

A New Funding Model for Extension

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Abstract

The traditional funding model of the Cooperative Extension System has been stretched to its limits by increasing demand for information and programs without concurrent increases in funding by the public sector. As the social, economic, and political environments have evolved and become more complex, extension is often asked to apply the expertise gained in public programming to private situations that may be very specific in their scope and resulting benefits. When the economic benefits of extension efforts accrue only to a small, easily defined population with the ability to pay, extension needs to recover part or all of the costs of providing these services. Iowa State University Extension has pioneered a funding model predicated on a set of principles and strategies designed to consistently recover costs incurred by responding to private good requests, while continuing to provide unrestricted access to high-quality public good programs and services.

Introduction

The Cooperative Extension System was founded on a public funding model involving federal, state, and county partners. Over the past twenty years, a shift in the traditional funding model has made it necessary for the Cooperative Extension System to consider alternative revenue sources and cost recovery strategies to continue funding quality programs and services (*ECOP 2005*). As extension moves to develop strategies for collecting these revenues, it is important to understand the theoretical basis of public versus private goods, to understand the evolution of extension programming over the past century, and to articulate a set of principles to guide the establishment of policies.

It is the purpose of this article to describe Iowa State University (ISU) Extension's pioneering efforts to construct a new funding model for extension that reflects current public sector fiscal realities and that is fueled by the entrepreneurial efforts of faculty and staff. The new model is predicated on defining principles and developing strategies to consistently recover costs incurred by responding to private good requests, while continuing to provide unrestricted access to high-quality public good programs and services.

Education as a Public Good

The U.S. economy relies heavily on market prices to drive production and consumption decisions for private goods. However, these market prices are unreliable signals for guiding the provision of public services or public goods, and in cases where externalities occur (unintended effects). A more comprehensive discussion of public goods is available in most public finance textbooks. For the purpose of discussion here, commodities or activities referred to as public goods exhibit two important distinguishing characteristics.

1. Public goods have the property of *nonrivalness* or joint consumption. This means that one individual's consumption of a good does not affect another's opportunity to consume the good. The benefits of the public good are not diminished by others consuming it (*Rosen 2005*).
2. Public goods also have the property of *nonexcludability*. Nonexcludability means that it may be impossible, or very expensive, to exclude particular individuals from the consumption or use of the existing output from the public good (*Rosen 2005*).

There are very few examples of pure public goods; however, some goods do exhibit a significant degree of nonrivalness and nonexcludability. Typical examples of public goods include national defense, law enforcement, flood control, radio and television broadcasts, and public information such as disseminated research. Most publicly provided goods are not pure public goods in the sense that there is decreased usefulness or quality when numerous consumers begin using the public good.

Nonrivalness and nonexcludability make it difficult to rely on market mechanisms for allocating resources to public goods. Because of nonexcludability, the users have access to a public good, such as a research result, and no incentive to voluntarily pay for the public good, since they can consume it free of charge. Often funding is obtained through taxation. This failure of the voluntary pricing system is referred to as the *free rider problem*. Since the public good is already being provided and there is no means to efficiently collect fees for services, the individual has every incentive to use the service and not pay for it. In addition to the pricing problem for these goods, there is also the problem of determining the quantity to provide.

Public goods often have *externalities* associated with them as a result of being a jointly used good. Beneficial or detrimental

externalities arise when the activities of an individual or group affect others. These externalities are the unintended by-product of individual or group behavior. They can be positive or negative.

1. Positive externalities from public goods like health service, nutrition programs, and education can reduce communicable diseases and improve overall quality of life for everyone in a community.
2. Negative externalities like airport noise and highway congestion occur from public provision of transportation services.

Pollution and odors from livestock production are common examples of detrimental externalities from private activities, while the visual amenities of greenbelts are an example of a positive externality. Because the market pricing system does not incorporate all the social costs and benefits associated with particular activities, governments have found it appropriate at times to support activities that are believed to generate beneficial externalities and to restrict or tax those activities that produce external costs.

Public education, including extension education and outreach, is subsidized not only because it helps increase equal opportunity for all citizens but also because it is believed to generate beneficial externalities such as a safer society and a more informed citizenry. Although education is also available through private sources, society has come to believe that if education were offered only by profit-making institutions, the output of these education services would be provided at less than optimal levels and not available to groups without means to pay for them.

Evolution of Extension Programming

Extension and the land-grant college system were established in an era when our nation was dominated by small-scale agriculture. There was no incentive in the private sector for developing and delivering information on agricultural technologies or practices. The Cooperative Extension System was established as an affordable means of increasing the accessibility of modern agricultural technologies and practices for farmers and farm families. Improving the well-being of individual farmers also advanced social welfare and economic development. Initially there were few alternative providers for the type of information that extension through the land-grant college system could provide. As alternative sources of information on agricultural and food technology

became available, issues of affordability and access for certain groups became more important.

Many extension programs and services are provided for the public good. Traditionally, programs and services have provided a general benefit to society as a whole or to broad cross-sections of society. This was apparent in the early extension focus on farm practices. These activities were instrumental in maintaining food security in a rapidly growing nation by supporting the adoption and diffusion of efficient production practices within an increasingly industrial but largely agrarian nation. As the nation, agriculture, and extension have evolved, much programming is still directed at providing general benefits to broad populations. Extension still provides agricultural production services, but has added substantial resources to community development, youth, family, and business and industry programs, as well as educational services. The delivery of these programs provides a general public benefit by enhancing the social and physical environment in which we all live. This is the heart of extension.

“As the nation, agriculture, and extension have evolved, much programming is still directed at providing general benefits to broad populations.”

As the social, economic, and political environments have evolved, they have also become more complex. In this environment, extension is often asked to apply the expertise gained in public programming to private situations that may be very specific in their scope and resulting benefits. Today, extension programming occurs along a continuum of public and private good, including:

- Public good programming that focuses on broad-based issues that appeal widely to the general population.
- Combination public/private good programming that appeals to narrowly defined audiences and addresses specific topics.
- Private good programming that is designed, under contract, for a specific individual, group, or business.

In some situations the economic benefits of extension efforts accrue only to a small, easily defined population with the ability to pay. Extension needs to recover part or all of the costs of providing these services for two basic reasons:

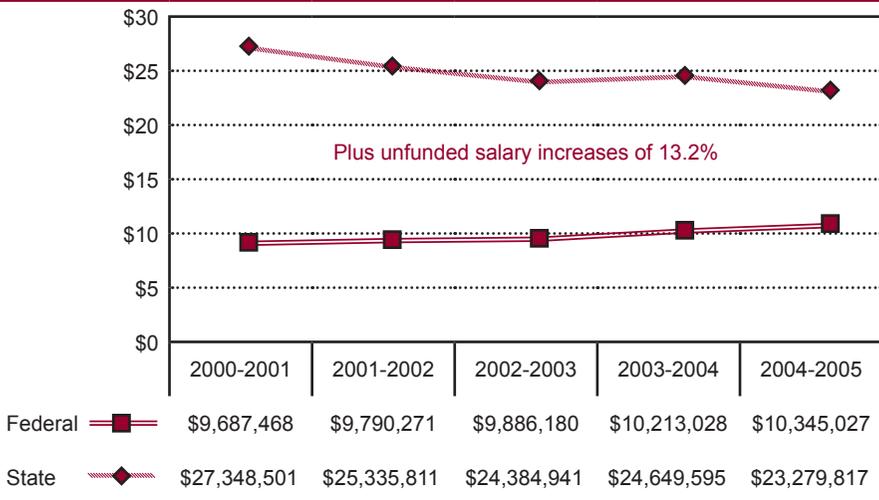
1. To ensure that extension can maintain quality public programming by replacing the resources utilized by combination public/private or private requests.
2. To avoid the unfair competition with private providers of commercial services that results when extension provides free publicly funded alternatives.

A New Model

The federal, state, and county funding model has successfully sustained the problem-focused research, education, and applied learning mission of extension throughout most of the twentieth century. However, during the past decade this funding model has been stretched to its limits by increasing demand for information and programs without concurrent increases in funding by the public sector. Repeated counterbalancing responses have involved organizational restructuring, personnel layoffs, frozen positions, and early retirement incentives for faculty and staff. As the demand for programs and services grows and public financing declines or remains stagnant, extension has had to seek and develop new funding models and relationships to maintain historic levels of service and to develop new services for a new century (*ECOP 2005*).

ISU Extension has not been immune to the shift in traditional base budget (federal, state, and county) resources. Base budget reductions in 1986 and 1992 forced ISU Extension administration into a reactive mode that led to a combination of significant organizational restructuring and adoption of strategies used by other state extension systems. Stagnant federal resources and a severe state budget crisis have significantly affected the funding stream for ISU Extension beginning with fiscal year 2002 that started on July 1, 2001.

Figure 1 is a graphical representation of the federal and state appropriations for ISU Extension during fiscal year 2001 through 2005. The reduction in state appropriations of 14.8 percent was compounded by unfunded salary increase mandates of 13.2 percent. Since the pre-crisis period ending with fiscal year 2001, the total reduction in state resources to support ISU Extension programming fell by 28 percent over this five-year period. If the precedent set during previous budget crises had been followed, administration would have responded by significantly shrinking the organization due to the initial fiscal year 2002 shortfall of \$3 million (*ISUE 2002*). The organization would have likely shrunk by one-third to compensate for a state budget crisis that reduced ISU Extension resources by more than \$8 million.

Figure 1: ISU Extension Federal & State Funding History

Source: Quart and Brown 2006

ISU Extension administration took action early in the budget planning cycle for fiscal year 2002. A decision was made to develop a strategic plan to secure new nontraditional sources of revenue that would reflect the evolution of extension programming along the public and private good continuum. This process would mirror the broader university's response to the budget crisis, which involved increasing tuition. A cultural shift began within ISU Extension through the workings of two internal committees that involved faculty, staff, and stakeholders. Two primary objectives guided the effort:

- To establish recommendations on the levels of cost recovery fees and how they might vary by client, program area, or service supplied.
- To establish a set of principles that ISU Extension would use to develop a cost recovery fee policy.

Recommendations: Recommendations were created based on public versus private good theory to aid faculty and staff in formulating the level and degree of cost recovery fee generation. Four program categories were identified (*ISUE 2001b*):

- **Category 1, Public Good:** those programs or services offered to a broad audience and having content with broad appeal.

These programs would be offered at no charge. Program examples include emergency drought response, human health and nutrition, Farm Bill education, and market news.

- **Category 2, Combination Public/Private Good:** those programs or services that are highly targeted and context specific. These programs or services would be offered at a charge to cover direct program expenses plus a proportion of personnel and travel costs. Program examples include building proficiency skills in risk management, retirement planning, and leadership.
- **Category 3, Private Good:** those programs or services designed for a specific individual, group, or business. The benefits accrue primarily to an individual or narrowly defined group. These programs would be offered at a charge to cover direct program expenses and all personnel and travel costs. Examples include contracted training for employees of a manufacturing company and presentations given to a specific narrow association or organization.
- **Category 4, Private Good Consulting:** one-on-one consulting services provided to a specific individual, group, or business. The benefits accrue to an individual or narrowly defined group. An initial number of consulting hours are offered at no charge, and a fee to cover direct program expenses and all personnel and travel costs is charged once the maximum no-charge hours are exceeded. An example would include intensive consulting provided to an individual business.

Guiding principles: A set of guiding principles was developed to formulate cost recovery fee strategies. These principles represent fundamental values that assist and are used by ISU Extension faculty and staff in obtaining and managing cost recovery fee revenues (*ISUE 2001b*):

1. **Mission drives program:** Cost recovery fees must support ISU Extension's mission to "build partnerships and provide research-based learning opportunities to improve quality of life in Iowa. We believe in . . . quality, access, diversity, accountability. We are dedicated to engagement, entrepreneurship, local presence" (*ISUE 2001a*).
2. **Appropriate sources:** Fees should be ethical and legal and not compromise the integrity of the organization.

Alternative revenue sources should be identified and assessed as to their appropriateness.

3. **Appropriate uses:** The decision to charge fees is based on identified needs, development of a programmatic response, and evaluation of appropriate funding sources. Revenues may be used to maintain, enhance, or expand the educational outreach of ISU Extension.
4. **Societal good and individual advancement:** The fees should be used to promote the good of society and individual advancement. *“Fees should be ethical and legal and not compromise the integrity of the organization.”*
5. **Responsibility of all staff:** Fee identification and acquisition to support priority programs and services is the responsibility of all ISU Extension employees. Accuracy and completeness of inputs into the ISU Extension tracking system are also the responsibility of all staff.
6. **Efficiency and effectiveness:** Attention must be paid to the cost/benefit ratio of programs. Faculty, staff, and clientele must recognize the total cost of programming.
7. **Entrepreneurial success and teamwork:** Entrepreneurial success must continue to improve teamwork and interdisciplinary efforts to cause ever-increasing program or service impact.
8. **Planning for endings:** Programs and services funded with cost recovery fees often have specific beginnings and endings, and do not continue forever. Plans should be in place to make timely decisions regarding the priority of the program or service and whether to continue it through base (institutional) funding.
9. **Fairness in the performance appraisal:** Personnel performance appraisals will be based on solid needs assessment, program planning, resource identification and generation, program implementation, and outcome evaluation. Efforts to utilize cost recovery fees, grants, contracts, and any other sources of revenue will be integrated into the performance appraisal process.

10. **Flexible employment arrangements:** The extension system must recognize the need for employment flexibility through the use of nontraditional employment models such as reassigning faculty and staff or hiring term or part-time employees to work on grant-funded projects.
11. **Comparable/equitable pay:** The extension system must ensure the support of comparable/equitable pay for comparable work for all faculty and staff regardless of source of salary and support funds. At the same time, the extension system needs to realize that market forces also may affect final compensation.
12. **Accountability:** All ISU Extension personnel and Extension Councils should receive education and support for acquiring and managing cost recovery fees. This would include an ongoing commitment of active administrative support in addition to staff training.
13. **Incentives:** Incentives should be guided by overarching goals for Extension: entrepreneurship, quality, leadership, and service. Incentives should recognize those personnel and groups that are successful in generating additional dollars for the system through fees and grants. Success in fees and grants should not threaten the core budget of the program unit. While encouraging new levels of entrepreneurship in all Extension personnel, care must be taken not to rely too heavily on the abilities of those who demonstrate early success, as they may become overwhelmed by the demands of organizational change. Early successes will be the case studies to guide systemwide improvement. Examples will be used to demonstrate leadership but not necessarily to “set the bar.”
14. **Access:** ISU Extension programs and services are open to all regardless of individual ability to pay. Source of program and service funding should not change this availability to all.

Outcome

Table 1 shows ISU Extension’s budget history for a ten-year period based on expenditures. Reporting actual expenses for each fiscal year, as opposed to actual income, avoids the distortion that can occur when accounting for multiyear grants. As a portion of

the total budget, federal and state resources have declined by 6 and 12 percentage points respectively. County resources have grown in value but have remained constant at 17 percent of the total budget. In the future, these traditional sources of funds are expected to remain relatively constant or decline. Federal resources are increasingly becoming available through competitive grants rather than formula funds.

Grants and user fees are not a new concept for ISU Extension: 26 percent of the budget came from these sources in fiscal year 1995. The new funding model that places organization-wide emphasis on generating new sources of revenue has enabled the budget to grow significantly, from \$56 million to \$86 million. In fiscal year 2005, 45 percent of ISU Extension funding was derived from grants, contracts, user fees, and gifts (*ISUE 2005*). The new revenue streams generated were critical in backfilling the \$8 million in state budget reductions and unfunded salary increase mandates incurred between fiscal year 2002 and 2005. Moreover, these resources have resulted in overall growth of the ISU Extension budget. Growth as a percentage of the total budget is expected to be steady in these areas. Significant untapped potential also exists in philanthropic giving.

A fundamental shift occurred in how new revenue streams are used to fund base budget salaries and current expenses between fiscal years 2002 and 2005. When appropriate, grant funding for projects includes faculty and staff salaries rather than program operating expenses alone. Some educational programs are offered under contractual agreements with entities that pay for all personnel, current expenses, and direct costs. At the county and state levels within extension, philanthropic giving is being used to build endowments to support long-term program initiatives. This area offers significant potential, especially as the number of counties establishing foundations increases. The greatest cultural shift has been the implementation of user fees where appropriate. For example, user fees have been developed for publications, conference and workshop registration, 4-H camps, the analysis of seed and soil samples, and assistance and training for manufacturing firms.

Lessons Learned

Implementation of new revenue generation strategies over the past five years has continued to be a learning process and a time of positive organizational adjustment. Important observations have been made in several areas.

Table 1: Iowa State University Extension Budget History for Five Fiscal Years (Based on Expenditures)

SOURCE	ACTUAL EXPENSES 1995-1996	ACTUAL EXPENSES 2001-2002	ACTUAL EXPENSES 2002-2003	ACTUAL EXPENSES 2003-2004	ACTUAL EXPENSES 2004-2005
FEDERAL	10,268,796	9,790,271	9,886,180	10,213,028	10,345,027
Percent of total fiscal year budget	18.3%	13.4%	12.5%	12.3%	12.0%
STATE	22,082,319	25,335,811	24,384,941	24,649,595	23,279,817
Percent of total fiscal year budget	39.3%	34.5%	30.9%	29.9%	26.8%
COUNTY	9,272,377	13,000,695	13,493,465	14,086,627	14,343,087
Percent of total fiscal year budget	16.5%	17.7%	17.1%	17.1%	16.6%
GRANTS	7,800,418	14,759,625	15,015,661	16,213,598	17,302,973
Percent of total fiscal year budget	13.9%	20.1%	19.0%	19.7%	20.0%
USER FEES	6,733,908	10,444,741	13,636,709	15,940,750	19,604,030
Percent of total fiscal year budget	12.0%	14.3%	17.3%	19.3%	22.7%
GIFTS/EARNINGS			2,525,219	1,398,836	1,676,942
Percent of total fiscal year budget			3.2%	1.7%	1.9%
GRAND TOTAL	56,157,818	73,331,143	78,942,175	82,502,434	86,551,876
Total fiscal year budget, percentage	100.0%	100.0%	100.0%	100.0%	100.0%

Source: ISUE 2005

1. **Cultural shift:** A tremendous cultural shift within the organization has empowered faculty and staff to reevaluate their program in terms of relevance and value based on the public versus private good continuum. Because faculty and staff have modernized their approach to programming, they now view their program differently in terms of client value and understand the true costs of programming. The shift supports changes in delivery such that (a) public good programming is enhanced through greater access to technology and (b) faculty and staff become more specialized and able to respond to the growing demand for combination public/private or private good programming.
2. **Entrepreneurial spirit:** The movement toward cost recovery has defibrillated the organization and has ignited an entrepreneurial spark of creativity and innovation. Creative methods of leveraging and multiplying resources have been developed through new partnerships and contractual arrangements. The organization has learned that clients will, indeed, pay for high-quality programs. By charging for private good programs, the organization can protect public good resources to assist all socioeconomic status groups.

“A tremendous cultural shift within the organization has empowered faculty and staff to reevaluate their program in terms of relevance and value based on the public versus private good continuum.”

3. **Stakeholder dialogue:** Communication with stakeholders has been critical during the planning, development, and implementation phases. All levels of the organization spent time with key stakeholder groups to initiate feedback, affirm policy development decisions, and communicate the new funding model for extension.
4. **Teamwork:** Program units (agriculture and natural resources, families, youth, communities, business and industry, and continuing education) have been working together to meet collective revenue targets. Although each program unit has its own respective revenue target, program units have worked together to share fee and grant

income by developing interdisciplinary programming where appropriate.

5. **Revenue stream management:** New revenue streams exceeded budget shortfall targets by the conclusion of fiscal year 2002. In subsequent years, new revenue streams were monitored monthly so positions could be filled, new programs developed, and equipment purchased as funds became available. State legislators have cited the organization's nontraditional revenue generation success and have been inclined to "help those who help themselves" in tough budgetary times.
6. **Transparency:** Disclosure of the organization's finances and progress in the development of new policies was critical in creating a strong element of trust between administration, internal partners, and personnel. For example, the vice provost for extension formed a committee that was charged with opening the books of the organization so everyone clearly understood the budget realities and the consequences of the budget shortfall. As new revenues were generated, staff and internal partners were informed regarding the progress toward meeting shortfall targets and how new resources were being utilized. The new budget model allowed for and offered incentives to program areas for revenue generation success.
7. **Learning environment:** Administration continued to foster a learning environment within the organization during the implementation of the new funding model and corresponding cultural shift. As with any significant change, there are early adopters, those who need to test the waters, and those who need to see it work first.
8. **Budget realities:** Establishment of charges for internal programs or services requires attention to the budget realities facing both campus and field units. Generally, campus units are able to cover salary expenses but often have difficulty in covering current expense items such as travel and telecommunications. Field units need to recoup some travel expenses but are continually challenged to meet payroll expenses and keep field specialist positions filled.
9. **Concerns or risks:** When services funded from new revenues or fees are on target with the goals of the organi-

zation and individual professionals, extension has a win-win situation. If funding sources outside the main mission are pursued, extension risks having its work plans driven by funding opportunities. Although some extension clients resist charges for services that were formerly available for free, most have understood that extension is in a new era of public finance and are accepting of the charges.

Conclusion

The Cooperative Extension System has been a proven model for federal, state, and county governments to work cooperatively with the land-grant universities and local citizens. Throughout most of the twentieth century, the traditional funding model sustained extension's problem-focused research, education, and applied learning mission. However, the era of shrinking traditional base budget resources has made it necessary for extension nationwide to consider alternative revenue sources and revenue generation strategies to continue funding quality programs and services.

A new funding model for extension must consider the evolution and complexity of the social, economic, and political environments of the twenty-first century. In these environments, programming occurs along a continuum of public and private good where extension is often asked to apply the expertise gained in public programming to private situations that may be very specific in their scope and resulting benefits. Where the economic benefits of extension efforts accrue only to a small, easily defined population with the ability to pay, extension needs to recover part or all of the costs of providing these services.

ISU Extension has been a pioneer in the effort to construct a new funding model for extension that reflects current public sector fiscal realities and that is fueled by the entrepreneurial efforts of faculty and staff. The new model is predicated on a set of principles and strategies to consistently recover costs incurred by responding to private good requests, while continuing to provide unrestricted access to high-quality public good programs and services. Continued public financial and participatory support is still essential for maintaining ISU Extension programs and services. The new funding model has enabled ISU Extension to enhance and expand programs and services in a manner consistent with its twenty-first-century mission.

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- Daniel Otto was born and raised on a farm near the community of Lester Prairie, Minnesota. He received his bachelor's and master's degrees in agricultural economics from the University of Minnesota and his Ph.D. in agricultural economics from Virginia Tech in Blacksburg, Virginia. Since 1981 he has been on the Iowa State University faculty, where he is currently a professor of economics and extension specialist. During that time he has worked extensively with community and state officials on regional policy analysis, economic and fiscal impact analysis, and researching a range of economic development and regional

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- Michael D. Quart is associate vice provost for extension and professor, Department of Animal Science, Iowa State University (ISU). ISU Extension is university-wide, working with all of the colleges and managing continuing education/distance learning programs. Consequently he works with all areas of on-campus and off-campus extension education and with various agencies, groups, and stakeholders.

Before being appointed associate vice provost for extension, he was the assistant director and state program leader, agriculture and natural resources, with the Mississippi State University Extension Service. Prior to this he served in extension, research, and administrative positions at the University of Florida, Colorado State University, and Kansas State University.