FY2011 Plan of Work Reporting Summary

December 2011

This report provides information on the FY2011 Plan of Work (POW) reporting cycle, which includes the states' submissions of the 2012-2016 Plans of Work and the 2010 Annual Reports of Accomplishments and Results. The report includes statistics about reporting cycle timelines and compliance rates of NIFA and the States. Also included is a brief analysis of Planned Programs in the POWs and Expenditures in the ARs.

Katelyn Sellers

United States Department of Agriculture
National Institute of Food and Agriculture

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Introduction

This report provides information on the 2011 Plan of Work (POW) reporting cycle, which includes the states' submissions of the 2012-2016 Plans of Work (POWs) and the 2010 Annual Reports of Accomplishments and Results (ARs).

A primary goal of this report is to examine the overall compliance rates of both the states and NIFA in meeting their submission and review deadlines, respectively. NIFA uses this information to determine overall system and process efficiency and to understand where changes could be made in future years' reporting policies.

A secondary goal of this report is to examine the effect, if any, of NIFA's policy of states including the Five NIFA Priority Areas as Planned Programs in their 2012 Plans of Work. Written and graphic explanations of the data concerning numbers of Planned Programs help to show the effect that this policy has had on states' resource allocations and breadth of planned programs.

The conclusion of this report provides NIFA's opinion of the efficiency of the 2011 reporting cycle inasmuch as the submission compliance rates, review compliance rates, and numbers of planned programs can demonstrate if policies are being effectively managed and timelines are being met at a reasonable standard.

BACKGROUND

The Agricultural Research, Extension, and Education Reform Act of 1998 (AREERA) set forth requirements for states to submit Plans of Work (POWs), beginning in FY2000, on the four major research and extension formula funds: Hatch, Evans-Allen, Smith-Lever 3b&c, and 1890 Extension Programs. A completed and approved Plan of Work triggers the release of funds to institutions for the Fiscal Year beginning October 1 each year. A complete Plan of Work includes an Executive Summary, Stakeholder Input documentation, a description of the Merit and Peer Review Processes, Planned Programs, and Multi-state and Integrated Research and Extension financial data to satisfy sections 105 and 204 of AREERA.

A push for renewed federal planning and accountability provided the environment for improvements to the POW submission system in FY2007, which included electronic submissions of rolling 5-Year POWs, and their associated Annual Reports of Accomplishments and Results (ARs). Electronic POWs enhanced the POW reporting system because they not only reduced the burden imposed on collecting the POWs and ARs, but they also made the information collected usable for NIFA program leadership and portfolio evaluation. The new process increased NIFA's ability to respond to external reporting requirements on outcomes and proper use of funds, while providing agency managers with program results feedback. An additional benefit of the revision was that the information collected could be easily analyzed and assembled into summary reports such as this one.

Submitting POWs and ARs through the POW software system also allows the data to be shared with other electronic systems at NIFA. The Leadership Management Dashboard (LMD) is one such system, which allows POW data from all states to be shared and analyzed among the states.

State Submission Statistics

In FY2011, 80 Plans of Work (POWs) and 85 Annual Reports of Accomplishments and Results (ARs) were received from the 150 Land-Grant Institutions that receive Federal formula funds subject to AREERA Plan of Work requirements. This indicates more combining of plans among institutions over the previous POW cycle, in which 85 POWs were submitted.

Submission Types

Of the 80 POWs submitted in FY11, thirty-five (35) POWs were single-institution entity submissions for either research or extension. The remaining fifty (50) were combined submissions (one or more institutional entities within a state or territory combining into one submission). Of those 50 POWs:

- Forty-eight (48) were combined research and extension plans.
- One (1) was a combined 1862/1890 extension only plan.
- One (1) was a combined 1862/1890 research only plan.

It is important to note here that the majority of states are now submitting their POWs as combined research and extension plans. NIFA recognizes that states have the authority to decide whether or not to combine their plans. In some cases, there are circumstances which prevent a state from combining plans in a way that would be not be burdensome or produce a better overall reporting document. However, NIFA's National Program Leaders have commented time and again that the ability for states to construct a single document that highlights the total story of what the AREERA formula funds do *collectively* in the state is extremely beneficial. Doing so helps NIFA understand the comprehensive effect that both research and extension funds have on local and regional communities and how they are leveraged against each other to produce overall changes in knowledge, action, and condition. In turn, NIFA is then better able to communicate these positive outcomes to outside stakeholders and our leaders in Congress so that they may understand the importance of this formula funding.

Compliance Statistics

- Of 80 61% were submitted on time.
  - Of Plans that were late, 89% were submitted within 5 business days after the due date.
- Of 85 ARs, 73% were submitted on time.
  - Of ARs that were late, 83% were submitted within 5 business days after the due date.
- During the FY2011 POW update review process, zero Plans or ARs were unsubmitted due to lack of sufficient information or meaningful data; *NIFA commends the states for an overall improved rate of compliance in this vein compared to past years*.
  - FY2011 was the first reporting cycle in which NIFA fully implemented the policy of requiring states to include all five NIFA priorities as Planned Programs. Fifteen POWs (19 %) were unsubmitted in order for the states to correctly insert the missing mandatory Planned Programs. (Note that this was a matter of administrative policy only; any state that had omitted a mandatory Planned Program because they had no significant research or extension plans in that area was not penalized in any way, and the need to unsubmit their POW was not an indication of "lack of sufficient information" but rather a need on NIFA's part to accurately capture data points of "zero" in the POW software.)

NIFA Review & Acceptance Statistics

It is NIFA's policy is that all Plans and Annual Reports be reviewed by their NIFA Liaisons (National Program Leaders; NPLs) within 60 days of the Plan/AR due date or submission date, whichever is later. The Planning Accountability and Reporting Staff (PARS) office is responsible for completing the acceptance process within 30 days of the review submission. Thus, it is always NIFA's goal to accept all Plans/ARs within 90 days of the due date or submission date, whichever is later.

Plans of Work

- NIFA accepted 94% of Plans within the 90 day acceptance process period.
- PARS completed acceptance of 100% of Plans within its 30 day allotment.
    - Average length of PARS completing the acceptance process was 2 days from the date of review submission (performed by the NPLs).
        - 56% of institutions received notification of their Plan's acceptance within one day of review submission.
        - 89% of institutions received notification of their Plan's acceptance within 5 days of review submission.

Annual Reports of Accomplishments & Results

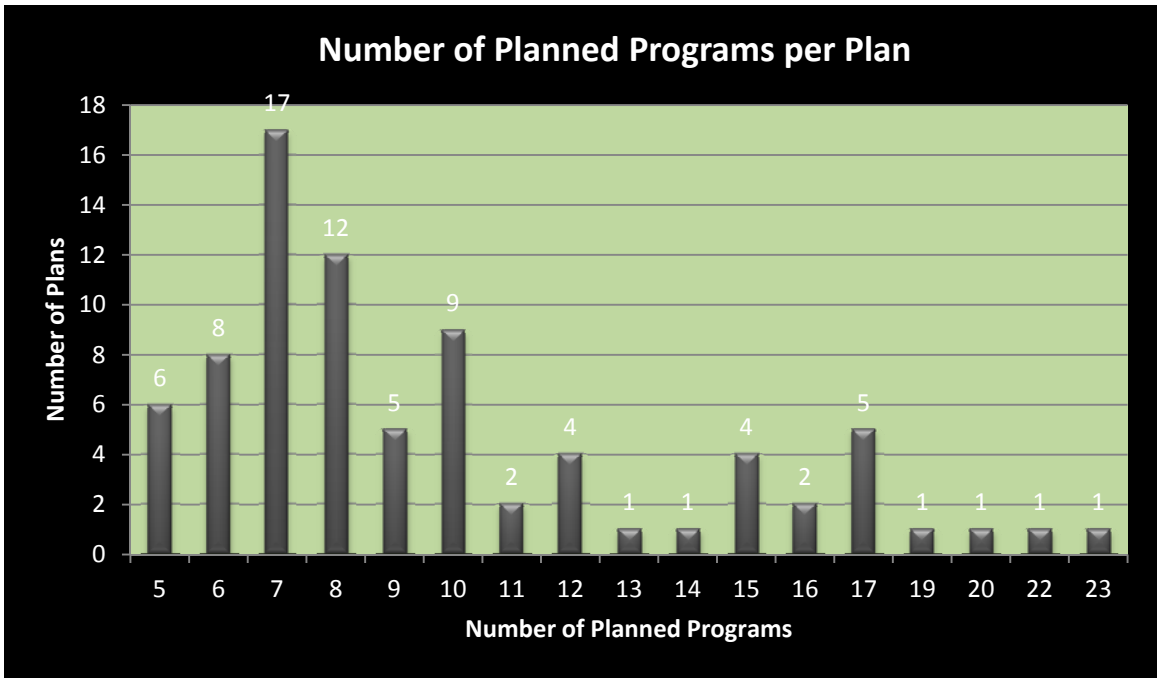
- NIFA accepted 96% of Annual Reports within the 90 day acceptance process period.
- PARS' completed acceptance of 100% of Plans within its 30 day allotment.
    - Average length of completing the acceptance process was 2 days from the date of review submission (performed by the NPLs).
        - 56% of institutions received notification of their Plan's acceptance within one day.
        - 96% of institutions received notification of their Plan's acceptance within 5 days.

This section provides a brief analysis of data from the 2012-2016 Plans of Work regarding numbers and types of Planned Programs (PPs). Such data helps NIFA and its stakeholders understand the effect, if any, that recent POW policy or technical system changes have had on how states plan their programs and allocate resources.

(NOTE: This section does not cover the specific data that tell the in-depth story of the content of programs and their successful impacts in the states. That information is published in a separate Summary of State Outcomes report that is based on the 2010 Annual Reports received in the FY11 reporting cycle.)

Number of Planned Programs per Plan

In the 2012 Plans of Work, there was a total of 777 state-defined Planned Programs in the 80 POW submissions received. Only 6 POWs (7.5%) included the five priority areas as their only planned programs, while only 11 POWs (13.8%) submitted over 15 planned programs. The middle two-thirds of plans submitted between 6 and 14 planned programs. The range was 5 to 23. The spread of the numbers of planned programs per plan can be seen in the graph below (see Appendix A for a complete list of planned programs by State).



NIFA has compared these data to the total number of Planned Programs by Plans submitted in 2010 and 2008. Comparison to these two years was done for two reasons:

1.) 2008 was the first POW submitted through the online system, so it gives the longest period of comparison where the submission and data collection process is the same.
2.) 2010 was the last POW collected from states where NIFA was not advocating or making mandatory the inclusion of the 5 Priority Areas as Planned Programs. (In the 2011-2015 POWs, states were encouraged to add them voluntarily; in the 2012-2016 POWs, it was mandatory.) Therefore, comparing 2012 to 2010 data shows the effect, if any, that the inclusion of the priority areas as planned programs had on the numbers of Planned Programs in the POWs overall.

Year	Number of Planned Programs (PP)	Range	Median	Average #PP per Plan	Number of Plans Submitted
2008	947	1-36	9	11.1	85
2010	789	1-32	7	9.3	85
2012	777	6-23	8	9.7	80

Conclusions:

- NIFA's policy to include the five priorities is not an attempt at directing all of the research and extension activities of the states to fit neatly within those categories. The formula funds used for these activities are, in fact, there for states to address state, regional, and local needs. NIFA perceives it as a positive measure that only 6 plans included only the five priority areas as their planned programs. This low percentage (7.5% of all POWs) indicates that most institutions did indeed keep other PPs in their Plans that more readily addressed specific state needs and requirements.

- The trend from 2008 through to 2012 shows a decline in the total number of Planned Programs. As this chart demonstrates, the total number of planned programs across all states from 2008 through 2012 has decreased by 170. This decrease is primarily due to the fact institutions have combined their Plans so that the total number of Plans has decreased from 85 in both 2008 and 2010 to 80 in 2012 (the average number of PPs per Plan decreasing by only .4 from 2010 to 2012 support this fact). NIFA believes this indicates states are concentrating their reporting on more defined and refined subject areas, particularly by combining their research and extension entities in the reporting process. This is a positive trend which NIFA believes will lead to even stronger outcomes and impact reporting on very robust programs supported by both research and extension funds.

- The chart shows that the range decreased steadily from 2008 to 2012 and that the average number of PPs per Plan decreased as well, indicating that the result of requiring the mandatory planned programs was not that the states simply added an additional five programs to their POWs. It is clear that the states put due process into determining where the priority areas fit best and how they could restructure existing programs and keep their allocation of resources as concentrated as possible while still being broad enough to address state, regional, and local issues.

Number of Planned Programs in the Priority Areas

In the 2012 Plans of Work, Planned Programs in the 5 NIFA Priorities accounted for 57% of the 777 planned programs submitted. The breakdown among priority areas can be seen in the following chart (see Appendix B for a complete list of these Planned Programs).

Priority Area/Planned Program Name	Total Number in 2012 POWs submitted	Number of these PPs with Refined Titles*	Percent of Total Number of all PPs in 2012 POWs
Childhood Obesity	75	15	10%
Climate Change	85	22	11%
Food Safety	85	14	11%
Global Food Security & Hunger	116	60	15%
Sustainable Energy	76	9	10%
Totals	**437**	**120**	**57%**

**A "Refined Title" refers to a title which begins with the exact nomenclature of a priority area, as directed by NIFA, but includes additional text which further defines the specific nature of the PP as it fits within the given priority area (i.e. Climate Change: Plants and their Systems).*

Conclusions:

- A notable data point in this chart is the large number of Global Food Security and Hunger (GFSH) programs. This broadly defined NIFA Priority covers many knowledge areas and fields of science. As expected, most states found it helpful to divide their GFSH efforts among multiple GFSH programs in order to better describe and plan for research and extensions activities in specific areas under the GFSH umbrella. Thus, when compared to the other priority areas, for every 1 program in another priority area there are approximately 1.5 GFSH programs.
- Also, note that the third column, "Number of PPs with Refined Titles," is important in order to examine the need and desire for states to categorize these mandatory planned programs in a more specific manner to fit their individual research and extension activities. As expected, GFSH was the priority area that contained the most "refined titles," titles in which the states added text to specify what exact area of GFSH on which a particular program would focus. These refined titled programs accounted for 52% of all GFSH programs, while the average percentage of refined programs for the other four priority areas was only 19%.
- Overall, the 437 Planned Programs in the Priority Areas indicate that states have heeded NIFA's guidance that while the programs are mandatory to include and are important areas in which NIFA would like to collect data in an aggregated manner, this policy change should not (and has not) superseded the states' ability to conduct activities and allocate funds towards programs that are of prime importance to their own states, regions, and local communities. NIFA commends states for maintaining an effective balance between federal/national goals and their own communities' needs.

A Note about Planned Programs in the 2010 Annual Reports

Each year, the Annual Reports of Accomplishments and Results are automatically generated by the POW software and pre-populated with certain information as contained in the Plan of Work of the same calendar year included in the title. Thus, the 2010 Annual Reports submitted in FY11 were generated off of the 2010 Plans of Work (which were submitted by the states in FY09). NIFA acknowledges that the two year time lag between a state submitting a Plan and then reporting against that plan might necessitate some changes to be made to the Annual Report. For example, in the course of two years, there might be slight changes to the states' allocation of FTEs and other resources that cause a new Planned Program to be established or to cause a previously planned program to become obsolete. Because of this, states are allowed to edit their pre-populated ARs as they deem necessary.

With regard to the number of planned programs in the 2010 ARs, it is important to note that the rates of change as they relate to the number of planned programs in the 2010 Plans of work can indicate whether or not there is reliability in the states' ability to accurately plan and project out how their Planned Programs will be managed and reported against. Generally, great rates of change are not preferable and can indicate a problem with state's projections in their POWs. It should be noted that since the POW system has been electronic, NIFA has noticed almost no major rates of change in numbers of PPs in ARs and their Plans. However, this reporting cycle saw a large jump in the number of PPs, from 789 in the 2010 POWs to 958 in the 2010 ARs, up an average of 2 PPs per Plan. NIFA attributes this increased rate of change to the policy mandate of including the 5 NIFA priorities as planned programs. Previous years saw lesser changes in planned programs (all lower than an increase of .5 PPs per Plan), indicating that states have done a steady job of accurately projecting out five years on a rolling basis and planning their programs for research and extension activities. NIFA remains confident in the states' planning processes and expects that the rate of change in next few reporting cycles will return back to previous rates.

Expenditures Reported in the 2010 Annual Reports

The charts and graphs in this section give a snapshot of the total expenditures reported in the 2010 Annual Reports of Accomplishments & Results. Figure 1 displays total expenditures by funding type. Figures 2 and 2.1 relate to expenditures in the priority areas, and Figures 3 and 3.1 demonstrate expenditures among NIFA portfolios.

Fig. 1

Funding Type	Expenditures
1862 Research (Hatch)	$203,141,001
1862 Extension (Smith-Lever)	$204,311,607
1890 Research (Evans-Allen)	$35,795,787
1890 Extension	$36,524,208
Total	**$519,772,603**

Fig. 2

Priority Area	Expenditures
Childhood Obesity	$21,298,441
Climate Change	$19,892,220
Food Safety	$31,887,977
Global Food Security & Hunger	$106,890,880
Sustainable Energy	$14,029,305
All Other	$325,773,780
Total	**$519,772,603**

Fig. 2.1

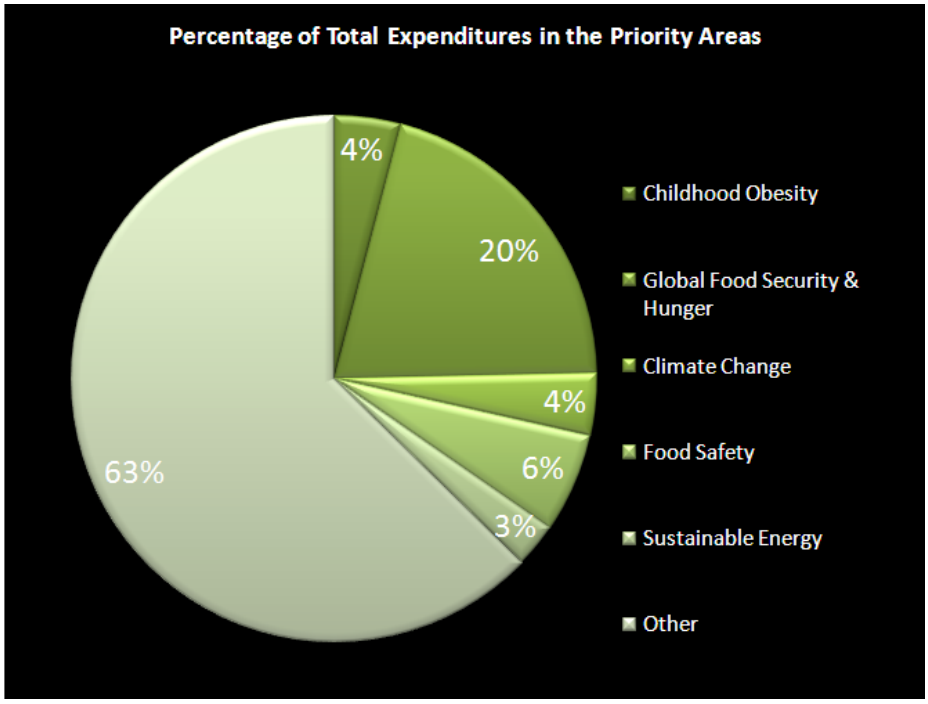
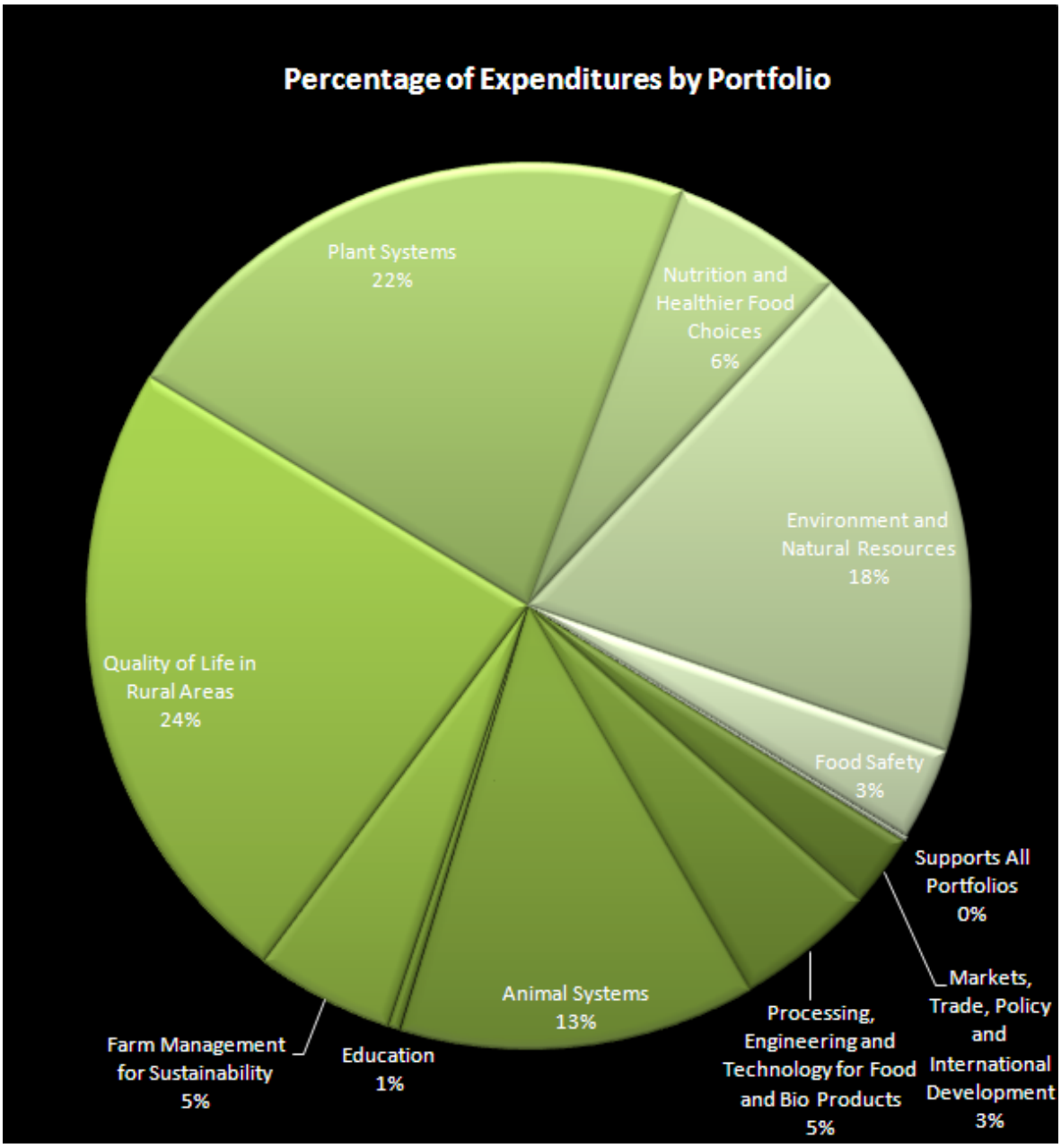


Fig. 3*

Portfolio	Expenditures
Markets, Trade, Policy and International Development	14,036,750.7
Processing, Engineering and Technology for Food and Bio Products	26,447,132.6
Animal Systems	67,492,924.4
Education	2,365,412.3
Farm Management for Sustainability	26,460,568.4
Quality of Life in Rural Areas	121,772,641.1
Food Safety	17,541,242.2
Plant Systems	114,490,163.2
Nutrition and Healthier Food Choices	32,888,328.
Environment and Natural Resources	95,354,326.9
Supports All Portfolios	923,114.2
Total	**519,772,604.**

**For a complete list of expenditures broken down into the knowledge areas covered by each portfolio, consult Appendix C.*

Fig. 3.1


Percentage of Expenditures by Portfolio
Plant Systems 22%
Nutrition and Healthier Food Choices 6%
Environment and Natural Resources 18%
Food Safety 3%
Supports All Portfolios 0%
Markets, Trade, Policy and International Development 3%
Processing, Engineering and Technology for Food and Bio Products 5%
Animal Systems 13%
Education 1%
Farm Management for Sustainability 5%
Quality of Life in Rural Areas 24%

Conclusion

Overall, the FY2011 Reporting cycle for the Plan of Work system saw favorable compliance rates on both the states' and NIFA's parts. While there is room for improvement for some of the states to submit their Plans and Annual Reports by their due dates, it is also noted that many other states were communicative about their need for additional time and were therefore granted extensions, allowing them to meet their newly set due dates when they otherwise would have been documented as overdue. NIFA acknowledges, also, that some states, while not able to meet their due dates, did communicate extensively with the Planning, Accountability, and Reporting Staff (PARS) to explain the circumstances at their institutions and give NIFA an understanding of the status of their reports and when they could be expected. Such information greatly helps NIFA Liaisons and the PARS office in managing POW workloads around other program needs and deadlines.

While NIFA is pleased that over ninety percent of Plans and Annual Reports were reviewed and accepted within the 90 day review period, the agency recognizes that there is also room for improvement. In particular, there were a few cases where a Plan or AR had actually been reviewed and was considered acceptable by their reviewers, but, for various reasons, one or both of the Liaisons had not yet been able to complete the acceptance process as required by the software (medical leave, extended travel, etc.). In such cases, NIFA made every attempt to keep the Contacts and Directors of those Plans/ARs aware of the situation and let them know that the tardiness of the review was not due to an issue with the Plan or AR but rather a scheduling and/or technical matter that would be resolved as soon as possible.

Analysis of the Planned Program data in the 2012-2016 POWs, both overall and in the particular Priority Areas, has shown that the mandatory inclusion of the Priority Areas as PPs has had no adverse affect on the States' ability to balance the focus of programs in meeting federal needs while also remaining committed to state and local needs. In particular, the data referencing the declining trend in average numbers of Planned Programs per Plan indicate that the States did not simply just add in the extra five priority areas but put effort into restructuring their research and extension efforts. In addition, NIFA has noted that the total expenditures in the Priority Areas closely mirrors the percentages listed for PP numbers, accounting for 37% of total expenditures in 2010. This demonstrates to NIFA that the states have put a robust amount of effort towards research and extension programming in the priority areas without allowing the mandate to overtake goals and objectives of state and local communities.

Appendix A

Complete List of Planned Programs by State

State	Program Name
Alabama	
	4-H and Youth Development
	Agronomic Crops
	Aquaculture, freshwater, and marine resources
	Childhood Obesity
	Childhood Obesity, Nutrition, and Healthy Lifestyles
	Climate Change
	Commercial Horticulture
	Consumer Science and Personal Financial Management
	Economic and Community Development
	Enhancing Citizens Capacity to Transform Communities
	Family and Child Development
	Farm Management and Agricultural Enterprise Analysis
	Food Safety
	Forestry, Wildlife, and Natural Resources
	Global Food Security and Hunger
	Global Food Security, Small-Scale Farming, and Landownership
	Home Grounds, Gardening, and Home Pests
	Poultry Production and Processing
	Sustainable Energy
	Sustainable Energy and Integrated Natural Resources
	Youth Entrepreneurial Initiatives and Workforce Development
Alaska	
	Agriculture and Horticulture
	Childhood Obesity
	Climate Change and Ecosystem Management
	Food Safety
	Global Food Security and Hunger
	Natural Resources and Community Development
	Sustainable Energy
	Sustainable Individuals, Families and Communities
	Youth Development
American Samoa	
	Childhood Obesity
	Climate Change
	Families, Youth and Communities

	Food Safety
	Global Food Security and Hunger
	Human Health and Well-being
	Sustainable Energy
Arizona	
	Childhood Obesity
	Climate Change
	FAMILY, YOUTH, AND COMMUNITY
	Food Safety
	Global Food Security and Hunger
Arkansas	
	Childhood Obesity
	Climate Change
	Economics & Commerce
	Families, Youth and Communities
	Families, Youth, & Communities
	Food Safety
	Food Safety in Aquaculture
	Food, Nutrition & Health
	Global Food Security and Hunger
	Natural Resources & Environment
	Pest Management
	Plants & Plant Products
	Sustainable Energy
California	
	Childhood Obesity
	Climate Change
	Endemic and Invasive Pests and Diseases
	Food Safety
	Global Food Security and Hunger
	Healthy Families and Communities
	Sustainable Energy
	Sustainable Natural Ecosystems
	Water Quality, Quantity and Security
Colorado	
	4-H Youth Development
	Childhood Obesity
	Community Resource Development
	Family Economic Stability
	Food Safety
	Global Food Security and Hunger
	Health Promotion and Disease Prevention

	Natural Resources and Environment
	Plant Production Systems
	Sustainable Energy
Connecticut	
	Childhood Obesity
	Climate Change
	Family Youth and Communities
	Food Safety
	Global Food Security and Hunger
	Global Food Security and Hunger - Integrated Pest Management
	Human and Animal Health
	Soil and Water Quality
	Sustainable Energy
Delaware	
	Biotechnology and Biotechnology-based Agribusiness
	Childhood Obesity
	Climate Change
	Family and Youth Development
	Food Safety
	Global Food Security and Hunger
	Natural Systems, Biodiversity, and Wildlife Ecology
	Sustainable Energy
District of Columbia	
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Health, Nutrition and Childhood Obesity Prevention
	Sustainable Energy
	Urban Families, Youth, and Communities
Florida	
	Childhood Obesity
	Childhood Obesity - Research
	Childhood Obesity--Research
	Climate Change
	Climate Change - Preserving Water Quality of North Florida Watersheds
	Climate Change - Rural Development and Climate Change Research Program
	climate Change--research
	Create and Maintain Resource Effective Landscapes: The Smart Way to Grow
	Develop Responsible and Productive Youth Through 4-H and Other Youth Programs
	Families, Youth. and Communities--research
	Food Safety
	Food Safety - Research

	Food Safety--Research
	Global Food Security and Hunger
	Global Food Security and Hunger - Strategic Research for the Management of Invasive Pest Species
	Global Food Security and Hunger - Viticulture and Small Fruits Research
	Global Food Security and Hunger--Research
	Maintain, Conserve and Enhance Florida's Natural Environment
	Maintain, Enhance and Establish Sustainable Communities
	Program and Project Support, and Administration, Education, and Communication--research
	Promote Individual, family, and community well-being and economic security
	Sustainable Energy
	Sustainable Energy - Bioenergy Research
	Sustainable Energy--Research
Georgia	
	Childhood Obesity
	Climate Change
	Consumer Economics and Financial Literacy
	Food Safety
	Global Food Security and Hunger
	Housing and the Near Environment
	Sustainable Energy
	Technology Education for Seniors
	Urban Agriculture
	Youth Life Skill Development
Guam	
	Childhood Obesity
	Childhood Obesity - Nutrition Education on Guam
	Climate Change
	Development and Protection of Guam's Diversified Tropical Plant Systems, and Aquaculture.
	Food Safety
	Food Safety - Tropical safe and wholesome food products
	Global Food Security and Hunger
	Global Food Security and Hunger - Community Development
	Global Food Security and Hunger - Home and Urban Landscapes
	Global Food Security and Hunger - Sustainability of Small Scale Swine and Poultry Farms on Guam
	Global Food Security and Hunger - The New Farmer: Agriculture for the Next Generation
	Guam Families, 4-H Youth Development and Communities
	Plant Health and Pest Management
	Sustain, Protect, and Manage Guam's Natural Environment and Resources.
	Sustainable Energy

Hawaii	
	Childhood Obesity
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Hawaii's Diversified Tropical Crop Systems for Sustainability and Competitiveness
	Health and Wellness of Hawaii's Families and Communities
	Invasive Species Education and Management
	Sustain, Protect, and Manage Hawaii's Natural Resources and Environment
	Sustainable Energy
	Youth, Family and Community Development
Idaho	
	Childhood Obesity: 4-H Youth Development
	Climate Change: Forest Management
	Climate Change: Soil, Water, Waste and Air Management.
	Commercial and Consumer Horticulture
	Community Development
	Family Economics
	Farm and Ranch Management
	Food Safety
	Global Food Security and Hunger: Cereals
	Global Food Security and Hunger: Dairy
	Global Food Security and Hunger: Health & Human Nutrition
	Global Food Security and Hunger: Potatoes
	Global Food Security and Hunger: Small Acreages and Emerging Specialty Crops
	Global Food Security and Hunger: Sugar Beets & Minor Crops
	Sustainable Energy: Land and Livestock
Illinois	
	4-H Youth Development
	Agricultural And Biological Engineering
	Agricultural And Consumer Economics
	Animal Health And Production
	Childhood Obesity
	Climate Change
	Community Resource Planning And Development
	Food Safety
	Global Food Security and Hunger
	Human Development And Family Wellbeing
	Natural Resources And The Environment
	Plant Health, Systems And Production
	Sustainable Energy
Indiana	

	Animals and Their Systems
	Childhood Obesity
	Climate Change
	Economic and Community Development
	Family Well-Being
	Food and Non-Food Products: Development, Processing, Quality, and Delivery
	Food Safety
	Global Food Security and Hunger
	Human Nutrition , Human Health and Well-Being
	Natural Resources and Environment
	Sustainable Energy
	Youth Development
Iowa	
	Childhood Obesity - Prevention
	Climate Change
	Community and Economic Development
	Families: Expanding Human Potential
	Food Safety
	Global Food Security and Hunger
	Global Food Security and Hunger - Regional Foods Systems
	Natural Resources and Environmental Stewardship
	Sustainable Energy - Biofuels and Biobased Products
	Youth Development
Kansas	
	Childhood Obesity, Healthy Eating and Physical Activity through the Lifespan
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Healthy Communities: Youth, Adults and Families
	Natural Resources and Environmental Management
	Sustainable Energy
Kentucky	
	Agricultural and Environmental Quality
	Childhood Obesity
	Climate Change
	Diet, Nutrition and Healthy Lifestyles
	Food Safety
	Global Food Security and Hunger
	Leadership and Volunteerism
	Life Skill Development
	Social and Economic Opportunity
	Sustainable Energy

Louisiana	
	Childhood Obesity
	Climate Change
	Community Development
	Consumer Horticulture, Ornamentals & Turf
	Economic and Community Development
	Family and Human Development
	Family Development
	Family Resource Management
	Food Safety
	Forestry and Forest Products
	Global Food Security and Hunger
	Human Nutrition and Food
	Sustainable Energy
	Youth Development
Maine	
	Administrative Plan of Work; Planning and Supervision
	Childhood Obesity
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Supporting Rural Economies
	Sustainable Community & Economic Development
	Sustainable Energy
	Sustainable Youth, Families, and Communities
	Sustaining Natural Resources
Maryland	
	Childhood Obesity
	Climate Change
	Family & Community Resiliency
	Food Safety
	Global Food Security and Hunger
	Sustainable Energy
Massachusetts	
	Childhood Obesity
	Climate Change
	Economic Development
	Environmental Stewardship
	Food Safety
	Global Food Security and Hunger
	Massachusetts Center for Agriculture Administration
	Sustainable Energy

	Youth Development
Michigan	
	Animal Production and Protection
	Childhood Obesity
	Climate Change
	Economics, Marketing and Policy
	Food Safety
	Global Food Security and Hunger
	Human Health, Environment, Family, Youth, Society and Community
	Plant Sciences
	Soil, Water and Natural Resources
	Sustainable Energy
Micronesia, Fed States	
	Aquaculture
	Childhood Obesity
	Climate Change
	Families, Youths & Communities
	Food Safety
	Global Food Security and Hunger
	Sustainable Energy
Minnesota	
	4-H Programs in Minnesota
	Agricultural Business Management
	Childhood Obesity
	Climate Change
	Community Economics
	Environmental Science Education
	Family Relations
	Family Resource Management
	Food Safety
	Forestry
	Global Food Security and Hunger
	Horticulture
	Housing Technology
	Leadership and Civic Engagement
	Sustainable Energy
	Water Resources
	Youth Work Institute
Mississippi	
	4-H Youth Development
	Childhood Obesity
	Climate Change

	Community Resource Development and Economic Planning
	Early Care and Education
	Enterprise and Community Development
	Family Leadership Development
	Family Life
	Family Resource Management
	Food Safety
	Forestry
	Global Food Security and Hunger
	Global Food Security and Hunger - Agronomic Crops
	Global Food Security and Hunger - Animal Science/Forages
	Global Food Security and Hunger - Aquaculture
	Global Food Security and Hunger - Poultry
	Global Food Security and Hunger - Risk/Farm Management
	Horticulture
	Human Health
	Human Nutrition
	Integrated Pest Management
	Nutrient Management/Water Quality
	Small Family Farm Enterprise Financial Analysis & Marketing
	Sustainable Energy
	Wildlife and Fisheries
	Youth, Family, Nutrition and Health, Fitness and Wellness
Missouri	
	Built Environments and Sustainable Energy
	Business Development
	Childhood Obesity
	Climate Change
	Community and Leadership Development
	Creating Collaborative Environments for Positive Youth Development
	Creating Complex Environments for Positive Youth Development
	Creating Simple Environments for Positive Youth Development
	Enhancing the Sustainable Management of Missouri's Natural Resources
	Ensuring Safe Communities
	Family and Youth Development
	Food Safety
	Global Food Security and Hunger
	Home Horticulture and Environment
	Integrated Crop Management Systems - Global Food Security and Hunger
	Livestock Production System - Global Food Security and Hunger
	Managing Forages for Profitable Animal Production - Global Food Security and Hunger
	Natural Resources and Quality of Life

	Nutrition, Health and Physical Activity
	Personal Financial Management
	Profit Focused Agriculture
	Strengthening Families
	Sustainable and Viable Communities
	Sustainable Energy
	Volunteer Development
	Water Resource Protection and Management
Montana	
	Childhood Obesity
	Childhood Obesity, Nutrition and Healthy Lifestyles
	Climate Change
	Climate Change - Natural Resources and Environment
	Food Safety
	Food Safety -- Animal Health
	Food Safety -- Sustainable Agriculture
	Global Food Security and Hunger -- Integrated Pest Management
	Global Food Security and Hunger -- Plant Breeding, Genetics and Genomics
	Global Food Security, Hunger, Ag Sustainability and Profitability
	Sustainable Energy
	Sustainable Energy - Community and Economic Development
	Sustainable Energy - Family Issues, Resources and Environments
	Youth Development
Nebraska	
	Childhood Obesity
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Sustainable Energy
Nevada	
	Childhood Obesity
	Climate Change
	Climate Change: Water Quality, Quantity, Uses & Management
	Community and Economic Development
	Economic Development with Emphasis in Rural Areas
	Food Safety
	Global Food Security and Hunger - Agricultural Production in a Semi-Arid Environment
	Global Food Security and Hunger: Agriculture, Horticulture & Natural Resources
	Health & Nutrition (Healthy Lifestyle & Food Choices)
	Human & Family Development
	Natural Resource Management and Environmental Sciences in the Great Basin and Sierran Ecosystems

	Nutrition and Health
	Sustainable Energy
	Sustainable Energy: Sustainable Living
New Hampshire	
	4-H Youth Development
	Agricultural Resources
	Childhood Obesity
	Climate Change
	Family and Consumer Resources
	Food Safety
	Forestry and Wildlife
	Global Food Security and Hunger
	Natural Resource Business Institute
	Sea Grant and Water Resources
	Strengthening New Hampshire Communities through Civic Participation and Leadership
	Supporting Rural Economies
	Sustainable Energy
	Sustaining Natural Resources
New Jersey	
	4-H Youth Development
	Childhood Obesity - Youth/Adult Obesity
	Climate Change - Home, Garden and Environment
	Climate Change - Water Quality & Quantity
	Food Safety
	Global Food Security and Hunger - Agricultural Viability
	Global Food Security and Hunger - Aquaculture
	Global Food Security and Hunger - Integrated Pest Management
	Sustainability of NJ Equine Industry and Its Impact on Agriculture and Open Space
	Sustainable Energy
New Mexico	
	4-H and Youth Development
	Agricultural Markets, Trade, and Economic/Business Development
	Childhood Obesity
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Health and Wellbeing
	Sustainable Energy
	Sustainable Management of Natural Resources
New York	
	Childhood Obesity -- Nutrition and Childhood Obesity

	Climate Change
	Food Safety
	Global Food Security and Hunger
	Sustainable Energy
	Youth, Family, and Community
North Carolina	
	Childhood Obesity
	Climate Change
	Food Safety - Food Production Systems: Development, Processing and Quality
	Global Food Security - Animals and Their Systems, Production and Health
	Global Food Security - Plant Production Systems and Health
	Human and Community Development- Youth Development and Families
	Human Health, Nutrition and Well-being
	Sustainable Energy including Biotechnology
North Dakota	
	Childhood Obesity
	Citizenship and Leadership Development
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Sustainable Energy
Northern Marianas	
	4-H Youth Development
	Aquaculture and Fisheries Development Program
	Childhood Obesity
	Climate Change
	Community Resource Development
	Crop Improvement Program
	Food Safety
	Livestock Improvement Program
	Plant Protection Program
	Sustainable Energy
Ohio	
	Advancing Employment and Income Opportunities (Extension)
	Agricultural, Environmental, and Development Economics (OARDC Led)
	Animals Systems (OARDC Led)
	Business Retention and Expansion Initiative (Extension)
	Childhood Obesity
	Climate Change
	Dining with Diabetes (Extension)
	Enhancing Agriculture and the Environment (Extension)
	Food Safety

	Food, Agricultural, and Biological Engineering Systems (OARDC Led)
	Global Food Security and Hunger
	Human and Community Resource Development (OARDC Led)
	Human Health (OARDC Led)
	Increasing Profitable Crop Yields Above Trendline-2014 (Extension)
	Natural Resources and Environmental Systems (OARDC Led)
	New Start for Financial Success (Extension)
	Plants Systems (OARDC Led)
	Preparing Youth for Success (Extension)
	Real Money, Real World (Extension)
	Soil, Air and Water (OARDC Led)
	Strengthening Families & Communities (Extension)
	Sustainable Energy
	Why Trees Matter: Next STEP (Extension)
Oklahoma	
	4-H Youth Development
	Childhood Obesity - Human Nutrition and Health
	Childhood Obesity: 4-H Clubs
	Childhood Obesity: Extended Education
	Climate Change - Ecosystem and Environmental Quality and Management
	Climate Change: Water Gardens (Aquaculture)
	Commercial and Consumer Horticulture
	Community Resource and Economic Development
	Family Resiliency and Economic Well-Being
	Food Safety - Agricultural Biosecurity
	Food Safety - Food Processing, Product Storage, and Food and Product Safety
	Food Safety: Family and Consumer Sciences
	Food Safety: Food and Nutrition
	Food Safety: Goat Dairy Herd Improvement (DHI) Laboratory
	Global Food Security and Hunger - Animal Enterprises
	Global Food Security and Hunger - Crop Enterprises
	Global Food Security and Hunger - Farm and Agribusiness Systems Economics
	Global Food Security and Hunger - Integrated Pest Management
	Global Food Security and Hunger - Sensor-Based Technologies for Agricultural and Biological Systems
	Global Food Security and Hunger: Alternative Species (Aquaculture)
	Global Food Security and Hunger: Biotechnology
	Global Food Security and Hunger: Demonstration Clinic: Artificial Insemination for Goats
	Global Food Security and Hunger: Development of New Dairy Goat Products
	Global Food Security and Hunger: Enhanced Goat Production in the South-Central United States
	Global Food Security and Hunger: Fish Marketing (Aquaculture)

	Global Food Security and Hunger: Fishery Management (Aquaculture)
	Global Food Security and Hunger: Goat Internet Website
	Global Food Security and Hunger: Meat Buck Performance Test
	Global Food Security and Hunger: Sustainable Internal Parasite Control for Small Ruminants
	Global Food Security and Hunger: Sustainable Energy: Phytoplankton (Aquaculture)
	Plant Biological Technologies
	Structure and Function of Macromolecules
	Sustainable Energy - Bio-Based Products Development
	Turf grass Development and Management
Oregon	
	Childhood Obesity
	Climate Change
	Excellence in Water and Watersheds: Advance understanding and effective management of water, watersheds
	Food Safety
	Global Food Security and Hunger
	Reducing Childhood Obesity
	Sustainable Energy
Pennsylvania	
	Agricultural Systems
	Childhood Obesity
	Climate Change
	Families, Youth, and Communities
	Food Safety
	Global Food Security and Hunger
	Natural Resources and Environment
	Pest Management
	Sustainable Energy
Puerto Rico	
	Animal Systems
	Childhood Obesity
	Climate Change
	Climate Change - Integrated Management of New and Emerging Pest and Diseases
	Climate Change: Natural Resources and Environment
	Community Resources Development by Means of Fostering Sustainable Communities
	Family Well-being
	Food Safety
	Food Safety - Food Safety, Science, Technology and Childhood Obesity (FOSTCO)
	Global Food Security and Hunger
	Global Food Security and Hunger - Agricultural Economics, Marketing, and Community Development
	Global Food Security and Hunger - Milk and Meat Production Systems

	Global Food Security and Hunger - Plant genetic resources, breeding and production systems
	Management of Rangeland and Forestry Resources/Soil, Water, and Air
	Plant System
	Strengthening Youth Life Skills, Leadership and their Community
	Sustainable Energy
	Sustainable Energy - Renewable Energy Alternatives for Small Islands
Rhode Island	
	Aquaculture and Fisheries
	CELS CARES
	Children, 4-H and Families
	Climate Change
	Community Gardening and Outreach
	Food Safety
	Global Food Security and Hunger
	Health and Well-being of Livestock
	Horticulture and the Reduction of Pests and Disease Outbreaks in Plants
	Natural and Environmental Resource Economics, Markets and Policy
	Nutrition, Health and Obesity Prevention
	Sustainable Communities
	Sustainable Energy
	The Environment and Adaptive Agro-Ecosystems
	Vector Borne Diseases and Human Health
South Carolina	
	4-H Youth Development and Families
	Childhood Obesity
	Climate Change
	Community, Leadership, and Economic Development
	Environmental Conservation for Wildlife
	Food Safety and Nutrition
	Global Food Security and Hunger
	Sustainable Agriculture Production for (non-food) Horticultural Crops
	Sustainable Animal Production Systems
	Sustainable Energy
	Sustainable Forest Management
	Water Quality and Water Quantity
South Dakota	
	Childhood Obesity
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Sustainable Energy

Tennessee	
	4-H Positive Youth Development
	Agronomic Crop Systems
	Animal Systems
	Childhood Obesity
	Childhood Obesity - youth active and media savvy
	Climate Change
	Climate Change- improving the quality of water runoff from agricultural production
	Climate Change- low-impact alternatives for ornamental crop production
	Economic Infrastructure and Commerce
	Environmental and Water Quality Impacts
	Family Economics
	Food Safety
	Food Safety - contaminant-free, healthier foods
	Forestry, Wildlife, and Fishery Systems
	Global Food Security and Hunger
	Global Food Security and Hunger - enhancing sustainability of agricultural plant production
	Global Food Security and Hunger - improving animal production for small producers
	Health and Safety
	Horticultural Systems
	Human Development
	Sustainable Energy
	Sustainable Energy - new feedstocks and improved feedstock production
Texas	
	Adult Leadership and Volunteer Development
	Cancer Risk Reduction and Early Detection
	Child Passenger Safety
	Childhood Obesity
	Childhood Obesity - Family Nutrition
	Climate Change
	Climate Change - Community Development
	Climate Change - Economic Growth and Development
	Climate Change - Plants and Their Systems
	Climate Change - Sustaining Families & Economic Vitality
	Climate Change - Youth Development
	Climate Change/Bioenergy - Plant and Environmental Systems
	Community Resource and Economic Development
	Crop and Forage Production Systems
	Diabetes Education
	Economics and Management
	Exercise and Wellness

	Family Financial Security
	Food and Nutrition Education for Limited Resource Audiences
	Food Safety
	Food Safety/Global Food Security - Animal Systems - Research
	Global Food Security - Agri-business Technical Assistance
	Global Food Security - Sustainable Agriculture Production Systems
	Global Food Security and Hunger
	Global Food Security and Hunger - Animals and Their Systems
	Global Food Security and Hunger - Economics, Markets and Policy
	Global Food Security and Hunger - Nutrition Health & Wellness
	Life Skills for Youth (includes Character Education and Leadership)
	Livestock and Meat Quality, Safety, and Productivity
	Nutrition and Childhood Obesity/Food Safety - Research - Food Systems
	Parenting and Dependent Care
	Range Management
	Sustainable Energy
	Water Management
Utah	
	Childhood Obesity, Nutrition and Community
	Climate Change and Natural Resource Use
	Food Safety
	Global Food Security and Hunger
	Sustainable Energy
Vermont	
	Childhood Obesity
	Climate Change
	Community Development and the Personal and Intellectual Development of Youth and Adults
	Food Safety
	Global Food Security and Hunger
	Sustainable Energy
	Urban Non Point Source Pollution
Virgin Islands	
	4-H Summer Program
	4-H Volunteer Development and Management Program
	4-H/Youth Development
	A Healthy, Well-Nourished Population
	Agronomy - Mixed Cover-Crop Livestock Systems
	Animal Science - Beef Cattle
	Animal Science - Small Ruminants
	Aquaculture - Aquaponic Systems
	Aquaculture - Biofloc Systems

	Basic Food Safety Education - EFNEP and EFNEP Youth
	Childhood Obesity
	Climate Change
	Climate Change: Natural Resources and Environmental Management Program
	Climate Change: Urban Forestry Program
	Climate Change: Water Quality Program
	Computer Training and Technology Program
	Eastern Caribbean Extension Outreach and Interchange
	Food Safety
	Global Food Security and Hunger
	Global Food Security and Hunger: Small Livestock and Beef Production
	Global Food Security and Hunger: Sustainable Agriculture
	Global Food Security and Hunger: Urban Gardening
	Horticulture
	Irrigation
	Marketable Skills for Limited Resource Families, Youth and Communities
	Plant Biotechnology
	Plant Germplasm Conservation and Enhancement
	Sustainable Energy
Virginia	
	Childhood Obesity
	Climate Change and Natural Resources
	Families and Communities
	Family Finance and Community Viability
	Food Safety
	Food, Nutrition, and Health
	Global Food Security and Hunger - Agricultural Management, Marketing and Policy
	Global Food Security and Hunger - Agricultural Systems
	Global Food Security and Hunger - Animal and Animal Products
	Global Food Security and Hunger - Biotechnology and Genomics
	Global Food Security and Hunger - Family Nutrition Program
	Global Food Security and Hunger - Local Food Systems
	Global Food Security and Hunger - Pest Management
	Global Food Security and Hunger - Plants and Plant Products
	Sustainable Energy
	Youth Development
Washington	
	Childhood Obesity
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Natural Resources Stewardship

	Sustainable Energy
	Youth, Family and Community Development
West Virginia	
	Childhood Obesity
	Childhood Obesity, Human Nutrition and Health
	Climate Change
	Climate Change, Environmental Quality and Stewardship
	Community Vitality
	Economic Development and Quality of Life in Rural Communities
	Food Safety
	Global Food Security and Hunger
	Global Food Security and Hunger--Fundamental Plant and Animal Systems
	Global Food Security and Hunger--Production/Sustainable Agriculture
	Production/Sustainable Forestry - Timber Management and Wood Products
	Resilient Youth and Families
	Strengthening Families
	Sustainable Energy
	Workforce and Community Development
	Youth Development
Wisconsin	
	Childhood Obesity
	Climate Change
	Food Safety
	Global Food Security and Hunger
	Global Food Security, Food Accessibility: Hunger
	Global Food Security, Food Availability: Crops and Agronomic Plants
	Global Food Security, Food Availability: Dairy and Livestock
	Sustainable Energy
	Wisconsin Competitive Research Program
Wyoming	
	4-H and Youth Development
	Childhood Obesity, Nutrition, and Health
	Climate Change
	Community Development Education
	Food Safety
	Global Food Security and Hunger, Crop, Livestock and Horticulture Systems
	Sustainable Energy
	Sustainable Management of Rangeland Resources (SMRR)

Appendix B

Complete List of Planned Programs in the Priority Areas

Priority Area	Program Name	Program Count
Childhood Obesity		
	Childhood Obesity	60
	Childhood Obesity - Family Nutrition	1
	Childhood Obesity - Human Nutrition and Health	1
	Childhood Obesity - Nutrition Education on Guam	1
	Childhood Obesity - Prevention	1
	Childhood Obesity - Youth/Adult Obesity	1
	Childhood Obesity -- Nutrition and Childhood Obesity	1
	Childhood Obesity, Healthy Eating and Physical Activity through the Lifespan	1
	Childhood Obesity, Human Nutrition and Health	1
	Childhood Obesity, Nutrition and Community	1
	Childhood Obesity, Nutrition and Healthy Lifestyles	1
	Childhood Obesity, Nutrition, and Health	1
	Childhood Obesity--Research	1
	Childhood Obesity: 4-H Clubs	1
	Childhood Obesity: Extended Education	1
	Childhood Obesity: 4-H Youth Development	1
	Program Count Total	**75**
Climate Change		
	Climate Change	63
	Climate Change - Community Development	1
	Climate Change - Economic Growth and Development	1
	Climate Change - Ecosystem and Environmental Quality and Management	1
	Climate Change - Home, Garden and Environment	1
	Climate Change - Integrated Management of New and Emerging Pest and Diseases	1
	Climate Change - Natural Resources and Environment	1
	Climate Change - Plants and Their Systems	1
	Climate Change - Sustaining Families & Economic Vitality	1
	Climate Change - Water Quality & Quantity	1
	Climate Change - Youth Development	1
	Climate Change and Ecosystem Management	1
	Climate Change and Natural Resource Use	1
	Climate Change and Natural Resources	1
	Climate Change, Environmental Quality and Stewardship	1
	Climate Change- improving the quality of water runoff from agricultural production	1

	Climate Change- low-impact alternatives for ornamental crop production	1
	climate Change--research	1
	Climate Change/Bioenergy - Plant and Environmental Systems	1
	Climate Change: Water Gardens (Aquaculture)	1
	Climate Change: Water Quality, Quantity, Uses & Management	1
	Climate Change: Forest Management	1
	Climate Change: Soil, Water, Waste and Air Management.	1
	Program Count Total	85
Food Safety		
	Food Safety	71
	Food Safety - Agricultural Biosecurity	1
	Food Safety - Food Processing, Product Storage, and Food and Product Safety	1
	Food Safety - Food Production Systems: Development, Processing and Quality	1
	Food Safety - Food Safety, Science, Technology and Childhood Obesity (FOSTCO)	1
	Food Safety - Tropical safe and wholesome food products	1
	Food Safety -- Animal Health	1
	Food Safety -- Sustainable Agriculture	1
	Food Safety and Nutrition	1
	Food Safety in Aquaculture	1
	Food Safety--Research	1
	Food Safety/Global Food Security - Animal Systems - Research	1
	Food Safety: Family and Consumer Sciences	1
	Food Safety: Food and Nutrition	1
	Food Safety: Goat Dairy Herd Improvement (DHI) Laboratory	1
	Program Count Total	85
Global Food Security & Hunger		
	Global Food Security	56
	Global Food Security - Animals and Their Systems, Production and Health	1
	Global Food Security - Plant Production Systems and Health	1
	Global Food Security - Sustainable Agriculture Production Systems	1
	Global Food Security – Agri-business Technical Assistance	1
	Global Food Security and Hunger - Agricultural Economics, Marketing, and Community Development	1
	Global Food Security and Hunger - Agricultural Management, Marketing and Policy	1
	Global Food Security and Hunger - Agricultural Production in a Semi-Arid Environment	1
	Global Food Security and Hunger - Agricultural Systems	1
	Global Food Security and Hunger - Agricultural Viability	1
	Global Food Security and Hunger - Animal and Animal Products	1
	Global Food Security and Hunger - Animal Enterprises	1
	Global Food Security and Hunger - Animals and Their Systems	1
	Global Food Security and Hunger - Aquaculture	2
	Global Food Security and Hunger - Biotechnology and Genomics	1
	Global Food Security and Hunger - Community Development	1

	Global Food Security and Hunger - Crop Enterprises	1
	Global Food Security and Hunger - Economics, Markets and Policy	1
	Global Food Security and Hunger - enhancing sustainability of agricultural plant production	1
	Global Food Security and Hunger - Family Nutrition Program	1
	Global Food Security and Hunger - Farm and Agribusiness Systems Economics	1
	Global Food Security and Hunger - Home and Urban Landscapes	1
	Global Food Security and Hunger - improving animal production for small producers	1
	Global Food Security and Hunger - Integrated Pest Management	3
	Global Food Security and Hunger - Local Food Systems	1
	Global Food Security and Hunger - Milk and Meat Production Systems	1
	Global Food Security and Hunger - Nutrition Health & Wellness	1
	Global Food Security and Hunger - Pest Management	1
	Global Food Security and Hunger - Plant genetic resources, breeding and production systems	1
	Global Food Security and Hunger - Plants and Plant Products	1
	Global Food Security and Hunger - Regional Foods Systems	1
	Global Food Security and Hunger - Sensor-Based Technologies for Agricultural and Biological Systems	1
	Global Food Security and Hunger - Sustainability of Small Scale Swine and Poultry Farms on Guam	1
	Global Food Security and Hunger - The New Farmer: Agriculture for the Next Generation	1
	Global Food Security and Hunger -- Integrated Pest Management	1
	Global Food Security and Hunger -- Plant Breeding, Genetics and Genomics	1
	Global Food Security and Hunger, Crop, Livestock and Horticulture Systems	1
	Global Food Security and Hunger--Fundamental Plant and Animal Systems	1
	Global Food Security and Hunger--Production/Sustainable Agriculture	1
	Global Food Security and Hunger--Research	1
	Global Food Security and Hunger: Agriculture, Horticulture & Natural Resources	1
	Global Food Security and Hunger: Alternative Species (Aquaculture)	1
	Global Food Security and Hunger: Biotechnology	1
	Global Food Security and Hunger: Demonstration Clinic: Artificial Insemination for Goats	1
	Global Food Security and Hunger: Development of New Dairy Goat Products	1
	Global Food Security and Hunger: Enhanced Goat Production in the South-Central United States	1
	Global Food Security and Hunger: Fish Marketing (Aquaculture)	1
	Global Food Security and Hunger: Fishery Management (Aquaculture)	1
	Global Food Security and Hunger: Goat Internet Website	1
	Global Food Security and Hunger: Meat Buck Performance Test	1
	Global Food Security and Hunger: Sustainable Internal Parasite Control for Small Ruminants	1
	Global Food Security and Hunger: Cereals	1
	Global Food Security and Hunger: Dairy	1
	Global Food Security and Hunger: Health & Human Nutrition	1
	Global Food Security and Hunger: Potatoes	1
	Global Food Security and Hunger: Small Acreages and Emerging Specialty Crops	1
	Global Food Security and Hunger: Sugar Beets & Minor Crops	1
	Global Food Security and Hunger: Sustainable Energy: Phytoplankton (Aquaculture)	1

	Global Food Security, Food Accessibility: Hunger	1
	Global Food Security, Food Availability: Crops and Agronomic Plants	1
	Global Food Security, Food Availability: Dairy and Livestock	1
	Global Food Security, Hunger, Ag Sustainability and Profitability	1
	Program Count Total	116
Sustainable Energy		
	Sustainable Energy	67
	Sustainable Energy - Bio-Based Products Development	1
	Sustainable Energy - Biofuels and Biobased Products	1
	Sustainable Energy - Community and Economic Development	1
	Sustainable Energy - Family Issues, Resources and Environments	1
	Sustainable Energy - new feedstocks and improved feedstock production	1
	Sustainable Energy including Biotechnology	1
	Sustainable Energy--Research	1
	Sustainable Energy: Sustainable Living	1
	Sustainable Energy: Land and Livestock	1
	Program Count Total	76

APPENDIX C

Complete List of Expenditures by Portfolio & Knowledge Area

Portfolio	Knowledge Area	Expenditures*
Markets, Trade, Policy and International Development		**14,036,750.7**
	603 - Market Economics	2,827,453.7
	604 - Marketing and Distribution Practices	5,436,589.4
	606 - International Trade and Development Economics	934,600.1
	609 - Economic Theory and Methods	947,257.1
	610 - Domestic Policy Analysis	3,440,593.8
	611 - Foreign Policy and Programs	450,256.6
Processing, Engineering and Technology for Food and Bio Products		**26,447,132.6**
	401 - Structures	1,607,055.3
	402 - Engineering Systems and Equipment	3,539,554.6
	404 - Instrumentation and Control Systems	1,682,866.5
	501 - New and Improved Food Processing Technologies	5,479,666.
	502 - New and Improved Food Products	4,472,034.8
	503 - Quality Maintenance in Storing and Marketing Food Products	3,298,366.5
	504 - Home and Commercial Food Service	1,811,739.
	511 - New and Improved Non-Food Products and Processes	4,182,633.3
	512 - Quality Maintenance in Storing and Marketing Non-Food Products	373,216.7
Animal Systems		**67,492,924.4**
	301 - Reproductive Performance of Animals	8,421,626.7
	302 - Nutrient Utilization in Animals	10,416,039.4
	303 - Genetic Improvement of Animals	6,476,595.4
	304 - Animal Genome	2,573,266.9
	305 - Animal Physiological Processes	4,353,280.2
	306 - Environmental Stress in Animals	1,900,888.4
	307 - Animal Production Management Systems	14,130,737.2
	308 - Improved Animal Products (Before Harvest)	3,236,236.6
	311 - Animal Diseases	8,100,701.
	312 - External Parasites and Pests of Animals	885,424.2
	313 - Internal Parasites in Animals	728,850.1
	314 - Toxic Chemicals	606,802.5
	315 - Animal Welfare	3,454,991.9
	721 - Insects and Other Pests Affecting Humans	1,493,520.4
	722 - Zoonotic Diseases and Parasites Affecting Humans	713,963.6
Education		**2,365,412.3**
	903 - Communication	2,365,412.3
Farm Management for Sustainability		**26,460,568.4**
	601 - Economics of Agricultural Production and Farm Management	13,368,125.
	602 - Business Management	8,703,255.5
	723 - Hazards to Human Health and Safety	3,522,548.
	902 - Administration of Projects and Programs	866,639.9
Quality of Life in Rural Areas		**121,772,641.1**
	607 - Consumer Economics	2,726,184.4
	608 - Community Resource Planning and Development	13,607,853.3

	724 - Healthy Lifestyle	14,051,704.5
	801 - Individual and Family Resource Management	10,422,172.9
	802 - Human Development and Well-Being	17,524,781.
	803 - Sociological and Technological Change Affecting Individuals	7,456,103.6
	804 - Human Environmental Issues Concerning Apparel	2,631,252.2
	805 - Community Institutions	5,412,476.1
	806 - Youth Development	47,940,113.1
Food Safety		**17,541,242.2**
	711 - Ensure Food Products Free of Harmful Chemicals	3,808,556.1
	712 - Protect Food From Contamination by Pathogenic Microorganisms	13,732,686.1
Plant Systems		**114,490,163.2**
	201 - Plant Genome	10,117,188.1
	202 - Plant Genetic Resources and Biodiversity	8,653,764.7
	203 - Plant Biological Efficiency and Abiotic Stresses Affecting Plants	6,071,406.1
	204 - Plant Product Quality and Utility (Preharvest)	7,396,816.
	205 - Plant Management Systems	27,629,688.5
	206 - Basic Plant Biology	5,131,008.3
	211 - Insects	10,439,045.1
	212 - Pathogens and Nematodes Affecting Plants	13,192,050.3
	213 - Weeds Affecting Plants	6,945,471.2
	214 - Vertebrates	701,245.2
	215 - Biological Control of Pests Affecting Plants	3,894,039.7
	216 - Integrated Pest Management Systems	14,318,440.
Nutrition and Healthier Food Choices		**32,888,328.**
	701 - Nutrient Composition of Food	3,145,898.4
	702 - Requirements and Function of Nutrients and Other Food Components	5,253,401.9
	703 - Nutrition Education and Behavior	19,774,400.3
	704 - Nutrition and Hunger in the Population	4,714,627.3
Environment and Natural Resources		**95,354,326.9**
	101 - Appraisal of Soil Resources	3,672,375.2
	102 - Soil	16,697,595.3
	103 - Management of Saline and Sodic Soils and Salinity	571,951.9
	104 - Protect Soil from Harmful Effects of Natural Elements	1,138,948.1
	111 - Conservation and Efficient Use of Water	7,426,954.4
	112 - Watershed Protection and Management	9,389,036.4
	121 - Management of Range Resources	3,369,355.5
	122 - Management and Control of Forest and Range Fires	1,371,532.1
	123 - Management and Sustainability of Forest Resources	8,478,843.2
	124 - Urban Forestry	1,725,413.7
	125 - Agroforestry	1,127,459.7
	131 - Alternative Uses of Land	4,399,504.1
	132 - Weather and Climate	3,427,913.3
	133 - Pollution Prevention and Mitigation	8,443,861.6
	134 - Outdoor Recreation	1,776,023.3
	135 - Aquatic and Terrestrial Wildlife	4,529,516.3
	136 - Conservation of Biological Diversity	2,354,978.7
	141 - Air Resource Conservation and Management	1,046,074.8
	403 - Waste Disposal	6,123,621.1
	405 - Drainage and Irrigation Systems and Facilities	1,881,325.4

	605 - Natural Resource and Environmental Economics	6,402,043.
Supports All Portfolios		**923,114.2**
	901 - Program and Project Design and Statistics	923,114.2
	Total (All Portfolios)	**519,772,604.**

***Bolded numbers are additive to Total**