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The Impacts of the Great Recession on State Natural Resource Extension Programs

Abstract

The Great Recession contributed to major budget cuts for natural resource Extension programs in the United States. Despite the potentially large cuts, their impacts and how Extension has adapted their programs have not been evaluated. We begin addressing these needs with surveys of Association of Natural Resource Extension Professionals members and State Extension Service Administrators in 2011. Results indicate that Extension programs have adapted to cuts by increasing reliance on grants, fees, and partnerships. We suggest the need to better understand the implications of cuts for natural resource Extension and its customers.

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Introduction

For over a decade, fiscal crises have intensified the decline of federal and state support for Extension programs (West, Drake, & Longo, 2009; McDowell, 2004). Considering the strong ties to governmental funding and the historical trend of targeting Extension during fiscal crises, the Great Recession of 2007-2009 may have had devastating impacts on Extension programs. These impacts may have required significant adaptations by Extension to ensure continued programming and services.

Unlike other academic programs at land-grant universities, Extension programs cannot address budget shortfalls with tuition increases, so they often confront this issue with program restructuring and elimination of faculty and staff positions (Breneman, 2002; Potter, 2003; Payne, 2004; Zumeta, 2010). In the past, as state legislatures rebalance and overhaul budgets to deal with a recession, some Extension programs have resorted to user fees, curtailed their services, or both (Hebel, 2002). Little is known about how natural resource (NR) Extension professionals view impacts of the Great Recession on their programs or how programs have responded to those impacts. The objectives of the study reported here were to address two questions:

1. What was the perceived impact of the Great Recession on NR Extension programs?

2. How have Extension staff with NR Extension responsibilities adapted to these impacts?

Methods

To address our questions we conducted three surveys. Survey I was administered to State Extension Service Directors and Administrators (i.e., Administrators; N = 82), survey II to members of the Association of Natural Resources Extension Professionals (ANREP) (i.e., non-Administrators; N = 435), and survey III was a follow-up survey sent only to ANREP members.

Surveys I and II were designed to determine how Extension Directors, Administrators, and ANREP members perceived impacts of the Great Recession on their budgets and program delivery. These surveys were administered over a 2-week period in August 2011. For surveys I and II, reminder emails were sent 1 week after survey commencement and the day before completion, respectively. Survey III was used to determine how NR Extension professionals had adapted to impacts of the recession. This survey was administered during the entire month of February 2012 and mainly focused on qualitative data. Survey reminders were sent every week until survey completion. We contacted respondents using the State Extension Service Directors and Administrators email directory for survey I and through ANREP's list server for surveys II and III.

Survey instruments

Surveys I and II were similar in overall design and asked respondents to share Extension position; state of most recent employment; years of experience as an Extension professional; and university type (1862, 1890, 1994, other). Non-Administrators were also asked to provide their job status and type of position most recently held.

Respondents of surveys I and II were asked to quantify the impact of the recession on university budgets; Extension budgets; Extension programs; and staffing numbers by responding to the following questions:

- "How has your program/university budget changed" for each of three fiscal years (2009-2010, 2010-2011, 2011-2012)? Responses were measured using a 3-point scale (Positive Impact = 1, No Impact = 2, Negative Impact = 3).

- "If there has been a change approximately how much has your program/university budget increased or decreased since 2009-2010?" Responses were given in percent increase/decrease.

- "Does your university have any specific plans for budget cuts in fiscal year 2012 and beyond?" Responses provided were yes, no, or unknown.

- "How have nine consolidated Extension program areas had been impacted?" A 5-point Likert scale ranging from strong negative impact (-2) to strong positive impact (+2) to assess impact on these nine program areas.

Only Administrators were asked to "indicate the number of full time equivalent positions they plan on adding or losing in the next five years" and to provide counts of Faculty, Agents, Administrators, Specialists, Program Leaders, and Directors.

Survey III asked: "How has your program's reliance on partnerships/grants/fees changed since 2009 due to budget cuts?" Responses were collected using a 5-point Likert scale ranging from large decrease (-2) to large increase (+2). Respondents were also given an opportunity to provide written examples of how their Extension program reliance on these three items had changed.

Analysis

Responses to all surveys were analyzed using SPSS 18.0 for Windows software. Descriptive statistics were used to summarize data. T-tests were used for pairwise comparisons between Administrator and non-Administrator perceptions. To prevent duplicate responses from respondents who may have participated in surveys I and II, respondents from the ANREP population were dummy-coded into two categories (0 = non-Administrator, 1= Administrator).

To analyze impacts to the nine program areas for surveys I and II, respondents were coded into two categories (0 = area of responsibility, 1= not area of responsibility). To minimize potential bias due to differences in respondent numbers among disciplines, weighting by program area was also performed (see Vaske [2008] for an example). Weighting gave more impacts to groups with a small n and was used to counter the impact of people thinking their own discipline was impacted most. Weighting can also help with potential non-response bias.

Qualitative data from survey III were analyzed using content analysis (Krippendorff, 1980). Responses were reviewed, and key content identified through a preliminary open-coding activity. To establish the final codes, potential codes were reviewed for common themes, and a coding scheme developed that reflected the patterns found. A code sheet was developed using the coding scheme and used to condense and merge overlapping themes into a final set of themes. The data were entered into Microsoft Excel where frequency counts were tabulated.

Results

Survey I was sent to 82 Administrators, and 32 people responded, for a 39% response rate. Survey II was sent to 435 ANREP members, and 142 responded, for a response rate of 33%. Survey III was also sent to 435 ANREP members, and 42 responded, for a response rate of 11%. Our response rates for all surveys are low, but consistent with current literature reporting the difficulty of achieving adequate response rates for online surveys (Nulty, 2008). Because we were focusing on estimates of budget impacts and identification of responses to those impacts rather than attempting to generalize findings to a population, non-response bias is not a large concern.

Administrators averaged 7 years of program leadership experience, and their Extension experience ranged from 1 to 20 years. Most Administrators identified themselves as program leaders (56.3%) rather than directors (43.8%).

Non-Administrators averaged 14 years of experience in Extension, with a range of 1 to 40 years, and

most were actively working within Extension (79.3%). Most non-Administrators identified themselves as faculty (42.5%), followed by agents (33.3%). One in four non-Administrators identified Forestry and Forest Products (25.3%) as their area of responsibility, followed by Water and Watersheds (14.4%) and those who self identified as "Other" (20.1%). The majority of respondents were either county or regionally based (50.6%), while just under one-third were located on university campuses (31.0%).

Surveys I and II

Both Administrators and non-Administrators reported budget cuts near 10% for NR Extension programs during 2009–2012 (Table 1). Most Administrators (83%) and non-Administrators (58%) believed that budget cuts since 2009 had negatively impacted NR Extension programming in their states. Administrators reported a state average loss of 3.8 agent positions and 0.9 faculty positions between 2009 and 2011. Most Administrators (59%) and non-Administrators (81%) indicated their universities had specific plans for budget cuts beyond 2012.

Table 1.

Extension Administrator and Non-Administrator Perspectives on the Percent Change to University and Natural Resources Extension Budgets (2009-2012)

	Administrators X(%) (SE[1])	**Non-Administrators X(%) (SE)**	**t**	**df**	**Sig. (2-tailed)**
Overall Change[2]					
University	-9.29 (2.34)	-12.37 (2.69)	.838	52	.406
NRE Program	-8.00 (2.43)	-9.58 (3.36)	.313	52	.756

[1] SE = standard error

[2]Overall Change was calculated by the respondent.

Respondents generally perceived the negative impacts of budget cuts to be larger in their own discipline than in other disciplines (Table 2). Significant differences were found for respondents whose area of responsibility was Forestry and Forest Products, Wildlife, Fisheries, and Range.

Table 2.

Comparison of Non-Administrators Perspectives on Impacts to Their Program Area Verses Other Program Areas

	Not Area of Responsibility	**Area of Responsibility**			**Sig. (2-**

Program Area	X(SE)	X(SE)	t	df	tailed)
Forestry & Forest Products	-.57 (.133)	-1.13 (.133)	-2.96	79	.004
Wildlife	-.67 (.118)	-1.25 (.313)	1.81	55	.075
Fisheries	-.63 (.100)	-1.20 (.374)	1.75	49	.087
Recreation[1]	--	--	--	--	--
Water and Watersheds	-.66 (.126)	-.65 (.205)	-.032	68	.974
Environmental Science	-.63 (.133)	-.90 (.180)	.874	57	.386
Youth Education	-.68 (.120)	-1.20 (.200)	1.25	62	.215
Range	-.36 (.114)	-1.14 (.340)	2.63	41	.012
Other	-.13 (.125)	-.60 (.214)	1.95	29	.061

[1]Recreation received no responses for "In Program"

[2] 'Other' is an amalgamation of programs that did not fit into our program area categories

[3] Scale was -2 = strong negative; -1 = slight negative; 0 = no change; 1 = slight positive; 2 = strong positive

[4] Confidence level = .10

Survey III

Over 70% of the respondents indicated some level of increase in reliance on grants, with similar results seen for reliance on partnerships (59.6%) and fees (57.4%) (Table 3). Several themes emerged from respondents' accounts of adaptation strategies (Table 4).

Many respondents noticed an increase in fees to cover services and materials. One respondent captured this sentiment stating:

> We can no longer afford to offer programs without having registration fees of some kind to cover costs of materials, space, food, and so on. This might be as little as $5 for a short program, to several hundred dollars for multi-day or multi-session programs.

Grants were widely deemed to be a necessity to implement programming and cover budget shortfalls. One respondent claimed that "grants are being used to help defray costs of carrying out

programming and fill other budgets shortfalls." Another respondent wrote, "The funding we have is used primarily for salary. If we want to do programming we need to get outside funding, both for program materials and in some cases to hire the staff to implement the program."

Like grants, partnerships were critical to implement programming and cover budget shortfalls. One respondent commented, "I've had to reduce programming because I lost 75% of my staff over the past 2+ years. So, I have to rely on other agencies to do the work I used to do." Another respondent declared, "My program is entirely funded by partners, and some partners have had to decrease the amount of annual funding they give to us. We now have more partners, each contributing less."

Table 3.

Perspective of Association of Natural Resources Extension Professionals Members on the Impact of the Great Recession on Grant, Partnership, and Fee Reliance

	Partnerships	**Grants**	**Fees**
	n = 47	**n = 47**	**n = 47**
	X = 1.02	**X = 1.02**	**X = .60**
	% (n)	**% (n)**	**% (n)**
Large decrease	2.1 (1)	4.3 (2)	2.1 (1)
Small decrease	19.1 (9)	4.3 (2)	4.3 (2)
No impact	19.1 (9)	21.3 (10)	36.3 (17)
Small increase	36.2 (17)	21.3 (10)	46.8 (22)
Large increase	23.4 (17)	48.9 (23)	10.6 (5)

1 Scale was -2 = large decrease; -1 = small decrease; 0 = no impact; 1 = small increase; 2 = large increase

2 Results are from follow up survey

Table 4.

Primary Themes Identified That Explain How Reliance on Fees, Grants, and Partnerships Changed After the Great Recession

Category of Support	**Number of References to Category**	**Themes**	**Response Frequency**
Fees	29	Now charge for services/programming	13

		Now charge for materials	4
		No change	4
Grants	31	Necessary to carry out/offer programming	9
		Necessary to cover budget shortfalls	7
		Overall increase in applications	4
Partnerships	34	Necessary to carry out/offer programming	11
		Necessary to fill budget shortfalls	6
		Overall Decrease	6

Conclusions and Implications

Impact of Great Recession on Budgets and Programs

Our findings suggest the historical tendency to cut Extension budgets and personnel during times of fiscal difficulty (Breneman, 2002) has continued with the Great Recession for NR Extension. Although small sample sizes limited statistical power in the study, our findings suggest respondents believe support for programming in their own discipline was hit harder than in other programs. This was especially true for Forestry/Forest Products, Wildlife, Fisheries, and Range programs. Future research should address the possibility that NR Extension personnel have a heightened awareness of changes in funding support for their own disciplines.

Program Adaptations

Extension programs have likely responded to budget changes in the same way they have to governmental partiality for growth industries, prior recessions, and stagnant or declining Smith-Lever funding (Payne, 2004). They have adapted by increasing their reliance on grants, partnerships, and fees. Underfunding NR Extension may elongate the already difficult road to recovery for industries reliant on NR Extension program assistance. Although NR Extension programs have innovated to continue serving customers and underfunding NR Extension may seem benign in the short term, underfunding could have lasting detrimental impacts on NR Extension's customers (White & Havlicek, 1982). Conversely, NR Extension programs are innovating to serve customers with grants, fees, and partnerships. Our results underscore the need for decision makers and researchers to determine if newly restructured and leaner NR Extension programs are underfunded or doing without, but getting by, with an increased focus on implications for the often overlooked NR Extension customers.

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