

Agricultural economics: Key commitments and institutional alertness

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Abstract

This presidential address highlights the foundational and ongoing importance of the historical commitments of agricultural economists to applied research and outreach programs. In addition, I stress that institutional alertness increases the pragmatic approach. When research, extension, and institutional alertness are fully integrated, agricultural economists have the potential to generate grounded knowledge, which has meaningful implications to our effort to improve life. I develop these ideas generally and with specific reference to my own research.

JEL CLASSIFICATION

A12, K00, N00, Q00, Q15

Ce discours présidentiel souligne l'importance fondamentale et permanente des engagements historiques des économistes agricoles en matière de recherche appliquée et de programmes de sensibilisation. De plus, je souligne que la vigilance institutionnelle augmente l'approche pragmatique. Lorsque la recherche, la vulgarisation et la vigilance institutionnelle sont pleinement intégrées, les économistes agricoles ont le potentiel de générer des connaissances bien ancrées qui ont des implications significatives pour nos efforts d'amélioration de la vie. Je développe ces idées de manière générale et avec une référence spécifique à mes propres recherches.

1 | INTRODUCTION

My presidential address highlights three major points concerning aspects of the history of our discipline and professional association. First point: Agricultural economists place a high value on understanding the practical consequences of economic theory.¹ As a result, a primary product of our efforts is to generate “grounded knowledge”—an understanding of a theoretical idea by its practical consequences for real-world situations. Second point: Agricultural economists embrace a broad-based methodology that notably includes reflection on the experiences afforded by extension.² Our open mindedness about the potential input that can be gleaned from ongoing extension efforts and, the relationships which these efforts afford, explain the prominent role of outreach in our field. Third point: To formulate grounded knowledge with potential to produce an impactful *extension product*,³

¹ I believe agricultural economists are at our best when, in addition to developing an appropriate theoretical model, we seek out ways to assess that model in terms of its practical consequences, consider the appropriate institutional context, and seek out ways to incorporate our findings into our research-based extension efforts.

² Fox (1997) provides a detailed discussion of methodologies in economics.

³ I credit discussions with the late Dr. Paxton Marshall of Virginia Tech for shaping my thinking about the extension product. The extension product is research-based information that informs a decision to act or forbearance.

institutional alertness—active attention to the consequences of institutions that were previously unknown or underappreciated—is often paramount.⁴ When we combine points two and three—that is, when we couple an examination of experience with an understanding of the institutions relevant to the applied research issue at hand—I believe we maximize the practical insights and impact of economic theory and our evaluation of both. By way of example and to underscore this point, I draw on my own research on land and water issues.

I believe each of these three points is widely appreciated by agricultural economists and members of the *Canadian Agricultural Economics Society* (CAES). My goal is to forge these ideas together to characterize agricultural economics and thereby orient the future efforts of CAES. Although I develop key insights drawing on the history of CAES, the key themes are germane to agricultural economists throughout North America and to agricultural economists elsewhere in the world.

2 | BACKGROUND

On June 14, 1929,⁵ nearly 90 years ago, the CAES was formed in Winnipeg.⁶ It is significant to note that when J. E. Lattimer, the first president of our society, organized an informal gathering the year before to discuss the need for a society, half of the Canadians present had never met each other (Lattimer, 1960). According to Lattimer, the vastness of Canada, coupled with the draw of educational events in the United States, made it more likely that Canadian agricultural economists would meet in the United States. This would necessarily limit the capacity of Canadian agricultural economists to conceptualize and address issues of national importance. Hence, one motivation for the CAES was to create opportunities for Canadians interested in agricultural economics to come together and consider issues in Canada, a country whose size and history requires an understanding of a diverse set of agricultural issues. There would be little debate that today the same geographic and national considerations are still relevant to our association, and that we have been organized, in part, to help address many of the same issues that motivated Dr. Lattimer and his colleagues: (1) to gain familiarity with other agricultural economists and (2) to promote the employment of economic theory in identifying and examining the agricultural issues and policy challenges facing Canada.

An additional historical detail worth noting is that the CAES was formed at the ninth annual gathering of the *Canadian Society of Technical Agriculturalists* held in Manitoba. Our emergence from this group—consisting of “technical” workers in agriculture—is not happenstance. The interests of this group are consistent with the shared belief of many of our founding members who sought to address farm problems by clearly understanding the economic and social context at the ground level where farm management and marketing decisions were being made.

To appreciate this point more clearly, it is also worth reviewing the founding motivations for generating an agricultural economics association in the United States in 1910, nearly 20 years prior to the forming of the CAES. The *American Farm Management Association* (AFMA) eventually became the *American Farm Economics Society*, known today as the *Agriculture and Applied Economics Association* (Barkley, 2010). The formation of these associations supported and spurred later efforts to form CAES (Lattimer, 1960). The importance of farm management figured prominently in the early discussions regarding the need for AFMA and departments of agricultural economics. Prior to the forming of AFMA, the *Committee on Scope and Cleavage*—formed by economists to define the distinct meaning of farm management—concluded that “[f]arm management deals with the rural problem from the individual or private point of view. It differs from agricultural economics or rural economics and from rural sociology in that these subjects view the rural problem from the national or public point of view” (Barkley, 2010, p. 17).^{7–9}

⁴ Barnett (1992) and Kirzner (1973) use a similar description to characterize the “alertness” of the entrepreneur.

⁵ In both the United States and Canada, the emergence of agricultural economics in academia dovetailed with the emergence of government departments of agricultural economics. For example, the emergence of our society in 1929 occurred at the same time the Agricultural Economics Branch was established to support Canada's Department of Agriculture (Hudson & Andral, 1980).

⁶ It may be of interest to some to note that there are differences of opinion about the exact date. In the forward from the CAES proceedings 1932–33, the date is specified as 1929. However, J.E. Lattimer (1960) sets the date at 1930, though he notes an informal gathering was held in his hotel room.

⁷ Barkley (2010) is quoting the AFMA, *Report on the First National Meeting*, Ames, Iowa, 1910: 4–5.

⁸ Agricultural economics at the time referred to economists interested in the broad role of the agricultural sector. Agricultural economics, in this setting, was considered a long-standing interest within the economics profession. The interest in “farm management” was a more distinct departure from general interests of *American Economics Association* (AEA) members in the late nineteenth and early twentieth century (see Barkley, 2010, for a fuller discussion)

⁹ The University of Guelph's current department—Food, Agricultural and Resource Economics—was initially a Department of Economics in 1907. In 1917, it became the Department of Farm Management, and, shortly thereafter in 1918, the Department of Farm Economics. Finally, in 1921, it settled on the name of the Department of Agricultural Economics. Agricultural Economics was retained in the name for nearly 64 years until the change to its present name in 2006 (Fare 2017).

It follows to ask: What does it mean, from an academic perspective, to take the “individual or private” point of view rather than the “national or public point of view”? And, how does this definition reconcile with one of J.E. Lattimer's founding objectives—to gain a national perspective on issues of agriculture? Lattimer (1960) himself provides us some clues in his own writings on the early work of agricultural economists:

Early workers in the economics of agriculture naturally followed the inductive method. They found it necessary to investigate local conditions and reveal problems of more or less local significance, while at the same time, keeping in mind problems of another nature and other localities (p.3).

Lattimer's emphasis on local conditions while “keeping in mind” problems of “another nature and other localities” resonates with Barkley's (2010) description of the motivating ideas around 1910 that led to the formation of today's Agricultural and Applied Economics Association. I take this dictum to mean that agricultural economists were committed to understanding the experiences and problems facing farmers and farming at a granular level, but recognized the value of communicating this to each other via an association so as to develop an understanding of these problems at the national level. Keep in mind that, at the turn of the century, farmers and the rural population in general were the majority of the population in both Canada and the United States.

I believe that our effort to understand the “local conditions” is still a unique and valued attribute of research in our field. And, to the extent that this is true, I believe agricultural economists value the pragmatic idea that applied economic theory is given meaning by its practical consequences, and that to understand the practical consequences, one has to understand the situation being experienced by individuals and organizations being studied. As an example, Lattimer (1960) noted that during his time as a professor, general economics textbooks developed the idea of the agricultural sector as a competitive market. He recognized that, while accurate in some phases, it is not accurate in all.

Today, the Canadian and U.S. population is mostly urban, and the farm population is much smaller than in 1929. As a result, the field of agricultural economics addresses a broader range of issues than it did in 1929. That said, I believe the promise of our field and our association is still fueled by aspects of our birthing story. Specifically, my observation is that agricultural economics continues to be a relevant field because we remain committed to the idea that knowledge building requires a careful assessment and appreciation of situational details. In the United States, this has been institutionalized formally through the Smith-Lever Act and support for extension services to farmers, rural households, and communities throughout the United States. In Canada, this commitment became imbedded in what it means to be an agricultural economist by the mission and incentives of academic departments.

I want to reflect a bit more on the substantive differences between the formal cooperative extension system in the United States and extension as it occurs in departments of agricultural economics throughout Canada. In the United States, land grant universities receive a combination of federal, state, and local funds for research and extension work, some of which is usually allocated by their college administration to departments of agricultural economics. The federal and state portions generally far exceed the local funds. This funding usually—though not always—ensures some faculty positions with principal responsibility for extension activities. Such positions may only be partially funded; hence, split appointments are common. When appointments are heavily extension funded, these positions are often characterized as “extension appointments.” In some cases, these faculty have a separate promotion and tenure process. Subsequently, in land grant universities throughout the United States, faculty are differentiated by the extent to which they primarily engage in teaching, extension, or research. Unfortunately, in some cases, the distinction between “researchers” and “extension-oriented” faculty has led to the mistaken idea that high-quality extension can be meaningfully divorced from high-quality research. In fact, high-quality extension programs are notable for the quality of research on which they are based.

In the absence of formal extension programs, Canadian faculty engage in extension activities as a part of their research program. Though there are some extension appointments, for the most part, faculty in departments of agricultural economics have similar research and teaching assignments. In Canada, a faculty member's decision to engage in extension depends on their own assessment of the benefits of doing so. In some cases, researchers may view extension and the associated relationships that emerge with key constituents as helpful to informing their research—the *value of iteration*. Many researchers engage in extension because they believe their applied research program generates information that needs to be considered by individuals facing the problem their research purports to examine—the *mission commitment*. Both perspectives, what I have termed the “iterative value” and the “mission commitment” are critical components of the rationale for extension education and its development and vitality in our profession of agricultural economics.

Fortunately, in Canada, like the United States, there are financial incentives to engaging in extension. For example, most researchers in my department at the University of Guelph have received grant funding through the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). OMAFRA identifies information needs and, subsequently, researchers submit

proposals. A key component of the proposal evaluation process is the knowledge transfer plan. This requires researchers to articulate an extension plan along with the planned research. I believe this funding relationship is one example of an effective extension model.

The seminal ideas that motivated the formation of agricultural economics have always been appreciated by general economists. In 2017, I was inspired by Esther Duflo's presentation to the *American Economics Association* titled "The Economist as Plumber." Duflo (2017) argued that the increased opportunity of economists to get involved in policy making "...gives them [economists] the responsibility to focus on many details about which their models and theories do not give much guidance" (p. 1). She makes a point that is important but not surprising to most agricultural economists when she writes that "...details that we as economists might consider relatively uninteresting are in fact extraordinarily important in determining the final impact of a policy or a regulation, while some of the theoretical issues we worry about most may not be that relevant..." (p. 1). Like the founders of our profession, she does not speak disparagingly of theory. Quite the contrary—she argues that policy outcomes will not be in accordance with theoretical expectations unless we gain clear insight into the interrelationship of multiple variables of the situation under study.

Duflo (2017) gives an example of a grant-loan program designed to enable households to access water services. To the surprise of those who designed the subsidy, very few households were participating in the program. When researchers focused on the experience of targeted households, they realized a number of small details (e.g., transportation constraints) that were stymying the capacity of households to sign up for the subsidy. Once these details were known, more effective outreach greatly enhanced participation in the program.

Duflo (2017) argued that attention to this level of detail is an important responsibility of economists involved in policy making. I agree. Moreover, I believe this idea and responsibility is imbedded in our own field of agricultural economics from our founding until the present. Duflo's argument underscores the present relevance of the ideas and values that have shaped our association for nearly 100 years. Specifically, her example emphasizes an appreciation of assessing a particular idea developed from economic theory (i.e., the effect of subsidies on adoption) by practical consequences like "participation" in a program. Moreover, her example illustrates the benefits of an outreach effort that effectively incorporates new information in a manner that influences decision making. In the remainder of this paper, I argue that institutional alertness enhances our capacity to produce grounded knowledge and enhances our extension efforts.

3 | INSTITUTIONAL ALERTNESS AND INSTITUTIONS DEFINED

The purpose of introducing institutions at this point is twofold. First, I want to emphasize the importance of institutions in enabling an appropriate understanding of the economy. In this regard, I trod along ground that is familiar to many of you. However, I hope to provide some terminology and metaphors that may be useful to you in your own thinking about institutions. My second purpose is to lay the foundation for the next section, where I provide a more specific discussion of the way institutional alertness (more about this term in a moment) has enhanced my own research.

Economic institutions—their history and consequences—have been the focus of economists for some time.¹⁰ And, rightly so, the importance of institutions is hard to miss. Consider the following two quotations:

Increases in China's use of grains and oilseeds and in U.S. ethanol use of corn can explain the entire net increase in per-capita consumption of grains and oilseeds since 1980 (Westhoff & Thompson, 2016).

Between 1978 and 1984, output in the Chinese agricultural sector increased by over 61 percent. [...] ...our calculations suggest that 78 percent of the increase in agricultural productivity in China between 1978—1984 can be attributed to the incentive effects of the new responsibility system (McMillan, Whalley, & Zhu, 1989).

Institutional changes like those driving demand and supply for grains and oilseeds are widely studied and recognized as important. Agricultural economists have not failed to consider these issues. However, in my career I have encountered many microlevel situations where the need to be alert to institutional details has not been well understood. For this reason, and in an effort to enhance a discussion of and appreciation for "institutional alertness," I provide some definitions and describe some of my own experiences and research in the remainder of this paper.

¹⁰ Nobel prize winning economists have been explicitly recognized for their work on institutions and property rights; Douglas North, Robert Fogel, Ronald Coase, and Elinor Ostrom are notable examples. Many other prize-winning economists are clearly linked to this area of study as well.

As defined earlier, institutional alertness enhances the ability to meaningfully identify the consequences of institutions that were previously unknown or underappreciated. We become alert to the role of institutions in the way we seek out and search for information, connect information, and evaluate that information (Tang, Kacmar, & Busenitz, 2012). Institutional alertness enables “search” that, when effectively reviewed through the lenses of economic theory, becomes “*re*search.” Note the emphasis on the prefix *re*, which comes from Latin and means “again.”

In attempting to teach an appreciation of *institutional alertness*, I have found it useful to begin by posing questions like the following to students: What explains the relative differences in salaries amongst professional basketball players on a given team?¹¹ In response, some students suggest that differences in salaries reflect players’ scoring level or shooting percentage, some declare “it’s their speed,” or opine “it’s their basketball IQ.” Indeed, all of these are compelling and partial explanations that help to explain why one basketball player makes more money than another. However, the height of the basketball rim is seldom mentioned. Nonetheless, the rule governing the height of the rim is an important institution influencing relative salaries. To see this clearly, consider that presently the basketball rim is set at 10 feet. If the rule were to suddenly change and the height of the basketball rim was set to five feet, the comparative advantage of basketball players and subsequently their salaries would be radically altered.

This metaphor provides a couple of salient points regarding the role of institutions. First, even something as mundane as the height of the rim has important consequences on measures of economic performance. Second, there is a tendency to overlook some institutions. Indeed, some are taken for granted despite their relevance and importance for allocating resources. (For example, every lot in the City of Guelph is zoned for specified land uses). Third, and this is important, there are always incentives to either influence a change in institutions for personal gain or characterize them as “natural” to reinforce the status quo. In this regard, I must confess that I love basketball and support a rule that would lower the height of the rim and, thereby, enhance my comparative advantage.

Moving to a more rigorous discussion of institutions requires defining institutions. Following Commons (1961), I define institutions as “collective action in control, liberation and expansion of individual action.”¹² Let me emphasize the importance of “expansion” a bit, because I think we too often think of institutions as simply constraints on human action. This is often the way government intervention is characterized in introductory microeconomic courses. Within the firm, for example, a manager’s capacity to pick up a phone, call an employee located remotely, perhaps in another country, and direct the employee to take specific actions is an example of an expanded opportunity afforded to managers by institutions that utilize defined hierarchies. Indeed, the persistence of institutions that define and enable hierarchies within the firm suggests that these hierarchies are important institutions deserving of careful consideration in the context of spontaneous and intentional governance (Williamson, 1991).

The capacity of institutions to “expand” opportunities is fundamental to understanding the market system—“...society wide coordination of human activities not by central command, but by mutual interactions in the form of transactions” (Lindblom, 2001, p. 4). Once we meaningfully define markets and give substance to the meaning of transactions—that is, that transactions are not merely the exchange of commodities in a physical sense, but involve the alienation and acquisition of rights to the ownership and future use of things (Commons, 1961, p. 58)¹³—we can understand why Coase wrote (in perhaps one of the most underappreciated lines of the *Problem of Social Cost* [quoting and agreeing with Pigou]) “...if self-interest does promote economic welfare, it is because human institutions have been devised to make it so” (Coase, 1960, p. 29).

In this section, I endeavored to emphasize the importance of institutions in the abstract and provide clarity to a variety of terms: i.e. search, research, institutions, institutional alertness, and markets. As mentioned earlier, agricultural economists are often engaged in the critical process of generating grounded knowledge. For this reason, in the next section, I will provide some specific examples from my own experiences and research. In doing so, I advance the argument that an improved understanding of institutions enables economists to better identify the real-world situation (substantive relationship between individuals with respect to resources) and, thereby, enhances our understanding of the practical consequences of our abstract theory.

¹¹ I develop this metaphor in a paper published in a 2004 book titled *The Kenneth Hammond Lectures on Environment, Energy and Resources*, edited by Josef Ackerman and Ward Chesworth and published by the University of Guelph.

¹² In some cases, these are “planned”—for example, a zoning ordinance—while in other cases they emerge more or less unplanned—for example, language.

¹³ Economists would do well to keep in mind that many things, perhaps most, are being bought by forward-looking agents to ultimately be sold again. In these situations, property and contract are essential.

4 | INSTITUTIONAL ALERTNESS: PROPERTY

Issues surrounding property¹⁴ are the fulcrum of both my life experiences and my research. I have learned through search and research to be alert to the institution of property. For example, there is a tendency to conceptualize property as a relationship between owners and nonowners and to underappreciate the vast complexity of internal relationships and associated complexities among property stakeholders (Alexander, 2012). This occurs in a wide range of settings from concurrent estates, to condominiums, housing cooperatives, partnerships, etc. (Alexander, 2012).

These institutional complexities were not evident to me and many others in 1995 when I began directing a small water and sewer project—*The North Fork Clean Water Project*¹⁵—in eastern Kentucky. At that time, I was tasked with the difficult challenge of removing the more than 1,000 “straight pipes”—pipes that placed household waste “straight” into the streams and rivers without treatment—that had been identified in Letcher County. The project initiated a grant-loan program to financially support the purchase of a septic tank and associated leaching fields. Like Duflo's water example mentioned above, I soon became aware of how situational details matter. In this case, the details that mattered were an institutional feature of real property that I had not yet learned about. Before describing this situation more fully, I would note that it was my later Ph.D. training at Michigan State University that enabled me to fully organize my thinking about this issue and research it years after the experience I will describe.

Returning to my experience in eastern Kentucky, in administering loan applications I followed a general practice (instituted by low-income housing projects in the region) of asking prospective applicants to provide evidence that they were the owners of the land.¹⁶ Over and over again, people would respond “it's in Heirs.” At the time, I had no idea what this meant; however, the response was so common that at a subsequent meeting of the community oversight committee (a group I had organized to provide community input into the project initiative) I explained, naively, that “our project” could not effectively provide loans to many households because many people described their ownership as “in the air.” My confusion of the word “air” with “heir” led to much laughter and initial embarrassment, but I was very alert to the consequences and, from that day to the present, I have been working to understand this property issue. Indeed, I fully addressed this issue in Deaton (2007), Deaton, Baxter, and Bratt (2009), and Deaton (2012b). I will draw on these publications in the remainder of my discussion about *heirs property*.

Heirs property identifies a real form of real property—tenancy in common. Individuals who own land as tenancy in common own a partial, undivided interest to the whole of a particular property. (Hereafter, I will refer to this property as land). The “partial” implies that the land is co-owned and that each owner has a partial interest in the whole. Importantly, this partial interest confers a right to use the whole of the land so long as it does not interfere with the rights of the other co-owners. Hence, for some uses of the land, collaboration between co-owners is needed, and many future uses of the land require harmonized expectations about this collaboration.

Tenancy in common is referred to as –“heirs” property because many of the co-owners share family ties, and became co-owners (cotenants) as a result of the intestate death of a family member via the laws of *intestate succession*. In the United States, the laws of intestate succession vary by state and determine how land is allocated in the absence of a valid will. This is important because only 60% of United States adults over the age of 50 have a valid will, and the likelihood of having a will is positively related to income and education level (Deaton, 2007). Hence, in rural areas where many low-income households do hold real property, this form of ownership is more prevalent, and documenting its prevalence has been the subject of research. (See Deaton, 2012b, for a review of this research). In this situation, policy efforts to address rural development issues cannot rely on the conventional conceptualization of land ownership as private property by a sole owner.

In an heirs property situation, the co-owners typically come to own land through the laws of intestate succession—not through a market exchange—per force of statutory law. Moreover, they become co-owners with an inability to exclude other co-owners! Elsewhere, I have documented scenarios where 20 heirs co-own an acre of property (Deaton, 2007). Unlike the conventional discussion of private property where a sole owner enjoys broad rights to use their land, a co-owner of heirs property enjoys use rights that are subject (in many cases) to the rights of their cotenants. For example, in Kentucky, one cotenant cannot decide to clear-cut timber on a parcel of heirs property unless all the other cotenants agree. Also, agreement is difficult when there are

¹⁴ Property applies to scarce things and hence, influences the distribution of wealth. When it is enforced it reifies a particular ethical constellation of rights and duties. From a legal perspective, it assigns duties, rights and privileges of owners to a set of uses that enables self-seeking behavior. The constellation is constantly evolving and is subject to an arena of power play whereby individuals, agencies, and organizations pursue their interests and often advance, selectively, perceptions of justice. In this way, property is endogenous.

¹⁵ The Mountain Association for Economic Development (MACED).

¹⁶ See Deaton (2007) for details on low-income loan practices relevant to the region at the time of my experience (1995–1997).

many heirs, some of which are living outside of the region. In my previous research, I have identified a host of economic issues and concerns that accompany heirs property (Deaton, 2007; Deaton, 2012b; Deaton et al., 2009). Here are three examples:

1. Government efforts to lend money to low-income households have historically disallowed the use of a partial-interest in heirs property as security. This has influenced access to loans.
2. In some regions, banks do not allow a cotenant to place a mortgage on heirs property without the signature of all the other cotenants. This inhibits the capacity of land held as heirs property to act as capital.
3. Heirs may forego specific uses of land (e.g., timbering) when the land is held as heirs property.

In regions where heirs property is prevalent, conventional economic theories of capital formation, entrepreneurship, land use, land investment, and rural development will fail to adequately assess the situation and support appropriate policies. Failure to adequately assess the situation may confound the capacity of well-intentioned policies to achieve their goals. As I discussed above, I experienced this firsthand when I was administering a grant-loan program.

Presently, there are a host of legislative efforts to address historic challenges posed by heirs property. Most recently (on June 21, 2018), *Senate Bill S.3117-Fair Access for Farmers and Ranchers Act of 2018* was introduced in the U.S. Senate and referred to committee. The bill requires the Secretary of Agriculture to better enable individuals operating heirs property (under specified conditions) to receive loans. Moreover, the bill would provide loans to assist heirs to resolve ownership issues.¹⁷ This institutional innovation would, if enacted, *expand opportunities* for some heirs property owners by enabling better access to loans and financial means to address the costly effort of altering land ownership issues.¹⁸

5 | INSTITUTIONAL ALERTNESS: FIRST NATIONS

Next, I turn our attention to the importance of situational detail, institutional alertness, and grounded knowledge in the context of a circumstance challenging us all: How best to enhance the health and wealth outcomes in Indigenous communities of Canada. Importantly, given the more than 600 First Nations in Canada, we recognize from the outset that the situations confronting Indigenous communities, and efforts to assist them, will vary in important ways. The diversity of indigenous situations/communities and the myriad of institutions that meaningfully differentiate them, complicate the challenge of generating grounded knowledge. To the credit of agricultural economists and in line with my opening comments, this is the kind of challenge that first energized agricultural economists more than 100 years ago. To quote Lattimer (1960) again, "...[agricultural economists] found it necessary to investigate local conditions and reveal problems of more or less local significance, while at the same time, keeping in mind problems of another nature and other localities" (p. 3). Moreover, our professional associations, journal, and conferences provide a platform to develop a national perspective for agricultural economists based on focused studies across the country.

Some institutions, like those embodied in the federal Indian Act of 1876,¹⁹ have been historically viewed as constraining economic development (Flanagan, Alcantara, & Le Dressay, 2010). First, and most problematic from the perspective of many First Nation leaders, is that the Indian Act effectively arrogates to the federal government the right to govern land use. Second, First Nations land is held in forms of ownership that make it difficult to leverage the land to support investment.²⁰ Third, many First Nations leaders argue that the time required to secure business investments under the Indian Act diminishes incentives of businesses to partner with First Nations. Flanagan et al. (2010) detail this perspective in their book, and I document this perspective in my Faretalk podcast with Chief Louie of the Westbank First Nation (Deaton, 2012a).

Over the last 20 years, a number of First Nation issues relating to land-use policy and practices have rightly merited study by agricultural economists. One is particularly worthy of examination, and I want to "alert" you to it with regard to the points I am making in this paper about the importance of putting a laser beam on situation and institutions. The case is *The Framework Agreement on First Nation Land Management (1996)*. *The Framework Agreement* allows First Nations to opt out of portions of the Indian Act pertaining to land governance, and make their own land use decisions with respect to planning and developing First Nation's lands. This land reform was signed by 14 First Nations in 1996, and was codified into law in 1999 by the federal

¹⁷ See information about the bill here: <https://www.congress.gov/bill/115th-congress/senate-bill/3117/text>.

¹⁸ Deaton (2007) documents partition cases where the property sells for less than the attorney fees.

¹⁹ This Act was amended many times.

²⁰ I recently spoke to a farmer who lives on a First Nation. He owns farmland on and off the reserve. He indicated to me that one key benefit of owning farmland off the reserve is that he can more easily use that land as security to get a loan to support his farming.

government via the *First Nations Land Management Act*. Today there are approximately 126 signatories: 73 First Nations that are operational under the *Framework Agreement*, and 53 that are in the process of developing land codes. Hence, between one fifth and one sixth of First Nations are entering into a new era where, for the first time, they will devise their own land codes. Land codes address a host of issues, including leases, which affect the use and occupancy of First Nations land. Importantly, these land codes vary across First Nations operating under the *Framework Agreement*. Research questions abound. What factors influence the decision of First Nations to adopt their own land code? Does self-governance (with respect to land) enhance economic outcomes on First Nations?

Some of my early research suggests that First Nations in near proximity to urban areas are more likely to enter into the *Framework Agreement*. See Doidge, Deaton, and Woods (2013) for a review of the *Framework Agreement on First Nation Land Management*. One possible explanation is that First Nations near urban areas view the *Framework Agreement* as enabling them to take advantage of investment opportunities that are associated with activities in nearby urban areas. The study of the *Framework Agreement* is related to another important issue I am studying—factors influencing the quality of drinking water on First Nations. I have discovered that, to comprehensively address this issue, I must pay very particular attention to institutional detail.

Before I discuss this example, let me give you a bit of the back story that explains why it captured and sustained my research interests. As I mentioned earlier, from 1995 to 1997, I coordinated a nonprofit project in eastern Kentucky. A primary objective of that project was to improve drinking water quality. One approach was through a grant-loan program to low-income households. However, as I implemented the grant-loan program, I realized that many houses that did not have water or sewer services were in close proximity to municipal systems that had excess capacity. For a number of reasons, often historic, these communities did not want to become part of the city. To overcome this problem, I worked alongside community members, and city and county officials to create a county-wide water and sewer district that would facilitate extension of water and sewer services to communities. The Letcher County Water and Sewer District was instituted in 1997 by the Kentucky Public Service Commission, and today provides water to residents throughout the county. This county-wide district granted the county the right to connect city water systems to noncity households (residing outside the city, but in the county). This is a clear example of an institution that expanded opportunities for many households to access nearby water.

Twenty years later, I was working with a graduate student—Bethany Woods²¹—examining drinking water quality on First Nations. As she reviewed the data on drinking water quality for First Nations water systems on reserves, she noted that some First Nations received water from nearby municipalities. Building on my past experiences and her search, we set out to research this issue. In a recent publication in the *Journal of Water Resources and Economics*, we explore the factors that influence water sharing arrangements, and the extent to which these relationships improve water quality (Lipka & Deaton, 2015). We found that the presence of these sharing arrangements is associated with a statistically significant and economically meaningful improvement in drinking water quality. Specifically, after examining reserve water systems across the country, we found that there is approximately an 11 percentage point decline in the likelihood of a boil water advisory being in effect if a reserve system is serviced through a water sharing agreement. Additionally, many First Nations experiencing boil water advisories are within a feasible distance²² to a nearby municipality.²³

Much to my surprise, but consistent with the ideas exemplified in my “basketball rim” metaphor mentioned earlier in the paper, I am now alert to the many institutions governing relationships between communities with respect to water and sewer services. These relationships include direct bilateral or multilateral exchanges of water (or outsourced supply), shared or transferred infrastructure ownership, and shared or contracted system operations. The City of London, Ontario, provides an example of the complexities of municipal water services and how water sharing agreements can influence supply, infrastructure, and operations. London is part of two multilateral water supply networks: the Lake Huron Primary Water Supply System and the Elgin Area Primary Water Supply System. These two systems provide drinking water to London as well as to a number of other municipalities. It is worth noting that three nearby First Nations neighboring London—Chippewa of the Thames, Oneida of the Thames, and Munsee Delaware—are within the catchment area of the Elgin Area Primary Water System, but are not currently served. There are a number of reasons why this may be the case, and our current research seeks to better understand this issue.

It remains to be seen how the extent to which our enhanced knowledge of these situations and related institutions will translate into informed decision making by the key stakeholders (First Nations and municipal governmental leaders) who are in positions

²¹ At the time Bethany was an M.Sc. student. She is now the project manager and collaborator on a SSHRC-funded project “*Collaborative Water Services Between First Nations and Municipalities in Ontario*,” designed to follow up on issues examined in her thesis and in the associated journal article.

²² In Ontario this is defined as 13 km: the maximum straight-line distance between an urban boundary and the centroid of a First Nation in a case where an agreement was in place.

²³ In preliminary research we are able to identify 25 First Nations in Ontario that are geographically situated to potentially receive water services from a neighbour. As of 2011, 11 of those 25 had a boil water advisory on at least one of their water systems.

to positively improve drinking water outcomes with respect to First Nations. But I am firmly convinced that in order for our field to make a meaningful contribution to this issue we will have to better understand the interplay between the economics and the institutions governing drinking water.

6 | CONCLUSION

In this paper, I placed a high value on the ability of agricultural economists to generate grounded knowledge. Grounded knowledge emerges from an evaluation of a theory's value in the context of its practical consequences. Moreover, I believe that an additional form of assessment of value comes from ongoing extension efforts. Finally, I believe grounded knowledge and effective extension efforts are enhanced by institutional alertness.

The CAES can continue to support the generation of grounded knowledge in a number of ways. First, we can continue our effort to expand membership to individuals with organizational and institutional understanding of issues relevant to agricultural economics. Second, through the *Canadian Journal of Agricultural Economics* and CAES conferences, we will continue to have opportunities to develop our understanding of the important institutions that influence our economy. Our capacity to put increasing amounts of information as online appendices creates an opportunity to capture knowledge of situational details that may have been removed from journal articles in the past due to space constraints. I would encourage editors to continue to be innovative in this regard and to actively discuss strategies for coordinating ongoing efforts to do this. Third, the CAES can continue to support research-based extension and the discussion thereof.

My hope for this paper is that it will stimulate members of the CAES to discuss and debate the values that currently and historically define our discipline. It is important for students, administrators, ourselves, and our partners in both the private and public sector to speak clearly (and proudly, I might add) to the shared values of our profession. CAES annual meetings and even our journal provide us with an opportunity to do this. Additionally, I trust I have showcased the power and added value of incorporating the concept of institutional alertness into the theory and practice of agricultural economics, and the work of university extension.

Looking toward the near future, agricultural economists will continue to address a diverse set of challenges requiring in-depth reflection on the Canadian economy. I believe CAES has the capacity to productively meet that need.

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