

Project Narrative

Incentivizing Land Access for Small, Beginning and Socially Disadvantaged Farmers and Ranchers: Research, Extension and Community of Practice

Introduction

"For us it's important to give a beginning farmer a chance, and not just make a big farmer bigger. It's really a joy to help someone get started."

- Farm owner participant in the Nebraska Beginning Farmer Tax Credit
(Nebraska Department of Agriculture, 2015b)

Success for young, beginning, and socially disadvantaged (New Gen) farmers and ranchers depends on their ability to secure suitable land to start and expand their operations. Since most do not inherit their land (Katchova & Ahearn, 2016), land access is major challenge, as widely reported by C-FARE (2017), American Farmland Trust (AFT) (Freedgood and Dempsey, 2014), and many others from the Economic Research Service (Ahearn, 2013) to state departments of agriculture (e.g. Paine & Sullivan, 2014) to the National Young Farmers Coalition (Ackoff, Bahrenburg, & Shute, 2017). Mostly managing small operations, New Gen farmers face long odds given farm consolidation (MacDonald, Hoppe & Newton, 2018), rapid appreciation of land values (Key and Burns, 2018), conversion of agricultural lands to development (USDA-NRCS, 2018), and a very tight supply of available land to rent or to purchase. USDA estimated that only 10% of agricultural lands would change hands between 2015 and 2019, and only 2% to a non-family member (USDA-NASS, 2015). These factors converge to favor large farms and established operators at the expense of New Gen farmers (Burns et al., 2018) and rural communities. Still, 70,000 new farms are started every year (Katchova & Ahearn, 2017) and public officials recognize their importance to agriculture and rural prosperity.

For every one farmer under age 35, there are four farmers age 65 or over (USDA-NASS, 2019a). Pairing these numbers illustrates the need for policy interventions to facilitate land transfer and access to land. Recognizing this, the federal government and several states have created a variety of financial incentive programs. Their motivation is to revitalize rural communities (N. Hamilton, 2010; Meuleners, 2013) by helping a new generation enter agriculture – whether from a multi-generational farm family or first-generation (Carolan, 2018; Clark, Inwood & Sharp, 2012). Despite growing interest in replicating and scaling up these programs, very little research or extension has occurred. There is a significant gap in knowledge of their characteristics, impacts and reach (Schilling, Esseks, Duke, Gottlieb, & Lynch, 2015; Valliant, Ruhf, Gibson, Brooks, & Farmer, 2019) and a need to create a network for shared learning and to increase awareness and utilization of these promising programs (Freedgood & Dempsey, 2014).

We propose to investigate several land access policy incentives (LAPI) which provide opportunities for farm transfer and land access for New Gen farmers. These opportunities are two Program Area priorities for the Small and Medium-Sized Farms program. We further address the Agriculture Economics and Rural Communities program's call to inform "the design,

implementation, and impact of policies to promote rural economic development and prosperity” as well as Challenge #4 from the first section of the Council on Food, Agriculture and Resource Economics report, “Agriculture and Applied Economics Priorities and Solutions” (2017), to understand how public policies, and specifically incentives, “can facilitate the entry of young entrepreneurs into farming and ranching, and to mitigate their risk.”

Thus, **our long-term goal is twofold:** To increase knowledge of the impacts and reach of Land Access Policy Incentives, and to build capacity among agricultural service providers to advance their use and facilitate access to land for a new generation of farmers and ranchers.

We propose to examine three categories of LAPIs, which are presented in Table 1. Two types compensate landowners for choosing a New Gen farmer as the farm’s next operator or buyer. Through state-level Beginning Farmer Tax Credits (BFTC), landowners earn a credit on their state income taxes (see Table 3). Through the federal Conservation Reserve Program-Transition Incentives Program (CRP-TIP), owners with expiring CRP contracts can earn two additional years of payments in exchange for renting or selling their land to a New Gen farmer. The third type of LAPI program is somewhat different in that it provides financing to the Next Gen farmer directly. We will investigate two agricultural easement incentive programs in the MidAtlantic region which help young and beginning farmers obtain financing to purchase and protect high quality farmland. These innovative programs build on Purchase of Agricultural Conservation Easement (PACE) programs which compensate agricultural landowners for protecting their land from development. To date, only Delaware and Maryland have provided incentives to help New Gen farmers purchase and protect land.

Table 1. Classes of Land Access Policy Incentives (LAPIs): Scope of policy assessment

Policy level	Policy name	Incentive mechanism
State (IA, NE, MN)	Beginning Farmer Tax Credit (BFTC)	3Generally, owners who choose a beginning farmer as their next operator or buyer earn a credit on state income taxes (See Table 3).
State (DE, MD)	Next Gen and Young Farmer Easement Incentives	The state provides financing to help New Gen farmers purchase land and protect it with an agricultural conservation easement
Federal	Conservation Reserve Program – Transition Incentives Program (CRP-TIP)	An owner whose land is expiring out of CRP earns two additional years of payments upon choosing a beginning or socially disadvantaged farmer as the land’s next operator or buyer

Body of knowledge

The past few years have seen an upsurge of interest in land access incentive policies. The timeline presented in Figure 1 points to 2017 as a watershed. This was when the Maryland Next Gen Farmland Acquisition Program and Minnesota BFTC were passed into law. Since then, five other states have proposed (Ohio, Oregon) or passed (Colorado, Kentucky, Pennsylvania) LAPIs of their own design. Participation in the longer-standing programs has accelerated. Iowa’s BFTC

jumped from 610 participants in 2013 to 1,700 in 2017 (Ferguson, 2018). Applications to the Nebraska BFTC have increased six-fold since 2008 when it added a property tax exemption for beginners to its existing incentives (C. Beck, Carter, & Circo, 2018). Finally, Congress raised the funding for CRP-TIP in the 2018 Farm Bill from \$33 million to \$50 million.

Figure 1. Timeline of state and federal LAPI introductions

2001		2019
NE BFTC		
	IA BFTC	
	Federal CRP-TIP	
	MO BFTC: Proposed, failed	
	DE Aglands Young Farmer Program	
	WI BFTC	
		MN BFTC
		MD NextGen
		CO BFTD
		KY BFTC
		PA BFTC
	OH, OR BFTC: Proposed	

Further enthusiasm for LAPIs is found in the literature, where they are held up as a policy mechanism with the potential to catalyze land transfers to New Gen farmers (Carlisle et al., 2019; N. Hamilton, 2010). Analysts often issue a call for more states to replicate the state-level incentives (Ackoff et al., 2017; Meuleners, 2013; National Farmers Union, 2019) and for the federal government to continue to expand investment in CRP-TIP (Calo & Petersen-Rockney, 2018; Slack, 2013). The USDA Advisory Committee on Beginning Farmers and Ranchers Land Tenure Subcommittee (2015) recommended scale-up of state-level LAPIs to the federal level. However, these recommendations are issued in a virtual vacuum of evidence of the incentives’ effects in the field. Of the three types of LAPIs, the only research has been on BFTCs and four-state assessment of CRP-TIP (Johnson, 2017). Building on this early research, which suggested participant satisfaction (Nebraska Department of Agriculture (2015a) and slight positive effects on beginning farm prevalence (Williamson & Girardi, 2016) and beginning farmers’ persistence and farming (Girardi, 2015), we aim to understand more about who the LAPI programs help, what impacts they have had, and what recommendations can be made from these findings to strengthen program design and delivery to achieve greater returns for diverse New Gen farmers, landowners, and rural communities.

The LAPIs’ participation numbers stand out among a range of mechanisms which aim to facilitate land access and advance rural prosperity. Related policy and programmatic interventions such as Land Link programs often attract very few landowners with agricultural assets to transfer, sometimes too few for the programs to function (Fraas, 2015; Hersey & Adams, 2017; Ruhf, Jaffe, Cosgrove, & Eliot, 2012; Valliant et al., 2019b). The financial

incentive programs we will investigate appear to be an exception. Table 2 presents approximate participation numbers which are comparatively high (Beary, 2019; C. Beck et al., 2018; McDevitt, 2019; USDA-FSA, 2018). Minnesota provides an example of high landowner participation in LAPI approaches; after its first eight months, Minnesota’s new BFTC already had 300 complete applications, indicating ready demand (McDevitt, 2018). Minnesota also has 37,000 acres enrolled in CRP-TIP, through which 326 more owners are transferring operations and/or land to New Gen farmers.

While participation is high in some places, utilization is uneven. BFTCs typically use less than the full tax credits allocated to them on an annual basis (Tidgren, 2017). CRP-TIP is well used in some states, but half the states have had no participation at all (USDA-FSA, 2018). Assessment is needed to investigate the utilization and impacts of these programs, determine what is working and what is not, explore participant motivations and how to support higher program adoption and participation (Johnson, 2017).

Table 2. Approximate numbers of incentive contracts by state and class of LAPI

LAPI	Number of unique, cumulative contracts as of 2018/2019													
	State													
	Co	De	Ia	Ks	Md	Mn	Mo	Mt	Ne	Nd	Oh	Or	Wa	Other
BFTC/D	0	~	2957	~	~	912	~	0	439	~	~	~	~	~
Easement	~	35	~	~	12	~	~	~	~	~	~	~	~	~
CRP-TIP	54	0	127	74	0	326	79	218	132	210	23	45	109	0-20
Total	54	35	3084	74	12	1238	79	218	571	210	23	45	109	5752

Sources: Beary, 2019; C. Beck et al., 2018; McDevitt, 2019; USDA-FSA, 2018

Stakeholder guidance and participation

The need and plan for this project are directly informed by AFT’s years of serving agricultural landowners, producers and service providers through its Farmland Information Center (FIC) and related initiatives, and by conversations over three years between Indiana University (IU), LAPI managers, and other stakeholders who observe how LAPIs function in their states. The scope and activities described in the Approach grow directly from conversations with New Gen stakeholders who provided input into the kinds of findings and deliverables that would be useful to their work. In his LoC, the Rocky Mountain Farmers Union Membership Coordinator said, “We have learned of incentive policies in other parts of the country but have not yet had the data to evaluate if a particular policy might work in Colorado, New Mexico or Wyoming” (Waldvogel, 2019). Writing from Colorado, a state whose Beginning Farmer/Rancher Tax

Deduction has had no participants because the final legislation had no teeth (Rubingh, 2019), he observes that the project will “enable policy makers to develop better programming.” Similarly, leaders of CRP-TIP asked us to investigate barriers to participation, strategies for timing outreach, and “Why in some states, like Minnesota and Washington, there is tremendous enrollment and others not” (Carter, 2019)?

The needs of LAPI stakeholders are front and foremost in the design of this project. We will solicit their input and engagement in our research and extension activities through a Community of Practice (CoP) and National Advisory Team (NAT) to ensure the information and findings we generate enhance their service to farmers and ranchers who seek to transfer or to acquire land. Several of these stakeholders will participate directly in the project. Leaders of state LAPIs have committed to sharing participant contact information so we can collect primary data from New Gen and landowner participants. USDA-FSA has agreed to provide information so that we may collect data from CRP-TIP state-level leaders. The managers of the two easement programs have committed similar support. Furthermore, LAPI managers in the best-established BFTC and easement programs have committed to participating in the CoP and to helping us extend it. Several also will participate in the NAT along with other national experts including Extension personnel from Nebraska, Ohio and New Hampshire. The CoP and the NAT will contribute to the research by reviewing and piloting questions, instruments and strategy, and the NAT also will oversee and evaluate our progress toward objectives and benchmarks.

Recent activities significant to the proposed project and lead institutions' key personnel

Developments among LAPIs and gaps in knowledge provide the impetus for this study. IU has tracked these policy incentives since 2016 while conducting a regional Research and Education project for USDA-NIFA-NCR-SARE to examine cases in which farm owners create land access for an unrelated, beginning farmer, and the policies and programs that support them (Farmer & Valliant, 2016; Valliant et al., 2019a; 2019b). This study involved interviews with LAPI stakeholders which led to this proposal and clarified our research questions.

AFT has a 30-year history of working with landowners on farm succession. We delved into the challenges and opportunities for beginning producers in 2014 (Freedgood & Dempsey, 2014). Through that work, which included the only comprehensive study of state beginning farmer policies, AFT identified access to land and capital as the primary challenges beginners face. We also found that while many resources are available to help beginners obtain financing, there was a dearth of resources to help them secure land. So AFT created a collection of resources on its FIC website, a comprehensive curriculum and a national cohort of Land Access Trainers (LATs) to deliver it. The LATs represent of diverse group of agricultural educators and service providers. Over the past three years, AFT has worked with the LATs to pilot and validate the curriculum with 1,000 New Gen farmers and ranchers and to support them as they train other service providers. AFT also has led dozens of trainings in various mediums on farm transition and land access, created and continues to coordinate the Hudson Valley FarmLink Network, and has conducted research through projects like “Gaining Insights, Gaining Access” which included a special sort of the 2012 Census of Agriculture and farmer focus groups to shed light on what is needed to facilitate transition to the next generation of farmers (Coffin, 2016).

IU's inquiries into farm transfer dynamics and tools are housed within the university's transdisciplinary Sustainable Food Systems Science Emerging Area of Research group. PD Farmer is convener of the Sustainable Food Systems Science group and coordinates across the IU Food Institute, Critical Food Studies Lab, and Ostrom Workshop. The team's research focus coalesces around New Gen farmer entry (Bruce, Robinson), farm product diversification (Valliant), redevelopment of regional-scale food systems (Suttles), working lands preservation (Farmer, Fischer), state tax incentives (Ross), and equity and parity (Babb, Knudsen). In addition to our research products, IU's team translates findings of New Gen research into Extension outputs with collaborators at Purdue University (e.g. Bruce, Maynard, Farmer, & Carpenter, 2018; Lancaster et al., 2019), as policy briefs via the IU O'Neill School of Public and Environmental Affairs, and we team with public and commercial radio partners to disseminate stories of successful transfers to New Gen farmers (e.g. Anderson, 2019; M. Beck, 2018; Young, 2018a, 2018b).

Rationale and Significance

Relevance to improving the sustainability of agriculture and rural communities

The ability of a New Gen producer to enter and succeed in agriculture is important to the economic and social health of rural communities. Not only are there positive relationships between New Gen leadership and economic outcomes (Lobley & Baker, 2012; Zagata & Sutherland, 2015), farms that anticipate New Gen leadership perform better than those without such plans (Chiswell, 2014; Inwood & Sharp, 2012). New Gen farmers make an outsized contribution to sustainable agriculture and food systems, being responsible for more than their share of certified organic and direct to consumer sales (USDA-NASS, 2014).

However, landowners face disincentives to transferring their land and operations to anyone, much less an unrelated New Gen farmer. They often delay transitioning ownership until death (Advisory Committee on Beginning Farmers and Ranchers, 2015; Leonard, Kinsella, O'Donoghue, Farrell, & Mahon, 2017; Mishra, Durst, & El-Osta, 2005). If they do hand over the reins during their lifetimes, they typically choose an heir or a well-established producer. These two routine patterns – delay and transferring to an established farmer – impede access to land for New Gen farmers.

LAPIs address the economics of this problem head on. They also seek to improve equity in land access and rural sustainability. For example, CRP-TIP compensates owners who lease or transfer to a socially disadvantaged farmer, referring to farmers of races and ethnicities that have faced discrimination (Horst & Marion, 2019). These include African American farmers, who, after systematic and well documented dispossession of lands, now comprise less than 2% of farmers, and the growing population of Hispanic farmers who comprise about 3% (USDA-NASS, 2019). Per capita, farmers of color own less land than their white counterparts and are more likely to be tenants than owners (Horst & Marion, 2019). Yet while designed to improve equity for underserved populations, an analysis of CRP-TIP in four states found that none of these states' approximately 480 New Gen participants were socially disadvantaged farmers (Johnson, 2017).

Understanding the reasons for this failure and ways to remedy it is another reason our project is so timely and important.

Integrated Research and Extension Objectives

Since information about the impacts and effectiveness of LAPIs is so limited, our project aims to fill critical gaps by answering the following questions: Why were these programs created and how do they work? Who do LAPI programs help, e.g. what kinds of farms and farmers, and on what scale? What impacts have they had? How do they affect landowners' and New Gen farmers' interactions? What barriers do they face? What lessons can be learned?

Overarching Goal: To increase knowledge of impacts and reach of Land Access Policy Incentives, and to build capacity among agricultural service providers to advance their use to facilitate access to land for a new generation of farmers and ranchers.

Research Objective 1: Chronicle the patterns of policy development of varying LAPI approaches to inform the design of land access incentive programs

Research Objective 2: Increase knowledge of the reach of LAPI programs and their impacts on land transfer, land access, New Gen success, and rural prosperity

Research Objective 3: Provide guidance on effective methods of outreach to increase their utilization by landowners and Next Gen farmers

Extension Objective 1: Sustain a Community of Practice to examine and extend financial incentives to improve opportunities for land access and farm viability for New Gen producers

Extension Objective 2: Increase promotion and utilization of LAPI programs through service provider networks, conferences and e-Extension.

Approach

Methods

Overview of Research: Our approach will combine qualitative and quantitative methods of social science research to collect primary data and analyze secondary data. Starting in Year 1, we will lead with an analysis of public documents, surveys and a series of interviews with stakeholders to orient the project and fulfill RO1. To achieve RO2, we will collect quantitative and qualitative data directly from LAPI participants (New Gen farmers and agricultural landowners) and analyze secondary datasets to describe the LAPIs' impacts and reach. RO3 will involve follow-up interviews with subsets of respondents from RO2's activities and will administer a survey of CRP-TIP state chiefs. These methods will build upon one another in sequence to triangulate our sets of findings on LAPI reach and impacts, barriers to participation, and opportunities to enhance their use and expand their capacity to facilitate land access and land transfer. Key Personnel have conducted several studies using this sequence of methods (e.g. Bruce et al., 2019; Farmer, et al., 2014; Valliant et al., 2017; 2019b). Deliverables will include direct reports to stakeholders (NAT, CoP, and research participants), at least four conference presentations, journal publications, and translation to Extension products.

Overview of Extension: The extension methods will interact with, inform, and be integrated into the research throughout the project. We will start by creating a core Community of Practice which we will expand over the life of the project and beyond. We will bring the CoP together in person at least twice over three years, facilitate quarterly Zoom meetings and employ a listserv or other online platform for CoP communication. As research findings become available, we will incorporate them into AFT's land access curriculum and engage AFT's cohort of Land Access Trainers (LATs) to help disseminate them through trainings, mentoring and extension activities. In Year 3, we will connect the CoP with AFT's National Agricultural Land Network to help disseminate findings and build relationships with a larger universe of professionals working to support New Gen producers and advance farmland protection, conservation and agricultural viability. Finally, we participate in developing proposals and presenting on findings at conferences, add policies to AFT's state policy scorecard, translate findings into fact sheets, policy briefs and other Extension products, and create dedicated LAPI web pages on AFT's Farmland Information Center (FIC) website.

Research Objective 1: Chronicle the patterns of policy creation of varying LAPI approaches to inform the design of land access incentive programs

Information about how states and the federal government have proceeded in developing the various LAPIs has so far only been collected in pieces (Meehan; Williamson & Girardi, 2016). Our comprehensive review will prepare two deliverables, an open access academic analysis and a summary version available on the FIC.

Activities:

1. Review key documents with a focus on legislative proceedings and service provider reports
2. Conduct in person and telephone interviews with key stakeholders
3. Based on interview and document data, analyze the process of policy adoption, implementation and evaluation

To achieve RO1, we will review key background documents, especially legislative proceedings and service provider reports. We will analyze them based on the following components: problem identification, policy formation and adoption, implementation and evaluation. Then we will conduct both in-person and phone interviews with two sets of stakeholders: LAPI program managers, evaluators and auditors; and agricultural service providers who work with landowners and/or Next Gen farmers, beginning with members of the CoP and NAT.

The stakeholder interviews are foundational to the project and their results will inform the other project objectives. AFT, the CoP and NAT will advise on interview questions. Then the research team will conduct the interviews to gather perspectives on policy creation, barriers, change, recruitment and evaluation. Interviewers will meet regularly during the data collection and analysis period to follow a process of progressive focusing (Schutt, 2006). Through this procedure, they will discuss what they are hearing so far in interviews to clarify what to focus on in the next interviews. Thematic coding of verbatim interview transcripts will follow the same

procedure (Creswell, 2013; Patton, 2002). Co-PD's Valliant and the TBN Postdoc will lead this method, with input and participation from Dempsey, Freedgood, Robinson, Babb, and Bruce.

Anticipated Results / Expected Outcomes for RO1: The document review combined with stakeholder interviews will give us sufficient data to chronicle the process of adoption, adjustment and utilization of the various LAPI approaches. Material from the interviews will generate information for quantitative and follow-up inquiry during the rest of the project. Sharing findings with the CoP and publishing a paper will improve the delivery and inform the design of land access incentive programs. Translating findings to extension deliverables will provide other stakeholders with needed information to support farm/ranch transfer, access to land for New Gen producers, and revitalization of rural places.

Research Objective 2: Increase knowledge of the reach of LAPI programs and their impacts on land transfer, land access, New Gen success, and rural prosperity

Here we will make quantitative contributions to resolving gaps in the understanding of how LAPIs may be influencing New Gens' access to land, their contributions to agriculture, and patterns of farm transfer. The project's novel contributions will be to collect data on how incentives affect participants' perspectives, decisions, and behaviors, and describe contrasts between participants and non-participants according to their contributions to agriculture (product mix, farm scale, marketing mix), geographies, demographics, and representation of subgroups. Subgroups whose participation these procedures will examine include those under the New Gen tent, for example veterans, women, farmers and ranchers of color, young farmers and ranchers, and first-time buyers.

Activities:

1. Facilitate coordination between the state-mandated program evaluations of the Iowa and Nebraska BFTC's to allow comparison of impact and reach across states
2. Conduct robust representative surveys of participants in state easement incentives and BFTCs to elicit their characteristics, perspectives, recommendations, and patterns of LAPI reach and impact
3. Extract and analyze IRS Schedule F data to test for effects of LAPIs on new small/medium-sized farm entrepreneurship

The first activity to pursue RO2 will begin in year 1, to align with Iowa's mandated 5-year evaluation of its BFTC, which will next occur in 2020. Tony Girardi of the Iowa Department of Revenue has agreed to participate in conversations with the CoP and Research Team. These conversations will generate and agree on a set of questions for Iowa to pose in its assessment. Party to these conversations in the same capacity will be Martha Carter or Anthony Circo of the Nebraska Legislative Performance Committee, which will be mandated to audit the Nebraska BFTC in 2023, pending renewal of the tax credit in 2022. By facilitating this dialogue between researchers and stakeholders, the project will achieve a cross-state comparison and lead the states' internal evaluations to ask some of the same questions. We will aim to elicit effects of differences between the programs' parameters, as presented in Table 3. This activity may also identify state-specific policy, economic, agri-ecological, small/medium farm, human, and/or food

systems issues for focused inquiry. These capacity-building conversations will thus assist states and the nation in understanding the effects of the LAPIs, and revisions they may wish to introduce or consider for incentive policies elsewhere. The Postdoc will lead this activity, with support from Knudsen, Ross, Valliant and the CoP.

To describe patterns in the LAPIs’ reach and their influences on beginner and owner perspectives and experiences, this phase will survey participants in the state easement incentives and the BFTCs. A second purpose of the surveys will be to identify subsets of respondents for follow-up in RO3. Content of the surveys will be informed by interviews with the programs’ leaders and stakeholders in RO1, and drafts will be workshopped and piloted with the CoP to prepare for data collection.

All 50 of the participants in the Delaware and Maryland state easement incentives will receive an online survey to elicit participants’ assessments of participation, including the value, impacts and outcomes of the programs and their recommendations for improvement. The Postdoc will lead this activity, with support from Coffin, Dempsey, Farmer, Freedgood and Valliant.

The survey of BFTC participants will follow two coordinated distribution strategies to maximize the number of respondents at the lowest cost to the project. We expect to sample about 67% of the BFTCs’ approximately 8,300 participants across Iowa, Minnesota, and Nebraska. In collaboration with the state programs’ managers, we will email the survey to every participant who has provided them with an email address (approximately 4,600). We will mail a paper survey to a representative sample of 1,000 participants for whom the BFTCs have no email address on file. In total, we expect to survey about 5,600 beginning farmer/ranchers and farm/ranch owners who participate in the BFTCs.

Electronic and paper distribution will both follow the Dillman method of best practice to maximize response rate (Dillman, Smyth, & Christian, 2014). This procedure involves four waves of mailings to first announce the survey before it arrives, later remind respondents to respond, and later sending a second copy. Following up to offer a telephone survey will be a final option. The secure survey service Qualtrics will be used to conduct the online survey. Statistical analysis will be led by the Postdoc with support from Valliant, input from the Research Team, CoP, and NAT, and analytical assistance from the IU Biostatistics Consulting Center, which is listed as a consultant in the budget.

Table 3. BFTC program characteristics for examination by RO2 and RO3

	Nebraska	Iowa	Minnesota
First credits issued	2001	2008	2018
Incentivized transactions	Share rent Cash rent	Share rent Cash rent	Share rent Cash rent Sale of land/assets
Required lease agreements	3+ years	2-5 years	1-3 years

	Nebraska	Iowa	Minnesota
Agreements between relatives allowed?	Yes	Yes	No
Types of state tax credit	Income tax credit Property tax exemption for BFRs	Income tax credit	Income tax credit Income reduction
Beginner net worth cap	\$175,000 (2017)	\$665,288 (2018) Owns <172.5 acres Rents of <1,000 acres	\$800,000 (2018)
Level of tax credit to owner	Share rent = 15% on cash equivalent Cash rent = 10%	Share rent = 15% on cash equivalent Cash rent = 5%	Share rent = 15% on cash equivalent Cash rent = 10% Sale price = 5%
Individual tax credit cap	None (average credit = \$5,000)	None (average credit = \$5,325)	\$7,000-\$32,000 based on agreement type
Annual tax credits awarded	About \$900,000	Maximum has been \$9.6 million	\$5.5 million
Number of owner participants (annual)	55 (2011-2018 avg)	1,700 (2017)	442 (2018)
Definition of BFR	Farmed for <10 of the last 15 years	No maximum experience stipulated	Is seeking entry, or has entered within the last 10 years

The final activity to explore the effects of LAPIs will be an econometric inquiry into the relationship between LAPI existence, participation, and parameters and reported taxable farm income. Leading this activity will be Ross, with support from the Postdoc and Research Team. The Internal Revenue Service Statistics of Income Division produces annual state and selected substate statistics on taxable farm income, particularly for sole proprietorships reporting schedule F income. Compiling the IRS data provides useful benchmarks of the potential magnitudes of the LAPIs' effects and allows for some causal inference investigations on the effect of the credits on the creation of taxable farming income. This type of data also provides some insight as to whether activity by BFTCs, state easement incentives, and/or CRP-TIP increases new small and medium farm entrepreneurship, or if the data reflect no net increase in small/medium farm activity.

Anticipated Results / Expected Outcomes for RO2: Following Williamson and Girardi (2016) and Girardi (2015), we expect the secondary analysis of IRS data to demonstrate no relationship, or a small relationship, between LAPI participation and net small/medium farm entrepreneurship based on tax returns. Following the Nebraska Department of Agriculture (2015), we expect the survey of New Gen participants in easement incentives to elicit appreciation for the programs and strategies for improvement that will be relevant for the other types of LAPIs and easement programs. Lastly, based on participation information the BFTCs have been able to provide thus far (C. Beck et al., 2018; Girardi, 2015), we hypothesize that it will be predominantly commodity

producers at a range of scales who take part in the LAPIs. We also hypothesize that we will find no statistical differences between LAPI participants as a group and the states' overall New Gen farmer populations, according to Census of Agriculture data. Otherwise, we have no preliminary data about the participants' following characteristics, and how these compare to non-participants, so aim to fill these gaps for future research to examine and service providers to utilize: product mix, age, location according to rural-urban indices, marketing mix, personal characteristics, first-gen versus multi-gen, ambitions, and the seeker-owner interactions that lead to a BFTC contract.

Research Objective 3: Provide guidance on effective methods of outreach to increase the utilization of LAPIs by landowners and Next Gen farmers

The activities we will undertake to fulfill RO1 and RO2 will prepare us to focus RO3 on barriers to participation and their corresponding opportunities for enhancing program delivery and promotion.

Activities:

1. Online survey of CRP-TIP leads in 50 states
2. Follow-up interviews with subgroups of participants and non-participants

A short online survey of USDA-FSA CRP-TIP leads in every state will aim to determine root causes of the great variability across states in CRP-TIP usage, and recommend responses to these causes. Valliant will lead this component with support from the Postdoc, AFT, Robinson, Babb, and Bruce. Personnel will draft the content of the instrument and then workshop and vet that material with the Research Team and CoP. This electronic survey will be conducted and analyzed as above. Follow-up phone interviews will be conducted with select respondents to probe into certain responses and patterns.

Responses to the BFTC survey in RO2 will identify subgroupings of beginner participants according to their farm's location, their farm's characteristics, and their personal characteristics. In order to also learn from New Gen farmers who do not participate in the tax credit, we will also ask beginner respondents to refer us to non-participants whom they know. We will subsequently follow up with and learn from some non-participants through phone interviews. An inquiry into subsets of participants and non-participants who are located in peri-urban or urbanizing places will be led by Suttles. In addition to active New Gen farmers who do not participate in the BFTCs, we aim to elicit other categories of experience with entry into farming from aspiring, would-be, dissuaded, or discouraged entering farmers, and New Gen farmers who entered agriculture and then left. Robinson and Babb will lead a follow-up inquiry with sets of non-participants in the LAPIs. These perspectives shared by New Gen entrants, LAPI participants and non, will inform the findings and recommendations.

Anticipated Results / Expected Outcomes for RO3: These inquiries will allow us to systematically identify and report on barriers to participation in LAPIs and strategies for

resolving those barriers, to increase New Gen farmers' and landowners' participation and thus increase land access transfers to a New Generation.

Extension Objective 1: Sustain a Community of Practice to examine and extend financial incentives to improve opportunities for land access and farm viability for New Gen producers

Activities:

1. Facilitate quarterly Zoom meetings for CoP members
2. Organize two in-person convenings
3. Establish an online medium for CoP members to communicate (such as a list serv)

A first priority for the project will be to establish a CoP to foster ongoing dialogue between LAPI managers and related stakeholders. We have received commitments from a core group including representatives from BFTC, CRP-TIP and both easement incentive programs, as well as from some emerging programs. To engage CoP members throughout the project, we will organize and facilitate quarterly online meetings using Zoom video conferencing and manage a free online medium (such as a list serv) to create a space for relationship building at a distance. We also will host two in-person convenings. We expect the first of these to take place at the Minnesota Department of Agriculture (McDevitt, 2019). Suzanna Denison of AFT will coordinate these activities, with contributions from Co-PD's Freedgood and Valliant. In addition, AFT's Cris Coffin will work to coordinate activities between the CoP and the National Agricultural Land Network to extend its reach. Finally, we expect to help the CoP raise funds for a third convening or national conference in Year 3, or after the project is complete.

Through these activities, we will solicit the CoP for advice on the project's research questions and strategy, from the larger guiding questions down to individual survey items. We will ask them to provide input on analyses and recommendations and help disseminate findings. We will facilitate conversations to address findings and inform our extension strategy as well as addressing (and learning from) other topics the CoP members raise.

Over the course of the project, we will expand the CoP to include representatives of more states. We expect the CoP to become self-governing by the end of the project and continue to operate beyond the grant period.

Results / Expected Outcomes for EO1: Through peer-to-peer dialogue, quarterly meetings and two in-person convenings, the CoP will improve both the relevance of our research and the quality of their work. By helping to disseminate findings, share resources and educate their peers, CoP members will increase participation in and improve the outcomes of LAPI programs. We expect the CoP to double from a core group of 10 members to 20 by the end of the project.

Extension Objective 2: Increase promotion and utilization of LAPI programs through a variety of service provider networks, conferences and e-Extension.

Activities:

1. Develop fact sheets and other outreach materials on LAPI programs

2. Disseminate these as well as research findings and papers (see Table 4) through the CoP, FIC, LAT cohort, NALN, e-Extension and other networks
3. Incorporate LAPI materials into AFT's land access curriculum
4. Deliver four presentations at research/extension and stakeholder conferences
5. Create a LAPI webpage with a special collection of project deliverables and support materials on AFT's FIC

To increase awareness of and participation in LAPI programs, we will develop fact sheets and other outreach materials and disseminate them to key stakeholders by leveraging existing resources and networks, including the CoP, AFT's Farmland Information Center, Land Access Trainer cohort and National Agricultural Land Network, as well as E-extension and partner communication channels. We also will use these channels to circulate research deliverables such as academic papers and summary reports (see Table 4).

Further, we will incorporate project findings and key materials into AFT's land access curriculum and prepare our cohort of LATs to use these materials to train and advise New Gen farmers and inform other agricultural service providers on the availability and use of LAPI programs. A main focus of this activity will be to increase LATs' knowledge of financial incentives and non-traditional land access opportunities, such as CRP-TIP. The LAT Network is expansive in nature and new knowledge about LAPI programs is anticipated to be far-reaching and impactful for a range of organizations which serve farming and ranching communities, such as Extension, land grant universities, land trusts, Land Link programs and so on.

Over the course of the project, we will deliver at least four presentations at research/extension and stakeholder venues, including small farm conferences. If appropriate, we also will incorporate findings into AFT's state policy scorecard, which includes other land access policies including Land Link and state leasing programs. Finally, we will create a LAPI webpage with a special collection of resources on the FIC website which serves 100,000 visitors each year. We also will train FIC Answer Staff to respond to LAPI inquiries and provide technical assistance.

Anticipated Results / Expected Outcomes for EO2: Through the creation of practical resources and information products, as well as training and technical assistance, we expect to increase utilization of and participation in LAPI programs. This will help landowners transfer their land to a new generation and help New Gen farmers rent and/or purchase land to start and expand their operations. We also expect to build the capacity of project stakeholders to design, develop and deliver LAPI programs.

Indicators, Milestones and Deliverables

Project Directors and Management Team will work together to monitor progress toward benchmarks according to the Project Timetable and the Logic Model, and the deliverables presented in Table 4. Meetings of the NAT twice per year will reinforce the evaluation function. Together we will monitor achievement of the activities according to the process and outcome indicators in Table 4.

Table 4. Evaluation indicators for progress toward deliverables

Obj.	Deliverable	Evaluation indicators
RO 1, 2, 3	<p style="text-align: center;"><u>Papers: anticipated topics and leads</u></p> <ol style="list-style-type: none"> 1. Beginning Farmer Tax Credits (Valliant) 2. Policy development (Valliant) 3. IA/NE BFTC evaluations (Postdoc) 4. Participation and non-participation (Postdoc) 5. Exploring non-participation (Babb / Robinson) 6. The potential of easement programs to facilitate land access (Freedgood/Dempsey) <p>Intersection of LAPI participation with:</p> <ol style="list-style-type: none"> 7. Owners’ perspectives, owner-beginner dyads (Valliant) 8. Rural-urban interfaces (Suttles/Freedgood) 9. Other New Gen supports (Bruce) 10. Net small/medium farm entrepreneurship (Ross) <p>Recommendations to increase participation by:</p> <ol style="list-style-type: none"> 11. All states in CRP-TIP (Valliant) 12. Socially disadvantaged farmers in CRP-TIP (Valliant/Freedgood) 	<p style="text-align: center;"><u>Process indicators</u></p> <ul style="list-style-type: none"> • Draft, pilot instruments • Collect data • Analyze data • Draft translational output <p style="text-align: center;"><u>Outcome indicators</u></p> <ul style="list-style-type: none"> • Submit output • Revise output • Publish output • Deliver output
All	<p style="text-align: center;">Four presentations to research / extension and stakeholder conferences</p>	
EO 1, 2	<ol style="list-style-type: none"> 1. CoP and NAT convenings 2. Fact sheets 3. LAT training and curriculum enhancements 4. Translation to LAT trainer and NALN networks 5. LAPI webpage and resources posted on FIC 6. FIC staff training to provide ongoing technical assistance 	

Evaluation Plan for Extension Activities

Julia Valliant and Julia Freedgood will share responsibility for the implementation and evaluation of all goals and objectives (see Management Plan). Extension is built into the research component so that the research and Extension are iterative and integrated. The project team is experienced in both research and Extension activities. Freedgood has led Extension activities for over 30 years and participated in numerous applied research projects. The PDs, CoP and NAT will work together to evaluate the progress of the project using three broad categories: 1) overall management of the project, including timeliness, and communication; 2) integration of the programmatic areas of research and Extension; and 3) external evaluation.

The first and second categories will rely on meeting project milestones and achieving project objectives (see Timeline, Logic Model and Deliverables table). The third category will evaluate programmatic efficacy which will be achieved through pre-post assessments with the CoP and NAT. Both groups will provide feedback and guidance semiannually on the content and direction of the project (see Management Plan) and Freedgood will conduct exit interviews with the CoP to inform final evaluation. In addition, we will survey our LATs, workshop and conference participants to evaluate our sessions and trainings, including their assessment of knowledge gained and the likeliness that they will use the knowledge to inform and advise landowners and Next Gen farmers. Finally, to the extent possible, we will work with the CoP, NAT and NALN when using their dissemination networks to collect data on who is using the materials, how and why they are using them, and whether or not they are satisfied with the content. Ultimately, the project's success will be measured by increased and improved participation in LAPI programs.

Feasibility, Pitfalls and Limitations

The proposed methods and activities are all feasible. Each research method has been conducted routinely for more than a decade by IU key personnel. AFT is the singular national leader in the proposed extension methods. We have planned the activities together as an integrated team and in consultation with stakeholders. The critical stakeholders have agreed to participate and written letters of commitment. Pending funding and hiring, the resources we need to conduct the project are in place. The biggest risk to our plans or pitfall is that smooth implementation hinges on hiring a full-time, two-year postdoctoral researcher to function as one Co-PD at IU. We are reassured by our track record since 2016 of three successful national searches to hire postdocs in related disciplines. If there is a delay in hiring a postdoc, then we will re-strategize to hire an internal IU doctoral candidate, and/or Co-PD Valliant and/or Senior Associates Suttles or Babb will devote more effort to the project. Another potential pitfall is if the Nebraska BFTC sundowns as planned in 2022, then we will not be able to compare states' internal evaluations of their LAPIs, because Nebraska will not conduct its planned audit in 2023 (C. Beck, 2019). Fortunately, Nebraska BFTC personnel anticipate that renewal of the tax credit is probable.

Facilities and Other Resources

IU already has in place the facilities and support resources sufficient to conduct the social science research phases of the project, and AFT has the same for the extension phases. No equipment will be needed beyond the standard office and academic resources we list here and mentioned in the Data Management Plan. IU has a suite of offices in The Ostrom Workshop and additional space available in the IU Food Institute. The IU infrastructure provides high speed wireless internet, university library privileges, Zoom for video conferencing, Slack for project management, and online data management and collaboration resources including Box and IUScholarWorks. Our support staff handles the facilities, finances, including accounting and budgetary reporting, grants administration, and adherence to research ethics. The IU team has regular biweekly meetings for various tiers of reporting to maintain momentum, teamwork, and accountability. AFT provides similar capacity between its headquarters in Washington D.C. and the project's home base in Northampton, Massachusetts.