

COOPERATIVE EXTENSION

EXTENSION COMMITTEE ON ORGANIZATION & (ECOP)

Top 10 Reasons Why Capacity Funding Is Essential



In 2014, Cooperative Extension (Extension) celebrates the 100-year anniversary of the Smith-Lever Act, the founding legislation for Cooperative Extension www.extension100years.net. While Cooperative Extension often is referenced as “the envy of the world,” in the United States the purchasing power of federal capacity funding, authorized in the farm bill and distributed via formula to land-grant universities to support Extension programs, has slowly eroded.

Extension **translates** science for practical applications; **engages** with the public by providing reliable information leading to positive action; and **transforms** individuals, families, communities and businesses in rural and urban areas. Capacity funding is essential:

1. **To change lives.** See examples of national impact statements as part of the “Case for Federal Capacity Funds” at <https://www.aplu.org/document.doc?id=4197>. A comprehensive system of reporting the public value of Extension programming is in process at www.excellenceinextension.org.
2. **To provide rapid response.** The Extension Disaster Education Network <http://eden.lsu.edu> provides real-time alerts and resources so Extension educators in local communities can respond to urgent needs resulting from hurricanes, floods, oil spills, fire, drought, pest outbreaks, and human, livestock and crop infectious diseases.
3. **To continually engage with the public.** Extension helps people acquire the knowledge, skills, and motivation to take positive action. In order to achieve broad adoption, education must be repeated over many years with each new generation of learners in multiple communities in the Nation’s 3,000-plus counties.
4. **To leverage state and local funding.** Capacity funds, often leveraged three- to four-fold with other public funding, enable the persistent and trusted intervention necessary for transformational learning to take place in agriculture and natural resources, family and consumer sciences, 4-H youth development, and community economic development

5. **To solidify the legislated partnership with USDA-NIFA.** Extension operates through the nationwide land-grant university system and is a partnership among the federal government (through the USDA National Institute of Food and Agriculture) and state and local governments.
6. **To operate as a national system.** National program leadership through Extension's federal partner, USDA-NIFA, and policy guidance through the Extension Committee on Organization & Policy (ECOP) links Extension together, thus making local, state, and regional work more proactive and effective.
7. **To develop partnerships.** None of the major societal issues addressed by Extension programs, such as safe food, energy independence, animal and plant production profitability, and obesity prevention can be addressed singularly. Sustained capacity funding creates the infrastructure whereby expertise, resources, and outcomes can occur working together with federal departments in addition to USDA, non-profit organizations, foundations, and the private sector.
8. **To compete in the federal grants environment.** In order to engage with time-limited and location-specific competitively funded projects, Extension must have university faculty members and local educators in place to understand the issues, and develop proposals together with researchers, academicians, and community leaders.
9. **To inform research questions and translate science to practice.** With Extension's local presence nationwide, faculty and educators are uniquely available to identify emerging research questions, connect with campus faculty to find answers, and take findings to the field for immediate application. While a few innovators adapt research findings with ease, the majority of the population benefits from the engagement of Extension to solve problems and improve their economic and social conditions.
10. **To reduce expenditures on mandated programs.** For example, sustained Extension programs help break the cycle of poverty for families, encourage healthful eating and lifestyle choices, thus reducing health care and feeding programs, and prepare youth for responsible adulthood.

Prepared 8.20.13 by the ECOP Budget and Legislative Committee, Rick Klemme, Chair, University of Wisconsin. For more information, contact Jane Schuchardt, Executive Director, jane.schuchardt@extension.org, 202-478-6029.

ECOP is the representative leadership and governing body of Cooperative Extension, the nationwide transformational education system operating through land-grant universities in partnership with federal, state, and local governments.

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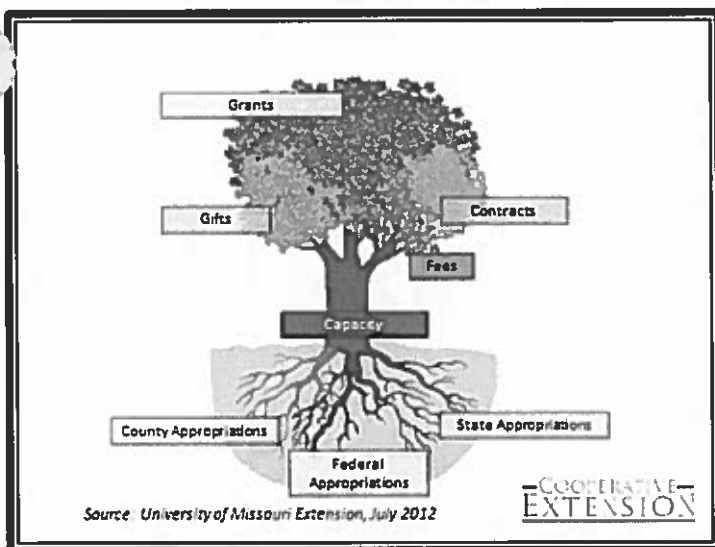
COOPERATIVE EXTENSION

Extension Committee on Organization & (ECOP)

Promoting the Both-And of Capacity, Competitive Federal Funds draft 10.6.15

What is Cooperative Extension? Cooperative Extension (Extension) translates science for practical applications; engages with the public by providing reliable information leading to positive action; and transforms individuals, families, communities, and businesses in both rural and urban areas. Extension operates through the nationwide land-grant university system and is a partnership among the federal government (through the USDA's National Institute of Food and Agriculture) and state and local governments. Extension is the nation's premier local and online educational leader for strengthening the profitability of animal and plant production systems; protecting our rich natural resources and environment; ensuring an abundant and safe food supply; preparing for and responding to economic and natural disasters; fostering greater energy independence; helping families, youth, and individuals be physically, mentally, and emotionally healthy, and enhancing workforce preparation and life skills.

How does Cooperative Extension work? Extension's unique structure consists of university faculty members and local educators. Campus-based faculty members are disciplinary specialists with doctoral degrees whose primary responsibility is to develop curricula that translate science-based research results into language (written, verbal, and electronic) appropriate for targeted audiences. County-based educators (most of whom have graduate degrees) work with local citizens and online interest groups to determine educational needs and serve as trusted resources for information. They also bring groups together to solve problems, evaluate the effectiveness of learning tools, and collect grassroots input to prioritize future research. By living and working in communities, county educators respond to local needs, build trust, and engage effectively with citizens.



How is Cooperative Extension funded?

Capacity funding from federal, state, and county appropriations is the critical foundation of Extension resources complemented by grants obtained through competitive processes. Contracts, fees and gifts also provide some support. The Extension mission - to translate, engage, and transform - along with its strong off-campus, community-based structure, makes it complementary to, though quite different from, research and requires a different funding model. For example, research scientists may address a particular question, such as developing a new, highly nutritious vegetable variety. This development may be accomplished by one or a few selected universities with results useful on a broad scale. In contrast, the Extension role of helping people understand the benefits of eating more nutritious

foods, and acquiring the knowledge, skills and motivation to take positive action, must be carried out in communities in the 3,000-plus counties in the United States, and must be repeated over many years to achieve broad adoption with each new generation of learners. While a few innovators adapt research findings with ease, the majority of the population benefits from the engagement of Extension to solve problems and improve their economic and social conditions.

Education leading to positive behavioral change requires sustained capacity funding. While Cooperative Extension often is referenced as "the envy of the world" in the United States, the purchasing power of federal capacity funding, authorized in the farm bill and distributed via formula to land-grant universities to support Extension programs, has slowly eroded. Capacity funds, often leveraged three- to four-fold with other funding, enable the persistent and trusted intervention necessary for transformational learning to take place in agriculture

and natural resources, family and consumer sciences, 4-H youth development, and community economic development. This type of continuous funding, as opposed to time-limited and location-specific competitive funds, is also necessary for Extension to be able to respond rapidly to urgent needs such as hurricanes, floods, fire, drought, crop disease or pest outbreaks, and infectious diseases.

Why is capacity funding essential for Extension?

- **To change lives.** See www.landgrantimpacts.org for impact reports and statements of public value.
- **To provide rapid response.** The Extension Disaster Education Network <http://eden.lsu.edu> provides real-time alerts and resources so Extension educators in local communities can respond to urgent needs resulting from hurricanes, floods, oil spills, fire, drought, pest outbreaks, and human, livestock and crop infectious diseases.
- **To continually engage with the public.** Extension helps people acquire the knowledge, skills, and motivation to take positive action. In order to achieve broad adoption, education must be repeated over many years with each new generation of learners in multiple communities in the Nation's 3,000-plus counties.
- **To leverage state and local funding.** Capacity funds, often leveraged three- to four-fold with other public funding, enable the persistent and trusted intervention necessary for transformational learning to take place in agriculture and natural resources, family and consumer sciences, 4-H youth development, and community economic development
- **To solidify the legislated partnership with USDA-NIFA.** Extension operates through the nationwide land-grant university system and is a partnership among the federal government (through the USDA National Institute of Food and Agriculture) and state and local governments.
- **To operate as a national system.** National program leadership through Extension's federal partner, USDA-NIFA, and policy guidance through the Extension Committee on Organization & Policy (ECOP) links Extension together, thus making local, state, and regional work more proactive and effective.
- **To develop partnerships.** None of the major societal issues addressed by Extension programs, such as safe food, energy independence, animal and plant production profitability, and obesity prevention can be addressed singularly. Sustained capacity funding creates the infrastructure whereby expertise can be linked with experts in federal departments in addition to USDA, non-profit organizations, foundations, and the private sector to change behaviors.
- **To compete in the federal grants environment.** In order to engage with time-limited and location-specific competitively funded projects, Extension must have university faculty members and local educators in place to understand the issues, and develop proposals together with researchers, academicians, and community leaders.
- **To inform research questions and translate science to practice.** With Extension's local presence nationwide, faculty and educators are uniquely available to identify emerging research questions, connect with campus faculty to find answers, and take findings to the field for immediate application. While a few innovators adapt research findings with ease, the majority of the population benefits from the engagement of Extension to solve problems and improve their economic and social conditions.
- **Some examples –**
 - Sustaining agriculture and the nation's food supply – Better pasture management practices in Missouri led to more than \$100 million in new investments in dairy operations in the state, which, in turn, generated \$40 million in annual milk sales and supported 1,100 new jobs.
 - Helping youth build the future – 4-H programs implemented by Extension across the nation involve nearly 6 million youth who are three times more likely to contribute to their communities and two times more likely to go to college.
 - Building economic viability in communities: The Stronger Economics Together program, operating in 28 states, leveraged nearly \$112 million in resources to help communities across rural America work together on economic development blueprints that strategically build on current and emerging economics strengths of their regions.
 - Fostering better nutrition and health: Kansas State Research and Extension works with local partners to offer Walk Kansas. Annually, more than 16,000 people report improved overall health and motivation to exercise as a result of the eight-week program encouraging them to walk more than 400 miles.

Reinvesting in the Land Grant University System (New)

Background

Justin Morrell's vision of the land grant university system has resulted in astounding returns to the American citizens and, indeed, the world. From enhancing agricultural production to improving the lives of families, youth and communities, this system has made differences for people of all ages. American agriculture produces plentiful, safe and inexpensive food for the U.S. and many countries of the world. And a number of studies indicate that the return on this investment approaches 50% per annum over that last 40 years. However, a recent Congressional Research Service¹ report draws suggests that declining investments in both agricultural research and the land grant university system are at least in part responsible for with the lag in continued increases in productivity of American agriculture. Superimposed on this is the need to address new demands of changing climate, sustainable production, natural resources and water systems, increasing stress to families and communities, and reductions in state funding. Critical issues are going wanting due to lack of crucial infrastructure. Indeed, now is the time for renewed investment in the land grant university system through significant increases in both capacity (formula funds) and competitive programs.

The Land Grant University system applauds the USDA/REE Administration's renewed focus on the importance of fundamental and translational research and transformational change² funded through NIFA and conducted by the state agricultural experiment stations and cooperative extension services. This focus is particularly critical at this time where emphasis is needed on strengthening our bio-economy, increasing renewable energy, mitigating climate change, enhancing food impacts on human health, ensuring food safety, and providing global food security to reduce world hunger. For these reasons, we advocate increasing AFRI funding to the authorized level of \$700 million as soon as possible to address national needs. We also urge substantial increases (10% annually) capacity funding lines³ to address state and regional priorities and provide rapid response capabilities.

The Land Grant University system reaffirms the importance of competitive funding to address national priorities and our commitment to "translational" projects that integrate multiple dimensions of research, extension, and education, as well as stakeholder involvement, to serve national needs. We support increasing AFRI funding to reach the authorized funding level of \$700 million as soon as possible. Land Grant University faculty have a strong history of success in federal competitive funding programs and are eager and proud to engage in the competitive funding process. Competitive funds are a large and important portion of the total funding that supports the unique Land Grant tripartite mission of teaching, research, and extension. These funds support the entire spectrum of activity from discovery through transformational change as well as providing invaluable educational experiences for undergraduate and graduate students in research, extension, and teaching. The Land Grant Universities welcome future AFRI "requests for proposals" that call for highly integrated, multidisciplinary, multi-institutional proposals that incorporate discovery, translation, development, education, and transformation into a systems approach to meeting society's needs. This will lead to an even greater array of measurable outcomes and impacts that address national priorities. A strong and vibrant USDA/REE competitive funding program is absolutely vital to the Land Grant University system, its mission, and constituents.

There is a parallel need for substantial increases in capacity funding. These federal budget lines are essential for the Land Grant University system to support faculty and maintain essential infrastructure. These funds, leveraged 4-8 fold with state funds, provide flexibility for rapid responses to acute regional and state issues; to maintain and expand global competitiveness of local economies; and to ensure the base capacity to develop preliminary data for AFRI and other competitive programs. The requirement to resolve state and local issues in order to address nation-wide needs is

¹ September 17, 2009, CRS report 7-5700 www.crs.gov 440819

² Transformational change is the bold and compelling change in individuals and groups that requires altering and expanding the limiting mindset with regard to problems, solutions and opportunities.

³ Special attention will be given to enhancing the 1890, 1994 and small 1862 institutions, including the goal of 1890 institutions achieving authorized levels in both research and extension programs, (see section 7504 of Farm Bill)

indisputable. For example, viable renewable energy sources will vary greatly between regions; agricultural sustainability will result from state-specific best management practices; while combating obesity will require local culturally appropriate nutritional foods. This regional and local uniqueness was recognized in the original Hatch, Smith-Lever, and Evans-Allen Acts, and appropriately, federal funding for these capacity programs is matched by individual state investment. Keeping these local capacities strong is essential for maintaining a robust and viable agricultural economy nationwide, particularly in the foreseeable future of stressed state economic budgets.

Congressional appropriations for NIFA should be driven by a strategy related to the value and benefits of long term impacts as well as short term highly focused wins; all supported by a comprehensive national Land Grant University system with a broad and diverse customer/constituency and an integrated federal/state/local partnership that drives transformational societal change. Justin Morrill's vision of the Land Grant University system has resulted in astounding returns to American citizens and, indeed, the world. From enhancing agricultural production to improving the lives of families, youth and communities, this system has made differences for people of all ages. American agriculture produces plentiful, safe and inexpensive food for the U.S. and many countries of the world. A number of studies⁴ indicate that the annualized marginal rate of return on this investment is as high as 50% over the last 40 years. However, a recent Congressional Research Service report⁵ suggests that declining investments in both agricultural research and the Land Grant University system are at least in part responsible for the lag in continued increases in productivity of American agriculture. Superimposed on this situation is the need to address new demands of climate variability, sustainable production, natural resources, water security, human health and nutrition, increasing stress on families and communities, exacerbated by reductions in state funding. Critical issues are going unaddressed due to lack of crucial infrastructure. Indeed, now is the time for renewed federal investment in the Land Grant University system through significant increases in both competitive and capacity funds.

The National Institute of Food and Agriculture, as the primary partner agency for the Land Grant University system has established six national priorities⁶ all of which are addressed by the system's research, extension and education programs. Those priorities, along with related accomplishments of Land Grant Universities, are:

- Agricultural economics and rural communities - research, education, and extension programs help people make sound financial management decisions, discover new economic opportunities, develop successful agricultural and nonagricultural enterprises, take advantage of new and consumer-driven markets, and understand the implications of public policy on these activities.
- Agriculture systems and technology - agricultural systems—both crop and animal— involve issues such as labor, marketing, finances, natural resources, genetic stock, and equipment. NIFA-supported projects address these issues as a system, rather than on an individual basis, because a holistic approach offers greater management flexibility, safer working conditions, and a more sound economy and environment.
- Animal health, production, and products - investments in animal science have found new and better ways to advance animal production technology, enable the industry to respond to consumer demand, and advance human health and nutrition through better animal health and breeding.
- Bioenergy, natural resources, and environment - develop the next generation of biofuels that will not only power machines, but the American economy as a whole. Furthermore, these programs improve air, soil, and water quality; fish and wildlife management; sustainable use and management of forests, rangeland, and watersheds; and lead to a better understanding of how the changing climate affects agriculture.
- Food safety, nutrition, and health - help strengthen the nation's ability to address and reduce the negative effects of these concerns as well as issues related to food security and food science and technology

Huffman and Evenson, *Amer. J. Agr. Econ.* 88(4) (November 2006): 783–798
September 17, 2009, CRS report 7-5700 www.crs.gov 440819

⁶ 2014 Farm Bill

- Plant health, production, and products - provide better understanding of plants: how they grow, how to improve productivity, and how to use them in new ways while reflecting the diversity of plants and their uses around the world.

The Land Grant University system is fueled with a balanced federal funding portfolio, including both competitively funded activities and a base of capacity programs, that lead to fundamental breakthroughs and enable mission-oriented research, extension, and education that provides usable solutions and results in transformational change. This is a process that not only makes a difference to selected commercial sectors but also in the lives of consumers and the broad audiences of the "peoples' universities." This process is effective in addressing complex issues in ways that result in system changes, positive outcomes, stronger organizations and innovative policies that transform people, communities, businesses and economies in powerful and long-lasting ways. This is accomplished by building trusting relationships with partners, bringing research-based information to bear on the issues, developing human capacity and enhancing leadership abilities in individuals and organizations that results in improved quality of life and vibrant communities.

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Capacity Funds are Essential for Research and Extension

The number one federal funding priority for State Agricultural Experiment Stations and Cooperative Extension organizations in each region of the country is capacity funds. These funds, also termed capacity funds, provide for critical infrastructure for State Agriculture Experiment Stations and for Cooperative Extension. There are few other federal programs where limited funds have been leveraged five to six times annually over a period of decades, in this case to yield ongoing positive impacts on the nation's food and fiber system, as well as related issues such as alternative fuels, environmental sustainability, economic development, and health and well-being of our citizens in both urban and rural settings. Inadequate funding of capacity programs jeopardizes the world's most productive and successful agricultural research and Cooperative Extension system.

Unfortunately, the value of these funds has been questioned. The Administration, through USDA, has indicated a belief that asserts, "*The best science results from externally funded competitive programs.*" This premise assumes that competitive programs can provide the best outcomes, but there is little hard evidence to support this statement. For example, Huffman and Evenson in their paper, "*New Economic Evidence on Agricultural Total Factor Productivity Determinants: Impact of Funding Compositions,*" October 2004, observed that as increases occur in the share of State Agricultural Experiment Station funding from federal contracts, grants, and cooperative agreements, the impact of public sector agricultural research on state agricultural productivity declines. Huffington and Evenson, 2006, noted that "each unit of Hatch capacity funding of SAES research had a larger impact on local agricultural productivity than a similar unit of federal competitive funding." In fact, between 1970 and 2004 the marginal real rate of return is approximately 50% annually on Hatch and Smith Lever capacity funds. (Huffman, Norton et al. Investing in a Better Future through Public Agricultural Research. CAST Commentary QTA 2011-1, March).

A continuing reduction of capacity allocations would have enormous economic consequences for land-grant universities and state and national constituents. Capacity funds have been allocated to land-grant university systems over the years with a minimum of transaction costs. Annual plans of work and annual reports ensure accountability without overburdening research and extension faculty, who can focus most of their creativity on basic or translational research and the application and adoption of knowledge. Capacity funds are not assessed fiscal and administrative charges by the receiving university, and the USDA costs to administer capacity funds also are low. Consequently, most of the funding appropriated by Congress goes directly into research or Extension programs. Faculty must devote a significant percentage of their creativity and time in developing proposals to submit to the competitive grants process—with a success rate of less than 20%. In short, considering the opportunity cost of faculty and staff time in developing major grant proposals, significant overhead costs associated with the grants once obtained, and employee training and administrative costs associated with fluctuating competitive grant revenues, the transaction costs of competitive grants to universities are significantly greater than those of capacity funds. In addition, administrative time and costs for USDA personnel to develop RFAs, review proposals, and process awards are much higher than for allocating capacity funds. Capacity funding allows land-grant universities to work with national, state, and local clientele to establish priorities and address emerging opportunities relative to research and Extension programs. Competitive grant review panels tend to focus on developing 'new' knowledge to address emerging issues. Capacity funding, on the other hand, gives land-grant university systems, through state and local cost-sharing, the capacity to support on-going research and Extension faculty at the state, regional, and local levels to address continuing *as well as* emerging needs. In other words, it is critical to maintain human and programmatic capacity to respond rapidly to crises and emerging needs, to make significant

discoveries of new knowledge and technology, and to sustain high priority research and Extension efforts.

Capacity funds are especially critical to the research and Extension partnership in enabling rapid responses to disease and pest outbreaks and to natural disasters, e.g., floods, hurricanes, and wild fires. Capacity funds allow maintenance of a response system to address these types of emergencies. This stability afforded by capacity funds also enhances the transformational change mission of Extension that leads to economic and social health in agriculture, forestry and natural resources, family and consumer sciences, community resource development and 4-H youth development. This transformational education mission, like the academic education mission of our land-grant institutions, is different from the research mission, and requires that similar Extension programming be implemented with multiple audiences over time and in different areas. For example, development of a pest resistant crop variety through research may be done at a single university. However, Extension programming that improves yield through adoption of that new variety must be provided in each community in which there is a needful audience and repeated as additional audiences emerge requiring similar education. Extension is a program of continuing activities, not a stop and start project, and because of this, Extension's needs are best met by a capacity funding model.

In addition to the above, there are other key advantages of capacity funding mechanisms.

Capacity funds are better able to promote multi-state collaborations that are more efficient, systematic, inclusive, and sustainable, due to its greater flexibility and continuity.

- Capacity funds promote ongoing engagement of research and Extension with its stakeholders – producers and consumers – and allow for continuous adjustment of program direction and objectives based on that engagement.
- Capacity funds provide a bridge to maintain infrastructure, personnel, and competitiveness between successful grants.
- A loss of capacity funds will disproportionately disadvantage smaller institutions and will have a detrimental impact on regional and national networks of research and Extension programs.
- The State Agricultural Experiment Stations in conjunction with USDA continues to be the primary organization undertaking public sector agricultural research in a number of areas including crop variety improvement, food safety, water quality assessment, atmospheric deposition, pesticide clearance on minor crops, rural and urban community development, and agricultural policy. These and many other areas of long-term research and development depend on continuous stable funding and will, in time, be put at significant risk should capacity funds be lost.

Capacity driven federal funds for research and Extension are expended in a fashion that is relevancy-driven. It is this relevancy-driven agenda that will best meet the overall mission and vision of USDA/NIFA, address stakeholder needs, and result in large economic, environmental, and social rates of return on public resources invested relative to other alternatives.

Formula Funds are Essential for Research and Extension*

The number one federal funding priority for State Agricultural Experiment Stations and Cooperative Extension organizations in each region of the country is formula funds. These funds, also termed capacity funds, provide for critical infrastructure for State Agriculture Experiment Stations and for Cooperative Extension. There are few other federal programs where limited funds have been leveraged five to six times annually over a period of decades, in this case to yield ongoing positive impacts on the nation's food and fiber system, as well as related issues such as alternative fuels, environmental sustainability, economic development, and health and well-being of our citizens in both urban and rural settings. Inadequate funding of formula programs jeopardizes the world's most productive and successful agricultural research and Cooperative Extension system.

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In addition to the above, there are other key advantages of formula funding mechanisms.

- Formula funds are better able to promote multi-state collaborations that are more efficient, systematic, inclusive, and sustainable, due to its greater flexibility and continuity.
- Formula funds promote ongoing engagement of research and Extension with its stakeholders – producers and consumers – and allow for continuous adjustment of program direction and objectives based on that engagement.
- Formula funds provide a bridge to maintain infrastructure, personnel, and competitiveness between successful grants.
- A loss of formula funds will disproportionately disadvantage smaller institutions and will have a detrimental impact on regional and national networks of research and Extension programs.
- The State Agricultural Experiment Stations in conjunction with USDA continues to be the primary organization undertaking public sector agricultural research in a number of areas including crop variety improvement, food safety, water quality assessment, atmospheric deposition, pesticide clearance on minor crops, rural and urban community development, and agricultural policy. These and many other areas of long-term research and development depend on continuous stable funding and will, in time, be put at significant risk should formula funds be lost.

Formula driven federal funds for research and Extension are expended in a fashion that is relevancy-driven. It is this relevancy-driven agenda that will best meet the overall mission and vision of USDA/NIFA, address stakeholder needs, and result in large economic, environmental, and social rates of return on public resources invested relative to other alternatives.

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