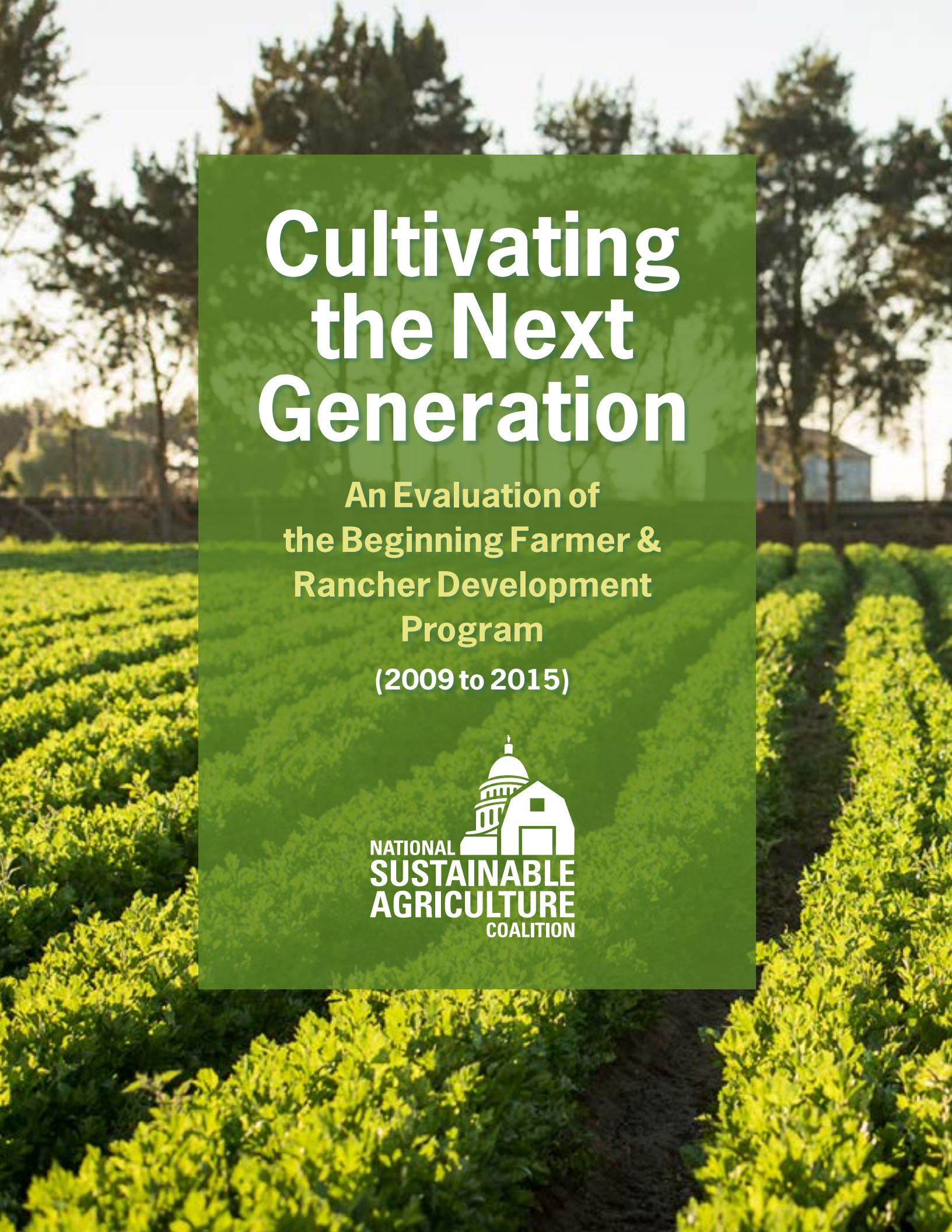

Cultivating the Next Generation

An Evaluation of the Beginning Farmer & Rancher Development Program

(2009 to 2015)

NATIONAL SUSTAINABLE AGRICULTURE COALITION

About the National Sustainable Agriculture Coalition

NSAC is an alliance of grassroots organizations that advocates for federal policy reform to advance the sustainability of agriculture, food systems, natural resources, and rural communities.

About the Authors

JULI OBUDZINSKI (co-author) managed this evaluation project and contributed to the report findings, conclusions, and recommendations. Obudzinski is currently the Deputy Policy Director for the National Sustainable Agriculture Coalition based in Washington, D.C.

JAN PEREZ (co-evaluator and co-author) was responsible for the project leader survey and successful project vignettes, and contributed to the report findings, conclusions, and recommendations. Perez is a Research and Education Specialist, specializing in program evaluation, at the Center for Agroecology & Sustainable Food Systems at the University of California, Santa Cruz.

ANN WILLIAMS, Ph.D. (co-evaluator and co-author) was responsible for the content and implementation analysis, and contributed to the report findings, conclusions, and recommendations. An economic anthropologist, Williams is a program evaluation consultant and a Lecturer in the University of Wisconsin-Milwaukee's Sheldon Lubar School of Business.

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JILL AUBURN (USDA-NIFA); AMY BACIGALUPO (Land Stewardship Project); ANDREW BAHRENBURG, (National Young Farmers Coalition); WESLEY DEAN (USDA-NIFA); BRIAN DEPEW (Center for Rural Affairs); WYATT FRAAS (Center for Rural Affairs); JIM HAFNER (Land for Good); ADAM WARTHESEN (CROPP Cooperative); and JENNIFER SOWERWINE (University of California-Berkeley)

Additional Project Support:

SMARANDA ANDREWS, Ph.D. (Research/Data Coder); JANE BOLLING (Graphic Design); MARTHA BROWN (Editor); COLE KROMER (Research Assistant); ALANNAH KULL (Project Assistant); HUGO MALDONADO (Research Assistant); DAMIAN PARR (Consultation); DANIEL PRESS, Ph.D. (Consultation); and GARY RESNICK, Ph.D. (Evaluation Consultant)

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NATIONAL SUSTAINABLE AGRICULTURE COALITION

TABLE OF CONTENTS

I. EXECUTIVE SUMMARY

Tractor driver prepares ground for a new planting of organic vegetables. Photo credit: Shawn Linehan

I. Executive Summary

"It is impossible to overstate how helpful the BFRDP grant was to our organization. The grant helped us provide hundreds of beginning farmers with knowledge, skills, and support services they need to launch or strengthen their farm businesses."

—Beginning Farmer and Rancher Education Organization Project Leader

THE NEED FOR A NEW GENERATION

Our nation's farmers and ranchers are aging. At the same time, aspiring and beginning farmers nationwide continue to face significant barriers to farming. To ensure the continued success of agriculture in the U.S., it is vital that we facilitate the transfer of skills, knowledge, and land between current and future generations. But new farmers entering agriculture today have different needs and face new challenges compared with those farmers who came before them and are now facing retirement.

As a result, interest in new farmer training has grown and hundreds of projects have emerged over the past decade with the goal of arming the next generation of farmers with the skills they need to succeed in agriculture. Many of these projects have received federal support through the Beginning Farmer and Rancher Development Program (BFRDP). To date, BFRDP is the only federal program seeking to explicitly train the next generation of farmers. Since the program was created in 2008, nearly $150 million has been invested in new farmer training projects across the country.

ABOUT THIS REPORT

Nearly a decade after the establishment of BFRDP, and with the 2018 Farm Bill on the horizon, it is timely and necessary that we better understand how to design more effective and successful new farmer training programs, as well as evaluate the return on federal investments in growing the next generation of farmers.

The purpose of this analysis was to conduct the first-ever comprehensive evaluation of the program to better understand the outcomes and impacts BFRDP has had on training the next generation, the factors that lead to more successful new farmer training projects, and ways to improve evaluation. Our evaluation included a review of all project reports for completed standard

BFRDP grants from 2009 to 2015, a survey of all corresponding project leaders, and in-depth interviews with successful grantees to better understand the keys to their success.

It is our hope that the findings from this evaluation will allow practitioners, policymakers, federal agencies, and the general public to better understand both the value and impact of BFRDP as a whole and the projects it has supported. Our findings also point to ways that the program, and new farmer training projects writ large, can be further strengthened to better support the next generation of farmers, and to ensure the program's continued success.

KEY CONCLUSIONS

1. BFRDP has been successful in meeting its legislative mandate (see Table 1 on page 8)

Congress created BFRDP in 2002 with the recognition that more needed to be done to ensure the stability and success of the next generation of farmers. Our findings show that BFRDP has fulfilled this broader purpose and is meeting the statutory priorities outlined by Congress.

Farmer Driven. The degree of farmer involvement in the project design, implementation, and decision-making of a BFRDP project is a key evaluation criteria established by the U.S. Department of Agriculture (USDA) in administering BFRDP. Our findings show that farmers are at the core of BFRDP projects, with nearly every project we evaluated including farmers either in project development or implementation.

Broad Training Topics. Congress outlined an extensive list of priority training topics that provide new farmers with the basic production, marketing and business skills, and technical assistance they need to start a successful farm business. Our findings illustrate a wide variety in educational content and highlight the diversity and complexity of new farms and the farmers themselves.

Over 90% of projects included farm business management training and more than a third of projects helped new farmers access land and capital — two absolute necessities for anyone looking to farm.

Partnerships are Key. One element of BFRDP's success is its innovative approach to supporting collaborative projects that involve partnerships with nonprofit and community-based organizations (CBOs), and academic partners. Of the completed projects evaluated, all but one included at least one partner or collaborator, and the majority of project leaders surveyed found that their partners made a significant contribution to the project's success.

Reaching Underserved Farmers. During the grant period evaluated, BFRDP was required by law to ensure that at least a quarter of total available funds supported projects that address the needs of underserved farmers. In total, over half of all projects and 53% of total funding supported projects focusing on socially disadvantaged[i] beginning farmers and ranchers as a primary audience.

Regional Balance. To ensure BFRDP reaches farmers throughout the nation, BFRDP is required to ensure geographical diversity in awarding funds. Our findings demonstrate that, on the whole, projects appear to be regionally balanced, with some variation from year to year.

Table 1. BFRDP Legislative Requirements and Evaluation Findings[ii]

	LEGISLATIVE REQUIREMENT	EVALUATION FINDING
Target Audience	*Provide training, education, outreach, and technical assistance initiatives for beginning farmers or ranchers*	**Projects Serving:** › Aspiring farmers: **77%** › Beginning farmers, <=5yrs: **94%** › Beginning farmers, 6-10 yrs: **54%**
Program Priorities[iii]	*Livestock, forestry, crop farming, farm transfer, business training, financial and risk management, natural resource management, marketing strategies, curriculum development, mentoring and apprenticeships, resources, land access, other related topics*	**Projects Providing Programming in:** › Agricultural production: **89%** › Farm business management: **97%** › Financial and business planning: **95%** › Environmental sustainability: **82%** › Marketing: **94%** › Land access: **51%** › Mentoring: **66%** › Apprenticeships: **27%**
Partnerships and Collaborations	*Priority to partnerships and collaborations led by or including nongovernmental and community-based organizations*	**Projects Led by:** › Nonprofit/CBOs: **56%** › Land Grant/Extension: **40%** › Other University: **4%**
Underserved Farmers	*25% of funds must serve limited resource or socially disadvantaged farmers, or farmworkers*	**53%** of funds to projects focusing on socially disadvantaged farmers as a primary audience **Projects Targeting:** › Minorities: **51%** › Women: **21%** › Immigrants, refugees: **27%** › Low income/limited income: **48%** › Farmworkers: **9%**
Regional Balance	*In making grants, ensure geographical diversity*	**Total States Served:** › **45** states and the Virgin Islands **Projects by Region:** › Northeast: **16%** › South: **27%** › North Central: **28%** › West: **29%**
Grant Size	*$750,000 maximum*	**Average Grant Size:** › Land Grant Universities/Extension: **$592,000** › Nonprofit/CBOs: **$507,000** › Other Universities: **$616,000**

Dairy Grazing Apprenticeship (DGA), a BFRDP grantee, links current and aspiring dairy farmers and provides a guided pathway for the transfer of knowledge, skills, and farms to the next generation. Photo courtesy of Dairy Grazing Apprenticeship.

2. BFRDP is helping to grow the next generation of farmers

From an organic incubator farm in California to a dairy apprenticeship program in Wisconsin, one thing is clear: BFRDP is making an impact on beginning farmers and ranchers across the U.S. and yielding results in training the next generation of farmers.

While the available data do not paint a complete picture, the information available points in a positive direction, with over 60,000 beginning farmers impacted directly by BFRDP.

Focus on Starting Small. Almost all projects focused on farmers in their first 5 years of farming, with a significant focus on those farmers starting out at a small scale.

Intense Programming. More than two-thirds of projects offered intensive programs, lasting months or even several years, designed to move aspiring farmers quickly into production or at least well on their way.

Increased Success Farming. BFRDP project leaders estimate that on average, over half of BFRDP project participants have started farming, with nearly three-quarters being more prepared to farm and more successful in their farming endeavor.

3. BFRDP is building a national infrastructure, new models, and best practices to train and support new farmers

BFRDP has been a major force in providing essential training services for new and aspiring farmers and spurring the development of local and regional networks to support beginning farmers as they navigate the complexities of starting a career in U.S. agriculture.

Besides directly training the next generation of farmers, BFRDP funding has also helped projects:

Build Capacity. Evidence from project leaders shows that BFRDP grants have helped nonprofit and community-based organizations, along with their academic partners, build their capacity, serve more

farmers, and serve them better. As the leaders state, BFRDP funding is critical for their work.

Fill a Critical Gap. The use of and demand for these services highlight how BFRDP appears to have filled an essential gap in skills development historically occupied by family and community by providing a broad variety of training and support, within and among projects, to meet beginning farmers' developmental, resource, and time needs.

Create an extensive collection of tools and resources now available through an online clearinghouse to all organizations serving beginning farmers and ranchers. Three-quarters of the projects developed curricula for the benefit of beginning farmers and ranchers.

Develop, expand, and replicate successful models for training beginning farmers and ranchers.

BEST PRACTICES—AT A GLANCE

While there are no "one size fits all" programs, both project leaders and our project analysis identified several themes that successful projects shared:

Farmer-to-Farmer Strategies. Mentoring is one of the major farmer-to-farmer strategies successful projects employed. Project leaders also noted the effectiveness of having peers learn from each other in classroom settings and using farmers as teachers in training activities.

One-on-One Services. In addition to mentoring, one-on-one technical assistance services from other experts (e.g., farm finance, vegetable production, livestock management, etc.), are equally important to meet farmers' specific needs, both during the early years and as they gain experience.

Networking. Fostering networks provides a way to build ongoing relationships among farmers and other professionals, creating a support system that continues to serve beginning farmers and ranchers long after training programs end.

General Education Methods and Principles. Using adult education and general education methods and principles was a recurring theme identified across successful projects and evident in best practices. Successful educational strategies include utilizing farmers' experience and needs when developing programming, encouraging learning from peers, and using available educational theories or models.

Successful Project Vignettes also provide in-depth examples of innovative new farmer programs and their outcomes, and highlight the factors that led to their success (see Successful Project Vignettes in full report for additional details).

EVALUATION PRACTICES—AT A GLANCE

A primary goal of this evaluation is to improve both USDA's process of evaluating funded BFRDP projects and its ability to understand, and communicate to stakeholders and policymakers, project impacts. Issues with evaluation design and reporting identified in project reports[iv] included: difficulty tracking specific number of farmers served, minimal tracking of medium-term outcomes, outcome measures not well defined, and uneven quality of reporting.

This evaluation also explored project leaders' experience with their own evaluations. Almost all leaders reported that the evaluations they conducted were useful to their organizations and that they continue to conduct evaluations as part of their ongoing education work. Project leaders who consider their evaluation strategies at least somewhat effective offered suggestions for best practices, including having direct connections with farmers to collect data, and maintaining contact with farmers over time.

However, fewer than half consider their evaluation strategies to be effective or extremely effective. Likewise, fewer than half have staff members with evaluation training managing that process. Given these findings, providing more technical assistance and guidance on evaluation could strengthen the program in the future.

KEY RECOMMENDATIONS — AT A GLANCE

Table 2. BFRDP Recommendations for Policymakers, Grantees and USDA

GENERAL RECOMMENDATIONS
1. Continue long-term investments in new farmer training that support new models and build on the national infrastructure already established
2. Continue investments in evaluation to identify long-term impacts
RECOMMENDATIONS FOR GRANTEES & PRACTITIONERS
1. Continue to implement a farmer-to-farmer focus in education
2. Deepen farmer engagement in program development
3. Utilize adult education and general education methods and principles
4. Continue to learn about and share best practices for working with different audiences
RECOMMENDATIONS FOR USDA
1. Revise grant reporting guidelines and processes to collect more usable data to document project impacts
2. Incentivize collecting follow-up evaluation information
3. Provide more evaluation technical assistance, guidance, and financial resources to grantees
4. Continue to evaluate BFRDP as a whole
5. Provide grantees with more opportunities to learn from each other and share best practices
6. Evaluate regional distribution of grants to ensure strategic investments in meeting regional and commodity-specific beginning farmer challenges

[i] "Socially Disadvantaged Farmer" is defined in statute (7 U.S.C. 2003) and includes any farmer from a socially disadvantaged group whose members have been subjected to racial, ethnic, or gender prejudice because of their identity as members of a group without regard to their individual qualities.

[ii] Unless otherwise noted, all percentages in Table 1 designate percentage of completed standard grants included in this evaluation.

[iii] Priorities reflect statutory requirements that were enacted under the 2008 Farm Bill (7 U.S.C. 3319f).

[iv] Grantee project reports are made publicly available in USDA's Current Research Information System (CRIS) database.

II. INTRODUCTION

Agriculture & Land Based Training Association (ALBA) farmworker carefully hoes out weeds in a lettuce crop. Photo credit: Shawn Lineham.

II. Introduction

BACKGROUND & PURPOSE OF REPORT

As interest in new farmer training continues to grow nationwide, and more new farmer training projects launch every year (much of this due to federal support through BFRDP), it is imperative that we better understand how to design the most effective and successful new farmer training programs, as well as demonstrate the return that federal investments have had on growing the next generation of farmers.

The Beginning Farmer and Rancher Development Program (BFRDP) is the only federal program seeking to explicitly train the next generation of farmers. Since BFRDP was first created nearly a decade ago, roughly $150 million has been invested through grants to support over 250 new farmer training projects impacting farmers in nearly every state across the country. And while each grantee is required to track and report project outcomes and impacts, no comprehensive, national-level analysis had ever been completed of BFRDP as a whole.[1]

In 2016, NIFA solicited an external evaluation through the Request for Applications process, of all completed BFRDP standard projects funded to date, in order to identify and summarize short- and long-term outcomes and impacts, analyze factors contributing to success, and communicate results. Our evaluation sought to achieve these objectives in order to allow practitioners, policymakers, federal agencies, and the general public to better understand BFRDP's outcomes since its establishment nearly a decade ago, and to identify the factors that lead to more successful new farmer training projects.

The Beginning Farmer and Rancher Development Program (BFRDP) is the only federal program seeking to explicitly train the next generation of farmers.

PROGRAM OVERVIEW

BFRDP is a competitive grant program that was first established in the 2002 Farm Bill and is administered by USDA's National Institute of Food and Agriculture (NIFA). The program was not officially established until 2008, when it received initial program funding in the 2008 Farm Bill (P.L. 110-234). BFRDP was most recently reauthorized in the 2014 Farm Bill (P.L. 113-79) and provided with $20 million per year to fund education, extension, outreach, and technical assistance initiatives directed at helping beginning farmers and ranchers of all types. The program's authorization and funding expires in 2018, and will need to be reauthorized through the Farm Bill to continue.

[1] USDA produced two outcomes reports on BFRDP grants funded in 2009 and 2010, however, these reports were not comprehensive in assessing outcomes or impacts for completed grants.

BFRDP provides competitively awarded grants to academic institutions, state extension services, producer groups, nonprofits, and community organizations to support and train new farmers and ranchers across the country. BFRDP is targeted especially to collaborative state, tribal, local, or regionally based networks or partnerships of public and private groups. Networks or partnerships may include: community-based organizations, non-governmental organizations, school-based educational organizations, cooperative extension, relevant USDA and state agencies, and community colleges.

BFRDP supports financial and entrepreneurial training; mentoring and apprenticeship programs; "land link" programs that connect retiring farmers and landowners with new farmers; vocational training and agricultural rehabilitation programs for veterans; and education, outreach, and curriculum development activities to assist beginning farmers and ranchers. Topics may also include production practices, conservation planning, risk management education, diversification and marketing strategies, credit management, and farm safety training.

There are several legislative requirements that continue to shape BFRDP, including a focus on projects that serve socially disadvantaged farmers, a priority for partnerships with nongovernmental and community-based organizations, and a goal of ensuring regional balance in order to reach farmers in every corner of the country (see Table 1 on page 8).

HOW TO USE THIS REPORT

Although the USDA commissioned this report, we intend that it be useful to a broader audience of stakeholders who have an interest in new farmers, education, and the effectiveness of federally funded programs.

This report is divided into 8 sections (outlined in Table 3, below), which each address a distinct component of this evaluation. Each section is intended to meet the diverse needs and interests of various stakeholders — including policymakers, the general public, farmers, practitioners and grantees, and USDA. Please refer to Table 3 to find specific areas of interest throughout this report.

Table 3. Report Focus by Stakeholder

		GENERAL PUBLIC	FARMERS	PRACTITIONERS & GRANTEES	USDA	POLICYMAKERS
Executive Summary	page 6	X	X	X	X	X
Methods	page 15	X	X	X	X	X
Program Description	page 22			X	X	
Outputs & Outcomes	page 34			X	X	X
Best Practices	page 43		X	X	X	
Successful Projects	page 55	X	X	X	X	X
Evaluation Practices	page 69			X	X	
Conclusions & Recommendations	page 73	X	X	X	X	X

III. METHODS

Field production manager Kirstin Yogg Comerchero discusses how to select the correct seed plate with advanced apprentice Leigh Gaymon-Jones, with support from BFRDP. Photo credit: Elizabeth Birnbaum/CASFS.

III. Methods

EVALUATION DESIGN

The purpose of this Beginning Farmer and Rancher Development Program (BFRDP) evaluation was to identify the program's impact and provide information to improve future programming by analyzing project activities, outcomes, and factors related to project success, and suggesting improvements for future evaluations.

Evaluation Objectives

There were four primary objectives, along with a number of questions, which drove this evaluation.

Objective 1. Identify BFRDP project characteristics. The goal of this objective was to help all stakeholders better understand the aggregate picture of projects funded and people served by BFRDP. Specific questions included: a) who was served and how, b) what was the nature of the projects, and c) did projects meet BFRDP's legislative objectives?

Objective 2. Identify outcomes. The purpose of this objective was to understand the aggregate impacts of BFRDP as a whole, and document projects' successes. This is of particular interest for all stakeholders. Specific questions included: a) what are the short- and medium-term outcomes reached by the end of the project, and b) what are the long-term outcomes (those measured 2 to 5 years after BFRDP project has ended)?[1]

Objective 3. Identify factors related to project success. This objective's intention was to understand what beginning farmer development strategies work best, in order to provide useful information to those involved in beginning farmer programming, and to suggest administrative changes to BFRDP. Questions included: a) what are successful ways of working with different audiences, b) what are successful teaching and learning practices, c) what helps beginning farmers succeed and stay in business, d) what are successful strategies for conducting partnerships, e) what are qualities of successful programs, and f) how did BFRDP granting program contribute to success?

Objective 4. Improve future evaluation and reporting. This objective was designed specifically to provide information to NIFA program staff. Questions included: a) what have been the benefits and practices of grantee's evaluation activities, b) what have grantees learned from the project's evaluation experience, and c) what are the problems with current outcome measurement and how can it be improved?

Evaluation Development

The evaluation design was initially developed in response to BFRDP's Request for Applications (RFA) in fiscal year 2016 under the Educational Enhancement Team projects. Once the National Sustainable Agriculture Coalition (NSAC) was awarded the evaluation project, the NSAC team

[1] For this evaluation, short-term outcomes were considered items easily measured at the end of an education program, such as changes in knowledge, attitudes, skills, awareness, or intentions. Medium-term outcomes were defined as changes in decision-making, behaviors, and actions, as well as immediate impacts of those actions on economic well-being or quality of life that happen from several months to a couple of years after attending the program. Long-term outcomes were defined as changes in social, economic, or environmental conditions, as well as medium-term outcomes for individuals, that happen several years after the program.

continued to develop the project collaboratively with the project's advisory team, including NIFA staff and leaders of other organizations serving beginning farmers (see acknowledgments for a complete list of project partners). A logic model of BFRDP (see Appendix D) was developed early in the process to provide an overview of the program and to inform the development of evaluation questions. The advisory team also provided feedback on instruments, implementation procedures, data analysis, data interpretation, and the final report.

METHODS OVERVIEW

To address the four evaluation objectives, we reviewed existing CRIS/REEport project reports from grantees (content analysis), identified projects that could be determined as successful (implementation analysis), conducted a survey of project leaders (project leader survey), and interviewed selected successful programs (case vignettes). Methods for each evaluation component are summarized below and in Table 4. A full description of methods is included in Appendix A.

Phase 1. Content Analysis

The purpose of the content analysis was to identify and code project characteristics, as well as short- and medium-term outcomes (objectives one and two), from the annual progress and final reports submitted by each grantee. These project reports are publically available through USDA's Current Research and Information System (CRIS) database and can be accessed online.

Table 4: Evaluation Objectives, Purposes, Audiences and Methods

EVALUATION OBJECTIVES	PURPOSE (PRIMARY AUDIENCE)	METHODS
1. Identify BFRDP project characteristics	Understand nature of projects (all stakeholders) Identify if legislative objectives were met (policymakers)	Content Analysis Project Leader Survey
2. Identify outcomes	Understand aggregate impacts (all stakeholders) Document success (all stakeholders)	Content Analysis Project Leader Survey
3. Identify factors related to success	Identify what strategies work best to improve future programming (practitioners) Identify changes for the RFA process (NIFA)	Implementation Analysis Project Leader Survey Case Vignettes
4. Improve future evaluation and reporting	Further develop evaluation metrics, revise RFA and evaluation guidelines (NIFA)	Content Analysis Project Leader Survey

Farm site and research lands manager Darryl Wong leads a field day on direct seeding equipment at the UC Santa Cruz farm, with support from a BFRDP grant. Photo credit: Martha Brown.

The CRIS project reports from the 119 standard BFRDP projects with start dates between 2009 and 2012 composed the data set for the content analysis. Standard grants support new and established local and regional training, education, outreach, and technical assistance initiatives that address the needs of beginning farmers and ranchers. According to documentation supplied by NIFA, there were 26 other BFRDP grants awarded during this grant period that were not included in the evaluation, as the nature of these projects was outside the scope of the evaluation as solicited by NIFA. These other grants include educational enhancement team (EET) projects, as well as developmental and clearinghouse grants.

The content analysis was done in two steps: 1) Preliminary Assessment, and 2) Full Assessment. For a more detailed description of the content analysis methods, see Appendix A.

Preliminary Assessment: Thirty (30) CRIS reports were sampled for preliminary analysis in order to define a data set and develop a coding framework. Based on this analysis, a preliminary coding guide was developed (see Appendix B) and reviewed by the project and advisory teams. Based on feedback provided, a revised version was developed for application.

Full Assessment: Once the full set of CRIS project reports was coded, the data were analyzed and preliminary results were made available to the advisory team and BFRDP management. Based on feedback, further analysis was done for the final report. Given that the set of data points available across projects varied greatly, available case analysis (pairwise deletion) was used to analyze the data (Pigott, 2001). The data were analyzed when available for a particular variable, even if data were not present for all variables included in the coding guide.

Data Caveats: Coding the CRIS report data was challenging. While every attempt was made to code the data as accurately as possible, it was evident that there were three major sources of error, especially in the reporting of outputs and outcomes. These important caveats are summarized below:

- **Duplication in the number participants:** Many projects counted the number of participants in each activity, summed the numbers, and reported a total number in the final report. It was often unclear how much overlap existed in participation reporting. Twenty-six (26) of the 119 reports appeared to have duplicated participant numbers. Whenever possible, unduplicated participant numbers were coded based on the context of the numbers and examination of yearly reports leading up to the final report. *As a result, aggregate numbers of participants were likely overstated in this report.*
- **"Floating" percentages:** The first outcome-based reporting guidelines issued by BFRDP in 2010 required outcomes to be reported as percentages. An update to the guidelines in September 2013 required that outcome percentages be accompanied by the numerator and denominator from which the percentage was derived. If the number of participants included in the percentage was neither stated nor evident from the context of the report, a number was not coded in this study. Thirty-two (32) of the 119 reports had "floating" percentages: percentages for which the total number of participants was not reported. These outcomes could not be coded. *As a result, aggregate numbers of participants achieving various outcomes are likely understated in this study.* It also made it impossible to determine aggregate percentage of participants who achieved various outcomes.
- **Number of beginning farmers and ranchers:** Projects typically counted the number of participants in their activities, but many did not differentiate among the types of participants. This was especially true for large gatherings such as conferences. In this evaluation, beginning farmers were counted only when the projects identified them specifically, or it was evident from the report context that it was a group of beginning farmers. If the composition of the audience was not specified or there was not sufficient context, the number was included in the aggregate total of all participants only. Based on the subject matter, many of the larger group activities likely had high numbers of beginning farmers, but it was impossible to determine how many. *As a result, the total number of beginning farmers trained is likely understated due to a lack of clear audience identification.* Combined with "floating percentages," and duplicate counting of participants, the lack of specificity in counting beginning farmer participants prevented the determination of aggregate percentages for specific outcomes.

Phase 2. Implementation Analysis

The third objective of this evaluation was to identify factors contributing to successful project outcomes. An objective comparison of projects was not possible based on available data since comparable outcomes were not reported across projects. Additionally, there was wide variation in approaches, audiences and activities, and data collection methods across projects and even within projects. Due to these factors, implementation analysis (IA) was used to evaluate the extent to which each project was clearly defined in the project report, delivered as intended, and evaluated based on the stated objectives. We adapted IA methods (Fixsen et al., 2005) to this study and used them as a proxy for rating project success.

After reviewing the IA rating results, the evaluation team concluded that the IA rating score would best be used as one element in identifying successful programs for the case vignette sample, but could not be used to rank projects except in broad categories, or to identify activities associated with successful projects. See Appendix A (methods) and Appendix C (IA rating scales) for a detailed description of IA analysis, the components and indicators used, and the rating scales.

Phase 3. Project Leader Survey

A project leader survey was conducted to augment outcome data collected from the content analysis. It was designed to identify medium-term outcomes collected after the program (objective two), provide basic information about the projects that was not collected systematically in CRIS reports (objective one), identify information to help improve evaluation (objective four), and collect ideas on best practices (objective three). The survey was developed with consecutive rounds of additional input from the project co-evaluator, NIFA staff, the advisory team, and a consultant evaluator.

Sixty-eight (68) of the 119 project leaders contacted completed surveys, for a 57% response rate. The projects of those who completed the survey are reasonably representative of all the projects in the sample. While there were slight differences in program characteristics when comparing the survey respondents to the whole sample, they were all less than a 5 percentage point difference. Additionally, average and median implementation analysis scores are very similar, with only the slightest tendency towards projects with higher IA.

Quantitative data were analyzed in *Qualtrics* software (for basic frequencies), Excel, and SPSS. Qualitative questions on best practices were analyzed inductively for themes (Patton, 1990). Results of qualitative and quantitative data were reviewed by other evaluation team members, as well as the advisory team. Feedback was incorporated and some thematic analyses were re-coded based on suggestions.

Phase 4. Successful Project Vignettes

The primary purpose of the case vignettes was to highlight general examples of project success, innovation, and diversity to help stakeholders — especially policymakers, NIFA, and beginning farmer education organizations (current and future) — understand program impacts and useful practices (objective three).

We selected projects for the vignettes by first identifying whether they demonstrated a reasonable level of success — if they had an implementation analysis score of 16 or more (approximately half the projects received this score) or were identified as generally successful by the advisory and evaluation teams. The list was then narrowed to projects with reported medium-term outcomes, or at least one average outcome score on the project leader survey. The final list of projects was chosen to highlight the diversity of program types, including at least one of the following: an intensive program, a university-driven effort, an example of effective partnerships, a focus on immigrant and socially disadvantaged audiences, a veteran focus, a variety of educational methods (apprenticeships, incubator, mentoring, workshops, etc.), a general audience, and projects from different regions.

We developed vignettes by reviewing the identified projects' CRIS reports and project websites, as well as other project reports offered by the leaders. Interviews were conducted over the telephone in Spring 2017, and took about an hour each. Questions generally covered basic information about the project, project outcomes and successes, and what led to project success. Vignettes were written by one evaluator, reviewed by the evaluation and advisory teams, revised, and sent to the project leader for review to ensure accuracy.

Students in the Apprenticeship training program at UC Santa Cruz (supported through BFRDP) transplant crops for a CSA block. Photo credit: Elizabeth Birnbaum/CASFS.

IV. FINDINGS

Field production manager Liz Milazzo demonstrates harvest techniques for participants in the Apprenticeship in Ecological Horticulture at the UC Santa Cruz Farm (supported through BFRDP). Photo credit: Martha Brown/CASFS.

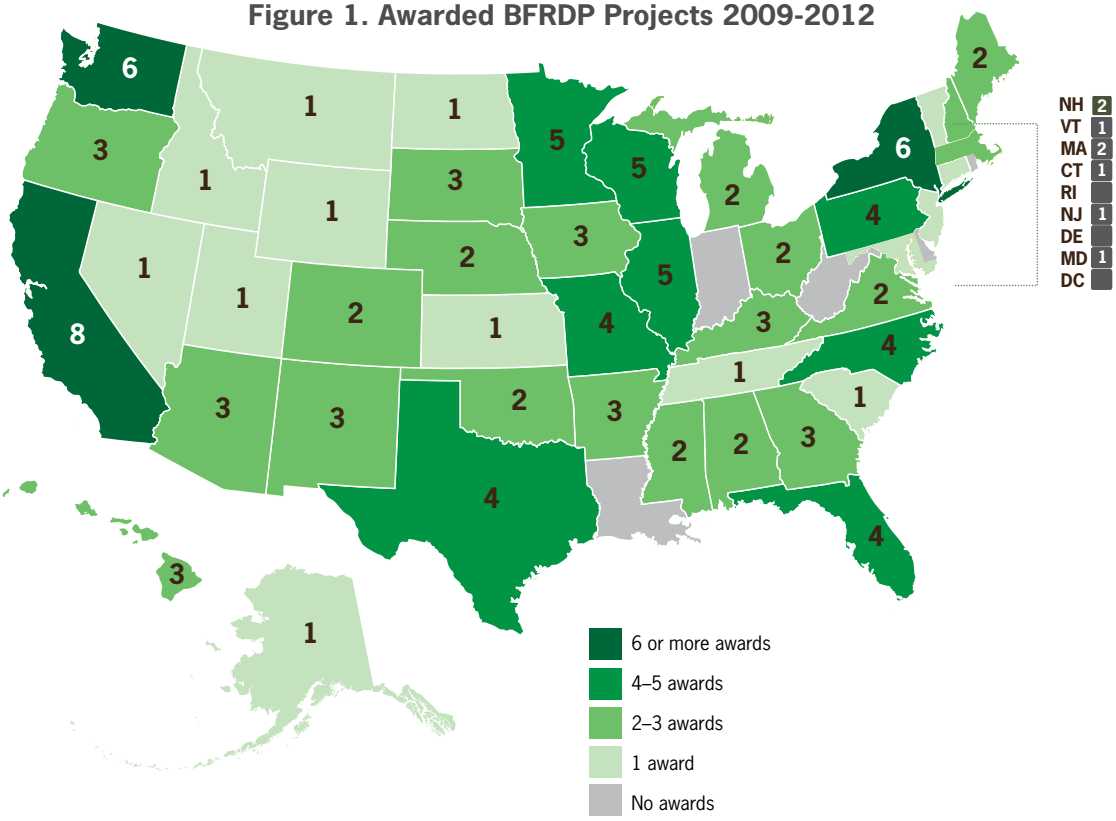
IV. Findings

Program Description

Understanding the nature of the projects funded by BFRDP was one of the primary goals of this evaluation (see evaluation objective one in Methods). This section provides this descriptive overview, highlighting basic information about each project, as well as audience characteristics, educational activities, and grantee practices. This information provides a picture of what BFRDP projects look like, what they have implemented, and the extent to which they have met BFRDP's legislative goals.

The following information is drawn from both the CRIS project reports and the project leader survey completed during this evaluation. The survey data describe project dimensions in areas that were either not systematically included in the CRIS reporting or could not be aggregated (see data caveats in Methods).

Figure 1. Awarded BFRDP Projects 2009-2012



The figure above includes all 119 standard grants evaluated. The 26 other developmental, EET, and clearinghouse grants that were awarded during this period but excluded from this evaluation, are not shown. See Appendix A for a list of the projects included in this evaluation.

PROJECT INFORMATION

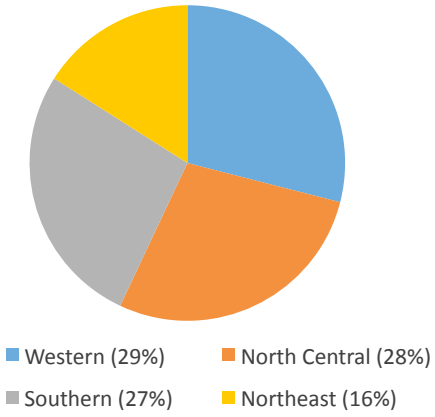
This analysis included all 119 standard BFRDP grants awarded since the program's establishment that were initiated in FY 2009 and later, and completed by FY 2015 (see Figure 1). These projects were awarded during the four years from FY 2009 to FY 2012, and were typically three years in duration.

Project Location. The BFRDP authorizing legislation[1] requires that NIFA ensures geographical diversity in awarding grants in any given year. In total, the 119 grants evaluated supported projects in all geographical regions of the country, and served farmers in 45 states and the Virgin Islands. As shown in Figure 2, the numbers of grants made to the Western, North Central, and Southern regions[2] were relatively similar; the Northeast region received relatively fewer grants during these years.

PROJECT AUDIENCES

Farming Experience. The CRIS reporting guidelines did not include all beginning farmer characteristics of interest in this evaluation, so project leaders were asked to identify their participants' levels of farming experience and their production interests in the project leader survey.

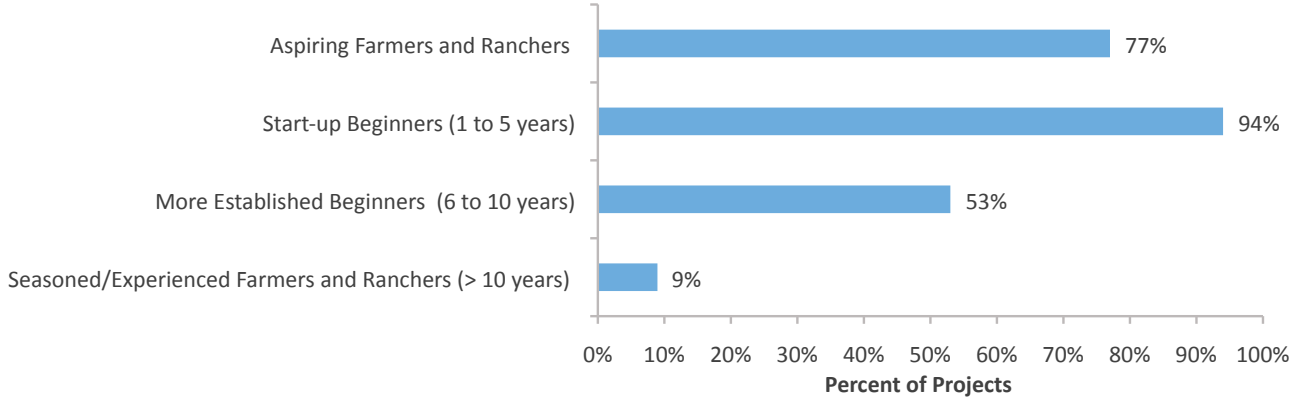
Figure 2. Regional Distribution of Grants (N=119)



Projects tended to focus on farmers across the developmental spectrum (those with a different level of farming experience and knowledge).

As shown in Figure 3, nearly all projects evaluated (94%) served start-up beginning farmers (those in their first 1–5 years). Slightly over three out of four projects served aspiring farmers and ranchers (those who have not yet started) and a little over half served more established beginning farmers and ranchers (in operation 6–10 years). Almost all projects served at least two of these audiences. Only seven projects focused on just one of these groups. Additionally, 9% reported working with experienced farmers and ranchers (those in operation for more than 10 years).

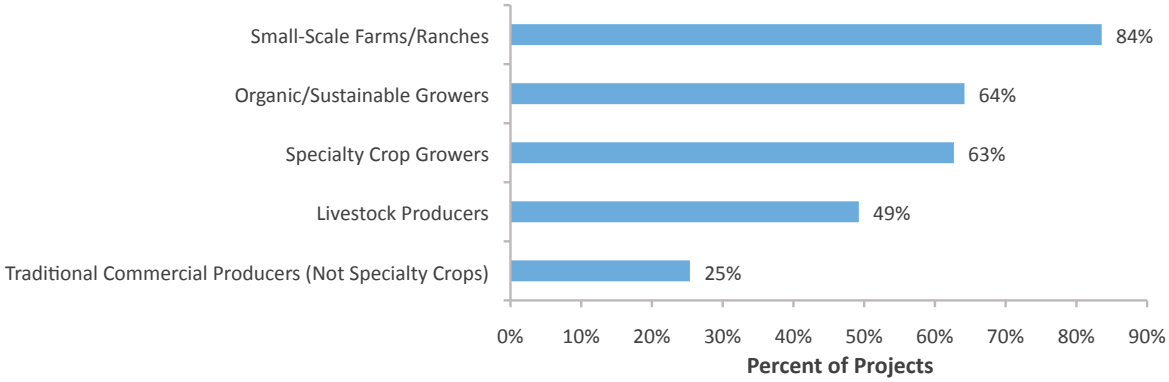
Figure 3. Farmers Served (by experience level) (n=68)



[1] Section 7405(c)(6) of the Food Security and Rural Investment Act (7 U.S.C.3319f).

[2] Regions used for our analysis are based on USDA regions as defined by USDA's Sustainable Agriculture Research and Education (SARE) program.

Figure 4. Production Systems (n=67)



While the intention of working with these seasoned farmers is not clear from responses, projects focusing on increasing land access often work with experienced farmers and landowners looking to transition their land to those starting out.

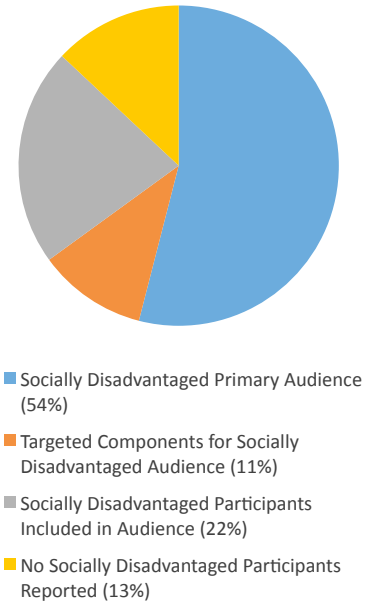
Production Focus. The project leader survey also explored the types of agricultural production served by the grant. The majority of projects focused on small-scale farms/ranches, organic/sustainable growers, and specialty crop growers (see Figure 4). Approximately half of the projects surveyed focused on livestock production. A quarter of the project leaders reported serving conventional commercial producers (row crops).

The focus on small-scale, organic, and specialty crops makes sense considering that most new farms, by necessity, start out small. Additionally, many beginning farmers assume organic and specialty crop farms can provide a higher return on investment, making those enterprises an attractive niche to those just starting out. It may be that a relatively small percentage of projects focused on conventional commercial commodity producers because existing academic and extension service providers have traditionally served this audience, and the systems to disseminate information to these producers were already well-established prior to the start of BFRDP.

Socially Disadvantaged and Underserved Farmers. For the grants funded between FY 2009 and FY 2012, BFRDP had a statutory mandate to target 25% of total grant funding to projects that address the needs of socially disadvantaged[3] and other underserved producers, including women, African-American, Hispanic, Native American, Asian or Pacific Islander, and limited resource farmers, as well as farmworkers.

In line with this priority, more than half of the projects evaluated focused their programming primarily on socially disadvantaged farmers (see Figure 5). An

Figure 5. Projects Serving Socially Disadvantaged Audiences (N=119)



[3]"Socially Disadvantaged Farmer" is defined in statute (7 U.S.C. 2003) and includes any farmer from a socially disadvantaged group whose members have been subjected to racial, ethnic, or gender prejudice because of their identity as members of a group without regard to their individual qualities.

Box 1. Focusing on Immigrants (Washington). Receiving regular requests for assistance from groups of immigrants and refugees, Washington State University Extension's Small Farms Team realized that many next generation farmers do not come from current farming families. In response, the WSU Small Farms Team and its partners developed an intensive program for multi-lingual, small-scale livestock producers and several other programs tailored specifically to the unique needs of immigrants and refugees. Eighteen symposia on livestock and meat quality topics were delivered to 477 participants across Washington. Quarterly whole farm planning and business classes were offered in Spanish each year. Immigrant farming specialists consulted with 374 Latino farmers and 60 Hmong farmers on USDA programs and services. During the grant, the project reached 3,861 immigrant and refugee farmers across the state with 152 different educational activities.

additional 11% offered program components tailored to specific socially disadvantaged audiences and 22% of projects aimed at general audiences reported that they expected to have some socially disadvantaged participants. Only 13% either did not have any socially disadvantaged participants or did not measure this demographic.

More specifically, half of the projects had a focus on minority groups, 27% focused on immigrants, 21% focused on women, 9% focused on farmworkers, and 4% focused on veterans as a primary audience (see Figure 6). See Box 1 and Successful Project Vignettes for examples of programs serving veterans (University of Arkansas), Latino farmworkers (ALBA), and women (Practical Farmers of Iowa).

PROGRAM TYPES & PROJECT ACTIVITIES

Training and Education Methods

Methods Used. Most organizations combined a variety of educational, training, and support methods in their projects, aimed to help new farmers develop the skills they need to start and continue farming. Figure 7 shows the diversity of methods grantees used to train new farmers.

The majority of organizations used multiple educational methods to train new farmers. In total, 47% of organizations used five or more educational and training methods and 64% used at least four. Networking, mentoring, and field days were often offered in conjunction with conventional classroom-based workshops and seminars.

Figure 6. Underserved and Socially Disadvantaged Audiences Targeted (N=119)

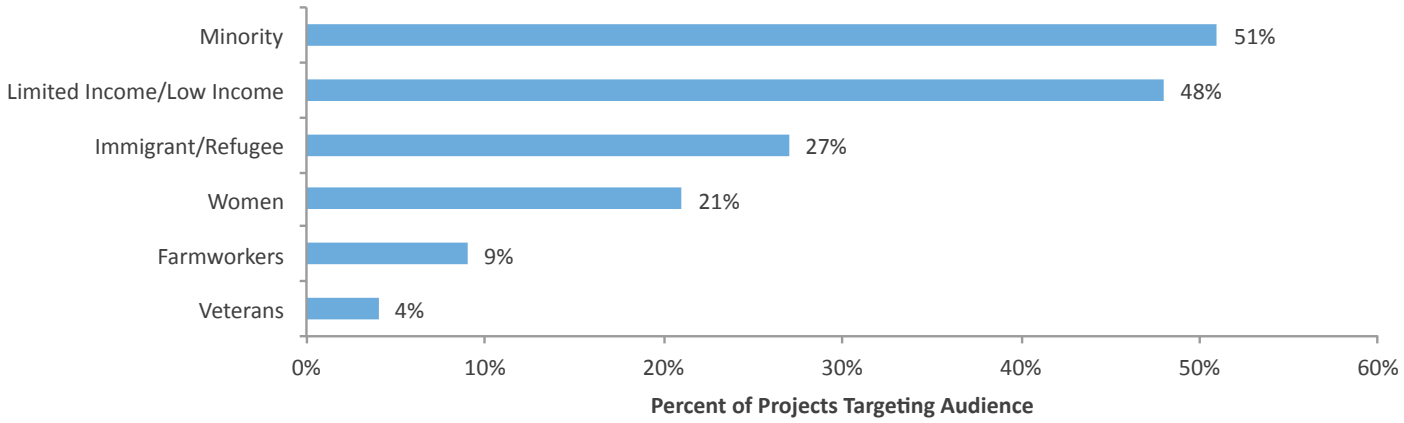
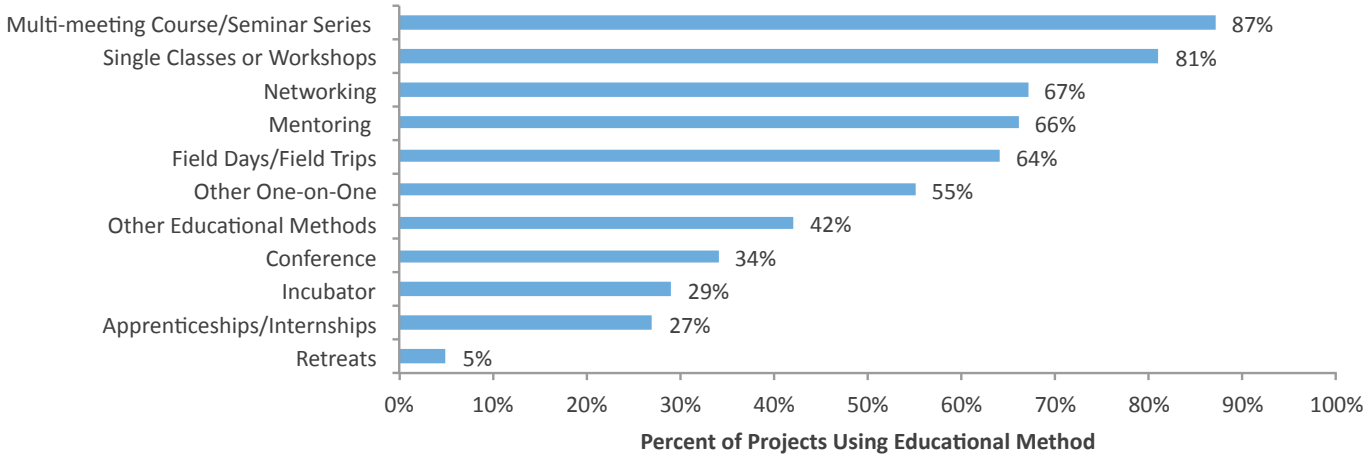


Figure 7. Training and Education Methods (N=119)



Projects led by nonprofits were twice as likely to offer apprenticeships, which were ranked among the most valuable programs for beginners.

Nonprofit lead grantees were more likely than Land Grant University/Extension lead projects to use experiential methods such as mentoring (76% vs. 52%) and structured networking (70% vs. 63%). Additionally, projects led by nonprofits were twice as likely (35% vs. 17%) to offer apprenticeships, which were ranked among the most valuable programs for beginners (Lusher Shute, 2011). Land Grant Universities developed curricula more often than nonprofits (80% vs. 71%).

Around two-fifths of projects employed "other" educational methods, which included retreats, demonstrations, symposia, and social events designed to encourage informal networking and mentoring among beginning farmers. See the Successful Project Vignettes for examples of how different methods were combined in specific programs.

Duration and Intensity of Programming. The education, training opportunities, and support services offered to beginning farmers were of varying duration and intensity. Many organizations offered a variety of formats ranging from single-session workshops and field days to multi-session courses lasting up to three years.

While almost all organizations offered single-session trainings on specific topics, more than two thirds (68%) offered more comprehensive educational programs, lasting months or even several years, designed to move prospective farmers into production or at least well on their way. At the end of these intensive programs, beginning farmers generally had basic knowledge of production, management, finance, and marketing skills that are essential for the success of any new farm operation.

What constituted an intensive program varied depending on the target audience. Programs offered to general audiences typically included a series of classroom meetings combined with social and experiential learning in the form of mentorships and/or internships (see Land Stewardship Project and Dairy Grazing Apprenticeship in Successful Project Vignettes for examples). Programs for socially disadvantaged farmers offered educational opportunities specifically tailored to the needs of the audience such as language translation, assistance with enrollment in federal programs, help with loan applications, and access to land in incubator farms.

Box 2. Beginning Farmer Training and Education Methods Definitions

Apprenticeship or Internship: A structured arrangement that provides a beginning farmer with additional preparatory technical training in farm skills and practices, while simultaneously performing farm work. There is an emphasis on the hands-on development of skills.

Farm Field Day: An organized event held on a farm that offers the opportunity to learn about agricultural research, production practices, and to view demonstrations in an on-farm setting.

Farmer Mentors: Skilled and experienced farmers who offer education, guidance, moral support, and encouragement to less experienced, beginning and aspiring farmers, usually within a structured program.[4]

Farmer Network: A structure in which farmers can exchange information, socialize, learn, and connect with other farmers on an ongoing basis.[5]

Incubator Farm: A farm property that provides beginning farmers with temporary, affordable access to small parcels of land and infrastructure, and often training, for the purpose of building skills and launching farm businesses.[6]

Land Linking: Programs that connect farmers who are seeking land with farmland that is for sale or lease. Often these programs assist farmers with lease negotiation and sometimes provide financial support during the process. Some land link programs offer succession planning training or resources.

Some programs offered a wide range of short-term programming (workshops, field days, webinars, etc.), allowing beginning farmers to pick and choose the topic and approach most relevant to them as their time allowed (see Practical Farmers of Iowa in the Successful Project Vignettes).

Cultural Support for Socially Disadvantaged Farmers. For new farmers with language and cultural differences, there was often technical assistance and support provided in navigating unfamiliar food distribution and marketing channels, using equipment and technology, and accessing the resources of USDA agencies — such as federal loans, crop insurance, and support for conservation systems.

Almost half (49%) of the projects offered some type of cultural support to socially disadvantaged participants. Cultural support was most often in the form of language translation and interpretation. It also included presenting course content in a culturally appropriate manner and offering assistance in interactions with government agencies, lenders, market channels, and other unfamiliar processes. Some projects partnered with cultural organizations and/or hired facilitators and other experts from targeted socially disadvantaged groups to make their educational programs more accessible.

Educational Content and Targeted Assistance

Building Agricultural Skills and Knowledge. Although the educational methods varied among organizations based on the needs of their specific audiences, the projects tended to cover similar content, which focused on building the knowledge and skills needed to start and operate an entrepreneurial farm business.

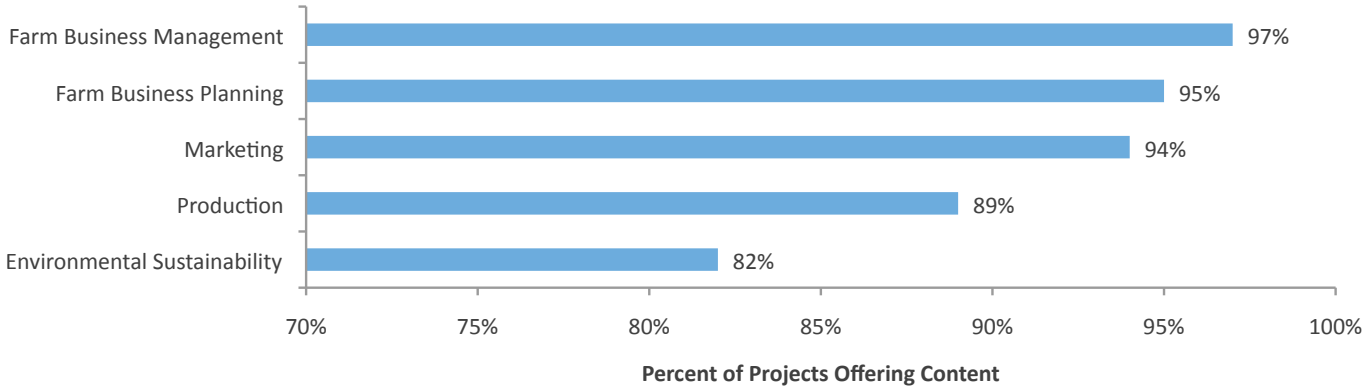
As shown in Figure 8, almost all of the projects included farm business management content, including topics such as labor management, legal and regulatory issues, land acquisition, and financial management. Almost all projects also included farm business planning, designed to help participants

[4] Adapted from New England Small Farms Institute: http://www.smallfarm.org/main/for_on_farm_mentors/

[5] Adapted from Oregon State Extension: http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/36639/pnw638.pdf

[6] Adapted from a *Journal of Extension* article: https://www.joe.org/joe/2014february/pdf/JOE_v52_1tt7.pdf

Figure 8. Educational Content (N=119)[7]



make realistic business projections. Marketing education, which included topics such as distribution channels, merchandising, publicity, and pricing, was part of nearly all projects as well. Production and environmental sustainability content were also a component of most projects.

Given the diversity of training needs for specialized types of agricultural enterprises, ranging from pastured pork to herbs and flowers, stand-alone workshops and seminars were often offered on narrow topics for specific interests.

Helping Farmers Access Capital. Access to the capital needed to establish and grow entrepreneurial farm businesses requires beginning farmers to demonstrate their ability to manage the risks of farming in ways that are understood by lenders and other agencies, such as USDA's Farm Service Agency (FSA).

Approximately two-fifths (39%) of the projects offered assistance in obtaining financing. Bankers, FSA, and representatives of USDA's Natural Resources Conservation Service (NRCS), along with other professionals, provided information directly or indirectly to farmers through many projects to help farmers better understand how to secure capital or obtain loans, matching funds, or grants. In some projects, farmers received direct assistance to help them complete the often complicated and lengthy loan or federal grant applications.

Helping Farmers Access Land. Accessing land is often cited as the primary challenge facing new and aspiring farmers, and was featured prominently in the CRIS project reports. Over two-fifths (43%) of the projects offered direct assistance to beginning farmers in accessing land through incubators, matching aspiring farmers with seasoned landowners, and providing training and assistance in applying for loans needed to purchase farmland.

Box 3. Building Knowledge and Skills (Montana). Located in Poplar, Montana, Fort Peck Community College (FPCC) collaborated with several partners to provide "culturally-relevant" training to limited resource American Indian audiences. The goal of the project was to enable American Indian beginning farmers to be successful in a competitive environment dominated by larger farms. Montana State University developed the curricula for FPCC's three day-long workshops. Through the project, 105 participants "implemented financial and physical record-keeping practices, provided high quality financial statements to lenders, demonstrated an ability to interpret financial statements, conducted financial analyses, and used sound risk management and marketing strategies."

[7] Refer to Appendix B for definitions for each educational content category.

Several projects also provided education to retiring farmers in succession planning, transition planning, estate planning, and in making connections with aspiring farmers.

In total, 29% of projects utilized incubator farms to provide land, equipment, and support to new farmers, at reduced or no cost. In high cost urban areas and for socially disadvantaged audiences, especially, these incubators were essential program elements.

GRANTEE DESCRIPTION & PRACTICES

Grantee Descriptions

Lead Organizations. The projects were led by three primary organization types: 1) Nonprofit or Community-based organizations, 2) University Extension/Land Grant University, and 3) Other University/College. As seen in Figures 9 and 10, both the majority of grants and total funding were awarded to nonprofits. But, the average size of grant awarded to University Extension/Land Grant Universities was slightly higher than the grants awarded to nonprofits: $592,000 vs. $504,000. The average grant value awarded to other colleges and universities was similar to those of Land Grants ($616,000).

Figure 9. Lead Organization Type (percent of awards)

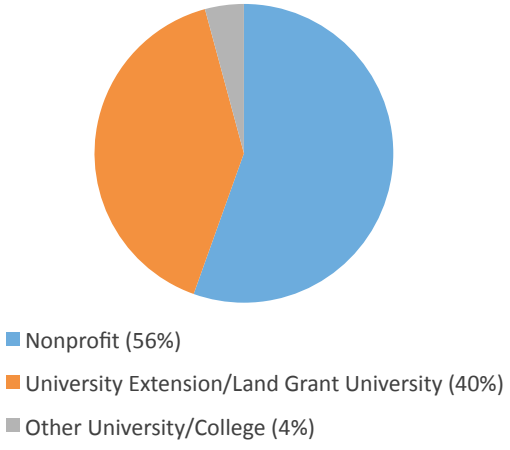
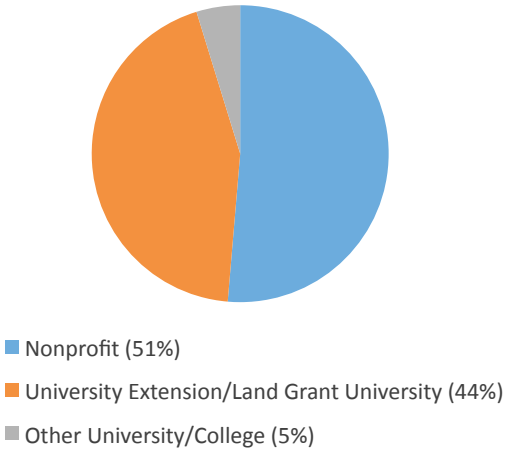


Figure 10. Lead Organization Type (percent of funding)



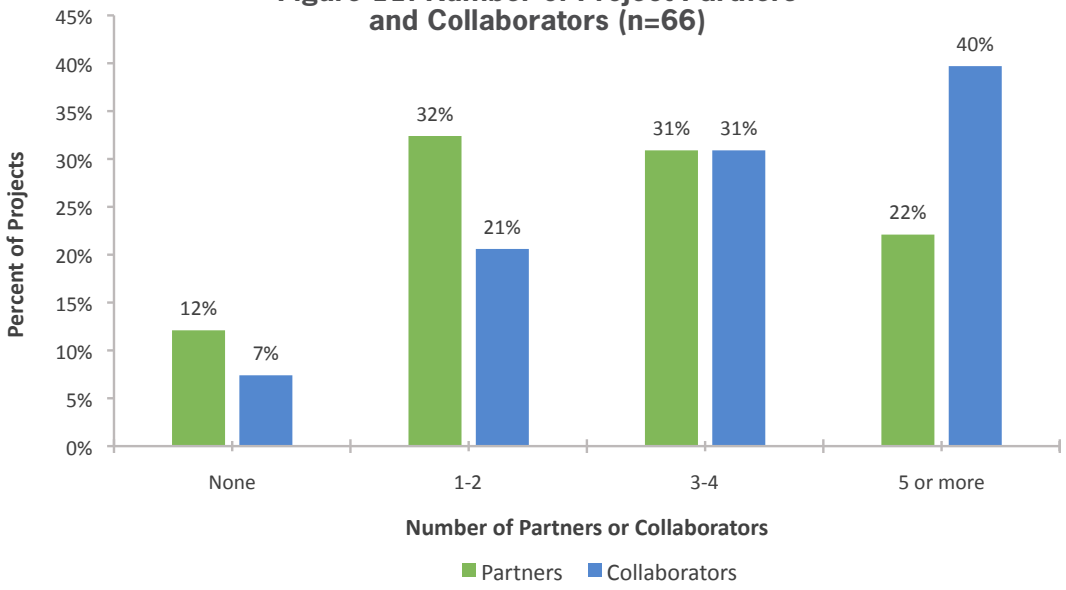
Project Partners and Collaborators. The BFRDP program requires projects to involve either partners or collaborators. Project partners were defined in the BFRDP Request for Applications as "a relationship involving close cooperation between parties having specified and joint rights and responsibilities in the management of the project." Project collaborators were defined as "an organization that cooperates with the [lead organization] in the conduct of the project but is not immediately connected to the management of the project. An organization can be a private business or a public or private nonprofit."

It appears that most projects operated in a collaborative manner, with the majority of projects reporting 3 or more partners or collaborators (see Figure 11). Projects were more likely to have multiple collaborators vs. multiple project partners.

However, while most projects were collaborative in nature, 12% of projects did not have any partners (but did have collaborators) and 7% had no collaborators (but did have partners). Only one project reported having neither a collaborator nor partner.

Projects led by nonprofits and universities generally had similar numbers of partners. However, nonprofits were more likely to report having four or more collaborators (67%) compared to universities (47%).

Figure 11: Number of Project Partners and Collaborators (n=66)



BFRDP grants are being implemented by organizations that have farmer training as a primary focus.

Organizational Focus and Capacity. Understanding more about the capacity and focus of the funded organizations provides information about what kinds of organizations received and managed the grants. Project leaders were asked to what extent beginning farmer and rancher education and support was a core function of their organization or institution during their project. Responses indicate that BFRDP grants are being implemented by organizations that have farmer training as a primary focus.

Almost two-thirds (65%) of the projects said beginning farmer and rancher training and support was their *primary* focus or was a *great deal* of their focus. Almost all organizations (80%) devoted up to 7.9 full-time equivalent (FTE) to beginning farmer education during the project period. Almost two-thirds (60%) devoted up to 3.9 FTE staff (the smallest category a project leader could choose), either funded or unfunded by the grant.

Grantee Practices

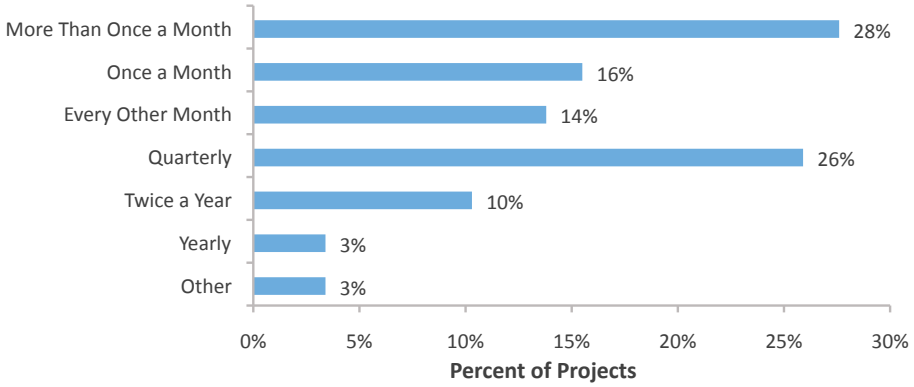
Understanding how the lead organizations planned, operated, or implemented the grant provides useful information about the nature of the projects, and also helps explore the extent to which projects are meeting structural and legislative goals of the BFRDP funding initiative.

Farmer Participation. The USDA uses the degree of farmer involvement in the project design, implementation, and decision-making of a BFRDP project as a key evaluation criterion in awarding grants. All but two projects surveyed reported at least one method for involving farmers in the program development or implementation, and 63% used three or more strategies to engage farmers in the project.

Almost all projects involved farmers in planning the project (82%), whether they contributed actively to the design (34%) or were at least consulted about it (68%). Similarly, almost all the projects included farmers in project implementation (85%), with farmers serving as trainers (65%), mentors/technical advisors (66%), advisory team members (38%), management team members (24%), or project staff/management (21%).

Fewer projects, but still a majority, appeared to have *substantial* farmer involvement (63%), with farmers actively involved in the design of the project, on an

Figure 12. Frequency of Partner Meetings (n=58)



advisory committee, or on the management team. See Table 5 for responses to specific survey items.

Meeting Frequency. Not only was BFRDP funding priority given to projects that had partners and collaborators, but a true collaboration was expected, building on the strengths of different organizations to best serve the needs of audiences. Nonprofits or community-based organizations (CBOs) leading these collaborations were prioritized, as were projects led by academic institutions that shared at least 25% of their total budget with these partner organizations. The program also specified that "projects must also employ an equitable and appropriate decision-making and oversight process that includes all partners to be given this priority (USDA 2015)."

Table 5: Type of Farmer Participation in Project (n=68)

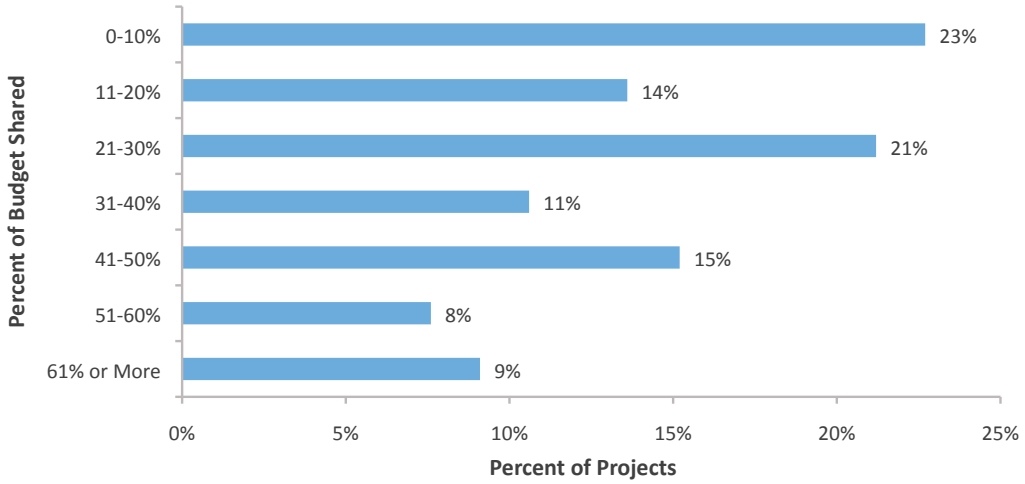
PARTICIPATION STRATEGY	PERCENT OF PROJECTS
Farmers were consulted about the design of the project	68%
Farmers served as mentors or technical advisors	66%
Farmers served as trainers for the project	65%
Farmers were on an active advisory committee	38%
Farmers were actively involved in the design of the project	34%
Farmers served on a management team	24%
Farmers served as project staff and/or management	21%
Other	9%

To learn more about the extent of collaboration activities, project leaders were asked how often the project partners met (see Figure 12). It was assumed that the more they met, the more likely they were sharing decision making and thus collaborating in a more substantial manner. Slightly over a quarter of the organizations met more than once a month with partners. A majority (58%) met at least every other month, frequently enough to consider it a strong collaboration. A minority of the projects (16%) met twice a year or less.

Budget Sharing. To understand more about the nature of collaboration, project leaders were asked approximately what percent of their budget went to partners or collaborators (see Figure 13). A large proportion (43%) shared more than the 25% suggested by BFRDP, distributing 31% or more of their award to other partners or collaborators. Approximately a quarter shared 10% or less of their budget; while a third shared between 11% and 30%.

As might be expected, it appears that the more partners a project had, the more the budget was shared. Those

Figure 13. Budget Shared with Project Partners and Collaborators (n=66)



who shared 20% or less of the grant most frequently reported having two or fewer partners (65%). Those who shared 21% to 30% of their budget most frequently had two to four partners (64%). However, those who shared 31% or more of their budget did not follow this trend. Those who shared the largest percentage of their budget had a very wide range of partners, ranging from none to more than seven.

We explored other program characteristics to see whether different types of programs were more likely

Jane Kuhn (foreground) demonstrates onion transplanting for students in the Apprenticeship training program at UC Santa Cruz, supported by a BFRDP grant. Photo credit: Martha Brown.

to share larger amounts of the grant, including the number of collaborators, audience (focus on socially disadvantaged audiences vs. not), focus of program, organization type, and if the program had an intensive training component. It did not appear that any of these organizational activities or characteristics had any meaningful bearing on the amount of money shared. Only those that had a primary focus on socially disadvantaged audiences were somewhat less likely to share 31% or more of their budget compared to those who didn't serve these audiences (36% vs 49%).

Results of Collaboration. Given that collaboration is an important factor of BFRDP grants, it is assumed that the collaborative would make the project more successful. To determine if this assumption was correct, project leaders were asked "Overall, to what extent did the project partners and/or collaborators contribute to your BFRDP project's success?"

Of the 68 project directors who responded, 56% said their partners and collaborators "made a significant positive contribution" and an additional 22% said they "made a strong positive contribution." Only 12% said their partners and collaborators made a "moderate positive contribution," and 10% said they made a minimal contribution or none at all.

Given that the majority of partners made a strong or significant contribution, it points to the value of the collaborative nature of BFRDP grants. It also implies that project leaders generally thought the partnerships provided value to the project.

SUMMARY

Understanding the nature of BFRDP projects that were funded was one of the primary goals of this evaluation. This information provides a picture of the projects to all stakeholders, offers structure and programmatic ideas to those considering future projects, and provides accountability of the program to the legislation funding the effort.

- **Overall, the projects funded by BFRDP serve a wide range of beginning farmers and ranchers.** The participants were at all levels of experience/development (aspiring through farming independently for 10 years) — with a greater focus on those who are aspiring and in their first 5 years of farming. These beginning farmers are more likely to be small-scale, focus on organic/sustainable methods, grow specialty crops, or be livestock ranchers. A majority of projects focused on socially disadvantaged audiences.
- **A wide variety of training, educational, and support strategies were used to support beginning farmers and ranchers, both within and across projects.** Beginning farmers were served through a variety of educational strategies, primarily short-term and longer-term workshops, mentoring, networking, and field days. A majority of projects offered multiple tiers of programs with varying intensity — from multi-year courses to pick-and-choose workshop options. Socially disadvantaged audiences were often provided culturally appropriate services targeted to meet their needs.
- **The funded projects generally met BFRDP's legislative requirements.** The projects addressed all of the priority training subjects stipulated, acted in a collaborative manner, were viewed as having strong positive contribution by partners, and had farmer participation in both project development and implementation. Additionally, grants were roughly spread evenly across all geographical regions, with some variation from year to year. The Northeast was slightly underrepresented during the years evaluated, but also represents a smaller total area and farming population than other regions.

IV. Findings

Outputs & Outcomes

Understanding the impacts BFRDP projects have made in helping beginning farmers was one of the primary purposes of this evaluation (see evaluation objective two in Methods). We identified and summarized project outputs, along with short-, medium-, and long-term outcomes, through content analysis of CRIS project reports and the project leader survey.

The content analysis provided basic information on the projects' accomplishments. It aggregated how many products were produced and people served (outputs). It also identified what farmers learned, received, or planned immediately after training, education, and support activities (short-term outcomes). Also assessed were what kinds of behaviors, actions, or changes farmers made as a result of the training (medium-term outcomes). These outcomes were all assessed by the end of the three-year projects.

The project leader survey aimed to supplement the information on medium-term outcomes (i.e., how many started farming, how many have improved economic viability, etc.) and identify potential information on long-term outcomes (those that started farming 3 to 5 years after the program, etc.). The outputs, as well as the short-, medium-, and long-term outcomes, provide an overview of what BFRDP has achieved from its first four years of grant making from 2009 to 2012.

OUTPUTS

Number of Participants Trained

Total Participants Served. The 119 three-year standard grants funded between 2009 and 2012 reported serving 122,028 people in aggregate with beginning farmer education initiatives and support services. This number includes duplicates[1] as well as others who also participated in a project activity.[2]

Table 6. Summary of Numbers of Farmers and Educators Trained (N=119)

CATEGORY	TOTAL TRAINED	MEDIAN (PER PROJECT)
All Beginning Farmers Trained (n=106)	59,571	199
Beginning Farmers Intensively Trained (n=71)	10,844	60
Educators Trained (n=23)	1,778	38

Individual participants may have been counted multiple times or in multiple years, especially for annual or recurring activities such as conferences, field days, and workshops.

[1] For example, a farmer may have attended multiple workshops over 3 years as well as other events, and is likely counted each time they attended.

[2] This aggregate total also includes experienced farmers, educators, support professionals, gardeners, students, and others. Activities such as conferences, introductory workshops, and webinars were sometimes open to a broader audience than just beginning farmers, and not all CRIS reports specified how many people attended from the different groups. Based on the subject matter, it is likely that most of these contacts were with beginning farmers. However, participant status is especially challenging to measure for conferences or online events.

Beginning Farmers and Ranchers Served. The 106 projects that provided more clarity about actual beginning farmers served reported training almost 60,000 beginning farmers and ranchers (see Table 6). Again, this number may contain both overcounting (an individual farmer could be counted for each workshop attended) or undercounting (conference attendees were not clearly identified and reported).

Intensive Training. Almost 11,000 beginning farmers were trained intensively during the grant period evaluated (see Table 6). These participants committed themselves to programs that spanned months or even years, and attended multiple sessions designed to provide a comprehensive base of knowledge regarding farming. Given the amount of time farmers spent in such a program, these numbers are likely to be the most accurately reported, with minimal over or undercounting.

Train-the-Trainer. Roughly one out of every five funded projects developed and/or offered training for educators, including professional educators, farmers, landowners, and local professionals such as lenders and other business people. The training of educators often took the form of "train-the-trainer" type programs, after which educators were equipped to train others on specific topics. Twenty-three projects reported offering project-funded training to a total of 1,778 educators.

Socially Disadvantaged Farmers. Overall, 68 projects reported training 28,620 socially disadvantaged[3] beginning farmers (see Table 7). Across all projects, almost 20,000 participants were reported as minorities. It is important to note that some participants were included in multiple categories.

Women Farmers. Perhaps one of the most significant findings regarding socially disadvantaged participants was the number of women trained. There were 25 projects that targeted programming specifically towards women, and grantees' programs trained almost 26,000 beginning women farmers (see Table 7). Many of these new women farmers were also included in other socially disadvantaged categories.

Table 7. Audience Demographic Summary (N=119)

DEMOGRAPHIC CATEGORY	TOTAL TRAINED	MEDIAN (PER PROJECT)
Socially Disadvantaged Farmers (n=68)	28,620	105
Women (n=63)	25,979	130
Minorities (African American, Hispanic or Latino, Native American, Asian or Pacific Islander) (n=50)	19,285	55
Immigrants and Refugees (n=22)	3,019	46
Low income/Limited Income (n=41)	20,344	90
Disabled (n=1)	37	37
Veterans (n=10)	1,032	9
Youth (n=12)	3,447	81

Participants may be included in multiple categories

[3]"Socially Disadvantaged Farmer" is defined in statute (7 U.S.C. 2003) and includes any farmer from a socially disadvantaged group whose members have been subjected to racial, ethnic, or gender prejudice because of their identity as members of a group without regard to their individual qualities.

Box 4. Training Women Farmers (New Mexico): Holistic Management International (HMI) focused their BFRDP grant on training women to manage their own farms and to be management trainers who were qualified to train others women using the HMI curriculum. The HMI curriculum is "experientially-based with a strong component of small group work and mentoring that results in actual plans developed . . .." Over a six-year period, HMI accepted 20 trainees into its Beginning Women Whole Farm Planning Trainer Program and trained 581 beginning women farmers in six northeast states. It had a graduation rate of more than 80%, and in 2015 HMI reported a total of 54,424 acres managed by women farmers in the project.

Low/Limited Income and Military Veteran Farmers. Approximately one-third (34%) of projects reported training low-income or limited-income audiences, a total of 20,344 participants (see Table 7). This is approximately one-third (34%) of the beginning farmers trained. Eight percent of projects reported training veterans, a total of 1,032 participants.

Educational Materials and Publications

Other commonly reported project outputs were the production of educational and training materials, as well as other publications to help beginning farmers acquire the skills they need to start farming (see Figure 14).

Curricula. Three-quarters of the projects developed curricula for the benefit of beginning farmers. BFRDP-related curricula were often developed and disseminated by a number of partners. For example, The Southeast Pennsylvania Beginning Farmer and Rancher Program, led by Pennsylvania State University, developed ten new intensive training courses in production and marketing areas. These new courses focused on topics such as organic vegetables, sheep management, fruit production, and potato production.

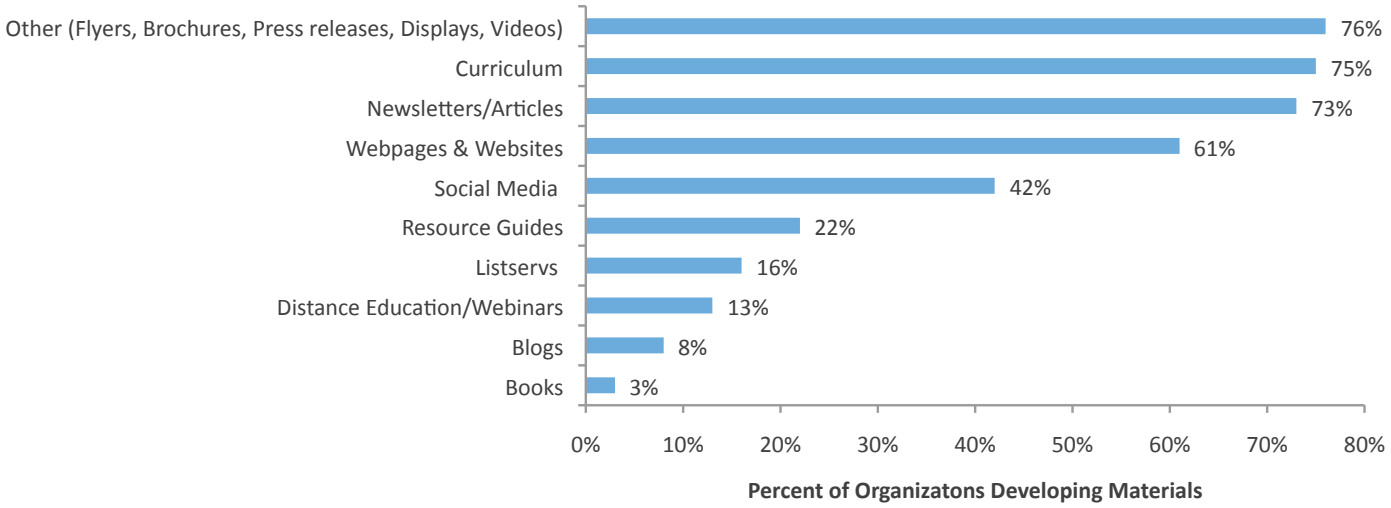
Newsletters and Articles. A similar number of organizations (73%) published newsletters and articles, a more traditional medium to disseminate information to farmers and other stakeholders.

New Media. The use of new media was also popular for disseminating information. Almost two-thirds of projects created webpages and websites, 42% used social media, 8% had blogs, and 13% developed fully online trainings and webinars on various topics.

Other Methods. Nearly a quarter of all projects (22%) published resource guides. Resource guides generally include contact information for services and support needed by beginning farmers. In addition, 76% of projects had "other" publications including: flyers, brochures, press releases, displays, and videos.

Jade Rojas with her favorite calf. Her mom, Gabby Rojas, graduated from the Dairy Grazing Apprenticeship (supported by BFRDP) in 2010 and is now a Master Dairy Grazier. Photo credit: Dairy Grazing Apprenticeship.

Figure 14. Educational Materials and Publications (N=119)



SHORT-TERM OUTCOMES

Short-term project outcomes, which were generally the immediate result of most BFRDP-funded education and training programs, included an increase in knowledge, the acquisition of skills, or a change in attitude. Since standard BFRDP grants are typically three years in length, most of the outcomes measured and reported during each individual project were short-term in nature.

More than 15,000 beginning farmers and ranchers (15,681) from 61 projects reported increases in knowledge, skills, and attitude. Examples of increases in knowledge and skills were demonstrated in production topics such as: beekeeping, plant propagation, drip irrigation, cover crops and rotational grazing, and fruit production.

Farm management and farm business planning were also frequent areas of learning, as was financial management, record keeping, and farm planning. More than 6,000 beginning farmers (6,091) from 45 projects learned to develop a business plan. Some other topics in which knowledge was gained included: risk management, land acquisition strategies, season extension, and internet marketing strategies.

MEDIUM-TERM OUTCOMES

Identifying medium-term outcomes from funded BFRDP projects was a primary focus of this evaluation. Understanding the extent to which farmers and ranchers have used what they have learned from BFRDP-supported trainings by changing their practices, taking actions toward farming, or improving their farming situation is of great interest. These medium-term outcomes were assessed through content analysis of CRIS project reports as well as the project leader survey.

There were several challenges to obtaining clear and accurate information on medium-term outcomes that could be summarized across programs.

Generally, many CRIS project reports did not provide enough information to accurately add up all the people with specific outcomes, or to identify the percent of beginning farmers who attained these outcomes (see Appendix A for detailed methods on the content analysis).

To address this issue, the project leader survey asked project leaders to estimate outcomes that their participants achieved, including the percentage of those who started to farm, moved towards starting to farm, or improved their farming success. Project leaders were then asked how confident they were in their estimated response. Data were analyzed for those who were confident in their estimate.

Plan to Start Farming / More Prepared to Start Farming. During the grant period, 24 grantees documented in CRIS project reports that over 4,000 participants planned to start farming (see Table 8). This number is likely underreported since not all projects measured intentions at the close of trainings.

In the project leader survey, project leaders estimated that, on average, just over 70% of participants (see Figure 15) were more prepared to start farming, defined as "those who indicate they intend to start a farm, develop a business plan, find work on someone else's farm or continue to more advanced training." There is some variation in the responses from different projects, with two-thirds of projects reporting between 48% and 95% of beginning farmers obtaining this outcome. According to a quarter of project leaders, 95% or more of beginning farmers were now more prepared to start farming.

Started Farming. Based on CRIS project reports, 41 grantees documented that 1,860 participants started farming during the project period. This number is likely underreported.[4] Whenever possible, the context of the number was examined to verify that those counted had income from farm sales in order to be defined as "farming." Participants who started in incubators that had product sales during the project were also included in the "started farming" total.

From the survey, project leaders estimated a wide variation in the numbers of those who started farming, defined as "those that earned at least some income through farm sales." While the average estimate is about half (54%), around two-thirds of the respondents estimated that between 26% and 81% started farming — quite a wide spread. Figure 15 shows that the project averages are distributed evenly throughout the range (see quartiles). A fifth of the project leaders estimated that a quarter or fewer of the graduates started farming, and another fifth said 80% or more started.

Several variables likely account for the variation observed, including the extensive barriers to starting farming (land access, access to capital, etc.), project characteristics (intensity of programming, types of programming, etc.), geographical region (regional difference in land price and availability), beginning farmer characteristics (limited resource, other disadvantages, degree of commitment to farming, etc.), and project leader perception error (judgement is based on knowledge of limited number of participants, used their own definition of "started farming," etc.).

That fewer participants started farming does not necessarily reflect an ineffective or problematic program. For example, a project that provides a few workshops and networking to all beginning farmers interested in farming in a region with high land prices and limited land

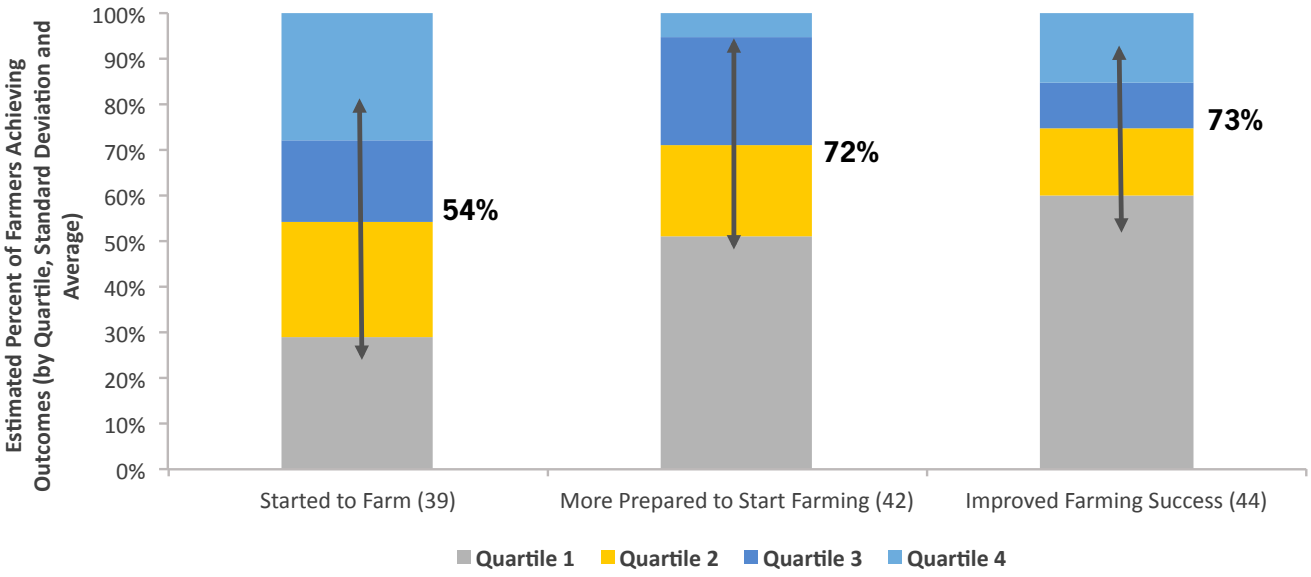
Table 8. Key Medium-Term Outcomes (N=119)

CATEGORY	TOTAL ENGAGED	AVERAGE (PER PROJECT)
Plan to Start Farming (n=24)	4,159	173
Started Farming (during project) (n=41)	1,860	45
Continued Farming (n=24)	9,416	392
Added or Changed Practices (for those farming) (n=43)	5,544	129

Some reported outcomes could not be aggregated due to reporting of percentages only. Thirty-two of 119 projects reported outcome percentages not in association with a number of participants.

[4] Besides problems with numbers being reported in ways that didn't allow for aggregation, this outcome had more barriers to identifying complete information. First, projects needed to follow up after the program ended, which was seldom done. Additionally, there were different definitions of "started farming" among the grantees.

Figure 15. Perception of Farmer Outcomes



availability will likely have lower "started farming" outcomes than projects offering an intensive long-term course where participants are screened ahead of time for commitment or access to land, in an area with more opportunities to get onto a farm.

Business Plans. Developing a business plan can enable new farmers to move from the aspirational stage of farming to a more concrete strategy grounded in financial reality. Lenders often require business plans from farmers seeking loans for startup and annual operating costs, as well as to scale up their farm business or diversify into a new enterprise.

Of the projects evaluated, almost 4,000 farmers completed business plans during the grant period (see Table 9). Business plans, along with other financial statements and cash flow projections, are essential to provide lenders reasonable certainty that a loan will be repaid.

Table 9. Other Medium-Term Outcomes (N=119)

CATEGORY	TOTAL	AVERAGE (PER PROJECT)
Developed a Business Plan (n=37)	3,708	100
Applied for a Loan/Financing (n=19)	937	49
Got a Loan/Financing (n=19)	519	27
Plan to Continue Training (n=5)	2,369	474
Increased Quality of Life (n=6)	466	78
Increased Economic Viability/Stability (n=47)	1,394	30

Some reported outcomes could not be aggregated due to reporting of percentages only; 32 of 119 projects reported outcome percentages not in association with a number of participants.

Grantees documented that almost a thousand participants applied for loans as a result of participation in BFRDP-funded trainings, and more than 500 reported receiving loans during the period of the grant.

Increased Quality of Life. One of the outcome measures suggested by BFRDP was increased quality of life or "social well-being" of farmers and others who participated in training programs. Though this outcome is difficult to quantify, a few projects adopted evaluation measures to identify this desired outcome.

Six projects reported that 466 beginning farmers and ranchers had experienced increased quality of life as an outcome of their programs (see Table 9), including increased income, or for socially disadvantaged farmers, better language skills or increased ability to access the agencies and other institutions that can provide resources to support their farming endeavors.

Increased Economic Viability. Starting and growing a farm business requires a wide variety of skills, access to land, and the startup and operating capital to purchase equipment and make improvements such as irrigation, packing sheds, livestock housing, or refrigeration to extend the life of harvested products. BFRDP suggested measuring increases in "productivity" and "profitability" of farmers participating in BFRDP funded projects. In this evaluation, these two outcomes were assessed together in the outcome category of "economic viability or stability."

In total, nearly 40 percent of projects documented that their beginning farmer participants had increased economic viability or stability (see Table 9). Included in this outcome category were new farmers who successfully accessed land or capital, and 594 beginning farmers who received loans or financing, purchased equipment, or gained access to new markets.

Improved Farming Success. Project leaders surveyed were asked to identify the percent of farmers who improved their farming success as a result of participation in their project. This outcome category encompassed:

Project leaders estimated that, on average, 73% of their participants had improved farming success.

- **Economic viability or stability:** positive changes in income, successfully accessing land or capital, purchases of equipment (assets), or having accessed new markets
- **Increased quality of life:** reduced stress, improved support system, improved language skills, cultural competency (i.e., helping immigrants and refugees navigate U.S. society and institutions)
- **Environmental measures:** increased stewardship of the land

Project leaders estimated that, on average, 73% of their participants had improved farming success (see Figure 15). Compared to the estimates of those who started farming, there is less variation in responses, with two-thirds of projects reporting between 53% and 93% of beginning farmers and ranchers who obtained this outcome. A quarter of surveyed projects also found that 85% or more of beginning farmers had improved farming success. Only 10% of project leaders noted a small number reaching this outcome, with 46% or less having improved farming success.

Box 5. Increasing Economic Stability (California). For immigrants and refugees, many of whom have agricultural experience, combining small-scale urban farming and wage-based income can increase both economic viability and quality of life. For example, thanks to a BFRDP-funded project led by San Diego's International Rescue Committee (IRC), a refugee beginning farmer — a single mother of five — grossed more than $2,000 from a 600-square-foot plot in IRC's New Roots Community Farm during the first quarter of 2014. During the same period, the farmer also secured a job as a garden assistant in a local restaurant's kitchen garden.

LONG-TERM OUTCOMES

Since it may take time for desired outcomes to manifest (starting a farm, becoming more successful, etc.), it is helpful to know what kinds of outcomes are materializing beyond the scope of the three-year BFRDP project.

While funded projects are not required by USDA to track outcomes beyond the end of the grant period, the project leader survey offered some insight on long-term outcomes. Leaders were asked if they had conducted any follow-up data collection *after* the end of the three-year project, ideally a couple of years after the last BFRDP cohort ended.

A few programs were able to provide data on long-term outcomes that were collected from program participants several years after the BFRDP-funded-project concluded. Organizations that collected and provided this information used a variety of measures to assess different long-term outcomes. For all but one project, this follow-up information also includes participants who received services from these organizations prior to, and sometimes after, the BFRDP project itself.

More Farmers Managing Their Own Farms. A year-long program for aspiring and newly started farmers in the Midwest follows up with graduates of their program every year. At the end of their three-year BFRDP project, 50% of 34 respondents said that they were managing their own farm[5] in the previous season. Three years later, 20 graduates from the same BFRDP project time frame took the survey and 70% reported they were managing their own farm in the past season (see Land Stewardship Project vignette for more program information).

Continued Farming Success. Aspiring, limited-resource, Latino farmers participating in a BFRDP funded intensive course and for some, a farm incubator as well, were interviewed by phone. The sample included a third of all alumni through 2014 (including those served before, during, and after the BFRDP-funded project). Interviews identified that 38% of survey respondents were still farming independently. Another 64% of the survey respondents stated that having participated in the program helped them financially (see ALBA vignette for more information).

Increased Diversification and Investments in Infrastructure. A course series in the Western region working with beginning farmers reported that three years after the end of the course, "83% of participants reported that they had increased in the range of products they grew and had made investments in infrastructure and equipment, with 73% reporting an increased customer base, and 67% reporting that they had a greater number of farm enterprises" (Meyer et al 2011).

Improved Business Practices. A series of 20 workshops, field tours, and other learning events were offered over a 30-month period to 42 beginning farmers in Michigan. From a follow-up survey[6] three years later, project leaders found that 86% "changed business practices and/or applied practical knowledge to improve sustainability of farming operations" (Eschbach et al., 2016).

This snapshot of longer-term outcomes provides examples of what some BFRDP-funded programs have found after conducting post-project follow-up evaluation with participants. The first example, from the Land Stewardship Project based in Minnesota, provides the most detailed follow-up evaluation data with a specific BFRDP cohort. It illustrates the possible long-term impacts BFRDP projects can have on training the next generation of farmers — showing more farmers on the land farming a few years after the end of the project .[7]

[5] "Managing their own farm" included any farm they managed where there are sales of agricultural products.

[6] Fourteen farmers responded to the follow-up survey conducted three years after the end of the program.

[7] While varied and small sample sizes (a common issue with follow-up surveys) leads to more error in the result, this outcome is still an encouraging example. Further exploration is needed to determine if this outcome pattern holds and is repeated across projects.

SUMMARY

- **CRIS Project Reports Provide an Array of Qualitative Accomplishments.** The CRIS reports provide insight into the outputs and outcomes individual projects share in a narrative format. In aggregate, these reports illustrate an impressive array of BFRDP grantee accomplishments. Despite the difficulties in aggregating quantitative outputs and outcomes by this evaluation (see Evaluation Practices or Methods section), it is not due to lack of accomplishment by the projects. While many did not do a methodical follow-up with program participants, funded projects often provided anecdotal or other descriptive information highlighting their achievements and pointing to the accomplishments of the beginning farmers and ranchers they served.
- **BFRDP Served a Significant Number of Farmers.** Findings from funded projects point to BFRDP's significant contribution in serving new farmers. Nearly 60,000 beginning farmers were served by funded projects over the grant period evaluated. Overall, projects reported 122,028 total contacts with beginning and more experienced farmers and ranchers, farmer educators, gardeners, and others impacted by the program. An especially important finding is the number of beginning farmers served through intensive programs, as intensive programs require a significant time commitment over a prolonged period and are likely to have more longer-term and positive outcomes.
- **Short- and Medium-Term Outcomes Are Evident.** More than 15,000 farmers reported learning something at the end of a projects' offerings (workshop, seminar, field day, etc.). As a result of these BFRDP-supported trainings and services, over 4,000 planned to start farming, 1,800 started farming, 9,400 continued farming, and 5,500 added to or changed their practices. These changes and actions from farmers have contributed to increased economic viability and stability, as reported for almost 1,400. While the percent of farmers obtaining these outcomes cannot be identified (see Methods section), these numbers provide specific examples of how BFRDP-funded projects have had an impact on beginning farmers and ranchers.
- **Rates of Estimated Medium-Term Outcomes Are Encouraging.** Project leaders estimated that, on average, over half of all project participants started farming, and nearly three-quarters were more prepared to farm and were more successful at farming. While estimates are not ideal for determining project outcomes, they offer insight into the possible outcomes achieved. Further refining of evaluation procedures and reporting requirements for projects is needed to assess the validity of these findings (see Recommendations).
- **Variation in Estimated Outcomes Among Projects Based on Context Is Expected.** Project leaders' estimates of medium-term outcomes varied widely. In particular, the percentage of participants who started to farm varied substantially. It would be expected that programs serving different audiences in different regions with different access to resources would have very different results, rather than representing "successful" vs "unsuccessful" projects. It is hoped that the changes made to reporting will help provide information to generate clearer benchmarks for different types of programs.

IV. Findings

Best Practices

The evaluation of BFRDP-funded projects also focused on identifying how to work effectively with beginning farmers and ranchers, based on project directors' experiences (see evaluation objective three in Methods). These experiences are summarized here to help guide BFRDP's future focus and provide best practices and ideas to other beginning farmer and rancher education and support organizations.

To identify best practices, we asked project leaders to share their professional experiences and observations about what activities seem most effective when working with beginning farmers. They were asked about how to 1) create successful partnerships, 2) work with particular audiences, 3) implement different types of education activities, 4) help start-up farmers be successful, as well as 5) how BFRDP helped their organizations and farmers.

As well as recounting their experiences with BFRDP-funded efforts, project leaders were also asked to include all they have learned from working with beginning farmers and ranchers since the project's end. Themes from their responses are summarized below.

SUCCESSFUL PARTNERSHIPS

Partnerships between organizations that serve beginning farmers and ranchers are an important part of each BFRDP project. Understanding how to create effective and successful partnerships is important for all current and future grantees, as well as other practitioners working with beginning farmers. To identify how to best implement partnerships, project leaders were asked: "*What do you think are the best practices or strategies for successful partnerships?*" Fifty-seven project directors responded to this question; their responses are summarized below.

Regular and Frequent Communication. Communication between partners and collaborators was a primary theme, mentioned by almost half of the respondents. Regular, consistent, or ongoing communication was most frequently considered important (mentioned by around two-fifths), with some stating more specifically that communication should be frequent or constant. Only a few respondents said that communication between partners should just be quarterly or periodic.

Some of the leaders specified that communication between partners should be through meetings, check-ins, or other methods. A few project leaders stressed that the purpose of regular communication was to develop programming, check on progress, address challenges, and maintain service delivery.

Clarity. Ensuring clarity between partners was another key theme for successful partnerships (endorsed by approximately two-fifths of the respondents). Project leaders said there should be clarity among partners on a variety of issues or topics, such as project goals, roles and responsibilities, work plans and activities, mission and purpose, expectations, management plans, and desired outcomes. A few specifically said that expectations and roles should be in writing, as part of a signed contract or Memorandum of Understanding.

Partner Qualities. A fifth of the respondents outlined important qualities for partner organizations. A handful of project leaders said partners need a history of working together in order to establish mutual trust, as well as having common interests, values, or goals.

Shared Ownership. Another common theme was having shared ownership of projects. Responses include the need for shared decision making, involving partners early on and through the entire project, sharing responsibilities, creating common outcomes, collaborating on tangible activities, sharing funding, and ensuring mutual benefit for all organizations involved in the project.

A small subset of respondents identified additional themes, including:

- **Build relationships.** Developing and maintaining trust and understanding for good individual relationships between partners.
- **Accountability.** Having deadlines, responsibilities, and rewards; adhering to goals and contracts.
- **Leverage expertise and resources.** Working with groups that offer specific strengths, skills, or information needed by the target audience.
- **Transparency.** Honest communication regarding processes and decision making.
- **Flexibility.** Willingness to renegotiate roles or relationships as the project evolves.
- **Point people.** Clarity regarding who is in charge or who is the project lead for each organization. A strong, committed point person from each organization is desired.

There were also several items that were listed by only one person, but may provide useful insight to practitioners. These include: keeping the number of partners low, revisiting norms and agreements as the project progresses, refraining from micromanaging as the lead organization, and creating communication structures.

AUDIENCES

One goal of the project leader survey was to learn about best ways to work with beginning farmers and ranchers who are at different levels of development and from different backgrounds. BFRDP funding was intended to serve a broad range of individuals — from those aspiring to those starting to farm, to those who have been farming independently for 10 years.

The consistent lesson we have learned through our experience offering farmer training programs is that farmers prefer to learn from and with other farmers.

Additionally, the program was required to ensure that 25% of grant funding serve those from socially disadvantaged backgrounds and other specific populations (see Program Description).

Given the wide variety of possible audiences for BFRDP projects, and an interest in minimizing the number of open-ended survey questions, project leaders were asked to identify the top two audiences they worked with through their BFRDP project, and to share best practices for working with those groups. Project leaders chose their primary audiences from a list of different developmental stages as well as the audience backgrounds (socially disadvantaged groups, limited resource, veterans, etc.).[1] It was hoped that the answers received, while not addressing everyone served by a project, would come from organizations with the most extensive experience with these groups, and thus provide the best value and insight.

Caveats. While this strategy minimized the respondent burden, having fewer responses on audiences served made themes harder to identify, particularly for each audience subset. Additionally, respondents often interpreted questions differently, adding to a lack of clarity regarding themes. Having fewer responses per audience subset means we could be missing ideas or concepts of value. Thus, if an idea or topic is not listed, it does not mean it isn't important.

[1] The list of audience characteristics included the following: aspiring farmers, start up beginning farmers, more experienced beginning farmers, general farmers and ranchers, educational support organizations, farmworkers/seasonal workers, limited resource producers, immigrants/ refugees, military veterans, African-Americans, Asian-Americans/ Pacific Islanders, Hispanic/Latinos, Native Americans (including tribal groups), producers living with disabilities, women, and other.

Given these caveats, general themes across audiences are summarized below, followed by responses for specific audiences. In total, there were 58 people who responded to this question, where 7 only addressed one audience and 51 offered responses for two audiences.[2]

General Themes

While project directors shared strategies and approaches they considered most effective for *specific* audiences, there were themes that were repeated frequently across various audiences. Overall, the most frequently mentioned best practices for beginning farmer and rancher audiences were:

- Hands on/experiential learning
- One-on-one technical assistance/mentoring
- Classroom-based activities (workshops, classes, multi-day programs)
- Farmer-to-farmer strategies (networking, peer-teachers, farmer-to-farmer teachers)
- A combination of different methods

About a fifth of the respondents mentioned all of these strategies; around a tenth also mentioned field days and farm visits. Of all responses, farmer-to-farmer strategies, combined with mentoring, was the most frequently cited (by close to a third of project directors). One project leader had this to say about effective strategies:

> *"The consistent lesson we have learned through our experience offering farmer training programs is that farmers prefer to learn from and with other farmers. We consistently hear that the farmer-to-farmer training model of our programs is one of the most positive aspects of our programs. This is not just the case with the farmers we serve; a 2014 survey of 1,084 beginning farmers in Wisconsin confirms that learning from other farmers is the most preferred way to gain information. Ninety percent of the farmers reported getting their information from other farmers (while only 36% reported getting information from extension agents)" (260).* [3]

The combination of methods includes responses where project leaders simply mention offering a number of different services (mentoring, workshops, networking, etc.), or specifically advocate for the need for a specific combination. As one project leader noted:

> *"You are not going to make a farmer out of an individual in a single day or through a set of disjointed training sessions. Focus must be on providing consistent training and then follow this up with a strong support system after graduation" (251).*

Offering multiple services or programs also provides beginning farmers with different ways to obtain support, depending on their individual needs and stages of development. For example, as one project director said:

> *"[The] levels [of] innovative training we designed and used for our [program] works very well: Intensive, an in-depth level involving immersion in a year-long hands-on training and mentoring program; Intermediate, a mid-level involving participation in a variety of learning activities; and Introductory, a general level where sharing of information is the goal" (265).*

Audience by Experience/Level of Development

Less frequently mentioned, but relevant themes that span the developmental gradient (aspiring farmers, start-up farmers, and more experienced farmers) are to 1) take into account the developmental stage when choosing content, and 2) have farmers work with those (or learn from those) who are just ahead of them developmentally. Themes that stand out for individual developmental groups are listed below.

Aspiring Farmers. Of the 26 project directors who served aspiring farmers as a primary audience, the most frequent suggestion was to offer a mix of educational strategies (around two-fifths), some specifying hands-on/experiential strategies, classes, and farm visits/field days.

[2] The themes identified may contain two responses from one project leader (e.g., they could say mentoring is important for both start-up farmers and Latino farmers).

[3] Quotations from the project leader survey are presented anonymously. These numbers refer back to the original project.

> *"[Aspiring farmers] benefit greatly from a mix of written material, discussion, demonstration and hands on practice. Cementing learning through applied activity is key, combined with asking participants to think about how they will apply and adapt this new information and or practices in the future" (266).*

Specific to those newer to farming, a few project leaders mentioned connecting aspiring farmers with those just ahead of them either to provide inspiration or as classmates to improve the learning process.

Other suggestions that appear unique to aspiring farmers include: holding workshops about the realities of farming, screening participants to select only those really serious about farming, providing students the opportunity to see what happens in a full season of farming, identifying in a classroom setting management decisions they will have to make, and having reading as well as homework assignments.

Start-up Farmers. Forty-six project directors reported serving start-up farmers, those in their first 5 years of farming, as a primary audience. Over a quarter of the directors suggested more focus on one-on-one technical assistance or mentoring for this group. The use of farm incubators was unique to this population. Classes/workshops and farmer-to-farmer activities were mentioned by a quarter of respondents. A fifth of project directors also frequently chose a combination of strategies and hands on/experiential approaches.

> *"Our online educational sessions were invaluable to those who could not attend in-person training. They functioned both as education but also as a support network for farmers who were not sure what they were doing. In addition, many of the starting farmers in particular regions started getting together once a month to support each other and learn from each other. We are interested in helping to support this further" (208).*

More Established Beginning Farmers. Seventeen project leaders reported serving more established farmers, farming between six and ten years, as a primary audience. For most of the respondents, it was the secondary population listed, indicating that they focused more on some other developmental group or group with an underrepresented background.

Also, seven respondents didn't offer any ideas for best practices for this group. For the most part, methodological themes didn't stand out, as only one to two leaders chose many of the educational methods already reviewed. However, unique responses for this group include the need to provide market access, help with business growth, and provide more advanced curricula.

Audience by Background

Twenty-four projects (35%) listed at least one socially disadvantaged group as a primary audience. Since there were so few responses for each audience category (both the number of project directors who chose an individual socially disadvantaged group as a primary audience, then even fewer who offered a best practice), the themes for these groups, as well as for limited resource and veteran audiences, are summarized in general. Some specific examples for different groups are also highlighted. Again, these themes cannot be considered comprehensive[4], but can offer important insight from the projects experienced in serving these audiences.

Building Relationships/Trust. Building relationships/trust is one theme across the socially disadvantaged and veteran groups. This category includes having dedicated people at organizations build trust with individuals in these groups, or to work with organization that are already trusted by these audiences, to ensure effective working relationships.

For example, one project leader working with native Hawaiians, said that "you need to know them and build a relationship and trust before you can impact on them" (207). Another project leader spoke of the important context for organizations working with African-American farmers:

> *"Most African-Americans are still distrusting of the government because of their previous experience with the government. Having a team of individuals that these farmers can trust is most useful. Also, it*

[4] Since 54% of the full sample of 119 project were coded as serving socially disadvantaged audiences, it can be assumed that this sample under represents the whole, and thus could be missing ideas or themes.

Apprentice Brian Klinge with Master Dairy Grazier, Andy Bures, Deerbrook, WI. Photo credit: Dairy Grazing Apprenticeship.

> *is not easy to convince them to participate in programs because they feel that's an avenue to [losing their land]. Working with organizations that have proven experience and track record helped most African American individuals to participate in the project" (251).*

Providers Have Similar Backgrounds. Another theme is to provide socially disadvantaged audiences (and veterans) with at least some trainers, mentors, or technical assistance providers who have similar backgrounds. For example, project leaders encouraged having women be mentors to women, providing Native Americans with one-on-on assistance from tribal elders, and offering veterans speakers or educators who were also veterans.

However, not all respondents agreed with this strategy. For example, one project leader mentioned that they use the same methods with women as with other groups. Another respondent augmented this theme; while the project leader agreed that their audience really appreciated learning from other Latino farmers, they also:

> *"responded very well whenever we had them connecting to people they viewed as valuable to their operation or potential operation. Whenever our workshops included interacting with someone from a resource agency, credit company, etc. they were much more engaged" (248).*

Assess and Address Specific Needs. Assessing and addressing specific needs and issues of each population of farmers was also mentioned by more than one project leader. For example, immigrant needs are often very diverse, as people from different countries have much skill in some areas but may lack skill in others. Non-English speaking immigrants need more pictorial or translated educational materials, more continued one-on-one support, and additional socio-economic support to participate in these programs.

Suggestions for specific socially disadvantaged audiences include the following.

> *"Our primary audience was limited resource Latino farmers (both new and aspiring). They were most receptive to the field courses and somewhat receptive to the workshops. ... The use of fellow farmers with more experience as supporters was*

a great idea but hard to put in practice because it required a lot of time. If we did it again, we would increase resources devoted to that activity" (248).

"Working with Latino and immigrant farmers in a new destination area is challenging because they don't tend to have much experience with farming in the US. Their networks are very weak in that they are typically only well connected to other beginning farmers that don't really know what they are doing in terms of farming, credit, farm management and marketing practices. To build connections to these resources requires building lots of bridges between the resource people and the farmers themselves. To the extent we could play that role we did and we believe it was helpful to the farmers. It requires a lot of personal contact to build trust and confidence. They are operating on slim margins so they are reluctant to try to do things differently in case the effects are negative. Having a few farmers willing to serve as contacts to other farmers is also important to the sustainability of their growth and development especially in areas that don't have producer networks they feel comfortable participating in" (248).

"For women and other underserved groups, empowerment from their peers is the essential first step toward creating new farmers. Also, for many beginning and aspiring farmers, Universities are often intimidating, especially for underserved populations. These populations are better served through [community-based organizations]" (249).

EDUCATION METHODS

Similar to questions about audiences, project leaders were asked to share the two primary education methods they used. Then, for each one they listed, they were asked, "*What works best when implementing these education delivery methods or support strategies?*" Again, the intention was to elicit best practices from those who primarily focused on each method, and to limit respondent burden. Fifty-eight project directors responded to this question; 7 chose only one method and 51 offered responses for two methods.[5]

As with the previous question pertaining to audience served, themes for particular educational topics were not always evident. However, project leaders offered many specific suggestions that may prove useful to others serving beginning farmers and ranchers; these are listed here regardless of the number of times they were mentioned.[6]

Classes

Classes, which include workshops, multi-day programs, and field days, were the most common activities mentioned as a primary activity for BFRDP projects (75 responses). While there were suggestions for the best way to conduct these sessions that were specific to each, most of the suggestions were relevant for them all.

Farmer-to-Farmer. The most common suggestion for classes was to have a farmer-to-farmer aspect (stated in almost a third of responses). This includes having farmers as trainers and sharing their experience, as well as learning from peers — both those at similar developmental stages and those slightly ahead. A few also mentioned having mentoring be part of the workshop or field day experience.

Experiential Learning or Hands-on. Including experiential learning or hands-on activities was the next most frequent theme. As one project leader stated, ". . . experiences that allow for hands-on participation (even as work) seems to have the best results" (229). Most simply said that there should be an "experiential" or "hands-on" component. One mentioned it should help participants provide practical application.

[5] The themes identified for education methods could contain two responses from one project leader (e.g., they could say that networking is an important part of workshops *and* field days).

[6] It is also important to note that many of these education methods are somewhat interchangeable. Some organizations may offer just workshops, those operating incubators may also offer workshops and field days as part of those efforts. Thus, reviewing the multiple categories listed here may provide useful information.

Adult & General Education Principles. Project leaders (a tenth of respondents) mentioned basic principles related to adult and general education. This includes finding farmer trainers experienced with popular education, incorporating the different learning styles of adults, and utilizing beginning farmers' needs, interests, and experience to develop and implement activities, e.g., through participatory methods. One project leader shared a useful strategy for working with the experience of beginning farmers (or in this case, apprentices):

> *"Doing thorough needs and prior knowledge assessments are key to meeting the needs of your audience. It is also important to draw on people's prior experience as a means of building their confidence that they already know something about the subject. In building new knowledge and capacity, it is also critical to give people ownership and a sense of responsibility so that they invest themselves fully in the process of learning" (266).*

Other general themes:

Networking. Including time for networking in class sessions, whether amongst peers, or students and teachers/experts, is also considered useful. Utilizing content experts, or ensuring content is focused on specific topics, was also mentioned as a key strategy.

Logistics. A handful of project leaders discussed useful class logistics, such as working around a beginning farmer's schedule by offering more trainings in the off-season, after work, or on weekends. Others suggested small class sizes. One suggested that two-day trainings work well, while another said that was too much of a burden on farmers and suggested a six-hour format instead.

Suggestions for Specific Education Methods

While many of the suggestions for classes spanned workshops, multi-meeting courses, and field days, there were also suggestions specific to each educational method.[7]

Workshops. Use workbooks, handouts, and other learning tools; promote workshops locally; advertise through technical advisors; and use "cutting edge curriculum" designed by professionals. One project leader found that YouTube videos work better than readings.

Multi-Meeting Courses. Create an integrated curriculum on a specific topic; this includes using classes, field days, and course materials to address a topic in a variety of ways.

Field days. Provide lunch, don't visit too many sites in a day, and "scout" the sites ahead of the actual event.

Apprenticeships. Seven respondents offered apprenticeships as a primary educational method. While no themes are obvious, there was useful feedback. Project leaders suggested evaluating apprentice progress by providing goals and timelines, developing a directory to match potential apprentices with host farms, having the internship schedule be flexible, allowing apprentices to try things independently and obtain coaching as needed, and checking in regularly with apprentices and the site manager. One response offered a variety of useful ideas.

> *"The apprentices need to be fully integrated into the farm as if they are seasonal staff. They need to participate in the full cycle of the farm — from propagation to end of the year cover cropping and greenhouse production. And they need to have a lot of one on one support from the farm management team. This is often overlooked in these apprenticeships. Because the grants are paying for the 'young farmers' but what about the staff that needs to train them? Apprenticeship originally is defined as one on one training with a master. It will be important to get back to that." (245)*

Incubators. Six respondents offered incubators as a primary educational method. Responses cited by more than one person included the need to create clear policies at the site, as well as to provide on-site training, mentoring, and workshops.

Other suggestions included: create structures and milestones, have farmers take on increasing

[7] Most of these suggestions were offered by only one respondent.

responsibility (costs, planning, etc.) over their time in the incubator, create support systems in the community for their transition out of the incubator, and "from the beginning, [have the] topic of land access be front and center so the incubator graduates have a path forward" (213).

Mentoring and One-on-One Technical Assistance. Twenty-nine respondents offered either one-on-one technical assistance or mentoring as a primary activity. Since so many of the responses for mentoring or technical assistance were similar, or the categories were used interchangeably, they are reported together. A couple of themes stood out, while most suggestions were offered by one person each.

Regarding a process for offering these services, a handful of project leaders said it is most important to build trust and to connect with beginning farmers frequently, over time. Other suggestions were to use all forms of communication (in person, phone, email, website), go to the learner's farm, provide year-round assistance, provide guidance on all topics, and listen to beginning farmer and rancher needs.

Suggestions for choosing mentors included finding people who could commit to regular communication over a period of time and ensuring mentors both keep up with their own networks and continue with their own ongoing learning.

Other suggestions included activities for education staff, such as ensuring good matches between farmers and mentees, having matches be close geographically, offering stipends to mentors and covering travel for beginning farmers, and providing a budget for mentor's continuing education. One respondent mentioned utilizing technical assistance to provide follow-up on implementation of practices after seminars.

STRATEGIES TO HELP NEW FARMERS SUCCEED

Helping beginning farmers as they transition from their first few years of farming into a more stable business venture is key to their longer-term success.

To determine effective strategies, project leaders were asked: "*What are the best practices that education and technical assistance organizations can implement/use to help beginning farmers and ranchers succeed/stay in business beyond the first couple of years of farming or ranching.*"

Fifty-four project leaders responded to this question; the themes from their responses are summarized below.

Direct Support. The primary theme across the respondents was that beginning farmers and ranchers need direct support as they develop from the "start-up" phase into a more "advanced beginner" and then on to become an established farmer. Almost two-thirds of project leaders agreed with this sentiment, with the top two categories of direct support including one-on-one assistance and networking.

One-on-One Assistance. More than a third of respondents identified the need for one-on-one assistance. This includes mentoring and one-on-one technical assistance with subject experts (such as marketing, land access, business expertise, etc.). Most project leaders simply stated that these types of offerings are needed or essential. As one project leader explained:

> *"The over 200 farmers that have participated tell us that [one-on-one mentoring] really makes a difference in their success. The experienced farmers help the new farmers to see things realistically, many slim their businesses down, focus more" (241).*

Networking. Networking also provides direct support to beginning farmers, at times through informal one-on-one assistance. This theme includes respondents that simply mentioned the need for networks, suggested developing networks, or advocated for fostering or building relationships. Peer-to-peer networks were frequently cited, but networks can also include connections with experienced farmers and people from agricultural organizations, such as commodity groups, land access agencies, land conservation, grant making organizations, banks, federal farm agencies, etc.

Some respondents stated that networking creates communities that can provide direct support to new farmers. These communities or connections provide the opportunity to share knowledge, resources (e.g., equipment), and moral support among farmers. These

relations can reduce stress and burnout, and provide beginning farmers with the "…relevant knowledge for starting/running viable farming operations" (205). As another stated, "It does not make sense to have someone go through the training and find that there's no support system afterwards" (251).

Here is one way that classes successfully fostered a network or relationships:

> *"We found it helped to incorporate local resource people into the program whenever possible as a way of beginning to bridge to those additional resources. For example, one of our goals was to help increase [beginning farmers] access to funding markets. We thought more of these farmers would be able to access FSA and other public programs. However, they met banks and other funding sources in the program and were able to secure credit through these other markets more effectively than FSA" (248).*

This example illustrates the importance of providing structured networking experiences:

> *"A coordinated arrangement between support organizations and stakeholders can provide a common site for beginning and transitioning farmers/ranchers to find advisors and resources. These audiences typically have to amass resources and advisors from scattered and poorly documented locations, without an advocate or guide. Only the energetic and persistent can find what they need, leaving many opportunities adrift" (220).*

Continued Support into the Future. The networking theme implies the need to create a lasting network for new farmers, one that persists as the farmer progresses in their farming career. As one leader stated, what works is the "development of networking among participants, partners, collaborators and mentors to establish a learning environment that lives on beyond the life of the funding" (222). Some specifically note the need to provide follow-up support, ongoing continuing education, and help building long-term relationships. For example, "continuing education allows producers to evolve to different enterprises. I've seen producers adopt new, profitable enterprises, specifically following advanced workshops on pastured pig and adding a value-added process" (255).

Connecting Farmers to Services and Resources. Helping beginning farmers connect to services and resources was another minor theme. Similar to networking, this item was more frequently aimed at making farmers aware of available resources, organizations, and services (instead of focusing on fostering particular relationships). It was described as "providing access to resources" or identifying available services.

Business and Financial Education. There is a strong need for business and financial education and activities to support new farmers. These items include the need for education in business plan development and execution, financial management, creating enterprise budgets, and forecasting "what if" scenarios. One organization cited a farmer participant, who said:

> *"Being able to articulate my mission and goals [through the business planning process] has led to a more focused approach to my business, which means saving money on expenses, less waste, and striving to purchase quality stock. This means an overall improvement in the business and a happier farmer and family" (205).*

Multiple Services. A fifth of the respondents also identified the need for multiple services. Project leaders either mentioned that comprehensive support was needed to help beginning farmers succeed, or cited the need for more than one learning method strategy or support service (mentorship, networking, access to resources, etc.).

The following themes were mentioned less frequently, by a handful of respondents:

Marketing Help. Provide help accessing markets, help building markets, coordinating marketing coops, etc.

Adult Education/Participatory Methods. Include farmers in curriculum development and program design, honor knowledge adults come in with as important information

Land Access. Help beginning farmers and ranchers

access land or provide incubators

Suggestions offered by one respondent each included:

- Provide insurance or start-up capital for new farmers to have a cushion to take risks and make mistakes.
- Work to develop a commitment from state or other agencies to support beginning farmer development so they can be a stable service provider over time.
- Organizations should "reach out to collaborative organizations and resources to develop a comprehensive set of support services in the region to address the four major barriers to farmers (access to finance, land, markets and technical assistance) across the learning stages of farmers from prospective farmer, to startup and early years up to year 10" (260).

Other strategies and ideas are likely to be important even though they were not cited frequently. For example, land access was considered one of the most crucial issues for beginning farmers (Lusher Shute, 2011) and 43% of the projects offer services to support land access. Thus these summaries provide a general highlight of important practices, but by no means the only ones required for beginning farmer success.

HOW WAS THE BFRDP GRANT HELPFUL?

Understanding the perceived role of BFRDP in helping beginning farmers and ranchers is one way to assess the program's value. While this question did not explore the "best practices" that project leaders may implement, it is useful to see how BFRDP contributed to the positive outcomes noted in this report.

To determine the impact of BFRDP grants, project leaders were asked "*How was this BFRDP grant helpful to the beginning farmers and ranchers you serve and/or your organization?*" Fifty-eight people responded to this question.

Just over a third of the project leaders cited positive farmer outcomes, which reiterated a variety of items shared in their CRIS/REEports.

Many cited increased knowledge, changed behaviors, improved quality of life, and improvement in farming communities. Some commented about the value of the training for farmers, saying "the project was vital to create the next generation of farmers" (207) and "our evaluations constantly indicate that we are giving people valuable information that they adopt" (255).

Another leader stated, "[the beginning famers] were optimistic that their farm operations would improve because of their attendance in the course and felt that the value received for the course outweighed the cost of attendance" (205).

The majority of the project leader responses, around three-quarters, focused on how the BFRDP grant was helpful to their organizations. Generally, project leaders' responses interwove themes about how grants allowed organizations to build partnerships and increase capacities to serve more beginning farmers, and to do both better than before. Some also said that it allowed them to develop solid educational resources (such as curricula and other materials) and to experiment in new ways.

Build Capacity, Provide More Services, and Reach More People. The most frequently cited related themes (nearly two-fifths of respondents), include that the grant helped to build capacity, expand or provide more services, and thus reach more beginning farmers and ranchers.

Regarding increased capacity, some project leaders simply stated that as the outcome, others shared that it allowed them to start services they would not have been able to do otherwise or take programs to a new level. As one noted, "The three years of reliable funding really helped us grow and move forward while focusing on farmers rather than fundraising" (211).

Create Partnerships. The ability to create partnerships was the next most frequently cited theme in respondents' comments. Project leaders noted that the grants had encouraged and enabled them to work with other organizations (that allowed them to offer a diversity of or improved services), to improve their relationship with partner organizations, as well as to create lasting networks and relationships.

Improve Programming. Several respondents specifically mentioned that the grant helped them improve their programming. As one said, "having a BFRDP grant also caused our organization to take a fresh look at how we were serving beginning farmers, sharpening our focus on this audience and causing us to make numerous improvements" (213). Another project leader noted that "The funding made efforts much more successful" (262).

A few themes were not endorsed as widely, but still provide important insights about the impact of BFRDP grants for the organizations. A handful of project leaders specifically stated the way the grant allowed them to invest in the following activities:

Invest in Lasting Resources. E.g., development of extensive curriculum as well as printed publications such as books and other resources, some of which are distributed free online and being widely used by farmers.

Spend More Time with their Target Population. As one project leader said, "[the grant] strengthened the relationship between Hispanics in the region served and the university. It provided the university with a much broader understanding of the needs, ambitions, and challenges faced by Hispanics in our region" (229).

A couple of quotes exemplify these inter-related themes well:

> *"It is impossible to overstate how helpful the BFRDP grant was to our organization. Our farmer training programs would not be the same without the support of the USDA; the grant helped us provide hundreds of beginning farmers with knowledge, skills, and support services they need to launch or strengthen their farm businesses. Large, multi-year grants provided by BFRDP help ensure the sustainability of our program and our staff. Finally, being a BFRDP grantee is an incredible opportunity to build connections with the national farmer training field" (260).*

> *"Three years of incubator training, followed by focused farmland matching support and building a state-wide network of other service providers who can help create targeted and relevant programming for new farmers greatly improved the "ecosystem of services" that new and beginning farmers have in our state and region. BFRDP funding has been critical to this in supporting multiple organizations in the region to build new programs and collaborate more thoughtfully to support this audience" (224).*

Farmer-to-farmer education in action: Land Stewardship Project's Farm Beginnings farmer educators, Laura Frerichs and Adam Cullip, host a field day on their farm, Loon Organics, near Hutchinson, MN. Photo credit: Land Stewardship Project.

SUMMARY

- **Successful partnerships require regular and effective communication.** Communication goals include clarifying roles, responsibilities, project purpose, and desired outcomes; and building relationships with partner organizations, fully sharing ownership of the project, and leveraging the resources of each organization.
- **Best practices for working effectively with farmers** include focusing on farmer-to-farmer strategies (mentoring, networking, farmers as instructors, etc.), experiential learning (hands-on activities in workshops, apprenticeships, or incubators) and other courses (which may include the other two, as well as content materials). Utilizing a mix of these methods is also clearly important.
- **Best practices for socially disadvantaged audiences** require building relationships and trust over time, working with trusted organizations, having people with similar backgrounds provide some of the education or mentoring, and addressing specific needs or issues for these groups.
- **Helping new farmers stay in business after the first couple of years** requires farmers receiving direct support. This support could be offered through one-on-one assistance services (includes mentoring), networking, or connection to services — which can help farmers in the present as well as into the future. Providing multiple types of education strategies and business and financial education are also important. Another theme was the need to conduct education based on adult education principles / participatory methods.
- **Best practices for conducting different education strategies** included farmer-to-farmer strategies, experiential/hands-on learning, providing networking opportunities, and implementing adult and general education principles. More specific ideas of successful strategies for working conducting field days, classes, and mentorship were produced by at least two projects (Angelo et al. 2012; Leap 2015).
- **The themes cited as best practices for working with farmers are not necessarily comprehensive.** Additionally, responses to qualitative questions don't necessarily cover all issues that people find important. It is important to keep in mind that "…there is no universal approach. What works for one farmer in one context will be inappropriate or ineffective for another. (247)"
- **BFRDP grants were considered very important for serving beginning farmers and ranchers.** The grants helped the participating organizations build capacity, serve more beginning farmers, serve them better, and create lasting resources.

IV. Findings

Successful Project Vignettes

These project vignettes highlight examples of project success, innovation, and diversity to help stakeholders understand the nature of BFRDP-funded projects and to highlight their impact on training the next generation (see evaluation objective three in Methods). They also provide key insights into what makes projects successful. The goal of these project profiles is to have the information be relevant and useful for policymakers, NIFA, and beginning farmer education organizations.

Projects were chosen for the vignettes if they were identified as generally successful from the implementation analysis or Advisory Team/Evaluation Team, had collected medium-term outcomes, and demonstrated a variety of types of projects and audiences served (see the Methods section for additional information). These projects provide examples of success that were found broadly among projects.

The projects highlighted in this section, and their unique aspects, are listed below.

Practical Farmers of Iowa (Iowa)

- Actively builds programming from stated farmer needs
- Includes aspect focusing specifically on serving women, and another focusing on webinars

University of Arkansas (Arkansas)

- Includes a veteran focus
- Includes a pastured poultry focus

Agriculture & Land Based Training Association (California)

- Provides example of an incubator and marketing food hub
- Focuses on limited resource, farm worker, and Latino audiences

Virginia Tech (Virginia)

- Provides example of large, effective partner collaboration
- Demonstrates collaboratively developed and implemented curriculum

Dairy Grazing Apprenticeship (Wisconsin)

- Provides example of a national apprenticeship model
- Includes focus on dairy production

Land Stewardship Partnership (Minnesota)

- Highlights training strategies targeted for farmers' different stages of development
- Focuses on program that became a national model

PRACTICAL FARMERS OF IOWA

Practical Farmers of Iowa (PFI) is a farmer-based non-profit organization based in Iowa that formed out of the 1980s Farm Crisis. Started in 1985, farmers came together to learn from each other and solve their problems, as well as to do their own on-farm research to better meet their needs.

Since then, PFI has been offering programming based on farmer interests, and with farmers doing much of the education — either sharing their experience or presenting jointly with other topical experts. Around the time the BFRDP grants became available, PFI's farmer members expressed a strong interest in helping beginning farmers, especially given the decline of farmers in the state.

The Project

PFI's BFRDP project focused on helping new farmers to succeed, by serving small farms and aiming to maintain rural infrastructure and communities. The project's educational activities included a variety of easily accessible short-term offerings, including webinars, workshops, field days, overnight retreats, networking events, and on-site demonstrations.

The project also provided land matching and mentorship opportunities. PFI worked collaboratively with Women, Food and Ag Network, Iowa Valley Resource Conservation & Development, and Grow Your Small Market Farm to provide specific educational opportunities for new farmers.

For example, the Women, Food and Ag Network held learning circles for beginning women farmers — implementing a more social, informal, and peer-to-peer learning format that the organization has found to work well for women. These efforts focused on topics beginning farmers identified as important, which included whole farm planning, legal issues, land access, and building infrastructure and networking.

The farmer-led webinars — which they coined "Farminars" — were a unique contribution at that

Kyle and Mari Holthaus of Kymar Acres in Waukon, IA serve as mentors for beginning farmers, and are shown here hosting Specialized Small-Farm Equipment Showcase for specialty production equipment. Photo credit: Practical Farmers of Iowa.

time. Originally, the Farminars paired beginning farmers with an advanced farmer or other expert, and let the beginning farmer talk about their needs with the expert responding. It was structured in a "fishbowl" format, allowing others from the outside to watch the conversation either live or via recordings. They provided a chat box for questions and answers, as well as networking. With feedback, the Farminars have evolved and continue to be offered.

Outcomes

The project has successfully provided education to a large number of beginning farmers. For those served in year 3 of the project:

- 15% planned to start farming
- 72% were farming and planned to continue
- 62% changed land management or farming practices
- 54% changed marketing-related practices

Their Farminars have also been a success, with over 50,000 views collectively. Other organizations have adopted the name and concept, and they have taken off around the country.

PFI's networking strategies, an essential part of the organization's activities, have successfully connected farmers, and many farmers are still in contact and consider each other close friends. Additionally, farmers who have connected through PFI networking have gone into business together, developed combined efforts, and relied on each other for certain aspects of farming. For example, knowing that a particular farmer grows transplants gives others the freedom to source from that farmer rather than having to produce their own starts.

Why Successful

Listening to Farmers. Identifying farmer needs by really listening to farmers is key. PFI regularly surveys its membership and others they've served to identify these needs: beginning farmers are surveyed annually, and general farmer populations are surveyed every 3 years. This information is distributed to programming committees (fruit and vegetable curriculum, livestock committee, etc.), which are comprised mostly of farmers, to ensure that the findings — and PFI staff's interpretation of them — are valid. Results are then used to inform future programming. The organization also has staff members who farm part-time and serve on PFI's board (10 or 12 members); these staff members' perspectives help PFI better serve their farming clientele.

Cattle grazing Nathan Anderson's cover crops near Aurelia, Iowa. Anderson participated in PFI's Savings Incentive Program, supported in part through their BFRDP grant. Photo credit: Practical Farmers of Iowa.

Farmers as Educators. PFI found that farmers have more trust in the information they receive from other farmers. They also want to see real farmer strategies, such as business plans, not just abstract templates. Although it is useful to have experts in various fields, such as finance, they pair experts with farmers and make sure the expert has experience working with farmers.

BFRDP Provided Critical Resources. PFI had not been able to focus on the beginning farmer population, as there were few resources available to support such efforts. Thanks to the BFRDP grant, PFI established successful beginning farmer programming and has maintained it through successful fundraising.

Short-Term Training Programs Provide Value. Additionally, since so many of the beginning farmers PFI serves need to work other jobs, this type of short-term programming is important for them, as many farmers who attend their trainings can't afford the time or financial commitment to obtain a college degree in order to start farming.

UNIVERSITY OF ARKANSAS

The Project

The Armed to Farm project — as it was called at the beginning of the University of Arkansas's 2010 BFRDP grant — primarily served beginning and aspiring veteran farmers, as well as focusing on other underserved populations (women, African-American, and Latino farmers).

A week-long boot camp, workshops, and internships were the primary educational strategies, providing hands-on training that incorporated mentoring and peer networking. It primarily served farmers in the Southern region in Arkansas and Missouri. The project also developed an online curriculum for a broader audience, in both English and Spanish, which is offered at no cost and provides a good place for farmers to get started with the basics on a variety of topics (poultry production, livestock, agroforestry, sustainable agriculture, and business development).

Outcomes

During the project, approximately 300 veterans were served through the program's direct efforts (workshops, internships, and direct payment for other training/conference attendance). Another 650 veterans were served through the resource linking and networking activities provided by the Farmer Veteran Coalition, which connects veterans with foundations, service agencies, or other veterans who can assist them in their farming career. There were over 26,000 hits to the online farmer training course: 16,000 for the English version and over 10,000 for the Spanish. The grant also supported 4,900 hours of internship training offered to veterans.

Veterans assisting in building a moveable Chicken Hoop House on Across the Creek Farms during Armed to Farm Boot Camp hosted by the University of Arkansas, Department of Poultry Science and National Center for Appropriate Technology. Photo credit: University of Arkansas, Fayetteville.

All of the project aspects have continued, and have been refined to be more effective based on staff experience and farmer feedback. They received a renewal BFRDP grant in 2015. The week-long Armed to Farm boot camp has continued to grow, with 3 to 4 times as many applicants as there are available spaces.

The Boot Camps are headed up by a nonprofit partner organization, the National Center for Appropriate Technology (NCAT), which has expanded its veterans training program beyond the scope of the original grant. The online curriculum continues to be accessed frequently and is being revised in order to continue to meet the needs of aspiring veteran farmers.

The Armed to Farm boot camp associated with the BFRDP funding has been implemented 8 times since 2013 and to date has served 197 veterans from 31 states. Surveys conducted a year after the training for 5 programs have found:

- 77% have started farming, are continuing to farm, or are making movement to starting farming
- 61% have made some kind of change in their farming operation based on attending the program
- 64% have maintained contact with others they met at the training
- 92% agreed that the program improved their ability to farm
- 97% would recommend the program to other veterans

One participant stated, " '[I] loved the Armed to Farm program. Credit it with starting my farming career. Was really powerful to get a bunch of veterans together to connect through agriculture — much more than just learning how to farm. The staff was amazing and I still use what I learned on my farm now.' "

Why Successful

Flexibility in Programming. The project's success was attributed to a number of factors. One factor was that they allow for flexibility in the programming, allowing veterans to choose their individual time commitments. Some veterans might want to work with a mentor farmer just for a few hours, a month, or complete a more formal 6-month internship. Additionally, participants can bring their family members to the boot camp, which helps veterans so they don't have to spend more time separated from them, and since they are often also involved in the farming operation.

Mentorship. The mentorship aspect of the project was considered to be key. Mentorship opportunities happen through one-on-one time at the boot camp, workshops, and internships. In particular, having mentor farmers that are also veterans allowed for a solid working relationship as the mentors have a more complete understanding of the issues the veteran beginning farmers are dealing with (such as PTSD). The mentor was able to provide a solid example, and provide coaching, regarding how they transitioned out of the military and into both farming and civilian life.

Veteran-Only Focus - Bonding/Connection. The Armed to Farm boot camp success was specifically attributed to focusing solely on veterans. The bonding or connection seen at the boot camp was beyond what the camp's director had seen at other types of farmer training. This bonding allowed the farmers to focus on issues unique to them, and create strong reciprocal relationships.

Choosing Committed Students. The boot camp success was also attributed to the selection of participants — choosing those that are serious about farming. After the first year, participants were prioritized for the program if they had already started farming, had evidence of moving in that direction, or had access to land.

Successful Collaborative. A successful collaborative also fostered the project. Led by the University of Arkansas, it included the Agricultural Research Service (ARS) of the USDA, NCAT, the University of Missouri, Appalachia State University, and the Farmer Veteran Coalition. This collaboration still operates exceptionally well; it continues to grow and receive additional funding to support its work.

AGRICULTURE & LAND BASED TRAINING ASSOCIATION

The Project

The Agriculture & Land Based Training Association (ALBA's) goal was to help farmworkers and other limited-resource aspiring and beginning farmers become farm owners and operators. Working with a primarily Latina/o demographic in the Salinas Valley in Central California, the program built on this audience's field and business skills through training in specialty crop fruit and vegetable production.

ALBA, operating since 2001, but serving disadvantaged populations since 1971, received two grants in the study period (2009 and 2012), which they used to build on and expand their work with aspiring farmers.

ALBA has two primary educational offerings. The first is a multi-month[1] Farmer Education Course called "PEPA" (or *Programa Educativo para Pequeños Agricultores*), which farmers are able to work a full-time job and attend classes in the evenings and weekend afternoons. It provided 400 hours of instruction via bi-lingual classroom and experiential education.

The second offering was a small farm incubator that graduates could join — allowing them to start on a small piece of land at discounted rental rates, which increased over time (while the subsidy decreased). Initially, farmers could rent land for seven years; the limit is now four years to ensure that additional graduates have access to affordable land.

Specific annual milestones move program participants toward the goal of becoming independent farmers. Farmers can sell their produce at a food hub started by ALBA, called ALBA Organics, as their first marketing venue.

Outcomes/Impact

ALBA served 183 people in their farmer education course (PEPA) with support from their 2009 and 2012 BFRDP grants, along with and 62 beginning farmers through their incubator as a result of their 2009 grant, and 74 through their 2012 grant.

ALBA has been very successful in helping aspiring farmers start or operate their own farms. They conducted a follow-up evaluation in 2015 of all PEPA and incubator alumni, and conducted 73 interviews (a third of all PEPA graduates through 2014). In total:

ALBA graduate, Domitila Martinez, standing in front of her strawberries destined for a local natural foods retailer. Photo credit: Shawn Lineham.

[1]The length of the multi-month education program has changed over time.

- 38% of farmers are farming independently
- 71% of farmers are still working in agriculture in some manner
- 64% of farmers said the program had "helped them financially"

Given the difficulties of starting new farming businesses in general, and the added difficulties for those with English as a second language and having limited resources, it was expected that those continuing on to farm independently would be in the 15–20% range. Even if their sample over reached those actively farming, ALBA has still likely hit their target project outcome goals.

ALBA has also provided a model for others working with beginning farmers. They have received other grants to host visitors and provide coaching — sharing what they do and what they have learned with approximately 100 organizations. They have visited organizations in other states and have had organizations come from all over the world to their site, with 300 visitors so far this year (2017).

ALBA's farmer graduates also experienced an increased quality of life. Despite the long hours, often longer than working a regular job, the new farmers ALBA has trained can at least in part set their own schedule, making it possible to do things such as help their children with homework. Instead of the family separation common to farmworkers, they are able to work on their plots of land with their spouse, and have their children come with them to the farm.

Why Successful

Providing Marketing Venue. The ALBA Organics food hub provides a market venue for ALBA's program participants, increasing new farmer retention and success. Thanks to the hub, which aggregates and ships produce grown by ALBA graduates, beginning farmers can focus their time and energy on production skills and often end up growing product rivaling other organic producers in the region for quality. Prior to establishing the food hub, fewer beginning farmers in ALBA's programs were able to break through market barriers.

Resources and Location. ALBA's resources and location also contribute to their success. They own 100 flat acres in the heart of the Salinas Valley, one of the state's prime agricultural regions. The site houses a fully integrated facility — classrooms, offices, farmland, mechanic shop, cooler, and marketing hub. This integration allows staff to monitor the progress of those in the incubator and provide ongoing assistance and instruction. The region itself provides good soil, access to materials needed within a 10-mile radius (e.g., seed stores, etc.), and direct access to large markets in the San Francisco Bay Area.

Referral Network. Creating a referral network with other nonprofits and government support organizations contributes to ALBA farmers' success as well. Each year staff from at least 20 organizations teach classes or provide information at the PEPA program, connecting with the beginning farmers and building relationships. Bringing these organizations in is considered very important to help new farmers build connection with other non-profit or government support organizations, as well as businesses that are willing and interested in working with small scale farmers.

Long Organizational History. ALBA's long history of serving disadvantaged and limited income farmers has also contributed to its success. Long-time board members provide valuable knowledge and insight, allowing the organization to learn from experience and remain resilient.

Including Partner Organizations. Working with partner organizations is also considered key. One organization cannot provide everything a beginning farmer needs. The 2012 BFRDP project included California Farm Link to assist with access to capital, El Pajaro Community Development Corporation to assist with one-on-one financial guidance, and Kitchen Table Advisors, which provided one-on-one business support.

As part of the 2016 BFRDP grant, ALBA has partnered with even more organizations to provide a full continuum of services by assisting advanced beginning farmers once they leave the incubator. This project connects their incubator graduates with organizations to help them access land, receive one-on-one business and financial coaching, food safety assistance, and other critical support.

VIRGINIA TECH

The Project

Informal observations suggest that organizations working with beginning farmers and ranchers often work in isolation, and thus don't benefit from shared learning about best practices or shared resources. Virginia Tech's 2010 BFRDP grant aimed to meet the needs of Virginia's beginning farmers and ranchers by assisting the organizations through which they learned skills, received technical assistance, and developed capacity for long-term viability.

The project created a large coalition of 27 beginning farmer and rancher education organizations and businesses across the state, including individuals from non-profits, universities, extension, government agencies (e.g., NRCS, FSA, etc.), independent farms, and others involved in agricultural education. Seven different teams of collaborating organizations developed and delivered a Whole Farm Planning curriculum, tailoring activities to different needs in regions around the state.

Each place-based offering provided a combination of classroom-based workshops, field instruction, farm tours, and networking. The curriculum focused on business planning, marketing, land tenure, and sustainable practices. Online courses and a mentoring component were also included. The target audience included beginning farmers in all ranges of experience, from those that were aspiring farmers exploring the field, to those that were expanding and diversifying in their eighth to tenth year. Thirty percent of those served were women, immigrants, or African-Americans.

Outcomes/Impact

The Whole Farm Planning curriculum served 528 participants in regional trainings and 200 through a webinar series. There were also 210 served through conference workshops, and 35 through self-study. Thirty-two mentors and 16 mentees were identified and trained. Participants in the Whole Farm Planning program from 2012–2015 were surveyed in 2016 — with 38 responses being received (Mark et al., 2016):

- Of the 16 explorer farmers and 22 already farming, 15 "actively made plans to start a farm business," 7 "started a new farm business," and 11 added a new aspect to the farm.[2]
- "91% (21/23) of participants agreed that they now know of additional resources they can access regarding implementing their farm goals."
- "82% (19/23) of participants agreed that they now know of people who they can go to for further support for their farming goals and objectives."
- "60% (14/23) of participants agree that they are now able to make informed decisions about farm business management."
- "55% (11/20) of participants now feel confident in their ability to prevent and/or manage common problems on the farm or future farm (e.g. pests, diseases, poor growing conditions)."

The collaborative has built capacity in Virginia to better serve beginning farmers. They have developed the Whole Farm Planning curriculum and gone on to receive a 2015 BFRDP grant to fill additional needs for farmers with specific mini grants, and to form action teams to provide support to educators on specific topics (working with veterans, women, etc.). Additionally, they have taken ownership of the coalition, and have chosen to continue to work together. As their 2015 BFRDP grant comes to a close, they are exploring options for continued collaboration in ways they are excited about, not just trying to meet funding calls to maintain their work.

Why Successful

Participatory Model. The coalition's participatory model is considered key to its success. From the beginning, the organizations have made decisions and developed projects together. Their first activity was conducting a statewide assessment of beginning farmer and rancher needs.

[2] Note that respondents could choose more than one response (e.g., they could both have made plans to start farming and have started a new farm business).

The members spent eight months creating the farmer surveys, as the language really mattered to the partners. The results set the agenda for the curriculum itself — which was also created by different teams of coalition members, allowing educators and organizations to build on their assets while having a foundational curriculum to apply.

Additionally, implementation and evaluation were done collaboratively. This participatory model was based on the Collective Impact Framework (Kania & Kramer, 2011), and in the first BFRDP project they discussed at least one of the framework's "factors for success" at each meeting.

Differentiated Instruction Model. The differentiated instruction model has also contributed to the project's success, as this model focuses on individual learning needs instead of a one-size-fits-all method.

Culture of Evaluation. The coalition has built a culture around evaluation that keeps it attuned to what farmers need and allows it to respond quickly. In regular meetings, coalition members discussed the evaluation results. This helped them to hone their training processes and curriculum.

For example, they learned they needed to go into more depth in financial planning and risk assessment work — so they got a grant to implement it. They learned that farmers wanted to learn more from other farmers, so they created farmer conversation videos — audio interviews where farmers discuss different issues of importance to new farmers.

Leverage Resources of Land Grant System. The project has also leveraged the resources of the land grant system. Virginia Tech, as an 1862 land grant institution, covered the project director's salary, allowing BFRDP funds to be distributed more broadly to other organizations working directly with farmers. Additionally, the land grants provide the infrastructure to work directly with the USDA on grant management.

Staff Background in Education. Several project collaborators have extensive backgrounds in education in addition to content expertise (such as farming production and business topics). These staff members have spent time exploring and implementing strategies to identify best practices and make education more effective.

New farmer panel and discussion at the statewide gathering of the Virginia Beginning Farmer and Rancher Coalition. Photo credit: Virginia Beginning Farmer and Rancher Coalition.

DAIRY GRAZING APPRENTICESHIP

The Project

Dairy Grazing Apprenticeship (DGA) is a model formal apprenticeship program, the first one of this type in the nation. Started as a training initiative in 2010 with a BFRDP developmental grant, then expanded with two standard 3-year BFRDP grants in 2011 and 2015, DGA is now a nonprofit organization with a National Apprenticeship registered under the U.S. Department of Labor-Employment and Training Administration.

The program was created to address the steep decline in small- and medium-sized dairy operations, and the difficulty for new farmers to get started in such a cost-intensive industry. It focuses on a managed-grazing model of production, which is less capital intensive, more environmentally beneficial, and often more lucrative due to current consumer demand for organic and grass-based dairy products. The ultimate goal of DGA is to diversify and strengthen the dairy industry by providing a pathway for aspiring farmers.

Dairy Grazing Apprenticeship offers a holistic approach to creating new dairy farmers and utilizes the work-based framework of a formal Apprenticeship, which has trained people for other skilled trades, such as electricians, plumbers, etc., for more than a century.

The DGA curriculum was developed collaboratively over ten months with dairy farmers, agriculture educators, and dairy industry representatives in the state of Wisconsin.

At the center of the Apprenticeship is on-the-job training under an accomplished Master farmer. Interested dairy farmers go through an assessment process and, once approved as Masters, they are responsible for hiring, training, and mentoring Apprentices. Each pair follows the DGA *Training Guidelines* (or "Job Book"), which lays out learning competencies, and is assigned an Education Coordinator who provides support for the mentoring relationship. Formal classes, conducted by Wisconsin Technical College System, are designed to enhance their on-farm experience and are now delivered online to participants in every state where DGA is active.

Over the course of two years, Apprentices complete a total of 4,000 training hours, 3,712 on the farm, and 288 in the classroom. They are paid for work hours and can be compensated in part with cattle, which helps them build equity. Graduates become certified Journey Dairy Graziers. They receive assistance in planning for farm transition, farm start-up, or equity earning partnerships, and are connected with local and regional resource professionals to provide the network they will need to succeed as independent operators.

Outcomes

- Currently, DGA has 130 approved Master farm locations in nine states (Iowa, Maine, Missouri, Minnesota, New Jersey, New York, Pennsylvania, Vermont, and Wisconsin), 18 Journey Dairy Graziers, 40 active Apprenticeships, and more than 200 candidates seeking to be hired.
- By the end of the second BFRDP grant in 2014, seven people had graduated to Journey Dairy Grazier status: three became farm owners, three were earning equity, and one was in a management position on a farm.
- The program was formally registered, first as a Wisconsin state-level Apprenticeship in 2012 and then as a National Apprenticeship in 2015, with the U.S. Department of Labor.
- Providing a model for other organizations and institutions working with beginning farmers, DGA is part of a 2016 BFRDP Educational Enhancement Team project focusing on Apprenticeships.
- As the program expands and builds a track record, DGA is getting increased farmer buy-in. Thus, the model has potential for longevity and continued growth.

Why Successful

Creates Structures. Dairy Grazing Apprenticeship was intended as a real solution that provides structures to sustain it into the future. This includes the curriculum and national registration of the Apprenticeship. This official federal registered status makes the Apprenticeship more accessible and scalable, allows

veterans to use the GI Bill for class tuition and housing, and makes it easier for the program's graduates to get loans. It also allows DGA to be used in other states, without re-doing the registration and curriculum development process. Other structures that improve capacity include a website that allows farmers and Apprentices to connect and systems for tracking participant progress, which is required as part of the Apprenticeship certification.

Offers Structure and Flexibility. The program is both structured and flexible. DGA requires 194 hours of specific classes. However, it includes 94 additional hours that can be customized, allowing Apprentices to choose some of their own classes. Programs in other states can require different class content, such as information on dealing with heat for farmers in Southern states.

Farmers Included in Development. The program included farmers in its creation, including the curriculum development process. They identified skills that an Apprentice would need to master in order to operate a successful dairy grazing operation. It includes everything from tractor safety to milk quality protocols to pasture management. The farmers were critical in developing the DGA Training Guidelines (the physical Job Book), which Apprentices walk through with their Master.

Having Good People on the Team. Hiring and keeping good people on the team has been critical. People involved need to be dedicated, passionate, good communicators, work for the good of the whole, and get along well. Selecting good people for the staff, the board, and all parts of the program is important.

BFRDP Funding Essential. Finally, BFRDP funding has been essential to this effort. It takes a solid investment to get this kind of large-scale national effort and culture change up and running, which the large BFRDP grants really support.

Dairy Grazing Apprenticeship (DGA), a BFRDP grantee, works with beginning dairy graziers. Pictured: Master Dairy Grazier, Paul Onan, and Apprentice, Nate Peplinski, Amherst Junction, WI. Photo credit: Dairy Grazing Apprenticeship.

LAND STEWARDSHIP PROJECT

The Project

The Land Stewardship Project's (LSP) 2010 BFRDP project grew out of their decade of experience implementing the Farm Beginnings Course. While LSP had been successfully serving those with a farming background or experience, it wasn't meeting the needs of the newer audiences and first generation farmers who were brand new to farming. Additionally, as they kept in touch with their graduates, staff noticed the farmers were struggling to reach their financial goals.

LSP used its BFRDP grant to create and build upon other programming to address these needs. For example, the Farm Dreams class was developed to help those with no experience explore the reality of farming and make an educational plan.

The Farm Beginnings program was augmented and refocused using a staged skill acquisition model (Dryfus 2004) for those with 1 to 2 years of some kind of farming experience. The course builds basic skills and fosters community connection through 40–50 hours of training October through March, and an individual learning plan the students implement over the growing season. They are supported to complete a farm plan and connect with one of the 140 farmers in the network that are willing to provide advice and mentorship. The ultimate goal is that they have what they need to start a farm, continue learning, and are in a network of support to make their farm plan a reality.

The Journeyperson Course was created to help those in their 3rd to 5th year of farming develop financial and management skills that help them increase the viability of their farm businesses. This program focuses on meeting income goals, scaling up, farm labor, and communication through 2 weekend retreats, quarterly visits with a financial advisor, and connection with a farm production mentor. A matched savings program encourages them to save $100 a month over the 2-year program, which will be matched 1 for 1 at the end, providing them with $4,800 for capital investment.

Outcomes

The 2010 BFRDP grant served 112 farm units[3] enrolled in the Farm Beginnings course and 17 farm units in the pilot Journeyperson Course. Follow-up surveys with Farm Beginning graduates (n=34) found that:

- 50% were managing their own farms[4]
- 12% were engaged in farming in some way (such as operating someone else's farm)
- 62% have implemented more sustainable practices since taking the course

Another follow-up survey with this cohort in 2016 found 70% were managing their own farms. A 2016 follow-up survey with Journeyperson Course participants from 2012 identified the following outcomes (n=14 farm units).

- 71% (10) stated that the financial planning from the course helped them make decisions that helped improve their farm viability and reduced "risk of financial loss." They also experienced an increase from the previous year in their farm scale and profitability, as well as being more satisfied with their quality of life.
- 79% (11) said the net worth of their farming operation has increased since enrolling in the course.

The Farm Beginnings Model has been disseminated widely. The program was shared informally starting in 2002 through a SARE Research and Education Grant, and more formally starting in 2009 with a BFRDP grant. LSP received another BFRDP grant in 2016 to continue the expansion of, and learning community around, the model, now serving 10 states.

Why Successful

Farmer-to-Farmer Focus. The program's success is attributed to many factors. One is its farmer-to-farmer focus, which provides students with unique information from the perspective of those who are actively farming. Farmers act as instructors, provide mentoring, and guide the development of the curriculum.

[3] There could be more than one person served from a particular farm.

[4] Includes new farmers and those already farming at the beginning of the course.

Sara Morrison, graduate of Land Stewardship Project's Farm Beginnings and Journeyperson programs. Photo credit: Land Stewardship Project.

Community Based. Additionally, the program's activities are as much about relationship building and connecting participants to the network as about the information that is shared. Thus, when farmers leave the classroom, they know who to call when questions or issues come up.

Focus on Sustainable Agriculture. The focus on sustainable agriculture not only provides an entryway into emerging markets, but reduces farmers' risks by having more diversified farm products and increased use of soil building practices that over time reduce their input costs. All together these aspects of sustainable farming give small farms a better chance of success.

Address Different Stages of Farmer Development. Creating specific education strategies to address different stages of farmer development was an important addition to the Farm Beginnings model. The staged skills acquisition model (Dryfus 2004), which is used widely in education for the trades, nursing, etc., was found to have a correlation for how farmers gain skills and knowledge.

Farmers have different perceptions of farming systems along the path from novice to expert. As they gain experience they also gain skills and knowledge that change the way they think about problems, solutions, and systems. This model helped structure their course offerings and determine what topics were presented to farmers at different stages.

For example, the program only offers basic training in farm finance to those in the Farm Beginnings class, since these participants are not necessarily working with their own farm finances. Once a farmer is bringing in money, such as those in the Journeyperson Course, their needs become focused on more individual and specific questions related to their farm. To best meet the needs of these more advanced beginning farmers the Journeyperson Course provides more in-depth information as well as individualized technical assistance. In general, more individualized information is needed by farmers as they progress.

Utilizing Partner Skills. Working with partners, and having them do what they do best, is also important. In the Journeyperson Course, participants work with Farm Business Management Instructors and the Midwest Organic and Sustainable Education Service (MOSES). Farm Business Management is a national organization that provides one-on-one service with farmers on their own farms. MOSES provides an established mentorship program to help farmers with their production questions. This approach saves significant time and energy by building on community strengths and avoiding replication.

SUMMARY

These vignettes describe a variety of successful programs that exemplify different types of projects. They also provide further information for understanding more about outcomes and what makes projects successful.

Outcomes

- **Specific Examples.** The vignettes provide examples of outcomes connected to specific program activities and audiences.
- **Diversity of Measures.** The diversity of measures used by different projects to identify outcomes also highlights why project outcomes are so difficult to summarize or aggregate across BFRDP projects at this time.
- **Model Programs.** Several of these projects have become model programs that other beginning farmer organizations are using around the U.S.

Factors Related to Success

Project leaders identified the factors they saw as contributing to project success. While many appear to be unique to the project, several themes appeared across two to three vignettes.

- **Farmer-to-Farmer Focus** — such as mentorship, having farmers as instructors, and creating strong peer connections.
- **Farmers Involved in Program Development** — including having farmers actively involved as part of an advisory board overseeing larger decisions and foci, or part of the curriculum development team.
- **Creating Networks** — includes building networks or a community of support with farmers, peers, resource professionals, and institutions that can provide support and meet multiple needs after the program ends.
- **General Education/Adult Education Principles** — implementing education initiatives based on education principles, such as using well-documented education models/theory in program development and listening to farmer needs for program development.
- **Flexibility** — providing structures in education but allowing for flexibility to meet individual or group needs.
- **Strong Partnerships** — creating and depending on strong partnerships, including leveraging each other's resources.

IV. Findings

Evaluation Practices

One final goal of this overall BFRDP evaluation was to improve the evaluation of individual BFRDP projects and the process of reporting to USDA's National Institute of Food and Agriculture (NIFA) — the agency responsible for administering BFRDP (see evaluation objective four in Methods). Examining current CRIS project reports and understanding projects' evaluation practices can provide NIFA with valuable information to use in revising evaluation guidelines and reporting requirements, and providing strategies for conducting more effective evaluation.

EVALUATION ISSUES — CONTENT ANALYSIS CONTRIBUTION

The review of each project's evaluation results in the CRIS project reports (phase one of this evaluation) revealed several issues to address in order to improve future evaluation information. This includes how participants are counted/reported, the lack of medium-term outcomes, and issues with definitions.

Inaccurate Totals for Number Served. It was difficult to pinpoint the actual number of participants served based on the CRIS project reports. It was often not clear how many individuals took part in a given project, how many fit the definition of "beginning farmer" (as established by USDA), and how many were included in the demographic categories that BFRDP seeks to quantify (see Methods section for more information).

Short-Term Outcomes Predominate. Most of the outcomes measured and reported in the CRIS project reports were short-term (such as how many learned something or still intend to farm, etc.), with the data collected at the end of a specific training session.

Medium-term outcomes (such as how many started farming, implemented practices, increased their economic viability, etc.) based on follow up with participants months or a couple of years after the training event or program were less frequently reported. One reason for this appears to be NIFA's reporting guidelines. Organizations were asked to pick from a range of possible outcomes to track what seemed most relevant to their project. Most programs chose the easiest ones to collect — the short-term outcomes that can be captured at the end of an event or long-term course.

Additionally, conducting follow-up evaluation to identify medium-term outcomes presents many challenges. The previous participants may or may not be willing to complete evaluation surveys at a later date (respondent fatigue is an issue as well). Telephone follow up to complete medium-term outcome data sets can help with this, but is labor intensive. Contact information can quickly become outdated unless considerable effort is made to maintain it. Even when medium-term data are collected, those participants who stay in the geographic area, continue to be engaged in farming, and participate in the organization's programs are much more likely to receive the contact and to respond to follow-up attempts.

This introduces a source of bias to longer-term outcome measurements that is difficult to quantify. If BFRDP would like more information on medium-term outcomes, it will require devoting considerable resources at all levels to ensure accurate and useful data reporting.

Definitions of Measures. When projects did measure medium-term outcomes, they often used different definitions of these terms, or different measures. This made it impossible to aggregate the information accurately. For example, sometimes "started farming" meant that a person was farming their own land independently. Other projects define it as doing any type of farming, even managing another's farm. These different definitions yield results that are not comparable.

Getting at economic viability was even more difficult, as many types of indicators need to be used to assess varying situations. Project reports include the percent who increased their income since the program, average gross income earned by participants, extent of increase in profitability, and average gross income earned. Project partners, and even principal organizations, often have multiple funders with varying reporting requirements, which compounds this problem.

The Quality of Reporting Was Uneven Among Projects. Completing project reports in CRIS and REEport[1] can be difficult. The system is set up to record the activities and accomplishments of research projects, not education initiatives. Different directions were offered both by the system guides and the BFRDP staff. Some project staff completed a thorough summary of their efforts, some did not. Grantees did not consistently report the percent, number, and sample population for each outcome (i.e., 20% — 10 of 50 participants), which was required in 2012 grant reporting. Without this level of detail, identifying the total number of people reporting any outcome could not be determined.

REPORTED EVALUATION IMPLEMENTATION PRACTICES

Understanding how the projects' evaluations were implemented can provide context for project results and information regarding future needs and improvements. The project leader survey was used to identify who implemented the evaluation, how it was used, and whether evaluation data collection continued after the grant. Leaders were also asked about what works best for implementing evaluations and for conducting follow-up data collection with beginning farmers and ranchers.

Evaluation Leads Have Evaluation Experience But Fewer Have Training. When asked about who handled the project's evaluation, the majority of respondents said it was implemented by project staff. Only 16% (of 67 respondents) had their evaluation conducted by a consultant or contractor. Staff with evaluation experience conducted most evaluations (76%), but only 37% were conducted by staff with evaluation training. Assuming that the contractors or consultants have evaluation training, just over half (54%) of the grantees had their evaluation implemented by someone with evaluation training.

Evaluation Information Appears Useful for Grantees. Project leaders were also asked how they used the evaluation information they collected. Of the 66 respondents, 89% said the evaluation helped them improve their program and 74% have used the information in other grant proposals. Additionally, 88% have continued to collect evaluation data since the project ended, with over half of this group (55% of 58) collecting all or most of it. While organizations may have been collecting and using this information before the grant, it is still encouraging to see its use. These results point to the evaluation requirements providing value for the grantees beyond simply reporting their findings to NIFA.

Effective Evaluation Strategies

To provide useful suggestions to current and future grantees about what works best for conducting evaluation, project leaders were asked to share their best practices. Those leaders who said they had effective strategies (43% of 67 responses) or moderately effective strategies (37%), were asked, "*What could you share about your effective strategies that you think would help others?*" There were 34 responses to this question. The responses spanned many topics, such as what to include in an evaluation plan, what to cover in data collection instruments, and how to implement the evaluation, etc. Therefore, few people responded in a

[1]REEport stands for the Research, Extension, and Education Project Online Reporting Tool. It is NIFA's updated grant and formula project initiation and reporting system, which became active in 2013.

similar manner. Only a few themes stood out that could provide useful strategies for others.

Use Direct Contact with Farmers to Collect Data. Approximately one-third of project leaders offered ideas for setting up data collection strategies. The primary suggestion was to collect data through direct contact with farmers. This includes doing surveys in person or in a group, conducting one-on-one interviews, or running focus groups.

As one leader put it, direct contact, particularly through interviews, provides a means to get qualitative as well as quantitative information. Focus groups also provide a means for farmers to network, which they find important. These do not have to be official focus groups, but could be a " . . . cook off where we gather everybody together (or multiple cook offs) and have open-ended discussions" (264).[2]

Not all leaders agreed — a few suggested doing follow-up surveys online. However, as one project leader shows, there is great value to the direct connection approach. "We incorporated phone interviews using pre-established interview protocols to collect evaluation data. Although more time intensive, response rates are high and the information provided very useful" (205).

Maintain Connection with Participants Over Time. A handful of project leaders suggested strategies to get the most out of their evaluation efforts — by getting more farmers to participate. Generally, the focus is to maintain connection with the farmers or ranchers, through maintaining networks, "robust communication," or keeping them engaged. Building and maintaining trust is another related theme.

A few other suggestions by project leaders, on a range of topics, included:

- Conduct evaluation as soon as possible after the event
- Share summarized evaluation data as soon as possible with staff
- Create an evaluation plan ahead of time
- Include short-, medium-, and long-term indicators in your evaluation plan
- Create consistent evaluation procedures

Photo credit: Dairy Grazing Apprenticeship.

- Prioritize evaluation resources on those you work with most intensively
- Include both formative and summative evaluation components
- Hire an evaluation consultant if expertise is needed

Effective Follow-up Strategies

Understanding more about medium- and long-term outcomes — things that happen over time after attending an education intervention — is an important part of understanding how these BFRDP-funded projects create impact. Being able to follow up with farmers a year or more after having worked with them is critical to provide this kind of understanding.

Only 21% of 67 respondents said they have effective strategies for tracking BFRs after they leave their programs, and 46% said they have somewhat effective strategies. The 45 project leaders who said they had effective, or somewhat effective strategies for tracking the beginning farmers they served, were asked to share these strategies. Thirty-five project directors responded to this question.

Personal Contact. The majority of respondents (almost a third) shared that they maintained connection with farmer participants through personal contact. Project leaders said that they would visit farmers, continue communication, maintain relationships, connect

[2] Quotations from the project leader survey are presented anonymously. These numbers refer back to the original project.

through community activities, and work with "local coordinators [who] keep fairly current" (257).

Continuing Services and Communication. The next most common method for maintaining contact was to offer continuing services — such as continuing education programs, continuing workshops, ongoing technical assistance, and e-learning courses. Project leaders also mentioned continued written or electronic communication to keep past participants connected to what is happening at the organization or update them about upcoming programs and available resources. One mentioned staying connected by asking what else the organization could do to support them. Another project leader highlighted the multiple strategies used to track beginning farmers: "Visiting them. Emailing them regularly. Holding regularly scheduled workshops so they can share. Encourage interdependence as opposed to pure entrepreneurship" (207).

Tracking Methods. A handful of respondents mentioned using different tracking methods to track past participants, such as keeping email lists for those who agree to future contact.

SUMMARY

- **Improve current evaluation and reporting strategies in order to obtain useful data.** These include addressing the duplicate counting of participants, the non-identification of beginning farmers and other audience categories, the over reporting of short-term outcomes and the lack of medium-term outcomes. There was also a lack of clear definitions for outcomes and inconsistent reporting quality — making it impossible to aggregate and compare outcomes across programs.
- **Provide support to project leaders and staff in conducting evaluations.** Given the issues identified through the content analysis, more support and training on the evaluation process would be helpful. Project leaders would likely welcome this kind of support since only 37% of staff members conducting evaluation had training in this skill, only 43% felt they had effective evaluation strategies, and close to 90% have used their projects' evaluation results to improve their programs and have continued to collect at least some evaluation-based information after their BFRDP project ended.
- **Have and maintain connections with farmers to generate effective evaluations.** Having direct connection for data collection and maintaining those connections over time through written communication and continuing education were considered important both for general evaluation strategies and for following up. While several other ideas were mentioned that are considered to be important for conducting evaluation, the theme of connection provides an important insight that is not necessarily mentioned in all evaluation manuals.

V. CONCLUSIONS & RECOMMENDATIONS

ALBA is a BFRDP grantee that works with beginning farmers in California. ALBA farmer Victor Cortes, enjoys spending time with his family on their farm, La Granjita. Photo credit: Shawn Lineham.

Conclusions

As interest in training the next generation of farmers continues to grow across the country, and more new farmer training projects launch every year, it is our hope that this analysis will provide a better understanding for policymakers and practitioners alike about best practices and factors related to successful training programs, as well as demonstrate BFRDP's return on investment in growing the next generation of farmers.

Key Conclusions. Three primary conclusions can be drawn from our findings that should inform future training and evaluation efforts, as well as the future of BFRDP:

1. **BFRDP has been successful in meeting its legislative mandate**
2. **BFRDP is helping to grow the next generation of farmers**
3. **BFRDP is building a national infrastructure, new models, and best practices to train and support new farmers**

1. BFRDP Has Been Successful in Meeting its Legislative Mandate

Congress created BFRDP in 2002 with the recognition that more needs to be done to ensure the stability and success of the next generation of farmers, in the face of alarming trends of an aging and shrinking farm population. The stated purpose of the program is to "provide training, education, outreach, and technical assistance initiatives for beginning farmers or ranchers."[1] Our findings show that BFRDP is fulfilling this broader mission and is meeting other statutory priorities outlined by Congress in the program's mandate to serve new farmers.

Farmer-Driven Programming. The degree of farmer involvement in the project design, implementation, and decision-making of a BFRDP project is a key evaluation criteria established by USDA. Our findings show that farmers are contributing to BFRDP projects, with nearly every project evaluated including farmers either in the development or implementation of funded projects. However, there is still room to increase farmer participation in the early stages of designing a project to ensure its success in addressing the specific and tailored needs of beginning farmers.

Regional Balance. To ensure BFRDP remains a national program and reaches farmers in all corners of the nation, BFRDP is required by law to ensure geographical diversity in awarding funds. Our analysis found that the program generally met this mandate, with the 119 projects evaluated serving farmers in 45 states and the Virgin Islands. Grants were roughly spread evenly across all geographical regions, with some variation from year to year. The Northeast was slightly underrepresented during the years we evaluated, but also represents a smaller total area and farming population than other regions.

Partnerships Are Key. One element of BFRDP's success is its innovative approach to supporting collaborative projects that involve partnerships with nonprofit and community-based organizations, along with academic partners. Of the completed projects evaluated, all but one included at least one partner or collaborator, and

[1]Section 7405 (7 U.S.C. 3319f) of the Farm Security and Rural Investment Act of 2002

Apprentice Brian Klinge with family, Deerbrook, WI. Photo credit: Dairy Grazing Apprenticeship.

a majority of project leaders surveyed found that their partners made a significant contribution to the project's success. Our findings suggest that this statutory priority has been largely fulfilled, although more uniform reporting on partners would assist in confirming the extent to which nonprofits, community-based organizations, and universities are collaborating.

Reaching Underserved Farmers. During the grant period evaluated, BFRDP was required by law to ensure that at least a quarter of total available funds supported projects that served socially disadvantaged and limited resource farmers, as well as farmworkers.[2] Our analysis shows that in total, 54% of BFRDP funding was devoted to projects that targeted socially disadvantaged populations as their primary audience, including 21% of projects targeting women, 27% of projects targeting immigrants and refugees, and 51% of projects focusing on minority audiences. Low- and limited-income participants, many of whom were also socially disadvantaged, were targeted by 48% of projects.

Broad Training Topics. Congress outlined an extensive list of high-priority training topics that provide new farmers with the basic production, marketing, and business skills, along with the technical assistance they need to start a successful farm business. The wide variety in educational content and assistance reflected in evaluated projects adheres to this mandate, and highlights the diversity and complexity of small-scale farming and the farmers themselves. Over 90% of projects included farm business management training, and more than 80% included production and marketing training. Approximately 40% of projects helped beginning farmers access land and capital — two absolute necessities for anyone looking to farm.

2. BFRDP is Helping to Grow the Next Generation of Farmers

From an organic incubator farm in California to a dairy apprenticeship program in Wisconsin, one thing is clear — BFRDP is making an impact on beginning farmers and ranchers across the U.S. and yielding solid results in training the next generation of farmers.

Funded Projects Showing Real Outcomes. While the available data are unable to paint a complete picture, what are available point in a positive direction. In total, the 119 projects evaluated made over 122,000 contacts

[2] The 2014 Farm Bill (P.L. 113-79) changed the statutory set-aside for socially disadvantaged farmers from 25 to 5 percent of total program funding.

with farmers, educators, and others working with new farmers, and directly served roughly 60,000 beginning farmers and ranchers over the six years we evaluated. Projects focused on a broad array of aspiring to more experienced beginning farmers, with almost all projects focused on farmers in their first five years of farming. Projects had a significant focus on those farmers operating or starting out at a small scale.

Based on reported outcomes for projects that measured them, it was clear from our analysis that farmers touched by BFRDP projects are learning, gaining new skills, moving towards farming, starting to farm, and seeing improvements in their farming success.

More than 15,000 farmers reported learning something as a direct result of BFRDP programming. Project reports show that over 4,000 farmers planned to start farming, 1,800 started farming, 9,400 continued farming, and 5,500 added or changed their practices as a result of participation in a BFRDP-funded project. Moreover, project leaders estimate that on average, over half of project participants have started farming, with nearly three quarters being more prepared to farm and more successful in their farming endeavors.

3. BFRDP is Building a National Infrastructure, New Models, and Best Practices to Train and Support New Farmers

Not only is BFRDP meeting its legislative mandate to train and grow new farmers, but it has also created a national infrastructure of essential training services and dedicated programs for new farmers. BFRDP funding has spurred the development of valuable networks to support beginning farmers as they navigate the complexities of starting a career in agriculture in the U.S. today.

A New Model of Training New Farmers. BFRDP has filled a critical gap in resources and support networks that are necessary to train and transition new farmers into agriculture in the United States today. While traditional support systems—such as the intergenerational transfer of agricultural knowledge and assets—still exist, the profound change that our agricultural economy has witnessed over the past century has likewise changed the educational model needed to train the next generation.

This new model includes a variety of organizations working together (nonprofit and academic) to build on their strengths (research/curricula from academic and farmer connections from nonprofits) and create programming based on farmer inclusion (planning and implementation). The requirement that projects have partners or collaborators builds regional and local networks to support farmers in their multiple stages of development. Additionally, some projects are providing new models of solid strategies for assisting beginning farmers, and sharing them widely across the U.S.

Building a National Infrastructure to Support New Farmers. Between 2009 and 2015, BFRDP has invested millions of dollars into over a hundred new farmer training projects that are impacting farmers in nearly every state. Together, these individual and distinct projects contribute to a fairly young but already impressive national infrastructure of training and support services to meet the needs of new farmers today.

Sometimes you just need to take a break and cuddle a chicken. True hands-on educational training during Armed to Farm Boot Camp, hosted by the University of Arkansas's (a BFRDP grantee) Department of Poultry Science and National Center for Appropriate Technology. Photo credit: University of Arkansas, Fayetteville.

These foundational services include: intensive year-long programs, in-depth topical workshops, apprenticeships to build hands-on skills, incubators to practice farming independently, mentorship and direct technical assistance to address individual questions, and creating networks so farmers can continue to access the information, resources, and support they need into the future. This wide array of services allows beginning farmers to pick and choose what they most need and works best for them.

BFRDP Funding is Critical for New Farmer Training. Additionally, project leaders confirmed the importance and necessity of BFRDP funding, stressing the way it helped organizations serve more beginning farmers, and serve them better. It helped them create functional partnerships with other organizations, build capacity, and create lasting resources that have contributed to building a national infrastructure to train new farmers.

A Network of Diverse Organizations are Key. BFRDP funding has also expanded the breadth and diversity of organizations serving beginning farmers. While some of the organizations that have implemented BFRDP projects are long-standing institutions (either academic or community-based), the creation of BFRDP nearly a decade ago has also spurred the creation of dozens of other organizations and expanded programming to support new farmers in areas previously underserved. These include community and technical colleges, sustainable agriculture organizations, producer organizations, rural and economic development institutions, and financial and lending institutions.

The diverse membership of organizations that have emerged to support new farmers is part of BFRDP's success story. By prioritizing projects led by or including community-based and nonprofit organizations, BFRDP has helped provide a more comprehensive array of services that beginning farmers and ranchers can access. Our findings show that, in some cases, different organization types are more likely to offer different components of new farmer training — and it is the partnerships between these organizations that are key to BFRDP's success.

For example, projects led by nonprofits were twice as likely to offer apprenticeships to beginning farmers as those led by academic partners, while academic partners tended to include more curriculum development in their programming. Both are important and valuable approaches to training new farmers, and it is clear that nonprofit and community-based organizations, along with their academic partners, are each filling critical, but distinct, gaps in new farmer training.

Establishing Best Practices in New Farmer Training. Organizations specializing in beginning farmer and rancher education through BFRDP grants have generated much knowledge, on a practical level, about how to work best with new farmers. Farmer-to-farmer training approaches, one-on-one technical assistance, and networking opportunities were identified as keys to program success.

Combined with other best practices identified (see Best Practices section), these effective new farmer training strategies allow current and future practitioners to build and increase their capacity to better serve the next generation of farmers. As this national infrastructure of new farmer training programs continues to mature, utilizing existing resources and established best practices, as well as continuing to explore others, will be key to fostering the most effective and impactful programs that can demonstrate success in training the next generation.

Recommendations

It is our hope that the findings from this evaluation will help practitioners, policymakers, federal agencies, and the general public better understand both the value and impact of BFRDP as a whole and the projects it has supported. Our findings also point to ways that the program, and new farmer training projects writ large, can be further strengthened to better support the next generation of farmers, and to ensure the program's continued success.

GENERAL RECOMMENDATIONS

1. Continue Long-Term Investments in New Farmer Training

Training the next generation of farmers to develop and hone skills that will make them successful in starting and maintaining a viable, profitable, and sustainable farm business is far from a short-term undertaking. Moreover, farmers starting out today have different needs and face new challenges compared to those who started farming decades ago and are now reaching retirement. Many first-time farmers come from non-farm backgrounds (Lusher Shute, 2011) and don't have first-hand knowledge or mentorship that those from previous generations had growing up on a farm. BFRDP is demonstrating that training the next generation of farmers needs to happen in new ways.

1a. Continue to Support New Models in New Farmer Training. BFRDP has helped create new and refined approaches to equipping new and aspiring farmers with the skills they need to start a successful farm business in today's agricultural economy. Continuing to support projects requiring farmer involvement and collaborative endeavors of organizations with different skill sets adds important value. Additionally, innovative new farmer training models (such as a national registered apprenticeship structure and tested farmer-led training program) have been created through BFRDP and are being replicated across the country to expand the impact of funded projects. It is essential that BFRDP continue to address the changing structures of agriculture and support the development of new and innovative models necessary to train the next generation.

1b. Continue to Invest in National Infrastructure to Train New Farmers. Since the establishment of BFRDP, hundreds of organizations and academic programs have been launched to tackle the need for new farmers head on. Cooperative Extension has filled this role in the past, but with the shrinking capacity of our nation's extension system (Wang 2014), BFRDP has, to some extent, helped address this funding shortfall, and remains an important source of funding for cooperative extension new farmer initiatives. It is therefore essential to continue to invest in BFRDP in order to ensure that new farmers have access to the resources, support networks, and formal training fostered by BFRDP grantees in order to not only start farming, but to continue to build and grow a viable farm business into the future.

2. Continue Investments in Evaluation to Identify Long-Term Impacts

Ensuring the success and viability of the next generation of farmers (or any profession for that matter) requires a long-term strategy, and an equally long-term investment. While this evaluation sought to better understand the outcomes and impact BFRDP has had on training the next generation, it's nearly impossible to truly understand the long-term impacts a program like BFRDP has had overnight, let alone by the end of a three-year grant period.

While our evaluation did yield some prominent findings that shed light on the value and success of a now well-established federal program, it could not provide a complete picture of the long-term impacts of these collective local and regional efforts to train new farmers. Training new farmers is a long-term strategy—it will take decades to truly measure any significant impact in any real way.

For future policymakers and practitioners alike to better understand the impact of BFRDP ten years from now, we need to ensure the program not only continues into the future, but also continues to invest in long-term evaluation. To that end, policymakers and practitioners need to establish better metrics now and ensure that BFRDP grantees use those metrics to more accurately track and measure long-term success of the program and the impact the program is having on cultivating the next generation of farmers (specific suggestions are outlined in recommendations to USDA below).

RECOMMENDATIONS FOR GRANTEES & PRACTITIONERS

1. Continue to Implement a Farmer-to-Farmer Focus in Education

Project leaders frequently cited farmer-to-farmer training strategies as best practices and reasons for success. A number of funded BFRDP projects already include farmer-to-farmer strategies, such as mentoring or having farmers as educators and facilitators. Adding other methods to connect new and aspiring farmers with other farmers could provide more depth to training initiatives, such as including strategies for beginning farmers to learn from those just ahead of them.

2. Deepen Farmer Engagement in Program Development

Farmers and ranchers have been consulted extensively in the design of BFRDP projects. However, only 34% of grantees reported including farmers actively in project design. Increased engagement of farmers in designing projects could help ensure farmer needs are being met.

Training new farmers is a long-term strategy—it will take decades to truly measure any significant impact in any real way.

3. Utilize Adult Education and General Education Methods and Principles

Some project leaders pointed to education methods, principles, or theory as contributing to their project's success and mentioned these methods as examples of best practices. Education strategies, such as experiential learning, project-based learning, social learning, and reflective learning, are all relevant and potentially useful to beginning farmer programs. Other strategies often considered important in adult education are taking into account different learning styles, and utilizing farmer needs and experiences in program development. Many projects already use these strategies intuitively. For example, social learning strategies include mentoring, peer-to-peer instruction efforts, and networking. However, explicitly including these models could benefit future programming.

4. Continue to Learn About and Share Best Practices

Some projects explicitly create ways to share learning about best practices among their project partners. For example, some projects have created regional meetings for beginning farmer educators to meet, coordinate services, and share about what has worked best for educating farmers. Educational Enhancement Teams (EET) create resources based on what works best with different audiences, education methods, and topics. Utilizing EET materials or creating time to share with partners about best practices could provide value to future programming.

RECOMMENDATIONS FOR USDA

1. Revise Reporting Guidelines and Processes to Collect More Usable Data to Document Project Impact

As discussed in this report, there were several issues with the available evaluation data that did not allow us to fully aggregate all of the outcomes (e.g., percent who started farming), or even identify unique counts of beginning farmers served.

USDA has made progress to address these problems by improving the evaluation and reporting requirements. In 2014, a team at the University of Minnesota Center for Farm Financial Management received a clearinghouse EET grant to manage the reporting of evaluation information. Through the use of the Results Verification System (RVS), they have addressed several of the issues we've identified in this report.

The RVS system tracks basic output information on three key groups: those who 1) start farming, 2) are more prepared to farm, and 3) have farming success. It requests people to identify the *unique* number of beginning farmers and ranchers who were served in the program. The system also allows for project staff to identify their own metrics, and provides a reporting system so that grantees can learn from each other. These are excellent changes and should be continued into the future.

As with all systems, it can be difficult to meet all needs. The changes implemented in this system appear to meet USDA's requests. However, we do have suggestions that could provide more useful information for grantees and funders in the future.

1a. Identify a set of key primary outcomes for all projects to choose from. Having projects choose at least one of a small set of key outcomes to track would enable the BFRDP to better report cumulative numbers across projects. Utilizing the three items used for tracking outputs (started farming, more prepared to start farming, have farming success) would be one strategy. However, identifying more specific key indicators to use for measuring "farming success" for different populations would be useful. Identifying key outcomes addressing economic viability, such as increased income, is key.

1b. Provide a way to obtain more accurate percentages for outcomes. To collect information that can be tabulated across projects more accurately, it would be helpful to clearly define the indicators, specify the numbers to report (total N, sample size, number of survey respondents, number who did the desired behavior), and provide a place to report data collection procedures used (when the measure was taken, how the data were collected, etc.).

1c. Continue to allow programs to choose their own indicators. Since so many organizations use their evaluation data in other ways, continue to provide structures to support them in using it for program improvement and development. The current RVS supports this with its reporting format. This option should be retained in future iterations of the RVS.

1d. BFRDP should take corrective action at the end of the first year if reporting does not meet minimum expectations. CRIS/REEport and/or the RVS reports should be reviewed to ensure that information is being collected and documented as required. If there is gross error or missing information, the project leader should be informed.

2. Incentivize Collecting Follow-Up Evaluation Information

Collecting follow-up data on medium-term outcomes (such as the number of those who started farming and those who had improved farming success after they left the program) is time consuming and costly. Generally, projects collected this information at the end of a long program component (e.g., a year-long course), or not at all.

2a. Focus follow-up evaluation on the largest programmatic investment. Conducting follow-up on long-term intensive programs is more likely to produce results and prioritize limited evaluation resources than focusing on follow-up for a number of one-session workshop or conference attendees. However, if web-based education or a workshop series is a large component of a project, follow-up with those participants may be worth the effort.

2b. Fund follow-up evaluations after the project has ended. Identifying medium-term or long-term outcomes that happened after the project ended cannot be expected under current grant awards. The few projects that have done this type of follow-up (usually long-term programs that have been serving beginning farmers and ranchers for years) often report about outcomes for farmers who participated before and/or after the BFRDP project.

2c. Prioritize awards to projects that include collecting information on medium-term outcomes at the end of the 3-year project. However, it is important to prioritize projects with good strategies for ensuring useful information. This includes evaluating intensive programs (where people would be more connected and likely to respond at the end of the project), spending time ensuring contact information is up-to-date, and utilizing in-person or phone contacts where feasible. Any renewal award would ideally have this type of evaluation included in their proposal.

3. Provide More Evaluation Technical Assistance, Guidance, and Resources to Grantees

3a. Provide more training. Our analysis found that fewer than half of the project staff conducting evaluations have evaluation training. Specifically, USDA should provide training regarding the RVS evaluation and reporting structure to project applicants in advance of proposal submission, to ensure the project's evaluation design will address both the project and the reporting system.

Farm site and research lands manager Darryl Wong instructs a member of the Apprenticeship training course (supported through BFRDP) in the proper technique for transplanting peppers. Photo credit: Martha Brown/CASFS.

3b. Provide options for evaluation metrics. In addition to providing a small set of key indicators from which projects must choose at least one, it would be helpful to provide a more comprehensive list of other possible items to use. This includes providing example short-term and medium-term indicators that could be used for different types of projects serving different types of audiences. It would be a particular service to programs to highlight different indicators for farming success, improved economic viability and improved quality of life.

3c. Provide specific instruction for tracking unique numbers of farmers served, and conducting follow-up surveys/interviews to capture medium-term outcomes. While the project leader survey provided some guidance on these topics, more best practices could be sought and shared among future and prospective grantees.

4. Continue to Evaluate BFRDP as a Whole

Additional information could help develop and improve programs, as well as inform the Request for Applications (RFA) structure and guide project funding.

4a. Identify benchmarks for different types of programs (apprenticeships, mentorships), audiences, and contexts. This requires understanding the *percent* of people who experienced improved farming success, were more prepared to farm, and started farming by program type, audience, etc. While there is likely no "good" or "standard" outcome due to programs' variability, understanding ranges of outcomes for different project types and audiences (incubators, apprenticeships, immigrant focused, etc.) could be helpful.

4b. Identify challenges projects face. Due to the advisory team's request to keep the project leader survey short, and the stated focus of the EET evaluation, we did not ask this question. However, lessons learned from challenges experienced, or strategies for how to address challenges, are invaluable to new BFRDP project grantees.

5. Provide Grantees with More Opportunities to Learn from Each Other About What Works Best When Working with Beginning Farmers and Ranchers

5a. Provide support structures to help foster learning about how to best work with beginning farmers and ranchers. Continuing to fund Educational Enhancement Team Projects (EETs) is one way to promote this type of learning. Several Educational Enhancement Team projects have focused on just such types of learning and professional development for specific audiences, topics, and educational structures. However, EETs that include building on and fostering learning between projects, as well as focusing on the creation of curriculum by experts, should be prioritized and encouraged.

5b. Continue learning discussions at Project Directors' Meetings. Discussions at these meetings can provide valuable information to active projects. Documenting the learning that happens would be invaluable to these and other organizations serving beginning farmers and ranchers.

5c. Ensure clearinghouse information is accessible and usable. Provide guidance on conducting project or information searches, as well as an overview of the available content.

6. Evaluate regional distribution of grants to ensure strategic investments in meeting regional and commodity-specific beginning farmer challenges

While on the whole, grants evaluated under this period appeared to be geographically balanced, this does not always hold true in any given funding cycle. There have been years in which specific regions have been underrepresented. Additionally, there have been large disparities in the number of grants funded in any given state, with a handful of states dominating much of the program funding.

A more strategic assessment should be conducted to 1) identify the states, regions, commodities, and other sectors that are most underrepresented and in need of additional and targeted support and to 2) identify the reasons for low participation in BFRDP and ways to address these barriers.

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Photo credit: Dairy Grazing Apprenticeship.

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APPENDICES

Tamir Pelleg weeds a spinach crop at the UC Santa Cruz Farm, which receives support through BFRDP.
Photo credit: Elizabeth Birnbaum/CASFS.

Appendix A:
Evaluation Methods in Detail

To prepare to answer the evaluation questions, we developed a logic model to provide a framework for the data collection methods (see Appendix D). To answer the identified evaluation questions, different team members reviewed existing CRIS/REEport reports from grantees (content analysis), surveyed project leaders, and conducted interviews for case vignettes of successful programs. Specific methods for each evaluation component are explained below.

1. Content Analysis

The purpose of the content analysis was to identify and code project characteristics, as well as short- and medium-term outcomes, from the progress and final reports the grantees completed each year, which are stored in the online USDA CRIS system. We also hoped that this information would provide a method for identifying successful projects, which could then be used to identify factors relating to success.

Preliminary Assessment

A preliminary assessment of the existing data was the first step in Phase I with the purpose of defining the data set and developing a coding framework.

A logic model for the program was created in collaboration with NIFA program management and the advisory team. It was also based on a review of reported CRIS/REEport outcomes and relevant literature on the topic of beginning farmer education, general farmer education (extension), vocational education, and entrepreneurial education (Birner et al. 2009; Perez et al. 2010; Strochlich et al. 2005; Niewolny et al. 2010; Pointeau et al. 2016; Dickson et al. 2008; Hoffman et al. 2015). This logic model identified: 1) The program context, 2) resources, 3) inputs, 4) audiences, 5) education approach and 6) outcomes/impacts (short-term, medium-term, and long-term). We used the logic model to inform the content analysis process.

For this evaluation, short-term outcomes were considered items easily measured at the end of an education program, such as changes in knowledge, attitudes, skills, awareness, or intentions. Medium-term outcomes were defined as changes in decision-making, behaviors, and actions, as well as immediate impacts of those actions on economic well-being or quality of life, that happen within several months or a couple of years since attending the program. Long-term outcomes were defined as changes in social, economic, or environmental conditions, as well as medium-term outcomes for individuals that happen several years after the program.

Thirty (30) CRIS reports were sampled for preliminary analysis. Fifteen (15) projects were selected randomly, and an additional 15 projects were selected using stratified random sampling of the remaining projects. Strata included: 1) type of organization (university, nonprofit), 2) socially disadvantaged audience, and 3) renewal projects.

A preliminary coding guide was developed through analysis of the 30 reports, using a combination of both open coding and template coding. Both open codes and template codes were included in the coding guide. Open codes (Blair, 2015) are derived from review of the data, while template codes (King, 1998) are identified a priori. The preliminary coding key was reviewed by the co-evaluator, NIFA management, and the Advisory

Table 10. Awarded BFRDP Projects 2009-2012

INSTITUTION	FY AWARDED
Alaska	
University of Alaska Fairbanks	2010
Alabama	
Tuskegee University	2010
Alabama A&M University	2012
Arkansas	
Arkansas Land and Farm Development Corporation	2009
Arkansas Land and Farm Development Corporation	2010
University of Arkansas	2010
Arizona	
Developing Innovations in Navajo Education, Inc.	2009
Tohono O`odham Community College	2010
Arizona Board of Regents, University of Arizona	2011
California	
Agriculture and Land Based Training Association	2009
Ecological Farming Association	2009
International Rescue Committee, Inc	2011
Sustainable Agriculture Education	2011
The Regents of the University of California	2011
University of California Cooperative Extension	2011
Agriculture and Land-Based Training Association	2012
The Regents of the University of California	2012
Colorado	
Colorado Cattlemen`s Association	2010
Colorado State University	2012
Connecticut	
University of Connecticut	2012

INSTITUTION	FY AWARDED
Florida	
Florida A&M University	2009
University of Florida	2009
Earth Learning, Inc.	2010
Florida West Coast RC&D Council, Inc	2010
Georgia	
Federation of Southern Cooperatives/ Land Assistance Fund	2010
Georgia Organics	2011
Truly Living Well Center Natural Urban Agriculture	2011
Hawaii	
University of Hawaii	2009
Pacific Gateway Center	2012
The Kohala Center, Inc	2012
Iowa	
Practical Farmers of Iowa	2010
Iowa State University of Science and Technology	2011
Women, Food and Agriculture Network	2012
Idaho	
Mountain States Group, Inc.	2010
Illinois	
Angelic Organics Learning Center, Inc	2009
Angelic Organics Learning Center, Inc.	2012
Black Oaks Center for Sustainable Renewable Living	2012
Board of Trustees of the University of Illinois	2012
Chicago Horticultural Society	2012
Kansas	
Catholic Charities of Northeast Kansas, Inc.	2010

(continued)

INSTITUTION	FY AWARDED
Kentucky	
University of Kentucky	2009
Kentucky State University	2012
University of Kentucky	2012
Massachusetts	
Nuestras Raices, Inc.	2010
Tufts University	2010
Maryland	
University of Maryland	2012
Maine	
Cultivating Community	2009
Maine Organic Farmers and Gardeners Association	2011
Michigan	
Michigan State University Extension	2010
Greater Lansing Food Bank	2012
Minnesota	
Farmers` Legal Action Group, Inc. (FLAG)	2009
Land Stewardship Project	2010
Hmong American Partnership	2012
Latino Economic Development Center	2012
Minnesota Food Association	2012
Missouri	
The Curators of the University of Missouri	2009
The Curators of the University of Missouri	2009
University of Missouri	2009
The Curators of the University of Missouri	2012
Mississippi	
Winston County Self Help Cooperative	2010
Mississippi State Univ. of Agriculture and Applied Science	2011
Montana	
Fort Peck Community College	2011

INSTITUTION	FY AWARDED
North Carolina	
Appalachian Sustainable Agriculture Project	2010
National Center for Appropriate Technology	2010
Inter-Faith Food Shuttle	2011
North Carolina Agricultural and Technical State University	2011
North Dakota	
Fort Berthold Community College	2009
Nebraska	
Center for Rural Affairs	2010
Legal Aid of Nebraska	2012
New Hampshire	
Land For Good	2010
Organization for Refugee and Immigrant Success	2012
New Jersey	
Northest Organic Farming Association of NJ	2011
New Mexico	
Holistic Management International	2009
Holistic Management International	2012
New Mexico State University	2012
Nevada	
University of Nevada Cooperative Extension	2011
New York	
Center for Transformative Action	2010
Just Food, Inc.	2010
Empire State Honey Producers Association, Inc.	2011
Northeast Organic Farming Association of New York, Inc.	2011
Stone Barns Restoration Corporation	2011
Council on the Environment, Inc. d/b/a GrowNYC	2012

(continued)

INSTITUTION	FY AWARDED
Ohio	
The Ohio State University	2010
The Ohio State University	2012
Oklahoma	
Langston University	2009
Kerr Center for Sustainable Agriculture, Inc.	2011
Oregon	
Gorge Grown Food Network	2010
Oregon State University	2010
Mercy Enterprise Corporation DBA Mercy Corps Northwest	2012
Pennsylvania	
The Pennsylvania State University	2009
The Pennsylvania State University	2009
The Pennsylvania State University	2011
The Pennsylvania State University	2012
South Carolina	
Clemson University	2010
South Dakota	
South Dakota State University	2009
South Dakota State University	2010
Dakota Rural Action	2012
Tennessee	
The University of Tennessee	2009
Texas	
The University of Texas - Pan American	2009
Texas A&M University-Commerce	2010
Texas Tech University	2011
The University of Texas - Pan American	2012

INSTITUTION	FY AWARDED
Utah	
Utah State University	2010
Virginia	
First Nations Development Institute	2010
Virginia Polytechnic Institute and State University	2010
Virgin Islands	
University of the Virgin Islands	2011
Vermont	
University of Vermont	2011
Washington	
Washington State University	2009
Washington State University	2009
Institute for Washington's Future	2011
Seattle Tilth Association	2011
Rural Community Development Resources	2012
Washington State University	2012
Wisconsin	
Midwest Organic and Sustainable Education Service	2009
Farley Center for Peace, Justice and Sustainability	2011
GrassWorks, Inc.	2011
Midwest Organic and Sustainable Education Service	2011
Growing Power, Inc	2012
Wyoming	
University of Wyoming	2011

Team. Based on their feedback, a revised version of the coding key was developed for application. The coding of participant numbers (outputs) and outcome data produced several concerns with the reliability and validity of the data.

Full Assessment

The CRIS reports from 119 standard BFRDP projects with start dates between 2009 and 2012 initially composed the data set for analysis. A project assistant who had prior experience with beginning farmer training and BFRDP began coding the reports in July 2016. The coding was stopped in mid-August 2017, when it was discovered that one section of the CRIS reports (Other Products) was missing.

BFRDP was able to supply the missing report section as part of .pdf files from REEport during the period from late September through the end of October 2017. The final REEport data for the 119 projects was added to the data set. At this time a review of the coding key was done in conjunction with the project assistant, clarifications were added, and the coding process resumed in mid-November 2016. It was completed in December 2016. A review of the data, with special attention to the output and outcome data, was completed in February 2017. We made preliminary results available to the advisory team and BFRDP management for feedback in late April and early May 2017.

Available case analysis (pairwise deletion) was used in analyzing the data (Pigott, 2001). The data were analyzed as part of the data set when the required data were available for that variable, even if they were not present for all variables included in the coding key.

Data Caveats: Coding the CRIS report data was challenging. While we made every attempt to code the data as accurately as possible, it was evident that there were three major sources of error present, especially in the reporting of outputs and outcomes. They are summarized below:

- **Duplication in the number of participants:** Many projects counted the number of participants in each activity, summed the numbers, and reported a total number in the final report. It was often unclear how much overlap existed in participant reporting. Twenty-six (26) of the 119 reports appeared to have duplicated participant numbers. Whenever possible, unduplicated participant numbers were coded based on the context of the numbers and examination of yearly reports leading up to the final report. As a result, aggregate numbers of participants were likely overstated in this report.
- **"Floating" percentages:** The first outcome-based reporting guidelines issued by BFRDP in 2010 required outcomes to be reported as percentages. An update to the guidelines in September 2013 required that outcome percentages be accompanied by the numerator and denominator from which the percentage was derived. If the number of participants included in the percentage was neither stated nor evident from the context of the report, a number was not coded in this study. Thirty-two (32) of 119 reports had "floating" percentages: percentages for which the total number of participants was not reported. These outcomes could not be coded. As a result, aggregate numbers of participants achieving various outcomes are likely understated in this study. It also made it impossible to determine aggregate percentage of participants who achieved various outcomes.
- **Number of beginning farmers and ranchers:** Projects typically counted the number of participants in their activities, but many did not differentiate among the types of participants. This was especially true for large gatherings such as conferences. In this evaluation, beginning farmers were counted only when the projects identified them specifically, or it was evident from the report context that it was a group of beginning farmers. If the composition of the audience was not specified or there was not sufficient context, the number was included in the aggregate total of all participants only. Based on the subject matter, many of the larger group activities likely had high numbers of beginning farmers, but it was impossible to determine how many. As a result, the final aggregate total of participants is likely overstated due to duplication, while the total number of beginning farmers trained is likely understated due to a lack of clear audience identification.

Combined with "floating percentages," and duplicate counting of participants, the lack of specificity in counting beginning farmer participants prevented the determination of aggregate percentages for specific outcomes.

2. Implementation Analysis

One of the objectives of the study was to identify factors contributing to successful project outcomes. An objective comparison of projects was not possible since comparable outcomes were not reported across projects. There was wide variation in approaches, audiences, and activities, and in data collection methods across projects and even within projects. But, research indicates that full implementation of programs leads to better outcomes (Fixsen, Maoom, Blase, Friedman and Wallace, 2005), and methods have been developed to rate the implementation of projects. Implementation analysis (IA) can be used as a tool to evaluate the extent to which each project was clearly defined in the proposal, delivered as intended, and evaluated based on the objectives (Fixsen et al. 2005). IA methods were adapted to this study and used as a proxy for rating project success.

The following process was used to develop an IA rating system and rate each of the 119 projects (see Appendix C for a description of the core components and indicators used in the ratings).

1. Identified core components of BFRDP successful programs
2. Identified the indicators representing each of the core components
3. Rated the individual indicators for each core component
4. Calculated a rating score for each core component
5. Ranked the projects based on the overall ratings

Based on the IA literature (Fixsen et al. 2005) and input from the advisory team, the following items were identified: 1) Core components clearly described, 2) Objectives clearly defined, 3) Program evaluated and data reported (confidence in data reported), and 4) Participants were engaged. Three (3) to 5 indicators were rated on a 5-point scale for each of the core components. Each core component was weighted equally; 20 points was the maximum possible IA rating score. A more detailed description of the rating scales is located in the Appendix.

The IA method likely underrated or overrated some projects because the BFRDP requirements for reporting changed more than once during the period examined, and because it was impossible to rate some of the core components identified in the AI literature using only the data in CRIS reports. After conducting the rankings and reviewing the results/issues, the evaluation team concluded that the IA ranking would be best used as one element of identifying successful programs for the vignette sample, and not be used as a stand-alone surrogate outcome measure for identifying activities associated with successful projects.

3. Project Leader Survey

A project leader survey was conducted to augment outcome data collected from the content analysis. It was designed to identify medium-term outcomes collected after the program's conclusion, provide basic information about the projects that were not collected systematically in CRIS reports, and identify information to help improve evaluation and collect ideas on best practices.

The survey was developed with consecutive rounds of input from the co-evaluator, NIFA staff, the advisory team, and a consultant evaluator. The draft survey was put into the online survey software (Qualtrics) and then pre-tested with 4 project PIs/leaders.

The survey sample consisted of all 119 standard grants that were awarded between 2009–2012. There were at least 11 renewal grants in this sample. People with renewals were asked to complete the survey for both grants. Project leaders were first contacted about the survey in early October to alert them to the survey, identify the best person to complete it, and confirm accurate emails.

Survey implementation followed the guidelines of Dillman et al. (2009). Survey invitations, with unique survey links for each project, were sent to the project leaders once a week starting on 11/28, for 4 weeks. All of the leaders who had not yet opened the survey as

of 12/13 were contacted by phone between 12/14 and 12/16, after the FY17 BFRDP RFA application deadline so that those who were working on the RFA would be finished at this time. This process identified a few more incorrect email addresses and PIs that had moved on. The survey was then sent to 13 new project leaders who were identified. The survey deadline was extended to 1/6/17 to allow time for these new people to complete it.

There were 68 surveys completed, for a 57% response rate. Four of the known renewal projects completed both surveys, and three completed just one survey. Those who took the survey are reasonably representative of all the projects in the sample. While there were slight differences in program characteristics when comparing the survey respondents to the whole sample, differences were less than 5 percentage points. The survey respondents included slightly fewer nonprofits, intensive programs, and programs from the South or from the West (see table 10). There were slightly more survey respondents from the North Central region and the North East region. The largest difference, at 4.6 percentage points, was that survey respondents included more socially disadvantaged audiences. Additionally, average and median implementation analysis scores are very similar, with only the slightest tendency towards projects with higher IA (sample average is 0.4 higher than the whole sample, where the maximum is 19.4 and minimum is 10.2).

Project leaders who said they would share evaluation reports and summaries were contacted after the survey closed to share these reports. Three contacts were made to request the documents. Several projects shared reports, however, not all contained medium-term outcomes, and only four contained follow-up data collected after project completion. Reports that had medium-term outcomes were used in the content analysis if that information was missing from the CRIS reports.

Table 11: Comparison of Project Leader Survey Sample vs All Projects to Identify Survey Representativeness

	SURVEY RESPONDENTS	WHOLE SAMPLE
Project Qualities		
Nonprofits	52.9%	55.5%
Intensive programs	64.7%	68.1%
Region		
West	26.5%	28.6%
North Central	35.3%	31.1%
South	17.6%	21.8%
Northeast	19.1%	16.8%
Audiences		
Socially Disadvantaged	26.5%	21.8%
Implementation Analysis		
Average Score	16.4	16.0

Quantitative data were analyzed in *Qualtrics* software (for basic frequencies), Excel, and SPSS. Qualitative questions on best practices were analyzed inductively for themes (Patton, 1990) by a project evaluator and research assistant, then reconciled. Excel was used to review data and code identified themes. Other evaluation team members, as well as the advisory team, reviewed results of qualitative data analyses. Feedback was incorporated and some thematic analyses recoded based on their suggestions.

4. Successful Project Vignette

The primary purpose of the vignettes was to highlight general examples of project success, innovation, and diversity to help stakeholders — especially policy makers, NIFA, and beginning farmer education organizations (current and future) — understand program impacts and useful practices.

We chose projects for the vignettes if they demonstrated a reasonable level of success or accomplishment, had important or unique qualities to highlight, and demonstrated the range of the projects funded by the BFRDP.

A short list of successful projects was identified if they, a) had an implementation analysis score of 16 or above (approximately half the projects received this score) OR were identified as generally successful by the advisory/evaluation teams.[1] Projects were then kept on the list if they b) had reported medium-term outcomes and c) had at least one average score in the Project Director's Survey (if they took the survey).

The final list of projects was chosen to highlight the diversity of program types, including at least one of the following: an intensive program, a university-driven effort, an example of effective partnerships, a focus on immigrant and socially disadvantaged audiences, a veteran focus, a variety of educational methods (apprenticeships, incubator, mentoring, workshops, etc.), a general audience, and projects from different regions. Only one project selected did not have an IA score of 16 or more, but demonstrated solid medium-term outcomes, and provided an excellent example of a particular type of program.

Vignettes were developed by contacting project leaders to obtain their participation. CRIS reports, project websites, as well as other project reports offered by the leaders were reviewed and questions were developed for each project based on available information. Interviews were conducted over the telephone in Spring 2017, and took about an hour each. Questions generally covered basic information about the project, project outcomes and successes, and what led to project success. Vignettes were written by one evaluator, reviewed by the evaluation and advisory teams, revised, and sent to the project leader for review to assure accuracy.

[1] Since the implementation analysis score was not considered by the evaluators as a definitive measure of success (it is possible that successful programs were underrated), further identification of successful projects was sought from NIFA, the advisory team and the evaluation team.

Appendix B:

Content Analysis Coding Guide

PHASE 1: CONTENT ANALYSIS CODING GUIDE

Identification:

- FY Award
  - from Excel spreadsheet supplied by NIFA
- Proposal Number
  - from spreadsheet
- Award Number
  - from spreadsheet
- Project Director
  - From spreadsheet
- Institution Name
  - from spreadsheet

Coded Items by Category:

1. Organization Type

1=NGO

2=University Extension/Land Grant University

4=Other university/college

2. Socially Disadvantaged (SD) Targeted Audiences (as reported)

1=Yes

2=No

Section note: If in the context of the report it is clear that the target is socially disadvantaged or low income — the neighborhood is poor, there is a shortage of nutritious food, etc.— it is implied/assumed that the target is socially disadvantaged, then it is coded "Yes."

2.a. Minority Yes, if the program is called out as being targeted to minorities or SD minorities. If there is a number of minorities reported, but they are not specifically targeted, the number should be coded in the "minority" category only (8.h).

2.b. Women Yes, if the program is called out as being targeted to women or SD women. If there is a number of women reported, but they are not specifically targeted, the number should be coded in the "women" category only (8.f).

2.c. Farmworkers Yes, if the programs is called out as being targeted to farm workers. If there is a number of farm workers reported, but they are not specifically targeted the number should be coded as "no."

2.d. Limited income/Low Income Yes, if the program is called out as being targeted to low income/limited income BFRs. If there is a number of low income/ limited income participants reported, but they are not specifically targeted, the number should be coded in the "low income/limited income" category only (8.j).

2.e. Immigrant/Refugee Yes, if the program is called out as being targeted to immigrants and/or refugees. If there is a number of immigrant or refugee participants reported, the number should be coded in the "immigrant/refugee" category only (8.i).

2.f. Veterans 1=Yes 2=No 1=Only if the program is called out as being targeted to veterans. If there is a number of immigrant or refugee participants reported, the number should be coded in the "veterans" category only (8.m).

3. Socially Disadvantaged (SD) Focus

1=Yes

2=No

Section Note: Choose up to 1 focus only. Which best describes the program or is there no mention of the audience with regard to SD? No mention of SD = 2 (No) on all SD audiences. SD includes:

- *Immigrant producers*
- *Women*
- *African American*
- *Hispanic or Latino*
- *Native American*
- *Asian or Pacific Islander*

3.a. SD Primary Audience Yes, mentions that SD audience is the primary target.

3.b. Targeted SD program component (part of larger project) Yes, mentions that an SD is targeted in some way, usually translation or interpretation.

3.c. SD Included in Audience Yes, demographic data collected during the project indicate there are SD participants. None of the SD categories are mentioned as being targeted. If the program is targeted to any SD group or a component of the program is targeted to an SD category then =2 (No).

4. Urban Focus

4.a. Yes, if described as an urban program. Targeted at an urban audience. If only a single component is described as urban =2 (No).

5. Educational Methods

1=Yes

2=No

Section note: Sometimes the workshops or trainings had two options — they could be taken individually, or they could be part of a more intensive program. If so, they are reported as "Yes" in both "single classes or workshops" and "multi-meeting course or seminar series."

5.a. Single Classes or Workshops (stand alone) Yes, if participants can attend as many or as few sessions as desired; content of each session is self-contained.

5.b. Field days/Field Trips/Farm Visits Yes, if there are organized field days/field trips/farm visits that are designed for a group. Does not include longer-term participation in incubators, on-farm mentoring, or other one-on-one activities. If the incubator participants are involved in farm-based educational activities outside of the incubator teaching farm, that qualifies for this category. If the incubator or teaching farm invites BFRs to the farm for a field day or farm visit, that qualifies (Yes). If a group activity on a "private" farm is described as "hands on" or something similar, even if the words "field days," "field trip," or "farm visits" were not mentioned, it was counted in this category.

5.c. Multi-meeting course or seminar series Yes, if the series or classes build on each other or are part of a whole. Must meet more than once.

5.d. Conferences Yes, if a group is gathered for a short-term purpose. A conference will have self-selected offering such as workshops, seminars, presentation of papers, etc. A "summit" is included in this category. "Retreats" are not included.

5.e. Retreats Yes, if the word "retreat" is used in the description or title of the activity.

5.f. Mentoring Yes, if dyads, including at least one BRF, are connected by the project or project partner for the purposes of education. Informal mentoring or networking activities are not included in this category. This category is for "formal" mentoring, a project component, not a connection that just happens. The word "mentor" or "mentoring" is used. There is evidence of intent.

5g. Apprenticeships/Internship Yes, if BFRs are involved in experiential learning in a formal program of extended duration (not one or two sessions). The words "internship" or "apprenticeship" are used in the description. Actual terms are used.

5.h. Incubators Yes, if BFRs are farming in an incubator. There is monitoring of the farmers by the program staff. Term "incubator" is used in the program description. Actual term is used.

5.i. Networking Yes, if opportunities for BFRs and/or professions and/or farmers to come in contact are created intentionally by the project. The words "network" or "farmer alliance" or similar terms may be used. But, if the creation of contacts is clearly part of the program, the actual words (networking, farmer alliance) do not have to be used.

5.j. Other One-on-One (not mentoring or apprenticeship) Yes, if there is one-on-one expert or technical support or access to a consultant; could be support provided one-on-one in an incubator — but must be specified as one-on-one in report. Peer-to-peer with other BFRs is not included in this category.

5.k. Other Educational Methods Yes, if there are any other type of educational activities that are not covered above.

6. Program Offerings: Duration and Intensity/Depth and Breadth

1=Yes

2=No

Section Note: Programs may have one, two or all three of these categories

6.a. Trained Intensively/Comprehensively Yes, if participant commits to a training which spans months or years; attends multiple sessions; upon completion of the program the BFR should already be farming or have the knowledge and skills to start farming (even though they may still need additional training or assistance). Participants have at least the basics in production, management, financial, marketing. Many different combinations of activities could comprise a comprehensive/intensive training. Generally these programs have a clear beginning and end. Finishing/Graduating/Certification are words to look for in the reports, but are not required for this category.

6.b. Some Longer Duration Elements/In-Depth Knowledge of One Area Yes, if the program has multiple meeting or sessions on one topic or topic area. The BFR obtains in-depth knowledge or skills or assistance in a specific area--financial management; conservation; land acquistion, etc. There may be certification. The BFR would need knowledge/skills and/or training in other areas in order to start farming

6.c. Self-selected Components (menu of options) Yes, if the program has discrete/stand -alone sessions which can be self-selected by BFRs.

7. Program Content

1=Yes

2=No

7.a. Farm Business Management Yes, if includes any business management topics: labor management; legal and regulatory, land acquisition, financial management, etc.

7.b. Farm Business Planning Yes, if includes planning topics: farm business plan creation; financial planning. Words "plan" or "planning" must be used for this category.

7.c. Marketing Yes, if includes marketing and distribution topics such as farmers markets, retail , CSAs, etc.

7.d. Production Yes, if includes any production topics such as soil; crop and/or animal production.

7.e. Environmental Sustainability Component Yes, if report calls out conservation or sustainablity components; organic and or sustainable methods/practices are mentioned. (Examples: Soil health, pasture management, pollinator habitat, water conservation, forestry management)

8. Number Trained

Section Note: Eliminate double-counting whenever possible. If it is evident that a group of BFRs continued on in a program for multiple years, count them only once. Except for total number trained and educators trained, report BFRs only in all other categories (whenever possible). Participation in a training programs equals "trained" in this section.

8.a. Total Number Trained Count anyone trained by the project including BFRs, staff, partners, professionals, educators, farmers who are not beginning farmers, and youth. This number could come from a total given or from the sum of different components reported. If started/finished is reported, the "started" number is coded here.

8.b. Beginning Farmers and Ranchers Trained Total number of BRFs trained. Examples: BFR attended a training session; was involved in experiential learning such as internships, apprenticeships, incubator or similar; accessed web-based training materials; was part of a farmer network. Did not count page views; access to websites (unless it was an online training). Also include forestry training and subsistence gardening projects for SD audiences.

8c. Beginning Farmer Intensively/Comprehensively Trained Number of BFRs trained in a program which should prepare them to start farming upon completion. Some participants many still need more training or may not be ready, but they have a least the basics in management, production, marketing, financial. The word "intensive" is often used in the reports. The program may be formal or experiential or some combination of both. The definition for "intensive/comprehensive" programs (6.a.) is used to determine which participants are counted in this category.

8.d. Educators TrainedIncludes professionals (bankers, lenders, teachers, employees of federal agencies, extension personnel, program staff, etc.) trained; farmer mentors and/or farmer presenters trained; peer mentors, anyone else trained-to-train or mentor BFRs.

8.e. Total SD Trained Includes limited income/low income, ethnic and racial minorities, immigrants/refugees, farm workers and women. The total may be less than the sum of the categories due to participants in multiple categories.

8.f. Women/Females Trained Number of women

8.g. Men/Males Trained Number of men

8.h. Minorities Trained Number of racial and ethnic minorities

8.i. Immigrant/Refugees Trained Number of immigrants and refugees

8.j. Low income/Limited Income Number of low income and/or limited income participants trained; LI/LI may or may not be further defined in the report.

8.k. Disabled Trained Disabled participants participating

8.l. Youth Trained Number of youth

8.m. Veterans Trained Number of veterans

9. Partners

Section note: Difficult to identify from CRIS reports and REEport files.

9.a. Major Partner(s) Yes, if called out as a major partner or included as part of the BFRDP grant funding; delivers an integral part of the training.

9.b.Minor Partners Yes, if partners included in a "list of partners" in the report

10. Support

1=Yes

2=No

10a. Assistance in Accessing Land Yes, if BFRs receive assistance in obtaining land as part of the project; the transfer of land is facilitated in some way: succession planning, transition planning, estate planning or other--which makes it easier for BFRs to obtain land. Includes: incubators, workshops with any assistance or training to help with land access. If there was training or assistance for transfer of land from landowners to BFRs, it is also counted.

10.b. Assistance in Obtaining Financing Yes, if the project includes education on securing capital. If bankers, FSA, NRCS provided information directly or indirectly on securing capital or obtaining loans, matching funds or grants as part of the project. Also if there was direct assistance in applying for capital such as assistance completing the loan or grant application. If was mentioned that loans or equipment were obtained as part of the project, this is included as "Yes."

10.c. Language and Cultural Support/Translation; Targeted culturally appropriate programming Yes, if the project includes translation of course materials; also cultural translation (language assistance; assistance with agencies) and culturally appropriate programming for any SD group. If the project hired a facilitator or expert from the SD target audience, this was also counted as "Yes."

11. Publications

1=Yes

2=No

11.a. Curriculum Yes, if a curriculum has been developed as part of the project. It can be presented online or face-to-face, formal or informal. The curriculum can be in any format including a book which was developed as part of the project.

11.b. Newsletters/Articles Yes, if there are web-based newsletters and e-mail "blasts," and articles written and published in any format. Does not include press releases.

11.c. Resource Guides Yes, if webpages; websites, webpages or paper documents were developed to assist BFRs with accessing information or connecting with professionals or agencies. Also includes short publications on specific topics such as extension bulletins.

11.d. Listserv Yes, if the project developed and/or maintained a contact list which was used to disseminate communications and information to BFRs on a regular basis.

11.e. Social Media Yes, if as part of the project there was establishment and/or use of social media sites such as Facebook or other social media sites, and/or Twitter; Instagram or similar platforms with the intent of connecting, informing and supporting BRFs .

11.f. Webpages & Websites Yes, if the project created websites and/or webpages to support BFRs.

11.g. Blogs Yes, if a blog is created and/or maintained as part of the project. Word "blog" is specifically mentioned in report.

11h. Books Yes, if a book was published as part of the grant. The word "book" is specifically mentioned in the report.

11I. Other: Flyers, Brochures, Press Releases, Displays, Other Yes, if other communications and/or media is used to promote or created awareness of activities planned or completed as part of the grant

11j. Fully Online Training/Distance Education Yes, if described in report as an entire training or training module as fully online, such as a webinar. May be offered as a complement to the program or as the primary training method.

12. Short Term Outcomes (number of BFRs)

12.a. Change in Knowledge/Skills/Attitude Number who had short term outcomes as a result of the project. Number who had a change in knowledge; number who learned something; number who gained awareness; experienced a change in attitude. Can be derived from both qualitative descriptions and numerical data.

12A. Learned How to Develop Business Plan/Farm Financial Plan Number of participants who learned how to develop a farm business plan or farm financial plan. If they actually created a farm business plan or farm financial plan as part of the project, it is assumed that they learned how to do it from the project.

13. Medium-term Outcomes: Action, Behavior Change or Intention Outcomes (number of BFRs)

13.a. Plan to Start Farming Any mention of number, or use of a % from which a number can be calculated, who plan to start farming at the end of training or in follow-up evaluation.

13.b. Started Farming (during project) Number who started farming as an owner, manager, or employee. Includes any farming activity where product is being sold.

13.c. Continued Farming Number who continued farming as an owner, manager or employee at the close of the project or training.

13.d. Added or Changed Practices (for those farming): Number who took action. not included specifically in the other Outcome categories.

13.f. Developed a Business Plan Number of BFRs with a farm plan or farm financial plan which was developed as a result of the project/program.

13.g. Applied for a Loan/Financing Number of BFRs who applied for a loan as part of the project (if they got a loan, it is assumed that they also applied for one.).

13.h. Got a Loan/Financing Number of BFRs who got a loan with assistance from the project. If they got a loan, they should also be counted in the "Increased Economic Viability" outcome.

13.i. Plan to Continue Training Number of BFRs that plan to continue training. Cut and paste text in the notes section,

14. Impact (number of BFRs)

14.a. Increased Quality of Life Count if there is a clear indication of an increased quality of life. Look at SD categories especially. Better language skills; cultural competency (helping immigrants and refugees navigate US society and institutions); increased income, etc.

14.b. Increased Economic Viability/Stability Count if there is an indication of increased economic viability or stability. If the BFR successfully accesses land or capital thought the project, include it here. May also include purchase of equipment, access to new markets.

Appendix C:

Implementation Analysis Rating Scales

Ratings Scales: 1=lowest rating and 5=highest rating

Core Component A: Core components of project are clearly described (From the Non-technical Summary, Objectives and Approach sections)					
RATING	**1**	**2**	**3**	**4**	**5**
Indicator 1: **Target audience(s) defined**	Does not identify target audience(s) at all.		Identifies some of the target audience groups. Description is somewhat general (such as limited income with no addition information). Does not use USDA categories. Target audience(s) may be assumed.		Clearly identifies/describes each group in the target audience including (but not limited to) the use of USDA socially disadvantaged categories (if applicable). Geographic target and other variables relating to the target audience(s) defined (if applicable). Target audience may be broad—such as all BFRs.
Indicator 2: **Activities**	Does not identify any specific activities—even in a general or functional way.		Describes the activities in a functional or general way and/or relies primarily on buzz words/ descriptors such as "farmer-led" or "hands-on" or "community-based," but does not explain what the actual activities are.		Clearly identifies/describes all of primary activities which compose the project. Number of activities/sessions is included. If specific activities are not identified, a needs analysis is included to assist in definition.
Indicator 3: **Project Structure**	No indication of structure.		Describes the project structure in general terms with little in the way of specifics. Does not indicate why or how the activities or partners fit together or complement each other. A curriculum or methodology is not mentioned (if applicable).		Describes a structure—such as (but not limited to) "two tracks" or a progression in the training components, the number or hours/days or training to be provided. Is the training comprehensive or are the activities self-selected by the participants? Is there are time element to completion identified–days, months, years? Describes a path or progression to farming and indicates where the activities are located in the path or process (if appropriate). A curriculum or methodology is used or is being developed (if appropriate).

(continued)

Core Component A: Core components of project are clearly described (From the Non-technical Summary, Objectives and Approach sections)					
RATING	**1**	**2**	**3**	**4**	**5**
Indicator 4: **Project Delivery**	Not clear who is delivering the training. Partners mentioned, but their role is not explained.		The grantee organization is assumed to be providing educators, but individuals and their qualifications, roles and/or functions are not identified. Partners are identified as responsible for training, but their role is described in a general way.		Clearly identifies the educators to be involved in project delivery. Who (specifically) will provide the training (extension, experts, farmers, mentors, partners, peers, the grantee)? Training of educators is mentioned (if applicable).
Indicator 5: **Rationale for choices**	No rationale for choices of components.		Little rationale for choices. May identify need, but assumes that it is self-evident that the need will be met by the project.		Describes the need for the project and why/how project meets that need. Discusses why the components (any variables: activities, target audience, educators, staffing, partners, etc.) were chosen and how they fit together (if appropriate). A situational or needs analysis may be included to answer questions about needs.

(continued)

Core Component B: Objectives clearly defined (From Objectives section)					
RATING	**1**	**2**	**3**	**4**	**5**
Indicator 1: **An overall objective (or several objectives) is identified**	No objectives are defined.		Objective(s) are general or vague; not well defined.		An objective(s) is included such as: start profitable farm business; assist in gaining financing; expand knowledge. Objectives are well defined.
Indicator 2: **Specific outputs are described**	No metrics regarding numbers to be trained/receive services. No description of other outputs.		A number is included but there are no targets for specific audiences (if applicable). Or, a specific audience is mentioned, but there are no metrics.		Number of BFRs and others to be trained, receive services, professional development is included. Number by audience included (if appropriate). Other outputs are defined: number of curriculum, publications, etc. (if appropriate).
Indicator 3: **Specific measurable outcomes to be evaluated and reported are described/ identified**	No mention of outcomes.		Outcomes are mentioned, but lack specificity and/or target audience differentiation. Outcomes are general and/or not measurable.		Desired outcomes are completely and clearly described and measurable. Generally answer the question: What do you expect to happen by the end of the project or specific program? High degree of specificity—for example, clearly defined outcomes for activities, audiences, or the project as a whole. Outcomes are compatible with the overall objective(s) of the projects.

(continued)

Core Component C: Program evaluated and data reported (confidence in data reported) (From all sections)					
RATING	**1**	**2**	**3**	**4**	**5**
Indicator 1: **Precision**	No metrics are reported or what is reported is completely unclear.		Numbers are imprecise (i.e., more than, about, etc.). Numbers are not clearly linked to activities, outputs, outcomes, and audiences. The source of the number(s) is not clear or it is somewhat unclear what was measured. Demographics are not included or appear to be estimated or assumed when SD audience is targeted.		Numbers are precise and appear not to be duplicated/ double counted. Numbers are linked to activities, outputs or outcomes of the project (if appropriate). Numbers are linked to target audiences identified in the Approach and Objective sections (if applicable). The source of the numbers is clearly stated. The timeframe is clear (is it for the year, the whole project, etc.?).
Indicator 2: **Accuracy**	There are no metrics or it is impossible to determine what activities, outputs, audiences, or outcomes they refer to.		Metrics are present, but there is no indication of methods or the methods are unclear, error prone, or inappropriate.		The methods by which the metrics have been obtained are appropriate and clearly described. The data reported seems reasonable for the type of project.
Indicator 3: **Readability**	The report is essentially unreadable. Numerous writing issues.		The report is somewhat difficult to read overall. Reporting is fragmented. No attempt has been made to summarize year-to-year numerical data. Large sections of material seem to be cut and pasted from earlier or internal reports without summary. May also include vague descriptions, long sentences, sentence fragments, grammar and punctuation issues, misplaced modifiers. Poorly organized.		The report is easy to read overall. The report is well organized and concise. Few or no grammatical errors or run-on sentences. Outputs and outcomes are summarized in the final “Progress” and “Impact” sections.

(continued)

Core Component C: Program evaluated and data reported (confidence in data reported) (From all sections)					
RATING	**1**	**2**	**3**	**4**	**5**
Indicator 4: **Numbers reported reflect objectives, activities, outputs, and outcomes described in the project description.**	There are no metrics.		The data reported poorly reflects the objectives, activities and outcomes in the proposal. Mostly outputs (and few or no outcomes) are reported.		The numbers reported reflect the stated objectives, activities, outputs, and outcomes. The selection of data reported is relevant to the project objectives and appropriate for the activities and audiences. Outputs are clearly reported. There is outcome data included.
Indicator 5: **Relevancy of progress and impact report content to overall project**	There are no data reported or the data seem irrelevant to the project objectives		There is too little data or the amount and/or type of data are somewhat inappropriate for the type, scope, and intensity of the project. Reporting does not reflect the objectives of the BFRDP program as a whole.		The amount and type of data reported seems appropriate for the type, scope, and intensity of the project. Intensive programs have a higher level of outcome reporting. Medium- to long-term outcomes are reported when appropriate. Data reported reflect BFRDP directives on outcome reporting.

(continued)

Core Component D: Participants are engaged (From all sections)					
RATING	**1**	**2**	**3**	**4**	**5**
Indicator 1: **Methods and structures for increasing participant engagement are present**	No indicators of methods or structures that increase engagement.		High reliance on one method or type of activity—especially classroom. No indicator of participant satisfaction or usefulness of activities. Completion of intensive/comprehensive programs assumes engagement.		Indicators: Methods used serve a variety of learning styles; there are activities specifically designed to meet the needs of the target audience(s). Follow-on activities are planned. Activity or program is rated highly by the participants. Structures designed to increase engagement are included such as: Farmer networks or alliances, farm tours, farm field days, mentorships. Culturally appropriate components are specified (if appropriate): language translation, interpretation, etc.
Indicator 2: **Farmers, professionals, and/or peers are trained/developed and serve as mentors and/or educators and/or evidence of other involvement in programs**	No training or development or use of farmers or peers.		Use of farmers or peers to be mentors, educators, leaders. No mention of training or development of farmers, peers. Professionals (staff or other professionals) are trained or developed as educators.		Emphasis on development of participants, professionals, and farmers as trainers, mentors, leaders. Use of farmers and peers as mentors, educators, leaders. May include train-the-trainer activities or similar. Experienced farmer and BFRs involved in planning, committees, etc.
Indicator 3: **Successful partnerships**	No partners are mentioned. Partners are mentioned negatively.		Organizations assumed to be partners are mentioned in narrative. What they did or how they contributed is not clear.		Many minor partners and/or significant major partners or collaborators are identified as contributing positively to the project.

Appendix D: BFRDP Logic Model

RESOURCES

Money
BFRDP grants
25% match

Org Structure
Capacity
Management type (NGO, extension, university, land grant)

Org Connection
BFRDP partners
Other partners
Network cohesion (decision making, money flow)

INPUTS

Philosophy
Theory of change
Frameworks used

AUDIENCES

Socially Disadvantaged
Racial and ethnic minorities
Women
Immigrant/refugee

Special Focus
Farm workers
Limited resource
Veterans

Stage of BFR
Aspiring
Start up (1-5 years)
Established (6-10 years)

Sector
Farming
Ranching
Non-industrial private forest land

Focus
Serve only BFRs vs serve a larger audience

Other
Urban
Young
Mid-career
Small-scale
New commodity

ACTIVITIES

Teaching Method
Class/workshop
Field day/field trip
Conference
Retreat
College course
Short courses
Apprentice/intern
Long-term training
Mentoring

Land Support
Incubators

Tech Support
TA, consulting or advising (financial assist, credit/loan/IDA, etc.)

Support
Food hubs
Land linking
Other
Learning circles
Social media

Resources
Curriculum
Publications
Information serv.
Online docs
Resource guides

Social
Networking
Matchmaking
Listserve
Learning circles
Social media

APPROACH TO ACTIVITIES

Content
Horticulture
Animal production
Marketing
Business
Finance
Sustainability

Ed Theory
Formal/expert
Social
Experiential

Level
Individual
Institutional
Community

Location
Land based
Classroom
Distance ed

Pieces vs Whole
A menu of multiple activities, or part of comprehensive program?

Participation
Students involved in class or program development

Duration

OUTCOMES

SHORT-TERM—Changes in knowledge, skills, attitudes or intensions
Gained needed skills and competencies
Confident or prepared to take the next step
Have increased access to information and resources (including culturally relevant resources), know where to find it
Decided not to farm
Plan to start farming
Plan to continue farming
Plan to continue in training

MEDIUM-TERM—Changes in behaviour, action, or decision-making—or immediate impacts on economic, environmental or quality of life measures
Started farming or ranching
Closer to starting farming or ranching
Continued farming or ranching
Economic
Increased profitability or acquired assets
Increased productivity
Environmental Implemented practices (organic, IPM, etc.)
Community development
Access to food/culturally appropriate food
Developed leadership skills
Improved social network/cohesion

LONG-TERM—Changes in social, economic or environmental conditions, as well as medium-term outcomes for individuals that happen several years after the program
Individual
Farming successfully at 10 years
Resilient (able to withstand shock)
Environmental stewardship impacts
Healthier soils
Beneficial pollinator habitat
Water conservation
Community development impacts
Rural and farming communities thriving
Quality of life impacts
Farmers & ranchers have excellent quality of life
Advancing our ability to fight hunger and ensure global food security

Context: Region of US, access to land, price of land, access to capital, farming family background, access to labor, cost of compliance for food safety and other regulations, commodity grown, farm scale, position in farming continuum, access to markets, farmer personal characteristics (constitution for farming).

Cultivating the Next Generation

An Evaluation of the Beginning Farmer & Rancher Development Program (2009 to 2015)

October 2017

NATIONAL SUSTAINABLE AGRICULTURE COALITION

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