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This article provides a look at the various levels within the Cooperative Extension System and the use of evidence within these levels. The authors examine the factors associated with credible evidence and the various levels. The impact of factors such as politics, science, stakeholder support, and expectations are discussed. The various levels within Extension are summarized in relation to evidence that is routinely requested or required for each. Lastly, the authors use information directly from Extension directors to provide a framework for the discussion.

Keywords: evaluation, stakeholders, politics, science

“The land grant university system is being built on behalf of the people, who have invested in these public universities their hopes, their support, and their confidence.”

—Abraham Lincoln, upon signing the Morrill Act, July 2, 1862

Overview

The quote by Abraham Lincoln on the land-grant university system sets the stage for what is to follow. The state and territory members of the Cooperative Extension System (Extension), are integral components of the land-grant universities of the United States and make up a diverse and complex system with stakeholders at many levels. As a component of the land-grant university

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system, Extension must be accountable to all stakeholders who have invested in the system, as articulated by President Lincoln. As part of this accountability obligation, Extension strives to provide credible and actionable evidence on the quality and effectiveness of Extension efforts. Credible evidence is “information that stakeholders perceive as *trustworthy* and *relevant*” (Donaldson, 2015, p. 5). Numerous factors influence what is credible evidence, including laws and policies, stakeholder and funding requirements, evaluation capacity, and understanding of the evidence itself. Actionable evidence refers to that evidence to which stakeholders can use to make decisions or modify programs or policies.

The basic framework of Extension is its three-level funding structure, including funds from the federal government through the U.S. Department of Agriculture’s National Institute of Food and Agriculture (USDA-NIFA), funds from state governments, and local funding through counties/parishes or similar local entities. In addition, in many states, the land-grant universities associated with Extension programs have added another layer of influence by emphasizing the need to acquire grants and other special projects funded from external sources, both private and public. Moreover, Extension is aiming to obtain cost recovery funds that cover the cost of conducting Extension programs. This is necessary as levels of funding from federal, state, and local governments have decreased or remained level over time. The addition of external funding of projects has added to Extension’s stakeholder list and the complexity of the system. Many of these stakeholders have varying requirements for the types of evidence that are deemed credible. For example, the federal partner requires evidence on program outcomes or impacts. Some states require data on number of contacts made within a state. Some universities focus on grants and publications. There will be a more in-depth discussion of these requirements later in this paper.

Mahon and Wartick (2003) wrote that credibility refers to an organization’s history in terms of how it develops reputational expectations, especially among its stakeholders. Therefore, credible evidence is providing something that has been validated (Mahon & Wartick, 2003), whether it be a program, product, consumer satisfaction level, an economic catalyst, or organizational compliance. This does not necessarily mean stakeholders also need evidence that is deemed credible in order to associate trust or value with an organization. For example, a long-time educator in a community may be deemed credible by the fact that they have gained a high level of trust within that community. Anything they recommend could be deemed credible regardless of whether it is based on fact or not.

However, stakeholder perceptions relating to factual or scientific information is another discussion. A credibility transaction is defined by Herbig, Milewicz, and Golden (1995) as “the firm’s comparison between a competitor’s pronouncements or intentions and its true behavior or final actions” (p. 26). They describe four types of transactions: 1) true positive - an organization says it will act and follows through by acting, 2) false positive - an organization says it will act but does not do it, 3) false negative - an organization says it will not act, but changes its mind

and does act, and 4) true negative - an organization says it will not act and follows through by not acting (Herbig et al., 1995).

The focus of this paper is to examine criteria for evidence required or requested by various Extension stakeholders and how evidence is used at these various levels for policy and funding decisions. We will explore the policies, practices, and politics that affect how evidence is used to satisfy the various stakeholder needs. We will also examine what is needed to achieve organizational credibility and the concept of credibility as a multi-dimensional construct. In addition, the authors sought feedback from various Extension directors on the topics covered in this article. Examples from this feedback will be used to support or provide a framework for the discussion.

Targets for Credibility

The building of organizational credibility and trust among stakeholders must become a priority in Extension. The problem, however, is that there has been little conceptual agreement regarding what entails organizational credibility and trust in an organization (Bigley & Pearce, 1998; Young, 2006). Even more problematic is the inconsistency of methods used to assess trust and credibility, which makes generalizability difficult and could lead to errors in measurement and strategic planning decisions (Bigley & Pearce, 1998; Kazoleas & Teven, 2009). Kazoleas and Teven (2009) wrote that in order to reliably measure trust, the relationship between the organization of interest and the public must be clearly understood and must include measurements that disclose the full range of underlying factors that bring about the concept of trust. Failure to do this will result in insufficient measurement models and yield inaccurate results (Kazoleas & Teven, 2009). In addition, strategic planning based on these results will account for a large degree of variance that is not addressed in the measurement model (Kazoleas & Teven, 2009).

Trust is recognized as a “multiple faceted concept that can take on many meanings depending on the perspective from which it is viewed” (Kazoleas & Teven, p. 22). Mayer, Davis, and Schoorman (1995) identified the underlying dimensions of perceptions of trust through a comprehensive review of the literature. Trust regarding organizations can be broken down into three factors: *ability*, *benevolence*, and *integrity* (Mayer et al., 1995). Ability incorporates elements of confidence and reliability as it relates to results of transactional relationships (e.g., interaction with one or more members of an organization?) (Mayer et al., 1995). Benevolence involves the organization's intentions to meet stakeholder needs, and integrity involves accuracy and honesty (Mayer et al., 1995).

It is also important to identify different (and interrelated) targets for credibility and why they are important. While operationalizing credibility within Extension is vital, the complexity of understanding credibility cannot be overstated. Despite the challenges presented, organizations have provided helpful constructs to inform credibility within organizations. The Blandin

Foundation, a private, independent foundation focused on rural communities, developed a philanthropic theory based on applying developmental evaluation and how to establish credibility within an organization and maintain credibility based on program impact results (Annette, Fauth, & Ahcan, 2015). As a funding entity, training organization and educational resource for rural communities, Blandin recognized the importance of evaluative standards, not only for their success but for that of their clientele as well. The Blandin model was built upon prioritizing the relationships held with communities, policymakers, peers, and other stakeholders, which ensured transparency and that the organization's resources best matched the needs of partners (Annette et al., 2015). Through reflective team sessions and deep, evaluative exercises that examined grants, relationships, and foundation work that did and did not manifest relationships, a comprehensive list emerged that included ways in which the foundation could strengthen its role as a connector (Annette et al., 2015). As an organization dedicated to connecting people to networks, knowledge, issues, and resources, this model served to further Blandin's mission and broaden its reach within the communities it serves. These insights formed the basis for the "mountain of accountability" in an effort to deliver and allow replication of their strategic planning (Annette et al., 2015).

In its model, The Blandin Foundation explained the roles of three types of foundation assessments. At the base of the "mountain" sits the basic accountability for management processes, which includes information regarding financial audits and investment returns, an evaluation of human resource performance management, descriptions of basic management-information systems, due diligence, reporting, community indicators for planning, and fulfillment of donor intent and court guidance (Annette et al., 2015). Accountability for impact occupies the middle of the "mountain." This section calls for major program evaluations, an external strategic evaluation, a board survey and feedback, a grantee perception report, a synthesis of grantee's reports, and employee surveys. Finally, to achieve mission fulfillment, the peak of the "mountain" contains accountability for learning, development, and adaptation. This unit includes deep, reflective practice, developmental evaluation, strategic-framework evaluation, and a focus on systems change, innovation, and complexity (Annette et al., 2015).

The "mountain of accountability" is dependent on the ability of individuals and organizations that share a common vision to work together to develop focused, inclusive, and goal-oriented strategies. This system of evaluation ensures credibility within the organization by increasing awareness and nurturing connections among all key players (Annette et al., 2015). The "mountain" further identified the level and criteria for credibility negotiated between program leaders and stakeholders into three sections. The first section, governance philosophy, is the foundation's strategy to lead and direct work. The second section, contextual sensitivity and trend scanning, is how the foundation can ensure its work stays relevant among changing environments. The third section, strategy, is how the foundation implements resources to impact others (Annette et al., 2015).

The Blandin Theory has gained recognition through its detailed and consistent outline to achieving organizational credibility. As mentioned earlier, the many stakeholders at the different levels of Extension require varying types of evidence, adding to the complexity of the Extension system. Next, we will examine the different levels and targets for Extension impact and how these relate to credible evidence.

Need for Information and Strength of Evidence

Good Enough Evaluation

What is “good enough” evaluation? This topic was addressed and discussed in the first article of this special issue of the *Journal of Human Sciences and Extension* (JHSE). The American Evaluation Association (AEA) has developed standards for evaluation and those conducting evaluation. (AEA, 2018). In some instances, good enough evaluation depends on the stakeholder, and usually refers to those results that meet expectations stated in policies or contracts. However, such expectations are not always explicit, clearly articulated (or measured), consistent with scientific or professional standards, or adequate for specific circumstances they may be intended to address. Examples of these dilemmas are included in the discussion that follows. However, some organizations might be inclined to want to go beyond the concept of good enough evaluation methods. In the first article in this issue, the concepts of integrity, transparency, and adaptability by stakeholders and those conducting an evaluation provide the basis for what evidence contributes to effective and credible evaluation. To contextualize this within Extension, it might be helpful to look at utilization-focused evaluation, which addresses the complexities of program evaluation and accounts for the involvement of multiple stakeholders and decision-makers (Patton, 2003).

According to Patton (2003), utilization-focused evaluation does not operate within the realm of possibility or idealism, instead, this evaluative methodology focuses specifically on whether or not the program effectively and efficiently addresses the needs of actual users. In this way, evaluators work closely with individuals who have the ability to apply findings and implement recommendations in a way that is most useful and relevant to the program’s intended users. Within Extension, this method of evaluation is found most often because of its vast and situational utility. Evaluators deductively develop evaluation models that fit within the intended context and use these models to best address individual program or organizational need (Patton, 2003). While flexible in nature, this approach is also bound to standards and guidelines which increase the credibility and integrity of findings (Patton, 2003). Patton stated:

As a professional, the evaluator(s) has the responsibility to act in accordance with the profession’s adopted principles of conducting systematic, data-based inquiries; performing competently; ensuring the honesty and integrity of the entire evaluation process; respecting the people involved and affected by the evaluation; and being

sensitive to the diversity of interest and values that may be related to the general and public welfare. (2003, p. 224)

In this sense, one might disregard the concept of “good enough” evaluation and instead propose that evaluation is deemed appropriate for the given context and situation in order to provide stakeholders and interested parties with the most relevant and accurate information as possible. Extension exists to serve a plethora of audiences and answers to a variety of stakeholders. Thus, tailored findings and evaluative reports for determining effectiveness is not only helpful but necessary. Patton (2003) stated that “program evaluation is the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness and/or inform decisions about future programming” (p. 224). If one attaches a utilization focus to these program evaluations, the intent of these evaluations becomes not about distant or unrelated reviewers, but are instead performed with specific, intended audiences and users in mind (e.g., Does this program address the needs of intended users?). While not directly stated or recognized, Extension often uses a utilization-focused approach in program evaluation and reporting not only for credibility with stakeholders, but perhaps more importantly, for its practicality in the field. Specifically, this approach provides formative evaluation that is utilized to make program adjustments in order to ensure effectiveness. In this sense, in evaluation of Extension and development of related-programming, careful consideration is given to how “real people in the real world apply evaluation findings and experience the evaluation process” (Patton, 2003, p. 425). Utilization-focused evaluation considers how evaluation might be used to best impact intended users in the present and inform effective program development in the future. Put simply, Extension not only develops programming with their public audiences in mind, but also continues to be held accountable by these audiences during evaluation (Suvedi, Heinze, & Ruonavaara, 2005). This approach has historically satisfied stakeholders and audiences across multiple organizational levels.

So, where do stakeholders set the bar, and how do we help them place it well? Is the evidence that stakeholders are requesting science credible, or is it credible from a ‘good enough’ perspective? Based on what we know from reviewing evidence required by Extension stakeholders, the authors believe the evidence required is based on past policies or what we have always presented. Evidence may be based on factors such as reputation (e.g., credibility based on past performance or identification with the organization’s mission/people/etc.) and/or tradition (e.g., credibility based on past output or ongoing assessment of needs and performance standards). As a change organization, Extension has provided evidence that is not keeping up with the changes in society. Extension provides research-based information to our clientele. Should we not also be doing the same with regard to evidence of Extension’s value and benefit to those it serves?

Kelsey and Mariger (2002) found through conducting case studies among Extension forestry departments that stakeholders felt they did not receive adequate information from the university for their state. Barriers were discovered that existed in both oral and written communication channels. For example, the use of technical jargon was prominent, which non-science audiences struggled to understand.

Influence of Politics on Evidence

Because the majority of stakeholders that influence Extension funding are political entities and individuals, politics plays a critical role in the expectations for evidence (Larner, 2004). The overarching mission of Extension is to serve clientele with unbiased, research-based content (NIFA, n.d.). While this is the standing goal, given the way funds are allocated and disbursed to certain projects and agencies, political influence is unavoidably a factor. Extension agencies receive funds from government entities and are also expected to report back to these stakeholders. Political influence varies throughout the accountability process depending on reporting procedures required and stakeholder involvement. As McDowell stated:

Extension, as the outreach arm of the land-grant university system, has a primary educational mission. However, it is also expected to collect public political support on behalf of the system, including its research activities, particularly in the case of state government support [funding] for university budgets. (1985, p.718)

While politics may not influence the evidence itself, political influence might affect the type or nature of the evidence to be reported. Increased competition for state and federal funding also creates pressure on Extension agencies to cater to the specific requirements set forth in grant and programming guidelines, outlined by policymakers and legislators, to garner their support. This also plays into how funding is utilized by Extension. There tends to be a tension between traditional vs. nontraditional work expected by clientele and funders. Therefore, the political needs for evidence are not always negative and can often be in stride with the mission of Extension as policymakers and legislators are also stakeholders. McDowell (1985) clarifies that “competition is not only experienced in the politics of the state and federal budget processes, it is also experienced by the Extension staff in terms of competition for audiences, turf, and grants and contract resources” (p. 718).

This interaction challenge is more acute in the political/budget environment. This may, in fact, be even more challenging in an increasing anti-science, anti-higher education environment. In this case, Extension has an advantage over research and formal education in that both agents/educators and specialists enjoy the opportunity to have the kind of interpersonal relationships that provide a chance to overcome the current political winds. Relationships are a key pathway for Extension, and frankly, most political institutions.

Thus, the tension between gaining financial support for the advancement of their mission and the betterment of the publics they serve, while also remaining unbiased in that mission, remains a challenge that Extension educators battle every day. As a public entity, Extension is dependent on state and federal funding in order to provide the public with education, resources, and other services. Thus, the challenge to serve the stakeholders and the public objectively will remain and should be of heightened priority (Voris, 1991). Extension professionals occupy a unique role in bringing university expertise to policymakers and building unbiased relationships with clientele to increase support. In turn, political influence is a factor Extension cannot avoid. Therefore, Extension as an organization and Extension professionals must be comfortable in and aware of their roles (Stoltz, 2002). Acting in both the political and public sectors, Stoltz (2002) stated that Extension must possess acumen in order to effectively participate and serve in both realms.

Science and Credibility

What constitutes good science and good politics at different levels of the Extension system, and how are these priorities compatible? Are decisions based on evidence, or opinions and beliefs? Where do stakeholders set the bar for credible evidence in Extension and how do we help them place it well? Is the evidence that stakeholders are requesting science-credible, or is it credible from other perspectives?

According to the United Nations (n.d.), within the next 15 years, the world population is expected to increase by more than one billion people, nearing 11.2 billion by the year 2100. As the population continues to grow, the agriculture industry is working to meet the needs of consumers and better serve the public in food, fiber, and fuel. With this dynamic change, comes the ever-increasing need to not only provide tangible products but act as a hub for the intangible information regarding the agricultural system. Now reaching into areas such as policy, economics, food systems management, communications and rural development, “agriculture [has become] an information-dependent sector of the economy” (Cash, 2001). Decision-making within the agricultural industry requires an understanding of scientific and technical information that needs to be digestible, not only by those within the industry, but the publics they serve as well (Cash, 2001). In order to fill this need, Extension performs boundary work or serves as what Guston (1996) refers to as a boundary organization. Fundamentally, boundary work fuses connections between science and policy to implement effective, research-based solutions that cater to both sides of the figurative boundary line. As a boundary organization, Extension facilitates both public and political objectives and ensures the protection of scientific credibility through those actions (Guston, 1996). As Cash (2001) stated, “the system has become a partnership between federal, state, and local agencies and educational institutions, with shared responsibilities and funding” (p. 434). As a boundary organization, essentially, Extension bridges the gap between science and policy, linking the two across the different levels of

Extension (local, state and national) and then communicating the implications of that information to the public (Cash, 2001).

While the goal of disseminating research to the public is of critical importance to Extension, at the same time, the organization has “an interest in maintaining independence from the users of the information they produce” (Cash, 2001). According to Cash (2001), “the balance [Extension] seek(s) is to provide useful information but maintain scientific credibility” (p. 440). The credibility of this science often categorizes it as being either “good” or “bad;” thus the need for a distinction of what constitutes good science in regard to Extension. In such a research-driven organization with the goal of breaking down technical information, how do these organizations ensure that the science they are disseminating is deemed as “good” or credible? According to Moss and Edmonds (2005), “good science enables us to understand what we observe” (para. 2.1). As an organization that heavily leans on social science, but is foundationally grounded in the natural sciences, Extension draws evidence from both ends of the scientific spectrum. “Good social science will be in some respects different from good natural science” (Moss & Edmonds, 2005, p. 5). Moss and Edmonds (2005) also said that, “Evidence and observation have priority over theory there -- (in the end) when evidence and theory disagree the theory is changed” (p. 4).

Jeopardizing Stakeholder Support

Stoltz (2002) stressed the importance of Extension administration at the federal level providing Extension faculty at the state level with reliable budget and policy information. He further emphasized the importance of Extension faculty providing accurate information about their work in their conversations with elected officials and clientele to avoid jeopardizing support for the system. When Extension professionals discuss internal conflicts with clients or elected officials, they risk the credibility of not only Extension workers, but they also risk the credibility of the entire Extension organization, in addition to destroying their support base (Stoltz, 2002). According to Stoltz (2002), internal conflicts can range from disputes in the local Extension office or be as widespread as national matters. Stoltz (2002) also wrote that, “Extension administration and field faculty need to understand that effective faculty - highly respected for the job they do - can spearhead change, promote understanding of complex and/or controversial issues, and build political support for Extension.”

In order to gain respect from stakeholders and bolster political support, Extension personnel must build working relationships with policy- and decision-makers, be informed and readily able to provide information on programs and budgets and be responsive to stakeholder concerns. Internally, this begins with the creation of effective programming, based in research and proven through measurable outcomes. According to Stoltz (2002), strong programs earn support, and in order to continue gaining support, Extension professionals are expected to simultaneously serve the public and meet stakeholder expectations through that programming.

Expectations, Policy, and Law

Stevens, Lodl, Rockwell, and Burkhart-Kriesel (1994) explored the different perceptions that federal project directors and state and local level project leaders held about the youth-at-risk grant funds. The study explored not only those perceptions, but also the participants' understanding of project philosophies, goals, and future expectations. In their article, Stevens et al. (1994) attempted to identify differences in project expectations at the various levels of Extension. Data for this project were obtained from various places depending on the level being examined. At the federal and state levels, the researchers analyzed data from requests for proposals (RFPs), project applications and reports, evaluations, and some personal interviews. At the local level, data came from telephone interviews with project leaders (Stevens et al., 1994). All of the data were then cross-analyzed using open coding (Stevens et al., 1994).

Results from the study found that overall expectations at the state level included and addressed expectations at the federal level, with an increased focus on meeting statewide goals and needs (Stevens et al., 1994). Guidelines for program development were put in place at the state level to ensure those federal expectations were met and reported. These guidelines included mechanisms for meeting state goals and addressing clientele needs (Stevens et al., 1994).

In their study, Stevens et al. (1994) found that, while the federal expectations were addressed, emphasis at both the state and the local levels emphasized an increased focus on meeting clientele needs. Stevens et al. (1994) also noted that locally, "the highest priority was given to making 'real' differences in the lives of individuals and their communities" (para. 11). Extension agents and program leaders noted that they addressed specific local needs first, and then once they felt that program was successful and sustainable, they moved on to address other concerns and meet expectations put forth by federal and state entities (Stevens et al., 1994). According to Stevens et al. (1994), "while the federal expectations were global, the state level became more specific and focused on state needs." This exemplifies the tailored, utilization-focused approach of Patton (2003) with regard to evaluation and reporting and also serves to explain if and how differences in reporting exist when addressing federal, state, and local expectations.

As Stevens et al. (1994) stated, "the true challenge for Extension is to help the public understand this [Extension's] mission and how it impacts them as clientele." This aim is further complicated when fluctuations in expectations exist. Thus, priority is often given to addressing local needs first in order to meet federal and state expectations. For example, the basis for Extension work is to help people make sound decisions to improve their lives. This grassroots approach can then be aggregated to show the value of Extension at the state and federal levels. These fluctuations in expectation make Extension's evidence and evaluative reports no less credible, but instead intensifies their utility at all levels, furthering the success of programming and the Extension system as a whole.

Credible Evidence and the Success of Programs

How does credible evidence impact program success with stakeholders? This is a critical question as we move past providing evidence to providing credible evidence. Issues such as trust, relationships, and communication play a role in this movement to credible evidence. We reached out to Extension directors across the country for their input on credible evidence and program success. One director responded: “Our program success is dependent upon providing credible evidence to the individuals and communities we serve.” Also mentioned were the ties Extension has with its Agricultural Experiment Station partners and Extension’s own applied research being critical in continuing to provide credible evidence/solutions. Another director added: “Credible evidence impacts program success directly by strengthening a program’s sustainability and ability to secure ongoing support from stakeholders (financial, personnel, advocacy, marketing, etc.).”

The authors also asked about how non-credible evidence affects program success. An Extension director responded, “Non-credible evidence negatively impacts overall program success. Non-credible evidence will lead to the loss of trust and being viewed as a science-based, unbiased, source of information.” Another Extension director added, “It has less of an impact—and raises questions of value of the organization.” Another director responded, “Non-credible evidence impacts program success by jeopardizing a program’s sustainability efforts and ongoing stakeholder support.”

Extension Stakeholder Perspectives and Expectations

The complex nature of Extension and the differences in funding and stakeholder expectations makes meeting requirements for credible evidence difficult at best. Requirements for evidence vary greatly, based on the stakeholder and their needs. Extension organizations are faced with collecting and reporting different types of evidence to meet the needs of various stakeholders. This complexity poses several dilemmas for Extension and raises the following questions:

- Are the stakeholder’s expectations clear or achievable?
- Are their agendas transparent and consistent with project objectives or capacities?
- Which stakeholder or stakeholders get the most attention when it comes to providing evidence?
- How do politics and policy play roles in providing evidence to stakeholders?

In general, each subgroup of stakeholders sets its own expectations and timetable for evidence based on precedent, laws, policies, or other guidelines. This complexity of expectations requires Extension administrators and staff to balance expectations for evidence that, if not conflicting, may not be complementary. These differences in expectations may include different evaluation targets (e.g., organizational, program, participant behavior), level of focus (e.g., outputs, outcomes), precision of outcomes (e.g., specific vs. general changes), timing (e.g., short- vs.

long-term, frequent vs. one-time reporting), in addition to diverse indicators within and between disciplines and projects. Moreover, expectations for the type of evidence (e.g., quantitative vs. qualitative, or both) and representation of evidence (e.g., local vs. cumulative state or national data) increase the evidence complexity exponentially.

Federal Level Requirements and Expectations

The federal stakeholder for Extension is the United States Department of Agriculture's National Institute of Food and Agriculture (USDA-NIFA). Requirements for program evidence at the federal level are, for the most part, consistent across Extension. Some of the evidence requested is required by the Agriculture Research, Extension, and Education Reform Act of 1998 (AREERA, 1998). This act amended the original Smith-Lever act of 1914 that first established Extension. A more detailed description of the legally mandated evidence and other required evidence is discussed below.

For USDA-NIFA, credibility and credible evidence is provided at the organizational level. Evidence is provided to demonstrate that the Extension organization is utilizing federal dollars wisely and providing evidence to support the mission of USDA-NIFA at the federal level. USDA-NIFA routinely has areas of focus that state Extension organizations provide evidence to support. These have included topics such as climate change, sustainable energy, obesity, and food safety.

Federal legislation requires Extension institutions to submit a 5-year plan of work (POW) and an annual report of accomplishments to receive federal funding. Specific requirements of AREERA (1998) include the following:

- Programmatic overview of the institution;
- Programmatic summary containing research, Extension, and integrated accomplishments;
- Overview of the scientific and merit review process;
- Description of the stakeholder input process;
- Inclusion of all multi-state and integrated components; and
- List of all planned programs.

In addition, documentation is requested within the reporting structure to provide USDA-NIFA with evidence of impact for programs delivered at the state or institutional level. These impacts, based on the planned programs included in each state's POW, are used to fulfill funding strategies and legislative requests.

Federal requirements have remained fairly consistent since the passage of the AREERA in 1998. Changes in administrations and the policies of these administrations have not altered the general requirements for evidence. However, there has been a greater emphasis over the years on the

inclusion of impact-related program objectives and evidence in the federal reporting system. Reviews of submitted reports have focused on the impact of efforts much more than on other evidence data, such as inputs (those items that go into conducting a program, such as resources) outputs (items that derive from a program such as number of participants). For example, in the reviews of federal report submissions, critiques generally focus on the presence or absence of evidence for state-defined program outcomes. These outcome data focus on learning, applications of recommended practices or behaviors, or the effects on an individual or community as a result of those changes of practices or behaviors. Statements including this impact evidence are most commonly used for evidence presented to Congress or other government entities.

In the past, leadership at USDA-NIFA have set priorities for specific interest areas (e.g., sustainable energy, climate change, childhood obesity) and facilitated the development of research bases and performance indicators consistent with Extension's mission, scientific foundations, and stakeholder needs. From the federal perspective, the focus on the specific issue priorities and evidence reported by Extension has changed, although the general criteria for and methods of reporting has not changed.

State Level Requirements and Expectations

For many Extension organizations, the state legislature is also a stakeholder providing funding to Extension. The percentage of a state's total funding that is received from state legislatures varies from state to state, with some states providing a majority of their Extension's total funding to other states that contribute very small percentages to their Extension's total funding. Models also vary on how state funding is appropriated. In some cases, funding is provided to the land-grant university and then to the Extension component. In other cases, Extension funding is provided directly to Extension. For example, in Texas, the Texas A&M AgriLife Extension Service is a state agency under higher education and is a separate line item in the state budget. State funding comes directly to the Texas A&M AgriLife Extension.

At the state level, credibility and credible evidence is also at the organizational level. Evidence is provided to demonstrate that the organization is utilizing state dollars wisely. Typical evidence might include participation or reach numbers, results of programs focusing on the effectiveness of the effort, and in some cases, economic impact of the efforts. Where Extension's state budget is part of the land-grant university's structure, Extension evidence may also support the work of the university's outreach efforts to stakeholders.

In another state, the Extension director noted:

At the state level, the Extension Directors Office provides a quantitative impact report to Central Administration annually, a report on Key Progress Indicators to the Legislative

Finance Committee and Higher Education Department, and qualitative/quantitative impact documents are used during the legislative session.

University Level Requirements and Expectations

Extension institutions vary on how they are connected to the land-grant university. Differences in accountability criteria and structures are typically related to Extension's funding structure. In some cases, Extension is fully integrated within the university, and funding is channeled through the university structure. Funding, reporting, and requirements for evidence come from the university leadership. In other states, Extension is part of a university system. A university system is typically an umbrella administrative structure governing several universities. Although Extension may be integrated into the university, funding, reporting, and requirements for evidence come from the university system or directly from a line-item in a state budget.

As with the state level requirements and expectations, credibility and credible evidence at the university level is at the organizational level. Required and requested evidence is provided to demonstrate that the Extension organization is using state dollars wisely. Where Extension is part of the university structure, evidence may also support the work of the university's outreach efforts to the stakeholders. More of the emphasis here is to document evidence that the public is receiving value from their land grant university at large, via Extension.

University requirements vary by institutional structure and needs. The magnitude of diversity cannot be overstated, and the examples shown in the remainder of this article are only suggestive of the scope. One Extension director noted:

The University requires budget accountability for the state line along with statewide accomplishment information that is used by the University President and Government Relations office. This information is largely based on post-survey impact evaluation data and is required with state budget reports on a yearly basis.

Local Level Requirements and Expectations

Like the state stakeholders, agreements for funding at the local level vary greatly from state to state. In some situations, local entities (e.g., county commissioners or county judges) pay funds directly to Extension and those funds are then used to pay local personnel. In other cases, local Extension professionals are paid by both state Extension funds and local entity funds. In-kind funding, in the form of office space, vehicles, support staff, and other resources are also common ways local entities contribute to the Extension program and support Extension work. As with the state funding partner, evidence required at the local level varies by state and in some cases by the local entity. In Texas, county governments are typically interested in what activities the local staff is implementing. In Kentucky, there is a state agency focused on county-level work.

Local reporting also varies greatly. For instance, Kentucky has a State Department for Local Government which governs reporting for all counties. Other states have no such consistency in requirements for reporting across counties. One Extension director noted:

All county Extension offices enter monthly contacts and yearly provide quantitative program impact documents to their respective County Director. We also use the University's reporting platform (Digital Measures) to capture a variety of reporting variables, including media contacts, publications, and presentations.

Another director noted:

County Extension professionals work in partnership with Extension program field specialists and regional directors to annually complete a County Stakeholder Report. The report highlights outcomes and impact of programs within the four program areas of Agriculture and Natural Resources, 4-H Youth Development, Human Sciences, and Community and Economic Development.

At the local level, credibility and credible evidence may be focused more on specific programs and not on the organization as a whole, given the grassroots nature and expectations of the local stakeholders.

Grants and Special Projects Requirements and Expectations

Reductions in funding from governmental sources at the federal, state, and local levels, as well as partnerships and alternative funding opportunities over the past decades, have led many state Extension organizations to focus more on grants and special funded projects to maintain or increase overall levels of funding. Grant and special project requirements for evidence are specific to the grant/project and the agency or group who provides the funding. The reporting requirements for these grants and projects are often outlined in a request for proposal (RFP). Grant or special project requirements for reporting may be focused on various levels of evidence including inputs (time, FTEs, financial resources), outputs (participation, satisfaction, publications), and/or outcomes (learning, behavior change, impacts). Reporting guidelines for grants and special projects will also delineate deadlines for reports. These deadlines usually take place periodically throughout the program's duration or shortly after the program's termination.

In general, an Extension or university grant or contract approval process reduces conflicts over the types of evidence and access to that evidence, but interests of external stakeholders are sometimes at odds with Extension's mission and evidence criteria. The potential negative impact is lessened when objectives of these external funding stakeholder(s) are congruent with the Extension mission.

Given the diversity of criteria for grants and contracts, it is clear that evaluative measures needed by these stakeholders to make decisions vary extensively. If clear expectations are not in place,

stakeholders might settle for what they consider to be “good enough” evaluation. This might meet the perceived needs of the stakeholder but may not fully provide the full extent of the results seen by the effort.

Communicating to the Public

As the National Institute of Food and Agriculture (NIFA) states,

Extension provides non-formal education and learning activities to people throughout the country—to farmers and other residents of rural communities as well as to people living in urban areas. It emphasizes taking knowledge gained through research and education and bringing it directly to the people to create positive change. (n.d.)

Through a variety of means, Extension provides information, programming, resources, and technology to individuals and the communities in which they live in order to address public need (NIFA, n.d.). In serving these communities, Extension is in the business of building relationships with individuals and communities through Extension’s brand and serving them through the transference of scientific knowledge (NIFA, n.d.). In doing so, an incredible amount of trust must be fostered between Extension and the public. As an information hub, Extension needs to ensure that the information being provided is accurate, relevant, and applicable to the individuals and communities it serves. Thus, a new layer of credibility is added, as another stakeholder, the general public, enters the picture.

The real struggle with communicating to diverse audiences, as Extension does, is meeting the needs of each stakeholder. As a liaison between scientists and researchers, state and federal governments, agriculturalists, health experts, and the general public, Extension needs to be able to adapt its communication strategies, while maintaining a credible core message. In communicating with public audiences, Extension is charged to “translate science for practical application” (NIFA, n.d.). In the dissemination of research, the need arises for Extension professionals to serve as communicators, breaking down scientific concepts and language into digestible dialogue. The question that remains is how does Extension effectively reach an intended audience when there are multiple audiences and/or agendas? Given the role of translational research in Extension, one might argue that the best way to deliver messages to the public is through qualitative, impact-oriented information, rather than quantitative, outcome-related data (NIFA, n.d.). However, understanding that Extension also operates within scientific and governmental landscapes, others might argue that publishing with hard-scientific data and policy jargon is necessary to remain a valid and credible source.

Many Extension organizations have worked to use tailored communication strategies to meet the needs of the audience. When delivering to stakeholders, Extension must also meet accountability and evidence requirements of those stakeholders. Many times, Extension can be taken for granted until it is threatened by real or proposed budget cuts. This is the point at which

documentable impacts become most relevant and important. When serving the public, Extension must be able to offer that information in a practical, understandable way. Not having streamlined reporting guidelines has created difficulty in determining how to best publish and/or present program evidence that is deemed credible across all levels of Extension. However, this perceived fault may also be one of Extension's most valued benefits, as it allows Extension to currently operate within multiple fields, giving Extension a larger platform to reach a wider audience. By not being a one-size-fits-all organization, Extension has been able to reach multiple audiences in diverse ways.

Perspectives on Credible and Actionable Evidence from Extension Directors

Numerous factors shape the generation of credible evidence and actionability of credible evidence within the Extension system. With the multitude of different stakeholders requesting varying degrees of evidence, Extension leadership is faced with having to meet the needs of these stakeholders. Providing credible evidence to meet these needs is challenging at best. One Extension director responded,

Credible evidence, as it relates to Extension, is gained through the long-term trust with Agents and Specialists tied to the Land-Grant University. Evidence that is supported through the scientific process is strengthened by proper evaluation of the educational programs. As defined, credibility has two key components: trustworthiness and expertise. Both are critical for Extension's mission of providing credible information.

As discussed in many of the other articles in this special edition of the JHSE, evaluation strategies and methods are closely linked to the concept of credible evidence. Another Extension director stated, "Evaluation methodology incorporated in the program from beginning to end and post-program is credible evidence. Applied research information is also credible evidence." A challenge in the area of evaluation includes what type of evidence is being requested. One Extension director stated, "Depending on the stakeholder/funder, credible evidence can be inputs, outputs, outcomes, and/or impact."

Internal and external factors also shape expectations for credible evidence and its impact on reporting and funding. Policy, practice, and politics all play a role in these factors. One Extension director summed up the role of these factors:

External and internal factors that shape reporting and funding expectations include, but are not limited to federal mandates and laws; university promotion and tenure systems; annual staff performance reviews; expectations of current university, state, and federal leadership; faculty and staff position descriptions (i.e., expectation to obtain external funding); available funding streams; Extension professionals skill level in securing funding through grants and contracts; and Extension professionals' abilities to plan, design, implement, and measure and report program impact.

This is an area that has vast differences among institutions. University promotion and tenure bring a greater focus on credible impact that meets the academic expectations of a university.

Does credible evidence, in terms of reporting, differ across the various levels (local, university, state, federal) of Extension? Based on the varying levels of stakeholders and their needs, as described in this article, the answer to this question is a resounding yes. As one of the Extension directors stated:

Differences among reporting across local, university, state, and federal levels primarily exist related to types of data requested. For example, at the federal level, civil rights data is requested as is the amount of time and effort Extension professionals spend on federally funded programs. At the federal level, Extension systems also must complete the Combined Research and Extension Annual Report of Accomplishments and Results and the Combined Research and Extension Plan of Work. At the local, university, and state levels, these types of reports are not requested. However, at the local, university, state, and federal levels, all require one or more reports that seek documented program outcomes and impact.”

The differences in evidence that is required by various stakeholders do exist. However, whether reporting to the federal, state, university, or local levels, all evidence must be credible to the stakeholder(s).

Conclusion

Extension as a system has a variety of stakeholders at the federal, state, local, and university levels. Additionally, grants and special projects have added to the diversity of stakeholders to which Extension is responsible for reporting. So how does Extension provide credible evidence to all of these groups? As discussed in this paper, there is no clear answer to this question. If there is no clear answer, how does Extension move forward?

Extension administrators, specialists, agents, and others must recognize the complexity and variety of stakeholders and meet their needs for credible evidence and accountability. In many cases, funding is tied to these expectations. Extension must educate its stakeholders on the evidence that shows the value and effectiveness of Extension’s efforts. Extension must maintain a level of credibility by meeting these needs, while also maintaining its commitment to research-based, unbiased information and evidence. This is no small task, but one that must be accomplished as Extension continues to remain relevant and important in our counties, state, and the nation.

There is a strong emphasis on “no clear answers” in this article. Extension must focus on producing credible and actionable evidence at each level and meeting the challenges and needed efforts to generate and use more credible evidence. Because of the multiple levels of

expectations of local and state funders, there will be large differences among institutions. However, there are areas where Extension can be more consistent in its approaches and how it communicates its value and worth broadly to funders and stakeholders.

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