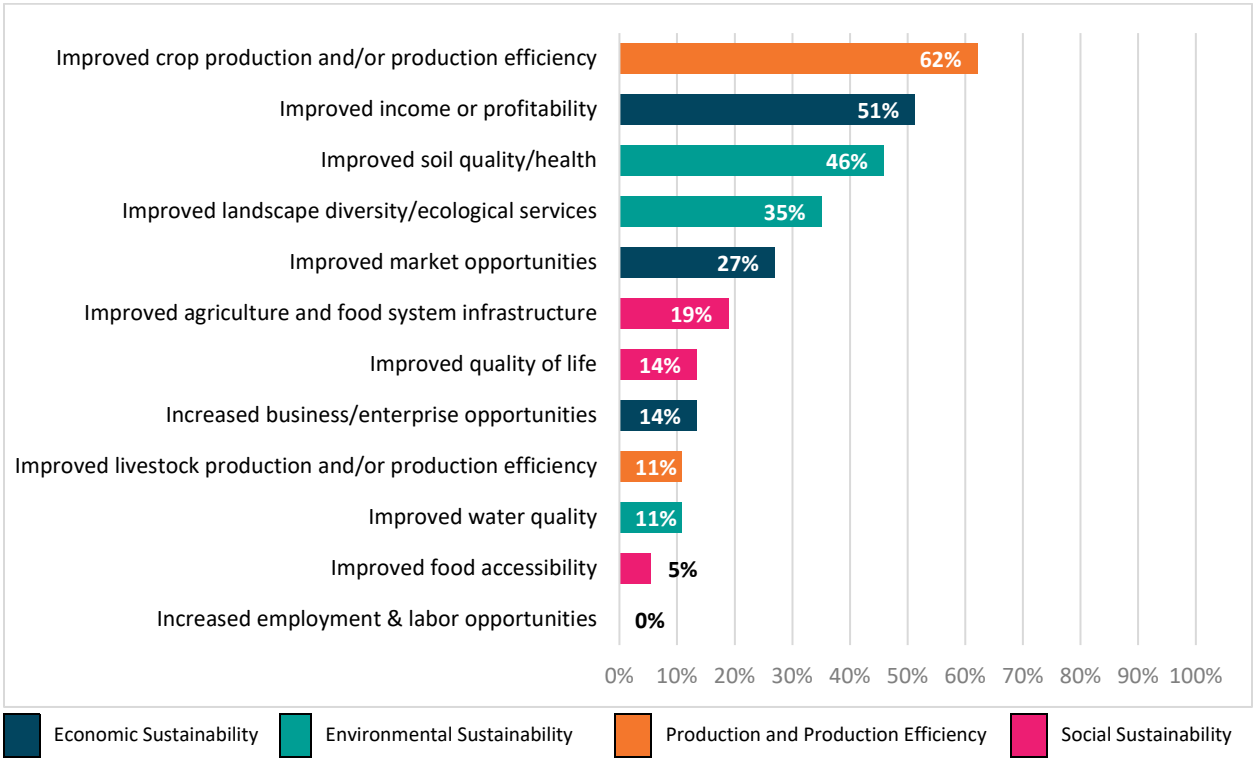
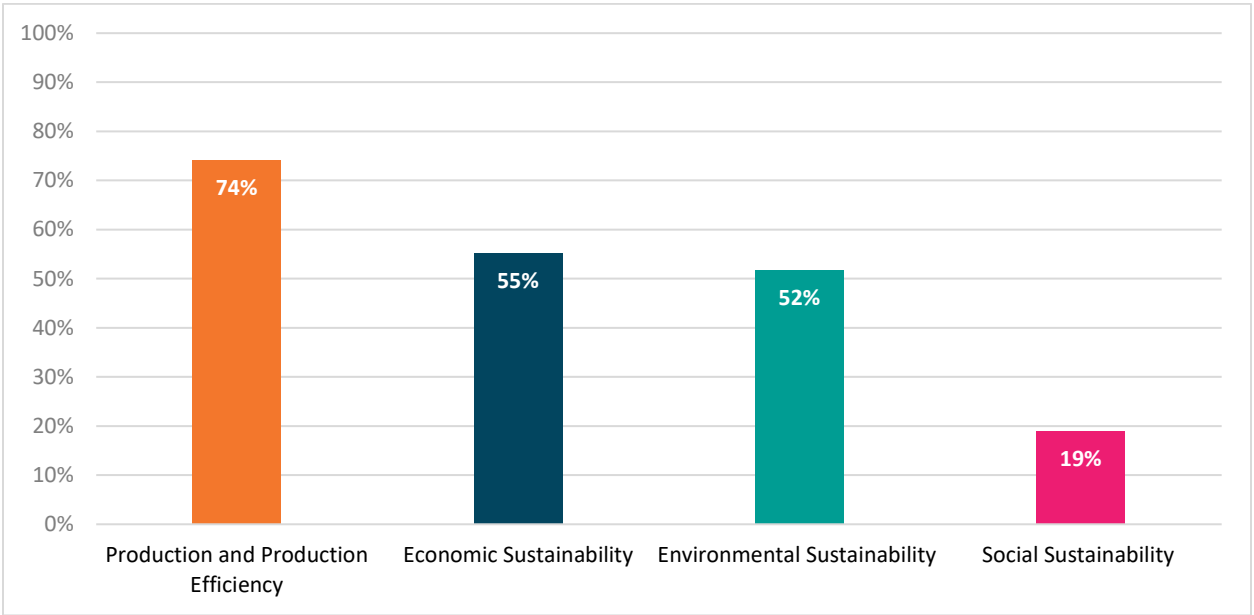


Figure 15. Southern Benefits and Impacts – Research and Education (2016-2019) (N = 37)



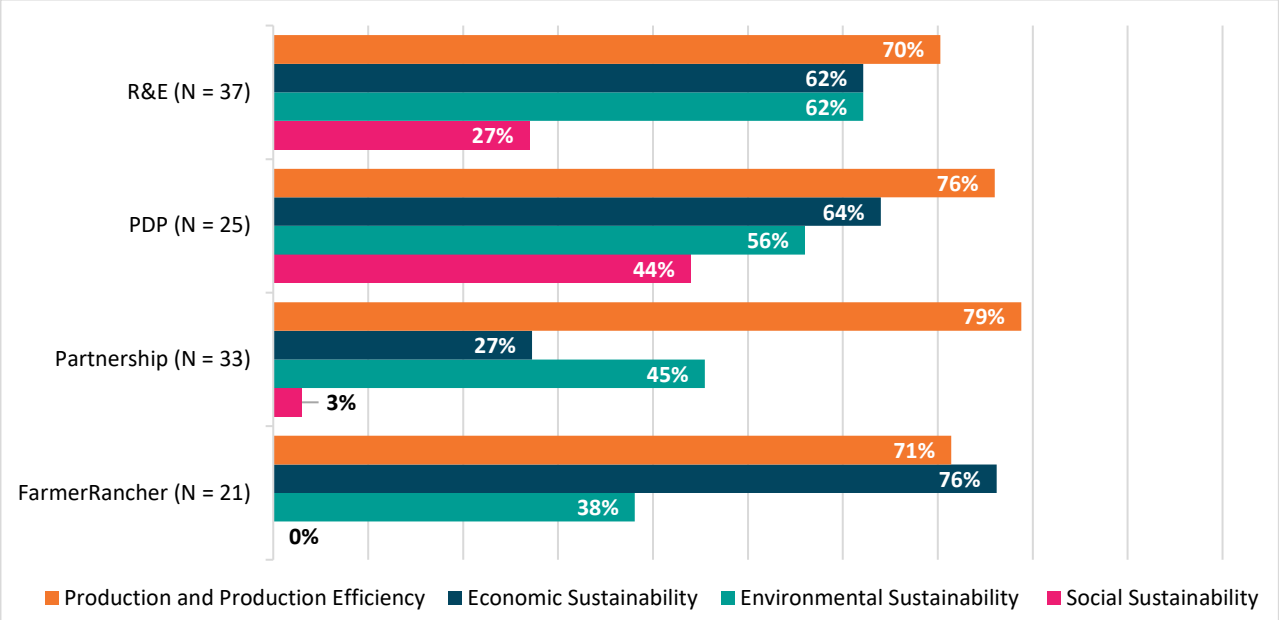
As seen below, **Figure 16** presents the percentage of grantees who selected benefits and impacts within each of the four sustainability clusters in their final reports.

Figure 16. Southern SARE by Sustainability Type (2016-2019) (N = 116)



The percentage of Southern grantees who selected at least one of the benefits and impacts options within the four sustainability clusters are presented by grant type in **Figure 17.**

Figure 17. Southern SARE by Sustainability Type and Grant Type



WESTERN SARE BENEFITS AND IMPACTS

The percentage of Western grantees who selected each of the benefits and impacts subtypes are presented in Figures **18 to 22** below, by grant type.

Figure 18. Western Benefits and Impacts - **Farmer/Rancher** (2016-2019) (N = 45)

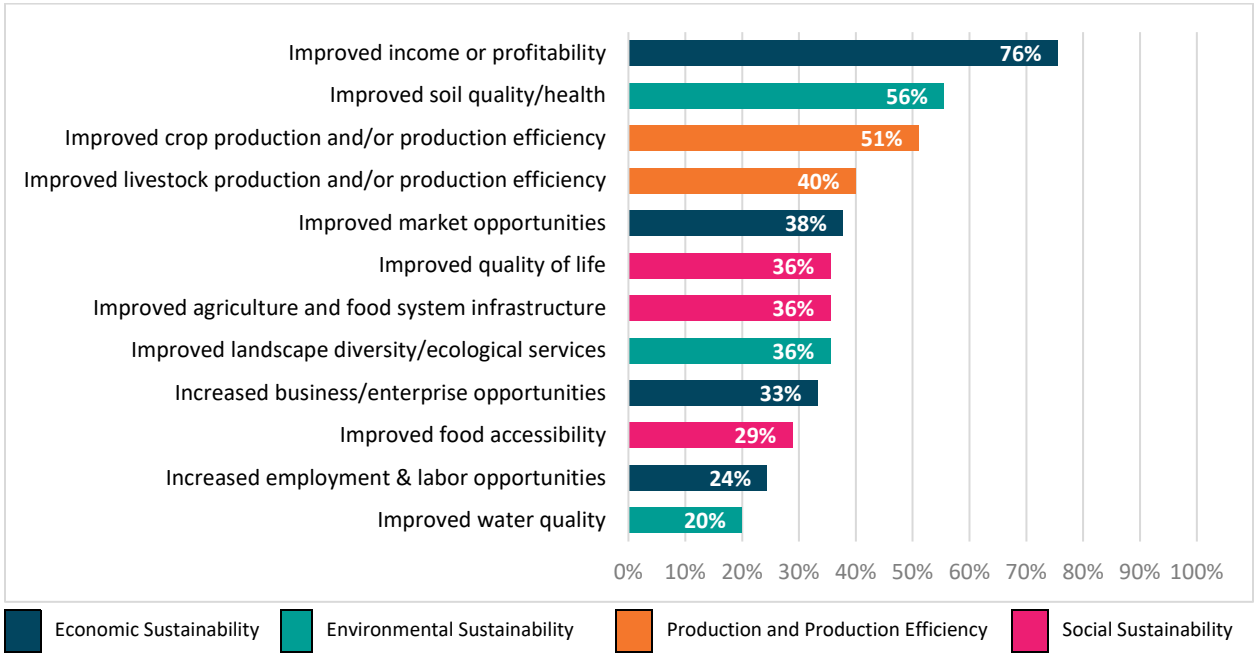


Figure 19. Western Benefits and Impacts – **Graduate Student** (2016-2019) (N = 47)\

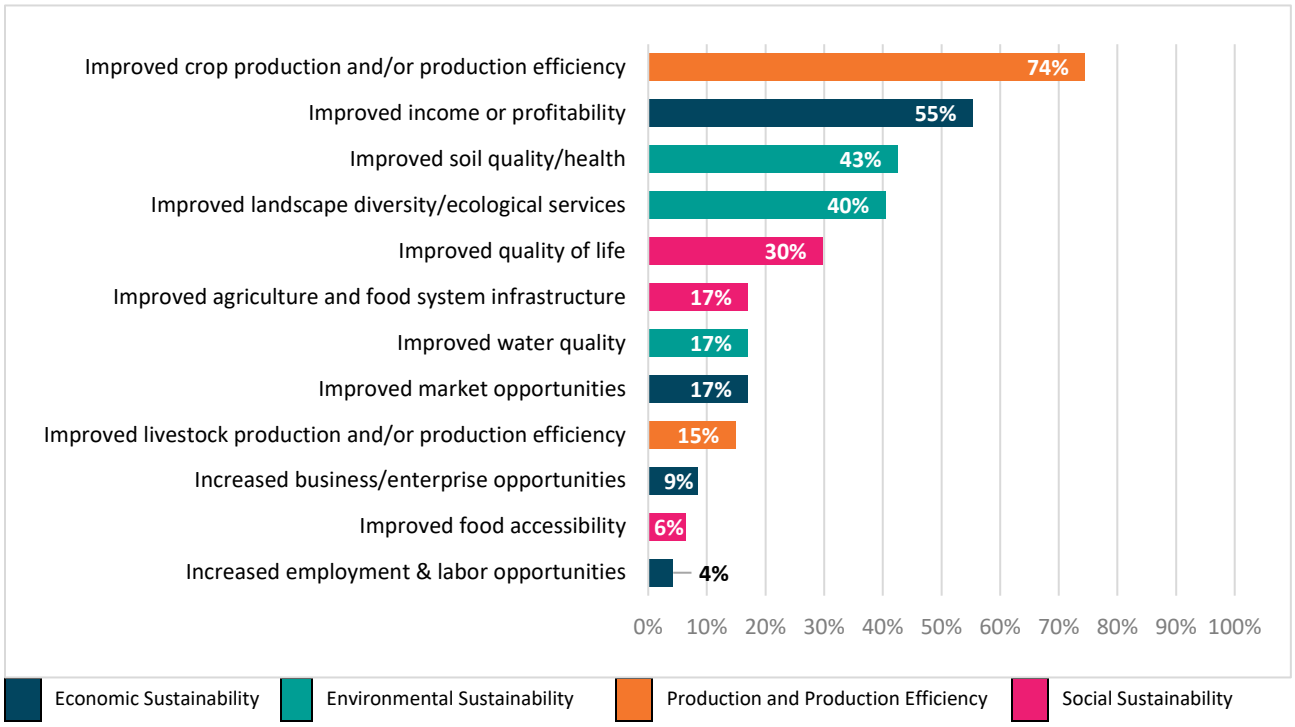


Figure 20. Western Benefits and Impacts – **Partnership** (2016-2019) (N = 32)

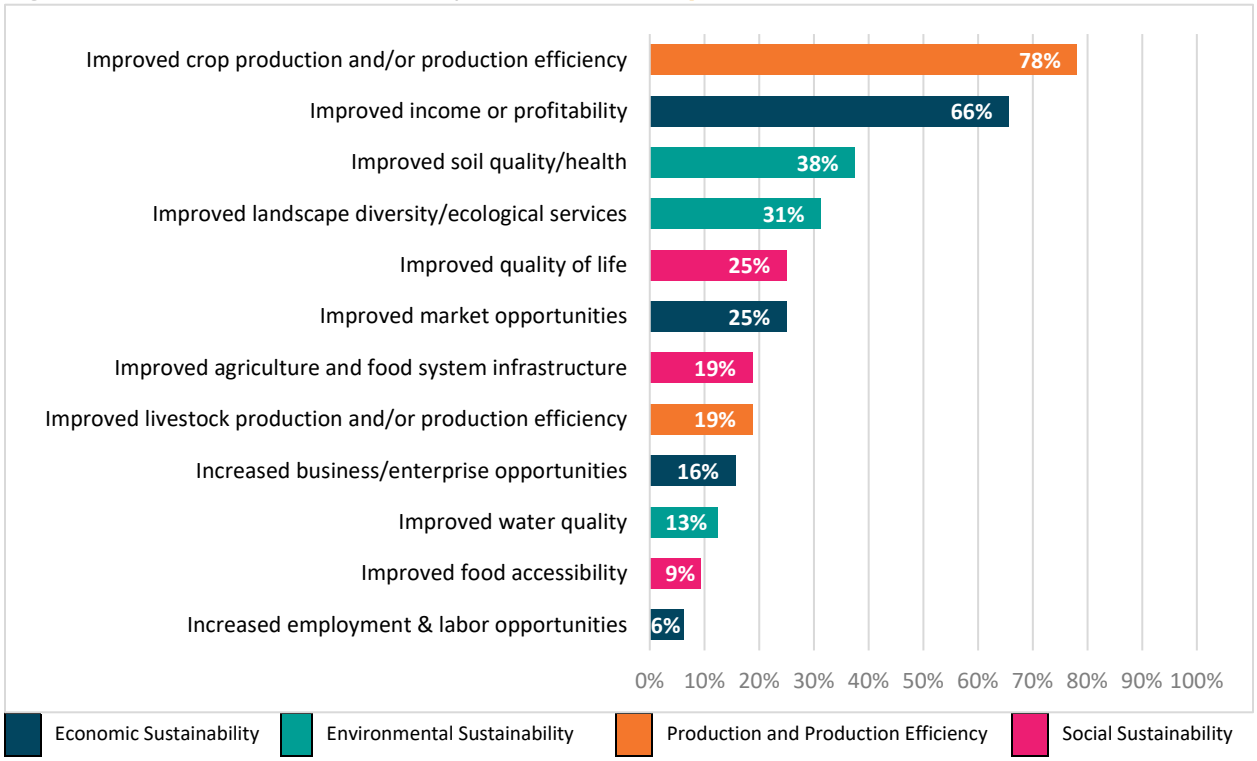


Figure 21. Western Benefits and Impacts – **Professional Development** (2016-2019) (N = 30)

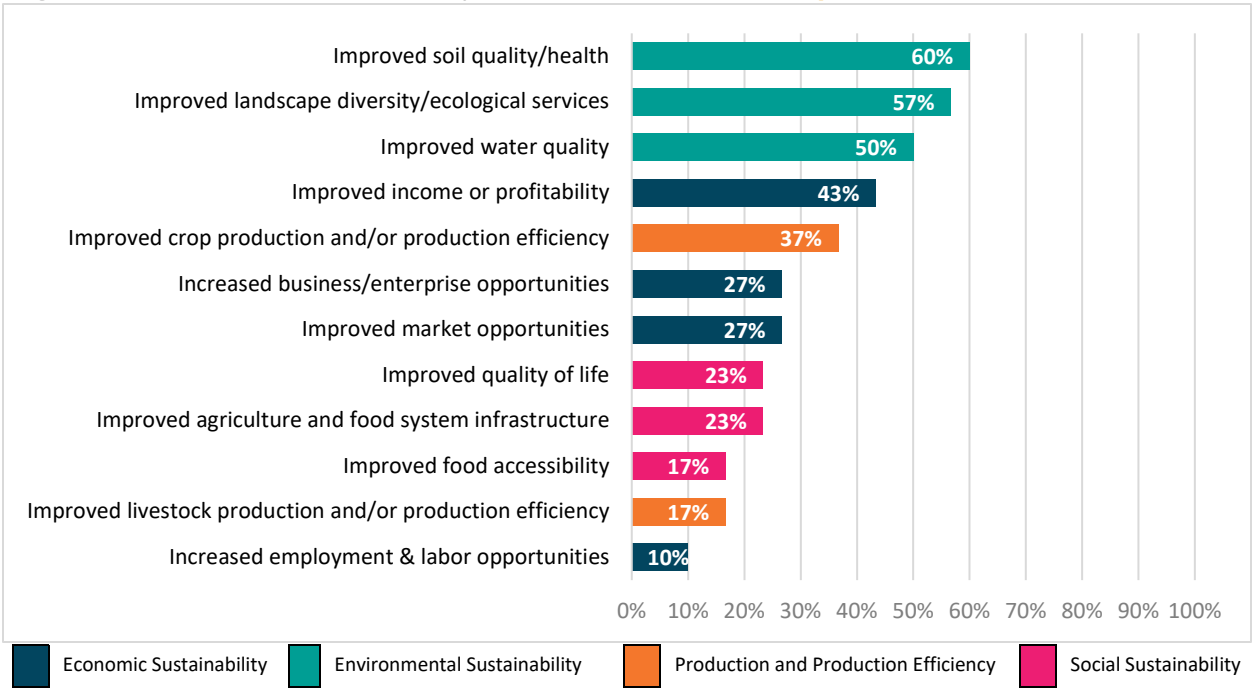
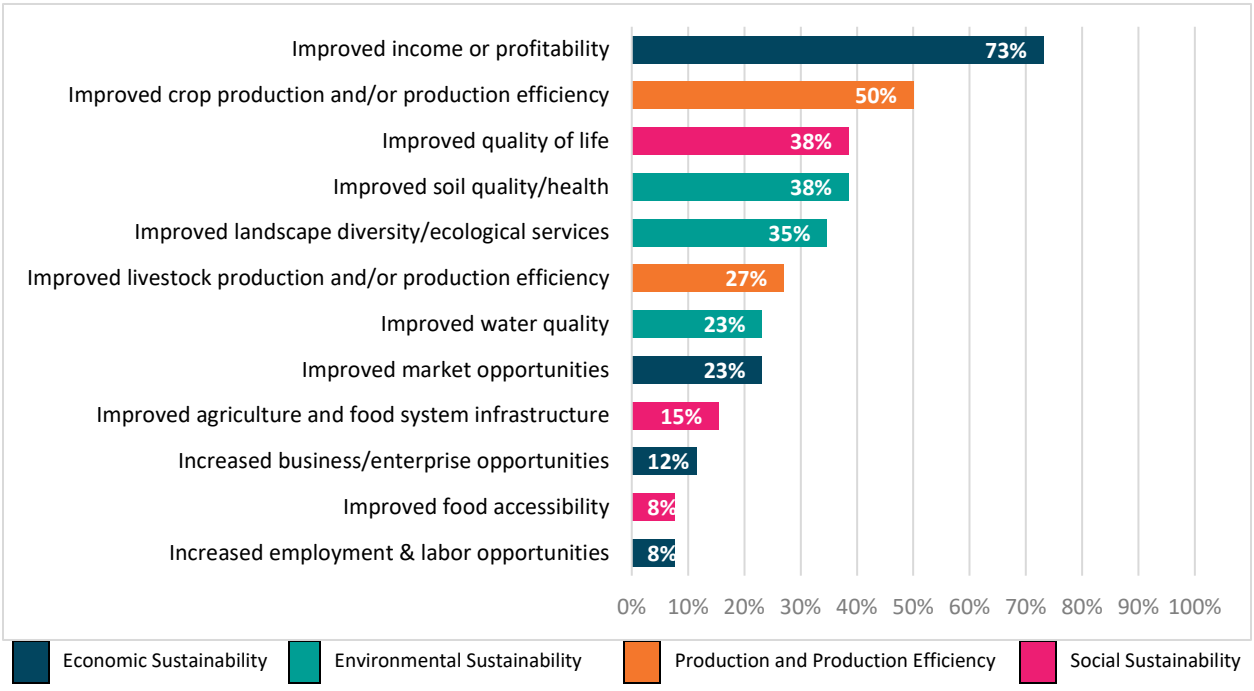
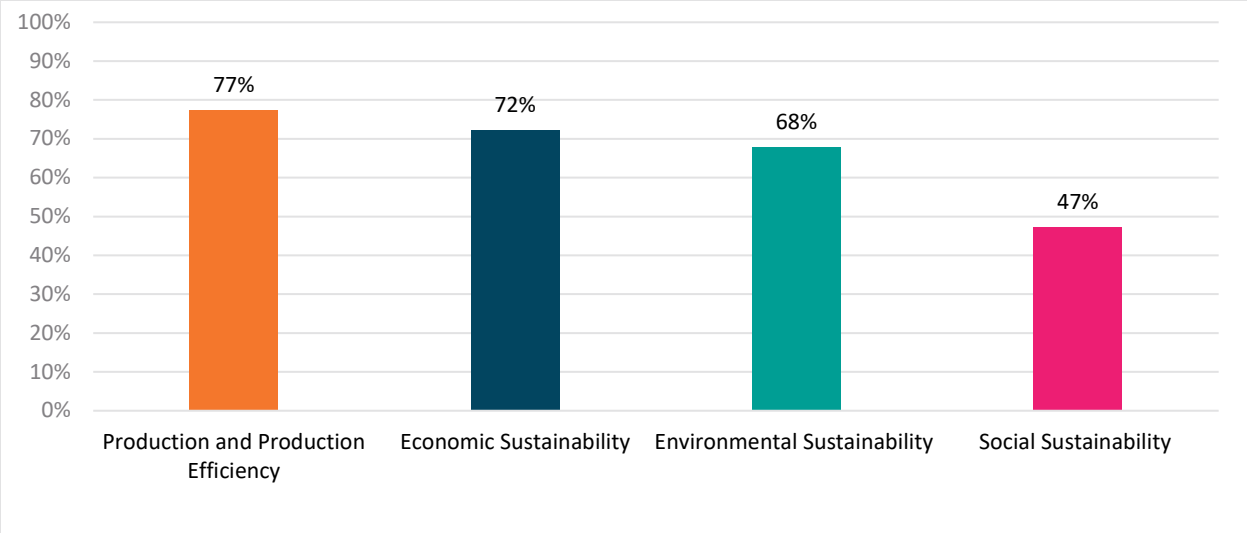


Figure 22. Western Benefits and Impacts – **Research and Education** (2016-2019) (N = 26)



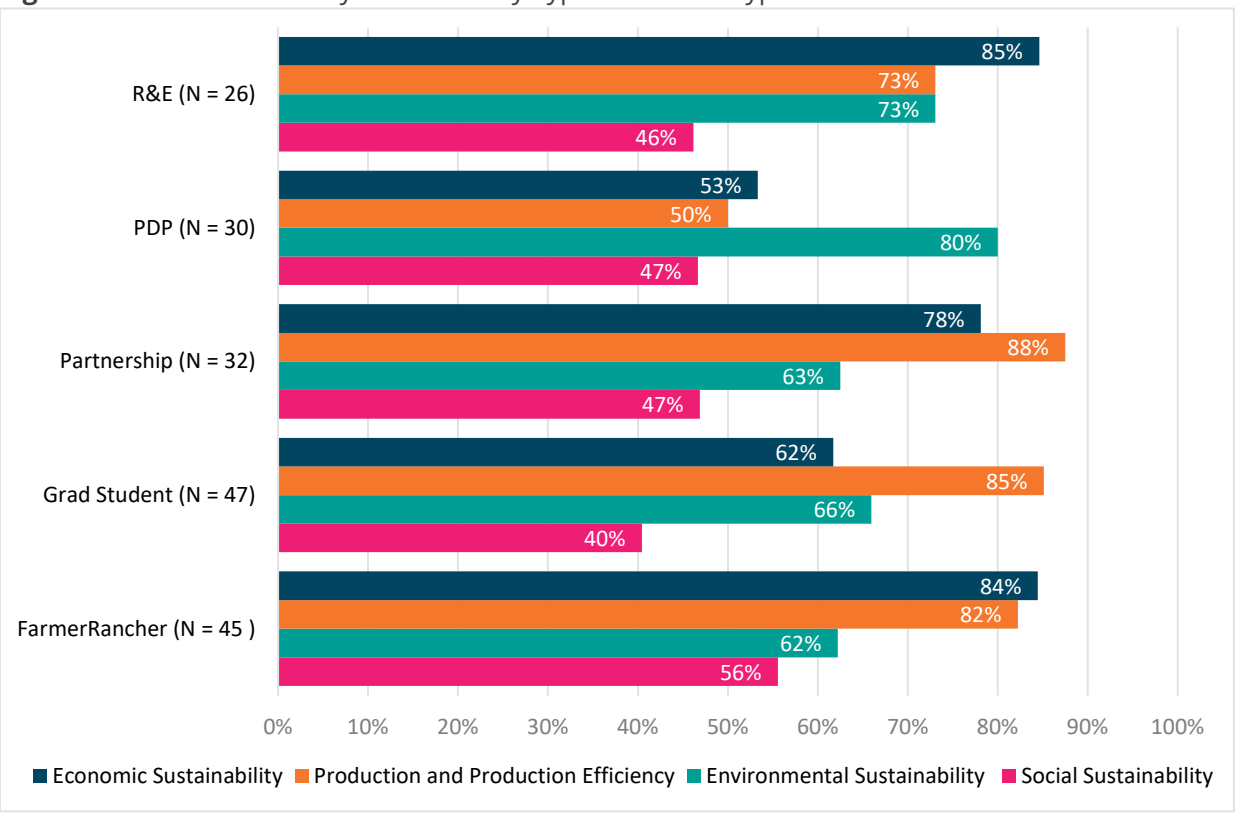
As seen on the following page, **Figure 23** presents the percentage of grantees who selected benefits and impacts within each of the four sustainability clusters in their final reports.

Figure 23. Western SARE by Sustainability Type (2016-2019) (N = 180)



The percentage of Western grantees who selected at least one of the benefits and impacts options within the four sustainability clusters are presented by grant type in **Figure 24.**

Figure 24. Western SARE by Sustainability Type and Grant Type



Appendix E. Impact Model Draft

Initial Impact Model Structure

Resources received	Critical actions	**Indicators** On the path to impacts…	**Impacts**

- Increased knowledge of what works
- Increased capacity/motivation
- Increased engagement
- Practice change
- Career growth
- Additional…

- **Environmental** Sustainability Impacts
- **Economic** Sustainability Impacts
- **Production** Efficiency Impacts
- **Social** Sustainability Impacts
- Additional…

Indicators

Increased knowledge of what works	Knowledge: **Tools/methods for production**	Knowledge: **Marketing/ communications**	Knowledge: **Enterprise/ staff management**	Knowledge: What could contribute to **increased Profitability**	Increased knowledge of **(natural) resource management**	Knowledge as **lived experience** (ways of knowing)
Increased capacity/ motivation	Capacity: To conduct **research** (including capacity to "fail")	Capacity: To **innovate**	Capacity: For **outreach/ communications**	Capacity: For **grant seeking (more grants secured)**	Capacity: To **apply/build from research learnings**	Capacity: **Awareness** of others in the ag community
Increased engagement	Engagement: **Strengthened networks**	Engagement: **More diverse networks**	Engagement: **With career opportunities**	Engagement: More coordinated **community-level partnerships**	Engagement: Increased **influence on community**	
Practice change	Practice change: **Sustained**	Practice Change: More time/energy put into **sharing learnings**	Practice change: **Adopted by others (not grantee)**			
Career Growth	Career Growth: **Jobs obtained**	Career Growth: **Jobs Sustained**	Career Growth: **More grants/ funding received**			
Additional...	Permanent infrastructure	Diverse/under-represented grantees applying	Diverse/under-represented grantees funded			

* Marginalized/under-represented/ socially disadvantaged groups: Beginning farmers, limited resource producers, race/gender minorities, women, non-English speaking, people living with disabilities, youth, veterans, POC, and urban

Environmental
Sustainability Impacts

Soil	**Soil** conserved	Improved **soil quality/health**	Enhanced **soil productivity**
Water	**Water** conserved	Improved **water quality**	Reduced **water use**
Air	Reduced **CO2 emissions**		
Land	**Land** conserved	Improved **landscape** diversity/ecological services	
Habitat/Ecosystem	Fish and wildlife **habitat** conserved	Increased **biodiversity**	More resilient **ecosystems**

Economic Sustainability Impacts

- Economic right-sizing (proper scale in context)
- Economic viability
- Improved market opportunities
- Increased business/enterprise opportunities
- Increased employment & labor opportunities
- Enterprise diversification

- Resilience to **climate change**

- Increased **profit**
- **Wealth** generation

Production Efficiency Impacts

- Reduced cost of **inputs (labor, materials, energy)**
- Improved **crop production/ production efficiency**
- Improved **livestock production/ production efficiency**
- More efficient use of **nonrenewable/ on-farm resources**

- Increased **marketable yield**

- Increased **profit**
- **Wealth** generation

Social Sustainability Impacts

PRODUCER WELLBEING

- Safer working conditions
- Reduced exposure to pesticides
- Physical health
- Mental health
- Improved satisfaction with quality of life
- Basic needs met
- Household food security
- Respect
- Fulfillment
- Empowerment
- Producer resilience
- Sense of belonging/ inclusion

COMMUNITY WELLBEING

- Stronger community awareness and/or ties
- Increase community engagement
- Capacity for community cooperation
- Community resilience

DEIJ FOR UNDER-REPRESENTED GROUPS*

- Equity among suppliers, lenders, contractors, and buyers
- Equitable access to government programs and Technical Assistance
- Human/ workers' rights

FOOD SYSTEMS

- Improved agriculture and food system infrastructure (market outlets, distribution arrangements, policies, etc.)
- Food systems more localized
- Community food access + security
- Cultural food traditions maintained
- Animal wellbeing

Appendix F. Success Case Method Survey

SARE Post Project Survey Items

PAGE 1: Welcome!

Progress in sustainable agriculture often takes time to achieve. The purpose of this survey is for SARE to learn more about outcomes (i.e., benefits) related to your SARE-funded work since the end of SARE project funding. This may include further progress you have made on the same outcomes funded by SARE, as well as new types of outcomes that may not have been included in your original plan but would not have been possible without your SARE funding. In answering questions in this survey, please consider your own personal work, as well as that of your SARE project partners, and others who may have been impacted by the project, to the extent you are familiar. Survey findings will help SARE to better understand and communicate about SARE grantees' achievements, challenges, and how SARE dollars are being leveraged to achieve broader impacts.

This survey is part of an external evaluation being conducted by Insight for Action for SARE. Your participation is voluntary and you may stop at any time. Your responses will be linked to your project in the SARE Grant Management System and will be visible and available to SARE staff (responses will NOT be visible to the general public). If you choose to proceed, please complete all questions in this survey to the best of your knowledge and in relation to your SARE-funded project titled, "[Project Title]", completed in [Year]. Your responses to this survey will not impact future funding decisions. Your input is important to us! To thank you for your time, you will have the option to receive a free print copy of this book "Manage Weeds On Your Farm: A Guide to Ecological Strategies" upon completion of the survey.

PAGE 2: Your Project's Accomplishments

SARE understands that project accomplishments often take the form of incremental steps toward longer-term outcomes. Please rate the extent to which your SARE project has contributed to the following outcomes for you, your project partners, or others.

From project start THROUGH PRESENT DAY, my SARE Project has...

KNOWLEDGE OF WHAT WORKS

- **Increased knowledge of natural resources management**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased knowledge of factors that contribute to higher profitability**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased knowledge about enterprise/staff management**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased knowledge of tools/methods for production**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased knowledge of marketing/communications**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)

CAPACITY/MOTIVATION

- **Increased capacity to apply research learnings**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased capacity for obtaining grants**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased capacity for outreach/communications**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased capacity to conduct research**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased capacity to innovate**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)

Engagement (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)

- **Increased awareness of people and groups in the sustainable agriculture community**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Strengthened networks**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased influence within the community**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Contributed to the creation of more diverse networks**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Contributed to the creation of more coordinated community-level partnerships**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased career-related engagement opportunities (e.g., career-related events, internships)**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)

PRACTICE CHANGE

- **Increased adoption of practices by others**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased sharing about practice change**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased value placed on experiential knowledge (knowledge that comes from direct, first-hand experience rather than credentials)**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Contributed to your own sustained practice change**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)

CAREER GROWTH

- **Increased capacity of graduates or trainees to obtain sustainable agriculture jobs**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased total value of early career grants/funding received**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)
- **Increased or sustained support for existing jobs**
  (Rating 0 – 10; 0 = Not at all; 10 = Greatly; N/A)

Page 3: Impact Categories & Key Outcomes

SOCIAL SUSTAINABILITY

If applicable, select up to TWO (2) Social Sustainability categories that were MOST IMPORTANT to your project.

- **Diversity, Equity, Inclusion, Justice (DEIJ) for Underrepresented Groups**
  Choose up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.
  - **More equitable access to sustainable agriculture resources (e.g., government funding, technical assistance, toolkits)**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
  - **Advanced equity among suppliers, lenders, contractors, and buyers**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
  - **Improved human/workers' rights**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
  - **Reduced barriers and/or created opportunities for a specific group underrepresented in the agricultural system**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Producer Wellbeing**
  Choose up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.
  - **Improved satisfaction with quality of life**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
  - **Improved mental health**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
  - **Improved physical health**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
  - **Improved producer resilience**

        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Improved household food security**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)

- **Community Wellbeing**

  Choose up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.
    - **Strengthened community ties**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Strengthened capacity for community cooperation**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Increased community resilience**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Increased community engagement**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)

- **Food Systems**

  Choose up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.
    - **Cultural food traditions maintained**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Improved agriculture and food system infrastructure (market outlets, distribution arrangements, policies, etc.)**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Improved community food access and security**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **More localized food systems**

        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Increased animal wellbeing**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Not Applicable**

ECONOMIC SUSTAINABILITY

If applicable to your SARE project, select up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.

- **Improved economic viability**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Increased resilience to climate change**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Improved market opportunities**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Increased employment & labor opportunities**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Improved enterprise diversification**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Increased business/enterprise opportunities**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Economic right-sizing (proper scale in context)**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Wealth generation**

    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Increased profit**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Not Applicable**

PRODUCTION EFFICIENCY

If applicable to your SARE project, please select up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.

- **Improved crop production/production efficiency**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Improved livestock production/production efficiency**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **More efficient use of nonrenewable/on-farm resources**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Reduced cost of inputs (labor, materials, energy)**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Increased marketable yield**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Not Applicable**

ENVIRONMENTAL SUSTAINABILITY

If applicable, select up to TWO (2) Environmental Sustainability categories that are MOST IMPORTANT to your project.

- **Soil**
  Choose up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.

- **Improved soil quality/health**
  - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Increased soil productivity**
  - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Soil conserved**
  - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)

- **Water**

Choose up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.

- **Improved water quality**
  - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Water conserved/Usage reduced**
  - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)

- **Air**
- **Choose up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.**
  - **Reduced CO2 in air**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
  - **Improved air quality**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Land**
- **Choose up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.**
  - **Diversified land use/improved ecological services**
    - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
  - **Land conserved**

        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Habitat/Ecosystem**
  Choose up to two (2) outcomes (i.e. benefits) that your SARE project MOST contributed to, from project start THROUGH PRESENT DAY.
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Increased climate resiliency of habitat/ecosystem**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Increased biodiversity**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
    - **Increased habitat conservation**
        - (If selected) Please rate the extent to which progress toward this outcome has been made, from project start THROUGH PRESENT DAY (Rating 1-10; 1 = Low/Minimally; 10 = Greatly)
- **Not Applicable**

Page 4: About You

SARE is interested in serving groups that are underrepresented in agriculture. This information will be used to ensure we have a diverse response to this survey. Only SARE will have access to this information, it will not be publicly available.

Years of experience in farming/agriculture

- No Experience
- 0 to 10 Years
- More than 10 years

Are you [PI Name}?

- Yes
- No (Please provide your name and contact information below)
    - Name:
    - Email:
    - Phone:

Are you willing to be contacted for an interview to tell us more about your project?

- Yes
- No

(If Yes) What is the best way to reach you?

- Phone
    - Phone Number (Textbox)
    - What time of day would you like to be contacted?
        - Early Morning (6am-8am)
        - Morning (8am-12pm)
        - Afternoon (12pm-5pm)
        - Evening (5pm-8pm)
        - What time zone are you in?
    - Select Time Zone (Dropdown)
- Text
    - Phone Number (Textbox)
- Email
    - Email Address (Textbox)

For your participation, you have the option to receive a free print copy of this book "Manage Weeds On Your Farm: A Guide to Ecological Strategies". Are you interested?

- Yes
- No

How many years have you been involved in farming/agriculture?

- No experience
- 0-10 years
- More than 10 years

Do you identify with any of the following groups? (Select any that apply)

- Black, Indigenous, or other Person of Color (BIPOC)
- Immigrant or refugee
- First generation college student
- Living with a disability
- LGBTQIA2S+
- Low income
- Primary language other than English
- Additional identity not listed
- None of the above
- Prefer not to say

Have you ever served in the U.S. Armed Forces, Military Reserves, or National Guard?

- Yes
- No
- Prefer not to say

Racial or Ethnic Identification (select all that apply)

- Asian/Asian American/Pacific Islander

- Black/African American/African
- Hispanic or Latino/a/x
- Middle Eastern or North African
- Native American/American Indian/Indigenous
- White/European descent
- Additional race/ethnicity not listed
- Prefer not to say

How do you identify? (Select all that apply)

- Female
- Male
- Nonbinary (e.g., agender, gender queer, genderfluid, two-spirit)
- Questioning
- Transgender
- Additional gender not listed
- Prefer not to say

Age (Dropdown)

Page 5: (Once Survey is Submitted)

Thank you! Your input is important to us!

Appendix G. Success Case Method Interview Protocol

SARE Grantee Interview Protocol

Interview Introductory Language:

Thank you for making the time to speak with me. I work for a group called Insight for Action. We specialize in research and evaluation to improve programs and assess program impacts. Thanks for making yourself available for this interview. I want to tell you a bit more about the purpose of the interview and how I will handle the information you share with me. Then you can decide if you want to proceed.

The purpose of this interview is to hear from you about your SARE grant [**TITLE].** I have reviewed your final project report in the SARE database. **The purpose of this interview is to build from that to get a deeper understanding of what you/your organization/your group accomplished during the grant period, as well as to explore additional impacts that your SARE funding may have contributed to, catalyzed, or otherwise helped support, since the end of your project funding**. You can only learn so much from an online report, so during our time together I'm hoping to hear *the story* of your SARE project, and I'm particularly interested in any **specific examples** you can share about your project's accomplishments. **Rich descriptions** are what we're looking for with these interviews, so don't be shy to slow down and explain your examples in detail.

After the interview, **your project may be featured as an impact story** that describes the accomplishments achieved and the factors that contributed to your project's success. Selected impact stories will be highlighted nationally as part of SARE communications in public facing outlets. If your project is selected, you will have the opportunity to review it before it is shared with the public.

Do you have any questions for me?

- **[Answer any questions about the purpose or process]**

Do you agree to be interviewed for this purpose? The interview is completely voluntary.

- **[If yes, verbally acknowledge consent to participate and continue with the interview]**
- **[If no, thank the individual for their time and discontinue the interview.]**

It would be helpful if I could record our interview. I – and my independent evaluation team members – are the only people who will have access to the recording. It will help us to accurately capture your feedback when we write up the results, and we will delete the recording at the end of this project. Do I have your permission to record this interview?

- **[If yes, begin recording function in Zoom]**
- **[If no, take typed notes during the interview].**

1. **PROJECT IMPACTS/ACCOMPLISHMENTS – OVERVIEW**
   In your own words, how would you briefly describe what **you (or members of your grantee team)** accomplished (from project start through present day)?
   a. ***PROBE [if struggling to identify accomplishments]***: In your report I read about **[pull from above indicator(s)/outcome(s)] -** could you share a bit more about that?

2. **PROJECT ACCOMPLISHMENTS BEYOND THE GRANT PERIOD**
   [If not yet described]: In what ways have these [successes/activities/accomplishments] continued to evolve or improve over time?
   a. ***PROBE:*** How would you say your SARE project positioned you/your team to succeed in this way?
      i. What factors contributed to your success?
   b. ***PROBE***: Can you provide a specific example or two of this success?
      i. ***ASK FOR EXAMPLES:*** If you have any documentation of impacts that you can share with us, especially after your grant funding ended, it would be great to give them a look. You don't need to provide anything that's not easily accessible. Examples could include a blog post, article citation, or evaluation report.

3. **SPECIFIC PARTNER/COLLABORATOR ACCOMPLISHMENTS**
   [If project partners or collaborators have not yet been mentioned]: How would you describe **your project partners and/or collaborators** accomplishments in relation to this project (from project start through present day)?
   a. ***PROBE [if struggling to identify accomplishments]***: In your report I read about **[pull from above indicator(s)/outcome(s)] -** could you share more about that?
   b. ***PROBE [if comments are limited to the grant period]***: In what ways have they continued to evolve or improve over time (if you know)?
   c. ***PROBE:*** How would you say your SARE project positioned them to succeed in this way?
      i. What factors contributed to their success?
   d. ***PROBE:*** How do you usually learn about and keep up to date on your partner/collaborators' work? (e.g., interpersonal relationships, ad hoc communications, evaluation, newsletters, social media, networking, etc.)?
   e. ***PROBE:*** As examples are cited, probe about what they have learned through them, drawing connections to the accomplishments shared in response to Q2?

i. ***ASK FOR EXAMPLES:*** If you have any documentation of these impacts that you can share with us, especially after your grant funding ended, it would be great to give them a look. You don't need to provide anything that's not easily accessible. Examples could include a blog post, article citation, or evaluation report.

4. **BARRIERS, CHALLENGES, SOLUTIONS AND LEARNING**

   From project start through present day, what barriers or challenges has the project experienced?

   a. ***PROBE:*** What factors accounted for these barriers/challenges?
   b. ***PROBE:*** Have those been addressed or overcome? How?
   c. ***PROBE:*** Has learning from these challenges been shared with others? Examples?

5. **ADDITIONAL IMPACTS - 2**

   I see in your project report that your project also impacted…. [**any indicators not yet discussed in the interview, e.g., career growth, practice change, engagement, etc.]].** Could you share more about this?

   a. ***PROBE:*** *What factors contributed to this success?*
   b. ***PROBE:*** *Have there been additional impacts since the project ended? Please describe.*
   c. ***PROBE:*** *What barriers or challenges did you face? Did you find solutions? Was there learning?*

6. **ADDITIONAL IMPACTS - 3**

   Your project report also mentioned…. [**any indicators not yet discussed in the interview, e.g., career growth, practice change, engagement, etc.]].** Could you share more about this?

   a. ***PROBE:*** *What factors contributed to this success?*
   b. ***PROBE:*** *Have there been additional impacts since the project ended? Please describe.*
   c. ***PROBE:*** *What barriers or challenges did you face? Did you find solutions? Was there learning?*

7. **ADDITIONAL IMPACTS - 4**

   Your project report also mentioned…. [**any indicators not yet discussed in the interview, e.g., career growth, practice change, engagement, etc.]].** Could you share more about this?

   a. ***PROBE:*** *What factors contributed to this success?*
   b. ***PROBE:*** *Have there been additional impacts since the project ended? Please describe.*
   c. ***PROBE:*** *What barriers or challenges did you face? Did you find solutions? Was there learning?*

8. **ADDITIONAL IMPACTS - 5**

   Your project report also mentioned…. [**any indicators not yet discussed in the interview, e.g., career growth, practice change, engagement, etc.]].** Could you share more about this?

   a. ***PROBE:*** *What factors contributed to this success?*
   b. ***PROBE:*** *Have there been additional impacts since the project ended? Please describe.*
   c. ***PROBE:*** *What barriers or challenges did you face? Did you find solutions? Was there learning?*

9. **ADDITIONAL COMMENTS**

   Do you have anything else to share about your project?

Appendix H. Success Case Studies

Case studies are available online at:
www.sare.org/resources/sampler-of-sare-impacts-2016-2023

Project Number	Project State	Year Awarded	Grant Type	Region
FNC16-1056	Ohio	2016	FARMER RANCHER	NORTH CENTRAL
FNC19-1161	Kansas	2019	FARMER RANCHER	NORTH CENTRAL
FNE16-861	Massachusetts	2016	FARMER RANCHER	NORTHEAST
FNE17-865	Pennsylvania	2017	FARMER RANCHER	NORTHEAST
FS18-308	Virginia	2018	FARMER RANCHER	SOUTHERN
FW18-030	Washington	2018	FARMER RANCHER	WESTERN
FW19-344	Hawaii	2019	FARMER RANCHER	WESTERN
FW19-348	Guam	2019	FARMER RANCHER	WESTERN
GNC19-288	North Dakota	2019	GRAD STUDENT	NORTH CENTRAL
GNE16-119	Pennsylvania	2016	GRAD STUDENT	NORTHEAST
GNE19-205	Vermont	2019	GRAD STUDENT	NORTHEAST
GS19-206	Florida	2019	GRAD STUDENT	SOUTHERN
GW18-062	California	2018	GRAD STUDENT	WESTERN
LNC18-411	Kansas	2018	R+E	NORTH CENTRAL
LNE19-375	Vermont	2019	R+E	NORTHEAST
LS16-273	South Carolina	2016	R+E	SOUTHERN
LS19-307	Alabama	2019	R+E	SOUTHERN
ONC19-063	Wisconsin	2019	PARTNERSHIP	NORTH CENTRAL
ONE19-347	West Virginia	2019	PARTNERSHIP	NORTHEAST
OS18-112	Tennessee	2018	PARTNERSHIP	SOUTHERN
OW19-346	Utah	2019	PARTNERSHIP	WESTERN
SW18-058	Utah	2018	R+E	WESTERN