Inventory and Evaluation of Farmer and Rancher Training Programs in New Mexico

Phase 2
Final Report

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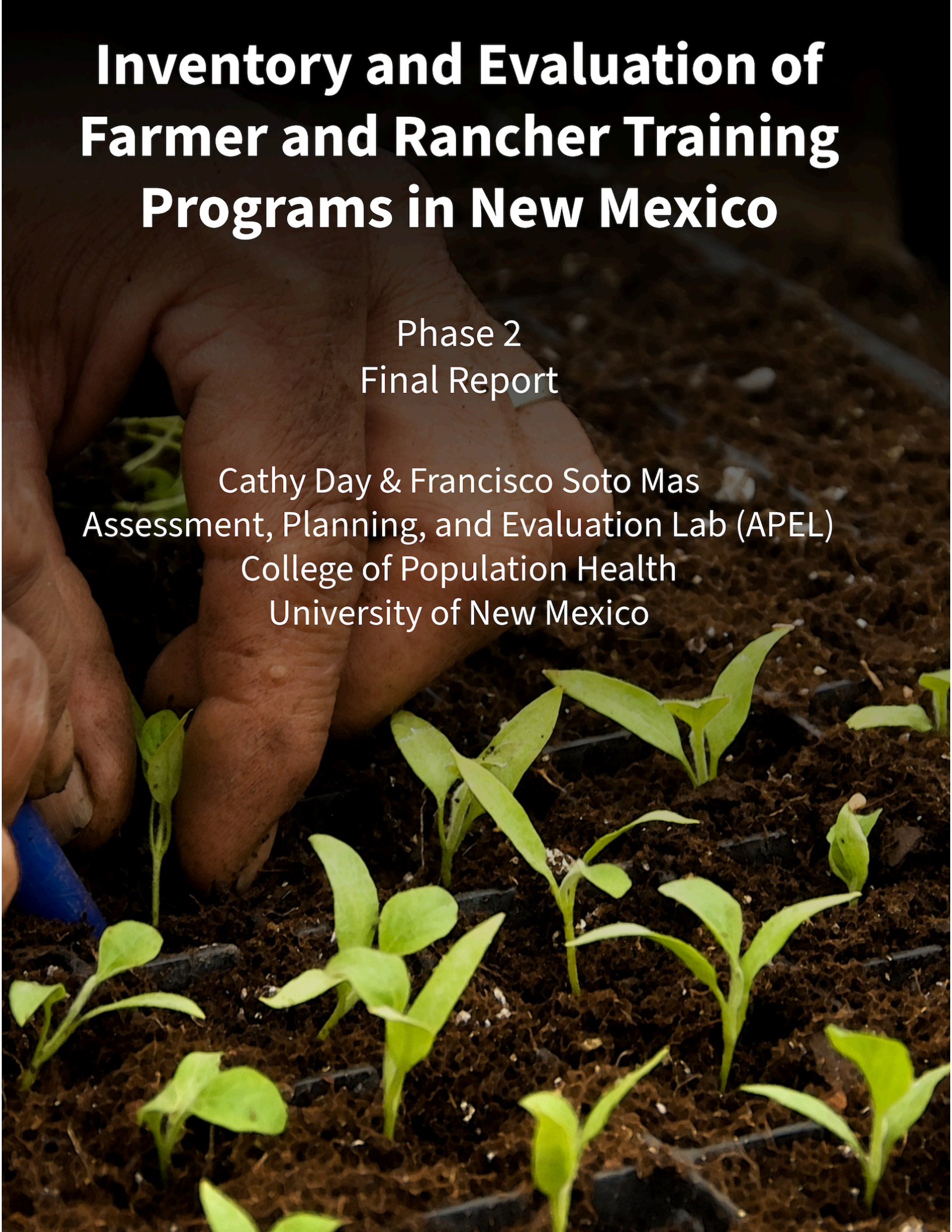

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[1] Author contributions: Dr. Day developed the research instruments, conducted the fieldwork, analyzed the data, and wrote the report. Dr. Soto Mas acquired funding, developed the research model (Fig. 1), and reviewed the research instruments.

Introduction

Like much of the rest of the United States, New Mexico's farming and ranching population is aging, on average. As producers began to retire and otherwise age out of the agricultural system, a dearth of talent, new ideas, and able bodies in farming and ranching threatens the future of the U.S. food supply and of environmentally-informed land management. New producers are greatly needed in New Mexico as in much of the country. However, new arrivals to the agricultural landscape face hurdles ranging from lack of access to land, water, and capital, to inaccessible knowledge on the details of financial management for a farm or ranch business.

Farmer and rancher training programs in New Mexico aim to build the next generation of producers. The target audience of such programs vary widely, but nearly all focus on the essentials of producing food, building soil health, and building farm businesses. The methods of education also vary and tend to be tied to the goals of a given program. Online programs may target more "intermediate" producers (i.e., those beyond the 10 years as "beginning" farmers or ranchers as classified by the U.S. Department of Agriculture) or those who are beginning as apprentices on individual operations and benefit from having a broader community to offer support and insight on their training progress. In-person programs tend to target those newer to the field and offer direct, hands-on, experiential training in growing food.

Despite these broad commonalities and substantial shared history, the farmer and rancher training programs in the state engage in approaches that yield different benefits and challenges to their trainees and the broader communities that they support.

This report builds upon phase 1 of this research, conducted in 2024. That research built an initial inventory of programs and a case study of two of them. This project aimed to provide a broad assessment of agricultural training programs in New Mexico, focusing on the benefits they may be bringing to their trainees and the broader community, as well as the challenges they experience. The goals of this report are 1) to assess the ways in which programs are meeting the needs of the next generation of producers, 2) to analyze the benefits that training programs provide, and 3) to evaluate the challenges that face programs and beginning to intermediate producers, with suggestions for overcoming those challenges.

Goals and Objective

Building upon APEL's 2024 work creating an inventory of New Mexico's producer training programs and two case studies of existing programs, the goal of the 2025 work has been to assess the benefits

of the state's farmer and rancher training programs, and to evaluate what challenges they and their participants experience.

Using an agricultural training program model that assesses the health, social, environmental, economic, and local food system impacts of programs (see Figure 1), the goals of this work were to conduct an in-depth analysis of training programs that determined:

1) programs' benefits to the next generation of producers
2) programs' benefits to the broader community, including staff
3) challenges for programs and newer producers within the context of the broader agricultural landscape

Objective

The objective of the research was to complete the multi-level assessment across all three goals. As such, the researchers aimed to solicit detailed information from both program staff and trainees about the aims of the program, the methods used to carry out their aims, and the successes and challenges they experienced. An in-depth qualitative approach formed the core of the research, as outlined under Methods and Procedures.

Methods and Procedures

Phase 2 Initiation

To kick off phase 2, researchers invited a range of training program participants and other interested stakeholders to a meeting at the Thornburg Foundation on March 6, 2025. At that meeting, researchers presented the results of Phase 1 of the research and solicited ideas from attendees on approaches and questions to ask for Phase 2 of the research. The results of the meeting were gathered from multiple sets of meeting notes from both researchers and Thornburg staff and compiled into recommendations that assisted in shaping the research instruments used throughout the 2025 project.

Approach

Three main tools formed the basis for much of the information gathered about the programs: a semi-structured question list for interviews of program staff, a semi-structured question list for focus groups with program trainees, and a survey for additional trainees. Program staff were given the option of sharing a focus group invitation or the survey with their trainees. In addition, researchers invited program staff to share materials from their programs that highlighted program approaches and outcomes. Participants in all aspects of the study received an offer of participation in a drawing for $50 incentive cards. Staff were recruited using an email list from Phase 1 of the research as well as some additional internet outreach. Trainees were recruited either through staff of the pertinent program or via email addresses provided by the pertinent program.

Figure 1. Multi-Level Evaluation Model of Farmer and Rancher Training Programs.

Interviews of Staff

Research faculty interviewed program staff first. The permission of program staff was required for all other aspects of the research to move forward, so acquainting staffers with the focus of the research and the form and tenor of the questions provided a useful pathway forward for the research as a whole. Within the framework of the five areas of impact of programs–health, social, environmental, economic, and local food systems–researchers elaborated sets of questions to elicit information on program impacts on trainees, staff, the farms or ranches where they function (for in-person programs), and the broader community.

Materials Review

After interviews, APEL requested that programs share documentation relevant to the research. Suggested documents included funding information, numbers of students and graduates, curriculum materials, handbooks, and standard operating procedures.

Focus Groups and Survey of Trainees

After interviews, APEL requested that staff either provide opportunities for focus groups with trainees, or that trainees be sent a prepared survey to complete about their experiences. The survey included a set of questions similar to those that made up the semi-structured interview questions for staff, but most with set, multiple choice answers. The focus group was a shortened version of the staff semi-structured interview questions that was abbreviated with generalized questions.

Results

Characteristics of Training Programs

Table 1. Characterizing agricultural training programs quantitatively

		Programs (n=13)	
		#	%
Focus Audience[2]			
	Beginning Farmers & Ranchers	13	100
	Intermediate Farmers & Ranchers	5	38.5
	Training Trainers	1	7.7
	Youth	2	15.4
	Farmers	11	84.6
	Ranchers	4	30.8
	Permaculturists	1	7.7
	Land Managers	2	15.4
	Farm Service Agency Borrowers	1	7.7
	Tribal members	2	15.4
	Acequia users	2	15.4
	Individuals with intellectual disabilities	1	7.7
	Hispano-Indigenous Land-Based Peoples	1	7.7
	Current or aspiring New Mexico Approved Suppliers	2	15.4
Main modality			
	In-person	9	69.2
	Online	2	15.4
	Choice of in-person or online	2	15.4
Schedule			
	Daily	5	38.5
	3 days per week	2	15.4
	3 times per month	1	7.7
	Monthly	2	15.4
	1-2 day workshop	2	15.4
	Varies	1	7.7
Length			
	One farming or ranching season (approx. 9 months)	5	38.5
	One season with opportunity to extend	2	15.4
	Two farm seasons	1	7.7
	Six months	1	7.7
	One-time workshops	3	23.1
	Varies	1	7.7

[2] *Focus Audience totals add up to more than number of programs because programs have multiple audiences. For some programs, audience is reflective of multiple available courses.*

Table 1, continued

		Programs (n=13)	
		#	%
Organizational Structure			
	Non-Profit	7	53.8
	For-Profit	2	15.4
	Governmental with partners	1	7.7
	Non-Profit/For-Profit Partnership	1	7.7
	University/Government Partnership	1	7.7
	University/Non-Profit Partnership	1	7.7
Main Focus of Food Production at Program			
	Mixed vegetable and fruit production	6	46.2
	Grain	1	7.7
	None[3]	6	46.2
Participate in New Mexico Grown Approved Supplier Program			
	Yes	5	38.5
	No	8	61.5
Currently Active			
	Yes	12	92.3
	No	1	7.7

New Mexico's farmer and rancher training programs focus on both the nuts and bolts of producing food, as well as the supporting topics that round out agriculture. So, for example, farming programs teach about soil preparation, irrigation, seeding plants, genetics, starting plants in a controlled environment, transplanting, and harvest. Ranching programs teach about livestock feed options, maintaining livestock health, pasture or range maintenance, management-intensive pasture rotations, genetics, and animal harvest. To differing degrees, all of the programs include a focus on agricultural business, as well.

However, environmental, health, social, and local food systems topics are interwoven throughout the courses to support the broader goal of producing food. From starting and developing a business to food processing to maintaining one's mental health in isolated locations, programs tailor the curriculum to the particular needs of the populations they serve.

Much of this report will describe the ways in which supporting aspects of training programs, beyond solely food production, affect those within the program as well as the broader community. However, all the curricula are intimately tied to food production, even when that may not be the main focus of a lesson.

In the following tables (Table 2 and Table 3), readers will find summaries of the characteristics of individuals participating in the research.

[3] *Some of the programs without food production have some affiliation with existing farms or ranches, but the programs themselves do not have on-site food production.*

Participant Demographics

Interviews and Focus Groups

Table 2. Participant demographics for those in interviews and focus groups. The researcher completed 15 interviews with staff across 13 programs. In addition, three programs agreed to allow trainees to complete focus groups with the researcher. Focus groups were made up of two, three, or four trainees each.

		Staff Interviewed (n=15)		Trainees in Focus Groups (n=9)	
		#	%	#	%
Gender					
	Non-binary	2	13.3	1	11.1
	Female	10	66.7	6	66.7
	Male	3	20	2	22.2
Race/ Ethnicity[4]					
	White	10	66.7	6	66.7
	Mixed Race	1	6.7	0	0.0
	Native American	2	13.3	2	22.2
	Navajo	1	6.7	1	11.1
	Latina (or Chicana/Latina)	2	13.3	0	0.0
	Quechua Heritage	1	6.7	0	0.0
	Puerto Rican	0	0.0	1	11.1
	Middle East/North African	1	6.7	0	0.0
	Asian	0	0.0	1	11.1
	New Mexican	1	6.7	0	0.0
	Unsure	0	0.0	1	11.1

		Staff Interviewed (n=15)		Trainees in Focus Groups (n=9)	
		#	%	#	%
Education					
	High School Diploma	1	6.7	2	22.2
	Some College/ Associate's Degree	1	6.7	3	33.3
	Bachelor's Degree	8	53.3	3	33.3
	Master's Degree	3	20.0	1	11.1
	PhD	2	13.3	0	0.0
2024 Gross Income					
	No Data	0	0.0	4	44.4
	$10K-$30K	1	6.7	4	44.4
	$31K-$50K	3	20.0	1	11.1
	$51K-$70K	4	26.7	0	0.0
	$71K-$90K	3	20.0	0	0.0
	$91K-$100K	0	0.0	0	0.0
	>$100K	4	26.7	0	0.0

[4] *Race/Ethnicity totals more than 100% because some participants listed multiple identities. All named identities are included here, regardless of whether they appear on the U.S. Census and/or overlap with other identities.*

Table 2, continued

		Staff Interviewed (n=15)		Trainees in Focus Groups (n=9)	
		#	%	#	%
Experience in farming and/or ranching prior to current role					
	None	1	6.7	3	33.3
	<1 year	4	26.7	3	33.3
	1-5 years	1	6.7	2	22.2
	6-10 years	3	20.0	1	11.1
	11-20 years	3	20.0	0	0.0
	>20 years	3	20.0	0	0.0
Place of birth					
	New Mexico	4	26.7	3	33.3
	U.S. West of the Mississippi, Outside New Mexico	3	20.0	4	44.4
	U.S. East of the Mississippi	6	40.0	1	11.1
	Other Country	2	13.3	1	11.1
Time in New Mexico (years)					
	<=10	5	33.3	7	77.8
	11-20	1	6.7	2	22.2
	21-30	3	20.0	0	0.0
	>=31	6	40.0	0	0.0

Survey Demographics

Table 3. Demographics of the nine individuals who completed the survey to the end. Fifteen individuals responded to the survey. Participants included two program administrators, one trainer, and 12 trainees. Completing the survey to the end were nine trainees. Participants could skip any questions they chose, and some who completed the majority of the survey left some questions blank, as with questions on access to farm or ranchland.

		Trainees Completing Survey (n=9)	
		#	%
Gender			
	Non-binary	0	0
	Female	6	67
	Male	3	33
Race/Ethnicity[5]			
	White	7	78
	Asian American/ Pacific Islander	1	11
	Prefer Not to Disclose	2	22
Education			
	High School Diploma	1	11
	Some College	1	11
	Bachelor's Degree	5	56
	Master's Degree	1	11
	PhD	1	11
2024 Gross Income			
	$5,000-$9,999	1	11
	$10,000-$24,999	0	0
	$25,000-$49,999	3	33
	$50,000-$99,999	2	22
	$100,000-$249,000	3	33

		Trainees Completing Survey (n=9)	
		#	%
Experience in farming and/or ranching prior to current role			
	None	1	6.7
	<1 year	4	26.7
	1-5 years	1	6.7
	6-10 years	3	20.0
	11-20 years	3	20.0
	>20 years	3	20.0
Place of birth			
	U.S.	8	89
	Other Country	1	11
Time in New Mexico (years)			
	Less than 1 year	1	11
	1-5 years	2	22
	6-10 years	4	44
	My whole life	2	22

[5] *The survey used U.S. Census categories for race and ethnicity.*

Table 3, continued

		Trainees Completing Survey (n=9)	
		#	%
Alumni & Farming or Ranching Status (n=8)			
	Still in the program, intend to stay in agriculture	2	25
	Still work in agriculture after completing the program	4	50
	No longer work in farming or ranching	2	25
Have access to farm or ranchland? (n=6)			
	Own farm or ranchland	4	67
	Lease farm or ranchland	1	17
	Employed as a farmer/rancher by a non-profit	1	17

Benefits

Health of Staff and Trainees

Both staff and trainees pointed to a wide variety of health benefits that resulted from their participation in the researched programs.

Physical Health

Eight of nine survey respondents said that their diets had improved as a result of participation in a training program. In addition, eight of nine survey respondents reported that their overall physical condition had improved as a result of participation in a training program.

When interviewed, one in-person trainer reflected that, “the benefit of working a small farm is that you’re physically able to do things all the time. Bending over, lifting 40-pound boxes, walking up and down the fields. As long as you don’t abuse yourself, you’re doing fine. . .. I think that physically, it’s beneficial.” A trainee similarly stated, “Yeah, we stay active moving pipes and hoeing weeds, doing tractor work, and all of that. So, it’s a lot of physical labor sometimes. But, yeah, it’s a good way to stay fit.”

Although the physical activity involved in the in-person training programs often helped trainees improve their physical condition, there were aspects in which training sometimes reduced self-care. One trainee noted, ". . .and then physical[ly], it's kind of hard, there's a balance. Yes, we are active outside. But we're doing a lot of extra work, like sometimes all day to where it's like, oh, we haven't eaten all day because we're just busy working."

One program offers additional care for trainees, including occupational therapy, which contributes to improved physical health. Says a trainee, "I can't really bend or crouch when I do pulling weeds or doing something, so I have that back problem, but my health is doing good. That's just my back. [...]. the OT's are helping me out with that. Stretches, mobility issues, situations like that."

Another trainee also believes their health has improved as a result of being at the farm. They stated that they enjoy being outside. In addition to occupational therapy, the farm provides trainees with a wide variety of accessibility approaches. Says a staffer:

> *I think something maybe unique to us is that we spend a lot of time talking about accessibility in agriculture. What different types of adaptive tools might they want to use to help them? Adaptive equipment. And sometimes it's not even just like straight up farm equipment. Sometimes it is those other things like when you go to work after you graduate, what kinds of tools are you going to need to be successful. . . like being on time or attending to your task list or communicating with others. . .*

The staffer adds that the tools needed for adaptability are not necessarily expensive or difficult to access, "A lot of them are not even super wildly. . . expensive or anything like that. There's a lot of stuff that's just like this $10 tool that you can use to make your knees hurt less, you know?"

In addition, the program provides training in ergonomic use of the body and tools, as well as occupational health and safety. One staffer notes:

> *So, that is a huge focus for our training, especially the first couple of months they are with us. I mean, that is like almost a daily conversation in some form. So, you know, whether that's like we have a whole group of lessons on just tool safety. . .and how to safely use tools. What kind of levels of safety different tools require, personal protective equipment, working in the heat, working in cold, working in [various] weather conditions.*

Another program notes a similar approach. They provide the personal protective equipment required, but also extensive training and safety procedures. For example, tractor operation and chainsaw operation require initial safety training as well as a buddy system, "If you're operating the tractor, it's a two-person job." Likewise, a ranching program notes that the program is careful to cover ATV use in the orientation to the program because, "that's where we've seen the most injuries happen." Staffers also pointed to the importance of training in using safety and operational logs so that policies and procedures are clearly understood and can help prevent injury.

One in-person program also focuses on ensuring trainees have enough food and water: “We spend around $7,000 or $8,000 a year of our budget just to have food and drink. Like we have snacks that are granola bars and trail mix and that sort of thing, and jerky, on site. We also have [a lot of] water bottles, Gatorade, and electrolyte packets that they have access to all the time.”

Dealing with heat and dehydration was a common theme across programs, and all of the part- or full-time in-person programs named starting early in the morning during the height of summer as key approaches to keeping trainees safe and well. Programs named summer start times of 6-7am with most stopping work during the heat of the afternoon. As one staffer framed it, “So, obviously, like, starting at 6am in July, taking water breaks, going into shade,” were all important approaches to coping with heat. In addition, “we also made paños. . .a handkerchief, and if you wet it or put ice in it. . . [you] put it on the back of your neck.” A staffer of another program commented laughingly that they insist on water breaks sometimes to the point of irritating the trainees. They also pointed to the shade structures and trees that make up the program site and that they make good use of them as places to take breaks on hot days. Another approach of the program during the summer was limiting time in hoophouses to first thing in the morning, around the 6am start time, because, “it just gets very hot in hoophouses, especially in the middle of summer.” To ensure trainees got needed hours, some programs allowed trainees to return in later afternoon or evenings.

Mental Health

Study participants commonly pointed to mental health benefits of working in agriculture or working outdoors. One staffer reflected, “Being outside all day makes my mental health better. Yes, it’s unbelievable. And students have commented to me as well that it has changed their mental health.” All nine of the trainees who completed the survey somewhat or strongly agreed that their mental health was better as a result of participation in the training program.

Says another staffer, “I love it. I love to be outside. I love that I get to farm. I love that I get to teach people about farming. I feel it is really healing spiritually and mentally. . .. And so I think that I see a lot of healing. I feel like I heal a lot, but I also see a lot of healing on the site with my trainings, and that’s always really special.” The staffer referred to trainees healing from drug problems as well as expanding limited definitions of gender roles: “I had [a male trainee] come to the program who was like, ‘I didn’t know I could like flowers [as a man].’ And then he grew the biggest love for flowers. And then I visited the next year, and his garden was almost nothing but flowers.”

A staffer at another program echoed the love of the work: “I love days when I get to be at the farm and get to start my day at the farm are really beautiful. I love being with all the [trainees] and seeing their progress. . .. Psychologically, I think farming is very therapeutic.”

A trainer at another program says that farm training provides important social benefits, “I think making friends all the time is a blast. So, I think there’s multiple benefits. And then, you know, being on the land growing food is beautiful.”

In line with recent findings regarding mental health challenges among those working in agriculture, several programs put a particular emphasis on supporting the mental health of trainees and, in one case, staff.

One program works with an external partner to support weekly calls for trainees because, "one of the things that came out of the [program] evaluation we did with alumni is that when thinking about pursuing a career in this type of agriculture, one of the barriers that came up most often was the isolation and loneliness." So, they provide a "weekly drop-in call that is primarily a social space, but it was based on the idea that where most of these apprentices are they have no third spaces and they work and live with the same couple of people. And that having access to a social network is one of the most important protective factors when it comes to mental health."

The program that focuses most on mental health enlists a licensed counseling service to provide both group training and personal counseling sessions. Trainees commented, "It's super cool that they're paying for our therapy, which is an Indigenous, New Mexico-based counseling group."

Trainees in the program noted not only the benefits of individualized therapy for dealing with challenges but also felt that the core staff in the program, "always cheer me on. And that really helps when it comes to having confidence and starting my own business." In addition, they said, "it's also just very much relational. You know, [the core staffers] really care about us as people." Another trainee pointed to the mental/spiritual benefits of farming, "When I have a free day. . . and I'm there alone. . . I just walk around the field and it's very calming, you know. Just weeding or tending to your corn. It's very therapeutic. It's like my alone time."

Staff in the program explained their choice to hire professional counselors as a key element of their programming:

> *That was mainly why we wanted to contract with [the counseling service] was to help talk to [trainees] privately and in a group about setting boundaries. Because you live on the reservation and [average reservation] household income is [below $25,000]. [...] Anything that you earn on the farm, the family is going to expect you to give back to them.*
>
> *And it is sort of naturally this Native way of thinking, that it's very communal and shared, and that is kind of the culture. But it's also just what historical trauma has created, because there is a natural reciprocity. You don't go to a medicine man and expect them to work with you for free. Everyone knows that you pay for the medicine man, you know, and so the same as food. Like if we say that food is medicine, but then you don't help at the farm at all, and you expect us to give our products away, that's not a traditional value. So, boundary setting and understanding that financially, you're going to have to put up some new boundaries and expectations with your family if you really do want to start a business for yourself and work for yourself. It's going to take some fragmentation for a couple of years. They're going to talk bad about you, they're going to disown you for a little bit of time or more. And you have to be okay with that. And it's hard.*

A trainee framed the support received as allowing them to overcome previous mental health struggles and to contribute to their community in a way they had been seeking:

> *I was really struggling before the program on my belonging [because of ethnic/racial identity] but then I wanted to go back to [a specific community].*

> *And that's where I want to work, because I want to give back to the community because they need the help. So, I found my place, like, hey, I could do this thing that's going to really contribute to my–not massively contribute–but it is an effort and it could spark inspiration for other young people that potentially feel the same. Because this way of learning how to farm on Tribal land, it's something that's dying out for your young people living [on X land]. It's really sad because this is our culture. Our culture is dying, and that's, you know, that's really sad and can really contribute to depression.*

The program's intensive work on mental health is nearly unique among training programs studied, and appears worth emulating given some of the challenges covered in the Health Challenges section.

Spiritual Health

As with mental health, all of the trainees who completed the survey somewhat or strongly agreed that their participation in a training program as improved their spiritual health.

In addition, multiple staffers referred to the spiritual benefits of their roles. For example, it is "spiritually fulfilling just to see how confident [the trainees] have already become in the last couple of weeks," said one staffer. For another program, a staffer stated, "it's very emotionally, psychologically, spiritually very helpful to me to have students, people that I can pass this knowledge on to and. . .understanding what their projects are and just have that connection between different places and projects and people that is in an ongoing way is definitely fulfilling for me."

Another program's staffer tied together multiple aspects of well-being in summing up their initial description of the program, "And so, yeah, it's just a lot. I feel like it's a lot of farming, agriculture, spiritual, like the entire just, well, well-being. Like we just work on the entire wellbeing of ecosystem, person, and community."

A program that emerged from a spiritual tradition reflected that:

> *We are [X traditional spiritual practitioners] and we do think of things through a spiritual lens. And then the people we work with are very much spiritual. Spirituality and agriculture are a traditional connection. So there are blessings that people say when they plant seeds that are blessings for rain. There are ceremonies. [...]. So, yeah, the spiritual impact. I'm really glad you brought that up because that is part of farming.*

Further, elements of spiritual practice are integrated into another program with Indigenous roots. For example, "last year, [a trainee] killed a snake with a shovel on the farm. And it's just sort of a spiritual taboo. So, we had a medicine man come out and do a ceremony for everyone, but then also talk to them afterwards a little bit more about the traditional methods we're employing."

The staffer adds, "there's a whole spiritual significance behind [our methods], too, of, why are we not industrialized? What are we getting spiritually out of taking the time to plant the seeds directly by hand? Because we plant everything by hand."

Trainees in the same program noticed a variety of spiritual benefits to the training. One said, "I feel like the social connection kind of helps with the spirituality, mental, intellectual. We help sharpen each other's thinking. . .I guess deeper conversations, too, when interpersonal things [happen] or 'my family's going through this." Another noted:

> *I think they try to make a point of integrating spirituality into the process. You know, we'll go to ceremony and things like that that maybe don't directly have anything to do with farming. Like we went to a puberty ceremony. I mean, of course, food and, like, corn was still a part of everything, but just like including those things was giving us opportunities that most of us [in the program] haven't had to go to these spiritual experiences. So, it's cool that they include that.*

Another trainee in the program noted the cross-fertilization of intellectual and spiritual benefits to the program. As an example, they discussed the traditional ecological knowledge (TEK) that the program incorporates into the learning. They point to the deep relationship with land and crops that the TEK encourages:

> *Like how we plant, for example, to plant the corn. We learned a lot about the relationality of corn. Like that corn is our relative. And they're also, like, oh, relatives to each other. Well, there's, you know, you don't plant them alone. They [should] always be in clusters. And, you know, you don't usually just leave a corn alone.*

A trainee in another program noted the spiritual benefits of sharing space with others navigating farming's challenges, "[the training] was helpful for me being like, okay, this is the web we're in and this is the cycle we're in and this is the season we're in, and I'm not alone in that."

The spiritual benefits received somewhat less attention overall from research participants, but for those who discussed it, they clearly played a deep and vital role in their participation in agriculture and in their training programs.

Intellectual Health

When asked whether participating in their training program had stimulated their interest in learning and personal development, all nine of the trainees completing the survey somewhat or strongly agreed. Since much of the interview and focus group process focused on what trainees learn in the program, much of the process could be couched around the development of intellectual health. However, both staff and trainees also spoke specifically about the ways in which program participation strengthened their intellectual capacities around agriculture.

As mentioned above, the inclusion by one program of traditional ecological knowledge (TEK) was perceived by trainees as an important contribution to their valuing of the program and to their development. As one reflected, "[Trainer name] is pretty traditional, so he shares his stories with us. He shared a song with us, too. And that helps because I didn't grow up with those stories, but my aunts and uncles, they did, but they don't remember them. So, it's kind of like, springing me back into, I guess, my family tree."

Another trainee commented of the same program that the number of students was important to the intellectual growth that trainees experience:

> *I think that they try to be very attuned, because it's a small program, there's only 2 to 3 [trainees], to be, "oh, what is your learning style? What do you want us to do? Sit down and teach you a lesson? Or do you want us to get your hands in? And so I think. . .yeah, it's good that they are responsive to different learning styles.*

For another program that focuses more on intermediate producers, a trainee highlighted the mental and intellectual health benefits of the support offered in the program for those actively building farm businesses: "I found the program to be really highlighting what it mentally takes to do the farm work and how to navigate time in that way. And so, breaking it down throughout the year was really helpful to have it be, okay, in January we're doing this, in February, we're doing this. And to bite things off in a way that made it feel less scary to be juggling it all.

A program on Tribal land offers extensive, specific guidance on how to operate on Tribal Trust land, and how to work with the many overlapping bureaucracies of the Tribe, the U.S. government, and the state.

Accessibility

In fact, intellectual health benefits often overlap with other health or social benefits, like improved communication or aging well in community. One staffer noted that they constantly focus on building a working team and emphasize how to safely communicate with other team members while using dangerous tools or equipment. Another person staffing that program described the intersections between learning how to use power tools and learning effective communication, "[One trainee] really wanted to get his hands on powerful things, but every one of those tools could be very dangerous. And so we would do a safety check-out before using the tools. And then [staffers] working with him and would set up a framework of reciprocal communication so that he would not actuate the power tool until he said, 'turning it on.'" The staffer added that a farm site evaluation is an important tool for serving producers with injuries, and that staffers consequently now collect similar information for important adaptations used by trainees in the program so that when they graduate, that information can follow them to subsequent jobs. It helps because, "people may underestimate the [trainees] and think they are not able to do the things we've seen that they can do really, really well."

Aging in Agriculture

Another program's trainer commented that, "the training program keeps your mind active. You're always interacting with younger generations, older generations, different agencies. So it kind of keeps you on your toes. Understanding new language, new kinds of activities that are occurring, new technologies."

Professional Growth

One program's staffer noted that the training program that prepared them for the work they were currently undertaking, "created the foundation of something that could grow and build over time. And it does feel really good to know that, at least in my career, even though this is rather informal, that this is a large curriculum that I have developed based on all my years of experience farming." They added that they had seen gaps in other programs, and were glad to be able to address them and that doing so was bringing them, "a sense of self-efficacy." They

were especially glad that they were able to share skills that are not as commonly taught in farmer training programs but that provided steep challenges to farmers in their first years.

At another program, a staffer described the progress they had undergone because of having to shift their teaching during COVID. By staying engaged in agricultural education, they were able to develop online teaching skills. That professional growth brought not only strengthened expertise, but also the ability to connect to a broader community, which was increasingly important during the pandemic.

Another staffer emphasized the breadth of professional, intellectual growth they were able to experience alongside their students who assist training program staff:

> *I have collaborated with students on research posters that we have presented at national conferences. It's important to us that we do a couple of different things in terms of our [university] collaboration with the [farming program]. We are teaching rehab professionals about the needs of the broader community, and farmers and ranchers are cool. And they are determined and they are inventive, and they don't stop because something hurts. And so, we want to create opportunities to support the whole population and to make sure that rehab professionals, occupational therapists are ready for that. . ..*
>
> *And a student created a research poster about the known information about that. And in that occupational therapy role in energy conservation strategies, which is balancing work and rest so that you can do more, what people will tend to do is they'll just use their entire energy budget until it's gone, and then they'll have, a really long recovery period. But, small things can, small rest breaks can allow a person to recharge their energy budget, and modifying the ways that people do things. Maybe they've always done certain tasks standing, but they don't have to do that task standing. Maybe we can save some energy for that person. Another student, created a, within, autism literature base. There are, ways of creating tasks that allow visual learners to complete a task with greater independence. And we call them in occupational therapy. We call them put-in tasks. You know, it's like, if I put this in the right place, I can see it's in the right place. I know that that's correct. And, one of the students created a, put in so that a student so that a farm apprentice would know if he had watered a plant and if he had watered it with one bucket or two buckets, and it was using different color coded, clippings. And so when he had completed watering a plant, he would put the correct that the, matching a sign that was by the plant. And it was so motivating for the farmer was like, I know, I intellectually know that, people with autism have, a very visual system, but this visual system was so, this clippy color-matching system was so motivating for the farmer that he would water the sign. And so we would just move the sign super close to the plant, right? Like, like, okay, we can solve that. And so one student created a poster about the work he did on that. And then the third student created a research poster kind of helping occupational therapists know and other rehab professionals know how to engage with three dimensional printing, as well as the work they had done to*

create the vermiculture process and how their design process worked for that.

The breadth and diversity of intellectual growth in the programs was striking, and particularly highlighted the many ways in which programs' different strengths may offer useful lessons for programs that operate in quite different contexts.

The Local Food System: Participation by Programs and Trainee Learning

Local food systems have evolved and grown substantially in recent years, and training programs often provide opportunities for trainees to understand the program's place within the system. Many also offer some level of participation in the local food system beyond the program. A few offer extensive participation in the local food system.

Among the survey takers, seven of the nine reported learning about food hubs and aggregation in their training. In addition, the survey takers reported learning to value local food systems and to some degree how to build out local food systems (see Table 4).

Note that although this section offers some of the ways in which programs participate in local food system work, the topic is also covered in the Economic section of this report regarding sales outlets, including New Mexico Grown.

Table 4. What trainees are taught about local food systems in their training programs

My training program taught. . .	Survey takers (n=9, all trainees)	
	#	%
About the value of local food production	9	100
About the value of local food processing	7	77
About the value of local food distribution	8	88
How to process food locally	3	33
How to effectively build local distribution systems	5	55
About political advocacy for food systems	5	55
How to build one's network within local food systems	7	77
About food hubs and/or other aggregation options	6	66
Local regulations on local food systems	5	55
State level regulations on local food systems	5	55
State programs supporting local food systems	6	66
Federal programs supporting local food systems	4	44

Local Food System Topics

Among the interviewed staff, one discussed the program's approach to local food systems as including conversations about the different models through which farmers can create access to the food they grow. They mentioned CSAs (community supported agriculture) as one example of how farmers are creating farm business plans. The program also discusses direct sales to restaurants, farmers markets, and farm stands. Based on visits they carry out to other farms, they also make a point of discussing the different models that farmers have chosen.

Educating Others About Local Food Systems

A program staffer described how the program was making a push in 2025 to have trainees participate in their local farmers market. They discussed that staffing the table was considered an opportunity to meet people coming to the market, talk about the program, and become more involved in the local community.

Involvement in the Local Food System

Staffers talked about gaining opportunities to become more deeply involved in the local food system because of their roles. For example, they discussed visiting other farms or volunteering with food system events as part of their jobs.

One program discussed gaining access to a regional grocery store chain, although they did highlight the drawbacks of their produce becoming financially inaccessible for some local residents–the shift was made when funding was lost for local food banks to buy their crops.

Another program, which sells its produce via a food hub, offers opportunities for its trainees to participate in local processing and learning on-site at the food hub about how the hub collaborates with farmers and buyers to get produce out to New Mexico Grown institutions around the state.

Local Food Systems Policy Advocacy

Some programs included policy advocacy in their work. For example, one program discusses surface water and how it is allocated, including the on-going processes of water adjudication that are affecting water availability. In the same program, the staff and trainees "track the legislature" and respond to policies that are adverse to their farming needs. During a recent legislative session, staff and trainees met with their local representative as well as acequia representatives to oppose a policy that damaged their future water opportunities.

Table 5. Survey results on local food systems policy advocacy

		Survey takers (n=9, all trainees)	
		#	%
In the farmer/rancher training program, did/have you learn(ed) about any of the following? Please select all that apply.			
	Local agriculture policy	7	77
	New Mexico agriculture policy	5	55
	Federal agriculture policy	6	66
	How to advocate for policy change	2	22

Another training program focuses most on policies affecting farming on Tribal Trust lands or within Tribal systems. That has sometimes been a matter of self-advocacy–pushing back against policies that unreasonably penalized products as "junk food," for example. However, they also advocate more generally from the perspective of the experiences of their farm, including volunteering time to advocate via the Native Farm Bill Coalition, Intertribal Agriculture Council, and Farm to Table.

Similarly, another training program collaborates closely with its parent organization to track state-level agricultural policy. In addition, says a staffer, "I feel we give [the trainees] different types of leadership opportunities so that they can learn and practice how to use your voice as a community member or a farmer or rancher." They participate in activities at the Roundhouse, speak to their representatives, and meet fellow agricultural policy advocates. Upon attending larger agricultural policy and community events, says the staffer, trainees see how many others work within a shared community, "And so I feel like it's a wake-up call."

The program also discusses, within a policy context, the historical and on-going relationship of the area's farmland with large, polluting government facilities, and how present-day decisions

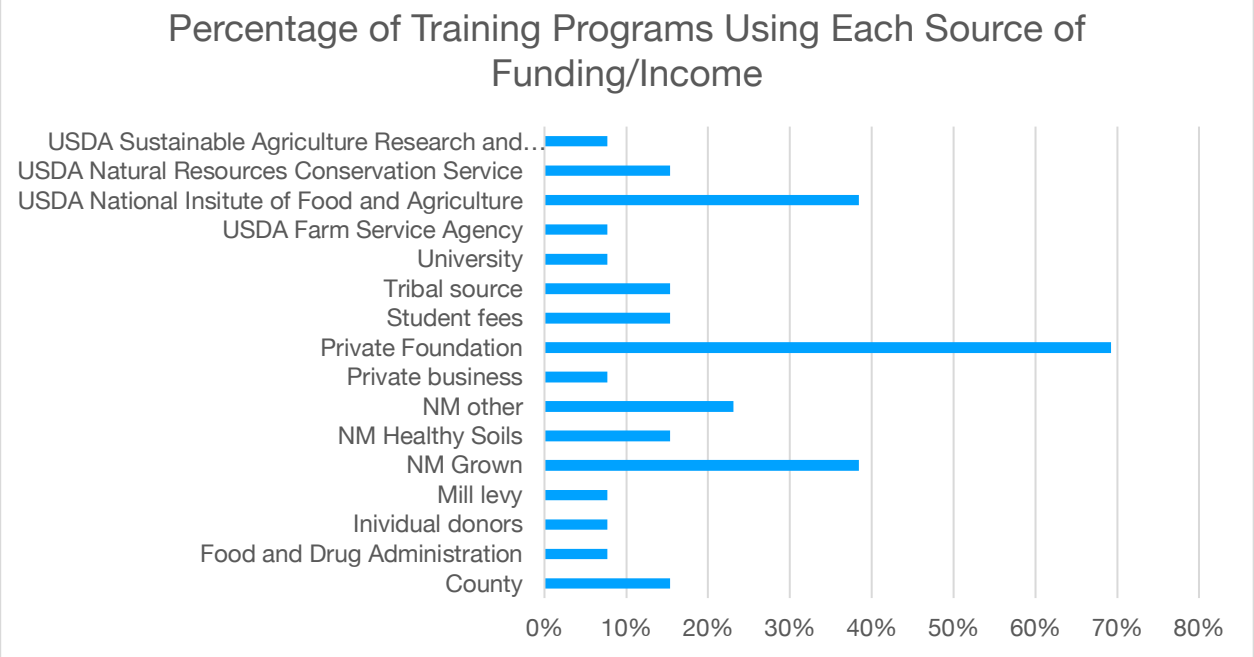
often have to be made about days when it is not safe to be outdoors as a result of past pollution. The staffer shares: “And so we’re just clear, we’re being aware–they [government facilities] do not care about our health.” After sharing a personal story of family exposure to toxins that resulted from federal mismanagement, they add that when speaking to trainees: “So, it’s a hard conversation. . .. But we cover it because it is so important.”

Economic Impacts of Training Programs

The economic aspects of program management, impact on communities, and opportunities for trainees were an important thread throughout the research.

How Economic Factors Shape Programs and Their Staff

Figure 2. Funding sources of New Mexico farmer/rancher training programs participating in the research



Training programs rely on a wide variety of funding sources (see Figure 2). It is worth noting that private foundations make up at least a portion of the funding for well over half of the programs.

In addition, National Institute of Food and Agriculture (NIFA) programs like the Beginning Farmer and Rancher Development Program (BFRDP) have played and continue to play an important role in supporting the programming of training programs, including by permitting them to hire additional staff that contribute to creating more cohesive training programs or that manage program farms. One program also included post-program stipends for program graduates in their BFRDP grant. A grant notice for BFRDP has not been posted for 2025, and several current or past grant recipients noted concern that the program would likely be eliminated.

New Mexico Grown sales also provide substantial support in running in-person programs, with 38% of programs participating in such sales. Further, participation in the New Mexico Healthy Soils Program and other state funding, such as that associated with the New Mexico Food, Farm, and Hunger Initiative, have contributed to the support of farmer and rancher training programs. In summary, nearly all of the programs rely on external funding, not farm sales, for most of the financial support required for running training programs.

Only a few programs shared details on total staff numbers and pay. However, based on inferences from conversations with staff, most programs have approximately one to two FTE positions, and a few of the more infrequent programs use a partial FTE. Two of the in-person programs have substantially more FTE positions, funded either directly through the programs themselves or through partnerships with other institutions.

From the limited pay examples offered, some experienced staff make approximately $21/hour. Others pay experienced staff in the $60-$70,000 per year range. Beginning trainee pay was reported in one program at $16.50 per hour. Seasonal farmhand pay was listed in the range of $15-$17 per hour for another program. Still another program pays a $600 monthly stipend to beginning trainees. One program pays a stipend of $1000/month during peak season, and trainees can earn more through additional time as field hands. Another program includes pay for a six-hour day on trainees' own farms each week, in addition to days at the training site. Some programs pay external contractors (e.g., $50/hour), while others bring experts in via partnerships without paying directly for the expert participation in training.

Many of the economic benefits that emerged through program interviews were in terms of business and financial knowledge improvement of trainees, as discussed in the next section.

Economic Impacts of Programs on Trainees

Of the nine trainees completing the survey, four reported that participation in the trainee program provided them a stipend sufficient to cover some of their costs of living during the program. Five trainees also reported that their (non-NMFMA) program provided the time and resources for completing the New Mexico Farmers Marketing Association's Tier 1 and Tier 2 Food Safety training. One of the surveyed trainees reported that the program offered them land to grow on in the season following their first season of training. Survey results on additional economic impacts on trainees and details of their economic learning can be found in Table 6.

According to interviews and focus groups, direct benefits to trainees, beyond the stipends discussed above, vary widely across programs, but include assistance like: additional stipends to invest in their own farms, housing, access to ceremonial items, university certification, college internship, resume development, establishing longer work history, food including fresh produce, gear (e.g., personal protective equipment), land access, networking opportunities, plant starts, access to marketing trademarks, participation in external training programs, transportation for program-related events, and workers compensation.

Trainees identified economic benefits from training programs that went well beyond the direct benefits they may receive during the program. Learning to change financial mindsets and to make use of the systems of their mentors both played significant roles in the economic learning trainees experienced.

Table 6. Survey results on economic impacts as reported by trainees

		Survey takers (n=9, all trainees)	
		#	%
Did/Does the rancher/farmer training program allow its students to take home its food products to eat?			
	Yes	7	77
	No	1	11
	Rarely	1	11
Which of the following economic topics does your rancher/farmer training program include? Please select all that apply.			
	Direct marketing	6	100
	Marketing via intermediaries (e.g., food hubs)	8	88
	Accessing and managing grants	4	44
	Accessing and managing loans	5	55
	Diversifying income streams (e.g., agritourism, education, etc.)	4	44
	Taxes	5	55
	How to establish a business or non-profit	4	44
The rancher/farmer training program gave/is giving me opportunities to interact with ranchers/farmers who are preparing to retire so that they can identify young farmers/ranchers to take over their operations.			
	Yes	2	22
	No	6	66
	Don't know	1	11
Does the farmer/rancher training program teach about potential revenue streams for farmers or ranchers beyond producing food, fiber, or fuel? (n=6)			
	No	6	66

One trainee in a program with a focus on intermediate farmers noted the importance of learning from, "someone who's been in for a long time. . . who is able to direct you to resources and save you time, which is money." They added that it reduces the thinking needed to develop systems, ". . .you didn't have to reinvent the wheel and put two years of your energy into something that's not going to get you any money back."

Another trainee in the intermediate farmer program mentioned above, who is earlier in their farming career also highlighted the benefits of learning from someone with experience. The economic benefit for them was in evaluating, "Are you actually going to be able to pay yourself?" And part of that benefit came in the form of advice to hire people with the right skills, with the trainer, "being really encouraging of getting an accountant and someone who can support your back end" even when, "we don't have any money." Or, put another way, the trainer helped with "unlearning some of that bootstrap mentality that is so part of farming" and learning to "value your life in economic terms."

In another program, a trainee both learned about the trainers' systems, including use of an accountant, and also received direct mentoring in how to build up those systems for their own business. They say, "They have walked me through what I need to do for business, like where to go for a business account."

Knowing, in detail, how mentors started and manage their business plays an important role for trainees who are continuing in farming or ranching. For example, on Tribal land, the details can sometimes be particularly obscure for those just entering farming, and a trainee

in their first season noted that, “I learned a lot that [first] season with, like, how to start your business on Tribal land, all the barriers that come with it. We did a lot on financial stuff, too.” In mentorship in the second year in the program, trainees are expected to begin their own LLCs, but they receive substantial support in carrying out the process.

For that program, the process in the first year involves substantial guidance including learning supports like a workbook outlining how to approach “paying attention to your finances” and weekly meetings that are “focused on building out your business.”

In another program, trainees receive direct experience at the local farmers market, engaging in experiential learning of the details of customer service and money handling, including using credit card machines. The work included educating customers about the produce and how to cook less common items like duck eggs.

In addition to such experiential learning, program economic learning includes imparting such business knowledge as direct marketing, financial planning, planning the season, sales knowledge including how to use sales devices, tax knowledge, and Tribal business knowledge. In regard to planning, a trainee notes that financial planning, “really starts with. . .the efficiency of your crop plan and anticipating your market sales and budget.” They add that the program showed them how to put all the elements “through that budget system, which was really helpful.” For Tribal business knowledge, a staffer says, “. . . we have had the honor of figuring out all of the jurisdictional challenges that come with that and feel like that should not be up for every individual to learn through trial and error on their own. We will [therefore] have a lot more successful farmers.”

One of the important lessons that the Tribal program above has gleaned is the importance of creating a business model that allows them to take advantage of various kinds of agricultural assistance. The staffer adds, “[I] talk at some point about our hybrid (part for-profit) business model and how a nonprofit seems to be an essential need if you really want to sustain a food business. . . on Tribal lands just because there’s no equity in the land [since] the U.S. government owns the land.” In addition, the program provides fiscal sponsorship for trainees as needed for trainee applications for farm financial support.

Some programs also provide support in areas like goal setting, post-harvest handling to enhance sales, equipment sharing, and assistance in getting loans. Business networking is also an important lesson that many programs provide. Time spent after planting, for example, “That’s not downtime. That’s when you’re networking with buyers and going to buyer meetings,” says a staffer.

The details of business planning and business development came out most prominently in programs serving producers who were beyond their first year or two of production, and sometimes those beyond the 10 years as a “beginning” producer. Identifying profitable enterprises through enterprise analysis, prioritizing farm investment toward profitable enterprises, expanding knowledge in areas that save money, making the step up from hobby business to a business that supports a long-term livelihood, and learning about how best to make more advanced financial decisions were all topics on which students needed support, but often were not ready for in their first year of production. As one staffer in a program focused on more intermediate producers frames it, “We definitely found the sweet spot, probably, for our curriculum was that the person that had had a couple of years under their belt

and was ready to take it from, maybe, hobby business level to real business. And that was where they found our curriculum the most helpful."

Economic Impacts on Trainees After Programs End

Programs differ substantially in their approaches to supporting trainees after the first year of production. For example, one program includes two full seasons of fully stipend-supported farming at their program. That program also pays stipends to graduates after program completion to help them on their next steps in a new role or in starting their own farm operations.

The program that has passed the reins to other organizations also provided substantial support to ensure trainees were ready to keep running their businesses after the close of the program. In getting started, trainees were given extensive support in identifying land, if they did not already have access. To ensure land access, the program also provided logistical, technical, and relational support in making agreements with existing landowners. Agreements were carefully discussed with all parties before they were signed, proving quite durable. So, long-term trainee land access was built into the program. In addition to substantial, continued informal support after the program's close (e.g., assistance accessing funding), the program also ensured that key infrastructure (e.g., hoophouses) was created on each trainee's land during the course of the training year. Thus, by the close of the training year, trainees had a pre-built peer network, land with the needed resources to start full-fledged production, and on-going support for identifying and acquiring assistance with business development.

Some programs have some form of business incubation model that works with trainees to provide land for a subsequent year of farming. However, these incubation models look substantially different from one another. For example, one model requires trainees to pay in money or kind for their access to land, water, and tools in the incubation year.

Another program provides significant one-on-one assistance for trainees in working during the first year to develop a plan for their second year, including intensive staff assistance in helping trainees to identify and apply for potential sources of funding to support needs in the second year. That program also provides substantial one-on-one assistance in identifying land for the second year, as well as guidance on accessing water resources. In some cases, trainees in the incubation phase continue to operate on program land via a sub-lease. Much of the assistance available in the first year is still available to incubators in their second year. However, because they have received so much personalized business development training in their first year, the incubators in the program require much less assistance.

It is important to note the difference in numbers of trainees in different cases. Beginning trainees receiving more intensive, one-on-one support for business development are in programs with full-time staff to trainee ratios close to 1:2. Most of the full-time, in-person programs training beginners have at most five trainees.

One program has more informal post-graduation support. It is an in-person program whose trainees most often arrive already in possession of land to work. For example, the first cohort of trainees continue to offer each other help with starting up in the spring or to complete harvest. And training groups tend to stay in close contact and offer each other access to seeds or tools, as needed. The program also provides a yearly gathering for all past graduates from the program. The program also continues to offer connections to funders like the U.S. Department of Agriculture.

Of course, not all trainees choose to become full-time producers, even with extensive in-program and post-program support. However, one program has worked with trainees who have identified farming-adjacent careers so that they can use their acquired skills in other ways that support agriculture. Two recent graduates are moving toward work in, for one, agricultural education and, for another, part-time farming/part-time in the transportation industry, for example.

Economic Impacts On Local and Statewide Communities

Agricultural training programs are part of the expanding fabric of local food access for communities. As CSA, farmers market, food hub, and similar models have grown, so, too, have innovative models that are addressing the needs of the more vulnerable residents of communities.

One trainee noted the unique impact of their training program in terms of the groups and communities served:

> *. . .the business itself is so innovative. Our community doesn't really see that. And I think it's grown so much that a lot of people see that it is healthy. [. . .] The fact that it is traditional foods and the fact that it serves [a population] who aren't prioritized in terms of getting traditional foods [. . .] But I think it's just. . . a really good niche that our community has not filled in a long time.*

Producer training programs play an important role in contributing to New Mexico Grown sales. One program even requires its trainees to become New Mexico Grown Approved Suppliers. A staffer for the program discussed the reasoning behind this requirement, one that opens access to markets that can more adequately keep small farmers afloat:

> *I think people think if you're a farmer, you go to the farmers market. And it's just such a huge missed opportunity. And I think for us it became so obvious so early because we don't really have the same sales outlets on the reservation. If you are a small farm, farmers market can work. [But] if you don't have a consistent farmers market or a robust one, or a community member that has the income level to buy it from you, that's not an option.*

Regarding their own business, a program's staffer says,

> *I think our experience would be really different if it weren't for New Mexico Grown. Like I said about the institutional sales, it's changed our whole business and our whole business model. And it allows us like social entrepreneurs to–I would say that the majority of Native entrepreneurs naturally have this desire to have their business serve a greater purpose.*

Another program's staffer notes that their long relationship with their local school system has driven them to build their work with New Mexico Grown. That partnership, in turn, adds additional context to the training program curriculum, providing opportunities to discuss different invoicing methods, food safety procedures, and delivery methods. The partnership thus results in benefits that reverberate to local school children and district staff as well as trainees and farm staff.

One program that focuses on more experienced producers includes in its curriculum careful review of the New Mexico Grown Approved Supplier Program requirements. The background work the program carried out in training producers on their own records makes an important difference in helping the trainees to prepare to sell to the institutional buyers in NM Grown. As the staffer outlines, “our first class is talking all about our [farm] records and what they look like and giving templates [for such record keeping]. That way [the trainees] actually have the documents to be able to access additional markets like that.”

A workshop-based training program operates on two sites, and one of those sites currently sells into the New Mexico Grown program. The other site is developing the systems so that it can become a New Mexico Grown food hub.

In addition to impacts on New Mexico Grown sales, at least one program on Tribal land is making seed available for sale to other growers in the area. That is helping to build the stock of traditional varieties of corn and allowing more growers to become involved in the production of such culturally relevant varieties.

Environmental Impacts of Training Programs

Both trainees and staff provided substantial description of the environmental approaches of their programs. The survey results on environmental approaches and teaching can be found in Table 8.

Soil Health

Ideas about how to manage soil have changed substantially over the past 50 years, with the conventional, chemical-based management that became popular in post-World War II agriculture becoming increasingly poorly regarded among the kinds of farmers and ranchers who participate in the training programs studied. One staffer comments, “In the 50s and 60s I feel like there was such a big movement from more holistic-oriented practices to lots of direct soluble fertilizers. There was a big economic shift from war machine into ag machine.”

Table 7. Survey results on environmental impacts of training

		Survey takers (n=9, all trainees)	
		#	%
About which of the following soil related topics does the program teach you?			
	Soil health	9	100
	Soil nutrition	8	88
	Soil erosion	8	88
	Agriculture and water quality	9	100
	Agriculture and water quantity	9	100

Another program “shifted into organics about the 1990s and 2000s, so the farm’s really changed a lot. It’s been terraced. It’s not sloped as much anymore.” The same program also teaches that when people use pesticides and chemical fertilizers “you’re damaging the environment.” The farm uses crop rotation and cover crops, in addition to a high diversity of crops, to manage its soil health.

(Table 7, continued)		Survey takers (n=9, all trainees)	
		#	%
Trainees responding, "yes," when asked if the program teaches about reducing resource use.		6	66
Which lenses does the program use to teach about reducing resource use?			
	Reducing impacts on the Earth	5	55
	Reducing spending on inputs on the ranch or farm	5	55
	Reducing dependence on distant resources	5	55
	Living with less	3	33
	Circular economies	5	55
About which of the following potential environmental solutions does the training program teach you?			
	Agroforestry	5	55
	Management intensive grazing	3	33
	Adapting to climate change	6	66
	Mitigating greenhouse gas emissions on the farm/ranch	4	44
	Cover cropping	8	88
	Reduced tillage	7	77
	Biochar	6	66
	Other: permaculture	1	11
Based on your observation of the training program site as compared to other locations with which you are familiar, how would you assess the soil health of the training program site?			
	Excellent	4	44
	Good	2	22
	Neither better nor worse than most sites	1	11
	Lacking in some important regards	2	22
Trainees who assessed the integration of perennial species at the program as "effectively executed to improve the farm or ranch system"		5	55
Based on your observations of the training program site(s) as compared to other locations with which you are familiar, how would you assess the quality of run-off water that results from management at the training program site(s)?			
	Excellent	3	33
	Good	3	33
	Average	1	11
As part of the training program, please select which of the following food waste-related activities you have participated in. Please select all that apply.			
	Composting	6	66
	Collecting food waste	3	33
	Returning composted food waste to a farm or ranch	3	33
	Setting up a composting system	6	66
	Building composting infrastructure	6	66
	Teaching others outside of the program about composting	4	44
	Teaching others outside of the program about food waste	3	33

(Table 7, continued)		Survey takers (n=9, all trainees)	
		#	%
Did/Has participating in the rancher/farmer training program change(d) how you value your connection with non-human aspects (e.g., plants, non-human animals, land, etc.) of the Earth?			
	Yes, non-human aspects of the Earth are MORE important to me now	6	66
	No, the program has not changed my views on non-human aspects of the Earth	3	33
Did/Has participating in the rancher/farmer training program change(d) how you value environmental protection?			
	Yes, protecting the environment is MORE important to me now	6	66
	No, the program has not changed how I value environmental protection	3	33
As a result of your participation in the ranching/farming training program, did/has your knowledge of any of the following improved? Please select all that apply.			
	Science on the causes of climate change	4	44
	Climate change impacts on New Mexico	5	55
	Adapting to climate change in ranching or farming	6	66
	Agricultural methods that mitigate climate change	7	77

(Table 7, continued)		Survey takers (n=9, all trainees)	
		#	%
Which of the following environmental topics does your farmer/training program curriculum include? Please select all that apply			
	Climate change	6	66
	Drought	6	66
	Water management for quality	8	88
	Water management for quantity	9	100
	Soil health	9	100
	Biodiversity	8	88
	Farms/ranches as habitats for wild plants and animals	7	77
	Other ecosystem services	7	77

Soil Health, continued

Among the interviewed programs, such approaches are common. Most of the on-farm programs include crop rotation, cover crops, mulch, no or limited till, and perennial crop or non-crop plants among their approaches. Companion planting is also a common approach.

Programs focused on ranching include a focus on moving away from thinking of certain plants as “noxious weeds” to thinking about “bare ground as public enemy number one.” They are encouraging participants to think about how cattle can “be a tool for regeneration.” Such approaches include rotational grazing, protecting riparian areas, and bale grazing to reduce damage to particular locations. Soil health practices among Western ranching programs also include drought planning.

Soil monitoring and/or soil testing are common among the programs, and they are frequently used as both measurements of on-farm/on-ranch soil health as well as teaching tools for trainees.

Several of the programs have received New Mexico Healthy Soils grants. Successes include reduced compaction in a program that used mixed cover crops specifically focused on reducing compaction and building overall soil health. Programs have planted native, perennial hedgerows, incorporated compost application, increased the presence of living roots, added animal integration/rotation, limited tillage, and cover cropped with the funding. Further plans include animal integration (ducks combined with bunch grasses), adding species for toad habitat, bird boxes, bat boxes, and addition of pollinator habitat species.

In addition to the programs themselves improving their soil health over time, they include extensive focus on teaching trainees about how to build soil health. One staffer discusses topics the program covers including "grazing. . . using your aged manure, having a really nice compost pile, using your worm [castings], your compost teas, how to apply those types of things. . ." And when asked about crop rotation the staffer adds, "[we] talk about big things like garlic or corn really deplete soil, so continuously moving things around."

Biology of the Agroecosystem

In addition to the more specific topic of soil health, programs cover multiple aspects of agriculturally relevant biological knowledge. Plant families, for example, form the basis for teaching about how crops are related to one another. Programs also teach about integrated pest management, including weed identification. The particularities of New Mexico's crop pests and weeds were an important aspect that one staffer mentioned: "I think [agricultural curriculum] is more often tailored to northeastern environments or the Upper Midwest. And New Mexico is definitely very different and specific. And so I think we do a lot of New Mexico-specific environmental topics." Beyond weeds and other pests, the timing of seasons and the soils were additional topics that the staffer listed as distinct for New Mexico's environment when compared to many widely available curricula.

One of the intermediate-targeted programs includes a course on biomonitoring and how to measure the health of large landscapes across multiple kinds of data. The course covers indicators like "the health and size of perennial grass," "what kind of bugs you are finding in the soil," "infiltration rates," and "what does [the soil] smell like." And responses focused on whether land managers "are giving enough recovery time" for the area and whether they are adequately "bunching the animals so that they can regenerate the soils."

Climate

Programs almost universally discussed the impacts of climate change on their program sites or on what they teach. For example, one program is already considering how to prepare for the fact that "we will be a lot like Phoenix by the year 2050." Preparations include thinking about the timing of growing certain annual crops. The program has already moved toward using substantially more perennial crops as part of a climate adaptation strategy.

Another program has been noticing how weather patterns and presence of insects have been changing, and they discuss these topics with trainees. They also use their discussions of soil health to learn more about how to "make [the soil] act like a sponge" and learn about "how

much water can [a given soil] absorb or not absorb." That discussion is important because, as another program notes the relationship between climate change and "the decreasing water availability and then when it comes it monsoons and there aren't great systems for managing that water either–and saving it for later. So, there's more and more need for infrastructure."

Programs are especially cognizant that "things are getting hotter; there is less water available." One program talks about their farm's succession planning for their own farm space including "really think[ing] about what we can do to reduce our water usage at the farm." That has included reducing the annual vegetable focus of the farm, as well as planting a field border that reduces wind erosion and evaporation. Saving seed is also a key strategy–ensuring that specific crop varieties become adapted to the farm's location over time and that the selected varieties shift as climate conditions change.

Programs that serve a more politically diverse audience still focus on climate solutions topics, but may do so without speaking of climate change directly. Instead, talking about, "if you increase soil health, that means you're increasing your carbon in your soil, which means you're increasing your water infiltration and you're gaining, you know, 20,000 more gallons on every inch of rain you get."

Trainee Environmental Learning

Beyond healthy soils and climate change topics, trainees also learn about additional topics that relate to the links between agriculture and the environment. For example, one program "talk[s] about nutrient cycles and the potential for air and water pollution."

Ranching programs teach about the need to "improv[e] the water infrastructure so you can bunch the animals better" to reduce their negative impacts on the landscape. Some farming programs have water management plans and teach about how to be careful with water use and be careful about how it is used. Such teaching includes, in several cases, teaching trainees to use and manage drip irrigation systems. With "fewer and fewer flood irrigations happening," running drip irrigation off a well is becoming a necessity for some programs.

Another environmentally minded approach a program teaches is simply "knowing our space and knowing our capacity" and "knowing what our space can healthily do" without using "chemical inputs or heavy mechanical inputs." That may mean "we're going to leave [a space] as cover crops for a while."

A similar mindset shift is part of the curriculum for a ranching-focused program:

> *. . .helping people see they can be soil stewards, and that they are as much microbe ranchers as they are grass managers–versus 'I raise cows.' So, getting that shift from people thinking, 'I'm focused on the health of the animal'. . .to 'you've got even more livestock underneath the ground.' So those kind of paradigm shifts can be pretty powerful.*

Another important perspective on environmental learning comes from landscapes affected by the San Juan mine spill. The larger landscape of environmental injustice is clear in water access in the area. Says an affected program, "Any time we work on a new plot, we have them test for uranium as well, because of the gold mine spill." They add that, "most farms in [the area] don't have any sort of residual uranium, but they say the San Juan River can have some

low level of residual uranium. And [experts recommend] just to always test your water. So, we just do it every year as a precaution and NMSU offers it for free. So, we always do."

A number of programs engage in practices that recycle local nutrients in some way, including using compost from offsite sources that take in area food waste and sell it back to producers as compost. In teaching the cycling of nutrients across a broader landscape, some programs make even bigger connections to community and ways of thinking that underlie traditional farming methods:

> *So, we really teach that a lot of the resources that you would need in traditional farming, you usually have the resources right around you. So, when we talk about manure, if you don't have animals and you put an ask out in your community, your neighbor probably does. And so, it's about making connection with those people in your community. I feel like traditional farmers or our generational ancestor farmers just believed that working in community and working together was really big.*

In addition, several of the programs focus on close observation of the environment for better managing agricultural systems. For example, a staffer describes teaching trainees to watch which pests are coming out in making planting decisions. With squash bugs, "we get a first harvest before the mating season. . .. And then we wait until after the mating season and we'll plant another crop so they're not mating and producing anymore squash bugs." Similarly, the program carefully cleans its asparagus and burns all the debris so that asparagus beetles will not repopulate in the spring. Even watching the emergence of certain species of plants drives the planting choices in the program. So, trainees learn close observation of their environment to make well-informed planting decisions.

Social Impacts of Training Programs

On Trainees

The social impacts of programs on trainees include deeper connections with New Mexico's farming and ranching traditions, the value that trainees place on producing food for the hungry, community connection, and skills that extend beyond farming, among others. For the results of impacts on trainees as captured by the survey, see Table. 8. Note that there are a number of ways in which the social benefits of training overlap with the mental health benefits, so please also refer back to that section.

Trainees see deep value in the social connections they make through training programs. One trainee points to the value of the very small group of people in their training program, as well as the intense commitment they sense from their trainers:

> *And I'm laughing because it's a small cohort and you do have to help each other out. There's work that can't be done on your own. So, I feel like you're naturally [developing] those strong connections. I so like [the trainers] and I*

Table 8. Survey results for trainees on social impacts of training programs

		Survey takers (n=9, all trainees)	
		#	%
Did/Has participating in the rancher/farmer training program change(d) how you value New Mexican ranching and farming traditions?			
	Yes, New Mexican farming and ranching traditions are MORE important to me now	8	88
	No, the program has not changed my views on New Mexican farming and ranching traditions	1	11
Did/Has participating in the rancher/farmer training program change(d) how you value producing food for the hungry?		8	88
	Yes, producing food for the hungry is MORE important to me now	6	66
	No, the program has not changed my views on producing food for the hungry	3	33
Did/Has your rancher or farmer training program create(d) new opportunities for you to contribute to the following? Please select all that apply.			
	Increased community connections around food	8	88
	Producing food for New Mexico consumers	6	66
	Shaping food policy in New Mexico	2	22
Did/Has the farmer/rancher training program give(n) you opportunities to learn about the following? Please select all that apply.			
	Indigenous farming traditions	8	88
	New Mexico's ranching/farming heritage	5	55
	Acequia culture	6	66
How did/has your farmer or rancher training program strengthen(ed) your social networks? Please select all that apply.			
	I have made new friends	6	66
	I have new work colleagues	4	44
	I am less isolated than I was before starting the program	7	77
	I have new relationships with plants	8	88
	I have new relationships with non-human animals	3	33
	I have made new connections that could help me get jobs	3	33

just had the realization that they're going to be a part of my life forever, you know. They're just part of carrying me on this journey and that's really cool.

This trainee and another in the program note that many of the connections they have made through the program have been business rather than social connections, but that it "is really special to have people come to my field and be able to give [me] feedback and also just, like, share that space."

Among the in-person programs, site visits to other farms or programs are common. One program reports, "we try to do at least one offsite visit a month." Such visits, the staffer adds, can sometimes lead to future placements of trainees with farms, or even to working out plans for succession planning, with the trainee taking over some of the operation.

A trainee in another program notes that field trips provided the chance to "ma[k]e new connections with people that had the same drive or same value of justice in terms of the work

we're doing on Indigenous food sovereignty." They added that such visits provided clear scope for future collaboration or for the trainee to later offer their own support to the site visited.

Social benefits sometimes result in unexpected ways from economic learning, as well. In one of the intermediate-focused programs, a staffer notes the value of setting whole-operation goals and carefully analyzing how the farm or ranch is meeting them. Such processes tend to helpfully reset power relationships. They report:

> *And one of the reasons that we hone in on that is because we have found, particularly, that women who are in a business, the wives often of the main operator, maybe they're doing the bookkeeping or whatever they've been relegated to, secondary decision-making power. And those kind of tools give them more power and ability to make sure their voice is heard. And that also helps reframe the business conversations, even from the male side of things, where they might have assumed they were being asked to take that full responsibility. And now there's a sense of being more of a team.*

Even though the social element is key to the good functioning of programs, one staffer comments that, ". . . when you're making decisions about how to run your farm, there is no one right way. There's no one outside you who can tell you what the right answer is." So, while social supports are crucial in developing as a farmer, the staffer adds that, "you have to figure out your site and your capacity as a human with a body that can only do certain things." In other words, part of the training is learning when to rely on your network and when to turn to your own instincts.

A staffer at another program includes the history of agriculture and its social impacts as an element of the curriculum they teach. From talking about the agricultural shift in the 50s and 60s and how that raised environmental justice issues, the staffer moves to talking about current impacts of agriculture as we practice it in the United States. "I find it inevitable," they say, "to provide context for what is agriculture in the United States and who benefits and who doesn't. And, you know, all of that stuff is just very much dependent on who is presenting the information." They add that they tie up this discussion of the history and sociology of agriculture by encouraging trainees to "use the whole picture in our awareness of history and to be able to make good decisions about how we manage our operations."

A trainee spoke about the benefit of participating in another program that similarly presents the social challenges of agriculture, and that offers a welcoming space for members of marginalized communities. The farm that underlies the training program is "a hub where people go and where they're safe to go, that's outside, that's with the land." They add, "[farm name] functions like a refuge, and the door kind of always feels open." The trainee adds that the farm and the program are very supportive of others taking on similar roles: "And then they leav[e] room for other folks to step in and host those kinds of things."

Trainees also pointed to ways in which they learned more about agricultural traditions in New Mexico. For example, several trainees talked about learning the traditional method of processing field corn: "putting the corn right into the pit, covering it, taking it out the next morning."

A trainee at another program spoke of how the trainer made them aware of the history of land ownership in the area, as well as, "the webs of people [the trainer] know[s] who are doing maybe more dryland style farming or the different cultural and technological ways of growing food in the desert."

A staffer for the same program notes that social relationships have deeply informed the farming they do. They tell the story of the neighbor who used to grow on the farm coming by to talk about their history of growing blue corn at the site. As the relationship with the neighbor developed, the farm eventually devoted space to allow them to grow. The trainer acknowledges the deep debt they owe to all the farmers who taught them, including those who shared traditional methods, and they pass these stories on to trainees.

Another program's staffer acknowledges the importance of not only teaching trainees about cultural traditions, but learning such traditions from trainees:

> *And we welcome their input, too. We have apprentices who identify as Indigenous or who come from generations of family farming. . .. So, we try to really have a lot of opportunity for them to share because we've had apprentices who will tell us, 'oh, yeah, that's how grandpa did it.' Or, you know, 'that's how I've seen it done on our ranch or farm. So, I think we try to have it be very mutual.*

Programs also convey traditions in ways that fully encompass social relationships with the non-human world:

> *Yeah, [a trainer] talks about the traditional methods of why we plant that way. They learn planting songs they can sing while they're planting. You're supposed to think good thoughts, too, when you're preparing food or you're working with your seeds. You're always not supposed to be thinking negatively. You're supposed to be thinking about the outcome, putting positivity into it. And so, we always try to have that mindset, and if it's not a good day for you to plant, then it's not a good day for you to plant. Go deal with your stuff and then come back in a good mindset. You're supposed to pick it and handle it as if it's food you're going to feed someone. And that negativity can impact the food, too.*

On Staff

Several staff reported finding the agriculture community welcoming and supportive:

> *Folks are really collaborative. I think the food system here is folks that just want to support each other. They want to help each other out. And oftentimes we'll start working with a partner and then they're like, oh do you know so-and-so over at this operation? Let's get you touch with them. And you know, so-and-so is doing a class on this. So folks are really open to sharing their knowledge and training the next generation of farmers.*

The value of programs in encouraging staff to build out networks is validated by others' experiences, as well. Being part of the training program, "encourages me to go out and talk to different organizations and different groups and meet people who have similar values," says another staffer. And it encourages learning new methods from others, the same staffer reports: "And so that's even, so now maybe I ask somebody a fencing question that I wouldn't have. . .

or do you know somebody who can take care of my goat herd. So, it's beyond just the professional into some of these personal kinds of conversations." Further, the staffer adds, these kinds of engagement have broadened their understanding of other people. "I would say my understanding of how to engage with people and find that common value and recognize that people are not as two-dimensional as I might have perceived them when I was younger."

At another program, a staffer reports that being part of the program has broadened their social networks. "[Staffer] and I get along really well and have started having a friendship outside of work, which is really sweet. I love being able to ask [multiple staffers] about ag stuff. . .. Yeah, it just feels very supportive." They add that the many interactions with other growers that occur as a result of participation in the program "contributes to my feelings of being very connected to my community."

As with other programs, a staffer comments on how graduates of the program end up becoming part of their extended community. "So, I am deeply in touch with the folks that went through last year's program. And actually, one of the folks who did it last year wanted to do it again this year." They call the program participants "my little seeds."

As with trainees, staffers find that their appreciation for and sometimes knowledge of New Mexico's various agricultural traditions has grown as a result of training program participation. One comments, "In the context of the value and importance of keeping these working lands working in New Mexico, and keeping these rural economies and towns and cultures as viable and not losing the younger generation in the cities–it's definitely grown my belief in the importance of that."

Another staffer who is newer to the state notes the rich history of the state and of traditional and Indigenous knowledge. They add, "And that's been something that's has been important to us. We source seeds locally as much as we can and we have sourced seeds from local farmers that have been farming for generations. And they have developed seed that grows really well in this climate and has that knowledge and that history passed down with it. And we try to be very communicative about that with our apprentices–about that legacy."

In sum, the social benefits of programs are important to the well-being of both staff and trainees, and they contribute to effective and functional programs, as will be further discussed in the Social Challenges section.

Challenges

Health Challenges

Heat and Weather Challenges

Farmers and ranchers in New Mexico are no strangers to heat–nor cold, for those whose work continues into winter. However, with rising average temperatures in the state (Garfin, Jardine, Meridth, et al. 2013, USGCRP 2023), creating warmer mornings, higher highs, and extended heat waves during the summer, heat is becoming an increasing challenge for all who work outside. As one staffer says, "I've never had anybody get sick here from the heat. But it for sure is scary. It's scary. I'm always like, you have to take care. You know, always with our

water breaks." While staffers are very conscientious about heat and take precautions, it can limit work time. The staffer adds, "And if it's a crazy hot day, sometimes we plan other things, too. Sometimes if it's in the middle of summer heat we're going to add a value-added subject or we're going to do something fun just to kind of throw off the intense heat and the intense labor."

Further, with controlled environments, including hoophouses, playing an ever-larger role in the agricultural system to help with climate adaptation, the heat dangers of working indoors can become especially acute. A staffer comments, "Yeah, it just gets so hot in hoophouses, especially in summer. And so, that's the first thing, if we have hoophouse work, that's always the first thing [in the morning]."

Even for programs focused on more experienced producers, climate change makes heat safety an increasingly important topic. As one staffer in a program with an intermediate focus noted, ". . .that was the first talk [of the training series] was talking about start times and how they need to shift this time of year to take heat into account–warning signs of heat sickness and heat illness. . .." Taking care of workers, such as advising on the right clothing to reduce heat impacts, plays an important part in the conversations of all of the in-person programs as well as some more virtual programs.

Figure 3. This figure from Garfin et al. (2013) illustrates how steeply increased heat wave temperatures and duration will grow with continued increases in global average temperatures.

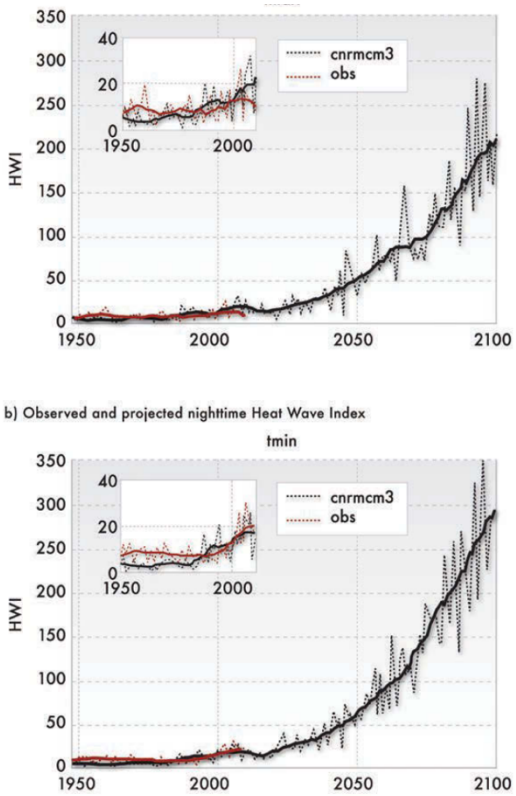


Figure 7.1 The summertime (May–September) Heat Wave Index (HWI) for Tmax (a) and Tmin (b) for the Southwest region. Solid line is the 5-year running mean. HWI values show °C above the local 95th historical percentile. Inset shows the same data on a scale appropriate for the historical period (1950-1999). Historical observed and modeled data as well as twenty-first century projections (according to the SRES-A2 "high-emissions" scenario) are shown from observations as well as from a GCM (CNRM-CM3) historical simulation and projection averaged over the Southwest. Adapted for the Southwest based on the work of Gershunov and Guirguis (2012) for California. Data source: Salas-Mélia et al. (2005); see also http://www.ipcc-data.org/ar4/model-CNRM-CM3-change.html.

For trainees with interoception challenges or sensitivities to uncomfortable materials, the need for trainers to pay careful attention to heat becomes even more acute. One program discusses a trainee who "kept saying she was having headaches and felt nauseated." It may take experimentation and repeated conversations to ensure that trainees can identify solutions to meet their needs in the heat.

With heat waves expected to increase i n "frequency, intensity, duration, and spatial extent" (Garfin et al. 2013–see Figure 3), heat will be an ever-growing concern for in-person producer training programs and for producers and their workers.

While programs already take careful note of temperatures in their operations, few reported direct training in what to do in the field in the case of heat exhaustion and heat stroke. Just as important as precautionary measures like provision of shade, water, electrolytes, adequate gear, and longer break times during heat waves, is training in dealing with emergencies. In-person programs should have staff complete heat safety training that includes emergency solutions like the TACO (Tarp-Assisted Cooling Oscillation) method (Heniff 2025).

Inadequately Addressing Mental/Spiritual Health Challenges

While several programs have strong approaches to supporting health and well-being that include not only physical aspects of health, but also mental and spiritual aspects, there are ways in which trainees in some programs feel under-supported in the mental health needs that arise from being in training programs. Many of these challenges come side-by-side with discrimination and bias, a topic covered in the Social Challenges section.

Only five of the surveyed trainees listed training on mental health for farmers and ranchers as a topic their program addressed. One program's staffer noted that their means of addressing mental health was having one anti-harassment session early in the program. While such topics are important to address, they are far from adequate for providing the support that ensures trainees' concerns are addressed consistently. Another participant notes that past problems with relationships within the program had been significant, and that the staffer's presence was a means of addressing such challenges. As a staffer at another program notes, "unfortunately, some of the people drawn to the work were toxic." For example, they say, "[some] folks who were for some reason drawn to the work. . . are not in it for the same values but sought to exploit." Such people, they note, intentionally created community discord around the program or raised questions about staffers' integrity. The staffer further discusses how such individuals created an unsafe environment for trainees, including via direct harassment.

Having on-site, up-front, and deeply honest conversations about community relationships, mental health, and related challenges can make a substantial difference in whether programs succeed at keeping trainees on board. Learning how to farm or ranch, and building up a farm or ranch enterprise, is deeply personal and deeply challenging work. Programs that acknowledge that reality and provide specific, intentional, and on-going support for the mental (and spiritual) well-being of trainees appear to have stronger success rates at moving trainees forward into agriculture for the long term.

Having trainers who model respect and a welcoming attitude toward all community members is vital for creating training spaces in which everyone feels comfortable learning. One trainee's description of one such space is "a place that's safe," including for people who do not belong to the conventional cis/hetero/white/male stereotype of farmers and ranchers. The space they describe invests in "justice work" as well as generally being welcoming to anyone interested in agriculture, no matter how new they are to farming or ranching. For their own work, the same trainee envisions creating space "that tends to energetically attract connection" and that is the "space where people come together."

Local Food Systems Challenges

Level of Engagement of Programs with Training on Local Food Systems

While programs clearly engage trainees in local food system learning, including direct participation in activities like farmers market sales, weighing produce for aggregators, and even processing for onward sales to institutional buyers, more is needed. There does not appear to be significant engagement in teaching trainees about how to build out the kinds of models that can enlarge local food systems and provide more connections between local farmers and individual and institutional buyers.

Certainly, any in-depth engagement in the topic is probably beyond the scope of a first-year program engaging farmers or ranchers in their first exposures to food production. And the kinds of engagement seen in programs, with a brief initial exposure to the existence of various kinds of market outlets, is probably to be expected for such first-year programs.

However, for programs engaging intermediate growers and beginners beyond the first year, especially those that offer in-depth business training, more extensive coverage of the topic is needed. Building cooperative enterprises, food hubs, and similar aggregation systems takes substantial collaboration, discussion, and trust. Farm and ranch training programs that focus on those in their second year of training and beyond are one of few places where new versions of such collaboration can take root and emerge as viable options for the future. Given the isolation common among producers, and the limited opportunities most have to build collaborative and cooperative enterprises with their peers, training programs seem like the ideal place to cultivate a more community-minded approach to agriculture for the next generation.

Similarly, programs focusing on training beyond the first year are ideal sites for engaging in additional food system advocacy. A few programs, including those serving first-year trainees, engage substantially in this work. Others, however, give trainees little to no exposure to understanding how to advocate for better food and agriculture policy. With the small percentage of the population that is made up of producers, it is vital that all producers receive some training in how to advocate for needed policy. While there will certainly be some for whom it is not interesting, for those who receive no training, the advocacy landscape will remain a mystery. All trainees should receive some exposure to not only local, state, and federal agriculture policy, but also some level of training in advocacy and speaking to their representatives. Such training need not be partisan nor even teach trainees to engage on particular issues–some programs are constrained from engaging in anything that advocates for particular outcomes. But all programs can offer an introduction to pertinent policies and to how to connect with one's representatives.

Economic Challenges

Federal Funding Challenges to Programs

As for many programs across the economic gamut, 2025 has been a challenging year for federal funding for agricultural training programs. While the majority of programs have some degree of support from private foundations, federal support also plays a key role for those programs receiving it.

One set of examples comes from a multi-faceted program. A staffer describes the effects: "We've had some funding for Tribal workshops and that sort of thing. Or we also have an educator program, we train-the-trainer kind of thing. And so we've had, well, we have one person involved right now. But again, with funding issue that are here right now, those are kind of stalled." The staffer adds that work with Tribes has been affected by shifts in federal funding this year: "Mostly what we do around BIPOC communities. . . is we tend to be a subcontract. So if there's some Tribal member that sees the value and have heard about the work we do and they've gotten some kind of program going that we would be slotted into, if their funding has been frozen, then our piece of the puzzle is also frozen."

Another example comes from the food safety training space. A staffer notes that "the funding [for this food safety training program] was cut at the national level." As a result, the program is having to look at substantially revising its model: "We're kind of looking at instead of each state doing individual training, maybe we do it at a regional level to try to cut costs. I don't have a full answer on that yet. The training has to be available to farmers. It is required at a federal level. We're just kind of trying to figure out how to make it happen."

Another program has used the Beginning Farmer and Rancher Development Program (BFRDP) for staffing and to add to trainees' benefit package. They describe their disappointment as, "the fact that they have not put out a new RFA for beginning farmers funding for next year means that likely we are not going to receive that funding next year." The staffer also describes a state funding stream on which their program always relies, and the fact that it is itself tied to federal dollars: "We have not heard from them that there's any concerns about that pass-through, so that's good. But, you know, things seem to be ever-shifting and could change."

An additional program mentioned use of BFRDP and that, "there's a high likelihood that program won't exist when it comes time for us to reapply. Yeah, I'm grateful that the program has not been terminated or threatened immediately, but, yeah, I'm expecting that there's a high likelihood that it won't exist."

Yet another program describes the importance of sales to entities like food banks and schools for supporting their farm and adds that, "That will probably change this year because the local food procurement money is not available anymore. So, that will probably shift."

A trainee also described how the unstable funding landscape raised concerns for them about their potential to farm at all:

> *But especially when it comes to funding, I was pretty scared this season. Because with all the programs that were being cut by the Trump administration, a lot of them were farm-to-table and lot of them were Tribal grants. So, I was thinking, this is horrible. How are we even going to farm? This is going to deter everyone from making it possible to even grow on Tribal land. Because that's the only way we function, especially [the staff], they rely a lot on grant money.*

With extended court battles and activism during 2025, some funding streams may remain or be restored. However, the high volatility of the federal funding environment this year has

contributed to the instability of future prospects for maintenance as well as growth and expansion of existing agricultural training programs.

Trainee Economic Challenges While Participating in the Program

While all of the in-person, part- or full-time training programs provide various forms of financial benefit to trainees during the training period, including stipends, some access to food, and more, trainees still report that it can be a challenge to make ends meet when participating in the program. As noted in the economic benefits sections, only four of the nine surveyed trainees listed "a stipend sufficient to cover some of my cost of living during the program" as a benefit they received. It is worth pointing out that one of the other options on the survey was "a stipend sufficient to cover my cost of living during the program." None of the trainees listed the stipend as covering all their needs.

One trainee commented that the fact that their stipend did not cover the entire growing season "kind of sucked." They describe the experience as financially being "kind of hard" and that "you have to consider having a second job if you're part of the program just to make sure you got–because it does take a lot of time to harvest and help out with all those things." However, the travel involved in getting to the program and to different program sites meant that, "I don't know how I can have a 20-hour job or part time job and still do this farming."

Another trainee applied for and received substantial support to continue farming in their second season, supplied in part by matching funding from the training program itself. However, they framed receipt of the grants by saying, "Now I'm not so worried."

In a different program, a trainee made it clear that their farming was only possible because of support from parents.

Even while expressing substantial gratitude for the many supports some programs provide, trainees made it clear that pursuing the training was a financial struggle.

Trainee Economic Challenges to Starting Their Farms and Ranches

Trainees and staff reported on the challenges of starting a new operation.

To begin by repeating a case for comparison, the former program that formed the foundation for many of the in-person programs had created an extensive support system for starting up. They "helped farmers find land and we created a memorandum of agreement (MOA) for the [land-owner and new producer] that was not legalistic, that felt like knowing the history of how legal things were used to trick Hispanic people out of their land." They continue that the MOAs were very "lay-friendly" but "very thorough." Moreover, they focused on land that "wasn't being farmed" for reasons of age or loss in the family. The MOAs laid out extensive details to prevent conflict between all parties. Benefits from the MOAs including new community for older, often isolated individuals, as well as additional mentoring for newer producers.

By comparison, few of the current programs provide support for identifying land, and perhaps just one provides anywhere near the kind of in-depth support that was provided by the now-closed program. In some cases, that is because the programs focus mostly on those who already have access to land, but that is not the case for most. Thus, trainees leaving a training program or leaving the incubator stage may struggle to identify adequate access to land and capital. One staffer frames the issue this way:

> *I think that asking questions about famer/rancher training programs feels really relevant because of how much money it garners in these days, and how much people want to support new and beginning farmers. But once they cross over from being a trainee to owning their own business, it all goes away. And, you know, I've had people tell me I'm wrong about that. But then when we really get into what's available, I'm not wrong. This is like we just rip the rug out from under people as soon as they are no longer students and it doesn't consider the long game. It doesn't consider the fact that it is the system that is the problem and not the lack of training. There is so much training available. It is coming out our ears. We are not lacking training but what we are lacking is structural pieces that allow farm businesses to support a business owner and a family and employees.*

Individuals readily list a number of solutions, from not charging people for land in the early stages of their business to collective sales outlets to changing mindsets to view farming as a public service–even paying people to farm. One suggestion involved re-framing farming as being equivalent to landscaping on public lands. Our governments readily pay for the landscaping of public lands, which involves similar skills, tools, planning, and expenses. However, it is nearly unheard of for governmental entities to pay farmers to farm public spaces in the same way that landscapers maintain those same spaces.

A staffer of another program notes the emphasis that their own program puts on helping to address access to land and access to capital for beginning growers, including simply working with a small cohort so that they can receive individualized attention. However, even their trainees experience substantial hurdles as they prepare to launch. One trainee, for example, joined the program before finishing their school year, "but I came out for a weekend and planted my field." So, they got a start, but "ended up losing access to that land" and having to start back over in the middle of June on a new plot of land. The program, based on Tribal land, ends up providing a number of especially steep difficulties to establishing and maintaining a farm business. More on the challenges of Tribal land is included in the next section on Challenges of Operating on Tribal Trust Land. However, in brief, land tenure forms are heavily circumscribed by the rules for leases on Tribal Trust land, limiting long-term investment in the land, crop-livestock integration, planting perennials, developing infrastructure, and more. Moreover, most land is controlled by "lessees" with little incentive to invite individuals who are not family members to farm their land, and much land has not been farmed in many years, so lacks much of the needed infrastructure and soil building that helps to give new businesses a better start.

Even with access to land, access to adequate capital for startup is necessary. One staffer who had looked into leasing undeveloped land noted the many inputs required simply for beginning in the first year, including fencing, drip irrigation supplies for hundreds of feet of rows, hand tools, powered tools, and more, all totaling "thousands of dollars to cover an acre or two." With the changing climate and increased winds and unpredictable frosts, hoophouses are becoming an increasingly necessary season extension tool. Not to mention the frequent necessity of wells in an era of decreasing water availability. Moreover, with food safety laws raising the bar for fresh produce sales, the need for washstands and the staff time to track produce from field to customer increase progressively. Thus, for a person who is starting a new business, the prospect is daunting.

One set of trainees in their second year struggled with launching their businesses because they lacked capital for essential start-up inputs. One suggested that access to seeds supplied by the program to first-year trainees, as well as a stipend for travel to the site would have been an important support for them. In addition, the second-year individuals had little support in identifying markets for their products, making turning their first independent farm into a business especially challenging, and limiting the prospects for long-term sustainability.

With trainee income frequently in the sub-$30K range[6] for trainees who do not come from well-off families or from previous careers, even the prospect of acquiring land can be intimidating, and the processes required to obtain loans provide substantial hurdles. As one more experienced trainee bluntly put it, generational wealth is often the difference between those with access to land and those without: "And the only reason I'm able to access [land] is because of [generational wealth]." They add that, "the folks I know who are young, who want to farm, cannot get land and have no prospect of buying unless they were to do it nontraditionally with a group of people, or to find a situation where they were able to rent-to-buy or something in that realm." Further, they point to "development law" in the area where they live as providing "no protection for farmland." That is creating an environment in which "all of the land up here is just getting subdivided into McMansion parcels, basically. And any existing field that had acequia water rights are often–people don't know they have them and they don't re-up them when they buy the land and then they lose them."

On top of all of that, the trainee names the challenges of "water politics": "along the ditch I'm on, 50% of the turnouts are no longer being used. So, partially because MRGCD is requesting–like you get money if you don't flood." That means that former farmland is being increasingly turned to other uses in the area, which further drives up the prices of land for prospective new farmers.

A retirement age trainee sees their potential to develop a farm as limited by a number of factors, but land and capital access play a primary role. They note that the only land to which they have access, a backyard, has no irrigation access at all, not to mention any of the other start-up supplies and materials they need. Already living on limited retirement income, they see their prospects as somewhat limited.

Challenges of Operating on Tribal Trust Land

On the Tribal Trust land covered in the most in-depth fashion in this research, four different types of leases are allowed. No individual/family land ownership exists. A staffer lists out the lease types:

> *Staffer: You can have a homesite lease, which is to build a home. And it's usually a quarter acre or less. You can have an agricultural lease for agricultural production only. You cannot build any permanent infrastructure like a home or a facility. It must be for crop production only. You cannot incorporate livestock. Then there's a grazing permit for livestock [on separate land]. Again, you cannot incorporate a residence, facility, anything.*
>
> *Interviewer: And can the crop and livestock be on the same. . .*

[6] And none of the programs offer any form of access to healthcare, leaving trainees to pick up the steep expense on their own

> *Staffer: You cannot cross them. They must be separate. So that's a whole thing with soil health. And then there's commercial business site, commercial or industrial business site leases. So, these are the hardest. There are so few zoned areas that are permitted for commercial business development, that have access to utilities that would serve a commercial or industrial sort of building. So, there's only a handful of these available to an entrepreneur. . .. They do 25-year leases with the option to extend twice. So, you can extend to 75 years. That's the maximum that you could have a business, like a commercial business. But, normally, even at the 25-year mark, both parties have to agree when you go in to renew it for the second tranche, and we know people who built a brick-and-mortar laundromat and started a business. And then at the end of the 25 years [the Tribal entity] said, no, we don't want to renew. And it's theirs. Anything that you have brick and mortar on that land is theirs [the Tribal Entity's]. So, that's the risk. You cannot safely brick and mortar anything. That's why you see a lot of modular buildings, modular homes, because nothing appreciates. Nothing builds equity.*

The staffer adds that access to leases is challenging: "getting the farmland is a pain in the ass. But if you have family like we do that is willing to sublease to you or transfer it to you, that's great. We're definitely privileged in that area." The advantage of Tribal leases is that they do not involve payment for the lease, but that seemingly significant advantage is undercut for many newer farmers by the additional challenges involved. Further, the staffer adds:

> *But that creates a problem within itself where if no one has to pay for it, nobody's really determined to farm it. Which is why you see so many plots sitting idle at [area]. Because there's no enforcement. There's supposed to be the law. The [Tribal entity] code says that if farmland sits idle for two years, then the [Tribal entity] is entitled to that and reassign it to someone else. And they quite literally have never done that in the history of forever. So old people just sit on it, because why wouldn't they? I mean, when you can't own anything–people see these leases, a homesite lease, an agricultural lease, or grazing land for their animals, they just see it as an extension of their property when there's no other way for them to really own property, given the poverty situation. They see it as like their yard. They don't have the wherewithal or the equipment to do any of this. So, they just sort of keep it. And then some elders, a few are interested in seeing it worked, but they don't want to transfer it to your name. They say their legacy is just passing the title of it down to their kid but not necessarily working it. So, there are some, and that's who we identify. We find those elders that do want to see it worked. They're willing to sign a sublease agreement for, like, two years, saying that they will allow someone else to work the field, but they are not going to have their name on the lease at the end of the sublease.*

The result, as one trainee recounts, is that "only like 16% of ag land in our area is actually in operation. And the land [that] isn't in operation there's not really a good way to access that. It's just [that] the bureaucracy takes forever." Even with the support of staffers, trainees may find it challenging to access land as they leave the initial training program. One trainee describes their experience:

> *So when I finished up [the first season], the neighbor next door, we had an agreement at the end of the season. It was just a verbal agreement that I was going to be working her land the next season. Then when it came around to next season, I contacted her, and I'm trying to get a form signed to sublease it. And that's when she kind of just started getting hesitant. She didn't want to write her name. She didn't even want to meet up at all. And we didn't. I attempted about two times, and then I moved on to another person that was nearby. [The staff] again tried to reach out, set up a meeting. I was really excited to start farming. And I was also getting nervous because the more the people weren't responding right away. So I was like, oh, the season has already begun. I need to start right now. But the second lady she didn't end up meeting with me. She stopped, she didn't even respond back to me.*

The story goes on, including an appeal to another elder for help. The trainee notes that their family is from a different area of the Tribal entity and so they have fewer connections in the area close to the training program, and so they wondered whether people were rejecting them as "not from here." They add, "I'm not super dark complected, so I'm like, they might be like, 'oh, you're just not enough.'" But, the appeal to an additional elder, with support from the staff, finally paid off, and they were able to sign a sublease with the elder's friend.

In talking to trainees about the challenges of working Tribal Trust land, one stated, "There's so many barriers. It's like the government doesn't really want us to farm, and, yeah, funding stuff. But I'm going to keep doing it." They recounted several stories of the barriers experienced by them or other newer farmers that they knew. One important aspect that they and a staffer highlighted was the additional difficulty of accessing capital on Tribal Trust land: "I guess the big picture [on] Tribal Trust land is that you never own the land. Because we are leasing the land [we] don't have access to loans and things that, like, other forms of capital. Because you don't have anything to stand on or, like, collateral." Unlike traditional leases, for example, which can form the basis for operating loans from USDA's Farm Service Agency, Tribal leases provide very little upon which to base a loan request.

Most of the assistance offered by the U.S. Department of Agriculture to individual producers is based upon the right to manage land (i.e., a deed or lease), and that management is tied to the land via a farm and tract number (a.k.a. farm number). There are certain types of assistance that can be obtained without a farm number, but they are generally not the kinds of grants that make starting a farm more feasible, such as land loans and operating loans. The staffer adds, "if you want to do EQIP[7] or you want to do some of the bigger NRCS[8] grants out there. . ." then a farm number is a requirement.

However, it is nearly impossible to acquire a farm number for individual farms on Tribal Trust land[9], says a staffer:

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[7] Environmental Quality Incentives Program: A program of USDA's Natural Resources Conservation Service (NRCS) that provides payments to farmers who adopt specified conservation practices after developing a plan in collaboration with a NRCS employee. Payments partially offset the cost of adopting the practice.

[8] Natural Resources Conservation Service: the USDA entity that pays farmers part of the cost of adopting a conservation practice

[9] At least for the Tribal entity discussed in this part of the research

> *I was like. . .we should probably try to get an FSA[10] [i.e., farm] number. So, I went to the county office because the [Tribal entity FSA] office doesn't exist anymore. They just died with COVID. I guess they never reopened the office. And so I went up to [the now-closest FSA office, an hour away] and she said–I don't know, she could better answer this–my understanding is that she was basically saying that the [Tribal entity] has one farm and tract number and they don't, they haven't really, maybe like 20 years ago, but recently they've been ordered to not give out any individualized farm and tract numbers for these tiny little plots on [Tribal entity]. . .. And so, we would have to go through some sort of process to have them authorize us applying for things with [the Tribal entity] number. And that would just be a nightmare. So, she said, you know, it probably wasn't possible for the farmland that we're on. And I asked her. . .and she said she was going to propose it to the state office, and we have not heard back yet. This has been four going on five months where we're just waiting to see if they're going to allow us to even get a farm and tract number.*

In addition to the complex challenges of accessing land and capital, Tribal Trust farmers can encounter jurisdictional confusion among farm service entities, or reluctance by an entity to overstep on Tribal land after having been scolded in the past. That is further complicated by the limited offices available in some areas. Both NRCS and Soil and Water District offices in the area where the program is "died with the pandemic." The program's staffers attempted to go to the next closest office to get help from NRCS, but that provided additional jurisdictional issues since they were applying for a grant in a different jurisdiction from the NRCS office. A kind, retired NRCS staffer volunteered time to do the work needed for the grant application. But then, when taking the grant application to the nearest office in the supposedly correct Soil and Water District (SWD) jurisdiction (there being no NRCS in that location), the district refused to assist them because it had been told in the past not to interfere on Tribal land. Ultimately, with substantial persistence, the training program got the SWD to agree to allow them to present their proposal to the SWD board. The board then considered the proposal and consulted with the Tribal entity. Finally, the proposal was accepted for submission, but the staffer wonders if it was worth it: "It wasn't even a big amount of money. And I was like, my God, the level of effort, time. This is crazy."

Finally, as the training program seeks options to work beyond Tribal Trust land, additional questions about long-term tenure are arising for trainees. One trainee's strongest agricultural interest is permaculture, and they want to focus on planting perennials. But they wonder whether even with private land as an option, the training program would allow them to make that sort of permanent investment.

The land tenure and capital access challenges on Tribal Trust land are steep, and often provide substantive blocks to long-term investment that could build up soil health, biological diversity, and market infrastructure. With other programs making long-term planting investments via New Mexico's Healthy Soils Grants, it remains to be seen whether other forms of land tenure can provide options for a Tribal land-based program to similarly put down more permanent roots.

[10] Farm Service Agency: the USDA entity that manages most direct financial assistance for farmers that is not tied to conservation or marketing, so, e.g., land loans and loans for operational costs

Environmental Challenges

Overall, training programs tend to have a very strong focus on teaching environmentally-informed farming methods and to implementing them in their own operations, when programs include in-person work. However, there are a few areas in which some programs could bolster their efforts.

Staff Lacking Training in Agroecological/Regenerative Methods

Many of the site-based programs in this research have a strong agroecological and/or regenerative focus in their work and are reaping the benefits in soil health. As reported in the trainee survey (see Environmental Benefits), trainees see strong soil health results in some of the programs.

However, as survey responses and trainee discussion suggest, some programs could still use some growth in the ecological quality of their methods. One trainee describes their perspective on a training program:

> *I think they're still kind of learning about environmental protection. I mean, they are organic. But I guess they're still learning about soil. Last year they noticed that they needed to cover crop their whole area that they were planting. And that was, I don't know if that was their learning curve of that's just what they've been doing. I haven't asked, but I want to know more about the soil part, like how do I know that manure is going to be the best to add to the soil? Is it going to have too much acidity? I don't have that type of education.*
>
> *I would say they don't directly teach towards soil health. Like last season they're like, 'oh, [we aren't] producing as much, we must need a cover crop.' They talk about how [they] choose not to use pesticides or any chemicals. You know, it's part of maintaining soil health. But then everything is still so very tractor dependent, but, you know, you shouldn't plow every year necessarily. It disrupts the soil. . .. So, I feel like I haven't really learned what's the alternatives if I wanted to use less tilled methods. But, yeah, I would say they really don't teach directly to soil health.*

Another trainee agrees: "Yeah, I agree with [other trainee]. I'm still kind of confused about soil health. They taught us you should always get your soil tested. They've connected us with someone that is willing to come out and test the soil for us. But, yeah, I think they could still improve. But I think they're still learning, as well."

Given the strong agroecological record of several of the training programs, as well as the many farms that have now implemented New Mexico Healthy Soils grants, there are a number of good resources for growing programs to access. However, the unique needs of some of the training programs may mean looking further afield for useful soil health suggestions.

Climate Change: Wind, Heat, Unexpected Freezes

In addition to the health challenges climate change raises, shifting weather is also providing new challenges to training programs' infrastructure and growing systems.

The increased wind that has already come with climate change has raised an infrastructure concern for some. Hoophouses are proving an important adaptive strategy for season extension–both for reducing frost impacts and for growing in more controlled environments even in the heat of summer. At least two of the programs have experienced catastrophic losses of hoophouse materials as a result of windstorms, with plastic torn away and supporting structures misshapen. One program staffer reported that "three seasons in a row, on a super windy day at the end of February, it ripped the plastic clean off our hoophouse." So, at the same time as a climate adaptation strategy is becoming increasingly adopted by many, it is also becoming more vulnerable to the weather shifts brought on by climate change.

Innovation and experimentation are needed–and are growing–but could use some more systematic study. A staffer notes that they have been "talking with other farmers in the area and strategizing with them on how they have–because it's an important season extension technique." Techniques they have heard about include "using shade cloth or blanket material instead of plastic because it has more breathability and it's not so much like the ripping and exploding thing is going on." Farmers have witnessed "some success" with those techniques, while others have tried "truck tie-down strapping all around the plastic." However, uncertainties remain around what will work best for the combined goals of season extension and maintaining materials over the long-term for both cost and environmental reasons. The staffer notes that "someone definitely needs to do a research project" on effective hoophouse designs for dealing with increased winds.

In addition, just as for health impacts of climate change, programs will need to continue to consider their crop choices and grassland decisions in light of increasing temperatures, longer heat waves, more volatile frost timing, and decreasing water resources. Most programs are already thinking about these needs and making choices that build soil health and soil water holding capacity, and that target choices about crops and livestock to consider future challenges. However, this is a need that will become ever-more insistent in the coming years, and programs will need to continue to strategize and innovate.

Social Challenges

Discrimination Toward Trainees

An on-going challenge with some programs lies in discrimination and bias–conscious or unconscious–against certain program participants. Gender bias, racial bias, and disability bias continue to diminish the experiences of some participants in training programs. Even in the limited sample size of the trainees of the survey, some of those biases emerged (see Table 9), with two survey respondents reporting on bias.

Some other study participants reported gender and racial discrimination from some staffers and felt that the underlying issues remained unaddressed.

A staffer with one program framed the situation as part of a larger landscape:

> *Yeah, I think that our program is just as racist as our society and just as homophobic as our society is. You know, I don't think it is more so than our dominant culture, but I think that it's like it has all the same pitfalls as standard*

Table 9. Survey results on discrimination within the training programs

		Survey takers (n=9, all trainees)	
		#	%
Did/have you or others experience any form of discrimination as a result of participation in the farmer/rancher training program?			
	Yes	2	22
	No	7	77
Which of the following forms of discrimination did/have you experience(d) as a result of your participation in the farmer/rancher training program? Please click any that apply.			
	Disability discrimination toward me	1	11
	Gender-based discrimination toward me	1	11
	Gender-based discrimination toward my peers	1	11
	Gender-based discrimination toward trainers	1	11
	Other forms of discrimination toward someone in the program (please specify): harassment by another student	1	11

> *American structures do. And like assuming a standard of white, male, cis hetero needs and behaviors. And when things are brought up by the majority of people who are not that, it tends to go over the heads of the people who are in training and management roles. [. . .] It's with a lack of understanding of systemic oppression, people's needs as individuals don't get met and they get dismissed and overlooked. And I think that takes a toll on people as they try to move through the program.*

Fortunately, some participants also commented on their programs addressing the challenges : "Well, I think it's getting better. I think that this year we have initiated the program with some intentional conversations and trainings, and we brought in a [staffer] whose job, even though it is broader than this, the role that they have taken has been dealing with personal stuff that comes up."

Further, two participants with substantial experience in two different programs pointed to the sexism and misogyny they experienced themselves when training or being trained. One spoke of being perceived as a "secretary," "girlfriend," or "farm intern" for a fellow male staffer in a program, despite having a co-equal position with him. The other staffer related their experiences as a trainee :

> *So, when I first started, I [...] I feel like sexism was something that was very real. Like, if you're a farmer, a "girl" farmer, it isn't cool. Girl farmers can't get the work done, they can't lift up heavy things. So that was hard for me and I've experienced it. And then I got the opportunity to teach and I was like, I'm never going to do that. Because it sucked. It totally sucks. I think then like the ageism comes in and so I feel like, again, I will offer help to a lot of older male farmers and sometimes they're just like, well, you don't know what you're talking about and you're younger than me. And so, yeah, just like the sexism, ageism is always really interesting in the farm world. But I try just to be like, 'No, sorry. I'm doing it. I know what I know. I'm a great farmer. So, if you want me here, we're going to do it together.'*

Discrimination by Bureaucracies & Bureaucratic Entanglement

In addition to interpersonal biases, there are structural and institutional biases that affect the functioning of individuals and agricultural operations.

One staffer discussed the ways in which institutional policies could limit good decision-making, even when producers have the needed knowledge and experience. For example, they had witnessed how the Bureau of Indian Affairs (BIA) has created policies around grazing and grazing allotments that can prevent good management even by skilled producers. In addition, they had heard some Indigenous individuals report that their treatment by entities like the FSA or banks was different from treatment received by other groups of people. The staffer noted that such differences could be due to historical discrimination and consequent differences in access to collateral, land, and related assets.

Another staffer describes how the historical challenges of working within such structural barriers and injustices have led to poor relationships of some neighbors to the training program: "You know what I mean? It's kind of that lateral violence, and even this year, because we expanded our acreage to a new plot adjacent to ours, the community put up a gate to block our access to it and called in fake police reports saying that we were out there waving guns at them, threatening to kill them. To block our access, I think." The staffer adds that the irrigation line for their farm, and their farm only, was shut off for two weeks, and that, "that's what's slowing us down the most, the bureaucratic bullshit from our own community."

Further, a trainee's description of processes required to access Tribal land highlights the way in which bureaucracies become entangled and limit the ability of individuals to complete even seemingly straightforward tasks:

> *So, like even if you find someone who is like, yes, I will give you my ag lease, like maybe you're buying it, maybe they're giving it to you. But then you have to go through this whole farm board process. And it's with the farm board and the BIA and they don't work together. And then the farm board doesn't even follow the rules sometimes. Yeah, once again, like the personal vendettas and things like that. But also, it has you running back and forth. For example, my roommate was trying to help her nephew get this piece of land. Everything was going well. And then the final meeting–they had had six or seven meetings–and the final meeting the BIA agent just didn't show up to the meeting that she was supposed to be at. And you have to have everyone there to sign it. And the person who's going to give the land to her nephew is tired of going to these meetings. She's like, 'I don't want to come to another meeting.' And luckily you have, two hours late, the [BIA agent] showed up. If she hadn't, that woman would have been like, 'I'm done with this process.' And, you know, it sort of screws you up.*

Similarly, a staffer describes the confusion and entanglement among the New Mexico Environment Department and Tribal authorities: "When they say, 'oh no, we were told by the [Tribal entity] that we couldn't come in and inspect anything.' It's like, by who? By what department? What year was that? Because thing could be different if you just had a different person in a certain office." Such confusion and entanglement results in almost insurmountable hurdles to making business growth decisions:

> *It is like a logistical nightmare that, truthfully, it doesn't make a lot of sense financially for us right now. But we also see this phase because we have to haul everything off reservation. There are no processing facilities, there's no manufacturing regulatory body. No one's going to go and inspect a facility and enforce anything, even if there was a facility. So, you can't get a manufacturing permit. [. . . .] The [Tribal entity] wants to be sovereign. . . but then at the same time they don't allow the New Mexico Environment Department to come on the reservation. So, even if we wanted to, we asked them, if we build something, can you come and still give us a permit because we are within the state of New Mexico? And they said, 'no, that's a government-to-government issue, and they don't allow us to come on.'*

Some bureaucracies are more willing to attempt to work together, but even so, overlaps of Tribal authorities with other jurisdictions, or simply the lack of any entity to manage a regulatory area within a given jurisdiction, can make for complexity. For example, another Tribal entity trying to create opportunities for vendors to obtain food permits has had to extensively research how their Tribal jurisdiction can function within the parameters of the surrounding jurisdiction. However, fortunately for this case, the Food and Drug Administration governs elements within both jurisdictions, which helps ensure that the standards of the Tribal entity, with inspection by BIA, can meet the standards of the surrounding jurisdiction. As the staffer views it, with sufficient research and dialogue, the hurdles of overlapping bureaucracies can be surmounted, but,

> *It's a dirt road we're on. It's not paved yet. And there's not even gravel there, and sometimes it's muddy and sometimes it's bumpy, sometimes it's rocky, and we don't know if we're going on the right path. But I feel good with all the [processes] that we have in place because I feel like we've done our due diligence. [. . .] Most likely we're going to implement it and get that done.*

Conclusion

New Mexico's farmer and rancher training programs are an important part of the local food systems landscape that has begun to connect local food to a broader swath of the population. For individuals with no prior exposure to agriculture and no family in agriculture, beginning farmer and rancher training programs can be an important foot in the door to entering agricultural professions or becoming a producer. Even for those with family connections to agriculture or an existing land base, training programs help beginners make their way over a wide range of hurdles, from dealing with pests to assessing the economic value of a given enterprise. In addition, for those struggling to make their farm or ranch businesses support them full time, programs directed at more intermediate producers can be a key stepping stone to making the agricultural livelihood viable.

However, training alone does not move graduates into full-time agriculture. Access to land and capital form an essential starting point for shifting from trainee to producer. Moreover, creating businesses, non-profit enterprises, or other entities that are viable for the longer term often requires on-going mentoring in enterprise analysis, record-keeping, diversification, financial planning, and more.

New Mexico has both some unique and common characteristics in the broader context of U.S. land management. Before 1846, the Spanish and subsequent Mexican governments made land grants to both individuals and communities in what is now New Mexico. Within some communal land grants, certain lands were held in common “for general communal use or for specific purposes, including hunting, pasture, wood gathering, or watering” (U.S. Government Accountability Office, 2001). Some such commons still exist as commons, with groups of individuals within local communities managing the land areas to ensure effective, sustainable use. With such models as part of its history and current culture, New Mexico offers a potential breeding ground for new models of agricultural land management.

Moreover, with public land management entities available in New Mexico that are less common in many other parts of the country, the state contains additional potential sites for supporting new producers as they venture into developing and managing their own operations. Specifically, “open spaces” in locations like Albuquerque, Santa Fe, and broader Bernalillo County provide substantial scope for the public to support agricultural establishment and innovation. Open spaces are already focused on supporting farmers, with the Grow the Growers program run by Bernalillo County being just one example. However, even while preserving substantial space for trails and similar outdoor recreation, there is substantial scope to further support farmers as they move into developing independent businesses and perhaps also collective enterprises to support food sovereignty. Open spaces could leverage existing community support for local agriculture to provide the needed infrastructure for farming on undeveloped open spaces. Further, other public entities could contribute, either in the form of land they manage, or by developing funding sources to assist new farmers and ranchers with the start-up costs of new enterprises.

These two examples are meant to illustrate the possibilities for better supporting new producers, and not necessarily as the specific, most viable recommendations to be carried forth. But they underscore the fact that new models of agricultural systems are needed in order to ensure that the aging farming population receives an influx of new, innovative individuals. New Mexico’s agricultural traditions run deep, but with the many challenges of climate change, corporate consolidation, and urbanization, they will need additional minds coming or returning to the table to ensure they can develop viable forms in the future.

New Mexico’s agricultural training programs offer substantial benefits to their trainees, staff, and their broader communities. They are laying important groundwork for the state’s agricultural future. In their staffs, made up of dedicated, talented, and imaginative people, lie the solutions to many of their challenges. The combined intention and creativity of those working in and around agriculture can develop the needed solutions. However, to ensure that the good work they are doing leads to a flourishing agricultural landscape in the state, additional systems are necessary to provide new producers a solid path forward.

References

Garfin, G., Jardine, A., Merideth, R., Black, M., & LeRoy, S. (Eds.). (2013). Assessment of Climate Change in the Southwest United States: A Report Prepared for the National Climate Assessment. Island Press. http://www.swcarr.arizona.edu/sites/all/themes/files/SW-NCA-color-FINALweb.pdf

Heniff, B. J. (n.d.). *Heat Stroke: Teach the TACO Method* -. Occupational Health & Safety. Retrieved November 26, 2025, from https://ohsonline.com/Articles/2023/06/01/Heat-Stroke-Teach-the-TACO-Method.aspx

U. S. Government Accountability Office. (2001). *Treaty of Guadalupe Hidalgo: Definition and List of Community Land Grants in New Mexico | U.S. GAO*. Retrieved November 27, 2025, from https://www.gao.gov/products/gao-01-951

USGCRP. (2023). *Fifth National Climate Assessment*. Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. U.S. Global Change Research Program. https://doi.org/10.7930/NCA5.2023