

Hudson Valley Regional Apprenticeship

Draft Program Plan

Supporting host farm mentors and apprentices across the Hudson Valley



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Contents

Summary	i
Purpose and Background	1
Findings: Program Rationale	4
Gap Between Ideals and Experience	5
Power Sharing, Clarity, Transparency	6
Legality, Mediation and Conflict Resolution	7
Assessment and Evaluation	8
Staff and Organizational Capacity	9
Findings: Diversity and Equity	10
Belonging	10
Compensation	12
Housing	13
Hours and Duration	14
Findings: Mentor Learning and Support	15
Mentor Participation	15
Mentor Training	17
Diversity, Equity, and Inclusion Training, Community Relationships	18
Resource Linking	19
Findings: Apprentice Learning and Support	20
Apprentice Recruitment	20
Apprentice Cohort Building	21
On-Farm Learning	22
Self-Directed Learning	23
Community of Practice	24
Findings: Curriculum and Pedagogy	25
Assets and Resources	29
Recommendations	31
APPENDIX A Annotated Bibliography	
APPENDIX B Interview Guides	
APPENDIX C Staff Capacity at Other Programs	
APPENDIX D Additional Participant Quotes	

Program Plan Summary

This report presents a draft plan for a Hudson Valley-wide farmer apprenticeship program coordinated by the Glynwood Center for Regional Food and Farming in Cold Spring, NY. The program supports host farms to provide robust apprenticeships by offering program structure, direct training, resource coordination and network building for apprentices and for mentors.

The program plan arose from structured discussions with farmer-mentors and apprentices in the region, and with directors of similar programs across the country, and from a review of published research. The report offers a needs assessment and regional resource listing, highlighting where gaps exist and how they might be filled by a Glynwood-coordinated program to support regional host farm mentors and their apprentices.

Background

Glynwood’s mission is to ensure the Hudson Valley is a region defined by food, where farming thrives. Glynwood works to advance regenerative agriculture that benefits the environment, energizes local economies, enhances human health and strengthens rural communities.

For more than 20 years, Dave Llewellyn, Glynwood’s Director of Farmer Training, has been a steadfast advocate for sustainable and resilient farming across the region. Through his work with farmers and other partners, Dave saw an opportunity for Glynwood to support apprentices and their host farms with a structured program that would strengthen the social fabric of farming in the Hudson Valley, create a robust means of farmer knowledge transfer and better prepare diverse new farmers to be successful in their own enterprises.

Program Goals

- 1 | Ensure equitable apprenticeships that attract and support diverse apprentices to farms in the Hudson Valley.
- 2 | Support small-scale farm viability by developing valuable apprentice-farmworkers and a replicable system of farmer knowledge transfer.

Program Objectives

- A | Train new farmers and new food system advocates
- B | Diversify apprentice and mentor pools
- C | Appropriately compensate apprentices
- D | Ensure transparent, participatory program planning, delivery and evaluation
- E | Support farmer knowledge transfer
- F | Strengthen regional communities of practice

Program Rationale: Diversity, Equity, Transparency, Accountability

Past research and interviews underscore a sizable gap between the ideals of an apprenticeship in sustainable agriculture, and the lived experience of farm apprentices and mentors.

Throughout the country, and in the Hudson Valley, farm apprenticeships often fail to fully embody a structured learning experience, in part due to the harried nature, limited labor and commercial challenges of many small-scale, organically managed farms. There is a tension between the vision and values of the alternative agrifood movement as being inclusive, transparent, non-hierarchical, and economically sustainable and the reality of its apprenticeships often being exclusive and exploitative. Stakeholders also recognize personal and systemic challenges inherent to the heteronormativity and whiteness of rural places and farming. In the Hudson Valley, the very high cost of housing compounds these factors.

A regional program can address these shortcomings by ensuring robust learning opportunities and fair treatment and compensation for apprentices, helping host farms attract, train and retain valuable farm labor from varied backgrounds. Such a program could support the creation of safe spaces for diverse participants, and provide a container for farmer-mentors to support each other, while working to address systemic injustices at larger scales, in a non-hierarchical and transparent manner. Participatory planning, assessment, evaluation and accountability are integral to such an approach.

Pedagogy and Curriculum

In-field learning-while-doing is the core teaching and learning method for farm apprenticeships. Interviewees saw the difficulty in maintaining an educational component in the height of the season due to overwhelming farm work demands. During these times, the larger program could provide educational continuity in a peer group setting, through workshops, farm-visits, remote discussions, self-directed learning projects and peer-to-peer learning components.

Beginning farmer programs often offer content in five areas: production practices; marketing; financial planning and resource assistance; business planning and management; and land acquisition and transfer (Niewolny and Lillard, 2010). However, many apprentices are motivated by an interest in food justice and food system advocacy. As such, programs that incorporate food justice and advocacy curriculum better prepare apprentices for success in diverse food system roles, while aiding in the dismantling of larger systems of oppression.

Most programs standardize a required skills checklist; these can be derived from a curricular development process (DACUM) that involves a cross section of local farmers, or they can be adapted from those that already exist. Engaging in a DACUM process is beneficial, as it draws on local expertise, ensuring the curriculum is place-based and relevant to participating farms.

Apprentice Learning and Support

Most farm apprenticeships focus on training for would-be farmers, but others are beginning to realize the need for, and value of, immersing would-be food system advocates as well. Being clear about who the program is serving, and how, aids recruitment, stems attrition, and helps create intentional, relevant programming. Focusing on clarity and transparency in the program design and recruitment process better enables would-be apprentices to find and apply to appropriate host farms.

Once accepted as an apprentice on a mentor farm, community building for apprentice cohorts can address the isolation of farm work and develop a community of practice that supports future success in the field. Connecting new apprentices to one another and to local resources, such as Medicaid and SNAP, while offering transportation coordination, conflict resolution and socio-emotional support bolster successful outcomes for host farms and their apprentices.

Mentor Learning and Support

Upholding clear terms of participation is necessary to hold mentor farms accountable for a baseline set of living and learning program standards. At the same time, being clear about the program's value proposition for farms is necessary, as there are inefficiencies associated with apprentices that especially affect commercial farms. Ensuring commercial farms participate as mentors is crucial for preparing future farmers and supporting an alternative food system.

While interviewees often referred to how busy farm managers are, there was an interest in participating in mentor networks and training in the context of creating better apprenticeships, and therefore better farm outcomes. Similar programs across the country offer a range of training, some only requiring basic onboarding and legality, while others offer a series of mentor-focused training. Formalized mentor-to-mentor networks are rare but would support host farmers to build a supportive community of practice.

Next Steps

First, share this report with stakeholders, including those who contributed directly to its content, and post the report publicly for the benefit of program development in other regions.

Next, convene a group of Hudson Valley mentors and other likely program participants and partners as a stakeholder planning committee. This group might begin by identifying the program's specific rationale and values, then agreeing on the overarching goals and objectives, and finally by suggesting the activities that will reach those objectives and the metrics that will measure the program's success. Most of these items are covered in this report, providing an empirical basis for the committee's deliberation and program component selection.

Finally, determine a feasible pilot and/or full program implementation timelines and research appropriate funding opportunities, such as the USDA Beginning Farmer and Rancher Development Program.

Purpose & Background

The primary purpose of this report is to develop a draft plan for a regional, decentralized apprenticeship program that mobilizes Glynwood’s experience with program management, farmer training curriculum and technical assistance to support a network of apprentices working with collaborating mentor farms across New York’s Hudson Valley region. The draft plan can be used to constructively convene Glynwood program staff and regional partners to determine a final program plan.

The purpose of third-party support is to ensure the initial planning process is inclusive and participatory, resulting in a program design that is responsive to the intended audiences’ needs, supported by an evidence-based program framework. As such, this report resulted from the following program planning goals:

1| Needs assessment with the two main program audiences:

Mentors Hudson Valley farm managers at non-profit organizations and farm businesses offering on-farm apprenticeships.

Apprentices New farmers or farmworkers currently, or recently, engaged in an apprenticeship or internship on a Hudson Valley farm.

2| Empirical basis for program component selection, arising from published peer reviewed research of best practices in farmer training program design.

3| Practical basis for program component selection, based on experience from other organizations across the country running similar programs.

Background & Program Staff

The Glynwood Center for Regional Food and Farming’s mission is to ensure the Hudson Valley is a region defined by food, where farming thrives. Glynwood currently offers an on-farm apprenticeship program, a decentralized farm incubator program, and convenes workshops on a variety of topics for regional farmers throughout the year.

Dave Llewellyn, the Director of Farmer Training at Glynwood, develops and leads Glynwood’s farmer training efforts, including the farm’s Apprentice Program and Hudson Valley Farm Business Incubator. He also plays a key role in connecting regional farmers to land access opportunities, and has long served as an organizer of the Mid Hudson Collaborative Regional Alliance for Farmer Training (MH CRAFT).

Through his longstanding activity in farmer training networks in the region, Dave recognized the potential need for, and benefits of, convening a coordinated, cross-farm, regional apprenticeship program. This report was commissioned to support planning such a program.

Methods

Data Generation

Primary data for this program plan comprises half-hour phone interviews with apprentices and mentors in the Hudson Valley, and with program coordinators from similar, or related, regional programs in other parts of the country. Apprentice and mentor interviewees were recruited through two blanket email invitations sent to the 202 addresses on the Mid-Hudson CRAFT email list in July 2021, followed by snowball interview requests due to the low, although not unexpected, mid-season response. Program coordinator interviewees were identified through desk research seeking similar programs across the country.

The report author held interviews with 25 participants in the summer of 2021, in addition to four interviews undertaken by Glynwood program staff for a total of 29. Interview participation was voluntary, confidential and not remunerated. All interviews were held in English. The author follows a feminist orientation to the research process that requires attention to power dynamics, for instance by not treating the interview as an extractive process, instead allowing the interviewee to largely determine the course of the conversation. For example, interviewees were not asked for rote demographic information; rather, they discussed their age, gender, education, and race/ethnicity only if and when they felt it was relevant to the discussion. Interviews were either recorded or noted extensively; recordings were deleted following transcription. Transcriptions were not made available to program staff to retain confidentiality of participants.

Primary data sources:

- 11 interviews with apprentices
- 7 interviews with mentors
- 6 interviews with coordinators of similar programs across the country
- 1 interview with an academic researcher who studies farm apprenticeships

Secondary data sources:

- 4 Glynwood interviews with coordinators of similar programs across the country
- Desk research in peer-reviewed literature to answer: What are the current best practices in new and beginning farmer training?
- Regional asset list prepared for another Glynwood farmer training program

Coordinators from the following programs were consulted:

- Biodynamic Association
- FairShare CSA Coalition
- Farm School NYC
- Maine Organic Farmers and Gardeners Association
- New Entry Sustainable Farming Project
- Pennsylvania Association for Sustainable Agriculture
- Quivira Coalition
- Rouge Farm Corps
- Women, Food and Agriculture Network
- Young Agraria

Data Analysis

Qualitative data (interview notes and transcripts) were analyzed in Dedoose, a web application designed to aid in traditional qualitative coding and mixed-methods data analysis. The general analytical structure was predetermined by the interview guides (Appendix B). Specific themes presented in the Findings section arose from the data, i.e., excerpts from interviews were grouped according to themes and patterns that organically emerged across conversations. Each theme in the Findings section offers a summary of the data that emerged for that theme, followed by quotes from interviewees that are illustrative of the theme.

The report author is a white, college-educated, cisgender woman in the age range of 35-44. She recognizes this identity as an inescapable research lens, and yet works to present the experiences of others with as little subjectivity as possible.

Limitations

As with any similar endeavor, the number of formal interviews in each category had to be balanced with the desire to produce a report in a reasonable timeframe. For instance, the number of mentors and apprentices interviewed represents only a portion of those residing in the Hudson Valley. However, themes that arose from interviews did converge and few outlier themes emerged, suggesting that the data were sufficient to provide insight into generalizable mentor and apprentice experiences.

A full asset mapping exercise was out of the scope of this report. However, the Asset List (see page 29) provides a basis for the next stage of planning, where partners can undertake a full accounting of the regional assets available to support the program.

In the course of the research for this report, general questions of NY state law pertaining to apprenticeships, internships, labor, liability and mediation arose. It was beyond the scope of this project to address such questions. These will need to be explored during further program planning to ensure legal compliance of all program components.

While these limitations exist, the data generated are robust in breadth and depth, providing a draft program plan around which program partners can constructively convene.

Findings: Program Rationale

I was like a farmhand and nothing more.

—Hudson Valley farm apprentice

Ideally, we always pay them more and, ideally, we also teach them more.

—Hudson Valley mentor

Gap Between Ideals and Experience

Interviews revealed that it is common knowledge among apprentices, program leaders, and mentors that many farms offering so-called apprenticeships in the Hudson Valley fail to fully live up to the ideals of an apprenticeship as a structured learning experience. Research shows that this issue is widespread throughout the country. This is in part due to the harried nature of small-scale, sustainable farm work, and the demands of commerce on organically managed farms where labor is often in short supply. Even mentors and apprentices who were involved in exemplary apprenticeships cited multiple potential benefits of regionalizing support for these programs that have become the bedrock of sustainable farmer training.

Published research from across the country also points to an ongoing tension between the ideals of the alternative agrifood movement as being inclusive and economically sustainable and the reality of its apprenticeships being exclusive and exploitative. While there is a sizeable workforce of young, educated, mostly white, women who are able to sacrifice adequate shelter and living wages, their ability to limit their tenure in such a situation, and their expectations of mobility following this work, extends from a position of privilege. At the same time, exploitation of farmworkers and farm labor shortages are widespread due to systemic injustices that cannot be solved at the farm level. Compounding these factors is the high cost of housing in the Hudson Valley, which adds to the difficulty of attracting and retaining labor.

A regional program supporting apprenticeships can address these shortcomings by ensuring robust learning opportunities and fair treatment and compensation for apprentices, which in turn helps host farms attract and retain seasonal farmworkers who may become new farmers or food system change advocates. Such a program could also identify and co-create safe learning and living spaces for diverse participants, and provide a container for farmer-mentors to support each other, while working to address systemic issues at larger scales.

- Apprentice: If you see a posting for an apprenticeship, usually it's a job and they just call the position an apprentice, not all the time, but that's common.
- Apprentice: What I was seeing as discrepancies in what the farm was presenting as an apprenticeship program and what I was actually experiencing. Which, to me, I was like a farmhand and nothing more. I was very frustrated about that.

Gap Between Ideals and Experience (continued)

- Mentor: There's many critical skills that should be lifted from individual burdens to systems-wide services—professional development for farmworkers, be they interns or crew members, is certainly one.
- Mentor: It would be nice to have a network of mentor mentors. Somebody to bounce ideas off of—how do you keep morale up in August, let's say? How do you actually teach while getting so much stuff done?
- Mentor: I think the point is to increase the value proposition of the commercial farms so that we can keep food growing in the Valley, keep commercial farms from collapsing. If we can do that through exciting educational opportunities that honor that, as opposed to pulling people out (to non-profit farms), that's in everybody's best interest.
- Apprentice: Farm managers are so busy and even if the intention is to train future farmers, I feel just the nature of their lifestyle and the business can be overwhelming. So to have the resources and support to offer the education and not add it as an addition to an operating farm, I think that... (would be good).
- Research literature: Our study therefore shifts the focus away from understanding on-farm apprenticeships as simply job-training and a pathway for farm entry. Instead, apprentices in the study were primarily motivated to undertake an apprenticeship out of a value for and desire to critically engage in improving the food system, or create alternatives to the dominant food system (MacAuley and Niewolny 2016, p.206).
- Research literature: Committing to anti-racist work to seek a deeper understanding of the way structural and institutional racism in our food system operates while also developing a pathway to action to help dismantle the attitudes, practices, and structures that hold racism in place (Niewolny, 2021).
- Research literature: Farm interns' consent to unjust labor conditions is deleterious to making sustainable farming practices socially just (Wood, 2013, p.161)
- Research literature: One example might be state funding for an independent organization or institution to oversee a process for registering farm internships and overseeing that farmers provide adequate remuneration to farm interns during the season (Wood, 2013, p.165).

Power Sharing, Clarity, Transparency

Being explicit about the program's embedded values, goals, and system is important to mentors, apprentices and program coordinators, especially in the context of dismantling systemic injustice. One such value that arose during interviews is sharing power at every level of the program, for instance by convening diverse partners to design and deliver the program, and by actively addressing the power imbalance between apprentices and mentors.

A helpful model in this regard is Farm School NYC, which is premised on the philosophical work of undoing hierarchies in education following Paolo Friere's *Pedagogy of the Oppressed*. Other models and philosophical frameworks exist—for example, UC Santa Cruz's apprenticeship program uses David Kolb's Experiential Learning Cycle, and the Biodynamic Association follows Otto Sharmar's *Theory U*. Convening a diverse working group to articulate such a framework and weave related goals through all program components is essential.

In addition, apprentices wished for greater clarity and transparency all around, including with program expectations, resources, wages and living conditions, and the balance of work versus learning. Program coordinators urged Glynwood to document an inclusive program planning process and to create a publicly available roadmap that could help other organizations with fewer resources create similar programs.

- Program coordinator: We have periods of inflection in our history, maybe this is our moment—how are we in community with other people? How do we want our values to show up in the programs? Young people really want this, it's important to them.
- Program coordinator: There are certain things that are really specific to looking at teacher-student dynamics and how are we challenging those power dynamics in our program and in our classrooms?
- Mentor: One concern I would have is about how farms are invited to participate and to what degree it is a community-led program versus a program that would be envisioned and developed outside of the community and offered to the community.
- Apprentice: We weren't brought into discussions. We weren't brought into any planning. We were just hustled along from here to there: 'Get that done, do that.'
- Mentor: The number one thing that's been problematic here and probably at most farms, is in inbounding what somebody thinks they're getting into and what it actually is. Be really clear about the expectations of what the apprenticeship will entail.

Legality

While the terms “apprentice” and “intern” are often used for on-farm, learning-by-doing programs, legally, these individuals are most often employees. Host farms could use assistance in ensuring they are running their apprenticeships legally, and apprentices could use support for labor standards issues when they arise. Some program coordinators underscored the importance of Glynwood working with an attorney, whether to review program components, or to finalize terms of participation for mentor farms, including the requirement to follow all state labor laws or face program expulsion. It is also important to understand liability issues that could arise from acting as a third party, particularly in conflict mediation scenarios.

- Mentor: So if there could be a regional HR person that did all of the HR work for the farms—when there's a workplace issue, they could call them—that's a resource that people don't have.
- Program coordinator: Say an apprentice comes forward and says, "This person isn't paying me. They're not complying with the labor laws." If we were to step in and mitigate that, we would become legally liable if that went to court.
- Program coordinator: We work with a lawyer from the Legal Food Hub to make sure that it's (program changes) still in line with our terms of participation... and we are able to remove people from the program if they violate those terms of participation. That has been incredibly helpful.

Mediation and Conflict Resolution

Binding terms are a first step to managing mentor and apprentice expectations early in the season. Coordinators must also ensure early season placements and relationships are working, to avoid mid-season conflicts that can disrupt an apprenticeship at a time when mentors need the labor most. It's common for coordinators to ask apprentices (and less often, mentors) about interpersonal challenges at check-ins and to intervene when necessary. However, many apprentices did not have such support and were at a loss when challenges arose. A lack of formality in conflict resolution meant that some program coordinators could not devise consequences for poorly performing mentors. When apprenticeships fail, the coordinator should be prepared to transition the apprentice to another farm if possible, and to consider what level of support can be offered for the original host farm in filling a position mid-season.

- Program coordinator: We work with Agricultural Mediation, a branch of the USDA, to come in to navigate conflict, but it's something that all parties need to consent to.
- Program coordinator: Any time during the first 750 hours if either side wants to dissolve the apprenticeship relationship, they can.

Assessment and Evaluation

Assessment and evaluation for most programs includes initial apprentice goal setting and skills assessments, regular check-ins with individuals, often on a monthly basis, followed by written evaluations from mentors and apprentices at the end of the season. Skills assessments and skills checklists are common; they can be derived from stakeholder engagement processes where regional farmers determine the necessary skills for different types of farm enterprises, or from existing lists. Journaling, self-assessments, and creative presentations are additional options. Apprentices want regular assessment and evaluation opportunities; it's incumbent on the coordinator and mentors to ensure the agreed on metrics are being tracked adequately.

Several apprentices wished there was more follow through with skills assessments and initial goals. One coordinator suggested that the final evaluation should be held early enough that there is still time to adapt and address shortcomings. Impact and outcome tracking for apprentices was thought to be more difficult with younger apprentices due to their physical mobility. Determining clear, realistic, and richer program goals and apprentice outcomes—as well as a predetermined means to track this over time--would provide a constructive addition to the necessary metrics of 'skills obtained' and 'how many apprentices became farmers.'

- Program coordinator: With our monthly check-ins... there are three fundamental questions—what have you spent most of your time on this month?... what have you done that's new to you?... what's on the horizon for the next month?
- Apprentice: Sometimes farm managers will not be honest probably with the way that they're intentionally teaching. I think it will have to come from the apprentices how their experience is going.
- Apprentice: I think a lack of in-person accountable mentorship with the program definitely prevents a lot of the things that the program is saying it's asking its students to do from actually happening.
- Apprentice: If there was a universal here, like, what are there key competencies of a livestock farmer at a beginner, intermediate, advanced intermediate and advanced level? Then being asked, 'which of these can you do?' I think that would be helpful.

Staff and Organizational Capacity

Similar programs tend to start small, with as few as two to four mentors and matched apprentices in the early years. Even at this scale, coordinators suggest that a full time position is necessary to get the program up and running, although some started with 60-75% equivalent. As the program matures, it can support more participants and/or scaling back the coordinator's time commitment to anywhere between 33-75% FTE, depending on the program components and additional organizational support. Larger programs that serve more than 20 participants have created multiple part-time coordinator rolls reporting to a lead; however, there is at least one program that manages around 30 participants with one fully dedicated position.

After the initial program planning with stakeholders, which requires a significant time investment, the coordinator's annual commitments to the program generally include: in the winter—mentor recruitment, vetting, and mentor training programs; early in the season—apprentice recruitment, matching, and orientation; mid season—apprentice check-ins (normally monthly), cohort learning, curriculum delivery, workshop sessions, and regular mentor support (monthly group calls); and at the end of the season—evaluation and apprentice exit or next stage support. Adequate organizational and partner capacity, particularly for fundraising and program promotion, including web support, are essential.

- Program coordinator: The biggest change, that was such a relief, is getting the website up and running, that allows the apprentices to look at profiles and then directly apply through the website. Before it was taking me about three to four hours a week just to review applications and email them to host farms.
- Program coordinator: This year we're doing a six-part mentor training and it's all going to be on Zoom, there will be a lot of hours organizing that.
- Program coordinator: The main in-season form that that takes is with our monthly check-ins that we actually physically go out to the farms once a month, check in with the mentor or host farmer and the apprentice on their farms, and just get a sense of things.
- Program coordinator: Our operations director helps me with some of our program administration. We have a web portal that we use for tracking a lot of things, and she helps to maintain and make timely technical updates for that. Then one of my coworkers has just started taking on some of those monthly check-in visits.

DIVERSITY & EQUITY

*Housing security, education, food security, employment security,
all of those things create immediate power imbalances
where an apprentice farmer feels like they have less agency.*
—Northeast apprenticeship program coordinator

*Farming is a space where racialized work dynamics, like the one that we have
here, are just difficult to navigate sensitively.*
—Hudson Valley farm apprentice

Belonging

The food movement has been soundly critiqued for reinforcing a white agrarian narrative while neglecting the contributions and struggles of Black, Latinx, and Indigenous peoples and other people of color. Research has found that most farm apprentices are young, white, college-educated women (Wood, 2013), in part because “ethnocentric preference embedded in beginning farmer supports regularly favor white, English-speaking farmers” (Calo, 2018, p.371) and “white spacemaking and class-related work ideologies are employed in producing and maintaining on-farm apprenticeship activity” (MacAuley and Niewolny, 2018, p.4).

Program coordinators, apprentices and mentors discussed the personal and systemic challenges inherent to the widespread heteronormativity and whiteness of rural places, farms, and farming. Apprentices wanted to see mentors committing to anti-racist work and the creation of safe spaces for apprentices from diverse backgrounds and identities. Black, Latinx and other apprentices of color were wary of being used to check diversity boxes, while cisgender, white mentors struggled to attract diverse applicants, suspecting that their own identity, and means of recruiting, may be responsible.

Creating safe spaces of belonging requires commitment to potentially novel and uncomfortable work. Interviewees had many suggestions for how a program can support diverse apprentices. Common themes included: hiring diverse coordinators, recruiting diverse mentors, requiring diversity training and commitments, acting as a conflict mediator, and linking diverse apprentices to one another and to existing community groups for friendship and support.

- Black Apprentice: When I left Soul Fire Farm, they said, "You're going into," (... I don't know why I'm getting a little emotional right now)... "You're going into a white world, and it's not going to be like this."
- BIPOC Apprentice: I think a lot of my friends that are BIPOC ag workers want to know where people, especially white people that we're working for, where they are in their process of unlearning white supremacy and racism.

Belonging (continued)

- African American Apprentice:¹ I was sort of pleasantly surprised (the town) was pretty diverse and they have a good LGBT community there. But as far as like seeing people like me, an African-American woman, there wasn't a lot of people like me Upstate...
- White Apprentice: I'm a straight white dude and I went to Duke so I kind of fit in with the culture... but I remember another apprentice remarking to me, "It's such a specific and strange way that these people interact."
- Queer Apprentice: Travelling through rural Hudson Valley might seem a little daunting... the farm manager probably isn't sharing your identity and you might just feel isolated. Knowing there's other people in your community who are also going to be part of that program, that might be more helpful, a better learning and work experience.
- BIPOC Apprentice: This is the biggest recurring issue is that there are very few BIPOC led apprentice programs... which is why I felt really incentivized to try and create that space on my farm, even though I'm still very new and I'm still learning myself.
- White Apprentice: I got into farming from a food access and food sovereignty mindset. And when I was there, there was not a lot of that work happening and it was a very elite feeling and it was not diverse and very white.
- Trans Apprentice: Being queer and trans-identified, I was personally interested in... addressing the issues of the lack of diversity in farming, but then was realizing, oh, but are these programs actually a viable, safe space for these kinds of people to go?
- BIPOC Apprentice: If an organization is hiring a farm crew that is BIPOC, then they should be held responsible for creating a safe space for that crew. And that means addressing microaggressions and participating in racial equity trainings and meetings.
- BIPOC Mentor: I told candidates too... I was like, "Just so you know, out here you encounter racism and sexism and stuff... I want you to be somewhat prepared and if I can help you deal with this, I'm more than willing."
- White Mentor: If you have people of color on staff then people of color feel like they could work there, and if you don't, they're like, "I don't know if I want to work there."
- Program coordinator: I would say about a quarter or a third of all apprentices that are applying now identify as queer... We did a mentor training on working with the LGBTQ community... how do you help folks with different gender identities feel safe in rural communities?

¹ Interviewee identity descriptors are provided in this section because they are pertinent to the content. Descriptive words were those chosen and used by the interviewee.

Compensation

While many treatises have been written on the systemic issues creating depressed wages for small-scale farmers and farmworkers, the bottom line for apprenticeships when it comes to equity is that offering a decent wage is essential. Apprenticeships that do not offer a living wage are exclusive; those that do not offer the NY State minimum wage of \$13.20 per hour may be illegal. The quandary of a system that has relied on low pay for apprentices plagues program coordinators and mentors. Some non-profit farms are able to pay a living wage by fundraising or through corporate sponsorships. Some apprenticeship programs in other parts of the country require partnering mentor farms to pay a designated wage, while others do not.

Typical farm businesses struggle to find the income to pay living wages, and even those that do worry that it does not keep pace with the cost of housing in the Hudson Valley. Small-scale farms generally, legitimately, cannot afford to pay living wages to workers who will not be proficient for several months of their early employment.

At the same time, an apprenticeship is not mere employment. It should be providing apprentices with a valuable education, and compensation often includes housing and food. Some mentor farms suggest being explicit about the monetary value of these benefits. However, many apprentices did not find that the educational component held real value beyond the level of what one would normally learn as a new employee. Some apprentices wished there had been support for incidentals, such as workwear, travel, or attending a conference. Many were encouraged to participate in CRAFT events, but often outside of normal work hours. Ensuring workers compensation coverage and helping apprentices navigate Medicaid or subsidized insurance would enable safer, more diverse participation.

- Research literature: A farm intern's individual power to take a salary sacrifice and endure difficult working conditions, both of which do not provide adequate support for a decent livelihood, is a form of elitism (Wood, 2013, p.158).
- Apprentice: I was seeing that I was no different than the hourly workers they were paying to supplement the farm crew... They're being paid a lot more than me to do the same work that I'm doing.
- Apprentice: When I looked at my experiences there, whether it was workshops or days on the farm, it went through the filter of "I only made \$65.00 today," but did I make up for it by learning concrete skills? And often the answer is "no."
- Apprentice: If there was someone associated with this apprenticeship network that was designated to helping folks figure out how to access programs like food stamps and Medicare, that the farms can't always provide, that would be supportive.
- Mentor: It would be great if people could be paid a living wage while learning, but I don't know how a farm supports that.

Housing

Its popularity and proximity to New York City makes housing in the Hudson Valley extraordinarily expensive. There is very limited affordable rental housing available near farms. Apprentices who did not live on host farms had a difficult time finding adequate housing and transportation. Those interviewed for this report who did live on host farms were mostly satisfied with their accommodations, but they noted inadequate apprentice living conditions on other local farms.

Program coordinators around the country have varied, mostly informal, means of vetting on-farm housing. One coordinator suggested that even when the vetting process involved formal site visits, things still went awry. This is an area where the program coordinator can set minimum standards but also expect to respond to challenges as they arise. In addition to physical housing issues such as mold, heat, poor cooking facilities, and flooding, personality conflicts, housekeeping burdens and lack of privacy were often cited as challenges. As housing is typically considered integral to apprentice compensation, a lack of on-farm housing capacity bars some would-be mentors from offering mentorships altogether.

The housing issue in the Hudson Valley is formidable and mentors were actively thinking of ways to create a systemic solution for affordable farmworker housing, whether for apprentices, crew, or beginning farmers. This issue warrants programmatic consideration beyond the bounds of an apprenticeship program.

- Apprentice: I would like to be able to complain about the sink leaking and not worry about weird retaliation.
- Apprentice: I know that resources are limited for a lot of small farms, but I know one of the farms nearby, they house their interns in a barn and they have cots and a little air conditioner, I saw it and I was like, "This is crazy, nobody should live here."
- Apprentice: Transport is the tricky thing... there are a lot of people trying to leave the city and learn to farm... if there was some sort of shared vehicle that would be really helpful... that's a huge barrier for people.
- Mentor: It is so, so critical that I feel it would be silly to leave it out of the conversation: we desperately need farm worker housing.
- Program coordinator: From a programmatic point of view... if there's no running water, if there's no electricity, then it might be kind of considered *not* housing.
- Program coordinator: What I've heard is that living in the farmhouse (with the farmer) is worse than not having housing at all offered by your farm. Living in communal housing is okay, but you have to have some kind of say in it.

Hours and Duration

A common theme emerged regarding the necessity of enforcing work hour boundaries. While many farm managers keep extraordinary schedules, more reasonable expectations for a farm apprentice should be clearly defined and include sufficient time off as well as time dedicated to learning. Apprentices whose typical work hours did not include designated learning opportunities questioned the legitimacy of the apprenticeship. Some programs stipulate 90% on-the-job learning and 10% related instruction time, or one hour a week dedicated to formal learning/mentoring, or requiring a certain amount of participation in off-farm instruction but leaving apprentices to determine which opportunities to take and when.

The duration of farm apprenticeships varies widely across the region and across the country. Some programs offer micro-mentorships lasting as little as a few weeks to learn specific skills, some are three months in the summer, and at least one offers a Department of Labor sanctioned program lasting eighteen months. Some offer a mix of summer, season-long, year-long and second year advanced apprenticeships. The most common apprenticeship in the Hudson Valley appears to be a season-long commitment from early spring through late fall, but some are year-long and others are only three months. Offering varied durations according to mentor farms' needs may provide the most flexibility for apprentice matching. However, standardizing the duration would enable more cohort-building opportunities and assurance of basic learning outcomes. A year-long apprenticeship would provide time in late fall, winter and early spring to offer more formal learning opportunities; attempting to do so in the height of the season can stress both apprentices and the mentors dependent on their labor.

An additional consideration are the needs of apprentices with caregiving and other responsibilities. Full-time apprenticeships are exclusionary to this group. Offering the ability to undertake a part-time apprenticeship would enable apprentices to continue their caregiving and/or retain employment elsewhere. Such a model may also attract more local apprentices.

- Apprentice: You're like, "What part of this is an apprenticeship if you're being pushed as hard as a regular crew?"
- Apprentice: I think that's another key difference between farms where you work to learn is there's often not as clearly defined boundaries. Like you don't have a start and stop time because oftentimes farm management will work 10-12-hour days and it's not always explained to the workers what to expect.
- Apprentice: Myself and another one of the apprentices were both taking care of older family members. I wonder if maybe we all couldn't have done this if it were full time.
- Mentor: You have to give them time to recharge, not burn out, because it's very easy to burn out in your first years.
- Program coordinator: We have some mentees working almost 40 hours a week and other mentees working a few hours a week. It just depends on what their goals are.

MENTOR LEARNING AND SUPPORT

*Programs have focused so much on apprentices,
but who is supporting the mentors?*
—National program coordinator

How do you actually teach while getting so much stuff done?
—Hudson Valley farm mentor

Mentor Participation

Having clear terms of participation ensures mentor farms understand the goals of the program, and are able to offer a baseline set of program components. At the same time, being clear about the program's value proposition is necessary. Some mentors find that apprentices are desirable crew members who arrive "passionate" and "excited to learn," providing a "boost of energy." However, there are often inefficiencies and costs associated with apprentices, a particular concern for commercial farms. Ensuring commercial farms participate as mentors is crucial for preparing future farmers and supporting an alternative food system.

Apprentices want farm hosts to provide decent wages and livable housing, have adequate farm labor, set boundaries around work hours, offer resources to enable apprentices to participate in off-farm learning, commit to creating safe spaces, and demonstrate a true interest in teaching, mentoring, and learning from others, rather than being primarily motivated by a need for "cheap labor." They also want explicit program consequences for poorly performing mentors.

Similar programs have a formal mentor application and charge a nominal fee to host farms, while others pay mentors a "token" stipend (typically around \$500) for their time spent teaching. Most do site visits to vet housing and farm conditions, some require mentors to provide past employees as references, and some require a certain number of years farming for program eligibility. Would-be mentors are often asked to articulate their strategies for sustainable production, as well as their capacity to financially and educationally support an apprentice. Some programs limit the number of apprentices per mentor (1 or 2), and require a certain number of instructional hours or a commitment to teaching a certain set of skills. Mentors are often expected to be on a unified recruitment and check-in schedule. Most programs have some requirement for mentor orientation and basic labor law training; some provide additional coordinated mentor training in a host of topics, notably including diversity, equity and inclusion training.

- Apprentice: I think it's super important that they vet the farms.
- Apprentice: It would be really helpful for these farms to have a regular work crew and an apprentice crew. There's this unrealistic expectation, you could see the pressure and the stress because they are relying on us to generate income for the farm.

Mentor Recruitment (continued)

- Apprentice: (The mentor) wanted to cast onto the apprentices his right way of doing everything instead of being open minded to different ways of farming. I think that was the main difficulty or challenge in the apprenticeship.
- Mentor: There's got to be a way to help managers and mentors be able to either see that the needs of the apprentice are just as viable as the business side of the farm, or to help them be better business people and managers so that their skills are stronger, and they have more to give to their apprentices.
- Mentor: I think agriculture really brings out a spark in people, especially people who just, who need something. I think that this is a place, or an industry, that can provide that. That's really why I got into it (offering apprenticeships).
- Mentor: You get better employees when it's more than just a paycheck.
- Mentor: The benefit is very real, they've all been good workers and they've all certainly been worth minimum wage. So it's an easy hire at the end of the season if they want to stay up with us.
- Program coordinator: We've integrated terms of participation and then we did start requiring, very clearly, that people needed to compensate their apprentices and follow labor laws.
- Program coordinator: (Co-creating the program with mentors) helped very much as an orientation rather than having to bring them up to speed and convince them of the program—they were in the room making many of the decisions and giving a lot of input.

Mentor Training

While interviewees commonly referred to how busy farm managers are, there was also an interest in supportive mentor networks and training in the context of creating better apprenticeships, and therefore farm outcomes. Building a regional network for mentors--or as one interviewee said, "a network of mentor mentors"--would offer newer mentors the support of more seasoned mentors when issues arise. This could take the form of monthly calls or another light-weight means of engagement that was feasible for balancing work demands.

For initial onboarding, existing programs use SARE's Farm Mentor toolkit, draw on resources from New Entry's Mentor network, or provide mentors with a custom program handbook. Program coordinators often create substantial mentor programming, offering a range of training workshops including: communication and interpersonal skills development; farm and employee labor laws and apprenticeship legality; basic and advanced management; interview training; feedback and conflict resolution; defining and managing expectations; balancing work and education; creating a self-starting apprentice; diversity, equity and inclusion training; and sexual harassment in the workplace.

Two programs use explicit, albeit alternative, forms of teacher training for mentors: *Pedagogy of the Oppressed* and *Anthroposophy*. In particular, Farm School NYC's "Training of Trainers" course, based in Freire's *Pedagogy of the Oppressed*, brings together apprentices and mentors to learn a model of peer-to-peer education that challenges traditional hierarchies in education. This type of training can have profound effects on the transformative capacity of apprenticeship as a learning model, and the skills and information learned are transmittable to any social learning environment.

- Apprentice: How to communicate well and how to be inclusive? Not just gender and racial, but like apprentices versus managers, these different levels on the farm.
- Mentor: I guess I don't have any formal support. I mean, I will do research, I'll go to conferences occasionally... I was asking my assistant farm manager what they thought and they suggested sort of like 'train the trainer' kind of support.
- Mentor: Sometimes I think I need to stop doing this job to go learn enough to do this job.
- Mentor: I've come to love this idea of education. It was the apprentices and the apprenticeship program that really inspired me to learn more about education.
- Mentor: We can't just think about a bottom line, but we've got to think about, "How can we inspire and lift up these people that are working with us?" And so, inner work, to me, is a requirement to interface with apprentices.
- Program coordinator: We have started in our training talking about communication styles and then conflict resolution and also, how you set up expectations from the start.

Diversity, Equity, and Inclusion Training

Several programs include and/or require diversity, equity and inclusion training for mentors. Less common are such trainings offered to apprentices; however, such a model exists and is integral to at least one program. Apprentices wanted to know that mentors and program coordinators were doing this work. Requiring such training proved beneficial for one program coordinator who was able to dismiss unwilling mentors.

- Mentor: Maybe there's some kind of training that we can get, as farm managers... For instance, teaching us how to be aware of microaggressions.
- Apprentice: There are things that show that people are willing to do the work and they're making a commitment, like racial equity meetings and checking in.
- Apprentice: We did anti-racism training with Soul Fire Farm, which is really, really profound and important. And after that, it felt like things really took a turn.
- Program coordinator: We're collaborating with the organization called Not Our Farm, where we're going to be doing a worker centered, HR training for farmers. In that, there's going to be one on supporting farmers of color and Black farmers on your farm and then one on supporting LGBTQ farmers.

Community Relationships

The sustainable agriculture community is often physically, but not socially, embedded in conventional rural farming communities. While interviewees only rarely mentioned the larger geo-social context of apprenticeships, some did; examples include choosing to serve their community with donated farm products, or training would-be urban farmers from the region's river cities. Research literature poses the question of how to build bridges between sustainable farms and their conventional neighbors, especially in the context of making rural spaces safer for diverse apprentices and farmers. As a regional apprenticeship program, there is space to place some emphasis on serving local apprentices and offering learning opportunities around community development. In addition, while no interviewees broached the subject, as a land-based apprenticeship, it is worth considering providing a basis in the Indigenous history of the land.

- Apprentice: My takeaway after leaving there was that I wanted to move back to Brooklyn and I really think it would be hard for me to live in a place like that.
- Program coordinator: If you're going to invite diverse folks to your community how will the apprentice feel welcome in your broader community?

Resource Linking

Program coordinators commonly provide mentors with relevant resources. Some are developed within the program, such as a mentoring handbook, skills checklist, or templates for agreements, while others are externally sourced. In addition, coordinators regularly link mentors to related trainings offered by other organizations. Mentors and apprentices identified food justice and advocacy guidance as one such need but management training, business skills, and even advanced technical farm skills were also mentioned. While several mentors have their own curriculum, syllabi, or checklists, mentors and apprentices suggested that being provided with a common training or reference text that could be adapted to a specific farm's context would be helpful.

- Mentor: Training instructors, training supervisors, I knew about dealing with youth, I knew about evaluations and matrix and recording impact for funding, all that came in so handy. If Glynwood really wanted to put something like this together, they would need to create a packet—If you want to sign onto our network, this is the format. This is what you comply with. This is the curriculum. Obviously you modify it as needed.
- Mentor: Not that I'm blind to the food movement and the reasons behind it, but I think that I end up being surrounded by all those people all the time, and I want to learn more myself.
- Program coordinator: I've heard from some of the folks that farmers are having these problems and the resources exists, they just aren't looking for it. So, trying to orient people to what's available is part of our strategy.
- Program coordinator: I've had different ideas of how to also support that demographic with more resources that are off farm, like can we connect with food advocacy or justice organizations and they can split their time working on the farm and working with them?
- Apprentice: It's something that I liked in my (last) apprenticeship is that we had a curriculum, and the texts would be provided every week, and we would use that as a basis of discussion, as well as learning throughout the day while working.

APPRENTICE LEARNING AND SUPPORT

When the crazy part of the season picks up, a farm manager is not going to prioritize the curriculum, no matter what.

—Hudson Valley farm apprentice

A lot of farms who have 'apprenticeships' rely heavily on CRAFT... but it's not the answer to, basically, being an apprenticeship.

—Hudson Valley farm apprentice

Apprentice Recruitment

While there is room for individual host farms to determine best fit, being clear about who the program is serving aids recruitment, stems attrition, and helps create intentional, relevant programming. Programs vary widely in their approach. Some focus on “aspiring farmers,” who have never done farmwork, some attract advanced apprentices, some suggest apprenticeships are more suited to younger people, and others aim to attract career changers. Increasingly, there are also programs serving particular identity-based communities; applications requiring identity information can aid mentor matching. Most programs focus on training new farmers, but others also realize the value of immersing would-be food system advocates as well.

Mentors advertise apprentice positions on ATTRA, Good Food Jobs, Idealist, and their farm websites. Research has found that relying on the same means of promotion is partly responsible for a lack of diverse applicants. Building links to non-traditional organizations to advertise apprentice opportunities may help diversify the apprentice pool.

Program coordinators suggest that an actively managed website providing detailed program information and accurate host farm descriptions is essential, but that it is not a matching tool. Apprentices apply to a farm through the site, the farm automatically receives their application, and then the mentor and apprentice determine if there is a match. Active match-making is time-consuming and may compel apprentices who would otherwise not follow through.

- Apprentice: A program needs to decide whether they're offering summer camp or professional development and it can't be both... I feel like they had this idea that farm apprentices are 23 year olds who don't know what they're doing yet with their lives and they want a fun, easy time. That didn't match up with what I was looking for.
- Mentor: I just don't have the resources to go out and be on the street, looking for folks. I just do the same old classifieds and websites and hope for the best.
- Program coordinator: Best practices suggest that you do not suggest matches because people are suggestible and want to give it a shot, but then that means your attrition rate and all of those problems really escalate.

Apprentice Cohort Building

Community building for apprentice cohorts can address the isolation of farm work, aid in peer-to-peer learning, and develop a community of practice that supports future success in the field. It is also important in connecting diverse apprentices to others in the program who share their identity, whether age, sexual orientation, gender, ability, or ethnic background. Programs vary in their commitment to this relationship building: some struggle to connect apprentices across vast geographical locales, some gather through regular in-person events, while others weave community development into every aspect of their offering.

Common tools for cohort development include in-person orientation with goal setting, visioning and community agreements; mid-season gatherings for meals, regular farm tours, learning circles, overnight workshops, weekend intensives, or retreats; and end-of-program gatherings with presentation of a final self-directed project or essay, song, poem, or slideshow. While many programs offer learning opportunities that mix apprentices and the public, coordinating apprentice-only gatherings is necessary to accomplish this goal. Online relationship building requires more intentionality and training for trainers, but it can be a tool for connecting apprentices during the height of the season and across wide geographical spaces. In addition, offering cohort building opportunities that include mentors is worth considering.

- Program coordinator: We put as much effort and intention into the community building aspect as we do the actual technical farm training... knowing that whatever we do within the cohort, folks can take back to their communities as well.
- Program coordinator: The apprenticeship community is 18 to 20 year olds, you go to these events and watch them really awkwardly flirt with each other, and when people are 50 they feel, usually, very out of place in that culture.
- Apprentice: We also made community agreements, which were pretty cool. So we all sat down and made ways of like, this is how we communicate with each other.
- Mentor: There is still a sense of isolation, especially for a lot of people who are either career changers or coming from the city, and so cohort building would be really nice.
- Apprentice: The main thing I wanted to make sure I talked about was having that building community before sending people out (to farm on their own) and knowing that whoever their mentors are they have a real relationship with.
- Research literature: Time to explore and practice this membership (in a community of practice) in a supportive environment is a critical part of constructing an identity as an organic farmer, gardener, or agrifood system professional (Perez, Parr and Beckett, 2010, p.120).

On-Farm Learning

In-field learning-while-doing is the core teaching and learning method of farm apprenticeships. Most program coordinators allow for great flexibility in on-farm learning according to the mentor's ability and style. At the same time, some program coordinators and mentors see real value in the structure of a skills or topic checklist for ensuring a rounded in-field education. Some mentors dedicate regular instructional time, whether a couple hours a week or a daily lesson. Others only provide in-field learning-while-doing according to the immediate needs of the farm enterprise. Apprentices valued responsive learning opportunities, where they were encouraged to ask questions and learn in the field, so long as there was actually time for such discussions to take place. Those that had no structured educational component wished there had been more time and care dedicated to instruction.

Some interviewees saw the difficulty in maintaining an educational component in the height of the season due to overwhelming farm work demands. One program coordinator accepts this as normal and manages expectations as such. A mentor suggested that during these times, the larger program could provide the learning component, taking the burden off mentors. However, apprentices are less able to attend off-farm events at these times if labor is scarce. They also may be too tired from the physical demands of peak season to fully absorb the information being presented.

Apprentices remarked upon the difference between learning about something through a workshop, lecture or book, and the lack of opportunity to use that knowledge in practice. One mentor addresses this in part by requiring apprentices to manage the farm for a week or two late in the season. Apprentices that had this opportunity say that managing the farm propels understanding in ways otherwise not possible.

- Mentor: I really kept to the schedule that we established at the beginning. I kept to fulfilling the curriculum that I laid out, the syllabus that I laid out, and I think I got that back from them.
- Mentor: We have a loose curriculum that has all different subject areas and then each day after lunch, during the heat of the day, we do one to two hours of "classroom."
- Apprentice: There was no curriculum. It was all work. It was all work. It was all just trying to just keep your head above water.
- Apprentice: Having the opportunity to be in the role of a farm manager, you just learn so much and in a very different way than you would have.
- Apprentice: That's her teaching method, is for questions to come up organically throughout the workday. And then we have a little discussion as we're working. Although, I do wish that there was a syllabus, that would have been really helpful.

Self-Directed Learning

Many interviewees suggested the importance of setting personal goals, adapting and tracking progress towards those goals, and recognizing growth. While several program coordinators, mentors, and apprentices found initial goal setting rewarding, it was apprentices who noted a frequent lack of follow-through by mentors or program coordinators in helping track, adapt, or recognize when those goals were met. When program participants realize an apprentice is not learning what they intended to, the program coordinator can offer support through one-on-one training, or by linking the apprentice to relevant resources. Open communication, clear expectations, and tracking of individual goals is necessary to make such program adaptations.

Some programs follow research-based educational models that advise self-directed learning by requiring and supporting apprentices to develop projects or experiments that might aid a mentor's farm while advancing an apprentice's specific interests. Research also suggests weaving individual ethics and values into goal setting, tracking, and reflecting on progress throughout an individual project, a model one apprentice noted as particularly enriching.

- Apprentice: In any program where you're offering a skillset or something to bring good into communities, we have to let go of some of the ways in which we are accustomed to doing things, and allow people to learn on their own, because I think, especially with the Black and Brown community, it's super important.
- Apprentice: We focused a lot on our own personal values... And how can we build a project based off of our most integral core values rather than building a project and then trying to interweave something in later?
- Apprentice: I think during the interview I was asked what my goals were, but then that wasn't really reiterated once we arrived here and we made plans.
- Program coordinator: The independent project is one of the big ones, where it's something they're interested in and it supports the farm. And they lay out all of the steps. Maybe there's a budget. Like what's the process over the next three to six months of going through this? Ideally, you do give them time during the workday, or maybe it's one hour a week that they can focus on this project.
- Program coordinator: After we make our initial matches, when mentees and mentors get started, they need to send their (joint) goals and objectives to me.

Community of Practice

While internal cohort building is essential, aiding apprentices in making wider connections in the region is critical for embedding young farmers and food system advocates in supportive networks that will aid their success. Thinking beyond farming networks to include food justice and other food system advocacy network building would be beneficial for apprentices.

CRAFT events are commonly mobilized by mentors to augment on-farm learning and are well received by apprentices. However, apprentices wished these events were better supported with dedicated paid time off and ridesharing coordination. One advanced apprentice noted how Hudson Valley mentors often rely on CRAFT as the sole formal educational component of their apprenticeship program when it is not designed to fulfill that role. Other programs provide regular farm tours and field days or occasional farm workdays. Workshops that are open to the public may offer another means for regional network building, but only if that is an explicit goal of the workshop; otherwise, such events do not often organically grow these relationships.

In addition, some programs connect apprentices to regional resources that align with the apprentice's specific goals, such as programming offered through Extension or other regional farmer training groups, or food justice and advocacy organizations. Such resource linking is bolstered by recognizing other organization's offerings as fulfilling instructional requirements for completion of an apprenticeship, and insuring apprentices have the resources to participate.

- Program coordinator: In July, it's like do you really want to leave the farm in your couple of spare hours and drive across the state to go see another farm? We're basically scheduling stuff for October when the season starts to cool off.
- Program coordinator: Another idea that has been brought up was a farm swap. I haven't quite figured out how to make that happen, but we went to one of our mentor's farms and we had a workday and made a meal together.
- Apprentice: Building those connections to the community for sending people out (to farm on their own) is really, really important.
- Apprentice: It's always so helpful to go and learn from a different farm, so the more field trips, the better, and then you could learn the skills that aren't exactly the specialty of whatever farm that you're at.
- Apprentice: I wish that we were encouraged to go to CRAFT more, maybe paid time to go to a CRAFT, or getting a little bit of time before work so we can get to CRAFT, or arranging rides... the one that I went to, I really enjoyed and it was very inspiring.
- Mentor: With CRAFT, you get to see it, but (it would be good) to really learn it and have a session where you're really getting information, materials, and hands-on practice.

CURRICULUM AND PEDAGOGY

*I would be much more excited about workshops if they were designed with—
'things you will be able to do,' not 'topics you will know about.'*
—Hudson Valley farm apprentice

*It's one of the few opportunities we have to get paid at a professional rate,
as opposed to per lettuce head.*
—Hudson Valley mentor

Pedagogy

Apprenticeships traditionally rely on a learning-by-doing model of in-field education. Most mentors are responsive to the interests and goals of the apprentice by adapting content as much as feasible for a given farm and mentor's expertise. In-field education is sometimes guided by an informal skills checklist, otherwise it follows the cyclical tasks of the farm. Most programs standardize a required skills checklist; these can be derived from a curricular development process (DACUM) that involves local farmers, or they can be adapted from those that already exist. Engaging in a DACUM process is beneficial, as it draws on local expertise, ensuring the curriculum is place-based. Whether a skills checklist, syllabus, or other means of organizing course content, the program can develop agreed-on learning outcomes, explicating how those outcomes will be evaluated to guide mentors with in-field education.

In addition to learning-by-doing, a range of teaching and learning methods are employed by apprenticeship programs, including traditional hierarchical models such as workshops, conferences, and classroom-style lectures led by subject matter experts. Of particular note concerning pedagogy is the research-based benefit of incorporating horizontal, or peer-to-peer learning, whenever possible—whether between apprentices, between mentors, or with mentors and apprentices learning together. The practice of requiring apprentices to manage the farm for a short period of time is akin to this, as are learning circles. In addition, supported self-directed learning is also important. Approaches that support “personal growth” would intentionally support a common apprenticeship outcome that is often overlooked.

Remote learning models appear to be most effective as an addition to in-person learning, for instance using online discussion groups in the height of the season after participants have spent time together. One apprentice stressed the importance of requiring teaching and learning for application (or decision making) rather than simply relaying basic information or theory that can be found in any introductory text. One mentor stressed the benefits of recruiting and remunerating local farmers to lead workshops.

- Apprentice: They had a lot prepared, but they also made intentional space for us to tell them what we wanted to learn and also for us to teach back things we wanted to share.

Pedagogy (continued)

- Apprentice: I know my experience is not universal, but the reason I did a farm apprenticeship is because I had been to the intro workshops, I had done the reading, and I wanted to learn how to make decisions using that knowledge.
- Apprentice: It's something that I liked in my last apprenticeship, that we had a curriculum and the texts would be provided every week and we would use that as a basis of discussion, as well as learning throughout the day while working.
- Apprentice: Maybe they could stream it, like you could login virtually and attend some lectures.
- Program coordinator: All of the classroom activity is done via Zoom, and we meet weekly. We have a couple texts that we read, I integrate those and facilitate the sessions.
- Mentor: Some people haven't responded as much to the classroom setting, they'd rather just stick with the crew in the field.
- Research literature: Key recommendations for practitioners developing new farmer programs include incorporating more community-based, participatory, and experiential learning strategies that build social networks, while reducing lecture-based approaches (Niewolny and Lillard, 2010).

Curricular Content

Researchers have found that most beginning farmer programs offer content in five areas: production practices, marketing, financial planning and resource assistance, business planning and management, and land acquisition and transfer (Niewolny and Lillard, 2010). These form the core skills checklists for many apprenticeships, and they also aim to satisfy the goal of preparing new farmers for success in the industry.

However, many apprentices are motivated to participate because of their interest in food justice and food system advocacy, rather than a desire to become a farmer. These apprentices often go on to work in non-farming careers in the food system, advocating for change. As such, programs that go beyond the core farming content into food justice curriculum and advocacy are better preparing all apprentices for success in diverse food system roles. An apprenticeship that offers this content is likely to attract and satisfy a wider range of participants.

- Program coordinator: When we say curriculum, really for our purposes it's a skills list and an attitude and approach list. The learning modules themselves, the actual webinars and lessons, those are things that we are developing and building in response to needs.
- Mentor: We tend to attract people who are quite interested in food justice, that is a big part of what we do here, although not necessarily a big part of the apprenticeship itself.
- Mentor: Basic soil science, basic crop science...there's certain, basic stuff that they just ought to know coming out of any experience at any farm.
- Program coordinator: Because of the registered apprenticeship stuff, we stick to the sort of conventional apprenticeship outline, which is about 90% on-the-job training, about 10% related instruction time.
- Research literature: Explicitly teach about structural inequities in the food system and help students develop the advocacy skills to challenge them (Reynolds, 2017, p.57).

Topics | Business, Financial, Legal

- Farm finance and business
- Legal and tax rules or regulations
- Ag Biz Masters program through the Ag Choice Credit Network
- Business planning, management and operations
- Financial planning and resource assistance
- Land acquisition and transfer
- Marketing, including CSA, farmers markets, wholesale
- Farm business planning, including personal goals and life events

Topics² | Food Justice & Food System Advocacy

- Agriculture, environmental health and human health
- Lobbying
- Local government
- Wider food system and the social issues within that
- Farmworkers' rights
- Community and social health
- Community food arts
- Ethnobotany
- History of land
- Racial, economic and political inequities in the food system
- Principles and practices of dismantling racism in the food system

Topics | Technical Farmer Training

- Crop science
- Rotational grazing and livestock management
- Soil science and soil health
- Crop planning
- Control weeds
- Pest and Disease Management
- Harvesting
- Equipment, machinery, and small engine maintenance and repair
- Non-mechanized farm implement training
- Observational capacity
- Seedling production
- Tillage and field prep
- Drought management
- Food safety
- Irrigation
- Field production
- OSHA and food safety
- Pesticide application
- Post-harvest handling
- Product distribution
- Slaughter regulations
- Tractor safety

² The topic lists arose from interviews and research literature; they are not comprehensive.

ASSETS AND RESOURCES

I'm super jazzed on the concept of the residential, decentralized, rural farm training campus... I'm happy to take part in supporting that to happen.

—Hudson Valley farm mentor

Regional Farmer Training Assets

The Hudson Valley is a hub for small-scale farm and food justice initiatives, rich with partnership opportunities that can leverage complementary expertise to further collective goals. Resources of particular note are Soul Fire Farm's anti-racism trainings, Rock Steady Farm's resources for the LGBTQIA+ community, and the Hudson Valley Young Farmers Coalition's lobbying and advocacy work. These three organizations were cited often by interviewees as offering valued resources for a new apprenticeship program.

While the national Dairy Grazing and Biodynamic Association apprenticeships both place apprentices on regional farms, there is currently no organization coordinating cross-region apprenticeships on Hudson Valley farms specifically. The following list of regional resources and organizations is composed from interviewee recommendations and a previous asset inventory undertaken by Glynwood with partners in the Hudson Valley Farmer Training Initiative.

Hudson Valley Host Farms

Farmer-mentors at regional farms, including 202 regional farm contacts on the Mid-Hudson CRAFT email list. Farms mentioned by name in interviews:

- Churchtown Dairy
- Dig Acres
- Ecological Citizens Project
- Four Corners Community Farm
- Four Winds Farm
- Hawthorne Valley
- Ironwood Farm
- Letterbox Farm
- Phillies Bridge Farm Project
- Poughkeepsie Farm Project
- Rise & Root Farm
- Rock Steady Farm
- Sky High Farm
- Sisters Hill Farm
- Solid Ground Farm

Regional Farmer Training Organizations

- Chester Agricultural Center
- Glynwood Center for Regional Food & Farming
- GrowNYC
- Hawthorne Valley
- Hudson Valley Farm Hub
- Stone Barns Center for Food & Agriculture

Related Supportive Regional Organizations

- Bard Prison Initiative
- Center for Agricultural Development & Entrepreneurship (CADE)
- Cornell Small Farms Program
- Groundwork Hudson Valley
- Hudson River Foundation
- Institute of Mindful Agriculture
- Nature Institute at Hawthorne Valley
- Northeast Sustainable Agriculture Working Group (NESAWG)
- Collaborative Regional Alliance for Farmer Training (CRAFT)
- Pfeiffer Center
- Scenic Hudson
- Soul Fire Farm
- Sustainable Hudson Valley
- The Carrot Project
- Threefold Educational Foundation and School
- Worker Justice Center of New York
- Watershed Center
- Wild Earth
- Wildseed

Supportive Non-Regional Organizations and Resources

- Agricultural Mediation, USDA
- Farm School NYC
- Farm Commons
- Farm Mentor Toolkit (SARE)
- Food Solutions New England, 21 Day Racial Equity Challenge
- HEAL Food Alliance
- Legal Food Hub
- National Young Farmers Coalition (NYFC)
- New Entry's National Ag Apprenticeship Learning Network
- Not Our Farm
- Quivira's New Agrarian Program
- Worldwide Instructional Development Systems (DACUM)

Similar Apprenticeship Programs in Other Regions

(coordinated, multi-farm, cross-region)

- Biodynamic Association, national
- Maine Organic Farmers and Gardeners Association
- National Dairy Grazing Apprenticeship
- New Entry Sustainable Farming Project, national
- Pennsylvania Association for Sustainable Agriculture
- Practical Farmers of Iowa
- Quivira Coalition, Mountain West
- Rouge Farm Corps, Oregon
- Organic Vegetable Farm Manager Apprenticeship, Wisconsin
- Women's Food and Agriculture Network, Iowa
- Young Agrarians, Canada

Recommendations

Half of it's about growing food, and the other half is about building community support and power. —Hudson Valley Farm Mentor

The following program outline is empirically based, arising from apprentice, mentor, and program coordinator interviews presented in the Findings section.

Program Goals

- 1 | Ensure equitable apprenticeships that attract and support diverse apprentices to farms in the Hudson Valley.
- 2 | Support small-scale farm viability by developing valuable apprentice-farmworkers and a replicable system of farmer knowledge transfer.

Program Objectives

A | ***Train new farmers and train new food system advocates*** by developing standard and responsive curriculum and delivering instruction through self-directed learning, horizontal learning, learning-by-doing, and traditional workshops and classroom-based lectures. Assess regularly through monthly check-ins, skills assessments and a culminating certificate.

B | ***Diversify apprentice and mentor pools*** by developing curriculum to serve diverse new farmers, recruiting and supporting diverse mentors and partners, varying program duration, offering diversity scholarships, broadening recruitment strategies, requiring diversity, equity and inclusion training, coordinating transportation and offering funds for incidental expenses.

C | ***Appropriately compensate apprentices*** by ensuring apprenticeship legality, standardizing limits to work hours, requiring minimum wage and worker's compensation, connecting apprentices to services, ensuring safe housing, and by providing conflict resolution structures.

D | ***Ensure transparent, participatory program planning, delivery and evaluation*** by gathering partners to determine program components, terms of participation, evaluation metrics, fundraising, and funding allocations, and by documenting these processes to share with organizations in other regions seeking to build a similar program.

E | ***Support farmer-mentors to share their knowledge*** by offering responsive mentor programming and training, including diversity equity and inclusion and train-the-trainer; remunerating mentors to develop and deliver workshops; convening a regional mentor-mentoring network; and linking mentors to regional resources as needed.

F | ***Strengthen the regional community of practice*** by actively building cohort relationships among apprentices, community relationships among apprentices and mentors, and working with mentors to build bridges between conventional and sustainable farming communities.

Rationale

Farm apprenticeships are a vital training mechanism for new farmers. These opportunities often attract apprentices from non-farming communities, thereby offering a path to farm management that has traditionally been exclusive to farming families at a time when generational farm succession is waning and the need for challenging traditionally exclusive structures is a priority. However, apprentices, mentors and program coordinators alike recognize an ongoing tension between the ideals of the alternative food movement as being inclusive and economically sustainable and the reality of apprenticeships being exclusive and exploitative.

Mentor farmers offer a varied range of apprenticeship approaches across the Hudson Valley. In common with farm apprenticeships across the country, many struggle to attract diverse apprentices and to offer adequate educational opportunities to satisfy the expectations of their apprentices. Programs that coordinate apprenticeships across multiple farms address these gaps by supporting diversity, equity and inclusion and by ensuring baseline learning outcomes through a range of program activities including mentor and apprentice training and support.

The Hudson Valley is a hub for new farmer training, with many sustainable and regenerative farms offering apprenticeships. However, there is no coordinating organization to support mentor farms and ensure inclusivity and equity for apprentices. Glynwood is particularly suited to offer this coordinating role, drawing on its more than 20 years of farmer training experience and extensive ties to regional farms and allied organizations.

Audience

Research literature and regional interviews reveal that some individuals are motivated to undertake farm apprenticeships because they desire to become a farmer. However, a large group of apprentices are motivated by an interest in the alternative food movement and food justice. Most coordinated apprenticeship programs in the country focus solely on farmer training, to the detriment of a large group of would-be apprentices who are keenly interested in the food system, food justice, and advocacy. There are models for programs that satisfy both audiences, and developing such a model for the Hudson Valley could draw on rich resources for food justice in the region.

Research also shows that farm apprentices across the country are largely white, college-educated, young women. This demographic has the privilege of enduring low or no pay and untenable living and working conditions because of their economic and social mobility—they can decide when to move on, with expectations for better work and pay. Attracting and supporting a more diverse pool of farm apprentices is necessary. The program can be designed to be flexible enough to satisfy a diverse audience, attracting and supporting apprentices of all ages and experience levels. The apprenticeship will not be a one-size-fits all offering; rather, the flexibility will largely be attributed to including diverse mentors who can explicitly focus on, and support, particular segments of the apprenticeship audience.

Next Steps

Share this report with stakeholders, including those who contributed directly to its content. Consider posting the report publicly where appropriate, such as in [New Entry's Ag Apprenticeship Library](#), as it contains information and ideas that can aid other programs developing similar apprenticeships.

Convene a group of mentors and other likely program participants and partners (such as subject matter experts and former apprentices) to discuss program ideas presented in this report and determine a final program design for piloting. This planning process can be formal or informal, led by a trained facilitator, or by a program staff member or (remunerated) program participant. It will likely take multiple meetings, but does not need to be onerous if the report is mobilized to aid discussion.

This planning committee might begin by identifying the program's rationale and values, then the overarching goals and specific objectives, and finally by suggesting the activities that will reach those objectives and the metrics that will measure the program's success. The committee might then determine a feasible pilot (if desired) and/or full program launch timeline. Most of these items are covered in this report, providing an empirical basis for program component selection. Novel program components can be introduced, but their rationale should be firmly supported by reputable sources if grant funding will be sought. Finally, activities can be assigned budgets, and a management and communication plan can take form. The planning committee can then discuss means for fundraising. Drafting a final program budget and undertaking major fundraising activities will likely be undertaken by the program coordinator, but the apportioning of program funding should be a collaborative process with the planning committee.

Additional Program Note

In the course of this needs assessment, it became apparent that farmworker housing is a critical need for the Hudson Valley. Mentors and apprentices noted unsuitable living conditions for some apprentices and other farmworkers. The extraordinarily high cost of housing and limited availability of rental stock means that even farms that pay competitive living wages face challenges recruiting crew members due to housing shortages. Several mentors suggested the need to formally develop this conversation in a non-profit space, to consider designing a program that would provide safe, affordable housing specifically for the region's agricultural community. Glynwood might consider convening a conversation to begin moving this idea forward for the region.

Appendices

FARMER TRAINING

ANNOTATED BIBLIOGRAPHY

Prepared to support the design of a new decentralized apprentice program

Glynwood Center for Regional Food and Farming

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Purpose

This bibliography was prepared to inform the design of a new, decentralized apprenticeship program at Glynwood, spearheaded by Dave Llewellyn, Director of Farm Training.

The bibliography offers direct quotes and paraphrases from research articles published in peer reviewed academic journals that provide a grounding in the current state of farmer training and related areas. This list is illustrative, not exhaustive. Articles were selected for their degree of relevance to apprenticeship-style training and related themes. They are listed by their relative importance, as determined by their impact on other research or by their relevance to the program planning at hand. The final two papers are included as an addendum to the original bibliography because they were specifically mentioned by interviewees in the larger program planning project. These two papers are not peer-reviewed. One is an undergraduate capstone and the other is a master's thesis; both are highly relevant.

- Search terms: "agriculture," "apprenticeship," "farmer," "training"
- Parameters: peer reviewed journal article, 2010-2021 publication, US or Canada
- Main journals searched: *Agriculture & Human Values*; *Journal of Agriculture, Food Systems, and Community Development*; *Rural Sociology*

The bibliography is intended foremost to act as a primer for partners as the new program is designed, ensuring its design is rooted in current knowledge and best practices gleaned from reputable research into similar programs. In addition, the quotes and sources can be cited directly in funding proposals for this, and other, farmer training programs at Glynwood.

Bibliography

- 1) Niewolny, K. L. and Lillard, P. T. (2010) 'Expanding the Boundaries of Beginning Farmer Training and Program Development: A Review of Contemporary Initiatives To Cultivate a New Generation of American Farmers', *Journal of Agriculture, Food Systems, and Community Development*, 1(1), pp. 65–88. doi: [10.5304/jafscd.2010.011.010](https://doi.org/10.5304/jafscd.2010.011.010).
 - This is an early foundational paper cited by many since it's publication.
 - Since the early 2000s, new farmer training programs have been establishing an "alternative knowledge" network counter to the dominant model that underpins the industrial food system, widely recognized as environmental and socially untenable.
 - New farmer programs are most effective when they move away from traditional Extension style knowledge-transfer, toward more collaborative, peer-to-peer learning formats.
 - Key recommendations for practitioners developing new farmer programs include incorporating more community-based, participatory, and experiential learning strategies that build social networks, while reducing lecture-based approaches.
 - Most beginning farmer programs offer content in five "core areas:" production practices, marketing, financial planning and resource assistance, business planning and management, and land acquisition and transfer." (p.73)
 - Access to land, markets and startup capital, have been recognized as barriers to beginning farmer success for at least two decades.
 - The Growing New Farmers project at the New England Small Farm Institute was the first "large-scale" effort in the Northeast to train new and beginning farmers.
 - "Beginning farmer training and program development is perhaps one of the most significant yet poorly understood areas of agriculture and food system research and practice." (p.66)
 - "Educators and decision makers need to emphasize the value of local knowledge, stakeholder participation, community dialogue, experiential learning, and social networking at local and institutional levels." (p.72)
 - Long standing apprentice style programs include: UC Santa Cruz's six-month apprenticeship in sustainable agriculture, that began in 1967; Michigan State University's Organic Farmer Training Program; and the farmer-to-farmer led Collaborative Regional Alliance for Farmer Training (CRAFT).

- 2) Calo, A. (2018) 'How knowledge deficit interventions fail to resolve beginning farmer challenges', *Agriculture and Human Values*, 35(2), pp. 367–381. doi: <http://dx.doi.org/10.1007/s10460-017-9832-6>.
 - Calo analyzed all (215) of the BFRDP funded project proposals from 2009-2015 and compared them with in-depth interviews from 35 new farmers in California finding a mismatch between the actual barriers experienced by new farmers and the proposed programs to help them address these barriers. Durable barriers tend to be systemic, including land and capital access; and racism and "ethnocentrism," while the vast majority of programs aim to educate individuals with agricultural or business skills.

- Most beginning farmer programs, including the major funding mechanism for them, the BFRDP, are premised on a “knowledge deficit” model that seeks to teach individual farmers skills but fails to address the structural barriers to their success.
- Rather than focus on individual education and skills acquisition, a policy-oriented approach would address structural barriers. For instance, by getting new farmers onto local housing boards to enact policies that would help tenant farmers retain some of their capital investments, or a program could uncover implicit racism in agricultural loan products and lobby to correct them.
- “The knowledge deficit articulates strongly with neoliberal hallmarks like a programmatic commitment to market solutions for societal problems, the abdication of state subsidy in favor of self-sufficiency, and the favoring of entrepreneurship (Peck and Tickell 2002).” (p.370)
- Structural barriers that persist regardless of access to information: “(1) access to land that is mediated by landlord negotiations and (2) ethnocentric preference embedded in beginning farmer supports that regularly favors white, English-speaking farmers.” (p.371)
- “The parameterized grant making program a priori establishes a logic of self-improvement for supporting beginning farmers and is embodied by the grant receiving institutions and in turn, beginning farmer communities.”(p.377)
- “Without a focus on the structural aspects of beginning farming, new farmers will certainly be produced, but that success will likely favor particular classes of new farmers (i.e., those who are highly educated, well-resourced, and white).” (p.377)
- “One outcome is a major discrepancy between the food justice and food sovereignty objectives that many beginning farmer institutions hold and their implementation of training programs that deepen divides in the food system.” (p.378)
- “Numerous experiences show how a de-emphasis on expertise and support for local knowledge can lead to greater understanding of complex agricultural systems (e.g., McGreevy 2012 ; Röling and Wagemakers 1998).” (p.378)

3) MacAuley, L. E. and Niewolny, K. L. (2016) ‘Situating on-farm apprenticeships within the alternative agrifood movement: Labor and social justice implications’, *Journal of Agriculture, Food Systems, and Community Development*, 6(2), p. 195.

- Based on interviews with 12 hosts mentors and participant apprentices in Virginia, as well as a survey of 55 host farms.
- The primary motivation for host farms participating in apprentice programs was the need for labor, or as one farmer said bluntly, “cheap labor.”
- Apprentices and farmers are aware that many, or even most, small scale mixed vegetables operations rely on inexpensive apprentice labor. This reliance on low-paid labor reinforces the dominant food systems inequity, under the white, middle-class culturally-acceptable guise of an educational opportunity.
- “An apprentice is, generally, an indentured novice learner who works alongside, pitches in, observes, and interacts with an expert, which ultimately leads the novice to mastery in a given set of skills and knowledge (Paradise & Rogoff, 2009).” (p.198)
- “Given the dearth of empirical research into on-farm apprenticeships for beginning farmer education, we undertook an exploratory, descriptive study.” (p.199)

- “Interviews suggested that the physical and financial circumstances surrounding the apprenticeship experience will exclude those who lack funds.” (p. 202)
- “On-farm apprentices and other farm volunteers are motivated by ideologies and practices of a larger social movement.” (p.205)
- “Although not many of our study participants continue as beginning farmers after the apprenticeship concludes, the apprenticeship experience may be important in other ways, informing apprentices’ ongoing participation in the critical work they engage in with AAMs, or increasing agricultural literacy and know-how.” (p. 206)
- “Our study therefore shifts the focus away from understanding on-farm apprenticeships as simply job-training and a pathway for farm entry. Instead, apprentices in the study were primarily motivated to undertake an apprenticeship out of a value for and desire to critically engage in improving the food system, or create alternatives to the dominant food system.” (p.206)
- Recommendations for program planning for farm apprenticeships that arose from the study:
 - Challenge cultural whiteness by incorporating principles and practices of dismantling racism into the repertoire and norms for agricultural educators and service providers who are involved in the design of on-farm and agricultural education programming.
 - Consider strategies that enable farmers to hire apprentices at the equivalent of minimum wage with benefits, including placing due value on specific educational activities and any food and housing provided.
 - Consider ways to supplement apprentices’ educational activities through the land-grant system, programming initiatives, and programs that have had demonstrated success in providing such support (see, for example, Carey et al., 2006).

4) MacAuley, L. and Niewolny, K. (2018) ‘Learning Through On-Farm Apprenticeships: Labor Identities and Sociocultural Reproduction within Alternative Agrifood Movements’, in *Adult Education Research Conference*. Victoria, BC. Available at: <https://newprairiepress.org/aerc/2018/papers/12>.

- Data from interviews with 25 apprentices and document analysis of over 400 pieces of written materials circulating in the apprenticeship program.
- Identity construction among the white middle to upper class participants resulted in cognitive dissonance between a romanticized vision of participating in an alternative food movement as a social practice versus the actual hard and uncomfortable labor of farm work meant that most apprentices did not go on to become farmers.
- The researchers found three main reasons for mentor and apprentice participation: “(1) beginning farmer training; (2) inexpensive labor for sustainability-oriented farms; and (3) an authentic, “meaningful” farm lifestyle experience.” (p.4)
- Apprentices and mentors are influenced most by: “(1) membership in a movement (AAMs); (2) an ascetic bent; (3) the valorization of farmers and authentic/nostalgic farm lifestyle; (4) alignment with clean, healthy, and/or ‘dirty’ parts of the job; and (5) communitarianism.” (p.4)
- Adult educators are “uniquely placed” to sustain or transform society, deciding which knowledge is “sanctioned through education.” (p.5)

- “This study demonstrates how, by using CHAT analysis to illuminate mechanisms through which ideology re/creates hegemonic constructions in situ, adult educators may facilitate dialogue to make visible the ideological underpinnings of activity, in order for practitioners to become self-aware and reflexive, and ultimately to critique it.” (p.6)
- “On-farm apprenticeships are also a space for learning, identity work, and rehearsal of social movement practice, as alternative agrifood movement participation (AAMs; MacAuley & Niewolny, 2016; Pilgeram, 2011).” (p.1)
- “Through the cultural work of education (Giroux, 1992; hooks, 1994), social reproduction occurs that reproduces hegemonic constructions, which is problematic if power inequities are being reproduced, such as those surrounding race, gender, and class within AAMs and/or the dominant food system.” (p.2)
- “Because most of the apprentices were white, college educated, and middle- to upper-class, they were attempting to translate their manual farm labor in ways appropriate to their class expectations of work (for example, viewing it as “healthy exercise” in the “fresh air.”).” (p.3)
- “We observed that white spacemaking and class-related work ideologies were employed in producing and maintaining on-farm apprenticeship activity.” (p.4)

5) Perez, J., Parr, D. and Beckett, L. (2010) ‘Achieving Program Goals? An Evaluation of Two Decades of the Apprenticeship in Ecological Horticulture at the University of California, Santa Cruz’, *Journal of Agriculture, Food Systems, and Community Development*, 1(1), pp. 107–124. doi: [10.5304/jafscd.2010.011.012](https://doi.org/10.5304/jafscd.2010.011.012).

- Provides a theoretical basis for adult agricultural education based on Kolb’s (1984) theory of experiential learning, and Lave & Wenger’s (1991) situated learning theory. These theories provide a roadmap for the individual learner in the context of a learning community.
- Data from a survey of about 300 graduates of the UC Santa Cruz 6-month apprenticeship program over about 20 years. The apprenticeship includes 700 hours of practical hands-on training and 300 hours of theoretical coursework.
- An important but often overlooked outcome of apprentice programs is the personal growth that takes place, which can significantly shape future work in the food system, even if not as farmers.
- “The learner is not only developing his or her knowledge and skills through the work, but also is developing his or her identity as a competent practitioner or master in the field within a larger work-related community of practice.” (p.111)
- “Time to explore and practice this membership in a supportive environment is a critical part of constructing an identity as an organic farmer, gardener, or agrifood system professional.” (p.120)
- Recommendations for apprenticeship program design (p.121):
 - “First, recognize the important success of existing program design.”
 - “Making a conscious effort to connect attitudes and values to knowledge and skill-building is likely to have important positive effects on the likelihood that learners will take what they have learned and actively use it in the world.”
 - “More vocational or trade-oriented apprenticeship models might include journaling or semi-structured discussion questions during or after fieldwork that

connect ethics, values, emotions, and the subjective to the knowledge and skills people are developing.”

- A third suggestion would be to experiment with implementing each of the different aspects of Kolb’s experiential learning theory (Kolb, D. A. (1984). *Experiential learning*. Englewood Cliffs, NJ: Prentice-Hall Publishers.)
 - 1) Engage in a concrete experience - practical & theoretical
 - 2) Reflective observation & abstract conceptualization (journaling, discussion on ethics, values etc.)
 - 3) Active experimentation (small scale plot trials, individual experimental projects)
 - Foster informal social interactions and a community of practice through shared meals, overnight farm visits, and other means.
 - Create developmental assessments for: learner self-assessment, peer assessment, and instructor assessment, that are incorporated regularly throughout the program.
- 6) Schreiner, L., Levkoe, C. Z. and Schumilas, T. (2018) ‘Categorizing Practical Training Programs for New Farmers’; *Journal of Agriculture, Food Systems, and Community Development*, 8(2), pp. 9–17. doi: [10.5304/jafscd.2018.082.012](https://doi.org/10.5304/jafscd.2018.082.012).
- Finding a dearth of relevant information on available farmer training programs, in 2016, Ontario CRAFT and partners recruited researchers to scan 40 North American farmer training programs to determine the categories of training available.
 - “Centralized Internships” include Rogue Corps and Quivira Coalition, these “set minimal standards for host farms, which include curricula, work hours, compensation levels, and other benefits.
 - The host organization also mediates the relationship between interns and farmers to some degree.” (p.12)
 - third party consult for issues between interns and host farms
 - brokers placements between applicants and host farms
 - offers some direct training, such as workshops, field days, or socials
 - provides completion recognition, such as a certificate or graduation
 - Benefits to this centralization include:
 - visibility and promotion of the training opportunity
 - standardization of some learning outcomes
 - ensuring labor standards and legality of internships
 - “While analyzing approaches to farmer training is an area of growing attention within the agricultural sector and the scholarly literature, there is very little formal research available to date.” (p.10)
 - The main categories of farmer training available: “(1) Informal farm internship associations; (2) centralized internship programs; (3) private or nonprofit course-based programs; (4) formal academic programs; and (5) independent and self-directed learning.” (p.10)
 - “Historically, farm businesses, along with the accompanying knowledge and skills, were passed down from generation to generation within family units (Errington, 1998). The shifting pattern of succession has resulted in many new farmers coming from urban and suburban nonfarming backgrounds with little to no agricultural experience (Ekers & Levkoe, 2016).” (p.10)

- “Another type of formal academic program is the registered apprenticeship; however, aside from the Dairy Grazing Apprenticeship (Wisconsin), there were very few examples found in agriculture.” (p.15)
- “Level two programs” “The lack of access to appropriate programming or options for these not-quite-beginner farmers is a common theme in discussions of the barriers facing new farmers across North America.” (p.16)

7) Reynolds, K. (2017) ‘Designing urban agriculture education for social justice: Radical innovation through Farm School NYC’, *International Journal of Food Design*, 2(1), pp. 45–63. doi: [10.1386/ijfd.2.1.45.1](https://doi.org/10.1386/ijfd.2.1.45.1).

- Data from interviews, focus groups and a public forum in NYC with urban agriculture programs, looking closely at Farm School NYC as a change maker.
- “Radical’ innovation – shifting societal understandings of a given structure or system – seeing food system actions as part of an array of design strategies aimed at improving the food system opens new possibilities for change.” (p.51)
- “Achieving transformative social changes by everyday design involves not only vision but also radical processes that intentionally step away from the status quo.” (p.52)
- “Farm School NYC is one of a small number of urban farming education programmes that explicitly infuse social justice lessons and practices throughout the curriculum.” (p.54)
- “Students have between 2 and 5 years to complete the programme... This extended timeline allows flexibility for adult students who may be working and/or have family or other responsibilities...it therefore supports the School’s mission to provide educational opportunities to New York City residents, particularly those with low incomes.” (p.54)
- “Students also take a Food Justice course, in which they learn about racial, economic and political inequities affecting food systems, along with initiatives to address these inequities, and they participate in a weekend intensive Undoing Racism training.” (p.55)
- “Students take between four and six courses in Enterprise; Community Food Arts; Animal Husbandry or Advocacy that help them build their knowledge in their area of choice and set the stage for field-based experiential learning in the subsequent modules.” (p.55)
- Farm School founders identified popular education and critical pedagogy as the most appropriate praxes to work towards their vision of a diffuse and democratic educational program.
- “The curriculum is designed to help students understand the social and political structures that give rise to food injustices, as well as how they may use both the theoretical and practical knowledge that they develop through the programme to make changes in these systems.” (p.56)
- “Students and first-time Farm School teachers are required to take the school’s Training of Trainers course, together, in which they learn popular education skills – how to teach information and skills to community members, neighbours and others who would be considered as peers.” (p.56)
- “Farm School’s Owen Taylor, who developed the course, explained that having students take the course with teachers helps to break down the dichotomy between ‘expert’ and learner. Taylor noted that this ‘shoulder-to-shoulder’ learning environment models a

non-hierarchical social structure that many of the founders felt was in line with their vision of a socially just society.”(p.56)

- “Explicitly teach about structural inequities in the food system and help students develop the advocacy skills to challenge them.” (p.57)

8) Ekers, M. *et al.* (2016) ‘Will work for food: agricultural interns, apprentices, volunteers, and the agrarian question’, *Agriculture and Human Values*, 33(3), pp. 705–720. doi: <http://dx.doi.org/10.1007/s10460-015-9660-5>.

- Explores the paradox of purportedly being part of an alternative food movement while the economic necessity of non-waged work persists, replacing free family labor with apprentice or intern labor.
- Survey of 140 “ecologically oriented” farms in Ontario that use “non-waged labor”
- Most respondents worked long hours for little remuneration, farm income often falling below the poverty line threshold despite family and friends volunteer hours and non-waged work from interns.
- “Reflecting the dynamics discussed in the agrarian question literature, most of these small- and medium-size farms are only able to survive due to the self-exploitation of family members.” (p.711)
- “Meeting on-farm labor needs through the use of non-waged workers is in tension with the effectiveness and reliability of some of these workers.” (p.718)
- “Emergent forms of non-wage work (interns, apprentices, volunteers) grow out of, and transform, a long history of unpaid family work on farms and thus this trend is no simple aberration or peculiarity.” (p.717)
- “Many ecologically oriented farms are enmeshed in a series of non-economic relationships focused on the pursuit of “sustainable” forms of production, farmer training, and the building of broader agrarian and food movements.” (p.717)

9) Levkoe, C. Z. (2018) ‘Engaging the tensions of ecological internships: Considerations for agroecology and sustainable food systems movements’, *Agroecology and Sustainable Food Systems*, 42(3), pp. 242–263. doi: [10.1080/21683565.2017.1347120](https://doi.org/10.1080/21683565.2017.1347120).

- Reporting on interviews with more than 50 interns and host farms in Ontario.
- Limitations to ecological internships include: Dependency on non-wage labor; Unjust labor practices; Exclusivity, internships tend to attract well-educated white women under the age of 30.
- Internships and apprenticeships “grow sustainable food system advocates.” (p.7)
- “The majority of respondents described internships as part of a fair and mutual exchange of education for labor, outside of traditional market relations.” (p.9)
- “Food movements have been critiqued for an agrarian imaginary that “romanticizes and universalizes an agrarian narrative specific to whites while masking the contributions and struggles of people of color in food production” (Alkon and McCullen 2010, 945). Rural environments are also described as having strong cultural associations with settler-colonialism, heteronormativity, and whiteness (Panelli et al. 2009).” (p.13)
- Ecological farms are playing a central role in the nascent agroecology movement and thus, engaging the tensions posed by internships is imperative for meeting sustainable food systems’ goals that include social justice.

10) Ekers, M. and Levoke, C. Z. (2016) 'Transformations in Agricultural Non-waged Work: From Kinship to Intern and Volunteer Labor: A Research Brief', *Journal of Agriculture, Food Systems, and Community Development*, 6(2), pp. 179–183. doi: [10.5304/jafscd.2016.062.010](https://doi.org/10.5304/jafscd.2016.062.010).

- Based on interviews with 80 Ontario farms and apprentices, and province-wide surveys of ecologically oriented farms.
- Interns value the education they receive on working farms, stating that they could have paid thousands of dollars to learn this in a university setting but as an apprentice, they receive free room and board and education.
- "Here we see how historical gender divisions of labor, and more particularly care work, are identified as the reasons behind the high percentage of women interns and volunteers working on farms." (p.182)
- "One intern on a farm in western Ontario reflected on these issues: "The idea of sustainability behind the whole creation of the community supported agricultural model—like finding a sustainable way of farming, but having volunteers—is that really a sustainable way? Is it really going to last, this whole thing of having free labor?"(p.183)

11) Niewolny, K. L. (2021) 'Boundary politics and the social imaginary for sustainable food systems.', *Agriculture and human values*, pp. 1–4. doi: <http://dx.doi.org/10.1007/s10460-021-10214-0>.

- This is a presidential address to the Agriculture and Human Values Society, 2021.
- "Reexamining and resisting the current emphasis on measures of efficiency and productivity."
- "Committing to anti-racist work to seek a deeper understanding of the way structural and institutional racism in our food system operates while also developing a pathway to action to help dismantle the attitudes, practices, and structures that hold racism in place."
- "It will prove crucial that those who benefit from pervasive systems of privilege (especially White privilege) to listen to and act in solidarity with civil society movements in the Global South and Global North who are actively re-imagining land, food, and environmental justice and liberation through such frameworks as agroecology, food sovereignty, and collective agency (see Agyeman and Alkon 2011 ; Daigle 2017 ; Holt Giménez et al. 2017; Penniman 2018 ; White 2018)."
- "The emancipatory potential of food sovereignty praxis."
- "Multi-sector collaborations and networks open new possibilities for just and systemic social change where food justice intersects"
- "Working with and learning from organizations and coalitions whose goals are to address anti-Black racism, Indigenous sovereignty, fossil-fuel pipeline construction, climate justice, collective economy alternatives, and mutual aid initiatives."

12) Ball, J. A. (2020) 'Women farmers in developed countries: a literature review', *Agriculture and Human Values*, 37(1), pp. 147–160.: <http://dx.doi.org/10.1007/s10460-019-09978-3>.

- "Comparisons of women's and men's farms indicate that while some progress has been made in the number and percentage of farmers who are women, women farmers continue in general to run smaller farms, make less farm income, produce different

products, and value profitability less than men farmers (Ball 2014 ; Finan 2011 ; Hoppe and Korb 2013 ; Trauger 2004 ; Trauger et al. 2010a)." (p.157)

- "When women do farm, they are more likely to call themselves farmers today than in the past, yet many women continue to report that it is still difficult to be recognized as a farmer." (p. 158)
- "Women farmers now have more opportunities for education, networking, and government support, yet the need for separate organizations and programs for women farmers signals continued inequality." (p.158)
- "While the findings regarding farms in developing countries vary, many of these studies illustrate that any productivity differences in farms run by women and men are accounted for by disparities in access to and use of resources (Agarwal 1994 ; Deere 1983 ; Peterman et al. 2010)." (p.157)

13) Fremstad, A. and Paul, M. (2020) 'Opening the Farm Gate to Women? The Gender Gap in U.S. Agriculture', *Journal of economic issues*, 54(1), pp. 124–141. doi: [10.1080/00213624.2020.1720569](https://doi.org/10.1080/00213624.2020.1720569).

- "The findings indicate that farming, long thought of as a male-dominated profession, remains one of the most unequal occupations in the United States. While women's representation as the principal operator have risen threefold since the USDA started collecting these statistics, the outlook for gender parity in agriculture remains grim." (p.139)
- "We confirm that women are indeed more likely to be principal operators on sustainable farms than on conventional farms. Despite their higher representations, we find no evidence that direct-to-consumer sales or organic farming are associated with a reduction in the gender gap in farm income." (p.139)
- "Community Supported Agriculture, is correlated with a one-third reduction in the gender gap, suggesting that Community Supported Agriculture is opening the farm gate for women." (p.139)
- "Community Supported Agriculture farmers frequently offer apprenticeship programs, where the next generation of farmers acquire skills and knowledge vital to the farming process. These farm apprenticeship programs create an alternative transfer of knowledge between generations of farmers that is not linked to heredity and patriarchy, providing valuable knowledge and greater opportunity for women farm entrants." (p.137)

14) Rissing, A. et al. (2021) 'The invisible labor and multidimensional impacts of negotiating childcare on farms', *Agriculture and Human Values*, 38(2), pp. 431–447. doi: <http://dx.doi.org/10.1007/s10460-020-10162-1>.

- Data from interviews and focus groups with over 40 farmers who have children in the Northeast in 2014 and 2015.
- "However, equally important yet rarely discussed in farm business planning curriculum are the social and life course events, such as having children...Such issues are often at the root of farm business viability." (p.443)
- "Whole farm and holistic planning encourage farmers to situate their farm plans specifically in relation to personal and familial goals, recognize embodied skillsets, and account for potential risk factors to the farm operation that may lay outside the farm

business. However, no comprehensive accounting of how childcare cost, availability or access affects farm structure, management or market strategies currently exists, nor how these dynamics may evolve as children age.” (p.443)

- “Drawing on our research findings and parallel research examining the childcare needs of farmworkers, we see the need for programming that accounts for life course events (such as pregnancy) and childcare needs on farms.” (p.444)
- “We strongly encourage future research to examine how childcare and other household issues differ for farmer–parents from different racial and ethnic backgrounds, of different gender and sexual identities, and of different citizenship statuses.” (p.444)

15) Ngo, M. and Brklacich, M. (2014) ‘New farmers’ efforts to create a sense of place in rural communities: insights from southern Ontario, Canada’, *Agriculture and Human Values*, 31(1), pp. 53–67. doi: <http://dx.doi.org/10.1007/s10460-013-9447-5>.

- Data from interviews with 9 new farmers in Ontario, focusing on place attachment, place identity, and sense of community.
- The four key components of a new farmer’s community of practice are--customers, farming colleagues, family, and the broader community of interest. This community of practice helps new farmers create a sense of community that is often not linked to the geographical rural farming community in which they are physically embedded.
- Rather than an “Us vs. Them” mentality, “it would seem that there is an opportunity to engage different members of the rural farming community in the LFM conversations.” (p.65)
- New farmers are attracted to farming because of their environmental values, “becoming involved in agriculture as a farmer was viewed with the possibility of doing something “positive,” “healing,” “proactive” for the environment and the community.” (p.59)
- “New farmers indicated that an ACoP is a place where they draw strength, inspiration and motivation. Given that the ACoP plays such an integral part in constructing their sense of place, LFM practitioners may want to look into developing strategies that enhance connectivity and opportunities for networking and reciprocal learning exchanges sensitive to different needs.” (p.65)

16) Biel, B. *et al.* (2018) ‘Does inclusivity really matter? The importance of diversity and inclusion in farm-based internship programs’, *Solutions Journal*, 9(4). Available at: <https://thesolutionsjournal.com/2018/10/25/inclusivity-really-matter-importance-diversity-inclusion-farm-based-internship-programs> (Accessed: 22 September 2021).

- This is a published paper from an undergraduate research project that focuses on young adults from the LGBTQ community. The data is drawn from 13 interviews with farms across the US that host apprentices.
- LGBTQ youth homelessness is prevalent due to outright familial rejection and related unsafe living environments.
- “When farming is viewed as a legitimate occupation, there is an opportunity to provide pathways for marginalized people to break out of the cycles of systemic oppression, and gain access to a work environment that fosters community, love, connection to the environment, and economic success.” (p.5)

- Research shows that outdoor work, like farming, can provide “physical, mental, spiritual, knowledge-based, and identity-based” benefits.
- Research on corporate workplace inclusivity shows how diversity enhances creativity, innovation and personal growth through appreciation of different cultures and backgrounds. These benefits of diversity could translate to farm work contexts.
- “It became clear that the lack of diversity amongst the programs can be largely attributed to a uniform applicant pool – comprised largely of white, middle-class, college educated individuals – for farm operators to choose from.” (p.7)
- The authors suggest that farm apprentice applicant pools lack diversity for three reasons:
 - First, a lack of awareness of these programs and the opportunities they provide may exist in more diverse populations of society.
 - Next, farming culture’s lack of diversity and acceptance may be a deterrent for many.
 - Finally, the historical context of farming in relation to particular racial and ethnic groups must also be considered. (p.8)
- “Language that portrays a dedication to inclusivity could also be used to further develop an accepting atmosphere in farming.” (p.9)
- “These programs have the potential to provide a much-needed space to build community and connection, and to be embraced and loved, which is what we all ultimately seek.” (p.9)

17) Wood, K.F. (2013) *Laboring to Learn and Learning to Labor: experiences Of Farm Interns On Sustainable Farms*. Master Thesis, Rural Sociology. The Pennsylvania State University. Available at: <https://etda.libraries.psu.edu/catalog/19813> (Accessed: 22 September 2021).

- Data from 25 interviews, 3 focus groups and 132 surveys with Mid-Atlantic and Northeast farm interns and apprentices.
- “Results indicated that training during farm internships focuses on the intern’s ability to learn from their labor, with minimal instruction provided by farm mentors. Farm tasks were substituted as a learning tool according to a farm’s labor demands during the farm internship.” (p.iii)
- “Resources identified by participants as instrumental in allowing them to take a salary sacrifice were a college education and support from family members.” (p. iv)
- Interns were motivated to participate to “live out social values promoted by the local food movement.” (p.iv)
- Interns “recognized that their function as cheap labor...was an inequitable exchange...” (p.iv)
- The terms “intern” and apprentice” are used interchangeably and are not precise. None of the more than 100 survey participants that labelled their experience as an apprenticeship were part of a regulated apprenticeship program.
- 94% of survey respondents identified as being white, 74% were female, 86% reported having at least a bachelor’s degree, and 70% were under the age of 30, and 73% had access to healthcare.
- “Agriculture is ranked as one of the most dangerous occupations in the US (OSHA 2013), making farm laborers’ access to health care particularly important in case of work related injuries.” (p.66)

- Farm features most important for choosing an internship, in order of importance:
 - 1) Growing methods (organic practices)
 - 2) educational opportunities
 - 3) products grown on farm
 - 4) Farm mentor
 - 5) Farm location
 - 6) Compensation package
 - 7) Farm community
 - 8) Housing arrangement
 - 9) Reputation of farm
 - 10) Size of operation
- “None of the interns who were interviewed in this study or completed farm journals expressed a desire to pursue agricultural jobs with conventional farms that used synthetic chemicals.” (p.88)
- 50% of internships lasted 6-12 months, 30% lasted less than 6 months, 20% lasted more than 1 year.
- “private housing was good for the social and emotional health of interns”(p.106)
- Focus groups underscored the importance of communication and transparency between intern and farmer. “For interns, one of the most important parts of an internship is getting a sense of what goes on in a farmer’s head.” (p.149)
- “The offering of free housing is important to make ends meet, particularly when there is no money exchanged between interns and farmers. However, participants voiced that such remuneration was used to bypass fairly compensating farm interns for their labor contribution.” (p.150)
- “Farm interns used their position on a sustainable farm to educate eaters on the importance of sustainable agriculture, a central benefit listed by participants who were motivated by contributing to a social good.” (p.156)
- “A farm intern’s individual power to take a salary sacrifice and endure difficult working conditions, both of which do not provide adequate support for a decent livelihood, is a form of elitism. The sustainable agriculture movement is a largely homogenized landscape of white, upper to middle class persons who are well educated (Guthman 2011; Hinrichs 2003).” (p.158)
- “Farm interns are exploited as cheap labor when the conditions of their internship do not provide for a decent quality of life and impart agricultural training apart from the labor process.” (p.160)
- “The participants in this study made clear that they were aware of their social power to limit the duration and dependence on this type of work. The social mobility of interns allowing them to exit farming to other occupations (based on educational level and/or previous job experience).” (p.161)
- “Farm interns’ consent to unjust labor conditions is deleterious to making sustainable farming practices socially just.” (p.161)
- “The legality of internships is clearly put into question based on the findings presented here that farm internships are oriented to meet production demands, rather than implementing a program focused on learning opportunities for the participant.” (p.165)
- “One example might be state funding for an independent organization or institution to oversee a process for registering farm internships and overseeing that farmers provide adequate remuneration to farm interns during the season.” (p.165)

Bibliography Takeaway Notes

- Growing food system advocates is an outcome of these programs; even if apprentices don't go on to be farmers, they will be food system advocates.
- Identity development as part of a community of practice in the alternative agrifood movement is an important outcome of internships and apprenticeships.
- Santa Cruz's pedagogical model based on: Kolb, D. A. (1984). Experiential Learning. Englewood Cliffs, NJ: Prentice-Hall Publishers:
 - 1) Engage in a concrete experience - practical & theoretical
 - 2) Reflective observation & abstract conceptualization (journaling, discussion on ethics, values etc.)
 - 3) Active experimentation (small scale plot trials, individual experimental projects)
- The Agrarian question remains in place: replacing un-waged exploitation of family labor with un-waged labor of interns and apprentices. The low cost of food and high capital expense of farming has not been solved to address long-standing patterns of exploitation in agricultural work.
- Romanticism and class identity clash with the demands of farming so that many interns do not go on to be farmers.
- Internships and apprenticeships that are low or unpaid exclude those from non-privileged backgrounds.
- The heteronormative whiteness of rural places acts as a barrier to diverse interns.
- Tensions between the ideals of the alternative agrifood movement as being inclusive and economically sustainable and the reality of its apprenticeships being exclusive and exploitative need to be addressed if the movement is to succeed in its vision.
- Interns value the education they receive on working farms, stating that they could have paid thousands of dollars to learn this in a university setting but as an apprentice, they received free room and board and education. In this light, apprenticeships can be seen as being more inclusive than formal education, especially if they are flexible to allow for other paid employment and life responsibilities.
- Make connections and collaborate with other organizations and movements that support food justice from different angles, such as anti-racism, Indigenous sovereignty, climate justice, alternative economy and the like. (HEAL Food Alliance).
- A Training for Trainers that includes mentors AND apprentices would serve horizontal knowledge exchange that can lead to transformative social movements. Apprentices then have the skills to teach friends and others, and eventually to become mentors themselves, modeled on Farm School NYC.
- A lingering question that remains is: How can we best include traditional/conventional rural farming communities/neighbors in the community of practice developing around new farmer training?

APPENDIX B | Interview Guides

GLYNWOOD - Summer 2021
Hudson Valley Decentralized Apprenticeship Program Planning

INTERVIEW GUIDES

PROGRAM LEADERS

1. Tell me a bit about your apprentice program, when did it begin, how does it work? Is it registered/accredited at the state level in any way? What aspects do you handle, what do the mentor farms handle (recruitment, workshops, networking, grievances/problems, pay)
2. How many apprentices and mentor farms did your program serve at its inception? How many staff were involved? What have you grown to?
3. What are host farm guidelines and standards? Is there an application process?
4. How often do you check in with apprentices and mentors? Do you do site visits often? What tools do you use to track progress for mentors and apprentices?
5. What requirements do you have of mentors? How can we help the mentors in this kind of relationship? Do you offer them any training or support? Diversity, equity and inclusion or sexual harassment training? How do you handle bad mentor farms?
6. Is the curriculum uniform? How have remote classes been received?
7. What kind of fee structure do you have? How is the program funded?
8. What are some of the challenges you have seen that could/couldn't be addressed at the planning stage? Your advice for a new program in the planning stage?

MENTORS / HOST FARMS

1. Tell me a bit about your apprentice program, how and why did it get started? What is the benefit to your farm? How does it work? What is the exchange in terms of pay or housing or learning? (motivation for other mentors, unwaged labor, financial necessity)
2. How do your neighbors/community respond to your apprentices? Are they welcoming, indifferent, hostile? Have you, or your apprentices, had challenges based on your identity? How can mentors make their farms safe and welcoming for diverse apprentices?
3. How did/do you learn to be a mentor or educator?
4. Are you connected to a larger network for apprentice or mentor support? What kind of support do you wish you had that you aren't getting?
5. What kind of curriculum or learning goals or educational plan do you have in place? How closely do you follow it? How did you create that plan?
6. What are some of the challenges you have seen from your point of view, and from the apprentices? What advice would you have for a program trying to head off these challenges at the planning stage?
7. What are the most important organizations for new and beginning farmers in the region that you have had personal experience with and recommend to your apprentices?

APPRENTICES / INTERNS

1. Tell me a bit about your apprentice experience(s), why did you do it? How did it work? What was the exchange in terms of pay, housing and learning given versus the labor required? (identity development, food system advocacy as motivators, exclusion of people with few assets, many responsibilities)
2. What kind of curriculum or learning goals or educational plan did you follow, if any?
3. Did you feel unsafe or experience any challenges due to your identity? How do you think host farms become safe spaces? Can you imagine ways that the community could have been more closely allied with the farm you were apprenticing on?
4. Was the apprenticeship connected to a larger network for apprentice support, like CRAFT? If a larger network, what kinds of activities did they offer?
5. How were difficulties addressed? Was there a check-in process with the farmer, or with the organizing program?
6. What was your biggest takeaway from the apprenticeship? How did it affect what your doing now, or plan to do in the future?
7. What are some challenges you experienced? What is your advice to a new program hoping to make a better apprenticeship experience in the Hudson Valley?
8. What are the most important organizations for new and beginning farmers in the region that you have had personal experience with?

APPENDIX C | Staff Capacity at Other Programs

Organization Interviewed	Program Name	Place	Typical Number of Apprentices	Program Staff FTE
Maine Organic Farmers and Gardeners Association (MOFGA)	Apprenticeship	Maine	15	20%
Pennsylvania Association for Sustainable Agriculture (PASA)	Diversified Vegetable Apprenticeship	Pennsylvania	8	75%
Biodynamic Association	Biodynamic Farmer Foundation Year	National	30	100%
Women's Food and Agriculture Network (WFAN)	Harvesting Our Potential	Iowa	8	50%
Quivira Coalition	New Agrarian Apprenticeships	Mountain West	30	3 p/t staff
FairShare CSA Coalition	Organic Vegetable Farm Manager Apprenticeship	Wisconsin	6	100%
Young Agrarians	Young Agrarians Apprenticeship Program	West-Central Canada	23	3 p/t staff
Rouge Farm Corps	Full Season Internship Advanced Apprenticeship Summer Internship	Oregon	25-40	4 p/t staff

APPENDIX D | Additional Participant Quotes

These quotes add depth to the summaries presented in the Findings section of the report but are presented here in the appendices to ensure the body of the report is not excessive for the reader.

Power Sharing, Clarity, Transparency

- Program coordinator: With our antiracism farmer training group, we learned we need to be doing a better job with this—are you talking to people that want to be part of this? Really document this—here’s how we did this, here’s how we recruited the mentors, how we recruited the apprentices, make us a roadmap.
- Apprentice: So whether it was shoveling manure or literally digging holes, they would always be in there doing it with us... nobody is really trying to be superior over anyone or make other people do things for them, I think that was really important for me.
- Apprentice: We were just taken care of, but almost sometimes infantilized like, ‘We’re doing everything for you or making decisions for you.’
- Program coordinator: Really emphasizing setting up expectations from the beginning. Mentors probably don’t always think about “what are my expectations that maybe I don’t even verbalize?”
- Research literature: Making a conscious effort to connect attitudes and values to knowledge and skill-building is likely to have important positive effects on the likelihood that learners will take what they have learned and actively use it in the world (Perez, Parr and Beckett, 2010, p.121).

Mediation and Conflict Resolution

- Mentor: Part of the problem is letting people go. If it’s an apprenticeship, then filling the role becomes more challenging than just hiring somebody hourly. It’s sort of, “Oh, you’re offering an apprenticeship” but they didn’t learn up until then with everybody else.
- Apprentice: I guess you just have to bring it up to the manager, which is an awkward conversation. There’s nothing formal in place, but it would have been helpful to have something.
- Apprentice: There’s been a lot of instances from our board, who is mostly older white people, that they just... out-of-pocket things sometimes, and they don’t realize it. And it takes a toll, and somebody has to be held responsible, somebody has to address it, and in a timely manner. It shouldn’t wait several months for something to be addressed, and that responsibly shouldn’t rely on the people of color to have that as a teaching moment.

Monitoring and Evaluation

- Mentor: We revisit the initial goals on a monthly basis, as well as just a check-in every month—How are things going? How's the living situation with your co-apprentices? At three, five and seven months, we have sort of bigger skill assessment things that go on.
- Apprentice: There were monthly check-ins where we would sit down individually with (the coordinator) and talk about how we thought we were doing on our goals and just reflecting on what was going on and for each check in, there was a paper thing that we would fill out to help us reflect.
- Program coordinator: The (annual program) changes are informed pretty intensely by stakeholders and meetings of apprentices. Stakeholders are compensated for that work and then a few hosts farms that meet separately each year.
- Program coordinator: (Final evaluations for) the apprentices are hard because they move all over the world and they change their emails. It's like trying to pin down a 19-year-old.

Belonging

- BIPOC Apprentice: I primarily went there because well, mostly because he is (the same ethnicity) and it was important to me to have a farm manager who would understand the types of things that I was interested in... somebody who gets who you are.
- Woman Apprentice: I am a woman working alone in the middle of the city, I had some weird experiences... knowing that there's people who are willing to help you solve whatever painful things might happen, or confusing things, I think it's really important.
- BIPOC Apprentice: The interest is definitely out there from others that want to apprentice, they just don't know where to go. Creating an online registry or network where people can easily find them (BIPOC mentors) is also really helpful.

Compensation

- Apprentice: Basically, when they're paying people who are labor, it's like, "Okay, we need to use them for labor. We don't have time to also teach them."
- Apprentice: So it's like, "we're going to pay you a little bit less than minimum wage so you can get this bag of veggies..." I kind of need the money. I don't need the veggies.

- Mentor: For each farmer (apprentice), I think for the year you need something like \$25,000, for a half-time job; that's our goal is to raise about that much per farmer.

Housing

- Apprentice: The housing was free and it was really nice. I think talking to other CRAFT apprentices from other farms, they would say that they just earned a really small stipend and they were in huts for housing...
- Apprentice: It's very expensive. It's very few and far between. It takes a really long time to find a place to live.
- Mentor: I don't think that there's a lot happening in terms of farm labor and making it (housing) affordable.

Hours and Duration

- Mentor: At the time, I could go all day. I never thought about being overworked. But in hindsight, I think about how many hours we ask our apprentices to work, either directly or indirectly, and how that might not be sustainable for their self care.
- Mentor: In terms of apprenticeship, we're asking for 45 hours a week. So if they can't do that, then we just choose other people.

Mentor Recruitment

- Apprentice: Going to a place like Barns where everything is perfect and they have a ton of money at their disposal, it's harder to apply those skills once you're off on your own.
- Apprentice: I think that's something that if a farm is participating in the apprenticeship program that farmers have to stop working at a certain time. You have to give time to recharge, because it's very easy to burn out in your first years.
- Apprentice: I don't know what the consequence would be but I think that there has to be somebody holding these mentors accountable to how they're impacting new young farmers who are trying to get into an industry that's already very challenging.

Mentor Training

- Mentor: Fostering a fun and productive and effective work crew is really a huge part of it.

- Mentor: It really does boil down a lot to how you communicate with people and how you present yourself, how you are able to read other people's emotions and feelings.
- Mentor: Treating them with love and respect and listening to them is how I try to mold my behavior towards them. And then trying to train them on everything, be sensitive to their interests, and just help. That's very hard to do and still run a farm.

Diversity, Equity, and Inclusion Training

- Program coordinator: The other workshops that we facilitate with farmers are the 21-day Racial Equity Challenge through Food Solutions New England, and we have a three-day Wabanaki REACH training that we're doing with farmers this fall.

Community Relationships

- Mentor: It's not just the food or the agricultural system or the soil that needs to be regenerated, it's people's lives and the bonds they have with each other that have been so degraded by modern life.

Resource Linking

- Apprentice: How can they be better managers and better time managers? Better tools for management and business sense, to me, is something that could potentially be helpful.
- Mentor: A handbook that's actually really nice and well-developed, that could also be a really good resource—just a compilation of information.

Apprentice Recruitment

- Mentor: Sometimes when I'm recruiting, I'll come across somebody who seems to have too much experience and I end up not hiring them... I'm concerned that they'll not be happy because we're not a tight enough ship.

Cohort Relationship Building

- Program coordinator: That's one of my biggest challenges—most of these people, they don't actually meet each other, and it's hard, especially with often younger beginning people, they don't even know what their questions are, and often times it would come through just by socializing in some way.
- Apprentice: I like the idea of having a stronger network of new upcoming apprentices. I think the Hudson Valley is unique in that.

- Apprentice: It can be pretty insular and isolating and tricky in that way, just like what's in those areas, in a reasonable vicinity, that can provide some of those spaces and services (for the LGBTQIA+ community)?
- Program coordinator: We do an orientation at the beginning of the year, it's a three-hour, all apprentices and all host farms are on that call.
- Program coordinator: One of the things that we had heard from some of our mentees was that there was a sense of isolation if they were the only mentee on their mentor's farm, especially if they're not used to living in a rural place.

Self-Directed Learning

- Program coordinator: They're not required to do anything. It's totally up to them and what they want to learn. They do a beginning, mid and end of season check-in with their mentors, different host farmers structure it in different ways.
- Program coordinator: When they first come, there is a sort of a visioning time: what do you think your life's going to be like in five, ten years? What would your farm be like? What do you imagine getting out of this? And how might this apprenticeship better equip you for what you imagine? And then we kind of revisit that on a monthly basis.
- Program coordinator: When the work is piling up, when the newness wears off, how do you continue to foster self-directed learning among apprentices?
- Research literature: More vocational or trade-oriented apprenticeship models might include journaling or semi-structured discussion questions during or after fieldwork that connect ethics, values, emotions, and the subjective to the knowledge and skills people are developing (Perez, Parr and Beckett, 2010, p.121).

On-Farm Learning

- Mentor: It's a production farm, so if the person really wants to go more in depth about something that we don't just cover through the process of working, then we'll meet individually on those kinds of things and go into greater depth.
- Mentor: One part of the apprenticeship that's very important is I have apprentices become in charge of the farm for a week... they focus on managing the crew and the harvests... They see the whole picture, and realize their strengths and weaknesses are.
- Apprentice: But they also made intentional space for us to tell them what we wanted to learn and also for us to teach back as well things we wanted to share.
- Apprentice: There is a difference between learning about topics and learning how to make management decisions that involve those topics.

Regional Community of Practice

- Mentor: I would give them some hours off in the afternoon so they can get cleaned up and rest a bit and then carpool out to these events. And that was great, because it gave them a chance to get off the property and get rejuvenated a little bit and see other things going on and take the burden off of me as well, big time.
- Mentor: CRAFT events, which are outside of work hours, I think a lot of the time, if it's an hour away, it's sort of how motivated the apprentices are and we just let them do what they want to do rather than really kind of force people to go.

Pedagogy

- Apprentice: I really appreciate that there is a very clear outline of everything we would be covering in that season and basically a timeline for when that would be happening and having workshops that lined up with it.
- Apprentice: I do wish that the lessons and stuff would be more scheduled and routine. I think that I would be learning a bit more if we did have test, or a syllabus, or like, hey, this week we're going to focus on pest management, or soil health...
- Research literature: New farmer programs are most effective when they move away from traditional Extension style knowledge-transfer, toward more collaborative, peer-to-peer learning formats (Niewolny and Lillard, 2010).
- Apprentice: There was all of the farming that we did and all of that more hands-on stuff, but then we would have lunch sessions.

Curricular Content

- Apprentice: It's helpful if apprentices are going to work in farming adjacent careers that they understand what the farmers are doing.
- Program coordinator: The skills list and the job book... I think that it does 75-80% of the work for farmers who aren't educators... within each of the task silos, they're sorted into roughly pre-season, in season, post-season.