BALANCING BARRIERS TO ENTRY AND ADMINISTRATIVE BURDEN IN VOLUNTARY REGULATION

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Abstract

Voluntary programs have become a recognized instrument for achieving public and private governance goals. As a governance instrument, these programs face a design challenge: to generate societal benefits, a voluntary program must establish stringent standards that support the program's environmental or social goals while minimizing program costs that may deter program participation. We argue that the theoretical framework of administrative burden provides a means to consider how voluntary programs may set and adjust entry barriers to motivate participation while maintaining credibility. The framework's applicability is illustrated through an examination of National Organic Program initiatives to reduce the administrative burden faced by agricultural producers seeking organic certification. Through a discussion drawing on the case, we identify three questions and a series of theoretical expectations for research contributing to a better understanding of the causes and consequences of voluntary program administrative burden.

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Introduction

Voluntary programs have become a recognized instrument for achieving public and private governance goals. Defined broadly as regulatory arrangements where firms opt into voluntary production standards (Potoski and Prakash 2009; Bartley 2011), voluntary programs can benefit both participating firms and the public: firms benefit from the competitive advantage and price premium they secure from program participation, and society benefits from enhanced environmental or social conditions resulting from improved production practices. Because of the potential embodied in the voluntary program ideal, the instrument has been employed in pursuit governance objectives across an array of economic and industrial sectors. Examples range from state-sponsored environmental programs, such as the Environmental Protection Agency's (EPA) 35/50 program, to private ski resort environmental impact standards, and the social responsibility standards of the United Nations Global Compact (UNGC).

Despite the promise voluntary programs offer, a growing body of scholarship indicates that their actual impacts are varied. When compared to nonparticipants, firms involved in the EPA's 35/50 program exhibit lower emissions of toxic pollutants, reflecting some success in realizing program goals (Khanna and Damon 1999). In contrast, participation in the Sustainable Ski Slopes program does not seem to reduce ski resorts' environmental impact (Rivera and De Leon 2004), and members of the UNGC appear to fare worse than nonparticipants in important human and environmental performance measures (Berliner and Prakash 2015). In seeking to explain such mixed outcomes, scholars have highlighted the importance of program design. For example, the relative stringency of voluntary program standards, combined with the relative strength of a program's monitoring and enforcement procedures, help determine the likelihood that participating firms will make meaningful changes to their production practices, thus contributing to the attainment of program goals (Prakash and Potoski 2007).

In this paper we highlight a program design consideration overlooked by much of the voluntary program literature: the administrative burden that is rarely distinguished from program standards and enforcement requirements. Our analysis rests on the basic but important premise that the promise of voluntary programs is first-and-foremost reliant on securing sufficient program participation. We highlight that to generate societal benefits, a voluntary program must balance stringent standards that support the program's environmental or social goals, on one hand, with program costs that deter participation, on the other (Potoski and Prakash 2009; Prakash and Potoski 2007). Building from public management literature on administrative burden experienced in citizen-state interactions (Moynihan et al. 2015), we draw a distinction between the costs of meeting program standards and the burdens that program participants face in learning about and verifying standards compliance. We argue that accounting for voluntary program administrative burden provides a means to consider how programs may set and adjust requirements to motivate firm participation, while at the same time maintaining standards integrity.

This paper contributes to two bodies of literature. First, it provides a conceptual framework through which to consider the distinction between operational program standards and the administrative aspects of meeting program requirements, contributing to theory linking voluntary program design to program participation. Second, it extends the examination of administrative burden beyond public service delivery contexts, such as education, voting, and welfare (Burden et al. 2014; Herd et al. 2013; Moynihan et al. 2015), and into the realm of regulatory functions. The application confirms the relevance of learning and compliance costs, but suggests that the more pronounced psychological burdens found to matter in other policy areas are not likely to be as relevant in voluntary program settings.

The paper begins with a conceptual overview of voluntary programs, and the tensions inherent in voluntary program designs. It then discusses the administrative burden costs inherent to voluntary program contexts. The paper next turns to an empirical example of such administrative burden in the United States Department of Agriculture's (USDA) National Organic Program (NOP). The NOP sets national standards for the practices that are allowed and prohibited in the production of food marketed as organic in the U.S. Participation is quasi-voluntary, as producers are only required to comply with NOP regulations if they choose to label their products as organic. Despite robust organic market growth, the NOP has exhibited declining participation over time - something the Program is attempting to combat through strategies to alleviate the administrative burden placed on participants. Lessons are drawn from the case in a theoretical discussion of administrative burden in voluntary program settings. The paper concludes with an identification of promising avenues for voluntary program administrative burden research.

Voluntary Regulations and Program Design

For analytical purposes, scholars conceptualize voluntary programs as institutional arrangements that produce club goods (Buchanan 1965; Potoski and Prakash 2009). Of particular theoretical importance is the excludable nature of club goods: they are only accessible once an individual or organization has cleared certain entry barriers (akin to paying entrance to a "club"). Accordingly, an important defining characteristic of voluntary programs is that entry barrier requirements separate participants from non-participants, thereby securing the value of program participation. Many programs further offer participants a manner of signaling program participation, such as certification labels that distinguish participants from nonparticipants in the eyes of external stakeholders and consumers (Bartley 2011; Prakash and Potoski 2007). Readily recognizable U.S. examples include Leadership in Energy and Environmental Design (LEED) building certification and USDA organic food certification.

What differentiates voluntary programs from traditional club goods is that program purposes extend beyond the generation of a club good, accessible to only club members, to the production of public benefits in the form of improved environmental or social conditions (Lyon and Maxwell 2008). From a public policy perspective, voluntary programs can therefore be understood as alternatives to traditional command-and-control regulatory approaches for addressing environmental or social problems – instead of mandating industry production standards, voluntary programs incentivize desired production changes through the promise of reputational and competitive benefits (Auld 2014; Fiorino 1999; Potoski and Prakash 2009). Alternatively, voluntary programs offer the potential to encourage private firms to go "above and beyond" the requirements of state mandated regulations (Prakash and Potoski 2007).

Through a policy lens, a voluntary program's ultimate success is determined by the amount of environmental or social condition improvement it generates (Darnall and Sides 2008). This social benefit is most directly a function of a club's specified production standards–*assuming* sufficient program uptake and sustained participation (Kotchen and van't Veld 2009). Strict program standards, however, carry a greater cost for participating firms, identifying an inherent tension: stronger production standards generate greater benefits (e.g., less pollution or better living standards), but also raise participation costs in a manner that increases incentives for firms to evade their commitment to program standards, or avoid participation altogether. This tension is explored in greater detail in the following section.

Institutional Threats and Program Design

The features that make voluntary programs appealing, such as non-coerciveness and flexibility, also pose significant threats to program effectiveness, such as ineffectual standards and program capture (Delmas and Keller 2005; Rivera et al. 2006; Darnall and Sides 2008; Steelman and Rivera 2006). Among the more glaring threats to the realization of societal benefits is shirking – when participants join a program for the reputational benefits it offers, but neglect to implement or adhere to program standards. Program participation can be costly (Kotchen and van't Veld 2009). By shirking club-mandated production requirements, firms maintain the price premium associated with program participation, without incurring the costs of standards compliance.

Prakash and Potoski (2007) conceptualize two dimensions of voluntary program design that can either augment or mitigate the risk of participant shirking. The first is the relative stringency of the standards with which participants are required to comply. Higher club standards increase both the reputational benefits of program membership and the production costs required to adhere with the standards - meaning that there is simply more to gain from shirking. A second factor that influences incentives to shirk is the relative strength of program monitoring and enforcement requirements. The stronger a program's monitoring and enforcement, the less likely firms are to get away with, or possibly even attempt, evading program standards.

--Insert Table 1--

As depicted in Table 1, accounting for the relative stringency of program standards and the strength of program monitoring and enforcement requirements allows one to predict the risk of participant shirking, the societal and club benefits produced by a program, and the relative participant costs. The most immediate tension evident is that the "optimal" program design – one that produces high societal and club benefits (the public and private payoffs of voluntary programs) and offers the greatest protection from shirking – are also associated with the greatest participant costs. Prakash and Potoski state the consequences of these costs succinctly: "While stringent standard clubs with strong [enforcement]. . . might seem the best from an externality generation perspective, these are high-cost clubs that most firms might not find worth their while" (2007, 781).

The Administrative Burden of Voluntary Programs

What the above formulation fails to acknowledge is that many of the costs incurred as a result of strong monitoring and enforcement requirements are administrative in nature. While one might assume that the strictness or lenience of program standards drive participation, the administrative burden of voluntary programs is an oft-cited reason for dropout (Lo and Chang 2007). For example, data collection and recordkeeping requirements have prevented some applicants from accessing Marine Stewardship Council (MSC) seafood certification, despite evident sustainability gains (Foley and McCay 2014). Similarly, farmers interested in environmental certification programs may face constraints on their ability to access program information and the technological capacity to fulfill on standards verification requirements (Falconer 2000).

The administrative aspects of accessing voluntary program benefits, regardless of if the program is sponsored by a governmental or nongovernmental entity, mirror the "bureaucratic encounters" (Kahn et al. 1976) participants face in other program settings. Whether it be translating technical program requirements, filling out initial application paperwork, or submitting documentation of ongoing compliance activities, such tasks align with the established definition of administrative burden as the costs that individuals experience when interacting with a governing entity (Moynihan et al. 2015, 45). Administrative burden research is relevant in any context wherein "the state regulates private behavior or structures how individuals seek public services is a venue to study the burdens imposed in that process" (Moynihan et al. 2015, 44). The fact that voluntary programs are both regulatory institutions and barriers to services further highlights their suitability as contexts for administrative burden research.

An important distinction made in the administrative burden literature is that administrative burden pertains to citizen (or participant) *experiences*, which are distinct from the *rules* and *requirements* that create them (Burden et al. 2014; Heinrich 2016; Moynihan et al. 2015). This distinction aids in the conceptual differentiation between the tasks voluntary program participants undertake to participate in a program and the monitoring and enforcement rules highlighted by Prakash and Potoski (2007). For instance, voluntary environmental program rules and requirements pertain to the environmentally-oriented practices members are expected to adhere to, while the associated administrative burden is reflected in the perceived costs participants encounter while seeking program entry and maintaining membership.

The distinction that the administrative burden framework provides between experiences and rules further draws attention to the participant costs that are not directly anticipated by focusing on monitoring and enforcement requirements. Typically, much of the focus on participant costs within voluntary programs relates to the costs that participants incur in adhering to program standards. However, along with the costs of adhering to standards, voluntary programs also entail learning costs, such as the time and energy participants expend understanding program requirements, their eligibility to join a program, and the likely benefits they would receive from participation.

Learning costs are one of three cost types that are theorized to comprise the administrative burden construct (see Table 2). A second is compliance costs: the direct monetary and nonmonetary expenses program applicants incur accessing program services (Burden et al. 2014; Heinrich 2016; Moynihan et al. 2015). Compliance costs are the burdens most directly related to voluntary program monitoring and enforcement requirements, making up part of the barrier to entry that creates private payoffs for program participation (Bartley 2011; Potoski and Prakash 2009). As such, compliance costs are essential to both incentivizing program participation and generating collective benefits. The most obvious example are the costs associated with operational changes a program applicant effects in order to meet the production standards mandated by a given voluntary program, requiring outlay of both time and resources.

A value of considering compliance costs through the administrative burden framework is in highlighting that some compliance costs often found in voluntary program settings serve no apparent function in the generation of collective benefits. For example, in many voluntary programs, participation requirements include financial transfers akin to program service fees. Still other voluntary program compliance costs are clearly administrative in nature – necessary for the delivery of a program, but not inherent to the production of positive program externalities. For example, the time and resources devoted to initial application completion and documentation of program eligibility, repetition of these processes in periodic re-enrollments, tracking and verification of initial and ongoing standards compliance and associated recordkeeping, etc.

--Insert Table 2--

The third cost type constituting administrative burden is psychological costs – the cognitive and emotional impacts of accessing program services. Psychological costs are thought to be particularly relevant where program participation is stigmatized, for example, in the case of food stamps or welfare services, and potential participants may be deterred by a fear of being perceived negatively for seeking program services (Herd et al. 2013; Moynihan et al. 2015, 44). Considering the nature of voluntary programs as club goods, however, suggests that the cognitive and emotional experiences of voluntary program participants likely differ from those of individuals in other program settings. Perhaps most notably, a principal reason for voluntary program participation is the reputational benefit membership provides (Barney and Zajac 1994); program participation is therefore not likely to result in the psychological cost associated with stigmatized services. Other hypothesized psychological cost aspects, such as increased stress from program requirements and processes and a loss of autonomy, may be more applicable.

The administrative burden framework allows for a more nuanced consideration of voluntary program costs for potential and ongoing voluntary program participants. First, it expands the basic construct "program costs" to include the learning, compliance, and psychological costs associated with program membership. Second, it aids in the distinction of compliance costs essential to voluntary program collective benefits, and those that are not. Finally, attention to the administrative nature of such costs offers a further benefit – the observation that many of these costs may be shared or alleviated by the program administrator in question. For example, Herd et al. (2013) document how Wisconsin increased Medicaid take-up through strategies such as advertising accessible program information, reducing and simplifying program paperwork, and assuming responsibility for verifying eligibility – in essence, shifting burdens from program applicants to the program administration[1]. Similar efforts are visible in voluntary program contexts, as illustrated in the following U.S. organic certification case.

Administrative Burden in the USDA's National Organic Program

Organic food production in the U.S. is governed under the 1990 Organic Foods Production Act (OFPA), which mandated creation of the NOP and uniform national organic standards to replace the patchwork of state government and private organic certification schemes that preceded it. Seen though Prakash and Potoski's (2007) program design dimensions, the evolution of U.S. organic standards can be described as a progression of increasingly stringent standards, and a strengthening of monitoring and enforcement practices. The following case description describes this evolution, the assumed impact on Program participation, and the NOP's efforts to reduce barriers faced by new and continuing Program participants, while maintaining regulatory integrity.

[1] Heinrich (2016) and Kahn et al. (1976) discuss another, largely unintended driver of public program uptake: word-of-mouth information exchanged between those who have engaged with said program and potential participants. Given that psychological costs are not expected to be a significant burden in the context of voluntary program participation, however, it stands to reason that information shared with others about the merits of program participation would be highly correlated with experienced learning and compliance costs. Thus, these "extra-organizational bureaucratic encounters" (Heinrich 2016) may be a driver of program uptake and participation, but are tangential to the focus of this paper on voluntary program design.

Stringent Organic Standards and Strong Monitoring and Enforcement

Early drafts of NOP regulations were roundly criticized as reflecting “watered down” criteria, most notably for allowing irradiation of produce, municipal biosolids (sewage sludge) fertilizer, and genetically modified organisms in organic food production. In response to record levels of opposition in the form of public comments, however, the NOP enacted regulations that were widely hailed as establishing appropriately stringent organic standards (Shulman 2003). Dr. Margaret Mellon of the Union of Concerned Scientists, for example, referred to the NOP regulations as “the most important rule the USDA has issued in 20 years” (as cited in Burros [2000, 22]) for the production criteria that they established.

As outlined by NOP regulations, operations earning more than $5,000 a year from sales of products labeled “organic” must hold USDA organic certification and adhere to NOP regulations. To obtain organic certification, an operation submits an application and organic systems plan to one of the 80 independent public, nonprofit, or private certification agents (48 of which are based in the U.S.) accredited by the NOP. Once an organic systems plan has been approved, the operation is inspected for operational congruence with the plan. Certification must be renewed once a year, which entails submission of changes to the organic systems plan and another on-site inspection. Certifiers have the authority to require changes to an operation’s practices through notices of noncompliance and can move to suspend or revoke a certification for grievous or sustained noncompliance issues.

Despite the NOP’s stringent standards, limited funding throughout the NOP’s early years is credited for restraining the Program’s administrative capacity and resulting in inadequate regulatory enforcement activity (Carter et al. 2015; Harsch 2010). In 2009, ratcheting up regulatory monitoring and enforcement actions under the NOP began. Recognizing the threat that a lack of enforcement posed for consumer confidence in the organic label, USDA Deputy Secretary Kathleen Merrigan announced a 75 percent funding increase and the beginning of a NOP “Age of Enforcement” (McEvoy 2012). Under the new Deputy Administrator Miles McEvoy, the NOP began investigation and enforcement proceedings of fraudulent organic certificates, alongside efforts to tighten the monitoring and enforcement practices of accredited certification agents (Warner 2010) and clarify organic standards “grey areas,” such as access to pasture requirements for any livestock raised in certified organic facilities (Harsch 2010).

The Perceived Participation Consequences of Stringent Standards and Strong Enforcement

The NOP’s 2002 implementation was welcomed by much of the organic industry - a primary proponent for federally-enforced national standards (Amaditz 1997). From the beginning, however, concerns were expressed over the impact that “onerous” certification requirements imposed by the NOP, in the form of required assessments, fees, and paperwork, would have on the ability of producers to maintain organic certification (Guthman 2004). A particular worry was that the administrative procedures needed to secure and maintain certification would favor larger, industrial operations, while exceeding the capacity of small-scale producers (Vogl et al. 2005).

The NOP’s 2009 Age of Enforcement commitment to ensuring organic integrity was similarly supported by the organic industry (Harsch 2010; Warner 2010). Concerns persisted, however, over how the renewed focus on regulatory monitoring and enforcement would impact NOP participants, and NOP participation rates. Although program participation is undoubtedly influenced by a number of factors, these concerns find some validation in the downward trend of domestic USDA organic certifications issued over time. For example, USDA records indicate that the number of domestic organic certifications has declined from over 25,000 at the time of NOP implementation in 2002, to around 20,000 certifications in 2015 (see Figure 1). Furthermore, the rate of program defection seems to have increased in recent years. The number of organic certifications issued declined by four percent from 2013 to 2014 - a larger drop than in previous years - and by an additional six percent from 2014 to 2015 (USDA 2016).[2]

--Insert Figure 1--

Evidence suggests that the decline in USDA certifications is at least partially attributable to burdens experienced by NOP participants. First, the decline runs contrary to the robust economic growth exhibited by the organic foods sector during the same time - double-digit year-over-year growth that has consistently outpaced the growth of the agricultural sector overall since the 1990s (AMS 2015).[3] Second, certified organic producers directly report difficulties that they experience in meeting program requirements. For example, a 2014 USDA survey found that 34 percent of organic producers cite regulatory problems to be the primary production challenge that they face (NASS 2014). The proportion is higher in California (38 percent) - the only state in which organic producers are required to register with the state's Organic Program (administered by the California Department of Food and Agriculture) in addition to USDA certification (Klonsky 2010).

Further evidence is found in comments from policy makers and organic proponents citing the burden of NOP requirements on Program participants. In the words of Sam Farr, U.S. Congressional Representative of California: "[T]he concern here is how do the smaller growers, who may not have the resources to pay the cost and do all the background information that's necessary for certification -- the regulatory process is growing exponentially in terms of cost," (as quoted in Hattem [2013]). The consequences of more stringent organic certification requirements were noted at the International Foundation for Organic Agriculture (IFOAM) 18th World Congress:

> "Farmers have reported spending more time completing forms and maintaining records. A certain amount of records are essential to ensure organic farmers are meeting the organic standards, such as planting non-genetically modified seeds or raising dairy cattle on organic pasture. But, too much focus on paperwork can detract from farming activities that support organic principles, such as conservation and cycling of resources." (Yang 2014).

Finally, a USDA review of the NOP also highlights the concern that stringent Program documentation requirements deter program participation. For instance, reporting on the comments of an accredited organic certifier, the review states:

> "[C]omments received from clients regarding the regulations were mostly concerned with the amount of paperwork required for recordkeeping, which some considered to be excessive and burdensome. This certifying agent stated there is a need to streamline paperwork and recordkeeping requirements for all organic operations" (*NOP Regulations; Section 610 Review*

[2] With a revocation rate totaling less than 0.5% across all issued organic certifications (Carter 2016a), the cited declines in certification numbers are not attributable to certifiers rescinding organic certifications.

[3] The continued growth of the organic market despite declining organic certification numbers is likely due, in part, to the increasing prevalence of large-scale organic operations and increases in international product imports (e.g. Wood 2013).

2015, 25899).

NOP Efforts to Alleviate Administrative Burden

Recognizing the threat to participation represented by the administrative requirements of stringent Program standards, the NOP has implemented several efforts to reduce the administrative burden that may deter future or ongoing Program membership. This is most visible in the NOP's 2014 "Sound and Sensible" initiative. Some of these efforts are direct actions targeted at alleviating the burden experienced by program applicants and participants. Others are more indirect, and involve simplifying and streamlining the requirements that are administered by accredited organic certifiers (*NOP Regulations; Section 610 Review* 2015). The USDA further administers two cost share programs intended to alleviate the financial burden faced by program recipients from certification fees.

The objectives of the NOP's Sound and Sensible initiative included identifying and removing certification barriers, streamlining certification process, focusing enforcement activities on more serious regulatory violations, and "working with organic producers and handlers to correct small issues before they become larger issues" (*NOP Regulations; Section 610 Review* 2015, 25899). The Program claims 14 year-long projects aimed at making NOP participation more "accessible, attainable, and affordable while maintaining high standards, ensuring compliance, and protecting organic integrity" (USDA, 2015a). The initiative and its associated projects are guided by five principles (NOP 2015, pg. 25899):

1. Efficient processes through the elimination of bureaucratic processes that do not contribute to organic integrity;
2. Streamlined recordkeeping requirements to ensure that required records support organic integrity and are not a barrier for farms and businesses to maintain organic compliance;
3. Common sense organic system plans that clearly capture organic practices;
4. Fair and focused enforcement actions; and,
5. Focusing on factors that impact organic integrity, as opposed to administrative details.

Through the Sound and Sensible initiative, the NOP developed a range of products targeted at accredited certifier personnel, such as organic systems plan reviewers and organic operation inspectors. For example, an online training program entitled "The Path to Sound and Sensible Organic Inspections" uses interactive video-based scenarios to demonstrate how Sound and Sensible principles are to be implemented in the course of certification inspections.[4] In addition, the NOP made revisions to its Penalty Matrix, a guide for certifiers on the appropriate sanctions to be administered based on the gravity of regulatory of identified noncompliance issues. The Matrix directs certifiers that minor noncompliance issues, such as recordkeeping inconsistencies, should not preclude the granting of an organic certification, and simply require a letter describing the noncompliance and calling for correction (AMS 2015).

Many of the visible Sound and Sensible artifacts targeted at operations appear to be aimed at reducing the learning costs associated with organic certification. These products include 75 facts sheets, 16 training workshops and curricula, and 15 online videos that outline the national organic standards, explain regulatory requirements related to organic systems plan development, certification processes, recordkeeping, and inspections, as well as the "value proposition" of transitioning to organic practices (NOP 2015). For example, the NOP co-produced a series of comprehensive "how to" guides with Baystate Organic Certifiers (an accredited certification agent) that include primers on transitioning from

[4] See: https://www.ams.usda.gov/services/organic-certification/training. Accessed January 11, 2017.

conventional to organic practices, retail and wholesale labeling under USDA organic certification, and what operations qualify as exempt from organic certification, among other topics.[5]

--Insert Table 3--

In addition to the Sound and Sensible initiative, the USDA administers two programs aimed at alleviating the financial burdens that result from certification fees: a National Organic Certification Cost Share Program, which is available to operations in all 50 states, and an Agricultural Management Assistance Organic Cost Share Program, which is available to livestock and crop producers in 16 states designated by Congress (FSA 2016).[6] Through these Cost Share Programs, operations can be reimbursed for up to 75 percent of their certification costs, totaling up to $750 for each certification scope held (crops, livestock, handling, and/or wild crops). Costs eligible for reimbursement include application and inspection fees, but do not extend to equipment, materials, or fees incurred as a result of regulatory violations. USDA claims that the Cost Share Programs reduce financial barriers to NOP participation stemming from certification fees appear to be credible - according to the USDA's 2014 survey of certified organic producers, organic certification fees make up less than one percent of production expenses overall ($19 million out of $4 billion (NASS 2014)).

Theorizing Administrative Burden in Voluntary Program Contexts

The NOP case provides an illustrative example of how a voluntary program may approach the challenge that administrative burden can pose to program success. This section draws on this example to discuss the theoretical implications of voluntary program administrative burden. The discussion is organized according to three overarching questions to guide empirical examination of voluntary program administrative burden: (I) What administrative burden costs matter most in voluntary program contexts?; (II) How does program design shape program responses to administrative burden challenges?; and (III) What is the relationship between participant characteristics and their experiences with voluntary program costs? Theoretical propositions are offered for research examining administrative burden in voluntary program contexts.

I. What administrative burden costs matter most in voluntary program contexts?

Seen through the administrative burden framework, the NOP's efforts to reduce Program burden are most evidently targeted at reducing learning and compliance costs (see Table 3). Information and educational materials directed at potential participants aim to reduce the time and energy that applicants expend familiarizing themselves with the potential payoff of being certified organic, the NOP regulations, and the processes that are required to access certification. Training and guidance materials directed at accredited certifier personnel aim to reduce the time and energy that applicants spend filling

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[5] See: https://www.ams.usda.gov/reports/how-to-modules. Accessed January 9, 2017.

[6] The National Organic Certification Cost Share Program is also available to operations in the District of Columbia, the American Samoa, the Commonwealth of the Northern Mariana Islands, the Commonwealth of Puerto Rico, Guam, and the United States Virgin Islands. The 16 states in which the Agricultural Management Assistance Organic Cost Share Program is available are Connecticut, Delaware, Hawaii, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, and Wyoming.

out paperwork to verify standards compliance, and focus certifiers' enforcement activity on issues that represent standards violations rather than errors in adhering to verifications procedures.

Notably, none of the actions undertaken by the NOP appear to be aimed at reducing psychological impacts that result from Program participation. A likely reason that NOP actions do not target psychological costs was given earlier: voluntary program participation is often pursued for the reputational benefit membership provides, and voluntary program participation is therefore not likely to result in the psychological costs associated with some of the more stigmatized program services in which administrative burden has been studied. This expectation is expressed in the following proposition:

Proposition 1. The administrative burden of voluntary programs is largely comprised of learning and compliance costs. Psychological costs matter less in voluntary program contexts.

The administrative burden framework, as presented above, conceptualizes program fees to be one aspect of overall administrative burden compliance costs (Burden et al. 2014; Heinrich 2016; Moynihan et al. 2015). The NOP case suggest that, to the extent they can be isolated and adjusted independent of operational requirements, direct financial costs such as program fees may be better treated as conceptually and analytically distinct constructs. For example, while the USDA's Sound and Sensible initiative aims to alleviate operational compliance costs, such as streamlining requirements and reducing paperwork, independent programs seek to ameliorate the financial costs imposed by certification fees. As discussed later in this section, the relative independence of operational compliance costs and program fees may be a result of program design aspects. An understanding of voluntary program administrative burden costs, and how costs vary across programs, may be best facilitated by distinguishing between operational compliance costs and fees:

Proposition 2. The compliance costs of voluntary program participation can be separated into direct financial payments, such as program fees, and the operational aspects of compliance costs.

In short, we expect that learning and compliance costs are the most relevant administrative burden within a voluntary program context. Furthermore, we anticipate that theoretical and analytical leverage can be gained from distinguishing between direct fees and other compliance costs. The next section turns to the ways in which voluntary programs are anticipated to handle administrative burden.

II. How does program design influence the administrative burden associated with program participation, and a program's efforts to alleviate administrative burden costs?

One of the apparent lessons of the NOP case is that a basic impetus for the Sound and Sensible initiative, and other administrative burden reduction measures, likely stems from the relatively stringent Program standards and strong monitoring and enforcement activity mandated by the USDA. Stringent standards, coupled with strong monitoring and enforcement, are assumed to result in high costs that serve as deterrent barriers for potential participants (Potoski and Prakash 2005). Heinrich (2016) and Kahn et al. (1976) further show that the fruits of such efforts are not just borne out with respect to those who directly encounter a program: producers are likely to share their experience with others, and thus word-of-mouth information regarding entry costs and participation hassles can deter would-be participants. As seen in the NOP case, and also indicated by administrative burden research in other contexts (Herd et al. 2013), when program services are characterized by such high barriers to entry, programs may seek to motivate program uptake by assuming the administrative aspects of participation, or otherwise alleviating the administrative burden costs that participants face.

Proposition 3: Voluntary programs seek to sustain and/or increase program participation by reducing the administrative burden faced by potential or continuing program participants.

As described in the case narrative, a consistent decline in organic certifications parallels the USDA's Age of Enforcement and associated strengthening of NOP monitoring and enforcement efforts. Insufficient data exists to confirm a causal relationship between the two phenomena, and such an assessment is beyond the scope of this paper. Nonetheless, it is reasonable to assume that more stringent standards and more robust monitoring and enforcement practices raise the compliance costs that participants face. Although some of this increased cost is necessarily a consequence of aligning production practices with rigorous requirements, participants may have to shoulder the additional administrative burden that comes with verifying their compliance. In other words, not only do participants "pay" when adhering to standards; they "pay" a second time to prove they have done so.

For example, when the USDA revised NOP regulations to specify the number of days livestock are required to have access to pasture, producers faced the added obligation of developing and implementing systems to document adherence to the more stringent livestock rules. To alleviate the burden associated with these requirements, the NOP offers guidance in the form of worksheets and examples on how to determine, execute, and track rotational grazing practices for different types of livestock and operations. If programs do not take such steps to reduce burdens associated with increased stringency, any potential program gains (i.e., increased positive externalities from stronger standards) might be offset by reduced participation. Assuming programs seek to attract and sustain participants, the potential benefit of alleviating administrative burden is likely to be greatest, and therefore more likely pursued, in programs that have stringent standards and rigorous monitoring and enforcement requirements.

> *Proposition 4: The more stringent a voluntary program's standards, and stronger its enforcement requirements, the more likely the program is to assume or alleviate administrative burden costs.*

It is important to note that while some voluntary programs are governmental initiatives, such as the NOP and the EPA's 35/50 program, many others are private governance institutions sponsored by nongovernmental entities (Auld 2014; Gulbrandsen 2014). Non-governmental sponsorship likely impacts such programs' ability to alleviate administrative burden. Government-sponsored programs may be able to subsidize the shifting of nonmonetary costs to program administration through other revenue sources, such as departmental budget appropriations. Indeed, shifting responsibility for some portion of administrative expenses to taxpayer funding may be justified on the basis of the societal benefits that can be realized through increased program participation. For example, many of the collaborative projects undertaken with certification agents that made up the NOP's Sound and Sensible Initiative were allocated from USDA funds.

The program fees charged by nongovernmental administrators, in contrast, are likely a more direct reflection of program administration costs. The reliance of nongovernmental voluntary programs on participation fees has at least two potential impacts on program responses to alleviate administrative burden. First, nongovernmental programs are likely unable to directly alleviate the service fees they charge through measures such as the NOP's cost-sharing initiative. Second, if a nongovernmental program assumes learning and compliance costs in order to reduce administrative burden, the expense of these administrative responsibilities is likely passed "back" to participants through higher fees. Consequently, the shifting of administrative responsibilities from participants to program administration likely increases the financial burden faced by participants of a nongovernmental program.

Proposition 5. Government sponsored voluntary programs are more successful at reducing administrative burden costs without increasing program fees, while the shifting of administrative burden in nongovernmental programs increases those fees.

As seen in the case of the NOP, many voluntary programs are not administered by programs directly, but rather through independent "third-party" intermediaries (Carter 2016b; Levi-Faur and Starobin 2014). While program administration sets program standards, intermediaries take on the operational aspects of program delivery, from processing applications to compliance monitoring and regulatory enforcement. In a context where third-party intermediaries compete for service fee revenues, but basic program requirements are standardized, it is assumed that each will seek to attract and retain voluntary program clients by reducing the financial burden of service fees, reducing client learning and compliance costs, or both (Carter 2016b; Levi-Faur and Starobin 2014).

Proposition 6. In a voluntary program administered by third-party intermediaries, third-parties seek to reduce administrative burden costs while competing for program participant clients.

Furthermore, it is expected that program participants seek administrators that alleviate the program costs they find most difficult to absorb. Assuming potential program participants vary systematically in their tolerance of different cost types (discussed in more detail below), third-party administrators are likely to structure their administrative burden cost distributions to appeal to certain participant markets, and compete for market share. Some third-party administrators may seek a large-firm market niche by reducing learning costs, while maintaining relatively high certification fees. Other administrators, in contrast, may seek a broad small-operation client base by offering the lowest possible fees, with less attention to learning or compliance cost reductions. In the case of U.S. organic certification, for example, some third-party state government certifiers seek to provide certification services to smaller organic operations through lower certification fees, often by subsidizing administrative costs through departmental revenue (Carter, 2016a).

Proposition 7: Third-party intermediaries strategically shift select administrative burden costs to appeal to specific participant markets.

In summary, we expect that voluntary programs will seek to increase participation by alleviating the administrative burden experienced by participants, and that program efforts to alleviate burden become greater as the strength of program monitoring and sanctioning requirements increases. Furthermore, we anticipate that government sponsored programs are better able to mitigate administrative burden without increasing fees. Finally, we suggest that in programs administered by third-party intermediaries, intermediaries compete for participants by reducing select administrative burden costs. Having considered programmatic aspects of administrative burden response, the next section examines how participants respond to administrative burden.

III. How do the characteristics of voluntary program participants shape their tolerance of, and responses to, administrative burden costs?

Just as differences between voluntary programs likely shape the manners in which they handle administrative burden challenges, diversity among potential and ongoing participants likely shapes experiences with administrative burden costs. Voluntary regulation literature speaks to a myriad of firm characteristics that influence voluntary program participation, such as size, flexibility, and technical capacity (e.g., Darnall et al. 2010; Simpson et al. 2012; Welch et al. 2000; Khanna et al. 2007). Obviously, this issue intersects with the question of which firms benefit most from voluntary program participation, as the greater the benefits that a firm can realize from participation, the more administrative burden is tolerable. There is a robust--but unresolved--literature concerning how firm attributes (size, market context, industry reputation) affect the benefits that firms realize from participation in voluntary environmental programs (e.g, Jenkins 2004; Battisti and Perry 2011; Moon and deLeon 2007; Jacobs et al. 2010/9). For instance, smaller firms are more responsive to stakeholder pressure (Darnall et al. 2010), but larger firms are often found to be more likely to engage in voluntary regulation (Welch et al. 2000; Khanna and Damon 1999) and due to greater visibility are subject to greater reputational risks (Jenkins 2004).

Much of this literature focuses on contextual drivers related to market characteristics, such as consumer contacts (Arora and Cason 1996), stakeholder pressure, (Rivera 2004) or production characteristics, such as research and development (R&D) capacity (Khanna et al. 2007). However, even with benefits held constant, firm attributes might affect the ability of participants to deal with learning and compliance costs. Thus, we argue that the ability of different firms to navigate the various administrative burden costs required to maintain program membership is also relevant. By accounting for how participant firms' characteristics shape their ability to absorb different cost types, expectations can be drawn regarding which costs are more likely to impede program uptake or sustained membership among different participant groups.

Notably, the concept of administrative burden speaks to an unresolved question in the corporate environmental responsibility literature. While small firms have typically been considered to simply benefit less from participation in voluntary programs (and thus be less motivated to participate), as it turns out there is a "value-action gap" (Revell et al. 2010) between the motivation of small firms and actual participation in formal environmental programs (Rutherfoord et al. 2000; Battisti and Perry 2011). That is, small firms are motivated to engage in responsible environmental behaviors but are less able to navigate the universal benchmarks of formal programs than are large firms (Jenkins 2006; Battisti and Perry 2011). Administrative burden provides a theoretical construct with which to understand how the operational context of small firms impedes participation in programs which impose a common set of compliance and verification standards, even when small firms have sufficient motivation to participate.

First, while it is assumed that all companies will, all else equal, prefer a voluntary program that has lower participation fees, large-scale producers are likely better positioned to pay upfront fees. In general, the operational behavior of large firms is less constrained by resource limitations (Hillary 2000). Large-scale firms receive a demand benefit from a larger number of consumers (Arora and Cason 1996), are more likely capable of bearing participation costs (Videras and Alberini 2000), and given the uncertain long term payoffs of voluntary program participation (Rivera et al. 2006) benefit from the ability to pool risk across a variety of innovations (Brunnermeier and Cohen 2003).

Proposition 8: Larger firms are less likely to be deterred from program participation by high program fees, when compared to their smaller counterparts.

Considered separately from program fees, it is assumed that the ease with which firms can absorb different monetary and non-monetary program compliance costs depends on the size and specialization of the firm in question. This relates to the "value-action gap" (Revell et al. 2010) discussed above. Smaller firms are typically theorized to be less able to devote resources away from basic day-to-day operations (Storey 2016; Rutherfoord et al. 2000). Larger firms have greater flexibility to devote personnel to take on program administration (Arora and Cason 1996) and hire dedicated environmental managers (Schaper and Raar 2001). Having an existing administrative structure means that a firm does not have to redirect other workers away from production to complete such tasks, or to contract out for these services. Additionally, large firms are expected to have more extensive, technically advanced production tracking and reporting systems. Within the context of the NOP, for example, large scale agricultural producers typically have existing tracking and identification systems, as well as vertically integrated supply chains from farm to market (Golan et al. 2004).

Having established internal administrative apparatuses makes dealing internally with trace-back and mass-balance audits, reporting requirements, and other compliance costs more cost-effective. In other words, the automaticity (the extent to which a policy or program relies upon existing institutional apparatuses and service delivery mechanisms (Salamon 2002)) of program compliance is highest for large scale producers. Further, large firms are better able to exert power over other firms in their supply chain, making it easier to foster compliance with desired standards (Sarkis et al. 2011). Thus, large firms are expected to be more tolerant of high compliance costs.

Proposition 9: Larger firms are less likely to be deterred from program participation by high compliance costs, when compared to their smaller counterparts.

As with compliance costs, program learning costs are perhaps disproportionately felt by certain participants. Cohen and Levinthal (1990) define absorptive capacity as the ability of a firm to recognize, assimilate, and apply new information; that is, how readily can a firm learn? R&D expenditures are expected to have broad impact on firms' learning capacity (Khanna et al. 2009; Cohen and Levinthal 1990); "R&D expenditures not only generate new information but also enhance the firm's ability to assimilate and exploit existing information" (Khanna et al. 2009, 91). This means, for instance, that even if a firm has not specifically made attempts at organic production before joining the NOP, firms that have more general experience with innovation are better positioned to absorb the learning costs association with NOP membership. Moreover, firms with more in-house technical sophistication are able to adopt new technologies with lower cost (Dierickx and Cool 1989; Khanna et al. 2009). Accordingly, firms that engage in more research and development and have a stronger history of innovation are expected to be more tolerant of high learning costs.

Proposition 10: Firms that place a stronger emphasis on R&D are less likely to be deterred from program participation by high learning costs, when compared to firms that place less emphasis on R&D.

Finally, human capital is also a driver of firms' absorptive capacity. High human capital enables faster technology adoption (Nelson and Phelps 1966). Further, internal buy-in is an important factor in motivating firm participation in voluntary programs (Darnall 2002). Managerial attitudes and motivation (Cordano and Frieze 2000) and willingness to champion and take leadership over program adoption (Anderson and Bateman 2000; Egri and Herman 2000) are recognized as reasons organizations choose to engage in voluntary programs; one implication of connecting administrative burden to voluntary program theory, however, is that managerial attitudes, motivation, and leadership should also impact a firms' ability to navigate program learning costs. Darnall (2002) notes that management practices required by voluntary programs rely on "higher-ordered learning proficiencies" (p. 7) that build upon basic managerial capacities (Christmann 2000). Proficiency at baseline tasks indicates that an organization will be more readily able to successfully adopt new strategies (Hart 1995; Christmann 2000). Practical examples of high human capital include employee motivation, technical capacity, experience, and professional training.

Proposition 11: Firms with higher human capital are less likely to be deterred from program participation by high learning costs.

In summary, we predict that large firms will be less deterred by high program fees and are better positioned to bear program compliance costs, that firms which are more active in R&D are better equipped to absorb program learning costs, and that firms with high human capital are better able to weather learning costs. Having examined firm-related factors that affect how different participants experience--and are influenced by--administrative burden in voluntary programs, we conclude by discussing the benefits offered at the nexus of the two literatures.

The Theoretical Nexus of Voluntary Programs and Administrative Burden

This paper argues that administrative burden is an overlooked, but consequential, factor in understanding voluntary programs and their relative impacts. Participation is a central concern for the realization of voluntary program success: the greater participation a program experiences, the larger the collective benefits generated by the program are likely to be. Thus, the constraints imposed on participation by administrative burden may create an additional barrier to the positive externalities that some programs otherwise have the potential to achieve.

Yet, traditional voluntary program models have focused on consumer preferences and standards adherence costs as the primary drivers of program uptake and persistence (Kotchen and van't Veld 2009). In other words, voluntary programs have frequently been assumed to be rather frictionless. Accounting for the different costs highlighted by the administrative burden framework aids in the disentanglement of program standards and monitoring and sanctioning, as addressed in previous literature (Prakash and Potoski 2007), and administrative activities that constitute potentially unnecessary barriers. As argued throughout this paper, just as the costs of accessing public services borne by citizens are key factors in determining access to and uptake of social services (e.g., Moynihan et al. 2015), the costs that firms incur in learning the requirements of voluntary program membership and demonstrating standards compliance are consequential.

The NOP's efforts to reduce administrative burden associated with USDA organic certification provide empirical evidence that administrative burden is a noteworthy program concern independent of club good benefits and standards rigor. As this paper has sought to demonstrate, voluntary program design may influence how a program can shape administrative burden barriers to program participation. Moreover program participant characteristics may shape whether a firm is more or less equipped to absorb specific administrative burden costs. A voluntary program conceptualization that accounts for administrative burden learning, compliance, and program fee costs can thus provide a more nuanced, contextualized explanation for uptake and continued participation.

The realm of voluntary programs is an important extension for administrative burden literature. The administrative burden framework has been applied largely within the context of social service delivery, voting, and education (e.g., Herd et al. 2013; Heinrich 2016; Blume 2016). In these contexts, administrative burden costs are a barrier to program services that do not inherently add value to program services. In contrast, and as highlighted in this paper, voluntary program barriers to entry simultaneously incentivize and deter program participation, and can therefore both facilitate and impede the attainment of public program benefits. Thus, we draw attention to the regulatory function of compliance costs, and the utility of differentiating valuable compliance costs from potentially problematic ones. Furthermore, we suggest that psychological costs - one of the costs found to be consequential in other contexts - may prove less theoretically useful in voluntary program settings.

Future examination can help clarify the difference between the learning and compliance costs that make up the barrier to entry faced by new program applicants, and the administrative burdens that are more germane to ongoing participants. Such research can aid in the identification of which represent greater participation constraints to in specific program contexts, thus leading to a better understanding of where programs seeking to increase membership may have the greatest leeway to impose necessary costs. Future research can further examine the applicability of the different psychological cost dimensions - such as loss of autonomy and added stress - in voluntary program contexts. The effort promises not only a greater understanding of voluntary program costs, but can help to identify the generalizability of administrative burden constructs.

Finally, future research can help identify the applicability of the administrative burden framework to different types of voluntary program settings. The theoretical analysis applied in the paper rests on the conceptualization of voluntary programs as institutions that generate both club goods and positive societal benefits. As indicated by one anonymous reviewer, this conceptualization may be better situated to explain the dynamics of business-to-consumer voluntary programs that help establish a premium market, and less appropriate for business-to-business programs that are voluntary only in name, but more-or-less required in practice. Attention to such program characteristics will help define the parameters of generalizability of the propositions offered in this paper, as well as a better understanding of both voluntary program and administrative burden diversity.

By highlighting the intersection of voluntary program theory and the administrative burden framework, the paper is a platform for research offering benefits to both bodies of literature. Administrative burden presents a new dimension with which to consider voluntary program design, and understand voluntary program performance. Likewise, empirically testing the propositions offered here - for instance comparing the services offered by certifiers under the NOP and evaluating how burden alleviating services affect ongoing firm participation - provides an opportunity to extend and refine the theoretical understanding of administrative burden in governance efforts. Ultimately, the benefits of such research extend beyond theoretical advancements - they may offer practical insights into how voluntary program design and administration can be effectively leveraged for positive societal gains.

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Table 1. Voluntary program typology (Adapted from Prakash & Potoski, 2007, 781)

		Program Standards	
		Lenient	Stringent
Monitoring and Enforcement Requirements	Weak	Social externalities: low Shirking: high Club good: marginal Participant cost: low	Social externalities: low Shirking: high Club good: marginal Participant cost: moderate-high
	Strong	Social externalities: moderate Shirking: low Club good: low- moderate Participant cost: low- moderate	Social externalities: high Shirking: low Club good: high Participant cost: high

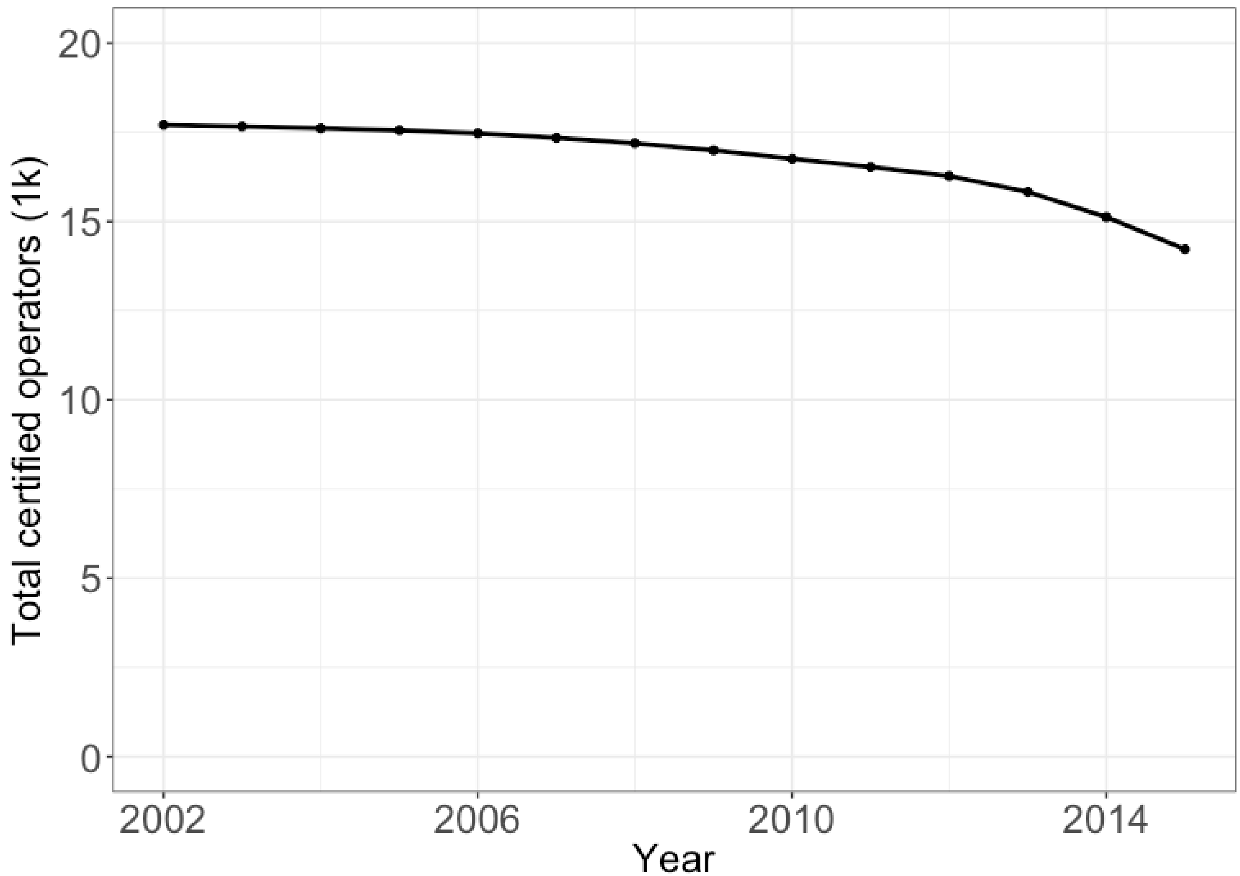
Table 2. Voluntary program administrative burden costs (Adapted from Moynihan et al. 2015, 46)

Type of Cost	**Examples of Cost**
Learning Costs	Potential participants must learn about the program and program standards, whether they are eligible, the nature of program benefits, and how to access program services.
Compliance Costs	Participants must complete applications and re-enrollments, submit documentation verifying compliance with program standards, undergo inspections and other monitoring procedures, respond to and correct noncompliance issues, and pay program fees.
Psychological Costs	The loss of autonomy and increase in stress arising from program requirements.

Table 3. NOP efforts to reduce Program administrative burden

	Learning costs	**Compliance costs**	**Psychological costs**
Fact sheets/guidance documents	X		
Training workshops and curricula	X		
Informational videos	X		
Certifier and inspection training modules		X	
Penalty matrix		X	
Certification fee cost share programs		X	

Figure 1. Decline in domestic USDA organic certifications from 2002-2015



NOTE: Figure generated using data from NOP "Organic Integrity" records (USDA 2016).