

Trends and Barriers to Underserved Farmers' Participation in Federal Conservation Programs and Their Association with Policy Changes

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On April 27, 1935, the Soil Conservation Service (SCS) was established by Law 74-46 within the US Department of Agriculture (USDA-NRCS, 2025b). It was later renamed the Natural Resources Conservation Service (NRCS). This reflected federal recognition that supporting conservation practices serves the national interests by reducing the environmental impacts of agriculture and protecting the country's natural resources.

Federal conservation programs have been implemented by the NRCS to support agricultural initiatives that protect soil, water, and other natural resources. Prominent programs include the Agricultural Conservation Easement Program (ACEP), the Conservation Reserve Program (CRP), the Conservation Stewardship Program (CSP) and the Environmental Quality Incentives Program (EQIP). A key component of these programs is providing cost-share support and incentive payments for farmers to encourage either to retire vulnerable land from production for a set period or to adopt conservation practices.

EQIP and CSP are major conservation programs designed to support the adoption of conservation practices to address resource concerns. While EQIP assists producers to make beneficial changes to production systems, enhancing natural resources, CSP encourages producers to improve, maintain, and manage existing conservation activities and undertake additional ones (US Congress, 2008).

Since these programs are funded by taxpayers, they are designed with the objective that each dollar spent on conservation payments delivers the greatest possible environmental benefits. This requires that payments encourage farmers to adopt practices they would not implement otherwise, a concept known as additionality (Claassen et al., 2014). Moreover, programs often use

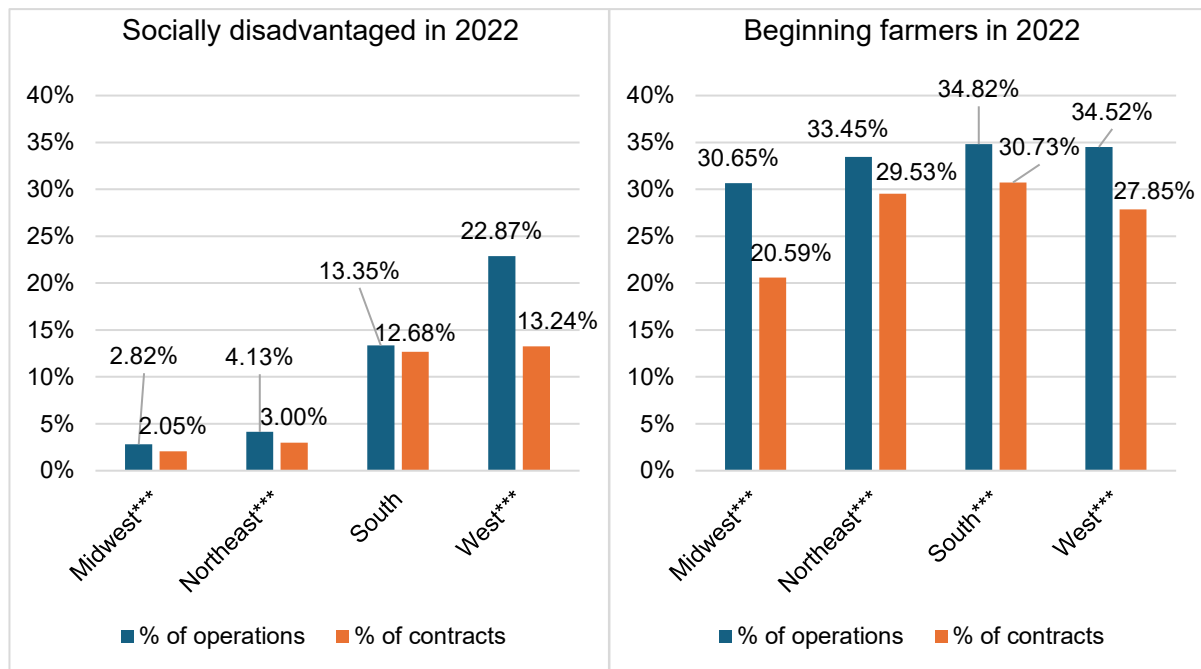
tools such as ranking and bidding to decide which projects receive funding, aiming to ensure that taxpayers' money is used efficiently (Babcock et al., 1996). However, there is evidence that NRCS's processes are not sufficient to optimize the benefit of EQIP funds (US GAO, 2017).

Another important factor affecting the efficiency of public funds and one that warrants greater attention is inequity in access to conservation funding. Farm Bill legislation and USDA policy define historically underserved farmers and ranchers (HUFRRs) as groups who "have been historically underserved by, or subject to discrimination in, Federal policies and programs" (USDA, 2022). Several studies suggest that the awareness level of conservation programs and their mechanisms is low and that HUFRRs, in particular, face challenges to participation (McCann and Núñez, 2005; McCann and Claassen, 2016; Russell, Hossfeld, and Mendez, 2021; Guynn, Player, and Burns, 2024).

The environmental benefits of conservation funding are not fully realized when application barriers limit participation. Past studies have shown HUFRRs to be disproportionately located on marginal and environmentally sensitive lands and more exposed to resource concerns (Nickerson and Hand, 2009; Horst and Marion, 2019; Fagundes et al., 2020). Therefore, improving accessibility for these farmers is not only a matter of social justice but also a key factor in ensuring efficient public spending on conservation.

For example, red cedar trees became the number one resource concern in Oklahoma in 2013. These cedars are associated with wildfire, drought, and reduced grazing profitability (Jeffries et al., 2023), and their removal is a targeted EQIP practice in that state. Fagundes et al. (2020) found that red cedar's encroachment in Oklahoma disproportionately impacted

Figure 1. Share of Operations and Conservation Program Contracts Held by Socially Disadvantaged and Beginning Farmers



Note: Percentage of operations refers to the share of all operations with at least one operator in the respective category (socially disadvantaged or beginning farmer). Percentage of contracts refers to the share of EQIP and CSP contracts held by farmers in that category. Single, double, and triple asterisks (*, **, ***) indicate a statistically significant difference between the percentage of operations and the percentage of contracts within that region at the 10%, 5%, and 1% significance level, respectively.

Source: US Department of Agriculture, National Agricultural Statistics Service (2023) and USDA (2025).

Black farmers, a socially disadvantaged group. They also found that EQIP approval rates for cost-share assistance for Black farmers (5.35% of applications) were statistically significantly lower than those for White farmers (10.15% of applications). In their study, multiple Black farmers reported not receiving the same program information as White farmers and ranchers, which hampered their success in obtaining EQIP funding for effective red cedar management. This illustrates how limited access threatens USDA conservation goals.

This article reviews national data on HUFRRs' participation in federal conservation programs and examines how these patterns relate to administrative processes, structural barriers, and recent policy changes. Using Freedom of Information Act (FOIA)-based contract data and Census of Agriculture statistics, the article describes trends in EQIP and CSP participation across producer groups and assesses whether major institutional milestones have been associated with changes in HUFRR contract numbers. The aim is to provide a clear view of how accessibility has evolved, identify remaining constraints, and inform policy discussions on equity and efficiency in conservation program design.

Accessibility and Awareness of Federal Conservation Programs

Participation in USDA conservation programs such as ACEP, CRP, CSP and EQIP involves a sequence of steps: establishing eligibility, developing a conservation plan with NRCS staff, and applying during designated or continuous sign-up periods (USDA-NRCS, 2025a). To be considered for participation, producers must meet a set of eligibility criteria. This includes having farms and fields registered with the USDA Farm Service Agency (USDA-FSA) and demonstrating operational control of their land over the duration of the proposed conservation contract (USDA-NRCS, 2024).

While the structure of these programs is technically open to all eligible producers operating eligible land, in practice participation is limited by producers' awareness and administrative goals, farm size, ability to coordinate with USDA personnel, trust in federal agencies, and NRCS administrative capacity (Gan et al., 2005; Reimer and Prokopy, 2014; McCann and Claassen, 2016; Russell, Hossfeld, and Mendez, 2021; Kadam et al., 2025).

One would expect HUFRRs' participation in conservation programs to be proportional to their share of total operations if their interest in participation was as frequent as among non-HUFRRs and if they had similar eligibility conditions and potential for environmental benefits. This does not seem to be the case. Data from the Census of Agriculture and NRCS's Financial Assistance (USDA-NASS, 2023; USDA, 2025) show that the share of conservation assistance contracts benefiting socially disadvantaged and beginning farmers is statistically lower than these groups' share of total farm operations in most US regions (Figure 1). This difference may arise from two sources: issues with data comparability and participation-related factors, including lack of interest and barriers that discourage or prevent farmers from applying or enrolling.

From a data standpoint, comparing the share of conservation contracts awarded to a group with their share of total farm operations presents important caveats, as a single operation may hold multiple contracts and a contract might also include multiple producers (USDA-NRCS, 2024). However, past studies corroborate the existence of disparities in access to conservation funding. A recent study by the USDA Economic Research Service (Todd et al., 2024) found that socially disadvantaged producers received proportionally fewer conservation payments between 2017 and 2020 compared to other producers. Key et al. (2025) showed that this disparity between socially disadvantaged farmers and others in 2017 is observed in all US agricultural and credit programs for which there is data. Similarly, beginning farmers have historically participated in these programs at lower rates than established farms, a disparity that also extends to commodity program payments (Agricultural Risk Coverage, Price Loss Coverage, and Dairy Margin Coverage) (Ahearn, 2011).

Demand-Driven Barriers: Farmer Interest and Trust in Government Agencies

If Figure 1 reflects, at least in part, persistent disparities in program access, could this be due to a lack of interest in participation among HUFRRs? While possible, it is unlikely. Farm Bill legislation and USDA policy have defined HUFRRs farmers as groups who "have been historically underserved by, or subject to discrimination in, Federal policies and programs" (USDA, 2022). By definition, even among those actively seeking assistance, many have historically faced obstacles to successfully accessing programs. Therefore, unless all accessibility barriers have been eliminated, some producers are still unable to participate due to unequal conditions, which helps explain disparities in access to conservation programs.

In addition, a past study analyzing correlation between producer types, highly erodible soils in selected states

(Louisiana, Arkansas, Mississippi, and Alabama), and proximity to polluted water bodies at the national level found that beginning and socially disadvantaged farmers were disproportionately located on environmentally sensitive lands (Nickerson and Hand, 2009). This might suggest that resource concerns and potential environmental benefits may further motivate these farmers to adopt conservation practices in pursuit of their economic goals. In fact, Nickerson and Hand (2009) reported that the average number of resource concerns addressed in EQIP contracts was higher among beginning and socially disadvantaged farmers than among other farmer types.

A final piece of evidence suggesting that lack of interest does not explain lower participation is that HUFRRs face greater resource constraints than other farms. They tend to earn less farm income, experience higher financial risk, and are less likely to hold loans (Ahearn, 2011; Todd et al., 2024). This implies that, regardless of the size of the investment, HUFRRs are more likely than non-HUFRRs to need financial assistance to carry out changes due to tighter resource constraints. It could also suggest that additionality—a key criterion for allocating conservation funds efficiently—may be higher among these producers.

Although lack of interest is unlikely to explain lower participation among underserved farmers, the literature often cites a historical lack of trust in government agencies as a barrier (Robillard et al., 2024; Kadam et al., 2025). Even among eligible farmers aware of the programs, the decision to apply is influenced by their relationship with USDA offices and how well program requirements align with operational goals. For HUFRRs, these relationships have often been shaped by experiences of perceived gender and racial discrimination—particularly among Black farmers and women (Touzeau, 2019; Guynn, Player, and Burns, 2024). Prior studies have documented disparities in land use conservation enforcement and FSA loan access for Black farmers (Balvanz et al., 2011), further undermining trust in USDA programs.

The USDA took meaningful steps to address equity concerns across administrations. These include reforms in Farm Service Agency procedures, the creation of minority- and woman-designated loan programs, and settlements to compensate farmers who experienced discrimination (Cowan and Feder, 2013; USDA-FSA, 2025). In addition, Section 22007 of the Inflation Reduction Act allocated \$10 million to an Equity Commission to address racial equity issues within USDA and \$2.2 billion in financial assistance to support HUFRRs, ranchers, and foresters who experienced discrimination in USDA lending programs before January 1, 2021.

Supply-Driven Barriers: Program Design and Implementation

Low awareness of conservation programs, particularly EQIP and CSP, has been commonly reported by farmers in past studies (Reimer and Prokopy, 2014; McCann and Claassen, 2016). HUFWRs have also cited low program clarity and visibility (Guynn, Player, and Burns, 2024), compounded by lack of uniformity in the application and award processes across USDA offices (Russell, Hossfeld, and Mendez, 2021). These factors make it difficult to identify suitable programs and to apply for assistance. Beyond challenges related to awareness and access, high transaction costs—such as the effort required to submit a competitive application and demonstrate compliance—are commonly cited as barriers to participation (Reimer and Prokopy, 2014; McCann and Claassen, 2016; Guynn, Player, and Burns, 2024). These costs are relatively lower for larger farms, and applicants with higher education or greater experience often have a comparative advantage (McCann and Claassen, 2016; Prokopy et al., 2019). Because HUFWRs tend to be younger, have lower average educational levels, and operate more diversified systems (Todd et al., 2024), these barriers are often more pronounced among them.

Another issue is that compliance with conservation contracts often requires that producers implement practices before being reimbursed. In the next section, we will discuss that this challenge has been partially addressed by the 2008, 2014, and 2018 Farm Bills, which authorized advance payments for underserved producers. However, a recent study shows that the lack

of upfront resources is still cited as a barrier by underserved producers (Guynn, Player, and Burns, 2024). This is particularly significant for groups such as limited-resource and socially disadvantaged producers, who often operate smaller acreages, earn lower average net farm income, face greater financial risk, and are less likely to secure loans from the Farm Credit System or commercial banks compared to non-Hispanic White farmers (Todd et al., 2024).

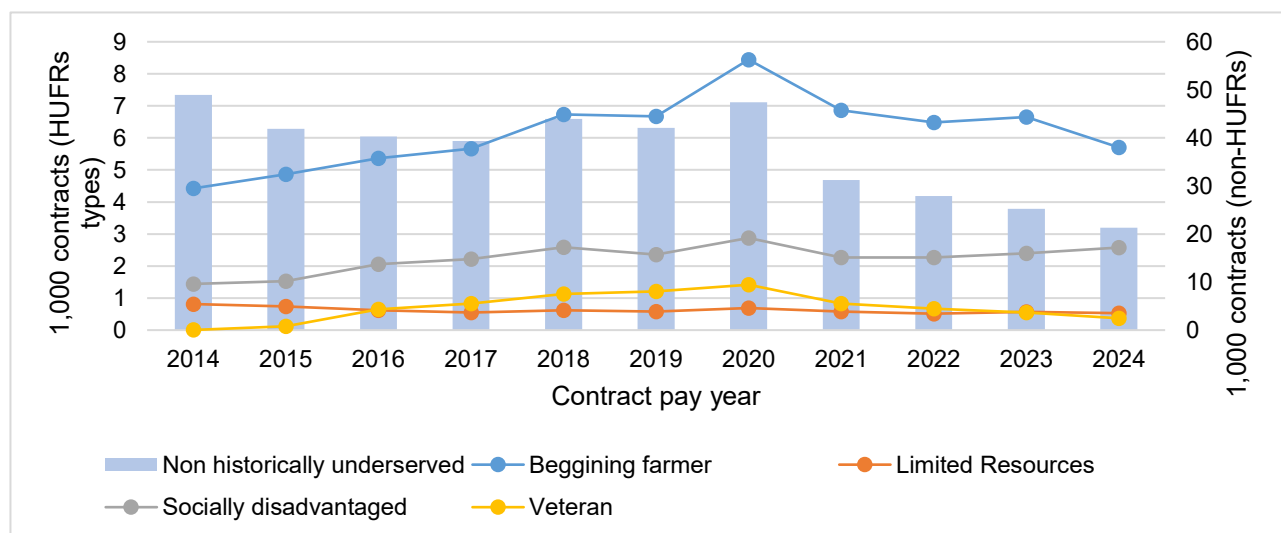
The comparison between HUFWRs and non-HUFWRs presented above highlights the unique challenges that prevent underserved producers from benefiting from federal programs to the same extent as other groups. The USDA has long recognized these disparities, prompting changes in program design aimed at improving equity for these producers.

Initiatives to Improve Access for HUFWRs

Since 2008, several Farm Bill provisions have sought to improve access to USDA conservation programs for HUFWRs. These efforts have evolved to include financial incentives and administrative flexibilities aimed at reducing participation barriers. Figures 2a and 2b display the number of CSP and EQIP contracts awarded to different categories of underserved farmers by contract pay year (USDA, 2025). These data were obtained through a FOIA request. The pay year is the year in which contract practices were certified as installed.

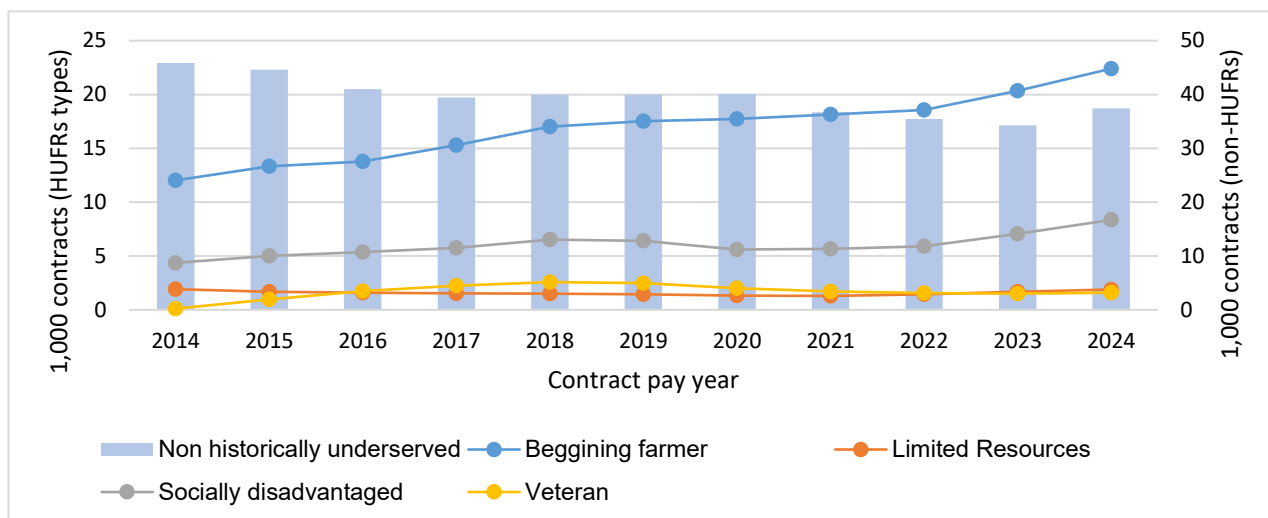
While non-HUFWRs consistently received more CSP contracts, understanding how HUFWRs' participation changed around major institutional milestones requires

Figure 2a. Number of CSP Contracts, by Contract Pay Year



Source: USDA (2025).

Figure 2b. Number of EQIP Contracts, by Contract Pay Year



Source: USDA (2025).

regression analysis. This analysis separates milestone-related changes from what would normally be expected based on each state’s typical level of participation and the national growth trend in contract numbers. It compares the actual number of HUFr contracts with the number that would have been expected if the national trend had continued for each state given its historical average. This expected value is referred to as the pre-event projected trend. The results in Table 1 indicate that HUFr participation increased at key institutional milestones.

Although our dataset begins in 2014, earlier reforms provide important context. The 2002 Farm Bill introduced higher cost-share rates for limited resource and beginning farmers up to 90%, compared to the standard 75% (US Congress, 2002). The 2008 Farm Bill extended higher cost-share rates to encompass socially disadvantaged farmers in addition to limited resource and beginning farmers or ranchers, authorized advance payments of up to 30% for these three types of producers, and introduced equity-oriented measures such as 5% EQIP set-asides for beginning and socially disadvantaged producers. It also reduced EQIP payment

Table 1. Estimated Associations Between Institutional Milestones and CSP/EQIP Contract Growth, by Producer Type

	CSP					EQIP				
	Non-HU	BEG	LR	SD	VET	Non-HU	BEG	LR	SD	VET
Linear time trend	-8.90***	4.97*	-5.58**	4.35**	2.05	-4.6***	2.42***	-2.14	1.72	13.08
2018 Farm Bill	46.52**	22.26	21.68*	11.36	93.77	1.93	4.26*	-3.05	9.83	15.30
Inflation Reduction Act (2023)	19.16*	12.69	34.88***	2.35	-37.44	3.70	12.74***	32.27**	31.11***	-48.63
2024 minimum CSP payment increase	-5.64*	-11.3***	-5.34*	20.65***	-25.61*	15.72***	6.97***	12.49***	21.13***	-0.65

Note: Non-HU = non-historically underserved farmer or rancher; BEG= beginning farmer or rancher; LR = limited-resource farmer or rancher; SD=socially disadvantaged farmer or rancher; VET=veteran farmer or rancher. We estimate a state fixed-effects (within) panel model and report Driscoll–Kraay standard errors, which are robust to heteroskedasticity, cross-sectional dependence, and serial correlation up to lag 2. All numbers in the table show how the number of contracts changed relative to what we would have expected based on each state’s earlier trend (“pre-event projected trend”). In other words, they tell us how much higher or lower the number of contracts was compared to what past patterns would predict for the same period. For the annual linear trend, the number is the average percentage change per year. They report exact percent changes from fixed-effects regressions with a log outcome. For indicator variables (2018 Farm Bill, IRA, 2024 Minimum Payment Increase), values are computed as $100 \times [\exp(\beta) - 1]$. Asterisks denote statistical significance (***) 1%, ** 5%, * 10%).

Source: The authors, using data from USDA (2025).

limits from \$450,000 to \$300,000 to encourage more equitable fund distribution (Aussenberg et al., 2008; US Congress, 2008).

In 2010, CSP adopted a minimum contract payment of \$1,000 to improve participation among small-scale farms, as described by the National Sustainable Agriculture Coalition (NSAC, 2010). The 2014 Farm Bill maintained earlier provisions and added veteran farmers or ranchers among the HUFWR categories eligible for higher cost-share rates and advance payments. It also increased the limit for advance payments to up to 50% of the cost-share rate (US Congress, 2014).

The 2018 Farm Bill maintained earlier HUFWR provisions and added 5% EQIP set-asides for veteran and limited-resource producers (NSAC, 2019). It allowed HUFWR participants to receive at least 50% of EQIP cost-share payments upfront (US Congress, 2018), reducing the financial burden of implementing conservation practices, a commonly cited barrier to participation (Guynn, Player, and Burns, 2024). The minimum CSP contract payment was raised from \$1,000 to \$1,500 (NSAC, 2024a), helping to offset the higher fixed participation costs faced by small farms (McCann and Claassen, 2016; NSAC, 2024a,b). Regression results show that CSP contracts rose by 21.68% for limited-resource farmers and by 46.52% for non-HUFWRs, and EQIP contracts for beginning farmers rose by 4.26% above pre-Farm Bill projections. These numbers illustrate that the set-asides and changes in minimum contract payment improved accessibility without compromising access for non-HUFWRs.

In 2023, the Inflation Reduction Act (IRA), through Section 22007, advanced further structural reforms to improve accessibility to USDA programs for HUFWRs (White House, 2023). The IRA significantly expanded levels of conservation funding and led NRCS to hire between 1,600 and 2,000 new employees for conservation and technical support positions (Clayton, 2025). In fiscal year 2023, IRA-supported working lands programs included 5,218 contracts across all farm types, with total obligations of \$147.54 million through EQIP (equivalent to 12% of total dollars obligated through the program in 2022) and \$170.96 million through CSP (29% of total dollars obligated through the program in 2022). By fiscal year 2024, IRA funding grew substantially, with obligations reaching \$1.23 billion through EQIP (109% of 2022 levels) and \$364 million through CSP (60% of 2022 levels) (USDA-NRCS, 2025c).

Following IRA, HUFWRs experienced notable increases in contract numbers. CSP contracts increased by 34.88% for limited-resource farmers and 19.16% for non-HUFWRs. EQIP contracts grew by 12.74% for beginning farmers, 32.27% for limited-resource farmers, and 31.11% for socially disadvantaged farmers, reflecting broad benefits from the funding expansion.

In 2024, the minimum CSP contract payment increased to \$4,000. IRA allocations rose from \$137 million to \$1.26 billion for EQIP and from \$171.9 million to \$357.9 million for CSP (NRCS, 2025c). Controlling for historical growth and prior policy effects, EQIP contracts exceeded projected trends by 6.97% for beginning farmers, 12.49% for limited-resource farmers, 21.13% for socially disadvantaged farmers, and 15.72% for non-HUFWRs. CSP contracts increased 20.65% for socially disadvantaged farmers but declined for beginning farmers (-11.3%), limited-resource farmers (-5.34%), veteran farmers (-25.61%), and non-HUFWRs (-5.64%).

This dynamic shows that the higher inflow of IRA funds in 2024, particularly for EQIP, amplified contract growth across all producer type (except veterans), compounding the increases observed following 2023. In contrast, the decline in CSP contracts for all producer types except socially disadvantaged producers reflects a more complex pattern. In 2023, 30.93% of CSP applicants and 25.45% of EQIP applicants were awarded contracts (Happ, 2024). Our results suggest that the 2024 increase in the CSP minimum payment from \$1,500 to \$4,000 may have intensified the long-standing gap between applications and available funding, a chronic challenge for the CSP program (NSAC, 2024a), by limiting the number of contracts that could be awarded within the funding constraints, thereby increasing competitiveness.

Policy Instability Threatens USDA's Progress in Conservation Programs

Policy stability is crucial and deserves special attention. When producers and NRCS staff face sudden funding freezes or staffing losses, the trust that underpins participation is weakened. In 2025, conservation assistance faced challenges that extend beyond HUFWR groups. The new administration froze funds with intent to review USDA programs, affecting ACEP, CSP, and EQIP contracts (Harrison, 2025). By February 2025, USDA had released \$20 million to fulfill existing contract obligations under these programs, but a significant portion of IRA funds remained unspent and under review as of March 27, 2025 (Harrison, 2025). In mid-April, a federal judge ordered USDA to resume processing grants already awarded under the IRA and to refrain from further freezing of already appropriated conservation funds (Hanrahan, 2025).

This scenario highlights that, despite historical efforts by the federal government, conservation funding in the US remains vulnerable to shifts in administrative priorities. While the federal judge's order to resume conservation grants offers some institutional protection, it cannot undo any harm caused by recent instability. Such disruptions risk undermining the trust between American farmers and USDA and expose producers, particularly those who have already made financial commitments to implement conservation practices, to heightened financial risk due

to delayed reimbursements (NSAC, 2025). The impact of shifting administrative priorities on NRCS staffing is also concerning. NRCS offices have long faced understaffing, a key barrier to conservation program adoption among HUFRRs (Guynn, Player, and Burns, 2024). Layoffs in early 2025 significantly affected the agency, reversing the staffing gains achieved through new hires in 2022 and 2023 (Clayton, 2025).

Conclusion

Federal conservation programs have the potential to create value not only for farmers but for the whole of society, contributing to cleaner water, healthier soils, and more resilient rural communities. This potential, however, is constrained by barriers to participation; eliminating these barriers will require a coordinated effort that integrates agricultural extension on on-farm natural resource management, expanded NRCS service capacity supported by strong staff retention and equity training policies, and program stability.

The documented barriers discussed in this article constrain the pool of applicants for conservation programs, which reduces potential environmental benefits of the highest-ranked applications. This result follows directly from the principle that limiting the set of options also limits the best possible outcome and is sufficient to support the argument that equity and efficiency in conservation programs are closely linked.

Past evidence that HUFRRs are disproportionately located on marginal and environmentally sensitive lands suggests that the environmental benefits lost due to

inequity may be substantial. Research analyzing additionality across producers' type, and comparing conservation program applications, reasons for approval or denial, and potential environmental benefits between HUFRRs and other producers could clarify the determinants of inequity and the magnitude of lost environmental gains. However, such analyses require access to farm-level NRCS data, which are largely not digitized, currently imposing the greatest challenge to advancing this type of research.

From an efficiency perspective, for producers who would not adopt conservation practices without federal assistance, a higher ratio of marginal environmental benefits to NRCS service costs for top-ranked HUFRRs facing participation barriers, relative to lower-ranked current participants, indicates potential efficiency gains through equity initiatives. Estimating NRCS service costs on a contract basis could improve understanding of administrative capacity and the cost implications of expanding the applicant pool. Developing a framework that links service costs to environmental benefits lost due to inequity would allow for reliable estimates of efficiency losses in conservation funding.

Over time, inequity in federal program access creates disparities in competitive conditions and contributes to the exclusion of these groups from the agricultural sector. Future research on structural changes in US farm populations and their relationship to federal program accessibility will be key to understanding the long-term economic and social consequences of inequity.

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