

Bipartisan creation of US Land Access Policy Incentives: states' efforts to support beginning farmers and resist farm consolidation and loss

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Abstract

Since 1983, legislators and advocates have introduced Land Access Policy Incentives in twenty of the fifty United States. These bills share a demographic goal: to fund land rental or purchase for young and beginning farmers and ranchers. States' efforts to facilitate land access are part of a global movement to support farmers' entry into agriculture and to resist farmers' increasing exclusion from land. We examine the policy creation processes of nine states to describe how coalitions and government leaders are translating their values around land access barriers into policy tools whose political appeal is broad. The bills often pass unanimously, and enrollments are strong: about 2,000 young and beginning US farmers and ranchers will purchase or rent farms this year through a few states' land access policy programs. We trace the themes from interviews with 66 of the bills' authors and advocates, and their documentation and media coverage, to demonstrate the values that bipartisan coalitions enlist to construct successful bills and the compromises that make them politically feasible. The coalitions' values turn on the threats of rising land costs, farm expansion or consolidation, and land conversion out of agriculture. As a group, the policies serve broadacre farming operations while leaving specialty crop farms largely unserved. Two states have endeavored to include all farmers of color among their policies' beneficiaries. Our findings demonstrate tradeoffs of states' current Land Access Policy Incentives and suggest next steps for research and advocacy to inform policy development to support next generation farming opportunities.

Keywords Agricultural land · Agricultural policy · Farm leases · Farm ownership · Land tenure · Tax credit · Farmland protection program

Introduction

The prospect of renting or purchasing land to farm is becoming more expensive and difficult to achieve (Burns et al. 2018; Fairbairn 2014). In the United States, cropland prices rose 33% from 2020 to 2023 (USDA-NASS 2023). As more types of actors vie to purchase agricultural land - from farmers to rural residents to investors and developers - competition bids up the cost of land. As a result, accessing land is one of the greatest barriers facing young and beginning

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farmers, and it is a barrier that stretches across geographies and types of farming (Ackoff et al. 2022; Ahearn 2013, Carlisle et al. 2019; Carolan 2018, Figueroa and Penniman 2020, Freedgood and Dempsey 2014; Inwood 2013, Rippon-Butler 2020). In response, governments are establishing land access policies to fund and facilitate young and beginning farmers and ranchers' (YBFRs) opportunities to lease or purchase farmland, and achieve secure land tenure (FAO 2017; Valliant and Freedgood 2020; White 2019). This paper examines the processes nine US states have followed to translate their concerns over farmer entry into policy. We explore the values discourse that motivated and oriented their coalitions' efforts and describe the openings these processes reveal for land access policies to evolve, as gaps in access grow wider.

We refer to the policies we cover as "Land Access Policy Incentives" (LAPIs). Each type of LAPI defines the farmer subgroup it aims to serve. Every state's LAPI aims to serve YBFRs, variously defined. Since 2022, two states' LAPIs

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have also attempted to include all Black, Indigenous, and People of Color (BIPOC) farmers and ranchers as beneficiaries. Because our chronicle spans the 1970s through today, the terminology we will use reflects these three farmer subsets: YBFR, BIPOC, and Historically Underserved (HUFR), which is an umbrella term of the US Department of Agriculture that encompasses YBFR and BIPOC farmers (USDA-NRCS 2018).

Barriers to land access in the United States for historically underserved farmers and ranchers

Barriers routinely impede land access for those looking to farm. For a sense of scale, about 70,000 farms begin every year (Callahan and Hellerstein 2022; Katchova and Ahearn 2016). One-third of US farms involve a beginning operator, but only one-fifth of the land (USDA-NASS 2024a, 2024b). Farm owners follow a sequence of norms and incentives to rent and eventually sell their farms to established farm operators or the most competitive bidders - in other words, to anyone other than a YBFR. We present this sequence. We then introduce farm consolidation, or expansion, over recent decades, in which small and medium farms consolidate into farms that are growing. Thirdly, we touch on farmland becoming less available as it converts out of agriculture and into residential, commercial, and industrial development amid competition for land from non-farming buyers. Our overview ends by introducing the additional barriers BIPOC land seekers must contend with, which revolve around discrimination, past and present. Together, the interpersonal and systemic barriers we lay out converge to drive up land prices and the difficulty of HUFR entry.

The desire for policy to safeguard young farmers' land access connects to headlines about rising farmer ages and an interest in the agriculture of the future: who will farm, and how will they thrive? The age of the average US farmer increased 18% from 1945 to 2022, from age 49 to 58 (USDA-NASS 2024a, 2024b, 2024c, 2024d; Zulauf 2021). By 2017 over one-third of farmers were aged 65 and over. Principal farm operators aged 65 and up outnumber farmers under 35 by six to one (USDA-NASS 2019). Topheavy numbers in farming contrast to the general workforce (Bigelow et al. 2016). Specifically, among self-employed Americans, only 14% are aged 65 and over (Zulauf 2021). Farmland ownership further concentrates in the hands of older people. Seniors aged 65-plus own more than 40% of US agricultural land (Bigelow et al. 2016). Half of farmland owners are aged 65-plus (Mishra et al. 2005) for an average age of 67 (USDA-NASS 2015). The older ages that predominate in farming and landownership raise questions about

how to renew farming, or open the profession to younger generations.

When a farm owner becomes ready to rent their land to someone else, they face a sequence of norms and incentives that do not favor YBFR entry. It all follows sound logic. If a landowner is a farmer, they often farm until old age (Lobley and Baker 2012). In scaling back their operation, they might rent their land to an established farmer (Bigelow et al. 2016; Forbord et al. 2014; USDA-NASS 2015). This series of decisions can be motivated by farmers' need for a steady income in retirement (Becot and Inwood 2020; Valliant et al. 2021). Compared to all US households, farm households' assets are weighted towards farm business assets instead of retirement accounts, other investments, or pensions (Mishra et al. 2005; Hayden et al. 2021; Mishra and El-Osta 2008). Land rental can provide that regular income. Established farmers present the fewest risks as tenants, having longer track records and lower exit rates than YBFRs (Hartarska et al. 2022; Katchova and Ahearn 2016). Leases often go to established farmers instead of farmers who are unproven.

YBFRs face more barriers to buying land. The US government provides owners with a tax incentive to hold onto their farms until after the time of their deaths, and a disincentive to selling or gifting them during their lifetimes, namely capital gains tax (Bigelow et al. 2016; Hamilton 2011; Katchova and Ahearn 2016). As a result, agricultural land seldom makes it to the open market– less than 2% every few years (USDA-NASS 2015, Callahan and Hellerstein 2022). When an owner becomes ready to sell land, interested buyers may include farmers or non-farmers, including developers or investors (Ahearn and Newton 2009; Ashwood et al. 2022; Fairbairn 2014; Van Sant et al. 2023). The sale of the farm often goes in one of two directions: into a growing farm operation or out of agriculture and into development (Magnan et al. 2023).

The pace of farm consolidation is indicated by farm sales and acreage. In 1991, less than one-third of the value of US production came from farms with at least \$1 million in sales. In 2015, this was up to half (adjusted for price changes). Today, more than two-thirds of US farm production comes from farms with million-dollar sales, even though only 5% of farms are at that level (MacDonald et al. 2018; Whitt et al. 2022). Acreage is increasingly concentrated on fewer, larger farms. In 1987, farms operating 2,000 + acres accounted for 15% of all cropland. Their share more than doubled over 30 years to 37% and the share of crops from farms with 10,000 + cropland acres quadrupled (MacDonald 2020). The pattern of farm scale growing and farm numbers falling emerges from the granular pattern of overlooking YBFRs for rental and sales agreements (MacDonald et al. 2018).

Another trend pulling land away from farmers is its conversion out of agriculture for urban or low-density residential development (Hunter et al. 2022; USDA 2020). In the 21st century alone, 11 million US acres converted out of agriculture by 2016, an amount equal to all the land devoted to fruit, vegetable, and nut production in 2017 (Freedgood et al. 2020). Conversion is fastest where populations are high and growing the most. For example, the coastal state of Maryland, whose LAPI we cover below, lost one-quarter of its farmland from 1974 to 2022 (US Census Bureau 1977; USDA-NASS 2022). Farmland protection becomes a priority for securing farm entry in the states and localities where farmland is going away.

Lastly, an overview of US land access barriers must cover the centuries-old systems and customs of taking land and withholding opportunity based on discrimination and racism at all levels (Shoemaker 2020). White leaders and neighbors have pushed Indigenous, Black, Asian, and Hispanic farmers off their farms and out of agriculture through direct violence, redlining by banks, heirs and fractionated property rights disputes, discriminatory legal and lending policies, and, broadly, "government policy designed for large operators who happened to be white" (Grim 2012, p. 272, Gilbert et al. 2002). These practices led to billions of dollars in payouts to settle class action lawsuits. While in 1920, 15% of US farmers were reported as "Negroes," "Indians," "Japanese," and "Chinese" (US Census Bureau 1920), by 2017, over 95% of farmers and farm owners were "White" (Horst and Marion 2019), even though only 72% of Americans were "White" (US Census Bureau 2022). The transformation is especially well documented for Black farmers, who led 14% of US farms in 1920, but only 1% of farms in 1992 (Grim 2012). Black farmers also owned 90% more land in 1910 than today, a dispossession worth over \$326 billion (about \$1,000 per person in the US) (Francis et al. 2022). The USDA continues to deny Black farmers' loan applications at higher rates than other groups (Bustillo 2023). LAPI advocates respond to these facts when they aim for LAPIs to serve all BIPOC producers.

Global context: young farmer land access barriers and policy responses

Rising land access barriers in the US reflect global trends that are separating YBFRs everywhere from opportunities to farm (Cassidy et al. 2019; Conway et al. 2021). As more farmers face exclusion from land, their access emerges as a global priority (Shattuck et al. 2023). In response, advocates on every continent are working to facilitate young farmers' entry by launching LAPIs of their own design (White 2019). The US conversations we chronicle represent one layer of a global effort to translate values into land access policy tools (Brondizio et al. 2023; FOLU 2019; HLPE 2020). Two of the United Nations Sustainable Development Goals denote "secure," "equal" access to land (#1 No Poverty and #2 Zero Hunger) (UN 2015), and models for food system transformation place land access (FAO et al. 2021) and scrutiny of property regimes at their center (van der Ploeg et al. 2015; Calo et al. 2021; Sippel and Visser 2021).

Here we lay out how LAPIs emerged in the States through values-based legislative conversations. Our analysis contributes to the knowledge of LAPIs from the US, where research about state and national land access investments is only beginning to appear (Horst et al. 2024; Kennedy and Frazier 2024; Meehan 2016; Valliant and Freedgood 2020; Williamson and Katchova 2013). Literature has rather focused on LAPI creation and effects in Europe (Bika 2007; Bradfield et al. 2023; Calo and Corbett 2024; Coopmans et al. 2021; Ilberry et al. 2012; Korthals Altes 2023; Lillemets et al. 2022; Pitson et al. 2020; Raggi and Viaggi 2013; Zagata and Sutherland 2015) with analysis emerging from more continents (Faysse et al. 2019; Girard 2023; Metelerkamp et al. 2019; Mohanty and Lenka 2023; White 2019; Żmija et al. 2020).

States pioneer LAPIs to secure a foothold for new farmers: research questions

We trace the rationale of the LAPIs' originators across states by describing how two categories of state LAPIs function, how they were created, passed, and adapted, and what is known generally about their utilization and parameters. We ask:

- How are 21st century US state legislatures creating, passing and funding LAPIs?
- What are similarities and differences across state LAPIs?
- Who are LAPIs written to serve or leaving unserved?
- What do these pilot efforts reveal for further research and action to help young, beginning, and/or BIPOC producers acquire land?

State LAPI types

Six states have implemented Beginning Farmer Tax Credits (BFTC) and four have the combined goals of facilitating landownership and protecting that land for agriculture in perpetuity. We term this latter set of LAPI the Farm Purchase and Protection Incentive (FPPI). BFTC programs position landowners as the gatekeepers of land access. In contrast, FPPI programs give young and beginning farmers purchasing power to buy their own farms. Since 2012, states have awarded about \$25 M to FPPIs and \$119 M to Tax Credits.

Tax credits (TC)

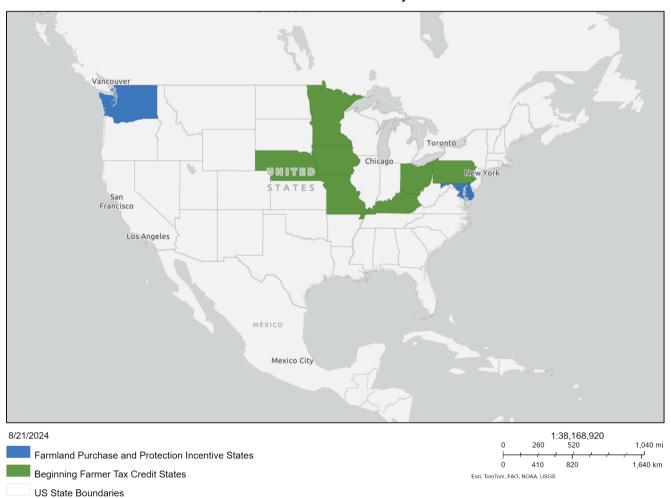
The Plains state of Nebraska created the nation's first Beginning Farmer Tax Credit in 1999. Five states have since adapted Nebraska's model and are implementing programs: Iowa, Minnesota, Kentucky, Pennsylvania, and Ohio (see Fig. 1). Seven more states have piloted or attempted to pass a BFTC of their own: Colorado, Indiana, Missouri, Montana, New York, Oregon, and Wisconsin.

BFTC programs compensate owners who lease or sell to farmers who satisfy the state's definition of a beginning farmer. Qualifying agreements typically involve land. Other agricultural assets such as livestock, equipment, or buildings also usually qualify. Some states only incentivize rental, one only incentivizes sales, and some cover both types of agreements. In exchange for granting access to a BFR, the landowner earns a state tax credit of up to 15% of the income earned through the rental or sale.

BFTCs are premised on the idea that financially rewarding landowners will offset the risks of renting or selling to a YBFR. Further, since the landowners receive a tax break, it was hoped they would charge a discounted price to the YBFR. Nebraska's approach of incenting the owner followed in the model of a federal-state LAPI since 1982, the Beginning Farmer Bond, or Aggie Bond (Williamson and Katchova 2013). The Aggie Bond helps BFRs secure loans by charging lower interest rates to owners and others who lend or sell to BFRs.

Farm purchase and protection incentives (FPPI)

The second type of LAPI combines land access strategies with those of farmland preservation. FPPI approaches vary. Ultimately, they award a low-interest loan to help an HUFR or YBFR to buy a farm. The farm is then enrolled in



States with Land Access Policy Incentives

Fig. 1 States with active state-level BFTC or FPPI LAPIs

a Purchase of Agricultural Conservation Easement (PACE) program to specify that the land may only be used for agriculture, in perpetuity (Schilling et al. 2015). Through the FPPI approach, the HUFR/YBFR becomes a farm owner, and the state retains more land for agriculture.

Methods

Our research began with a review and analysis of documents. We sought the legislative language for the state LAPIs that were active as of 2022 and records of how these bills fared as they moved through legislatures. After reviewing this information, we gathered media and advocacy coverage of the bills and their subsequent policy programs. We compiled these documents to form a timeline to chronicle each LAPI's proposal, deliberation, passage, implementation, evaluation, amendment, and renewal. From May 2021 to August 2023, we conducted virtual or phone interviews with 66 leading stakeholders across nine states' LAPIs. Initial interviews were with the LAPIs' managers, focused on the programs' administration and challenges. The managers referred us to more stakeholders, usually members of their governing bodies, and the advocates, service providers, and elected officials who participated in or observed the LAPIs' creation and passage. These referrals became our next interviewees, and they in turn suggested more people to interview, through a snowball or chain sampling procedure

Table 1Chronology of LAPIpassage by majority republican(R) and democratic (D) statelegislatures

(Patton 2015). We supplemented the interviews with participant-observation of the quarterly virtual meetings of a national Community of Practice composed of LAPI managers (https://sfss.indiana.edu/research/lapi/people/cop.html). We took notes during every interview to chronicle content and capture quotations. These notes and the timelines provided the data for the first two authors' collaborative thematic analysis procedure to identify themes and trends (Cornish et al. 2014; Richards and Hemphill 2017).

Results

"We don't usually work with them but can agree on beginning farmer issues. It's rare to have a situation with such overwhelming support." - Ohio Beginning Farmer Tax Credit advocacy coalition member.

The Results begin with a state-by-state chronology highlighting the values framing that has carried LAPIs to often unanimous passage by legislatures led by both major political parties (Table 1). We begin with the Tax Credits, because they were created first, and then turn to the FPPIs. Next, since our larger research project aims to learn from policies to facilitate land access for young and beginning as well as BIPOC farmers, we cover the approaches two states have attempted to tailor LAPI support to all BIPOC farmer/

| Year of passage | State | Legislature composition @ passage | Passing vote | LAPI type |
|----------------------------|--------------|---|---|----------------|
| 1999 | Nebraska | N/a – unicameral legislature | Passed 30-6 | TC |
| 2006 | Iowa | 51% R | Passed 47 to 2 in Senate, 70 to 29 in House | TC |
| 2006 (unfunded passage) | Maryland | 74% D | Unanimous in House/Senate | FPPI |
| 2011 | Delaware | 65% D | Unanimous in House, 18 to 1 in Senate | FPPI |
| 2017 | Minnesota | 55% R | Passed in omnibus Bill HF1 102 to 31 in House, 95 to 29 in Senate | TC |
| 2019 | Pennsylvania | 55% R | TC passed unanimously in House/Senate | TC and FPPI |
| 2019 | Kentucky | 64% R | Unanimous in Senate, 90 to 8 in House | ТС |
| 2022 | Ohio | 70% R | Unanimous in Senate, 92 to 3 in House | ТС |
| 2022 | Washington | 59% D | Unanimous in House/Senate | FPPI |

ranchers. The Results conclude by looking across states to describe patterns in the LAPIs' funding, enrollment, and parameters, to distill lessons for LAPI-related discourse and research moving forward.

Beginning farmer tax credits originated in heartland states

Home of the beginning farmer tax credit mechanism: Nebraska

The Plains state of Nebraska passed the first BFTC in 1999. Stakeholders recalled that policy conversations of the late 1970s provided the foundation for the BFTC. These were led by the Center for Rural Affairs and a coalition of advocates focused on helping YBFRs overcome the challenges to entering agriculture. They prioritized YBFR entry as a key to rural community prosperity:

If rural communities were to support a growing population, or even sustain the current population, there had to be farmland access.

The coalition was motivated by a change taking place in agriculture at the time: cash rents were gaining in popularity over share rents. For the coalition, this shift was a threat to YBFR entry. Share rents were preferable because they could reduce the tenant's costs and level of risk. Generally, in a share rent situation, the landlord and the tenant divide the input costs and, after harvest, the payment for the crops. The tenant provides the labor, and the landlord provides the land. With cash rents, the tenant often fronts all costs: paying for inputs and rent and waiting to receive the crop revenue. The coalition viewed share rents as more feasible for YBFRs, and sought policy supports for YBFR entry.

The coalition initially addressed two top-down federalstate policies that impeded YBFR entry. They pursued an anti-corporate farming law for Nebraska, mirroring efforts in other Plains and Midwestern states. Their goal was to remove corporate competitors from access to land and livestock production, so that

They wouldn't always be there, bidding up the costs of land, and acting as a barrier to entry for the next generation of farmers and ranchers.

The coalition secured an anti-corporate farming law in 1982, which federal court overturned in 2007 (Schroeter et al. 2006). Federal farm subsidies were the other barrier the coalition took on, pursuing caps on subsidies. They saw subsidy payments as accelerating the growth of farms and wanted to stem those effects. The concept for the country's

first BFTC emerged from Nebraska's advocacy targeting anti-corporate farming and subsidies. A coalition leader recalls,

After banging our head against subsidies, we sat down and asked, 'Are there other ways to help beginning farmers and ranchers overcome barriers to entry?' Instead of a policy to take something away, a positive suggestion we came up with was the Beginning Farmer and Rancher Tax Credit.

The BFTC concept had clear appeal:

We were making the market more fair... and creating the next generation of those sole proprietorship family farms that we love to talk about and support. It was a good policy to work on and lobby on because people don't like to say no to the family farm, and they definitely don't like to say no to beginning farmers and ranchers, because it strikes against everything politically that people say that they want to support.

Nebraska's BFTC incentivized landowners to rent to a BFR who might not be the highest bidder on rent. In exchange for choosing a BFR as a tenant, the owner would receive a refundable credit on their state income taxes.

We thought, plenty of farmers would like to work with a beginning farmer, if you give them a little incentive to justify not going out and seeking the highest cash rent. We wanted to provide something to a landowner: 'Maybe I'm not gonna get top dollar, but if I get this tax credit, I'd like to work with this beginning farmer.

The coalition also hoped that recipients would pay the tax credit forward by charging a lower rental price to the BFR. The policy incentivized leases and not sales because the coalition viewed rental as the most accessible route of entry. Its goal was to serve BFRs who lacked family money and were not yet prepared to buy land. The purpose of the TC was to help a BFR to get a foot in the door,

To access that land or to buy some more cattle, to become able to quit your job and start ranching full-time.

Soon after being inaugurated in 1983, Nebraska's governor Bob Kerrey (D), later a US Senator and member of the Committee on Agriculture, created a Beginning Farmer Task Force. While the task force proposed a BFTC, it did not pass, due to objection from tenured farmers who feared BFRs would out-compete them for land. There was no further action on the BFTC until the late 1990s, when the effects of farm consolidation were more apparent. A coalition presented the BFTC concept to State Senator Roger Wehrbein (R) "*at Mom's Cafe in Plattsmouth.*" The coalition was again led by the Center for Rural Affairs, and included Farmers Union, Nebraska Sustainable Agriculture Society, Women Involved in Farm Economics, Nebraska Farmer Organization, the Grange, Farm Bureau, and Nebraska Cattlemen. Wehrbein was chair of the Appropriations Committee and had a reputation for being frugal. He sponsored the bill because he had observed the problem of BFR land access firsthand:

My neighbors would complain about the big farmers in the area, and how they shouldn't [rent land to a big farmer]. But the day they retired, they'd go down the road and rent their farm to them, and not somebody who was trying to start out.

Wehrbein did not think the BFTC would lead to "too big a financial hit. We could absorb it easily enough." Compared to a \$200 million employment measure that was before the Legislature at the same time (LB 775), "nobody ever worried about it." Fine-tuning the bill led to eligibility criteria. To qualify, BFRs could possess up to \$100,000 in net worth. Observed one advocate,

It's important to have limits on net worth. If you're going to help everybody, you're not helping anybody.

Second wave BFTC: lowa

Iowa was the first state to adapt the Nebraska BFTC to its own purposes. In 2004, after Nebraska's administrator presented her program at a National Council of State Agricultural Finance Programs meeting, an Iowa Agricultural Development Authority representative in the audience remembered thinking, "*We've got to do this.*"

Iowa had the country's highest participation in the federal-state Aggie Bond, and its own Beginning Farmer Loan program since 2001. Advocates viewed existing support for BFRs to buy land as adequate. State policymakers sought tools to serve BFRs who were looking to rent.

There was a gap there - a whole population of guys getting out of college that wanted to farm and were trying to come back home, but the farm wasn't big enough to support everyone, and they couldn't afford to buy a farm. This would give people access to farm ground that they might not have been able to get. In 2005, the Iowa staffer spent a day in Nebraska learning how the TC worked and, from there, drafted a bill. Although Iowa was struggling financially, the Chair of the House Ag Committee, Jack Drake (R), "*Was a real cheerleader. He had two sons coming into ag, so he was all for it and all on it.*" When the bill reached the Senate, Jack Kibbie (R) and then-Governor Tom Vilsack (D), now US Secretary of Agriculture, championed its passage.

Even though the Republicans were anti-tax credit, they were pro-agriculture.

Minnesota's watershed passage: BFTCs since 2017

The Minnesota BFTC of 2017 was a watershed moment for two reasons. It was the first BFTC to incentivize sales of assets to BFRs, and press coverage inspired other states to introduce similar legislation, which three states proceeded to swiftly pass.

The Minnesota BFTC took a decade to pass (Minnesota Legislature 2007). Early bills were spearheaded by the NGO Land Stewardship Project. They were met with opposition. Detractors feared that families would "game" the new program. Like Nebraska, issues needed time to evolve in the public consciousness. Farm consolidation, loss, and the aging population of Minnesota farmers amplified concerns for farm viability and BFR entry.

Later, the Central Minnesota Young Farmers Coalition catalyzed the bill's passage. Part of a coalition which included Minnesota Farmers Union, Catholic Rural Life, and Minnesota Farm Bureau, stakeholders say the Young Farmers Coalition "*really led the charge*" in 2017: "*Farmers stood up for the future of agriculture in the state and helped to solve one of its toughest challenges*" (NYFC 2018). However, Minnesota's groundbreaking move to incentivize sales is credited to Minnesota Farmers Union, which advocated for BFR landownership because

Renting is not wealth-building in the way agriculture should be," whereas, owning the land, "folks can build a life in that, building generational wealth.

Advocates recruited the support of urban-oriented food policy and food access coalitions. A rural-urban partnership developed that garnered legislators' bipartisan interest. Despite the broader coalition, the bill's passage was not clear cut. Stakeholders recall tensions as the coalition worked to shape a successful bill. They described efforts in 2017 for the bill to also facilitate land access for all BIPOC farmers as so politically charged it devolved to a "yelling match on the committee floor," challenging the bill's passage. Some BFTC advocates preferred to bypass this level of internal debate, hoping instead to pass a simplified version through the majority Republican legislature, and tweak it later through the omnibus process.

After the Minnesota BFTC passed, Pennsylvania presented its legislature with a similar policy. It passed in one session in 2019 as part of a set of policies referred to as the Pennsylvania Farm Bill. Pennsylvania farmers who had heard about Minnesota's bill urged their state Farm Bureau to advocate for a BFTC. Farm Bureau and the Pennsylvania Young Farmers Coalition then drafted the bill with legislators, particularly the Senate Ag Chair, Elder Vogel (R). Senator Vogel had read about the Minnesota TC in a farm magazine. A farmer himself, he understood

How hard it is to find ground. You either marry a farm or inherit one - that's how you find a farm. We decided we'd give a farmer an incentive to bring someone new on, rather than cash out to a housing development or a shopping mall. It's for farmers that want to keep their farms, but don't have a beginning farmer coming on.

Creators recall the BFTC's "*palatability*" to the Pennsylvania General Assembly:

Both sides, whether they're Democrats or Republicans, support agriculture and the need to support the next generation of farmers.

Around the same time, Kentucky passed a related yet distinctive policy. Written exclusively to incentivize the sale of land to a beginning farmer, it does not incentivize leasing. The impetus came from the Kentucky Farm Bureau's Young Farmer Program, whose members were concerned about access to landownership. Farm Bureau spearheaded the policy push, adapting the Minnesota template. Advocates "dug around" and were able to earmark some of an under-subscribed, small business tax credit for the program. Kentucky's "Selling Farmer" Tax Credit was included in an economic development bill towards the end of the 2019 legislative session and passed within 20 days, almost unanimously, with Senate President Pro Tempore David Givens (R) a champion. Advocates emphasized a farm preservation argument. They needed a tool to discourage landowners from selling to development, always a more profitable route, to instead keep the land in farming and by a beginner to boot:

We looked at this issue and thought, 'What if we created an opportunity for that farmer who would love to see his or her farm continue to be in production agriculture, but can't take the financial hit of not subdividing it?' In asking how we could incent them to think about keeping it together, we rolled around to an existing tax credit conversation and said, 'Look, let's set up the chance for a selling farmer to keep that farm in agriculture, and not take such a tremendous hit.' And was effectively done at zero cost to the state (Kentucky Farm Bureau 2021).

Meanwhile, Ohio's legislature was also considering a BFTC. Representative John Patterson (D), who carried Ohio's original bill, found out about the Minnesota BFTC through the Council of State Governments. It was

A eureka moment. It was so well-grounded and logical

- I thought it was a winning proposition for everybody.

Ohio's bill moved through the legislature "*in fits and starts*." It passed in 2022, supported by a coalition which included diverse interests from Farm Bureau to the Ohio Ecological Food and Farm Association.

The six states' TC programs implemented an array of parameters defining eligibility and terms (see Table 2).

Farmland purchase and protection incentives originated in coastal states

Another style of LAPI combines the dual goals of BFR land access and permanent farmland protection. Originally in the eastern seaboard states of Delaware and Maryland, and more recently in Washington state, Farmland Purchase and Protection Incentives (FPPI) aim to help YBFRs purchase land and protect it with an agricultural conservation easement. Each FPPI grew out of an existing PACE, or farmland preservation, program.

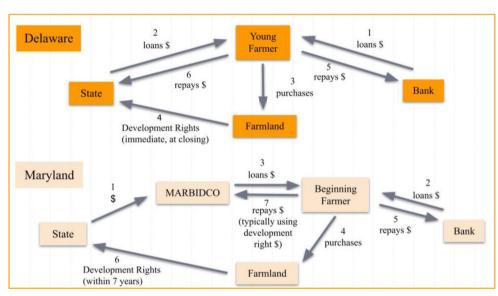
The impetus for an FPPI was similar in all three states, protecting farmland and opening opportunities to YBFRs. Maryland and Delaware are also similar in that their FPPIs use a no-interest loan mechanism to bring additional credit to the amount a YBFR obtains from a conventional lender. Each state then has its own procedure to preserve that farm for agriculture in perpetuity. Figure 2 displays how the Delaware and Maryland FPPIs operate. Every FPPI state intended for their LAPIs to develop into revolving funds, to recoup their coupled investment in farmland preservation and YBFR land acquisition.

Delaware's Young Farmer Program (YFP) was the first FPPI to be funded. It was passed in 2011 as an addendum to the state's Agricultural Lands Preservation Program (APP). APP had been active since 1991, and by 2011 was receiving "*thousands of applications*" per year from landowners to sell their land's development rights and permanently preserve it as farmland. Yet while Delaware was protecting

| Table 2 | Six states' | beginning H | Farmer Tax | Credit pro | gram parameters |
|---------|-------------|-------------|------------|------------|-----------------|
| | | | | | |

| | Nebraska | Iowa | Minnesota | Pennsylvania | Kentucky | Ohio |
|-------------------------------------|-------------------------------------|---|---|--|-----------------------------------|--|
| First credits issued | 2001 | 2008 | 2018 | 2020 | 2020 | 2023 |
| Qualified transactions | Share rent, cash rent | Share rent, cash rent, flex rent | Share rent, cash rent, sale of assets | Cash rent, sale of assets | Sale of land | Share rent, cash rent, sale of assets |
| Required lease duration | 3 + years | 2 + years | 1 + years | 1 + years | - | 1 + years |
| Allows agreements between relatives | Yes | Yes | Indirect family allowed, direct family allowed for land sales only | Yes | No | Yes |
| Credit to asset owner | Share rent = 15% Cash rent = 10% | Share rent = 15% Cash rent = 5% Flex rent = 15% | Share rent = 15% Cash rent = 10% Sale = 8% for BFRs, 12% to emerging farmers | Cash rent = 10% Sale = 5% | Sale=5% | Rental or sale = 3.99% |
| Individual credit cap | None (average credit = \$5,000) | Up to \$50,000 per application | \$7,000–50,000 based on agree- ment type | \$7,000–32,000 based on agree- ment type | \$25k/year, \$100k lifetime | \$7,000– 32,000 based on agree- ment type |
| Annual credits awarded (average) | \$1.3 M (2008-23) | \$5.5 M (2008-23) | \$3.8 M (2018-23) | \$250,000 (2020-23) | \$84,000 (2020-22) | \$54,000 in 2023 |
| Number of owner participants | 52/year (2008-23 average) | 1,080/year (2008- 23 average) | 620/year (2018-23 average) | 54 since 2020 | 13 since 2020 | 3 since 2023 |

Fig. 2 Stakeholders and processes in Delaware and Maryland's FPPI LAPIs



farmland from development, those who ran the APP noted the barriers to entry, and particularly ownership, for YBFRs, which led them to create the YFP. One author of the policy recalled,

'Young Farmers' was something a lot of people thought needed to happen because young people aren't getting to farm. It's too damn hard.

Delaware Secretary of Agriculture, Ed Kee, was central to the process. He was motivated by personal experience as a landless first-generation farmer, and later by service to others through a career in Extension: "When I became Secretary of Agriculture, I had this idea of finding a way to *help young farmers get started.*" He and other APP leaders, agricultural finance advisors, and a law firm specializing in land use wrote the YFP. The Governor signed the YFP into law only one month after it was proposed. "*The Legislature loved it*," due to the success of the APP, and that the YFP addressed dual goals of keeping future generations of farmers on the land while withstanding development pressure:

We can preserve all the farmland we want, but if we don't have anyone to till it, it's going to sit there and be dead weight.

The second FPPI, Maryland's NextGen, passed the General Assembly in 2006 but waited until 2017 to be funded. Leading the creation of the Next Generation Farmland Acquisition Program (NextGen) was the Maryland Agricultural and Resource-Based Industry Development Corporation (MARBIDCO), which administers agricultural loans and bonds. MARBIDCO and 24-year State Senator Mac Middleton (D), then the only full-time farmer in the General Assembly, crafted NextGen. Their aims were to prevent former tobacco farms from converting out of agriculture and respond to a study by the Maryland Department of Agriculture Young Farmers Advisory Committee, which named access to capital for land and equipment as the number one need of Maryland's young farmers. A 2006 statewide agricultural plan named NextGen as a policy priority (Maryland Agricultural Commission). Maryland's existing Critical Farms Program provided the model for NextGen and the Maryland Agricultural Land Preservation Foundation helped to create the rules.

NextGen's expected initial funding from the Agricultural Land Transfer Tax was delayed because of the Great Recession. "*The program was there but sat dormant.*" NextGen was ultimately allocated general appropriations funds in 2017. NextGen's creators recall discerning that although some Republican members voted against the funding, none took any action to "*kill*" a bill that would ultimately benefit their rural constituents: "*Everybody loves farming*."

Washington's novel LAPI serving all historically underserved farmers and ranchers

Like Delaware, Washington's farmland preservation leaders created the FPPI, building from the state's PACE program since 2007, the Office of Farmland Preservation. The players were the Washington State Conservation Commission (WSCC), Washington State Housing Finance Commission (WSHFC), Washington Association of Land Trusts, and

Washington Farmland Trust. This coalition crafted a mechanism to move quickly enough to purchase farms on the open market, protect that land for agriculture, and ultimately sell the protected farms to HUFRs. Washington's LAPI shortens the timeline that's typical across PACE programs (including Delaware and Maryland's FPPIs), one that is too lengthy to compete on the open market. Washington's FPPI instead has a "quick-release" design using a Buy-Protect-Sell process that positions land trusts as an intermediate land buyer. Washington's LAPI couples two programs, Farm Protection and Affordability Investment (FarmPAI) and Farmland Protection and Land Access (FPLA). FarmPAI, funded by WSHFC, loans money to land trusts to purchase farms that are high priority for protection. With this loan at the ready, the land trust can respond to the open market. Once the land trust owns a farm, they enroll it in PACE. FPLA funds the land trust to hold the easement in perpetuity. Typically, the protected farmland costs less than unprotected farmland would, becoming more affordable for an HUFR. The procedure is presented in Fig. 3.

Like Kentucky, Washington made use of an existing but unused governmental structure - an unfunded account - to simplify the creation of a LAPI. This meant that there was no new initiative to establish - "We didn't need to talk with legislators about why a new program was needed" - and the coalition's funding request for FPLA was approved and granted in 2022 (Washington State 2022 Supplemental Capital Budget, SSB5651, 2023).

LAPIs for all BIPOC farmers: states' attempts

Three states have tried to tailor their LAPIs to serve BIPOC farmer/ranchers as well as YBFRs. Washington was the first state to prioritize all HUFRs upon creating their LAPI. Minnesota incorporated equity provisions into their 2023 BFTC

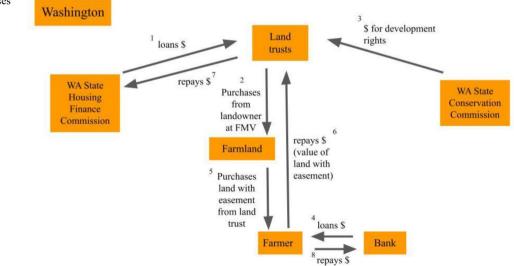


Fig. 3 Stakeholders and processes in Washington's FPPI LAPI

revision, but a subsequent 2024 revision re-defined qualifying farmers without specifying BIPOC farmers. The Ohio BFTC made an attempt that has not passed. Other states have proposed, but not passed, LAPIs to serve BIPOC farmers. These include California, Illinois, and Vermont.

Washington stakeholders recall that legislators were happy to see language including all BIPOC farmers in the proposed LAPI in 2022 because the legislature was placing a focus on equity that year

Minnesota advocates had attempted to specify BIPOC farmers among those served by the BFTC in 2017 and 2021. In 2023, Minnesota did amend the BFTC to award the highest incentive to owners who sold to BFRs who were also BIPOC producers. Minnesota did not change the terms around rental agreements but raised the tax credit from 5 to 8% on sales of farmland to a BFR and higher, 12%, on a sale to a BFR who was also an "emerging" farmer. "Emerging" is a state-level definition that includes BIPOC and other subgroups of farmers (Minnesota Department of Agriculture 2023). In 2024, a lawsuit filed against the state alleged discrimination. Minnesota then removed the language about emerging farmers, redefined its priority farmers to no longer specify race within this related program, and the suit was dropped (Vang 2024). However, in 2025, the BFTC will continue to prioritize emerging farmers according to the terms laid out in Table 2.

Patterns consistent across LAPIs

Small investments

Across states and types of programs, the small investment in LAPIs helped their political feasibility. While it's true that LAPIs promoted values that resonated on both sides of the legislative aisle - values of helping beginning farmers, family farms, rural community prosperity, and sometimes farmland preservation - LAPIs were also expedient because they weren't asking for much. LAPI expenditures have ranged from only \$1 M to \$12 M per state per year, and less than \$100,000 per year generally goes to administer the program. In most cases, LAPIs flew under the radar at passage because they were small. Nebraska's original program in 1999, which has never cost over \$1.8 M per year, was passed while legislators were otherwise hashing out a \$200 M measure. More recently in 2019, key to the passage of Kentucky's TC was that it would not affect the budget, drawing from an existing, underutilized tax credit. Around the same time, even the \$10 M requested for Ohio's BFTC was "a small ask," and was trimmed to half this amount.

Enrollments peak and plateau: under-spending

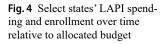
Most LAPIs have seen high initial enrollment, sometimes followed by a leveling off. These patterns are depicted in Fig. 4. When creators of Iowa's BFTC were expecting fewer than 100 participants in the first year, 302 signed up. Minnesota's BFTC saw similarly high participation in its first year: 300 complete applications after only eight months (Valliant and Freedgood 2020). Even in Delaware, Maryland, and Washington, where the FPPI processes are time-consuming because they place a conservation easement upon a farm, several transactions were completed in the first year, expending all funds. The states whose slow starts differed from this pattern were those whose LAPIs launched during the COVID-19 pandemic (Kentucky and Pennsylvania) and are managed by a non-agricultural service provider (Economic Development agencies in both cases), which complicates marketing.

However, after starting strong, many LAPIs' enrollments have plateaued or fallen, and money goes unspent. Examples come from Iowa and, prior to 2023, Minnesota, where enrollments have often been smaller than those needed to expend the full allocation. Plateauing numbers have to do with limited administrative allocations, which hamstring management and publicity, a common problem across LAPIs. Another contributor to this plateau is a lack of adequate technical assistance to help participants learn about and utilize LAPIs.

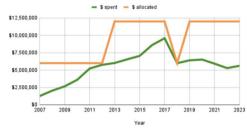
Who gets to be a beginning farmer? LAPIs' eligibility criteria

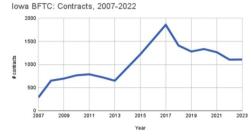
States differ in their definitions of the farmers and farms that qualify for their LAPIs. Their criteria are displayed in Table 3. Only one state, Delaware, defines qualifying farmers according to age, 18 to 40, using the criterion of the Farmers Home Administration's Young Farmer Loan (predecessor to USDA Rural Development). In contrast, Iowa rejects notions of temporal progression in farming, and instead defines BFRs according to only one factor: a maximum permitted net worth. Iowa reasons that farmers deserve the policy support until their net worth reaches a certain point: "You could farm for ten years and still not have a high enough net worth." A second criterion is standard across LAPIs (except in Iowa): maximum number of years' experience in agriculture, typically following the federal definition (USDA-NRCS 2023).

The FPPI LAPIs of the coastal states also have minimum farm sizes, since farmland preservation aims to protect substantial and ideally contiguous acreages. For example, in Maryland, only farms 50 acres and larger qualified for the LAPI, until a sub-program added in 2021 encompassed



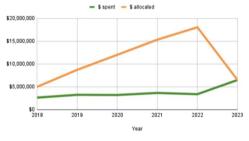
Iowa BFTC: Program Spending vs. Allocation



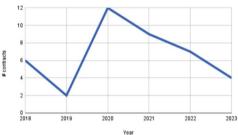




Minnesota BFTC: Program Spending vs. Allocation







Minnesota BFTC: Number of Contracts

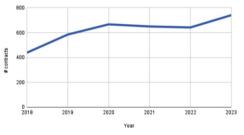


 Table 3
 States' eligibility requirements for young and "beginning" farmer/rancher LAPIs

| State | Age | Cap: Net worth | Years experience in agriculture | Cap: Landholdings |
|--------------|---------------------------|----------------|------------------------------------|---|
| Delaware | 18–40 | \$300,000 | 3 year minimum | < 2x the tillable acres they are purchasing |
| Maryland | - | - | < 10 years' experience prioritized | 20 acres |
| Washington* | Young farmers prioritized | - | < 10 years' experience prioritized | - |
| Nebraska | - | \$750,000 | <10 years | - |
| Iowa | - | \$833,000 | - | - |
| Minnesota | - | \$1,013,000 | < 10 years | - |
| Pennsylvania | - | - | < 10 years | - |
| Kentucky | - | - | - | Cannot have owned land for >10 years |
| Ohio | - | \$800,000 | <10 years | - |

*Washington's criteria for BFRs only, not their other priority HUFR participants

farms down to ten acres, which is in line with the definition of a farm in many of the LAPI states.

Discussion: achievements of state LAPI creation, and needed improvements

We have chronicled the design and passage of LAPIs since 1999 in the nine states where they now operate. Their advocacy coalitions and sponsoring legislators transformed bipartisan concerns into novel policy tools that passed by wide margins. Advocates emphasized a syndrome of concerns that combined new farmer/ranchers' exclusion from land, farm expansion and consolidation, and land conversion out of agriculture. In crafting policies to resist these trends, the LAPIs' champions leaned on messages of urgency and scarcity. And while the states were all responding to the problem of land access, the programs they created responded to specific state conditions, politics and needs. The relatively small investments in LAPIs were expedient, and their high initial enrollments indicated an appetite for LAPIs among YBFRs and the landowners who rent or sell to them.

We now look across the states to underscore patterns in their mobilization of sentiments into policy. Then we look at who the LAPIs are serving. Even though there is diversity among the states' approaches, their definitions converge on the types of farmers and farms deemed worthy of state support. Since the farms that benefit are broadacre farms, we touch on the opportunity for future LAPIs to support the smaller-scale food farms that are a common route of entry for YBFRs, which have land access barriers all their own. We end by reflecting on the tradeoffs LAPIs present as an expedient political concession - a foot in the door - for state policies to invest in land access, and the need for changemakers to continue to pursue policy responses to widening gaps in access.

Motivations for LAPIs and their resounding bipartisan passage: translation of values into policy

Chronicling the states' LAPI creation processes reveals three pathways that have carried LAPIs into law. One pattern is true for the FPPIs. In these high-population coastal states, leaders in farmland preservation have largely designed and called for the FPPIs. Thus, the FPPIs' champions have had little need to build broad-based coalitions for their LAPIs to be passed and funded. Majority Democratic legislatures have passed the FPPIs through streamlined procedures spearheaded by government insiders (see Table 1). A second pattern in LAPI passage stands in contrast. This approach required the collective action of coalitions to persuade legislators to pioneer two of the Tax Credits, in Nebraska and Minnesota. Unlike the farmland protection LAPIs, these Tax Credits needed to be constructed from the ground up through the work of politically diverse advocacy teams. The third pattern reflects states that were able to import other states' statutory templates and pass them swiftly, with less need to garner coalition support. This type of TC process took place in Iowa, Kentucky, Pennsylvania, and Ohio. Major agricultural institutions championed these later TCs, including departments of agriculture, finance authorities, and Farm Bureau, partnering to some extent with progressive agricultural institutions, such as Young Farmers Coalitions. Nearly all TCs were passed by majority Republican legislatures. But every LAPI we've covered was approved by wide margins.

Another theme in the LAPIs' political appeal is that their coalitions and legislators were motivated by a sense of scarcity and urgency surrounding farmland prices, which have risen by 33% in the US from 2020 to 2023 alone (USDA-NASS 2023). Farmland rental or purchase was moving further out of reach for YBFRs. Interviewees mentioned agricultural land going for as high as \$30,000 per acre as farmland, and higher, \$60,000 to \$100,000, to develop the land. Advocates pointed out policy and market processes that drove the rising prices, and the major investment some of these driving factors received from the federal government, such as subsidies, rules around corporations, and capital gains tax policy (Ashwood 2018; MacDonald et al. 2018). (It bears noting that the federal government is also investing, or attempting to invest, in various mechanisms to facilitate HUFR land access (Horst et al. 2024; USDA-FSA 2023; Williamson and Katchova 2013). Federal LAPIs are emerging to overarch states' innovations). A related common denominator that all LAPIs sought to address was the increasing competition over farmland from non-operator bidders and buyers (Burns 2018, Zagata and Sutherland 2015).

LAPI leaders in the FPPI states especially observed rising land competition from developers. A further scarcity that galvanized all FPPI actors centered around farm *land*, and specifically YBFRs' expensive access to a dwindling stock of farms. FPPI coalitions wanted to prevent farmland from going away. Farmland conversion rates in Delaware and Maryland ranked nationally in the top ten (Freedgood et al. 2020). Their LAPIs emerged as mechanisms to help YBFRs to preserve farmland and become farm owners simultaneously. As a result of these LAPIs combined with broader farm preservation strategies, FPPI states have indeed managed to protect 25% of Delaware's farmland and 17% of Maryland's while turning 76 YBFRs into landowners (DDA 2021; MALPF 2022).

In Tax Credit states, nothing was in place to incentivize landowners to lease or sell their land to BFRs over established farmers or other bidders with deep pockets. Advocates observed owners consistently going against their values by not renting to BFRs. Although owners felt an affinity for YBFRs, as research has described (Calo 2020), and might prefer to rent or sell to them (Valliant et al. 2021), the same disincentives that were driving the consolidation and conversion that the advocates called out drew owners away from transferring to the next generation. LAPI advocates wanted to entice owners as the gatekeepers of access to instead choose a BFR as their tenant or buyer. The Tax Credits' creators hoped their policy innovations would fill a gap, and they've demonstrated a demand for the alternative processes they reward. A few thousand landowners now enroll in BFTCs every year. These landowner numbers are much higher than those achieved by other land access programmatic strategies (Valliant et al. 2019) and underscore a widespread affinity for young and beginning farmers.

In crafting and passing the LAPIs, bipartisan lawmakers and advocates acted on the desire to safeguard BFR entry, and trusted their constituents would approve. They wanted to lift barriers, to usher in the positive economic effects that arise from younger' farmers participation in agriculture (Hartarska et al. 2022; Tauer 2019; Zagata and Sutherland 2015). They imagined positive social effects, as well. There seemed to be no drawbacks to a policy incentive to support farmer entry. However, as we explore below, research points out tradeoffs when farmer entry stands in for the needed policy changes to address farm survival.

LAPIs: successfully serving broadacre commodity farms

From their inception, most LAPIs have seen high enrollments from the moment they launch, such that participation numbers outstrip expectations, or year one funds are quickly spent. Examples of this immediate success come from six of the nine states. Higher than anticipated initial demand suggests a pent-up need for policy incentives to assist young farmers in accessing land, and perhaps a latent interest in YBFR entry among landowners. In seeing the high enrollments, we seek to understand who the public investments are serving, and who else might deserve their support just as much.

Looking at the nine states' YBFR criteria together shows how they converge to serve a similar range of farmer and farm types (see Table 3). Nearly every LAPI's design renders it a good tool for a larger, broadacre parcel, and a less relevant tool for a smaller farm. Even though most of the Tax Credit LAPIs have no minimum farm size, the mechanism becomes relevant with larger farm sizes. More acreage leads to more income and more of a tax liability. To illustrate, an owner earning \$200 per acre in annual rental income on 10 acres would qualify for a tax credit of \$200 at 10% (USDA-NASS 2023). At those same rates, an owner of 300 acres would qualify for a \$6,000 tax credit: TCs become attractive with higher rental or sale incomes. It's also worth noting that the lion's share of states' investments in LAPIs has gone to reward landowners with tax credits -82% of the approximately \$144 M states spent from 2012 to 2023. So far, US LAPIs mainly pay landowners as gatekeepers of land access. The incentive is indirect to the YBFR. For their part, the FPPIs also serve larger farms through minimum required acreages. Smaller parcels are excluded, with Maryland's recent Small Acreage Next Generation Farmland Acquisition LAPI an exception. As a result, LAPIs are supporting broadacre operations (Montgomery 2020; Beck, Carter and Circo 2018).

Thus, the LAPIs are serving broadacre farms, and yet it is smaller, diversified farms that offer YBFRs the lowest threshold to entry (Low et al. 2015). It's more affordable to farm vegetables, fruit, and/or poultry or small livestock, compared to broadacre grains or indoor poultry or hogs. The land base is smaller, the equipment costs less, and selling into direct and/or intermediated markets buffers farms from commodity price fluctuations, stabilizing income (Key 2016; Jablonski et al. 2022). But even though a smaller farm is more affordable to run, and perhaps lower risk, smallerscale farmers still name land access as their number one barrier (Ackoff et al. 2022; Freedgood and Dempsey 2014; Rosenberg and Stucki 2018). Access barriers can prevent aspiring farmers from ever entering or foretell the exit of the one-third of beginning farms that close their doors every year (Katchova and Ahearn 2016). Thus, small farms also need LAPIs, but are unserved by current LAPIs. This gap in service suggests that the next LAPI iterations should evolve to encompass smaller-scale farms. Mechanisms that are already present in LAPIs and could help to pursue this goal are to: (1) incentivize leases or sales to specialty crop farms at a higher rate, (2) lengthen the required lease duration to ensure longer tenure, (3) increase support for land purchases, and (4) qualify smaller parcels for farm preservation.

Small pieces of a large puzzle

The country's first state LAPI originators, in Nebraska a quarter century ago, crafted a LAPI after trying to dismantle structural obstacles to YBFR entry and success subsidies and corporate farm ownership. Nebraska's Tax Credit emerged from that broader effort to fashion a better top-down, structural safety net for young and beginning farms and ranches. Advocates hoped that Nebraska's resulting BFTC would lower the barriers, even as it left structural factors unaltered. In the time since, eight more states have proceeded to pass policy innovations that are pioneering at the same time as they are minor and low budget. Many barriers to succeeding in agriculture remain in place, but the LAPIs make some progress, serving broadacre farms in the process.

Research observes drawbacks to movements such as LAPIs, which focus on the promise of the young farmer, and frame access as the ticket to success. One drawback is that a tendency to glorify the YBFR and their entry can divert attention from the true prospects for success and failure in agriculture, for all farms (Arguelles 2020; Calo 2020; Minkoff-Zern 2019). The young or beginning farmer can provide a distraction from the obstacles to persisting and thriving in a farming profession (Becot and Inwood 2020; Bruce 2019; Calo 2018; Calo and Corbett 2024; Rissing 2019; Suryanata et al. 2021). It may be that having a LAPI placates a state's broader analysis of the types of policies that are needed to promote the success of young (and all) farmers and quiets the state's demand for more supportive federal policies, including property regime changes (Shoemaker 2020, Calo et al. 2021; Roman-Alcalá 2024). At the same time, it could be that having a LAPI provides a state with a platform to argue for the support that YBFRs need to address the barriers. We see, for example, in Washington and Minnesota's evolving definitions of priority farmers, efforts to serve a greater diversity of farmers who face steep land access barriers, and with greater precision. With every iteration, the states provide an official endorsement of who should get to farm (Graddy-Lovelace 2021; Leslie et al. 2019; Rosenberg 2016) and whose land access matters the most (Valliant et al. 2019; Opheim 2016). And they do it with the LAPI as the vehicle.

Conclusion

We draw lessons from the country's first state LAPIs for efforts to enlist policy in facilitating entry into agriculture. Reflecting on common threads across nine states identifies gaps and opportunities for the next iterations of LAPIs to reach a greater diversity of farmers and smaller farm scales.

States' coalitions are endeavoring to deliver opportunities to young and beginning farmers to rent and/or own farmland. The LAPIs of the FPPI states also resist development pressure by protecting farmland from conversion out of agriculture. The LAPIs are a rare bright spot in the political landscape in that they inspire bipartisan collaboration and agreement. Otherwise disparate coalitions and legislatures are galvanized by shared values of facilitating farmer entry and a desire to resist in some small measure the trends of consolidation and conversion, which remove entry-level opportunities to farm.

The LAPIs have been designed to place farmers on farms by serving YBFRs who are in a range of economic positions. Their net worth tops out at over \$1 M, an amount that reflects the levels of investment necessary to participate in commodity agriculture. They are as young as 18 years old, with no upper age limit. On their face, the reach of the LAPIs is broad. Yet comparing states' LAPI reveals their biases and assumptions as a set of policies. As they are designed, LAPIs serve thousands of broadacre farm operations per year but neglect the smaller-scale farms that are a common route of young farmer entry, but which also present barriers to access and tenure and deserve policy support. This gap reveals an opportunity for future policy iterations to serve YBFRs more fully.

These novel mechanisms have attracted the participation of thousands of landowners over the first quarter of the 21st century, who are now selling or renting their farms to young and beginning farmers. But at the same time, the barriers facing young and beginning farmers are growing steeper and deserve increased systemic investment and policy support from all corners of society.

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Declarations

Ethics approval The research was approved by the Indiana University IRB via protocol 13,127.

Consent to participate Verbal informed consent was obtained prior to interviews.

Competing interests The authors have no relevant financial or non-financial interests to disclose.

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References

- Ackoff, S., E. Flom, V. G. Polanco, D. Howard, J. Manly, C. Mueller, H. Rippon-Butler, and L. Wyatt. 2022. Building a future with farmers 2022. National Young Farmers Coalition. https://www. youngfarmers.org/wp-content/uploads/2022/09/NationalSurvey-Report22-1.pdf
- Ahearn, M. 2013. Beginning Farmers and Ranchers at a Glance. Economic Brief 22 U.S. Department of Agriculture. https://www. ers.usda.gov/publications/pub-details/?pubid=42876. Economic Research Service
- Ahearn, M., and Newton, D. 2009. Beginning Farmers and Ranchers. Economic Information Bulletin 533 U.S. Department of Agriculture. https://www.ers.usda.gov/publications/pubdetails/?pubid=44397. Economic Research Service.
- Arguelles, L. 2020. Entangled alternatives: Political-economic conditions constructing farmer training programs as solutions to the farming crisis. *Journal of Political Ecology* 27(1): 1148–1165. https://doi.org/10.2458/v27i1.23241
- Ashwood, L. 2018. For profit democracy: Why the government is losing the Trust of Rural America. Yale University Press. https:// yalebooks.yale.edu/book/9780300215359/for-profit-democracy/
- Ashwood, L., A. Pilny, J. Canfield, M. Jamila, and R. Thomson. 2022. From Big Ag to Big Finance: A market network approach to power in agriculture. *Agriculture and Human Values* 39: 1421–1434.
- Beck, C., Carter, M., and Circo, A. 2018. The Beginning Farmer Tax Credit Act: Performance on Selected Metrics [Legislative Audit]. Nebraska Legislature Performance Audit Committee. https://govdocs.nebraska.gov/epubs/L3800/B012.0105-2018.pdf
- Becot, F. A., and S. M. Inwood. 2020. The case for integrating household social needs and social policy into the international family farm research agenda. *Journal of Rural Studies* 77: 185–198. https://doi.org/10.1016/j.jrurstud.2020.05.005
- Bigelow, D., A. Borchers, and T. Hubbs. 2016. U.S. farmland ownership, tenure, and transfer. Economic Research Service, US Department of Agriculture.
- Bika, Z. (2007). The Territorial Impact of the Farmers' Early Retirement Scheme. Sociologia Ruralis, 47(3), 246–272. https://doi. org/10.1111/j.1467-9523.2007.00436.x
- Bradfield, T., R. Butler, E. J. Dillon, T. Hennessy, and J. Loughrey. 2023. Attachment to land and its downfalls: Can policy encourage land mobility? *Journal of Rural Studies* 97: 192–201. https://doi. org/10.1016/j.jrurstud.2022.12.014
- Brondizio, E. S., S. A. Giroux, J. C. D. Valliant, J. Blekking, S. Dickinson, and B. Henschel. 2023. Millions of jobs in food production are disappearing—A change in mindset would help to keep them. *Nature* 620(7972): 33–36. https://doi.org/10.1038/ d41586-023-02447-2
- Bruce, A. B. 2019. Farm entry and persistence: Three pathways into alternative agriculture in southern Ohio. *Journal of Rural Studies* 69: 30–40. https://doi.org/10.1016/j.jrurstud.2019.04.007
- Burns, C., N. Key, S. Tulman, A. Borchers, and J. G. Weber. 2018. Farmland values, Land Ownership, and returns to Farmland,

2000–2016. ERR-245 Economic Research Service, US Department of Agriculture. https://www.ers.usda.gov/publications/ pub-details/?pubid=87523

- Bustillo, X. 2023. In 2022, Black farmers were persistently left behind from the USDA's loan system. National Public Radiohttps://www. npr.org/2023/02/19/1156851675/in-2022-black-farmers-werepersistently-left-behind-from-the-usdas-loan-system
- Callahan, S., and D. Hellerstein. 2022. Access to Farmland by Beginning and Socially Disadvantaged Farmers: Issues and Opportunities (AP-096). U.S. Department of Agriculture, Economic Research Service. https://www.ers.usda.gov/webdocs/publications/105396/ap-096.pdf?v=3.2
- Calo, A. 2018. How knowledge deficit interventions fail to resolve beginning farmer challenges. *Agriculture and Human Values* 35(2): 367–381. https://doi.org/10.1007/s10460-017-9832-6
- Calo, A. 2020. The Yeoman myth: A Troubling Foundation of the beginning Farmer Movement. *Gastronomica* 20(2): 12–29. https://doi.org/10.1525/gfc.2020.20.2.12
- Calo, A., A. McKee, C. Perrin, P. Gasselin, S. McGreevy, S. R. Sippel, A. A. Desmarais, K. Shields, A. Baysse-Lainé, A. Magnan, N. Beingessner, and M. Kobayashi. 2021. Achieving Food System Resilience requires challenging Dominant Land Property regimes. *Frontiers in Sustainable Food Systems* 5: 683544. https://doi.org/10.3389/fsufs.2021.683544
- Calo, A., and R. Corbett. 2024. New entrant farming policy as predatory inclusion: (re)production of the farm through generational renewal policy programs in Scotland. *Agriculture and Human Values*. https://doi.org/10.1007/s10460-024-10557-4
- Carlisle, L., M. M. De Wit, M. S. DeLonge, A. Calo, C. Getz, J. Ory, K. Munden-Dixon, R. Galt, B. Melone, R. Knox, A. Iles, and D. Press. 2019. Securing the future of US agriculture: The case for investing in new entry sustainable farmers. *Elementa: Science of the Anthropocene* 7: 17. https://doi.org/10.1525/elementa.356
- Cassidy, A., S. Srinivasan, and B. White. 2019. Generational transmission of smallholder farms in late capitalism. *Canadian Journal* of Development Studies / Revue Canadienne d'études Du Développement 40(2): 220–237. https://doi.org/10.1080/02255189.201 9.1592744
- Conway, S. F., J. McDonagh, M. Farrell, and A. Kinsella. 2021. Going against the grain: Unravelling the habitus of older farmers to help facilitate generational renewal in agriculture. *Sociologia Ruralis* 61(3): 602–622. https://doi.org/10.1111/soru.12355
- Coopmans, I., J. Dessein, F. Accatino, F. Antonioli, D. Bertolozzi-Caredio, C. Gavrilescu, P. Gradziuk, G. Manevska-Tasevska, M. Meuwissen, M. Peneva, A. Petitt, J. Urquhart, and E. Wauters. 2021. Understanding farm generational renewal and its influencing factors in Europe. *Journal of Rural Studies* 86: 398–409. https://doi.org/10.1016/j.jrurstud.2021.06.023
- Cornish, F., Gillespie, A., and Zittoun, T. 2014. Collaborative analysis of qualitative data. In The SAGE Handbook of Qualitative Data Analysis (pp. 79–93). SAGE Publications Ltd. https://doi. org/10.4135/9781446282243
- DDA. (2021). Delaware Department of Agriculture: Farmland Preservation. https://agriculture.delaware.gov/wp-content/uploads/ sites/108/2021/08/Delaware-Farmland-Preservation-Factsheet 8.16.21.pdf
- Fairbairn, M. 2014. Like gold with yield: Evolving intersections between Farmland and Finance. *The Journal of Peasant Studies* 41(5). https://doi.org/10.1080/03066150.2013.873977
- FAO. 2017. The state of food and agriculture: Leveraging food systems for inclusive rural transformation. https://www.fao.org/3/ 17658e/17658e.pdf
- FAO, UNDP, & UNEP. 2021. A multi-billion-dollar opportunity: Repurposing agricultural support to transform food systems. *FAO*. https://doi.org/10.4060/cb6562en

- Faysse, N., K. Phiboon, and T. Filloux. 2019. Public policy to support young farmers in Thailand. *Outlook on Agriculture* 48(4): 292–299. https://doi.org/10.1177/0030727019880187
- Figueroa, M., and L. Penniman. 2020. Land Access for beginning and disadvantaged farmers. Data for Progress vol. 11 Green New Deal Policy Series: Food and Agriculture.
- FOLU. 2019. Growing Better: Ten Critical Transitions to Transform Food and Land Use (The Global Consultation Report). The Food and Land Use Coalition. https://www.foodandlandusecoalition. org/wp-content/uploads/2019/09/FOLU-GrowingBetter-Global-Report.pdf
- Forbord, M., H. Bjørkhaug, and R. J. F. Burton. 2014. Drivers of change in Norwegian agricultural land control and the emergence of rental farming. *Journal of Rural Studies* 33: 9–19. https://doi. org/10.1016/j.jrurstud.2013.10.009
- Francis, D. V., D. Hamilton, T. W. Mitchell, N. A. Rosenberg, and B. Stucki. 2022. Black land loss: 1920–1997. AEA Papers and Proceedings, 112, 38–42. https://doi.org/10.1257/pandp.20221015
- Freedgood, J., and J. Dempsey. 2014. Cultivating the Next Generation: Resources and Policies to Help Beginning Farmers Succeed in Agriculture. American Farmland Trust. https://farmlandinfo.org/ wp-content/uploads/sites/2/2019/09/AFT_BF_08-27-2014lo_0. pdf
- Freedgood, J., M. Hunter, J. Dempsey, and A. Sorensen. 2020. Farms under threat: The state of the States. American Farmland Trusthttps://farmlandinfo.org/wp-content/uploads/sites/2/2020/09/ AFT FUT StateoftheStates rev.pdf
- Gilbert, J., G. Sharp, and M. Felin. 2002. The loss and persistence of Black-Owned farms and Farmland: A review of the Research Literature and its implications. *Journal of Rural Social Sciences*, 18(2). https://egrove.olemiss.edu/jrss/vol18/iss2/1
- Girard, P. 2023. From family to markets. How institutional determinants of rural youth transitions have changed in Senegal and Zambia over time. *Journal of Rural Studies* 101: 103040. https:// doi.org/10.1016/j.jrurstud.2023.103040
- Graddy-Lovelace, G. 2021. Farmer and non-farmer responsibility to each other: Negotiating the social contracts and public good of agriculture. *Journal of Rural Studies* 82: 531–541. https://doi. org/10.1016/j.jrurstud.2020.08.044
- Grim, V. 2012. Between forty acres and a Class Action lawsuit: Black Farmers, Civil rights, and Protest against the U.S. Department of Agriculture, 1997–2010. In *Beyond forty acres and a mule: African American farm families after Freedom*, 271–296. University Press of Florida.
- Hamilton, N. 2011. America's New agrarians: Policy opportunities and Legal innovations to support New Farmers. Fordham Environmental Law Review 22(3): 523.
- Hartarska, V., Nadolnyak, D. and Sehrawat, N. 2022. "Beginning farmers' entry and exit: evidence from county level data". Agricultural Finance Review 82(3): 577-596. https://doi.org/10.1108/ AFR-05-2021-0057
- Hayden, M. T., B. McNally, and A. Kinsella. 2021. Exploring state pension provision policy for the farming community. *Journal of Rural Studies* 86: 262–269. https://doi.org/10.1016/j. jrurstud.2021.05.032
- HLPE. 2020. Food security and nutrition: Building a global narrative towards 2030 (HLPE Report 15). High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. http://www.fao.org/3/ca9731en/ca9731en.pdf
- Horst, M., and A. Marion. 2019. Racial, ethnic and gender inequities in farmland ownership and farming in the U.S. Agriculture and Human Values 36(1): 1–16. https://doi.org/10.1007/ s10460-018-9883-3
- Horst, M., Valliant, J., and Freedgood, J. (2024). An evaluation of the federal Transition Incentives Program on land access for nextgeneration farmers. *Journal of Agriculture, Food Systems, and*

Community Development 13(2): 73-90. https://doi.org/10.5304/jafscd.2024.132.006

- Hunter, M., A. Sorensen, T. Nogeire-McRae, S. Beck, S. Shutts, and R. Murphy. 2022. Farms under threat 2040: Choosing an abundant future. American Farmland Trust. https://farmlandinfo.org/ publications/farms-under-threat-2040/
- Ilberry, B., Ingram, J., Kirwan, J., Maye, D., & Prince, N. 2012. Nonsuccessional entry into UK farming: an examination of two government-supported schemes. In J. R. Baker, M. Lobley, & I. Whitehead (Eds.), *Keeping it in the Family International Perspectives on Succession and Retirement on Family Farms*: 111–127.
- Inwood, S. M. 2013. Social forces and cultural factors influencing farm transition. *Choices*, 28(2): 1–5. [https://www.choicesmagazine. org/choices-magazine/theme-articles/transitions-in-agriculture/ social-forces-and-cultural-factors-influencing-farm-transition].
- Jablonski, B. B. R., N. Key, J. Hadrich, A. Bauman, S. Campbell, D. Thilmany, and M. Sullins. 2022. Opportunities to support beginning farmers and ranchers in the 2023 farm Bill. *Applied Economic Perspectives and Policy* 44(3): 1177–1194. https://doi. org/10.1002/aepp.13256
- Katchova, A. L., and M. C. Ahearn. 2016. Dynamics of Farmland Ownership and Leasing: Implications for Young and beginning farmers. *Applied Economic Perspectives and Policy* 38(2): 334–350.
- Kennedy, S. F., and C. Frazier. 2024. Land equity in California: Challenges and opportunities across the policy landscape. *Elementa* 12(1): 0106. https://doi.org/10.1525/elementa.2023.00106
- Kentucky Farm Bureau. 2021. Kentucky Selling Farmers Tax Credit Program (Newsroom). https://www.kyfb.com/federation/ newsroom/kentucky-selling-farmers-tax-credit-program/
- Key, N. 2016. USDA ERS For Beginning Farmers, Business Survival Rates Increase With Scale and With Direct Sales to Consumers. USDA Economic Review Service. https://www.ers.usda.gov/ amber-waves/2016/september/for-beginning-farmers-businesssurvival-rates-increase-with-scale-and-with-direct-sales-to-consumers/
- Korthals Altes, W. K. 2023. Access to land: Markets, policies and initiatives. Sustainability 15(6): 5097. https://doi.org/10.3390/ su15065097
- Leslie, I. S., J. Wypler, and M. M. Bell. 2019. Relational agriculture: Gender, sexuality, and sustainability in U.S. Farming. Society & Natural Resources 32(8): 853–874. https://doi.org/10.1080/0894 1920.2019.1610626
- Lillemets, J., I. Fertő, and A.-H. Viira. 2022. The socioeconomic impacts of the CAP: Systematic literature review. *Land Use Policy* 114: 105968. https://doi.org/10.1016/j.landusepol.2021.105968
- Lobley, M., and J. R. Baker. 2012. Succession and retirement in family farm businesses. In *Keeping it in the family: International perspectives on Succession and Retirement on Family farms*, Ashgate.
- Low, S. A., A. Andalja, E. Beaulieu, N. Key, S. Martinez, A. Melton, A. Perez, K. Ralston, H. Stewart, S. Suttles, S. Vogel, and B. B. R. Jablonski. 2015. *Trends in U.S. Local and Regional Food Systems: Report to Congress* (AP-068). USDA-Economic Review Service.
- MacDonald, J. M. 2020. Tracking the consolidation of U.S. Agriculture. Applied Economic Perspectives and Policy 42(3): 361–379.
- MacDonald, J. M., R. A. Hoppe, and D. Newton. 2018. Three decades of consolidation in U.S. Agriculture. Economic Information Bulletin 189 U.S. Department of Agriculture. https://www.ers.usda. gov/webdocs/publications/88057/eib-189.pdf?v=43172. Economic Research Service.
- Magnan, A., M. Davidson, and A. A. Desmarais. 2023. They call it progress, but we don't see it as progress': Farm consolidation and land concentration in Saskatchewan, Canada. *Agriculture*

and Human Values 40(1): 277–290. https://doi.org/10.1007/ s10460-022-10353-y

- MALPF. 2022. FY 2022 Report. Maryland Agricultural Land Preservation Foundation. https://mda.maryland.gov/malpf/Documents/ MALPF%20annual%20report%20%282%29.pdf
- Maryland Agricultural Commission. 2006. A statewide plan for agricultural policy and resource management. https://farmlandinfo. org/wp-content/uploads/sites/2/2019/09/Md_Statewide_Strategic Plan 06 2006 1 0.pdf
- Minnesota Department of Agriculture. 2023. Connecting with Emerging Farmers | Minnesota Department of Agriculture. https:// www.mda.state.mn.us/connecting-emerging-farmers
- Meehan, M. 2016. Investigating the Possibility of a Beginning Farmer Loan Program or Tax Incentive in Connecticut. New England Land Access Policy Project, American Farmland Trust, Land for Good, and Conservation Law Foundation. https://landforgood. org/wp-content/uploads/LAPP-Investigating-the-Possibility-ofa-Beginning-Farmer-Loan-Program-or-Tax-Incentive-in-Connecticut.pdf
- Metelerkamp, L., S. Drimie, and R. Biggs. 2019. We're ready, the system's not– youth perspectives on agricultural careers in South Africa. Agrekon 58(2): 154–179. https://doi.org/10.1080/030318 53.2018.1564680
- Minkoff-Zern, L. 2019. The New American Farmer. MIT Press. https:// mitpress.mit.edu/9780262537834/the-new-american-farmer/
- Minnesota Legislature. 2007. HF 568 as introduced—85th Legislature. Office of the Revisor of Statutes. https://www.revisor. mn.gov/bills/text.php?number=HF568%26version=0%26sessio n=ls85%26session year=2007%26session number=0
- Minnesota Legislature. 2017. *HF 608 as introduced—90th Legislature*. Office of the Revisor of Statutes. https://www.revisor. mn.gov/bills/text.php?number=HF608%26version=0%26sessio n=ls90%26session year=2017%26session number=0
- Mishra, A. K., and H. S. El-Osta. 2008. Effect of agricultural policy on succession decisions of farm households. *Review of Econom*ics of the Household 6(3): 285–307. https://doi.org/10.1007/ s11150-008-9032-7
- Mishra, A. K., R. Durst, and H. S. El-Osta. 2005. USDA ERS How Do U.S. Farmers Planfor Retirement? (Amber Waves). US Department of Agriculture. https://www.ers.usda.gov/amber-waves/2005/ april/how-do-u-s-farmers-plan-for-retirement/
- Mohanty, B. B., and P. K. Lenka. 2023. For them farming may be the last resort, but for us it is a new hope': Ageing, youth and farming in India. *Journal of Agrarian Change* 23(4): 771–791. https://doi. org/10.1111/joac.12538
- Montgomery, E. 2020. "Beginning Farmer Tax Credit and Custom Farming Contract Tax Credit: Tax Credits Program Evaluation Study". Research and Policy Division Iowa Department of Revenue.
- NYFC. 2018. National Young Farmers Coalition | Minnesota Young Farmers Organize to Pass Innovative Law (2018, EP5). Retrieved January 18, 2023, from https://www.youngfarmers.org/2018/08/ minnesota-young-farmers-organize-to-pass-innovative-law/
- Omnibus Agriculture Supplemental Appropriations, SF 3955, Minnesota State Senate 93, and S3955-1 45. 2024. https://www.revisor. mn.gov/bills/text.php?number=SF3955%26version=latest%26s ession=ls93%26session_year=2024%26session_number=0
- Opheim, T. 2016. The future of Family farms: Practical farmers' legacy Letter Project. University of Iowa.
- Patton, M. Q. 2015. Qualitative Research & Evaluation Methods: Integrating Theory & Practice. Sage Publications, Inc. Fourth.
- Pitson, C., J. Bijttebier, F. Appel, and A. Balmann. 2020. How much farm succession is needed to ensure resilience of Farming systems? *Eurochoices* 19(2): 37–44. https://doi. org/10.1111/1746-692X.12283

- Raggi, M., Sardonini, L., Viaggi, D. (2013). The effects of the Common Agricultural Policy on exit strategies and land re-allocation. *Land Use Policy* 31: 114–125. https://doi.org/10.1016/j. landusepol.2011.12.009
- Richards, K. and Hemphill, M. 2017. A Practical Guide to Collaborative Qualitative Data Analysis. *Journal of Teaching in Physical Education* 37: 1–20. https://doi.org/10.1123/jtpe.2017-0084
- Rippon-Butler, H. 2020. Land Policy: Towards a More Equitable Farming Future (p. 31). National Young Farmers Coalition. https:// www.youngfarmers.org/land/wp-content/uploads/2020/11/Land-PolicyReport.pdf
- Rissing, A. 2019. Profitability vs. Making It: Causes and Consequences of Disembedding Beginning Farms' Finances. *Culture, Agriculture, Food and Environment,* 41(2), 149–157. https://doi. org/10.1111/cuag.12234
- Roman-Alcalá, A. 2024. Land reform in the United States: Lost cause or simply a cause that has been lost? *Elementa* 12(1): 00087. https://doi.org/10.1525/elementa.2023.00087
- Rosenberg, G. N. 2016. The 4-H Harvest: Sexuality and the state in Rural America. University of Pennsylvania.
- Rosenberg, N., and B. W. Stucki. 2018. What's the evidence that young farmers are the least diverse—And smallest—Group of farmers in the country? The authors respond (The Counter). https://the-counter.org/young-farmer-author-response/
- Schilling, B., J. D. Esseks, J. Duke, P. Gottlieb, and L. Lynch. 2015. The future of preserved farmland: Ownership succession in three Mid-atlantic States. *Journal of Agriculture Food Systems* and Community Development 1–25. https://doi.org/10.5304/ jafscd.2015.052.008
- Schroeter, J. R., A. M. Azzam, and J. D. Aiken. 2006. Anti-corporate farming laws and industry structure: The case of cattle feeding. *American Journal of Agricultural Economics* 88(4): 1000–1014. https://doi.org/10.1111/j.1467-8276.2006.00912.x
- Shattuck, A., J. Grajales, R. Jacobs, S. Sauer, S. S. Galvin, and R. Hall. 2023. Life on the land: New lives for agrarian questions. *The Journal of Peasant Studies* 50(2): 490–518. https://doi.org/10.1 080/03066150.2023.2174859
- Shoemaker, J. A. 2020. Fee simple failures: Rural landscapes and race. Michigan Law Review 119: 1695–1756.
- Sippel, S. R., and O. Visser. 2021. Introduction to symposium 'Reimagining land: Materiality, affect and the uneven trajectories of land transformation.' *Agriculture and Human Values*, 38(1), 271–282. https://doi.org/10.1007/s10460-020-10152-3
- Suryanata, K., M. Mostafanezhad, and N. Milne. 2021. Becoming a New Farmer: Agrarianism and the contradictions of diverse Economies*. *Rural Sociology* 86(1): 139–164. https://doi.org/10.1111/ ruso.12355
- Tauer, L. 2019. Farmer productivity by age in the United States. International Journal of Agricultural Management 8(2): 74–80.
- UN. 2015. THE 17 GOALS Sustainable Development. United Nations Department of Economic and Social Affairs. https://sdgs.un.org/ goals
- US Census Bureau. 1920. Table 16. Colored Operators by Race and Tenure, By Divisions and States: 1920 and 1910 (Census of Agriculture). US Department of Commerce. https://agcensus.library. cornell.edu/wp-content/uploads/1920-Farm_Statistics_By_ Race Nativity Sex.pdf
- US Census Bureau. 1977. Maryland State and County Data: Highlights of the State's Agriculture: 1974 and 1969 (20; Census of Agriculture). US Department of Commerce. https://agcensus. library.cornell.edu/wp-content/uploads/1974-Maryland-1974-01full.pdf
- USDA. 2020. 2017 National resources inventory summary report. Natural Resources Conservation Service and Center for Survey Statistics and Methodology, Iowa State University. https://www.

 $nrcs.usda.gov/sites/default/files/2022-10/2017 NRISummary_Final.pdf$

- USDA-FSA. 2023. Biden-Harris Administration Announces Intended Investment of Approximately \$300 Million in 50 Projects Increasing Land, Capital, and Market Access for Underserved Producers. US Department of Agriculture, Farm Service Agency. https://www.fsa.usda.gov/news-room/news-releases/2023/ biden-harris-administration-announces-intended-investment-ofapproximately-300-million-in-50-projects-increasing-land-capital-and-market-access-for-underserved-producers
- USDA-NASS.2015. Farmland ownership and tenure (ACH 12–27; 2012 Census of Agriculture Highlights). US Department of Agriculture. chrome-extension://efaidnbmnnnibpcajpcglclefind mkaj/https://www.nass.usda.gov/Publications/Highlights/2015/ TOTAL Highlights.pdf
- USDA-NASS. 2022. Table 8. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2022 and 2017 (2022 Census of Agriculture). https://www.nass.usda.gov/Publications/AgCensus/2022/Full_Report/Volume_1,_Chapter_2_County_Level/ Maryland/st24 2 008 008.pdf
- USDA-NASS. 2023. 2023 agricultural land: Land values and cash rents (Nos. 2023–6). National Agricultural Statistics Service, US Department of Agriculture. https://www.nass.usda.gov/Publications/Highlights/2023/2023LandValuesCashRents FINAL.pdf
- USDA-NASS. 2023. Land Values: 2023 Summary (1949–1867). USDA National Agricultural Statistics Service. https:// downloads.usda.library.cornell.edu/usda-esmis/files/ pn89d6567/9w033j15z/2v23xb225/land0823.pdf
- USDA-NASS. 2024a. Table 1. Historical Highlights: 2022 and Earlier Census Years (Census of Agriculture). National Agricultural Statistics Service, USDA. https://www.nass.usda.gov/Publications/AgCensus/2022/Full_Report/Volume_1,_Chapter_1_US/ st99 1 001 001.pdf
- USDA-NASS. 2024b. Table 1. Historical Highlights Maryland State and County Data: 2022 and Earlier Census Years (Census of Agriculture) [Census of Agro]. National Agricultural Statistics Service, USDA. https://agcensus.library.cornell.edu/wp-content/ uploads/1974-Maryland-1974-01-full.pdf
- USDA-NASS. 2024c. Table 52. Selected Producer Characteristics: 2022 and 2017 (2022 Census of Agriculture). US Department of Agriculture. https://www.nass.usda.gov/Publications/ AgCensus/2022/Full_Report/Volume_1,_Chapter_1_US/ st99 1 052 052.pdf
- USDA-NASS. 2024d. Table 69. Selected Farm Characteristics— Farms with New and Beginning Producers: 2022 and 2017 (US Census of Agriculture). National Agricultural Statistics Service, USDA. https://www.nass.usda.gov/Publications/AgCensus/2022/ Full Report/Volume 1, Chapter 1 US/st99 1 069 069.pdf
- USDA-NRCS. 2018. *Historically Underserved Farmers and Ranchers*. Getting Assistance. https://www.nrcs.usda.gov/ getting-assistance/underserved-farmers-ranchers
- USDA-NRCS. 2023. Limited Resource Farmer/Rancher—Beginning Farmer Definition. Limited Resource Farmer/Rancher Self Determination Tool. https://lrftool.sc.egov.usda.gov/BFRP_Definition.aspx
- Valliant, J., and J. Freedgood. 2020. Land Access Policy incentives: Emerging approaches to transitioning Farmland to a New Generation. Journal of Agriculture Food Systems and Community Development 9(3): 71–78. https://doi.org/10.5304/jafscd.2020.093.027
- Valliant, J. C. D., K. Z. Ruhf, K. D. Gibson, J. R. Brooks, and J. R. Farmer. 2019. Fostering farm transfers from farm owners to unrelated, new farmers: A qualitative assessment of farm link services. *Land Use Policy* 86: 438–447. https://doi.org/10.1016/j. landusepol.2019.05.004
- Valliant, J. C. D., S. Dickinson, Y. Zhang, L. Golzarri-Arroyo, and J. R. Farmer. 2021. The landowner role in beginning farmer/rancher

land access: Predictors of landowners' views of extrafamilial farm transfer to a BFR. *Agricultural Finance Review* 82(3): 522–537. https://doi.org/10.1108/AFR-05-2021-0054

- van der Ploeg, J. D., J. C. Franco, and S. M. Borras. 2015. Land concentration and land grabbing in Europe: A preliminary analysis. *Canadian Journal of Development Studies / Revue Canadienne* d'études Du Développement 36(2): 147–162. https://doi.org/10.1 080/02255189.2015.1027673
- Vang, S. 2024. Bill Summary H.F. 4547 as Introduced (Minnesota House Research) [Bill Summary]. Minnesota House of Representatives. https://house.mn.gov/hrd/bs/93/HF4547.pdf
- Van Sant, L., T. Shelton, and K. Kay. 2023. Connecting country and city: The multiple geographies of real property ownership in the US. *Geography Compass* 17(2): e12677. https://doi.org/10.1111/ gec3.12677
- Washington State 2022 Supplemental Capital Budget, SSB5651, 2022 Regular Session, 141. 2023. https://lawfilesext.leg.wa.gov/biennium/2021-22/Pdf/Bills/Senate%20Passed%20Legislature/5651-S.PL.pdf?q=20240613133628
- White, B. 2019. "Rural Youth, Today and Tomorrow." *IFAD Research Series: 2019 Rural Development Report*. Rome: IFAD: International Fund for Agricultural Development.
- Whitt, C., N. Miller, and R. Oliver. 2022. America's farms and ranches at a glance. Economic Information Bulletin 247 U.S. Department of Agriculture. https://www.ers.usda.gov/webdocs/publications/105388/eib-247.pdf?v=489.2. Economic Research Service.
- Williamson, J. M., and A. L. Katchova. 2013. Tax-Exempt Bond Financing for beginning and low-equity farmers: The case of 'Aggie Bonds'. *Journal of Agricultural and Applied Economics* 45(3): 485–496. https://doi.org/10.1017/S1074070800005009
- Zagata, L., and L.-A. Sutherland. 2015. Deconstructing the 'young farmer problem in Europe': Towards a research agenda. *Journal of Rural Studies* 38: 39–51. https://doi.org/10.1016/j. jrurstud.2015.01.003
- Żmija, K., A. Fortes, M. N. Tia, S. Šūmane, S. N. Ayambila, D. Żmija, Ł. Satoła, and L.-A. Sutherland. 2020. Small farming and generational renewal in the context of food security challenges. *Global Food Security* 26 https://doi.org/10.1016/j.gfs.2020.100412
- Zulauf, C. 2021. Farmers. In Handbook of rural aging, Routledge.

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